

CURRICULUM VITAE OF NICHOLAS A. PEPPAS

Cockrell Family Regents Chair in Engineering #6
McKetta Department of Chemical Engineering, Department of Biomedical Engineering,
Department of Pediatrics, Department of Surgery and Perioperative Care, Dell Medical School, and
Division of Molecular Pharmaceutics and Drug Delivery, College of Pharmacy
The University of Texas at Austin

Web site: <http://www.che.utexas.edu/research/biomat/index.htm>

E-mail: peppas@che.utexas.edu

Born

August 25, 1948, Athens, Greece

Education

Dipl. Eng. (Chem. Eng.), National Technical University of Athens, Greece, 1971.

Sc. D. (Chem. Eng.), Massachusetts Institute of Technology, 1973.

Honorary Doctorates

Doc. Hon. Causa, University of Ghent, Belgium, 1999.

Pharm. D. Hon. Causa, University of Parma, Italy, 1999.

Doc. Hon. Causa, University of Athens, Greece, 2000.

Hon. Prof., Sichuan University, People's Republic of China, 2012

Doc. Hon. Causa, University of Ljubljana, Slovenia, 2012.

Doc. Hon. Causa, University of Patras, Greece, 2015.

Doc. Hon. Causa, National Technical University of Athens, Greece, 2016.

Hon. Prof., Peking Union Medical College, People's Republic of China, 2017.

Hon. Prof., PLA Hospital and Medical School, People's Republic of China, 2018.

Hon. Prof., Beihang University, People's Republic of China, 2019

Doc. Hon. Causa, University of Santiago de Compostela, Spain, 2019.

Doc. Hon. Causa, University of Thessaloniki, Greece, 2019.

Professional Experience

University of Texas, Department of Chemical Engineering, Cockrell Family Regents Chair #6, 2014-, tenured 50%

University of Texas, Department Biomedical Engineering, Cockrell Family Regents Chair #6, 2014-, tenured 50%.

University of Texas, Department of Chemical Engineering, Fletcher Stuckey Pratt Chair, 2003-14-, tenured 50%.

University of Texas, Department of Biomedical Engineering, Fletcher Stuckey Pratt Chair, 2003-14, tenured 50%.

University of Texas, Department of Surgery and Perioperative Care, Dell Medical School, 2016-, courtesy.

University of Texas, Department of Pediatrics, Dell Medical School, 2017-, tenured, joint, 0%.

University of Texas, Division of Molecular Pharmaceutics/Drug Delivery, College of Pharmacy, Professor, 2003-, courtesy.

University of Texas, Department of Biomedical Engineering, Chair of the Department, 2009-15.

University of Texas, Texas Materials Institute, Professor, 2003-.

Purdue University, School of Chemical Engineering, Showalter Distinguished Professor, 1993-2002.

Purdue University, Department of Biomedical Engineering, Showalter Distinguished Professor, 1999-2002.

Purdue University, School of Chemical Engineering, Professor, 1982-2002.

Purdue University, School of Chemical Engineering, Associate Professor, 1978-82.

Purdue University, School of Chemical Engineering, Assistant Professor, 1976-78.

Beihang University, Beijing, People's Republic of China, *Honorary Professor*, May 2018-present.

PLA Hospital and Medical School, Beijing, People's Republic of China, *Honorary Professor*, January 2018-.
 Peking Union Medical College, Beijing, People's Republic of China, *Honorary Professor*, April 2017-present
 Sichuan University, Chengdu, People's Republic of China, *Honorary Professor*, June 2012-present.
 Nanyang Technological University, Singapore, *Visiting Professor*, January 2005.
 Free University of Berlin, Germany, *Mercator Visiting Professor*, Jan-June 2001.
 University of Santiago de Compostela, Spain, *Visiting Professor*, February-March 2001.
 Complutense University, Madrid, Spain, *Visiting Professor*, March-April 2001.
 University of Naples, Italy, *Visiting Professor*, Department of Materials Engineering, May 1996.
 Hoshi University, Tokyo, Japan, *Visiting Professor*, Jan.-March 1994; March 1995; March 1997.
 Hebrew University, Jerusalem, Israel, *Visiting Professor*, March-May 1994.
 University of Parma, Italy, Faculty of Sciences, *Adjunct Professor*, 1987-88; 1993-94.
 University of Paris XI, France, Faculty of Pharmacy, *Visiting Professor*, May-December 1986.
 California Institute of Technology, Department Chemical Engineering, *Visiting Professor*, March-July 1983.
 University of Geneva, Switzerland, Faculty of Sciences, *Visiting Professor*, Sept.1982-Feb. 1983.

M.I.T., Department of Chemical Engineering and Arteriosclerosis Center, Research Associate, 1975-76.
 Research Center for National Defense, Research Associate, 1974-75.
 Shell Co., Rotterdam, The Netherlands, Summer 1970.
 Beso Co., Patras, Greece, Summers 1968 and 1969.

Member of Academies

National Academy of Engineering (2006)
 National Academy of Medicine (2008)
 American Academy of Arts and Sciences (2017)
 Academia Europaeae (2019)
 Canadian Academy of Engineering (2019)
 National Academy of Inventors (2014)
 Chinese Academy of Engineering (2018)
 French Academy of Pharmacy (Académie Nationale de Pharmacie) (2005)
 Royal Academy of Spain (Academia Real) (2011)
 Academy of Athens, Greece (2013)
 Academy of Medicine, Engineering and Science of Texas (2006)
 International Academy of Medical and Biological Engineering (2016)

Awards and Honors

- 2020 Elected Fellow, ACS Polymer Chemistry Division
- 2019 ***Herman Mark Award, Polymer Science, American Chemical Society***
- 2019 ***Elected Member, European Academy – Academia Europaea***
- 2019 ***Elected Member, Canadian Academy of Engineering***
- 2019 ***IEEE/EMBS Academic Career Achievement Award***
- 2019 Elected Fellow, ACS Polymeric Materials Science and Engineering Division
- 2019 Elected Fellow, ACS Industrial & Engineering Chemistry Division
- 2018 ***Adam Yarmolinsky Award for Exceptional Contributions, National Academy of Medicine***
- 2018 ***Distinguished Pharmaceutical Scientist Award, AAPS, Washington DC***
- 2018 ***Elected to the Chinese Academy of Engineering***
- 2018 ***Elected Honorary Professor, Beihang University, Beijing***
- 2018 ***Honorary Doctorate, University of Santiago de Compostela, Spain***
- 2018 ***Elected Honorary Professor, PLA Hospital and Medical School, Beijing, China***
- 2018 ***Associate Editor, Science Advances, AAAS/Science***
- 2017 ***Editor, Regenerative Biomaterials, Oxford University Press.***
- 2017 ***Elected Honorary Professor, Peking Union Medical College***
- 2017 ***Elected to the American Academy of Arts and Sciences***
- 2017 ***Inaugural Pioneer of Nanotechnology Award, Johns Hopkins University.***
- 2017 ***One of the five “Medicine Makers of 2017” World wide.***
- 2017 ***List of 100 Best Materials Scientists in the World.***
- 2017 ***Life Achievements and Service, Controlled Release Society***
- 2016 ***Honorary Doctorate, National Technical University of Athens, Greece***
- 2016 ***Elected to the International Academy of Medical and Biological Engineering***
- 2016 ***Robert A. Pritzker Distinguished Lecture Award, Biomedical Engineering Society***
- 2016 ***Elected to the National Materials and Manufacturing Board, NRC***
- 2015 ***International Award, European Society for Biomaterials, Krakow, Poland***
- 2015 ***Controlled Release Society Award for Life Contributions, Edinburgh, Scotland***
- 2015 ***Honorary Doctorate, University of Patras***
- 2014 ***Giulio Natta Medal, Polytechnic School of Milan, Italy***
- 2014 Best paper award for 2013, Journal of Drug Delivery Science & Technology
- 2014 ***Applied Polymer Science Award, American Chemical Society***
- 2013 ***Elected to the Academy of Athens, Greece***
- 2013 Fellow, Royal Society of Chemistry, UK
- 2014 ***Nanoscale Science and Engineering Award, AIChE***
- 2013 ***Distinguished Scientist Award, International Journal of Nanomedicine***
- 2013 ***Benjamin Garver Lamme Excellence in Engineering Education Award, ASEE***
- 2012 ***Founders Award, National Academy of Engineering***
- 2012 ***Honorary Doctorate, University of Ljubljana, Slovenia***
- 2012 Elected Honorary Professor, Sichuan University
- 2012 Hocott Distinguished Engineering Research Award, University of Texas at Austin
- 2012 ***Elected to the Royal Academy of Spain (Academia Real)***
- 2012 Nature and BioNIUM Distinguished Researcher and Educator Award, Nature Conferences
- 2011 Fellow, American Chemical Society
- 2011 Excellence in Surface Science Award, Surface in Biomaterials Foundation
- 2010 ***Distinguished Achievement Award, Biomedical Engineering Society***
- 2010 ***Acta Biomaterialia Gold Medal***
- 2010 Inaugural Fellow, Controlled Release Society
- 2010 ***William H Hall Award for Contributions to Society, Society for Biomaterials***
- 2010 ***Distinguished Scientist, Southern Universities Research Association***
- 2010 ***Maurice Marie Janot Award, Pharmaceutical Sciences, APGI***
- 2010 George Mitchell Award for Excellence in Graduate Research, University of Texas
- 2009 Alan S Michaels Distinguished Lectureship in Medical & Biological Engineering, MIT
- 2009 Appointed Editor-in-Chief, SFB/Wiley Biomaterials Books Series

2008 ***Elected to the Institute of Medicine of the National Academy of Sciences***
 2008 Premio Romulo Garza, Best Research published in 2008, Mexico
 2008 ***Founders Award, American Institute of Chemical Engineers***
 2008 ***“One Hundred Chemical Engineers of the Modern Era”, American Institute of Chemical Engineers***
 2008 Appointed Associate Editor of the *AIChE Journal*
 2008 Elected to the Board of the Biomedical Engineering Society
 2008 Elected President, International Union of Societies of Biomaterials Science and Engineering
 2008 Fellow, American Society for Engineering Education
 2008 Inaugural fellow, Materials Research Society
 2008 Selected as a HighlyCited® ISI Researcher
 2008 ***Pierre Galletti Award, American Institute of Medical and Biological Engineering***
 2007 ***Institute Lecturer, American Institute of Chemical Engineers***
 2007 ***Carreer Research Excellence Award, University of Texas***
 2007 Most Outstanding ChE Faculty Member, Engineering Student Council, University of Texas
 2006 ***Jay Bailey Award, Biological Engineering Society, American Institute of Chemical Engineers***
 2006 ***William H. Walker Award, American Institute of Chemical Engineers***
 2006 Best Paper Award, European Controlled Release Meeting
 2006 ***Dow Chemical Engineering and Lctureship Award, American Society for Engineering Education***
 2006 ***Elected to the National Academy of Engineering***
 2006 ***Elected to the Academy of Medicine, Engineering and Science of Texas***
 2006 Elected Chair of College of Fellows, American Institute of Medical And Biological Engineering
 2006 Consulting Editor, *Pharmaceutical Research*
 2005 Inaugural Fellow, Biomedical Engineering Society
 2005 Best Paper Award, International Meeting of the Microencapsulation Society
 2005 Distinguished Scientist Award, Houston Society of Engineering in Medicine and Biology
 2005 ***Founders Award of the Society for Biomaterials***
 2005 Whitaker Graduate Student Award, Society for Biomaterials
 2005 ***Elected Member of the French Academy of Pharmacy (Académie Nationale de Pharmacie)***
 2004 ***Research Excellence Award for Best Research Paper (highest UT research recognition), Univ Texas***
 2003 Materials Research Society Graduate Research Award
 2003 Capsugel Award for Best Graduate Student Research in Controlled Drug Delivery
 2003 Nagai Foundation Award for Research
 2003 Appointed to the Nanotechnology Technical Advisory Board to the President's Council of Advisors on Science and Technology
 2002 Outstanding Chemical Engineer Award, School of Chemical Engineering, Purdue University
 2002 Distinguished Service Award, Department of Biomedical Engineering, Purdue University
 2002 ***Dale E. Wurster Award in Pharmaceuticals, American Association of Pharmaceutical Scientists***
 2002 Graduate Student Award for Outstanding Research, Biomedical Engineering Society
 2002 Graduate Student Award of the IEEE Engineering in Medicine and Biology Society
 2002 Newsmaker of the Year, American Chemical Society
 2002 Graduate Student Award, IEEE Engineering in Medicine and Biology Society
 2002 ***Eurand Award for Outstanding Contributions in Oral Drug Delivery, Controlled Release Society***
 2002 Pioneer in Biomedical Engineering, IEEE Engineering in Medicine and Biology Society
 2002 Elected President-elect of the Society for Biomaterials
 2002 ***Sigma Xi Award, (highest Purdue research recognition), Purdue University***
 2002 Chorafas Foundation Award for Best Dissertation
 2002 Best Graduate Student Paper Award, Materials Research Society
 2001 Editor, *New Drugs*
 2001 Mercator Visiting Professor, Free University of Berlin
 2001 Visiting Professor, University of Santiago de Compostela
 2001 Visiting Professor, Complutense University of Madrid
 2000 ***General Electric, Senior Research Award, American Society for Engineering Education***
 2000 ***Herbert McCoy Award (highest Purdue research recognition), Purdue University***
 2000 J. Heller Award, Best Research for 1999, Controlled Release Society
 2000 APV Award, Best Ph.D. Thesis, International Pharmaceutical Association

2000 Best Paper Award, European Journal of Pharmaceutics and Biopharmaceutics
 2000 **Honorary Doctorate, University of Athens, Greece**
 2000 Fellow, American Association for the Advancement of Science
 2000 Elected Director of the American Institute of Chemical Engineers
 1999 **Research Achievement Award in Pharmaceutical Technology, American Association of Pharmaceutical Scientists**
 1999 **Honorary Doctorate, Doctor of Pharmacy, University of Parma, Italy**
 1999 Best Paper Award, Midwestern Meeting, American Association of Pharmaceutical Scientists
 1999 Editor, *Advances in Chemical Engineering*
 1999 Marion B. Scott Award, Purdue University
 1999 **Honorary Doctorate, University of Ghent, Belgium**
 1998 Best Paper Award, Materials Research Society
 1998 Fellow, American Physical Society
 1997 Whitaker Best Paper Award, International Society for Artificial Organs
 1997 Fellow, American Institute of Chemical Engineers
 1996 Best Paper Award, Bioengineering Division, American Institute of Chemical Engineers
 1996 Visiting Professor, University of Naples
 1996 Best Doctoral Dissertation Award, Purdue University
 1996 Whitaker Best Paper Award, Institute of Electrical and Electronic Engineers
 1995 Best Paper Award, Materials Division, American Institute of Chemical Engineers
 1995 Best Paper Award, Bioengineering Division, American Institute of Chemical Engineers
 1995 APV Medal for Distinguished Pharmaceutical Contributions, International Pharmaceutical Association
 1994 Best Paper Award, Annual Meeting American Institute of Chemical Engineers
 1994 Best Session Award, Annual Meeting American Institute of Chemical Engineers
 1994 Award and Honorary Membership, Italian Society of Medicine and Natural Sciences
 1994 **Food, Pharmaceutical and Bioengineering Award, American Institute of Chemical Engineers**
 1994 Fellow, Biomaterials Science and Engineering, Society for Biomaterials
 1994 Visiting Professor, Hoshi University
 1994 Visiting Professor, Hebrew University
 1994 Potter Award, Best Engineering Teacher, Purdue University
 1994 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
 1993 Showalter Distinguished Professor of Chemical and Biomedical Engineering
 1993 Best Paper Award, Materials Division, American Institute of Chemical Engineers
 1993 Unilever Award, Best Polymer Doctoral Thesis, American Chemical Society
 1992 **George Westinghouse Award, American Society for Engineering Education**
 1992 **Clemson Award for Basic Research in Biomaterials, Society for Biomaterials**
 1992 Founding Fellow, American Institute of Medical and Biological Engineering
 1992 Best Paper Award, Materials Division, American Institute of Chemical Engineers
 1992 Controlled Release Society, Service Award
 1991 **Founders Award for Outstanding Research, Controlled Release Society**
 1991 Victor LaMer Award, Best Colloids Doctoral Thesis, American Chemical Society
 1991 Best Graduate Research Paper, Society of Adhesion
 1991 Best Paper Award, Midwestern Meeting, American Association of Pharmaceutical Scientists
 1991 Named *Polymer Science Pioneer* by the Journal *Polymer News*
 1991 Editor, *European Journal of Pharmaceutics and Biopharmaceutics*
 1991 Rene Maurice Gattefossé Medal, Academy of the Alpillles
 1990 A.I.Ch.E. Service Award
 1990 Fellow, American Association of Pharmaceutical Scientists
 1989 A.I.Ch.E. Service Award
 1988 **Curtis McGraw Award for Outstanding Research, American Society for Engineering Education**
 1988 Elected Chairman of the Materials Engineering and Sciences Division of AIChE
 1987 Elected President of the Controlled Release Society
 1987 Visiting Professor, University of Parma
 1986 Visiting Professor, University of Paris XI
 1985 Shreve Prize, Best Chemical Engineering Teacher, Purdue University

1985 Potter Award, Best Engineering Teacher, Purdue University
 1985 Controlled Release Society, Service Award
 1984 **Materials Engineering and Sciences Award, American Institute of Chemical Engineers**
 1983 Visiting Professor, California Institute of Technology
 1982 Zyma Foundation Award for the Advancement of Medical and Biological Sciences
 1982 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
 1982 A.I.Ch.E. National Best Counselor Award
 1982 Editor, *Biomaterials*
 1982 Visiting Professor, University of Geneva
 1980 **Western Electric Fund Award, American Society for Engineering Education**
 1980 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
 1980 Contributing Editor, *Polymer News*
 1978 Potter Award, Best Engineering Teacher, Purdue University
 1978 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
 1971 Chrysoverghion Award, Best Student, University-wide, N.T.U. Athens

Endowed/Honorary Lectureships

2018 Plenary Lecturer, Spanish-Portuguese CRS Meeting, Coimbra, Portugal.
 2017 Plenary Lecturer, 5th Nano Today Conference, Kona, HI.
 2017 **Plenary Lecturer**, Xiang Shan Scientific Conference, Beijing, China.
 2017 Invited Lecturer, Polymer Gels in Materials Science, Materials Research Society, Boston, MA.
 2017 Invited Lecturer, Biomaterials for Regenerative Engineering, Materials Research Society, Boston, MA
 2017 **Master Lecturer**, Shanghai Jiao Tong University, Shanghai, China.
 2017 Plenary Lecturer, International Forum on Innovation and Emerging Industries Development, Shanghai.
 2017 **Plenary Lecturer**, European Society for Biomaterials, Athens, Greece.
 2017 Plenary Lecturer, Service to CRS Award Lecturer, Boston, MA.
 2017 **Master Lecturer**, Peking Union Medical College, Beijing, China.
 2017 Plenary Lecturer, Biomedical Engineering Society of China, Beijing, China.
 2017 Distinguished Lecturer, University of Florida, Gainesville, Florida.
 2017 **Inaugural Pioneer of Nanotechnology Award Lecturer**, Johns Hopkins University, Baltimore, MD.
 2016 **Plenary Lecturer**, World Life Science Conference Beijing, China
 2016 **Pritzker Distinguished Lecturer**, Biomedical Engineering Society, Minneapolis, MN
 2016 **Plenary Lecturer**, Research Forum on Frontiers in Materials, Sichuan University, Chengdu, China.
 2016 **Lowrie Lecturer**, Ohio State University, Columbus, OH
 2016 College of Engineering Distinguished Lecturer, University of California Davis, Davis, CA
 2016 **Pritzker Lecturer**, Illinois Institute of Technology, Chicago, Illinois.
 2016 Plenary Lecturer, NanoDay 2016, Bilkent University, Ankara, Turkey
 2016 **TAMEST Materials Lecturer**, TAMEST, Dallas, TX
 2015 **Plenary Lecturer**, Chinese Biomaterials Congress, Haiku, China
 2015 Invited Lecturer, US-China Entrepreneurship Symposium, Guangzhou, China
 2015 **International Award Lecturer**, European Society for Biomaterials, Krakow, Poland
 2015 Plenary Lecturer, 10th Panhellenic Research Congress of Chemical Engineering, Patras, Greece
 2015 Simpson Querrey Institute for BioNanotechnology Lecturer, Northwestern, Evanston, IL
 2015 **Katz Lecturer**, City College of New York, NY
 2015 **Kelly Lecturer**, 50th Anniversary, Purdue University, West Lafayette, IN
 2015 **Johnson & Johnson Lecturer**, Rutgers University, Piscataway, NJ
 2015 **Reilly Lecturer**, University of Notre Dame, South Bend, IN
 2015 **Invited Lecturer**, Chinese Academy of Engineering, Beijing, China
 2015 **National Academy of Inventors Lecture**, Pasadena, CA
 2014 Strategic Research Theme Lecturer, University of Hong Kong.
 2014 **Giulio Natta Lecture**, Polytechnic School of Milan, Italy
 2014 **Sangalli Lecture**, University of Milan, Milan, Italy
 2014 **Gaden Memorial Lecture**, Columbia University, New York, NY.
 2014 **Materials Today Asia Plenary Lecturer**, Hong Kong

2014 Keynote Lecture, US-China Symposium on Nanobiology and Nanomedicine, Washington, DC
 2014 Plenary Lecturer, International Institute for Nanotechnology, Northwestern, Evanston, IL
 2014 **Plenary Lecturer**, Recovery of Biological Products XVI, Rostock, Germany
 2014 **Polymer Award Address**, American Chemical Society, Dallas, TX
 2014 **Kammermeyer Lecturer**, University of Iowa, Iowa City, IA
 2014 **Skalak Lecturer**, University of California at San Diego, CA
 2013 **Hoffman Lecturer**, University of Washington, Seattle, WA
 2013 **Plenary Lecturer**, 5th Asian Arden Conference, Nagoya, Japan
 2013 International Journal of Nanomedicine Lecturer, MRS Meeting, Boston, MA
 2013 **Plenary Lecturer**, 19th International Symposium on Microencapsulation, Pamplona, Spain
 2013 **Plenary Lecturer**, 25th European Society for Biomaterials Meeting, Madrid, Spain
 2013 **Plenary Lecturer**, 4th International Conference on Biomolecular Engineering, Ft Lauderdale, FL
 2013 **Parr Lecturer**, University of Illinois, Urbana-Champaign, IL
 2013 **Ruckenstein Lecturer**, University of Buffalo, Buffalo, NY
 2013 **Distinguished Lecturer**, College of Engineering, Michigan Tech, Houghton, MI
 2013 Keynote Speaker, 4th International Conference on Biomolecular Engineering, Miami, FL
 2012 Keynote Speaker, Symposium New Innovations in Polymers and Biomaterials, Maui, HI
 2012 Plenary Lecturer, 9th International Polymer Conference (IPC2012), Kobe, Japan
 2012 **Founders Award Lecture**, National Academy of Engineering, Washington, DC
 2012 Plenary Lecturer, NanoBioSeattle, Seattle, WA
 2012 **Plenary Lecturer**, 9th World Congress of Biomaterials, Chengdu, China
 2012 Plenary Lecturer, The Areces Foundation, Madrid, Spain
 2012 **The Berkeley Lectures**, University of California, Berkeley, CA
 2012 Plenary Lecturer, Miami 2012 Winter Symposium: Nanotechnology in Biomedicine, Miami, FL
 2012 Plenary Lecturer, 6th International Symposium on Intelligent Drug Delivery, Seoul, S. Korea
 2011 **UNC/Eisai Distinguished Lecturer** in Drug Delivery, Univ North Carolina, Chapel Hill, NC
 2011 Award Lecturer, Excellence in Surface Science, Surface in Biomaterials Foundation, Minneapolis, MN
 2011 Centennial Lecture, Centennial, School Chemical Engineering, Purdue University, West Lafayette, IN
 2011 Plenary Lecturer, 7th International Symposium on Controlled Release Systems, Istanbul, Turkey
 2011 **Wohl Memorial Lecturer**, University of Delaware, Newark, DE.
 2011 **Payatakes Lecturer**, University of Houston, Houston, TX.
 2011 **Bashore Lecturer**, Auburn University, Auburn, AL.
 2011 **Skinner and Lautenschlager Memorial Lecturer**, Northwestern University, Evanston, IL
 2011 Plenary Lecturer, 10th Congress of the Spanish Society of Industrial Pharmacy, Madrid, Spain
 2010 **BMES Distinguished Achievement Lecturer**, Annual Meeting of the BMES, Austin, TX
 2010 **Plenary Lecturer**, 37th Annual Meeting of the Controlled Release Society, Portland, OR
 2010 Plenary Lecturer, 3rd International Meeting on Pharmacy & Pharmaceutical Sciences, Istanbul, Turkey
 2010 Plenary Lecturer, Grand Challenges Summit of the National Academy of Engineering, Seattle, WA
 2010 Distinguished Lecturer, Imperial College, London, England
 2010 Distinguished Lecturer, Collège de France, Paris, France
 2010 **Maurice-Marie Janot Award Lecturer**, 7th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Valletta, Malta
 2010 Plenary Lecturer, 1st Global Congress on NanoEngineering for Medicine and Biology, Houston, TX
 2009 Honorary Lecturer, Series in Biomaterials, AIChE, Nashville, TN
 2009 CMA Stine Lecturer, AIChE, Nashville, TN
 2009 Plenary Lecturer, 2nd PharmSciFair, Nice, France.
 2009 **Alan Michaels Lecturer**, Massachusetts Institute of Technology, Cambridge, MA
 2009 Kewaunee Lecturer, Duke University, Durham, NC
 2009 Missouri Academy of Chemical Engineers Lecturer, Rolla, MO
 2008 Plenary Lecturer, 11th Mediterranean Congress of Chemical Engineering, Barcelona, Spain
 2008 Plenary Lecturer, 6th International Conference of the Chemical Societies of the SE European Countries
 2008 **Rohm and Haas Lecturer**, University of Massachusetts, Amherst, MA
 2008 **Merck Lecturer**, University of Puerto Rico, Mayagüez, PR
 2008 **Galletti Award Lecturer**, American Institute for Medical and Biological Engineering
 2008 Plenary Lecturer, International Conference on Cellular and Molecular Engineering, Singapore

2008 **59th Institute Lecture, Annual AIChE Meeting, Salt Lake City, UT**
 2007 Plenary Lecturer, National Biotechnology Conference, AAPS, San Diego, CA
 2007 Plenary Lecturer, 9th Greek Scientific Chemical Engineering Conference, Athens, Greece
 2008 Plenary Lecturer, 31st Annual Meeting of the Society for Biomaterials, Chicago, IL
 2007 Plenary Lecturer, Pharmaceutical Sciences World Congress, Amsterdam, The Netherlands
 2006 **Dow Distinguished Lectureship, American Society for Engineering Education, Chicago, IL**
 2005 Plenary Lecturer, 3rd World Congress on Biomimetics, Artificial Muscles & Bionanotechnology, Lausanne, Switzerland
 2005 Plenary Lecturer, European Polymer Congress, Moscow, Russia
 2005 Plenary Lecturer, Society for Biomaterials Meeting, Memphis, TN
 2005 Plenary Lecturer, Third World Congress on Drug Absorption, Transport and Delivery, Barcelona, Spain.
 2005 Plenary Lecturer, Annual event of the American Institute of Medical and Biological Engineering, Washington, DC
 2004 Plenary Lecturer, European Materials Research Society Meeting, Warsaw, Poland
 2004 Plenary Lecturer, 20th Japanese Drug Delivery Systems Meeting, Tokyo, Japan.
 2004 Gattefossé Lecturer, Gattefossé Meeting, Lyon, France
 2004 Plenary Lecturer, NIH/NSF Transport in Biological Systems Panel, Washington, DC
 2003 Plenary Lecturer, NIH/NSF Bionanotechnology Panel, Washington, DC
 2003 Plenary Lecturer, 4th Annual BioMEMS and NanoTech Meeting, Washington, DC
 2003 Gattefossé Lecture, 37th Galenic Days Meeting, St. Rémy, France
 2003 **Harry G. Fair Distinguished Lecturer**, University of Oklahoma, Norman, Oklahoma
 2003 **Larson-Ruth Distinguished Lecturer**, Iowa State University, Ames, Iowa
 2002 Plenary Lecturer, Biomedical Engineering Society Meeting, Houston.
 2002 Plenary Lecturer, ACS Meeting, Boston.
 2002 Plenary Lecturer, International Pharmaceutical Technology Symposium, Istanbul, Turkey.
 2002 Plenary Lecturer, 29th International Symposium of Controlled Release of Bioactive Agents, Seoul, Korea.
 2002 Plenary Lecturer, Particles 2002, Orlando.
 2002 Plenary Lecturer, World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy.
 2002 **Merck Distinguished Lecturer**, Rutgers University.
 2001 Plenary Lecturer, 6th International Symposium on Polymers for Advanced Technologies, Eilat, Israel.
 2000 Plenary Lecturer, North American Membrane Society Meeting, Boulder, Colorado.
 2000 Plenary Lecturer, 6th World Congress of Biomaterials, Kamuela, Hawaii.
 2000 Plenary Lecturer, Symposium on Biomedical Polymers for the 21st Century, Boston.
 2000 **Bayer Distinguished Lecturer**, University of Pittsburgh.
 1999 Plenary Lecturer, Drug Delivery for the Third Millennium, Pisa, Italy.
 1999 Plenary Lecturer, Central European Symposium on Pharmaceutical Technology, PortoRoz, Slovenia.
 1998 Plenary Lecturer, 90th Anniversary, American Institute of Chemical Engineers, Miami.
 1998 Plenary Lecturer, International Pharmaceutical Conference, Portugal.
 1998 Plenary Lecturer, International Pharmaceutical Technology Symposium, Istanbul, Turkey.
 1997 Plenary Lecturer, Academy of Pharmaceutical Sciences and Technology, Tokyo, Japan.
 1997 Plenary Lecturer, Japanese Drug Delivery Society, Sapporo, Japan.
 1996 Plenary Bioengineering Lecturer, American Institute of Chemical Engineers, Chicago.
 1996 Plenary Lecturer, POVAL Meeting, Kyoto, Japan.
 1995 IUPAC Plenary Lecturer, Prague, Czech Republic.
 1994 Hoshi Distinguished Lecturer, Tokyo, Japan.
 1994 Plenary Lecturer, International Pharmaceutical Technology Conference.
 1993 Plenary Lecturer, Materials Research Society.
 1993 Nichiban Distinguished Lecturer, Tokyo, Japan.
 1992 Plenary Lecturer, World Congress of Biomaterials, Berlin, Germany.
 1992 Plenary Lecturer, ISOPOW-V, Valencia, Spain.
 1991 **Distinguished Lecturer**, Ontario Center for Materials Research, Toronto.
 1991 Horizons Distinguished Lecturer, Kimberly-Clark, Roswell, Georgia.

- 1990 Distinguished Lecturer, Kimberly-Clark, Neenah, Wisconsin.
- 1990 Plenary Lecturer, Italian Chemical Society, Bressanone, Italy.
- 1988 ***Minnetonka Distinguished Lecturer***, University of Minnesota, Minneapolis, Minnesota.
- 1987 Inaugural Lecturer, University of Pavia, Pavia, Italy.
- 1987 ***Warren McCabe Distinguished Lecturer***, North Carolina State University, Raleigh, North Carolina.
- 1986 Plenary Lecturer, Danish Society of Polymer Technology, Copenhagen, Denmark.
- 1986 Plenary Lecturer, Fourth International Conference on Pharmaceutical Technology, Paris, France.
- 1985 Plenary Lecturer, Swedish Academy of Sciences, Stockholm, Sweden.
- 1983 Zyma Foundation Lecturer, Nyon, Switzerland.
- 1980 Plenary Lecturer, European Controlled Release Symposium, Geneva, Switzerland.

Advisory Boards

- Department of Chemical Engineering, Princeton University, 2010- .
- Department of Chemical and Biomolecular Engineering, Tulane University, 2015- .

Editorial Boards

Currently Editor and Associate Editor

- Regenerative Biomaterials (2015-17); **Editor-in-Chief (2017-)** Oxford University Press
- Science Advances (2018-); **Deputy Editor**, AAAS/Science.
- Cell and Molecular Bioengineering (2013-); **Associate Editor** (2013-) Springer
- Regenerative Engineering and Translational Medicine (2015-); **Associate Editor** (2015-) Springer
- Biomedical Microdevices (2007-); **Associate Editor** (2008-) Elsevier

Science Journals

- Science Advances (2018-); **Deputy Editor** in charge of Nanomedicine, AAAS/Science.

Chemical Engineering Journals

- Engineering, Chinese Academy of Engineering Journal (2015-)
- AIChE Journal; **Associate Editor** (2008-11)
- Current Opinion in Chemical Engineering (2010-)
- Industrial & Engineering Chemistry (2006-09)
- Research (2005-08)
- Advances in Chemical Engineering; **Editor** (1999-03)
- Chemical Engineering Progress (1991-93)

Biomedical Engineering Journals

- Current Opinion in Biomedical Engineering (2016-)
- Bioengineering and Translational Medicine (2015-).
- Cambridge University Texts in Biomedical Engineering; **Associate Editor** (2005-)
- Cell and Molecular Bioengineering (2013-); **Associate Editor** (2013-)
- Bioresearch Open Access (2012-)
- Advanced Healthcare Materials (2013-)
- Bioengineering and Translational Medicine (2015-)
- Chinese Academy Engineering Journal (2015-)
- Regenerative Engineering and Translational Medicine (2015-); **Associate Editor** (2015-)

Nanotechnology Journals

- ACS Nano (2013-)
- Biomedical Microdevices (2007-); **Associate Editor** (2008-)
- International Journal of Nanomedicine (2005-)
- Nanomedicine (2005-)
- Dictionary of Nanoscience and Nanotechnology (2009-)

Biomaterials and Tissue Engineering Journals

- Regenerative Biomaterials (2013-17); **Editor-in-Chief (2017-)**
- Regenerative Engineering (2015-17); **Associate Editor (2015-)**
- SFB/Wiley Biomaterials Book Series; **Editor-in-Chief** (2009-12)
- Hydrogels Handbook; **Editor** (2008-12)
- Biomaterials Science (2012-)
- Journal of Biomaterials Science, Polymer Edition (1987-)
- Encyclopedia of Biomaterials and Biomedical Engineering (2002-)
- Macromolecular Bioscience (2008-)
- Biomaterials (1980-04); **Editor** (1982-2001)
- Methods in Tissue Engineering (1999-)
- Tissue Engineering (1994-2008)
- Tissue Engineering Books, Academic Press (1995-)
- Biomedical Materials (1985-99)

Pharmaceutical and Medical Journals

- Acta Pharmaceutica Sinica (2017-)
- Pharmaceutical Research (2005-); **Consulting Editor** (2006-12)
- Journal of Biopharmaceutics and Biotechnology (2005-)
- International Journal of Pharmaceutics (2003-)
- Journal of Controlled Release (1983-)

- Les Annales Pharmaceutiques Françaises (2008-)
- Encyclopedia of Controlled Drug Delivery (1997-)
- Advanced Drug Delivery Reviews (1992-)
- Journal of Drug Delivery Science and Technology (1987-)
- AAPS PharmSci (1998-)
- AAPS PharmSciTech (2000-)
- Expert Opinion on Drug Delivery (2004-)
- Acta Pharmaceutica Scientia (2006-)
- Annals Academie Nationale de Pharmacie (2008-)
- European Journal of Pharmaceutics and Biopharmaceutics, **U.S. Editor** (1992-94); (1992-)
- Marmara Pharmaceutical Journal (2009-)

Polymer Journals

- Progress in Polymer Science (2007-)
- Journal of Applied Polymer Science (1976-)
- Polymer Gels and Networks (1993-99)
- Polymer News (1980-92)

Citations

Who's Who in America
 Who's Who in Engineering
 American Men and Women of Science
 Who's Who in Technology
 Who's Who in Medicine
 Who's Who in American Education
 International Who's Who in Engineering.
 Who's Who in Frontier Science and Technology
 Who's Who in Finance and Business
 Who's Who in the South and Southwest
 Who's Who in the Midwest
 Personalities of America
 Who's Who in Technology Today
 1000 World Leaders of Scientific Influence
 Who-Is-Doing-What in Drug Delivery
 American Hellenic Who's Who
 Who's Who in Music (1993)

Professional Societies and Positions Held

National Academy of Engineering (NAE)

NAE Bioengineering Section, Section 2 Chair (2015-17), Chair-Elect (2013-15), Section 2 Past Chair (2017-19)

NAE Awards Committee (2010-11)

Recruiting Committee, ChE section (2007-10)

National Academy of Medicine (NAM)

NAM Engineering, Sciences Section, Section 1 Chair (2015-17), Chair-elect (2013-15)

NAM Membership Committee (2013-17)

NAM Subcommittee on International Members (2015-16)

American Academy of Arts and Sciences

National Academy of Inventors (NAI)

NAI Fellow Selection Committee (2016-)

NAI Fellow Advisory Board (2016)

Academy of Medicine, Engineering and Science of Texas (TAMEST)

Awards Committee of O'Donnell Award, Medicine Section (2008-09)

Chair, Awards Committee, of O'Donnell Award, Medicine Section (2009-2011)

Organizing Committee, Annual meeting (2016)

International Academy of Medical and Biological Engineering

Académie Nationale de Pharmacie (France)

Editorial Committee, Academy Journal (2008-)

Academia Real Nacional (Spain)

Academy of Athens (Greece)

American Institute of Medical and Biological Engineering (AIMBE)

Chair, College of Fellows (2007-08)

Chair, Fellows Selection Committee (2008-10)

Organizing Committee of 2005, 2007, 2008, 2009 and 2012 Meetings

SFB Representative to the Council of Societies (2004)

AIChE Representative to the Council of Societies (1995-2012)

Public Policy Committee (1996-2004)

Fellows Committee (1993, 1998-00, 2006-08)

Program Committee (1993, 2000-02)

Foreign Fellows Committee (1994)

Founding Fellow

American Institute of Chemical Engineers (AIChE)

Chairman, AIChE Awards Committee (2011-13)

Vice Chairman, AIChE Awards Committee (2009-10)

Member, AIChE Awards Committee (2006-2009)

Director (2000-02)

Member, Bioengineering Task Force (2002-05)

Member, Nominating Committee (2001-02)

Member, Board Award Committee (2001-02)

Member, Council of Technology (2000-02)

Member, RANTC (2000-)

Liaison with Bioengineering Division (2000-02)

Fellow (1998)

Chairman, Materials Division (1988-90)

First Vice-Chairman, Materials Division (1986-88)

Chairman, Nominating Committee, Materials Division (1991-92, 1994-95)

Chairman, Awards Committee, Materials Division (1991-92)

Program Chairman, Materials Division (1986-88)

Director, Materials Division (1981-82; 1984-86)

Vice Chairman, Committee on Polymers, Area 8a (1994-95)

Chairman, Committee on Polymers, Area 8a (1995-97)
Director, Food, Pharmaceuticals and Bioengineering Division (1994-97)
 Chairman, New Materials Committee (1983-87)
 Member, Awards Committee of Materials Division (1981-83; 85-88)
 Member, History of Chemical Engineering Committee (1989-92)
 Member, AIChE Chemical Engineering Education Projects Committee (1979-88)
 Editorial Committee, "Chemical Engineering Faculties" (1984-87)
 Editor, Materials Newsletter (1978-80)
 Member, Committee on Engineering Fundamentals in Life Science, Area 15d/e (1977-)
 Member, Committee on Biomaterials, Area 8b (1980-); Chairman (1980-84)
 Member, Continuing Education Committee (1986-88)
 Organizer, Topical Conference on Biomaterials (1997)
 Organizer, Topical Conference on Biomaterials, Drug Delivery and Tissue Engineering (2003)
 Organizer, Topical Conference on Medical Engineering, Drug Delivery and Therapeutic Systems (2006)
Nanotechnology Forum (2002-)
 Chair, Bionanotechnology Area 22b (2002-05)
 Organizer, Topical Conference on Bionanotechnology (2004)
 Organizer, Topical Conference on Bionanotechnology (2005)

American Physical Society (APS)
 Fellow (1997)

American Chemical Society (ACS)
 Fellow (2011)
Chairman, Program Committee, Division of Industrial Engineering Chemistry (1982-84)
 Member, Program Committee, Division of IEC (1979-82; 85-89)
 Chairman, Organizing Committee of Winter Symposia of IEC (1979-81), Member (1982-85)
 Member, Murphree Award Committee (1983-86)
 Member, Technical Program Committee, Division of Polymer Chemistry (1980-82)
 Member, Education Committee, Division of Polymer Chemistry (1982-86)

Materials Research Society (MRS)
 Inaugural Fellow (2008)
 Coordinator (1993-97)
 Member, External Affairs Committee (1995-98)

American Diabetes Association (ADA)

American Association for the Advancement of Sciences (AAAS)
AAAS Council (2015-16)
Past-Chair, Engineering Section (2015-16)
Chair, Engineering Section (2014-15)
Chair-elect, Engineering Section (2013-14)
 Fellow (1999)

American Association of Pharmaceutical Scientists (AAPS)
 Member Committee for Selection of Meritorious Manuscript Award (2004-06); ***Chair*** 2005
 Fellow (1990)
 Review Panel PPD Division (1990-91)
 Strategic Alliance/Globalization Committee (1995-02)
 Resource Fellow on Controlled Release (1992-02)

Controlled Release Society (CRS)
 Fellow (2010)
President (1987-88)
 Past President (1988-89)
Board of Trustees (1988-93)
 Chairman, By-laws Committee (1988-89)
 President-elect (1986-87)
 Vice-President (1985-86)
 Governor (1984-85)
 Organizer, First Workshop and Exhibition of Controlled Release in Consumer Products (1990)

Organizer, Second Workshop and Exhibition of Controlled Release in Consumer Products (1992)
 Organizer, Third Workshop and Exhibition on Controlled Release in Consumer Products (1993)
 Program Chairman, 20th International Meeting on Controlled Release of Bioactive Materials (1993)
 Program Chairman, 12th International Meeting on Controlled Release of Bioactive Materials (1985)
 Chairman, Committee on Consumer Products (1990-92)
 Member, Strategic Planning Committee (1991-94)
 Chairman, Global Network Subcommittee (1993-95, 96-98)
 Chairman, Premier Organization Status Subcommittee (1991-92)
 Chairman, Heller Award Committee (1997-2000)
 Member, Founders Award Committee (1991-97)
 Member, Nominating Committee (1991-92)
 Member, Awards Committee (1985-87)
 Member, Pennwalt Award Committee (1984-85)
 Newsletter Editor (1985-86)
 Newsletter Columnist (1988-92)
 Chairman, Committee (1985-86)
 Chairman, Education Committee (1985-86)

Biomedical Engineering Society (BMES)

Member of the Board (2008-11)
 Fellow (2005)
 Chairman, Affiliations Committee (2006-08)
 Chairman, By-laws Committee (1992-97)
 Chair, Fellows Committee (2010-12)
 Member, Fellows Committee (2008-12)
 Member, Whitaker Awards Committee (1993-95)
 Member, Awards Committee (1988-91)

North American Membrane Society (NAMS)

International Union of Societies of Biomaterials Science and Engineering

President (2008-16)

Society for Biomaterials

President (2003-04)
Past President (2004-05)
President-Elect (2002-03)
Chair, Past Presidents Committee (2004-05)
Member SFB Council (2002-05, 2013-14)
Chair, Awards and Nominations Committee (2004-05, 2013-14)
Chair, Meetings Committee (2003-05)
Chair, Long Range Planning Committee (2002-03)
Chair, Liaison Committee (2006-)
Editor-in-Chief, Society for Biomaterials/Wiley Book Series (2009-)
 Delegate to International Union of Biomaterials Societies (2006-)
 Fellow, International Union of Biomaterials Societies (1993-)
 Representative to AIMBE (2004)
 Secretary, Executive Committee of Fellows (1997-02)
Chairman, Controlled Release Special Interest Group (1995-97)
 Program Chairman, Ophthalmological Biomaterials Special Interest Group (2000-01)
 Member, Awards and Nominations Committee (1996-98)
 Nominating Committee (1986-88)

Tissue Engineering Society (TERMIS)

American Society for Engineering Education (ASEE)

Fellow (2008)
 Westinghouse Award Committee (1993)
 Dow Award Committee (2007-09)

New York Academy of Sciences (NYAS)

Society of Plastics Engineers (SPE)

Director, Medical Plastics Division (1980-86)

Member, Program Committee (1984-86)

Member, Technical Volumes Committee (1979-81)

Vice Chairman, National Committee of SPE Student Chapters (1979-80)

Adhesion Society

Sigma Xi

President, Purdue Chapter (1995-96)

Vice President, Purdue Chapter (1994-95)

Past President, Purdue Chapter (1996-97)

Chairman, Awards Committee (1996-97)

Phi Kappa Phi

Council of BME Chairs

Chair (2011-12)

Chair-elect (2010-11)

Past Chair (2012-13)

Nominating Committee (2011-13)

Long Range Planning Committee (2010-13)

Companies Founded

Mimetic Solutions, Lexington, KY (2006-12)
Appian Laboratories, Austin, TX (2007- 17)
CoraDyn Biosystems, Austin, TX (2007-13)

Advisory Boards

Pharmacontrol Corp., Englewood Cliffs, NJ (1982-86)
Health-Chem Corp., Hercon Div., S. Plainfield, NJ (1984-89)
Cygnus Therapeutic Systems, Redwood City, CA (1986-92)
Enzytech Controlled Therapeutics, Cambridge, MA (1990-92)
Neomorphics, Boston, MA (1991-92)
Cambrex Hydrogels, East Rutherford, NJ (1992-94)
Biogel Technology, Indianapolis, IN (1992-2002)
Advanced Polymer Systems, Menlo Park, CA (1993-2002)
B.F. Goodrich, Brecksville, OH (1996-99)
Mimetic Solutions, Lexington, KY (2006-12)
Appian Laboratories, Austin, TX (2007-17)
CoraDyn Biosystems, Austin, TX (2007-11)
NanoMedical Systems, Austin, TX (2010-11)

Consultant

Panmarine Co., Piraeus, Greece (1974-77)
Rostone Corp., Lafayette, IN (1976-78)
M2M Manufacturing Co., Goshen, IN (1976-79)
American Can Co., Neenah, WI (1977-79)
E.I. duPont de Nemours, Wilmington, DE (1978-80)
Medicornea Inc., Lebanon, IN (1978-84)
Pharmacontrol Corp., *Board of Associates*, Englewood Cliffs, NJ (1982-86)
Zyma S.A., Nyon, Switzerland (1982-84)
Whitbread & Co., Luton, UK (1983-84)
IMC Corp., Terre Haute, IN (1983-87)
Health-Chem Corp., Hercon Div., *Scientific Advisory Board*, S. Plainfield, NJ (1984-89)
Schering Corp., New York, NY (1984-87)
Smith, Kline and French Co., Philadelphia, PA (1985-87)
Interx, Lawrence, KS (1985-87)
Owens-Corning, Conroe, TX (1985-88)
Brown & Williamson Tobacco Corp., Louisville, KY (1986-88)
Cygnus Therapeutic Systems, *Advisory Board*, Redwood City, CA (1986-)
Rhone-Poulenc Co., St. Fons, France (1986-92)
Nova Pharmaceuticals, Baltimore, MD (1987-89)
Athena Neurosciences, Menlo Park, CA (1988-91)
Dow Chemical Co., Midland, MI (1988-93)
Aegis Funds, Lexington, MA (1989-92)
Woodard, Emhardt, Naughton, Moriarty and McNett, Indianapolis, IN (1989-93)
Kaye, Scholer, Fierman, Hays and Handler, New York, NY (1989-91)
Ethyl Corporation, Baton Rouge, LA (1990-91)
C.R. Bard, Tewksbury, MA (1990-91)
Vistakon, Jacksonville, FL (1990-91)
Heritage Research Corporation, Goshen, IN (1990-92)
Enzytech Controlled Therapeutics, *Advisory Board*, Cambridge, MA (1990-92)

Boston Scientific, Spencer, IN (1991-94)
 Neomorphics, *Advisory Board*, Boston, MA (1991-92)
 Baker and Botts, Houston, TX (1991-93)
 Dowell Schlumberger, Tulsa, OK (1991- 93)
 Biogel Technology, Indianapolis, IN (1992-02)
 American Cyanamid, Princeton, NJ (1992-95)
 Monsanto Agricultural Division, St. Louis, MO (1992-94)
 Cambrex, *Advisory Board*, East Rutherford, NJ (1992-95)
 Alkermes, Cambridge, MA (1993-94)
 Advanced Polymer Systems, *Advisory Board*, Redwood City, CA (1993-2002)
 Howmedica, East Rutherford, NJ (1993-95)
 Ventritex, Sunnyvale, CA (1995)
 ConvaTec, Princeton, NJ (1995)
 UroMed, Needham, MA (1995-2001)
 Alcon Laboratories, Fort Worth, TX (1996-03)
 B.F. Goodrich, Brecksville, OH (1996-2001)
 Monsanto/Ceregen, St. Louis, MO (1996)
 ALZA Corp., Palo Alto, CA (1996-97)
 Mentor Corp., Santa Barbara, CA (1996-2000)
 Covington & Burling, Washington, DC (1996-98)
 Morris, Nichols, Arsht & Tunnell, Wilmington, DE (1997-2001)
 Kellogg, Battle Creek, MI (1998-2000)
 Innotech, Newtown, CT (1998-2001)
 Oblon, Spivak, McClelland, Maier & Neustadt, Arlington, VA (1998-2001)
 Kenyon & Kenyon, Washington, DC (1998-2001)
 Welsh & Katz (1999-2003)
 Cor Therapeutics, South San Francisco, CA (1999-2002)
 Aventis, Frankfurt, Germany (1999-01)
 Hopgood, Calimafde, Judlowe and Mondolino, New York, NY (2000-03)
 Kirkland and Ellis, New York, NY (2001-)
 Patterson, Bellknap, Well and Tyler, New York, NY (2001-05)
 Ciba Vision, Duluth, GA (2002-03)
 Pennie & Edmonds LLP (2002-03)
 Biomade, Groningen, The Netherlands (2002-04)
 Schering Plough, Kenilworth, NJ (2003-04)
 Amano Enzymes, Elgin, IL (2003-)
 Kaye Scholer LLP, New York, NY (2005)
 Alkermes, King of Prussia, PA (2006)
 Genzyme, Waltham, MA (2007-)
 Mitsubishi Chemical Company (2006-12)
 Ciba Vision, Duluth, GA (2010-)
 Millbank, New York, NY (2011-)
 Hoffman & Baron, Parsippany, NJ (2013-)
 Quinn Emanuel Urquhart & Sullivan, LLP, New York, NY (2016-)

International Committees

1. Member of the Program Committee of Area 15e, Engineering Fundamentals in Life Sciences, AIChE, 1977-.
2. Member of the Steering Committee of the AIChE Materials Engineering and Sciences Division, 1978 - 1982 .
3. Member of the Membership Committee (1978-79) and the Technical Program Committee (1977-78, 1981-82) of the Division of Polymer Chemistry of the American Chemical Society.
4. Vice Chairman of the National Committee of SPE Student Chapters, 1979-1980.
5. Member of the Chemical Engineering Education Projects Committee of AIChE, 1979-88.
6. Chairman of the Organizing Committee of the American Chemical Society/ Industrial Engineering Chemistry Division Winter Symposia, 1979-82.
7. Member of the Technical Program Committee of the Division of Industrial and Engineering Chemistry of the American Chemical Society, 1979-86.
8. Technical Program Chairman for the Materials Division Sponsored Symposia at the 87th National AIChE Meeting, Boston, August, 1979.
9. Technical Program Chairman for the Materials Division Sponsored Symposia at the 72nd Annual AIChE Meeting, San Francisco, November, 1979.
10. Director of the Division of Medical Plastics of the Society of Plastic Engineers, 1979-1982; 1983-86.
11. Technical Program Chairman for the Materials Division Sponsored Symposia at the 90th National AIChE Meeting, Houston, March 1981.
12. Technical Program Chairman for the IEC Division sponsored Symposia at the Annual ACS Meeting, New York, August 1981.
13. Member of Awards Committee for the Materials and Polymers AIChE Award, 1981-1983; 1985-88.
14. Director of the Materials Sciences Division of AIChE, 1981-1982; 1984-86.
15. Member of Scientific and Organizing Committee of IUPAC Macromolecules Meeting, Athens, August 1982. Chairman of the "Diffusion in Polymers" Symposia.
16. Chairman of the National Program Committee of the Division of Industrial and Engineering Chemistry of ACS, 1982-84.
17. Member of US Delegation in US-Taiwan Polymer Conference and Working Group, Berkeley, November 1983.
18. Chairman of the New Materials Subcommittee of the Materials Sciences Division of AIChE, 1983-88.
19. Member of Scientific Committee of 2nd International Conference on Polymers in Medicine, Capri, Italy, June 1984.
20. Governor of the Controlled Release Society, 1984-85.
21. Member of the Program Committee of the Medical Plastics Division of SPE, 1984-86.
22. Technical Program Chairman for the Materials Division Sponsored Symposia at the National AIChE Meeting, Houston, March 1985.
23. Vice-President of the Controlled Release Society, 1985-86.
24. Technical Program Chairman and Organizer of the 12th International Conference on Controlled Release of Bioactive Materials, Geneva, July 1985.
25. Technical Program Chairman for the Materials Division Sponsored Symposia of the Annual AIChE Meeting, Boston, August 1986.
26. President-elect of the Controlled Release Society, 1986-87.
27. First Vice Chairman of the Materials Division of AIChE, 1986-88.
28. Technical Program Chairman of the Materials Division of AIChE, 1986-88.
29. Member of the Scientific Committee of the 10th European Society of Biomaterials Meeting, Bologna, September 1986.
30. Organizer and Member of Scientific Committee of Biointeractions '87, Cambridge, England, July 1987.
31. Technical Program Chairman of the Materials Division Sponsored Symposia of the Annual AIChE Meeting, New York, November 1987.
32. Technical Program Chairman of the Materials Division - Sponsored Symposia of the Annual AIChE Meeting, Washington, November 1988.

33. Chairman of the Materials Division of AIChE, 1988-90.
34. Organizer of Diffusion '89, Parma, Italy, May 1989.
35. Organizing Committee, First European Controlled Release Meeting, Uidschendam, March 1990.
36. Organizing Committee, Fifth International Symposium on Aboveground Storage Tanks, Houston, June 1990.
37. President of the Controlled Release Society, 1986-87.
38. Organizing Committee, First European Controlled Release Meeting, Noordwijk, March 1990
39. Organizer, First Workshop and Exhibition on Controlled Release in Consumer Products, Cincinnati, October 1990.
40. NSF Panel for NSF Fellowships 1990-93.
41. Organizing Committee, Second European Controlled Release Meeting, Noordwijk, March 1992.
42. Organizer, Symposium on Pulsatile Drug Delivery, Königswinter, May 1992.
43. Organizer, Second Workshop and Exhibition on Controlled Release in Consumer Products, Secaucus, NJ, May 1992.
44. Organizing Committee, Sixth International Symposium on Drug Delivery, Salt Lake City, UT, February 1993.
45. Organizer and Chairman, Symposium on Hydrogels of American Chemical Society, Denver, CO, March 1993.
46. Organizer and Chairman of the 20th International Conference on Controlled Release of Bioactive Materials, Washington, July 1993.
47. Organizer of Biointeractions '93, Leiden, September 1993.
48. Organizer and Chairman, Third Workshop on Controlled Release in Consumer Products, Geneva, October 1993.
49. Organizer and Chairman, Symposium on Biomaterials, Materials Research Society, Boston, November 1993.
50. Organizing Committee, Third European Controlled Release Meeting, March 1994.
51. Organizer, Third Workshop and Exhibition on Controlled Release in Consumer Products, Chicago, IL, September 1994.
52. Organizing Committee, Seventh International Symposium on Drug Delivery, Salt Lake City, UT, February 1995.
53. Organizing Committee, Materials Research Society Meeting, San Francisco, CA, April 1995.
54. International Scientific Board, First World Meeting on Pharmaceutical Technology, Budapest, Hungary, May 1995.
55. Scientific Advisory Board, First Spanish Portuguese Conference on Controlled Drug Delivery, Santiago de Compostela, Spain, September 1995.
56. Organizing Committee, Fourth European Controlled Release Meeting, Noordwijk, March 1996.
56. Organizing Committee, 23rd International Conference on Controlled Release of Bioactive Materials, Kyoto, Japan, July 1996.
57. International Advisory Board, Third Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, September 1996.
58. Organizing Committee, International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1996.
59. Advisory Board, Eighth Panhellenic Pharmaceutical Conference, Athens, Greece, October 1996.
60. International Advisory Board, Third International Symposium on Innovations in Pharmaceutical Sciences and Technology, Ahmedabad, India, February 1997.
61. Organizing Committee, Eighth International Symposium on Drug Delivery, Salt Lake City, UT, February 1997.
62. Program Committee, 23rd Annual Meeting, Society for Biomaterials, New Orleans, LA, April 1997.
63. Scientific Committee, Recent Advances in Drug Delivery Systems and Pharmaceutical Technology, June 1997.
64. Organizing Committee, Fifth European Controlled Release Meeting, Noordwijk, April 1998.
65. International Advisory Board, Second World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Paris, May 1998.
66. International Program Committee, Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, June 1998.

67. Organizing Committee, Ninth International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1998.
68. Organizing Committee, US-Israel NSF Chemical Engineering Workshop, Haifa, Israel, March 1999.
69. Organizing Committee, Ninth International Symposium on Drug Delivery, Salt Lake City, UT, February 1999.
70. Advisory Board, 4th Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, October 1999.
71. Organizing Committee, Symposium on Drug Delivery in the Third Millennium, Pisa, Italy, October 1999.
72. Organizing Committee, 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 2000.
73. Organizing Committee, Sixth European Controlled Release Meeting, Noordwijk, April 2000.
74. Organizing Committee, World Congress of Biomedical Engineering, Chicago, IL, July 2000.
75. Organizing Committee, Tenth International Pharmaceutical Technology Symposium, Ankara, Turkey, September 2000.
76. Scientific Committee, Fourth Spanish-Portuguese Conference on Controlled Drug Delivery, Vittoria, Spain, September 2000.
77. International Scientific Advisory Board, Tenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2001.
78. Scientific Committee, Mediterranean Meeting of Chemical Engineering, Ankara, Turkey, May 2001.
79. International Organizing Committee, 28th International Symposium on Controlled Release of Bioactive Materials, San Diego, CA, June 2001.
80. Organizing Committee, 5th International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Cardiff, UK, January 2002.
81. Organizing Committee, Seventh European Controlled Release Meeting, Noordwijk, April 2002.
82. Scientific Committee, Eleventh International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 2002.
83. Organizer, ACS ProSpectives Conference, Boston, MA, October 2002.
84. Scientific Committee, Fifth Spanish-Portuguese Conference on Controlled Drug Delivery, Seville, Spain, November 2002.
85. International Scientific Advisory Board, Eleventh International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, March 2003.
86. Organizing Committee, Eighth European Controlled Release Meeting, Noordwijk, the Netherlands, April 2004.
87. Organizing Committee, European Conference on Drug Delivery and Pharmaceutical Technology, Seville, Spain, May 2004.
88. Organizing Committee, World Congress of Biomaterials Sydney, Australia, April 2004.
89. Scientific Committee, Twelveth International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 2004.
90. Organizing Committee, Conference on Regenerative Medicine, Society for Biomaterials, Philadelphia, PA, October 2004.
91. Chair of Organizing Committee, Topical Conference on Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering, AIChE Meeting, Austin, TX, November 2004.
92. Organizer, Topical Conference on Bionanotechnology, AIChE Meeting, Austin, TX, November 2004
93. International Scientific Advisory Board, Twelveth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2005.
94. Organizing Committee, Annual Meeting of the Society for Biomaterials, Memphis, TN, April 2005.
95. Organizer of Symposium on "Nanotechnology and Biomaterials", Society for Biomaterials, Memphis, TN, April 2005.
96. Organizer, Topical Conference on Bionanotechnology, AIChE Meeting, Cincinnati, OH, November 2005
97. Organizing Committee, Houston Society for Engineering in Biology and Medicine, Houston, TX, February 2006.

98. Organizing Committee, Ninth European Controlled Release Meeting, Noordwijk, the Netherlands, April 2006.
99. Scientific Committee, Thirteenth International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 2006.
100. Organizing Committee, Topical Conference on Bionanotechnology, AIChE Meeting, San Francisco, CA, November 2006
101. Organizer and General Chairman, US-Japan Joint Topical Conference on Medical Engineering, Drug Delivery and Therapeutic Systems, AIChE Meeting, San Francisco, CA, November 2006
102. International Scientific Advisory Board, Thirteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2007.
103. Scientific Committee, International Meeting of APGI and ADRITELF on Innovation in Drug Delivery, Naples, Italy, September 2007.
104. International Advisory Committee, International Congress on Biohydrogels, Viareggio, Italy, November 2007.
105. Organizer and Chair of the Organizing Committee, 17th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2008.
106. Organizing Committee, Tenth European Controlled Release Meeting, Noordwijk, the Netherlands, April 2008.
107. International Scientific Advisory Board, Fourteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2009.
108. Organizing Committee, 18th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2009.
109. Advisory Committee, Annual Meeting European Society for Biomaterials, Lausanne, Switzerland, September 2009.
110. Organizing Committee, Eleventh European Controlled Release Meeting, Noordwijk, the Netherlands, April 2010.
111. International Scientific Advisory Board, Fifteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2011.
112. Organizer and Chairman, National Academy of Engineering Meeting, Engineering the Future of Health Care, Austin, TX, April 2011.
113. Organizing Committee, 20th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2011.
114. International Scientific Advisory Board, Fifteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2013.
115. International Scientific Advisory Board, 25th European Society for Biomaterials, Madrid, Spain, September 2013.
116. Organizing Committee, Workshop on Key Challenges in the Implementation of Convergence, National Research Council, Washington, DC, February 2013.
117. International Scientific Advisory Board, 10th Spanish-Portuguese Conference on Controlled Drug Delivery, Valencia, Spain, November 2013.
118. Organizer, "Integrated Cellular Systems: Building Machines with Cells", AAAS meeting, Chicago, IL, February 2014.
119. Co-organizer, TAMEST meeting on the Future of Materials Science, Dallas, TX, January 2016.
120. Organizing Committee, "Frontiers in Materials Science", Sichuan University, Chengdu, China, September 2016.
121. Organizing Committee, "International Symposium on Clinical Translational Medicine", Shanghai, China, September 2016.
122. Organizing Committee, European Society for Biomaterials Meeting, Athens, Greece, September 2017.

Chair of Symposia

1. Chairman of Session, Symposium on "Chemistry and Properties of Crosslinked Polymers," ACS Meeting, San Francisco, September 1976.

2. Chairman, Symposium on "Mass Transfer in Biological Systems," AIChE Meeting, New York, November 1977.
3. Moderator, Symposium on "Biomedical Applications of Polymers," Society of Plastics Engineers Meeting, Denver, November 1977.
4. Chairman, Symposium on "Multicomponent Polymer Systems," ACS Meeting, Anaheim, March 1978.
5. Co-Chairman, Symposium on "Heat Transfer and Thermal Regulation in Living Systems," AIChE Meeting, Miami, November 1978.
6. Chairman, Symposium on "Structure-Property Relationships in Polymeric Networks" Parts I and II, AIChE Meeting, Boston, August 1979.
7. Co-Chairman, Symposium on "Structural Influences on the Deformation Behavior of Polymeric Solids and Melts," Part II, AIChE Meeting, Boston, August 1979.
8. Chairman, Symposium on "Food Packaging Materials and Their Properties," AIChE Meeting, Boston, August 1979.
9. Chairman, Symposium on "Transport Phenomena in Artificial Organs," AIChE Meeting, San Francisco, November 1979.
10. Co-Organizer of the 1980 Winter Symposium of ACS/IEC on "Applications of Molecular Models of Polymer Dynamics".
11. Organizer and Chairman, Symposium on "Undergraduate Research in Chemical Engineering," ASEE Meeting, Amherst, MA, June 1980.
12. Organizer and Member of the Advisory Committee of 1980 IUPAC Symposium on "Interrelations between Processing, Structure and Properties of Polymeric Materials," August 1980, Athens, Greece.
13. Chairman of Session on "Theoretical Rheology," 8th International Congress of Rheology, September 1980, Naples, Italy.
14. Chairman, Symposium on "Morphology, Structure and Interactions of Biomaterials," Part I-IV, AIChE Meeting, Chicago, November 1980.
15. Chairman, Symposium on "Diffusional and Relaxational Phenomena in Glassy Polymers," AIChE Meeting, Houston, March 1981.
16. Chairman of Session, 28th International IUPAC Meeting on Macromolecules, Strasbourg, France, July 1981.
17. Chairman, Symposium on "Engineering Approaches to Diabetes," AIChE Meeting, New Orleans, November 1981.
18. Chairman of Session, International Meeting of Membranes and Membrane Processes, Perugia, Italy, May 1982.
19. Member of the Organizing Committee and Chairman of Sessions on "Diffusion in Polymers," IUPAC Meeting on Macromolecules, Athens, Greece, August 1982.
20. Chairman, Symposium on "Diffusion in Polymers," Parts I and II, AIChE Meeting, Los Angeles, November 1982.
21. Vice-Chairman, Symposium on "Biomedical Transport Phenomena III - Membranes," AIChE Meeting, Los Angeles, November 1982.
22. Chairman of Session, International Symposium on Recent Advances in Drug Delivery Systems, Park City, Utah, March 1983.
23. Chairman of AX $\square$ Symposium in honor of E. W. Merrill, AIChE Meeting, Washington, D.C., November 1983.
24. Chairman of Session, Biointeractions 1984, London, England, January 1984.
25. Chairman of Session, Conference on Macromolecules as Drugs and as Carriers for Biologically Active Materials, New York Academy of Sciences, New York, March 1984.
26. Chairman of Session, Second World Congress of Biomaterials, Washington, D.C., May 1984.
27. Chairman of Session, 11th International Conference of Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 1984.
28. Chairman of Session, 9th International Conference on Rheology, Acapulco, Mexico, October 1984.
29. Chairman of Symposium "Characterization of Macromolecular Structures in Coals," ACS Meeting, Miami Beach, April 1985.
30. Chairman of Session, Symposium on Properties of Polymers and Drug Delivery, Swedish Academy of Pharmaceutical Sciences, Stockholm, Sweden, May 1985.

31. Member of the Organizing Committee, 2nd International Conference of Polymers in Medicine, Capri, Italy, June 3-7, 1985.
32. Technical Chairman and Organizer, 12th International Symposium on Controlled Release of Bioactive Materials, Controlled Release Society, Geneva, Switzerland, July 1985.
33. Chairman of Symposium on "Surface, Interfacial and Molecular Aspects of Polymer Bioadhesion on Soft Tissues," ACS Meeting, Chicago, September 1985.
34. Chairman of Symposium on "Morphology, Structure and Interactions of Biomaterials," Parts I, II, III and IV, AIChE Meeting, Chicago, November 1985.
35. Chairman of Symposium on "Controlled Release," International Biomedical Engineering Symposium, Salt Lake City, January 1986.
36. Chairman of Session on "Formes Nouvelles," Fourth International Conference on Pharmaceutical Technology, Paris, France, June 1986.
37. Chairman of Session on "Oral Systems," 13th International Conference of Controlled Release of Bioactive Materials, Norfolk, Virginia, August 1986.
38. Chairman of Session, 3rd International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1986.
39. Chairman, APGI Workshop on Matrix Systems, Paris, France, December 1986.
40. Chairman of Session on "Blood Compatibility," Biointeractions '87, Cambridge, United Kingdom, July 1987.
41. Chairman of Session on "Fundamentals," 14th International Conference on Controlled Release of Bioactive Materials, Toronto, Canada, August 1987.
42. Chairman of Symposium on "Diffusion in Polymers," Parts I, II and III, AIChE Meeting, New York, November 1987.
43. Chairman of Symposium on "Polymers in Microlithography," AIChE Meeting, New York, November 1987.
44. Chairman of Session, 15th International Conference on Controlled Release of Bioactive Materials, Basle, Switzerland, August 1988.
45. Chairman of Symposium on "Polymer Gels," AIChE Meeting, Washington, DC, November 1988.
46. Chairman of Session on "Drug Targeting," International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 1989.
47. Organizer and Chairman of International Symposium "Diffusion '89: The Theory and Applications of Diffusion in Biomedical, Pharmaceutical and Food Sciences," Parma, Italy, May 1989.
48. Chairman of Session on "Bioadhesive Applications," International CRS/APV Workshop on Bioadhesion-Possibilities and Future Trends, Leiden, The Netherlands, May 1989.
49. Chairman of Session on "Novel Formulations," Fifth International Conference on Pharmaceutical Technology, Paris, France, May 1989.
50. Chairman of Session on "Modelling," 16th International Conference on Controlled Release of Bioactive Materials, Chicago, Illinois, August 1989.
51. Organizer and Chairman of Symposium on "Biomaterials," AIChE Meeting, San Francisco, California, November 1989.
52. Chairman of Symposium on "Polymers in Microlithography," AIChE Meeting, San Francisco, California, November 1989.
53. Organizer and Chairman of Symposium on "Polymers as Biomaterials," ACS Meeting, Boston, Massachusetts, April 1990.
54. Organizer and Chairman of First International Workshop and Exhibition on Controlled Release in Consumer Products, Cincinnati, Ohio, October 1990.
55. Chairman of Session on "Biomaterials," USA-Czechoslovak Academy of Sciences Symposium on Novel Polymers, Prague, Czechoslovakia, December 1990.
56. Chairman of Session on "Triggered and Modulated Drug Delivery Systems," Fifth International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 1991.
57. Chairman of Session on "Hydrogels," 18th International Conference on Controlled Release of Bioactive Materials, Chicago, Illinois, July 1991.
58. Organizer and Chairman of Symposium on "Structure and Properties of Biomaterials," AIChE Meeting, Los Angeles, California, November 1991.

59. Organizer and Chairman of Symposium on "Diffusion in Polymers," AIChE Meeting, Los Angeles, California, November 1991.
60. Organizer and Chairman of Symposium on "Polymers as Biomaterials," ACS Meeting, San Francisco, California, April 1992.
61. Organizer and Chairman of Second International Workshop and Exhibition on Controlled Release in Consumer Products, Secaucus, New Jersey, May 1992.
62. Organizer and Chairman of Workshop on Pulsatile Drug Delivery Systems, Königswinter, Germany, May 1992.
63. Chairman of Symposium on "Bioadhesion" of Second Jerusalem Meeting on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, May 1992.
64. Organizer and Chairman of Symposium on "Bioadhesives," AIChE Meeting, Miami Beach, FL, November 1992.
65. Organizer and Chairman of "Polymers in Pharmaceutics," AAPS Meeting, San Antonio, TX, November 1992.
66. Chairman of Session on "Hydrogels," International Meeting on Prospectives of Biomaterials, Kaanapali, Hawaii, December 1992.
67. Organizer and Chairman of "Preparation and Characterization of Hydrogels," ACS Meeting, Denver, CO, March 1993.
68. Organizer and Chairman of the 20th International Symposium on Controlled Release of Bioactive Agents, Washington, DC, July 1993. Chairman of three sessions.
69. Organizer and Chairman of Symposium on "Superabsorbent Polymers," ACS Meeting, Chicago, IL, August 1993.
70. Chairman of Symposium on "Ophthalmic Applications of Polymers and Pharmaceuticals," ACS Meeting, Chicago, IL, August 1993.
71. Organizer of Biointeractions '93, Leiden, the Netherlands, August 1993.
72. Organizer and Chairman of Third International Workshop and Exhibition on Controlled Release in Consumer Products, Geneva, Switzerland, October 1993.
73. Organizer and Chairman of Symposium on "Poly(ethylene oxide) and Other Hydrogels," AIChE Meeting, St. Louis, MO, November 1993.
74. Organizer and Chairman of Symposium on "Biomaterials for Drug and Cell Delivery," MRS Meeting, Boston, MA, December 1993.
75. Chairman of Symposium, Second US-Japan Meeting on Drug Delivery, Maui, HI, December 1993.
76. Chairman of Session on "Controlled Release," 20th Annual Meeting of the Society for Biomaterials, Boston, MA, April 1994.
77. Chairman of Session on "Drug Delivery," 11th Congress of the International Society for Artificial Cells, Blood Substitutes and Immobilization Biotechnology, Boston, MA, July 1994.
78. Chairman of Session on "Hydrogels," Society for Biomaterials Meeting, San Francisco, CA, March 1995.
79. Organizer and Chairman of Symposium on "Polymer/Inorganic Interfaces," Materials Research Society Meeting, San Francisco, CA, April 1995.
80. Chairman of Session on "Biomedical Polymers," Kagoshima, Japan, April 1995.
81. Chairman of Session on "Microparticles," World Conference on Pharmaceutical Technology, Budapest, Hungary, May 1995.
82. Chairman of Session on "Oral Delivery," First Spanish Portuguese Conference on Controlled Drug Delivery, Santiago de Compostela, Spain, September 1995.
83. Organizer and Chairman of Sessions on "Diffusion in Polymers," AIChE Meeting, Miami Beach, FL, November 1995.
84. Chairman of Session on "Drug Delivery," World Congress of Biomaterials, Toronto, Ontario, May 1996.
85. Chairman of Session on "Hydrogels," 23rd International Conference on Controlled Release of Bioactive Materials, Kyoto, Japan, July 1996.
86. Chairman of Session on "Biomedical Applications of Polymers," AIChE Meeting, Chicago, IL, November 1996.
87. Chairman of Session on "Cellular Interactions of Biomaterials," AIChE Meeting, Chicago, IL, November 1996.

88. Organizer and Chairman of Symposium on "New Biomaterials for Drug Delivery Applications," Society for Biomaterials Meeting, New Orleans, LA, April 1997.
89. Organizer and General Chairman of Topical Conference on "Biomaterials, Carriers for Drug Delivery and Scaffolds for Tissue Engineering," AIChE Meeting, Los Angeles, CA, November 1997.
90. Chairman of Session on "Drug Delivery," 4th US-Japan CRS Meeting, Kauai, HI, December 1997.
91. Chairman of Session on "Drug Delivery," 24th Annual Meeting of the Society for Biomaterials, San Diego, CA, April 1998.
92. Chairman of Session on "Biofunctional Polymers in Drug Delivery," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 1998.
93. Chairman of Session on "Drug Delivery," 9th International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1998.
94. Chairman of Session, US-Turkey-Israel Conference on Chemical Engineering, Haifa, Israel, March 1999.
95. Chairman of Symposium on "Synthesis and Characterization of Polymers for Biomaterials and Drug Delivery Carriers," ACS Meeting, Anaheim, CA, March 1999.
96. Chairman of Symposium on "Drug Delivery in the Third Millennium," Pisa, Italy, October 1999.
97. Chairman of Sessions on "Drug Delivery," World Congress of Biomedical Engineering, Chicago, IL, July 2000.
98. Chairman of Session on "Chemical Engineering in Medicine and Biology: Forty Years of Successes," AIChE Meeting, Los Angeles, CA, November 2000.
99. Chairman of Session on "Polymer Design and Drug Delivery," Meeting on New Trends in Polymers for Oral and Parenteral Administration, APGI/GRTV, Paris, France, March 2001.
100. Chairman of Session on "Ophthalmological Biomaterials," Society for Biomaterials meeting, St. Paul, MN, April 2001.
101. Chairman of Session on "Oral Delivery," 6th US-Japan Symposium on Drug Delivery Systems, Lahaina, Maui, HI, December 2001.
102. Chairman of Sessions on "Biomimetic Materials," Society for Biomaterials Meeting, Tampa, FL, April 2002.
103. Chairman of Session on "Biomaterials," ACS Prospectives Meeting, Boston, MA, October 2002.
104. Chairman of Symposium on "Bionanotechnology," AIChE Meeting, Indianapolis, IN, November 2002.
105. Chairman of Symposium on "Nanotechnology in Drug Delivery", BioMEMS and NanoTech World meeting, Washington, DC, August 2003.
106. Chairman of Symposium on "Bionanotechnology," AIChE Meeting, San Francisco, CA, November 2003.
107. Chairman of Symposium on "Intelligent Biomaterials", European Materials Research Society, Warsaw, Poland, September 2004.
108. Chairman of Plenary Session of Meeting on "Biomaterials in Regenerative Medicine: the Advent of Combination Products", Society for Biomaterials, Philadelphia, PA, October 2004.
109. Chairman of Plenary Session on "Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering": AIChE Meeting, Austin, TX, November 2004.
110. Chairman of Symposium on "Nanobiotechnology", AIChE Meeting, Austin, TX, November 2004.
111. Chairman of Symposium on "Transport of Biomaterial/Bionanotech Devices Through Biological Barriers", AIChE Meeting, Austin, TX, November 2004.
112. Organizer and Chairman, Symposium on "Bionanotechnology" on Topical Conference on Bionanotechnology, AIChE Meeting, Austin, TX, November 2004
113. Chairman of Symposium on "Nanotechnology and Biomaterials", Society for Biomaterials, Memphis, TN, April 2005.
114. Chairman of Symposium on "Polymer Gels", European Polymer Congress, Moscow, Russia, June 2005.
115. Chairman of Symposium on "Biomaterials", Houston Society for Engineering in Biology and Medicine, Houston, TX, February 2006
116. Chairman of Plenary Session of "US-Japan Joint Topical Conference on Medical Engineering, Drug Delivery Systems and Therapeutic Systems", AIChE Meeting, San Francisco, CA, November 2006.

117. Chairman of Symposium on the 65th Birthday of Prof. Clark Colton, AIChE Meeting, San Francisco, CA, November 2006.
118. Chairman, Symposium on “Bionanotechnology” of the Conference on Bionanotechnology, AIChE Meeting, Austin, TX, November 2007
119. Chairman of Symposium at the 9th US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2007.
120. Chairman of Symposium on “Novel Chemistry” of the Fourteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2009.
121. Chair, Symposium on Translation of Knowledge, 18th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2009.
122. Chairman of Symposium on Hydrogels, Fifteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2011
123. Chairman, National Academy of Engineering Meeting, Engineering the Future of Health Care, Austin, TX, April 2011
124. Chairman, Session at the 10th US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2011.
125. Chairman, Symposium on “Innovations in Medical and Biological Engineering”, Annual Meeting of the American Institute of Medical and Biological Engineering, Washington, DC, February 20, 2012.
126. Chairman, Symposium, Workshop on Key Challenges in the Implementation of Convergence, National Research Council, Washington, DC, February 16, 2013.
127. Chairman, Session at the 12th US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2013.
128. Chairman, Symposium on “Integrated Cellular Systems: Building Machines with Cells”, Annual AAAS meeting, Chicago, IL, February 2014.
129. Chairman, Symposium on “Drug Delivery”, European Society for Biomaterials meeting, Krakow, Poland, September 2015.
130. Chairman, Session at the 13th US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2015.
131. Chairman, Symposium on “Biomaterials”, Annual TAMEST meeting, Dallas, TX, 2016.
132. Chairman, Symposium on the “Future of Biomaterials”, European Society for Biomaterials meeting, Athens, Greece, 2017.
133. Chairman, Session at the 14th US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2017.

Federal Review Panels

1. National Institutes of Health, Biomedical Engineering Centers, October 1977.
2. National Institutes of Health, Arteriosclerosis Centers, April 1981.
3. National Science Foundation, Bureau of Engraving and Printing Panel, October 1987.
4. National Institutes of Health, Surgery & Bioengineering, Study Section, 1987-88.
5. National Institutes of Health, Surgery & Bioengineering Study Section, 1990-91.
6. National Institutes of Health, Surgery, Anesthesiology and Trauma Panel, August 1991.
7. National Institutes of Health, Small Business Administration, 1992-93.
8. National Science Foundation Fellowships, February 1992.
9. National Science Foundation Fellowships, February 1993.
10. National Science Foundation Fellowships, February 1995.
11. National Science Foundation, Technology for a Sustainable Environmental Panel, June 1995.
12. National Institutes of Health, SBIR Review Board, March 1996.
13. National Institutes of Health, SBIR Review Board, October 1998.
14. National Science Foundation, IGERT Program, June 1999.
15. National Institutes of Health, Surgery & Bioengineering Study Section, June 1999.
16. Nanotechnology Technical Advisory Group to the President's Council of Advisors on Science and Technology, 2003-06
17. National Research Council Committee on "International Benchmarking of US Chemical Engineering Research Competitiveness", 2006-07.
18. National Institutes of Health, Challenge Grants, 2009
19. National Research Council, Key Challenges in the Implementation of Convergence, Washington, DC, February, 2013.
20. National Science Foundation Fellowships, Fall, 2015, Fall 2016, Fall 2017.

Reviewer of proposals for Research Foundations in Austria, Belgium, Germany, Japan, Portugal, Russia, Singapore, Spain, Switzerland, UK.

Participant or panelist in numerous NSF, NIH and DOE panels for review of proposals, definition of research directions and other subjects

Lecturer

Lecturer of an one-week industrial course (20.02s) on "Controlled Release Technology" at M.I.T. (August 1980, August 1981, August 1982, July 1983, July 1984, July 1985, July 1986, July 1986, July 1987, June 1988, July 1989, June 1990, July 1991, August 1992, June 1993, July 1994, July 1995, June 1996; July 1997; July 1998; July 1999; June 2000; June 2001; June 2002; June 2003; July 2004; July 2005; July 2006; July 2007; June 2008; July 2009; July 2010; July 2011; July 2012; July 2013; July 2014; June 2015; June 2016; July 2017; July 2018); in Brussels, Belgium (May 1983); in Vienna, Austria (June 1984); in Paris, France (April 1986); in Copenhagen, Denmark (June 1988).

Lecturer of the industrial course on "Structure and Properties of Polymeric Materials" at Purdue (August 1984, June 1985, December 1985, May 1986, May 1987, April 1988, July 1989, April 1990, May 1991); in Indianapolis (June 1992); in Geneva, Switzerland (May 1987); in Pavia, Italy (May 1988); in Parma, Italy (October 1993).

Lecturer of the Industrial Course on "Hydrogels in Biomedical and Pharmaceutical Applications" in Indianapolis (April 1991); at Purdue (May 1992).

Lecturer of Controlled Release Society workshop at Ft. Lauderdale (July 1984), Toronto (August 1987).

Lecturer of Controlled Release Society workshop on Consumer Products at Cincinnati (October 1990).

Lecturer of Controlled Release Society workshop on Biomaterials at West Palm Beach (January 1992).

Lecturer of Controlled Release Society workshop on Consumer Products at Secaucus, NJ (May 1992).

Lecturer of Controlled Release Society workshop on Consumer Products at Geneva, Switzerland (October 1993).

Lecturer of Controlled Release Society workshop on Consumer Products at Chicago, IL (September 1994).

Lecturer of Controlled Release Society workshop on Development of Hydrogel Dosage Forms at Kyoto, Japan (July 1996).

Lecturer of Controlled Release Society workshop on Protein/Peptide Controlled-Release Delivery at Baltimore (August 1996).

Lecturer in Advanced Tissue Engineering course, Rice University, Houston, TX (August 2007).

Lecturer of Biomedical Nanotechnology Course, Tecnológico de Monterrey, Monterrey, Mexico (October 2008).

Lecturer of Controlled Release workshop, Kimberly Clark, Neenah, WI (October 2012).

Lecturer on workshop Fundamentals and Applications of Controlled Release and Drug Delivery, University of Belgrade, Belgrade, Serbia (May 2013).

Teaching at the University of Texas

ChE 379/384 (U/G): "Polymerization Kinetics and Reaction Engineering," Spring 2003.

ChE 384 (G): "Topics in Polymer Science and Engineering," Summer 2003 (a few lectures).

BME 385J (G): "Fields, Forces and Flows in Cellular and Physiological Systems", Fall 2003.

ChE 384 (G): "Advances in Biomedical Engineering", Fall 2003.

ChE 387M (G): "Mass Transfer", Spring 2004.

ChE 384 (G): "Advances in Biomedical Engineering", Spring 2004.

BME 385J.34 (G): "Advances in Biomaterials Science and Engineering", Fall 2004.

ChE 384 (G): "Advances in Biomedical Engineering", Fall 2004.

ChE 322 (U): "Chemical Engineering Thermodynamics", Spring 2005.

ChE 384 (G): "Advances in Biomedical Engineering", Spring 2005.

BME 380J.2 (G): "Quantitative Physiology", Fall 2005.

ChE 384 (G): "Advances in Biomedical Engineering", Fall 2005.

ChE 372 (U): "Kinetics and Reaction Engineering", Spring 2006.

ChE 384 (G): "Advances in Biomedical Engineering", Spring 2006.

BME 385J.34 (G): "Advances in Biomaterials Science and Engineering", Fall 2006.

ChE 372 (U): "Kinetics and Reaction Engineering", Spring 2007.

ChE 384 (G): "Polymerization Kinetics and Reaction Engineering", Spring 2007.

ChE 355 (U): "Introduction to Polymer Science", Fall 2007.

ChE 384 (G): "Advances in Biomedical Engineering", Fall 2007.

BME 385J (G) and ChE 384 (G): “Bionanotechnology”, Spring 2008.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2008.
 ChE 355 (U): “Introduction to Polymer Science”, Fall 2008.
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2008.
 BME 382J.4 (G): “Advances in Biomaterials Science and Engineering”, Spring 2009.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2009.
 ChE 355 (U): “Introduction to Polymer Science”, Fall 2009.
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2009.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2010.
 BME 382J.4 and ChE 384 (G): “Advances in Biomaterials Science and Engineering”, Fall 2010
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2010.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2011.
 BME 382J.4 and ChE 384 (G): “Advances in Biomaterials Science and Engineering”, Fall 2011
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2011.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2012.
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2012.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2013.
 BME 385J and ChE 384 (G): “Fields, Forces and Flows in Cellular and Physiological Systems”, Fall 2013.
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2013.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2014.
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2014.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2015.
 ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2015.
 ChE 379/384 (U/G): "Polymerization Kinetics and Reaction Engineering," Spring 2016.
 ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2016.
 BME 382J/ChE 384T (G): “Advances in Biomaterials Science and Engineering”, Fall 2016.
 ChE 372 (U): “Kinetics and Reaction Engineering”, Spring 2017.
 BME 380J4/ChE 384T (G): “Fields, Forces and Flows in Cellular and Physiological Systems”, Fall 2017.
 ChE 355 (U)/CH 367L(U)/ChE392P: “Introduction to Polymer Science”, Spring 2018; also as graduate course.
 BME 382J/ChE 384T (G): “Advances in Biomaterials Science and Engineering”, Fall 2018.
 BME 382 (G): “Advanced Controlled Drug Delivery”. Fall 2018.
 ChE 372 (U): “Kinetics and Reaction Engineering”, Spring 2019
 BME 382J/ChE 384T (G): “Advances in Biomaterials Science and Engineering”, Fall 2019.
 BME 382 (G): “Advanced Controlled Drug Delivery”. Fall 2019.
 ChE 372 (U): “Kinetics and Reaction Engineering”, Spring 2020

At UT, Peppas designed and taught eight new courses ChE 379/384, ChE 387M, ChE 322, ChE 372, BME 385J, BME 385J.34, BME 380J.2, ChE 355 and 385J. Of these five are new courses not previously offered at UT (ChE 379/384, BME 385J, BME 385J.34, BME 380J.2 and 385J).

Teaching at Purdue University

ChE 542 (U/G): "Chemistry and Engineering of High Polymers," Spring, 1977.
ChE 624 (G): "Mass Transfer," Fall 1977.
ChE 529 (U/G): "Advanced Chemical Processes," Spring 1978.
ChE 544: "Structure and Properties of Polymeric Materials," Spring 1978.
ChE 311 (U): "Introductory Chemical Engineering Thermodynamics," Fall 1978.
ChE 529 (U/G): "Advanced Chemical Processes," Spring 1979.
ChE 543 (U/G): "Polymerization Reaction Engineering," Fall 1979.
ChE 597H (U/G): "Biomedical Engineering," Fall 1979.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1980.
ChE 439 (U): "Reaction Kinetics and Chemical Equilibrium," Fall, 1980.
ChE 597N (U/G): "Mechanical Behavior and Processing of Polymer Solids and Fluids," Spring 1981.
ChE 624 (G): "Mass Transfer," Fall 1981.
ChE 561 (U/G): "Biomedical Engineering," Fall 1977, Fall 1978, Fall 1980, Fall 1981, Fall 1983, Fall 1984.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1982.
ChE 697M (G): "Biomedical Phenomena," Spring 1982.
ChE 624 (G): "Mass Transfer," Fall 1983.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1984.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1984.
ChE 378 (U): "Heat and Mass Transfer," Fall 1984.
ChE 529 (U/G): "Advanced Chemical Processes," Spring 1985.
ChE 543 (U/G): "Polymerization Reaction Engineering," Fall 1985.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1986.
ChE 450 (U): "Design and Analysis of Processing Systems," Spring 1986.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1987.
ChE 306 (U): "Design of Staged Separation Processes," Fall 1987.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1988.
ChE 610 (G): "Thermodynamics," Fall 1988.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Spring 1989.
ChE 378 (U): "Heat and Mass Transfer," Fall 1989.
ChE 450 (U): "Design and Analysis of Processing Systems," Spring 1990.
ChE 543 (U/G): "Polymerization Reaction Engineering," Fall 1990.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1991.
ChE 697M (G): "Biomedical Phenomena," Spring 1991.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Fall 1991.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1992.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Fall 1992.
ChE 697Z (G): "Fundamentals of Controlled Release and Pharmaceutical Engineering," Spring 1993.
ChE 597H (U): "Honors Seminar," Spring 1993.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Fall 1993.
ChE 597H (U): "Honors Seminar," Fall 1993.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Fall 1994.
ChE 597H (U): "Honors Seminar," Fall 1994.
ChE 543 (U/G): "Polymerization Reaction Engineering," Spring 1995.
ChE 597H (U): "Honors Seminar," Spring 1995.
ChE 544(U/G): "Structure and Properties of Polymeric Materials," Fall 1995.
ChE 597H (U): "Honors Seminar," Fall 1995.
ChE 697M (G): "Biomedical Phenomena," Spring 1996.
ChE 610 (G): "Thermodynamics," Fall 1996.
ChE 597H (U): "Honors Seminar," Fall 1996.
BME 601(G): "Principles of Biomedical Engineering I," Fall 1996.
ChE 660 (G): "Kinetics and Reaction Engineering," Spring 1997.
ChE 644 (G): "Macromolecular Analysis," Fall 1997

BME 602(G): "Principles of Biomedical Engineering II," Spring 1998.
 ChE 660 (G): "Kinetics and Reaction Engineering," Spring 1998.
 ChE 610 (G): "Thermodynamics," Fall 1998.
 ChE 697A (G): "Polymer Science and Engineering," Fall 1998.
 ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Spring 1999
 ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Fall 1999
 ChE 697C (G): "Biomaterials Science and Engineering," Fall 1999.
 ChE 658 (G): "Biomedical Phenomena," Spring 2000.
 ChE 378 (U): "Heat and Mass Transfer," Fall 2000.
 ChE 306 (U): "Design of Staged Separation Processes," Fall 2001.
 BME 695T (G): "Biomaterials Science and Engineering," Fall 2001.
 BME 696I (G): "IGERT Seminar," Fall 2001.
 ChE 543 (U/G): "Polymerization Reaction Engineering," Spring 2002.
 BME 696I (G): "IGERT Seminar," Spring 2002.
 ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Fall 2002.

At Purdue Peppas designed and taught sixteen new courses not previously given there (ChE 303, ChE 543, ChE 544, ChE 597H, ChE 597N, ChE 644, ChE 658, ChE 644, ChE 658, ChE 697A, ChE 697C, ChE 697D, ChE 697M, ChE 697Y, BME 601, BME 602 and BME 696I). In addition, he modified extensively courses ChE 529 and ChE 624. He has taught, ChE 306 (2 times), 311(1), 378 (3), 348 (6), 450 (2), 529 (3), 542 (1), 543 (5), 544 (9), 597H (7), 597N (1), 610 (3), 624 (3), 644 (1), 658 (1), 660 (2), 697A (1), 697C (1), 697M (3), 697Y (4), 697Z (1), and BME 601 (1), 602 (1), 695T (1), 696I (2).

"Fundamentals of Polymer Science: Macromolecular Chemistry and Physics," Fall 1982. Course taught at Faculty of Sciences, University of Geneva, Switzerland.

"Advances in Polymer Science," Spring 1983. Series of 20 lectures given at the Department of Chemical Engineering, California Institute of Technology, Pasadena, California.

"Mathematical and Molecular Analysis of Diffusion in Polymers," Fall 1986. Series of 9 lectures given at the Department of Pharmacy, University of Paris-Sud, Châtenay-Malabry, France.

"Diffusion Theory," December 1986. Series of 16 lectures given at the Department of Chemical Engineering, Hacettepe University, Ankara, Turkey.

"Structure Properties and Applications of Polymeric Materials in Pharmaceutical Technology," May 1988 and October 1993. Series of 12 lectures given at the Faculty of Pharmacy, University of Parma, Parma, Italy.

Series of lectures given at the Faculty of Pharmacy, Hoshi University, Tokyo, Japan, Spring 1994.

"Diffusion in Polymers," May 1996. Series of 5 lectures given at the Department of Materials Science, University of Naples, Naples, Italy.

"Use of Hydrogels in Drug Delivery," May 1996. Series of 8 lectures at the Department of Pharmacy, University of Naples, Naples, Italy.

"Controlled Release Technology," January and May 2001. Series of 10 lectures at the Department of Pharmacy, Free University of Berlin, Berlin, Germany.

"Controlled Release Technology: Recent Advances in Carrier Selection, Formulation, Release Modelling, Cellular and in Vivo Behavior," March 2001. Series of 8 lectures at the School of Pharmacy, Complutense University, Madrid, Spain.

Series of six lectures at the Department of Materials Science, Nanyang Technological University, Singapore.

Lecture on “Molecularly-Imprinted Matrices and Scaffolds for Tissue Engineering” in Advanced Tissue Engineering course, Rice University, 2007.

“Fundamentals and Applications of Controlled Release and Drug Delivery”, May 2013. Series of 7 lectures at the School of Pharmacy, University of Belgrade, Belgrade, Serbia.

“Fundamentals and Applications of Biopolymers in Medical Applications and Drug Delivery”. March 22-26, 2015. Series of 12 lectures at Sichuan University, Chengdu, China,

“Fundamentals and Applications of Biopolymers in Medical Applications”. September 16, 2017. Series of 6 lectures at Sichuan University, Chengdu, China,

Service at the University of Texas

1. Evolution of ChE Committee, Chair, Chemical Engineering, 2003-04.
2. Review of Curriculum Committee, Chemical Engineering, 2003-05.
3. Graduate Committee, Biomedical Engineering, 2003-09.
4. Accreditation and Assessment Committee, College of Engineering, 2003-05.
5. Degrees and Courses Committee, College of Engineering, 2003-04.
6. Executive Committee, Biomedical Engineering, 2003-05.
7. Undergraduate Curriculum Committee, Biomedical Engineering, 2003-05.
8. Intellectual Property Committee, University, 2003-09.
9. Awards Committee, Biomedical Engineering, Chair, 2004- .
10. Awards Committee, Chemical Engineering, 2003- .
11. Research Excellence Awards Committee, University-wide, 2004- .
12. Various Qualifying Examination Committees, Chemical Engineering, since 2003.
13. Chair, Area 2, Health Care, Startegic Plan, School of Engineering, 2009- .
14. Chair, BME-Law School Committee, 2010- .
15. Chair, Recruiting Committee, Biomedical Engineering, 2010- .
16. Various Medical School Committes, 2013- .
17. Chair, Engineering-wide Medical School Committee, 2013- .
18. Member, Chief of Surgery Recruitment Committee, DMS, 2014.
19. Member, Research Committee, Department of Surgery, 2016- .
20. **Member, Promotions & Tenure Committee, CSE (2016-2018).**
21. **Member, Executive Committee, Department of Pediatrics, 2016- .**
22. **Member, Tenure Committee, Department of Pediatrics, 2016- .**
23. Member, Research Committee, Department of Pediatrics, 2016- .
24. Member, Research Committee, Department of Surgery, 2016- .
25. Curriculum Committee, Chemical Engineering, 2019-

Service at Purdue University

1. Dean's Advisory Committee, Schools of Engineering, 2002.
2. Dean's Research Enterprise Committee, Chair, School of Engineering, 2002.
3. Joint Committee of the Biomedical Engineering Program, 1996-02.
4. Chairman, Graduate Committee, Department of Biomedical Engineering, 1998-02.
5. Chairman, Qualifying Examinations, Department of Biomedical Engineering, 2000-02.
6. Member, Committee for McCoy Award, 2000-02.
7. Chairman, Sigma Xi Chapter, Purdue University, 1995-96.
8. Vice Chairman, Sigma Xi Chapter, Purdue University 1994-95.
9. Controlled Release Society Student Chapter, Advisor 1993-02.
10. Senator of Purdue University, June 1985-May 1988; June 1991-December 1993; Nominating Committee, June 1986-May 1988; Steering Committee, May-December 1993.
11. Committee on Faculty Relations, August 1990-June 1993.
12. New Directions Committee, August 1990-August 1998.
13. Committee on Internationalization of Purdue, April 1989-January 1990.
14. Purdue Engineer Magazine, Student Advisor, May 1989-May 1991.
15. In charge of Honors Program, September 1985-August 1987; September 1990-02.
16. Chemical Engineering Undergraduate Committee, September 1976-December 1979, August 1987-June 1990, August 1996-June 1998.
17. Chemical Engineering Graduate Committee, January 1980-August 1982; September 1985-June 1986, September 1990-02.

18. Chemical Engineering, Faculty Recruiting Committee, September 1977-August 1981; September 1983-August 1985; January 1987-02.
19. Chemical Engineering Seminars, August 1979-May 1982; May 1983-May 1984; January 1986-May 1986.
20. Editor of Purdue University, Chemical Engineering Graduate Brochure of 1980, 1981, 1982, 1983, 1985, 1987, 1989, 1991, 1998.
21. Chemical Engineering, Awards Committee, September 1983-May 1986, January 1987-02.
22. Committee for 75th Anniversary of ChE School, September 1984-June 1986.
23. AIChE Student Chapter Counselor, June 1977-August 1982; June 1983-August 1985; January 1987-August 1987; August 1988-May 1993.
24. SPE Student Chapter Founder and Counselor, September 1978-August 1982; June 1983-August 1984.
25. Sigma Xi Chemical Engineering Representative, August 1983-93.
26. Engineering Library Coordinating Committee, September 1977-June 1979.
27. Engineering Academic Personnel Grievance Committee, September 1978-June 1980; Chairman 1978-79.
28. Engineering-Chemistry Liaison Committee, January 1980-August 1982.
29. Hellenic Student Association Counselor, September 1977-September 1979.
30. Faculty Fellow, Harrison Hall, August 1978-June 1979.

Current Research Interests: Polymers, Materials and Nanotechnology

Diffusion in Polymers, Composites, Mathematical Modeling and Membrane Science

- Multicomponent diffusion through membranes and polymer films.
- Anomalous diffusion in polymers.
- Physical chemistry of macromolecular networks.
- Controlled release theory and applications.
- Gel interactions
- Polymer/polymer interpenetration

Polymerization Kinetics and Reaction Engineering

- Kinetics of multimethacrylate polymerizations
- Reaction engineering of fast UV-curing reactions
- UV-crosslinkable polymers

Polymer Dissolution: Microelectronics and Optical Applications

- Etching on polymers
- Positive resists
- Polymer dissolution
- Mathematical modeling

Current Research Interests: Biomedical Engineering

Bionanotechnology

- Microfabricated devices
- Intelligent therapeutic systems
-

Controlled Drug Delivery

- Drug delivery
- Peptide and protein release systems
- Buccal and sublingual release devices
- Nasal formulations
- Modulated release using oral controlled release devices
- Temperature and pH-sensitive systems
- Mucoadhesive controlled release systems

Biomaterials

- Non-thrombogenic biopolymers
- Contact and intraocular lens materials
- Artificial articular cartilage

Biointerfacial Phenomena

- Protein adsorption on polymer surfaces
- Bioadhesive systems
- Blood/polymer interactions

Nanotechnology

- Targeted nanoparticles
- Molecular recognition principles
- Recognitive systems

Books

1. S.L. Cooper, N.A. Peppas, A.S. Hoffman, and B. Ratner, editors: *Biomaterials: Interfacial Phenomena and Applications*, Advances in Chemistry Series, Volume 199, American Chemical Society, Washington, D.C., 1982, 539 pages.
2. N.A. Peppas: *Structure and Properties of Polymeric Materials*, Purdue University, 1984, 185 pages.
3. N.A. Peppas and R.J. Haluska, editors: *Proceedings of the 12th International Symposium on Controlled Release of Bioactive Materials*, CRS, Lincolnshire, IL, 1985, 375 pages.
4. N.A. Peppas: *History of the School of Chemical Engineering*, Purdue University, 1986, 378 pages.
5. N.A. Peppas: *Hydrogels in Medicine and Pharmacy, Vol. 1. Fundamentals*, CRC Press, Boca Raton, FL, 1986, 180 pages.
6. N.A. Peppas: *Hydrogels in Medicine and Pharmacy, Vol. 2. Polymers*, CRC Press, Boca Raton, FL, 1987, 172 pages.
7. N.A. Peppas: *Hydrogels in Medicine and Pharmacy, Vol. 3. Properties and Applications*, CRC Press, Boca Raton, FL, 1987, 196 pages.
8. A. Gürsoy, B. Dortunc, E. Piskin and N.A. Peppas: *Controlled Release Technology*, Ciba-Geigy, Istanbul, Turkey, 1989, 333 pages.
9. N.A. Peppas: *One Hundred Years of Chemical Engineering*, Kluwer, Dordrecht, The Netherlands, 1989, 414 pages.
10. N.A. Peppas and R.S. Langer, editors: *Biopolymers I*, published as *Advances in Polymer Science*, 109 (1993) 272 pages
11. R. Gurny, H. Junginger and N.A. Peppas: *Pulsatile Drug Delivery: Current Applications and Future Trends*, Wissenschaftliche, Stuttgart, Germany, 1993, 186 pages.
12. T.J. Roseman, N.A. Peppas and H.L. Gabelnick, editors: *Proceedings of the 20th International Symposium on Controlled Release of Bioactive Materials*, CRS, Deerfield, IL, 1993, 513 pages.
13. A.G. Mikos, R. Murphy, H. Bernstein and N.A. Peppas, editors: *Biomaterials for Drug and Cell Delivery*, Materials Research Society, Pittsburgh, PA 1994, 290 pages.
14. F. Buchholz and N.A. Peppas, editors: *Superabsorbent Polymers: Science and Technology*, ACS Symposium Series, Volume 573, American Chemical Society, Washington, DC, 1994, 148 pages
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16. L. Drzal, R. Opila, N.A. Peppas and C. Schutte, editors: *Polymer/Inorganic Interfaces*, Materials Research Society, Pittsburgh, PA, 1995, 254 pages.
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18. D.L. Wise, L. Brannon-Peppas, A.M. Klibanov, R.L. Langer, A.G. Mikos, N.A. Peppas, D.J. Trantolo, G.E. Wnek, and M.J. Yaszemski, editors: *Handbook of Pharmaceutical Controlled Release Technology*, Dekker, New York, NY, 2000, 890 pages.
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21. N.A. Peppas and J.Z.Hilt, editors, *Advances in Bionanotechnology*, AIChE, New York, NY, 2005, 266 pages.
22. N.A. Peppas, A. S. Hoffman, T. Kanamori and K. Tojo, editors, *Advances in Medical Engineering, Drug Delivery Systems and Therapeutic Systems*, AIChE, New York, 2006, 342 pages.

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3. N.A. Peppas and J. Petropoulos, editors: *Special IUPAC Issue*, published as *J. Membr. Sci.*, 15, No.2, (1983), 78 pages.
4. D.J. Graves and N.A. Peppas, editors: *Special Issue Honoring E.W. Merrill*, published as *Chem. Eng. Commun.*, 30, No.3-5, (1984), 310 pages.
5. S.L. Cooper and N.A. Peppas, editors: *Biomaterials Research*, published in *Biomaterials*, 7, No.5 (1986), 58 pages.
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7. A.B. Scranton and N.A. Peppas, *Modern Hydrogel Delivery Systems*, published as *Advances in Drug Delivery Reviews*, 11 (1993), 200 pages.
8. C.M. Caramella, P. Colombo and N.A. Peppas, *Special Issue Honoring A. La Manna*, published as *Europ. J. Pharm. Biopharm.*, 4, No.4, (1994), 54 pages.
9. J. Siepmann and N.A. Peppas, editors: *Mathematical Modeling of Controlled Drug Delivery*, published as *Advances in Drug Delivery Reviews*, 48 (2001), 250 pages.
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3. N.A. Peppas and E.W. Merrill: "Creep Behavior of Partially Crystalline PVA Hydrogels," *Techn. Chron.*, **43**, 559-568 (1974), in Greek.
4. N.A. Peppas and G.N. Valkanas: "Aspects of the Synthesis and the Properties of Linear Poly-2, 5-dimethylbenzylenes," *J. Polym. Sci., Polym. Chem.*, **12**, 2567-2579 (1974).
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24. N.A. Peppas: "Hydrogels for Synthetic Articular Cartilage Applications," *SPE Techn. Papers (NATEC)*, 62-63 (1977).
25. N.A. Peppas and T.W.B. Gehr: "New Hydrophilic Copolymers for Biomedical Applications," *Trans. Amer. Soc. Artif. Intern. Org.*, **24**, 404-410 (1978).

26. R. Khanna and N.A. Peppas: "Mathematical Analysis of Transport Properties of Flexible Films in Relation to Food Storage Stability. I. Water Vapor Transport," *SPE Techn. Papers NATEC*, 56-58 (1978).
27. P.J. Hansen and N.A. Peppas: "Crystallization During Weathering of Packaging Films: I. Polymers with Kinetic Hindrance for Crystallization," *SPE Techn. Papers (NATEC)*, 59-63 (1978).
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31. N.A. Peppas: "Generalized Method of Prediction of Mean Activity Coefficients of Polyelectrolytes in Aqueous Solutions," *Proc. IUPAC*, 26, 827-830 (1979).
32. R.A. Sorensen and N.A. Peppas: "Transport of Macromolecules through Model Polymeric Networks," *Proc. IUPAC*, 26, 1108-1110 (1979).
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170. N.A. Peppas: book review of “Biopolymers for Medical And Pharmaceutical Applications”, by A. Steinbüchel and R.H. Marchessault, eds, *Adv. Materials*, 18, 2487 (2006).

Presentations in National and International Meetings

1. "Kinetics of the Crystallization of Crosslinked PVA Films by Slow Evaporation of Hydrogels," 172nd National American Chemical Society Meeting, San Francisco, California, August 29 - September 3, 1976, (P).
2. "Novel Methods of Production of Crosslinked and Grafted Polystyrene with Improved Thermal Properties," 172nd National American Chemical Society Meeting, San Francisco, California, August 29 - September 3, 1976, (P).
3. "Transport of Albumin Across the Aortic Wall During Angiotensin-Induced Hypertension," 29th Annual Conference on Engineering in Medicine and Biology, Boston, Massachusetts, November 11, 1976, (A), *.
4. "Development of New PVA Biomembranes," 173rd National American Chemical Society Meeting, New Orleans, Louisiana, March 25, 1977, (P).
5. "Hydrogels for Synthetic Articular Cartilage Applications," Society of Plastics Engineers National Meeting (NATEC), Denver, Colorado, November 8, 1977, (P).
6. "Chain Entanglements and Microcrystallinity in Plasticized Poly(vinyl chloride)," 70th Annual AIChE Meeting, New York, New York, November 15, 1977, (P).
7. "The Effect of Angiotensin II in *In-vivo* Albumin Transport in Normal Rabbit Aortic Tissue," 70th Annual AIChE Meeting, New York, November 15, 1977, (P).
8. "New Hydrophilic Copolymers for Biomedical Applications," 24th Annual American Society for Artificial Internal Organs Meeting, Chicago, Illinois, April 28, 1978, (P).
9. "Novel Methods of Polymerization and Crosslinking of Styrene," 71st Annual AIChE Meeting, Miami, Florida, November 13, 1978, (P).
10. "A Reaction Engineering Approach to a Course in Industrial Chemistry," 71st Annual AIChE Meeting, Miami, Florida, November 13, 1978, (P).
11. "Does Undergraduate Research Contribute to a Chemical Engineering Curriculum?," 71st Annual AIChE Meeting, Miami, Florida, November 14, 1978, (P).
12. "Crystallization During Weathering of Packaging Films," Society of Plastics Engineers National Meeting, Chicago, Illinois, November 15, 1978, (P), *.
13. "Mathematical Analysis of Transport Properties of Flexible Fibers in Relation to Food Storage Stability. I. Water Vapor Sorption," Society of Plastics Engineers National Meeting, (NATEC), Chicago, Illinois, November 15, 1978, (P), *.
14. "Isothermal Crystallization of Crosslinked and Uncrosslinked Hydrophilic Polymers in the Presence or Absence of Solvent," 86th National AIChE Meeting, Houston, Texas, April 2, 1979, (A).
15. "Reconstruction of Vocal Cords by Intracordal Polymer Injection and Gelation," 25th Annual Society of Plastics Engineers Meeting (ANTEC), New Orleans, Louisiana, May 8, 1979, (P).
16. "Non-Gaussian Macromolecular Network Models for the Investigation of Highly Crosslinked Networks," 87th National AIChE Meeting, Boston, Massachusetts, August 20, 1979, (A).
17. "Diffusion of Macromolecules Through Model Hydrophilic Networks," 87th National AIChE Meeting, Boston, Massachusetts, August 20, 1979, (A).
18. "Diffusion Controlled Mechanisms of Crystallization of Crosslinked and Uncrosslinked Polymers," 87th National AIChE Meeting, Boston, Massachusetts, August 22, 1979, (P).
19. "Mathematical Analysis of Transport Properties of Polymer Packaging Films in Relation to Food Storage Stability. II. Non-linear Water Vapor Sorption Models," 87th National AIChE Meeting, Boston, Massachusetts, August 22, 1979, (P).
20. "Mathematical Analysis of Transport Properties of Polymer Packaging Films in Relation to Food Storage Stability. III. Sorption and Chemical Reaction of Oxygen," 87th National AIChE Meeting, Boston, Massachusetts, August 22, 1979, (P).
21. "Hydrophilic Polymeric Materials for Reconstruction of Vocal Cords," 26th International Symposium on Macromolecules IUPAC, Mainz, West Germany, September 18, 1979, (P).
22. "Transport of Macromolecules Through PVA Networks," 26th International Symposium on Macromolecules IUPAC, Mainz, West Germany, September 19, 1979, (P).
23. "Generalized Method of Prediction of Mean Activity Coefficients of Polyelectrolytes in Aqueous Solutions," 26th International Symposium on Macromolecules IUPAC, Mainz, West Germany, September 20, 1979, (P).

24. "A Chemical Engineering Curriculum Serving the National Needs: The Greek System," 72nd Annual AIChE Meeting, San Francisco, California, November 26, 1979, (P).
25. "Migration of Environmentally Hazardous Plasticizers from Polymers," 72nd Annual AIChE Meeting, San Francisco, California, November 28, 1979, (A).
26. "Generalized Mean Activity Coefficients for Aqueous Solutions of Polyelectrolytes," 72nd Annual AIChE Meeting, San Francisco, California, November 29, 1979, (P).
27. "Diffusion of Oxygen Through Polymers for Hard and Soft Contact Lenses," National Meeting of Contact Lens Association of Ophthalmologists, Las Vegas, Nevada, January 10, 1980, (A).
28. "Modelling of Drug Diffusion Through Swellable Polymeric Systems," 179th National ACS Meeting, Houston, Texas, March 27, 1980, (P).
29. "Migration of Potentially Toxic Compounds from Plasticized Polymers," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 7, 1980, (P).
30. "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. IV. Prediction of Shelf-Life of Food Packages Using Halsey Sorption Isotherms," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 8, 1980, (P).
31. "The Polymer Science and Engineering Program at Purdue University: Emphasis on Engineering Fundamentals," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 5, 1980, (P).
32. "Polymer Gel Drying: Theory and Applications," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 8, 1980, (A).
33. "Models and Experimental Studies on Macromolecular Crosslinked Structures of Bituminous Coals," Conference on the Chemistry and Physics of Coal Utilization of the American Physical Society, Morgantown, West Virginia, June 2, 1980, *Invited-Plenary Lecture*, (P).
34. "Practical Applications of Synthetic Membranes: Past, Present and Future," 2nd Panhellenic Congress of Chemical Engineers, Athens, Greece, June 11, 1980, (A); (not presented).
35. "Prediction of Shelf-Life of Food Products after Packaging," 2nd Panhellenic Congress of Chemical Engineers, Athens, Greece, June 12, 1980, (A); (not presented).
36. "Preparation of Students through Undergraduate Research," 88th Annual ASEE Conference, Amherst, Massachusetts, June 24, 1980, (P).
37. "Synthetic Membranes: Interrelations between Structure and Diffusive Properties," IUPAC Macromolecular Meeting, Athens, Greece, August 25, 1980, *Invited-Plenary Lecture*, (A).
38. "Polymer Structural Effects on the Oxygen Permeation of Soft Contact Lens Materials," 27th International IUPAC Macromolecular Symposium, Florence, Italy, September 11, 1980, (P).
39. "An Evaluation of New Mathematical Models for Drug Release from Matrix Tablets," First International Pharmaceutical Exhibition, Interphex 80, New York, New York, September 16, 1980, *Invited Lecture*, (P), *.
40. "Macromolecular Network Structure and its Effects on Drug and Protein Diffusion," European Controlled Release Symposium, Geneva, Switzerland, October 2, 1980, *Invited-Plenary Lecture*, (P).
41. "Physicochemical and Statistical Analysis of Crosslinked Structures in Coal Networks," ACS Coal Meeting, Pittsburgh, Pennsylvania, November 10, 1980, *Invited Lecture*, (P), *.
42. "ESCA Characterization of PVA/PNVP Copolymers for Biomedical Applications," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (A); (not presented).
43. "Diffusion of Phthalic Esters Through Plasticized Polymers," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).
44. "Solute Diffusion in Highly Swollen Gels," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).
45. "Macromolecular Network Analysis of Bituminous Coals: Theory, Extraction and Swelling Experiments," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (A), *.
46. "Teaching of Polymer Science and Engineering in Chemical Engineering Departments," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).
47. "Teaching of Biomedical Engineering in Chemical Engineering Departments," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).
48. "Oxygen Diffusion in Glassy Copolymers of Methyl Methacrylate and Disiloxanes," Annual Meeting of American Physical Society, Phoenix, Arizona, March 16-19, 1981, (A).

49. "Fibrinolytic Enzyme Immobilized Polymers for Blood Compatible Applications," 28th International IUPAC Macromolecular Symposium, Strasbourg, France, July 8, 1981, (A).
50. "Case-II Transport in Plasticized PVC," 28th International IUPAC Macromolecular Symposium, Strasbourg, France, July 9, 1981, (A).
51. "Streptokinase Immobilized Hydrogels: Preparation, Characterization and Preliminary Evaluation as Blood-Compatible Materials," 3rd Congress of International Society for Artificial Organs, Paris, France, July 10, 1981, (A).
52. "Drug Release Kinetics from Hydrophobic Porous Monolithic Devices," 8th International Symposium of Controlled Release of Bioactive Materials, Ft. Lauderdale Florida, July 27, 1981, (P).
53. "Swelling-Controlled Release from Hydrophilic Polymeric Networks," 8th International Symposium of Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 27, 1981, (P).
54. "Models and Experimental Studies of Drug Release from Porous Polymeric Formulations," National AIChE Meeting, Detroit, Michigan, August 18, 1981, (A), *.
55. "Diffusive Characteristics of Polymer Membranes for Protein Separation: Polymer Physical Considerations," National AIChE Meeting, Detroit, Michigan, August 19, 1981, (P), *.
56. "Polymer Structure and Thermodynamic Considerations of Solute Transport in Polymer Membranes," ACS Annual Meeting, New York, N.Y. August 26, 1981, (A).
57. "Macromolecular Structural Changes in Bituminous Coals during Extraction and Solubilization," DOE Contractors Conference, Pittsburgh, PA, October 7, 1981 (P).
58. "Preparation and Structure of Friedel-Crafts Crosslinked Polystyrene Particles," ACS Annual Meeting, Las Vegas, Nevada, March 31, 1982, (P)
59. "Constant Solute Release Rates from Glassy Polymers," ACS Annual Meeting, Las Vegas, Nevada, April 1, 1982, (P).
60. "Macromolecular Structure and Solute Diffusion in Membranes," International Symposium on Membranes and Membrane Processes, Perugia, Italy, May 20, 1982, *Invited Lecture*, (A).
61. "Diffusion of Solutes in Highly and Moderately Swollen Polymeric Networks," 29th International IUPAC Macromolecular Symposium, Amherst, Massachusetts, July 14, 1982, *Invited Lecture*, (P).
62. "Swelling Controlled Release Systems: Progress Toward Zero-Order Kinetics with Polymer Blends," 9th International Symposium of Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 21, 1982, (P), *.
63. "Solute Diffusion in Swellable Polymers," International IUPAC Macromolecular Symposium, Athens, Greece, August 30, 1982, *Invited Lecture*, (A).
64. "Macromolecular Structural Changes in Bituminous Coals during Extraction and Solubilization," DOE Contractors Conference, Pittsburgh, Pennsylvania, September 23, 1982 (P), *.
65. "Kedem-Katchalsky Analysis of Transport of Monomer Albumin Through Molecular Size Pores of Polymeric Networks," Annual AIChE Meeting, Los Angeles, California, November 16, 1982, (A).
66. "Molecular Diffusion of Monomer Albumin Through Crosslinked PHEMA Membranes," Annual AIChE Meeting, Los Angeles, California, November 17, 1982 (A).
67. "Changes of the Crosslinked Macromolecular Structure of Coal During Extraction and Solubilization," Annual AIChE Meeting, Los Angeles, California, November 19, 1982, (A), *.
68. "Polymères biocompatibles," Symposium on "Biomatériaux, application a des formes pharmaceutiques nouvelles," Lille, France, December 13, 1982, *Invited Lecture*, (A).
69. "Release of Bioactive Agents from Swellable Polymers: Theory and Experiments," International Symposium on Recent Advances in Drug Delivery Systems, Park City, Utah, March 24, 1983, *Invited Lecture*, (A).
70. "Surface Analysis of Poly(vinyl alcohol-co-N-vinyl-2-pyrrolidone)," ACS Annual Meeting, Seattle, Washington, March 22, 1983 (P)*.
71. "Copolymers of Methyl Methacrylate and Disiloxane Derivatives," ACS Annual Meeting, Seattle, Washington, March 22, 1983, (P).
72. "Release of Drugs from Initially Glassy, Dynamically Swelling P(HEMA-co-MMA) Copolymers," ACS Annual Meeting, Seattle, Washington, March 24, 1983, (P).
73. "Thermal Analysis of Macromolecular Coal Networks," APS Annual Meeting, Los Angeles, California, March 25, 1983, (A).
74. "New Observations of the Mechanism of Solute Release from Hydrophilic Polymers," Third International Conference of Pharmaceutical Technology, Paris, France, June 1, 1983, (P) *.

75. "Modeling Drug Release from Swellable Systems," 10th International Symposium of Controlled Release of Bioactive Materials, San Francisco, California, July 25, 1983, (P) *.
76. "Analysis of Solvent Transport Mechanisms in Macromolecular Coal Networks," International Coal Conference, Pittsburgh, Pennsylvania, August 17, 1983, (P).
77. "Equilibrium and Dynamic Swelling of Highly Crosslinked Polymeric Networks," International IUPAC Macromolecular Symposium, Bucharest, Rumania, September 6, 1983, (P) *.
78. "Equilibrium and Dynamic Behavior of Polymer Particles in Ternary Emulsion Systems," International IUPAC Macromolecular Symposium, Bucharest, Rumania, September 7, 1983, (P) *.
79. "Bioadhesive Intraoral Release Systems: Design, Testing and Analysis," 20th Annual Meeting of International Association for Dental Research, Geneva, Switzerland, September 23, 1983, (P) *.
80. "Crosslinked PVA Micromatrices for Swelling-Controlled Drug Release," International Symposium on Controlled Release Pharmaceuticals, Pavia, Italy, September 27, 1983, (A) *.
81. "Macromolecular Structural Changes in Bituminous Coals during Extraction and Solubilization," DOE Contractors Conference, Pittsburgh, Pennsylvania, October 18, 1983 (P).
82. "Modelling of Transport and Sorption in Packaging Systems for Pharmaceutical Products," Industrial Pharmacy Management Conference, University of Wisconsin, Madison, Wisconsin, October 25, 1983, *Invited Lecture*, (P).
83. "The Role of Crosslinks, Entanglements and Relaxations of the Macromolecular Carrier in the Diffusional Release of Biologically Active Materials," Conference on Macromolecules as Drugs and as Carriers for Biologically Active Materials," New York Academy of Sciences, New York, New York, March 26, 1984, *Invited Lecture* (A).
84. "Viscoelastic Properties of Bituminous Coals," ACS Annual Meeting, St. Louis, Missouri, April 12, 1984(P)*.
85. "The Molecular Weight Between Crosslinks of Selected American Coals," ACS Annual Meeting, St. Louis, Missouri, April 12, 1984 (P) *.
86. "XPS Analysis of P(VA-co-NVP)," Second World Congress on Biomaterials, Washington, D.C., April 28, 1984 (P).
87. "Bioadhesive Intraoral Release Systems," Second World Congress on Biomaterials, Washington, D.C., April 28, 1984 (P).
88. "Physical Aspects of Polymeric Drug Delivery Systems," Annual Meeting of Academy of Pharmaceutical Sciences, Montreal, Canada, May 7, 1984, *Invited Lecture*, (A).
89. "Analysis of the Structure of Highly Crosslinked Polymeric Networks," ACS Rubber Chemistry Meeting, Indianapolis, Indiana, May 8, 1984 (A) *.
90. "Anomalous Transport in Macromolecular Coal Networks," DOE Contractors Conference, Pittsburgh, Pennsylvania, June 7, 1984, (P)*.
91. "Molecular Theories and Experiments of Penetrant Transport in Coal Particles," Gordon Conference on Fuel Sciences, New Hampton, New Hampshire, July 2, 1984, *Invited Lecture*.
92. "Transport of Drugs in the Intestinal Mucus," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 23, 1984, (P).
93. "Controlled Release Microparticle Systems for Urinary Tract Applications," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 23, 1984, (P).
94. "Scaling Concepts in Controlled Release," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P)*.
95. "Release of Drugs from Ethylene-Vinyl Alcohol Copolymers," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P)*.
96. "The Swelling Interface Number as a Criterion for Zero-Order Release," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P)*.
97. "Modelling of Drug Release from Porous Polymers," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P).
98. "Bioadhesive Controlled Release Systems," Workshop of Controlled Release Society, Ft. Lauderdale, Florida, July 25, 1984,
99. "Relaxation-Controlled Transport of Penetrants in Glassy Polymers," 9th International Congress on Rheology, Acapulco, Mexico, October 9, 1984, (P).
100. "Importance of Macromolecular Relaxations in Solvent Transport in Coal Particles," 9th International Congress on Rheology, Acapulco, Mexico, October 10, 1984, (P)*.

101. "Swelling Controlled Release Systems: Recent Developments and Applications," International Symposium of the International Association for Pharmaceutical Technology (APV), Bad Homburg, West Germany, November 13, 1984, (P).
102. "Preparation and Swelling Characteristics of Friedel-Crafts Crosslinked Polystyrene Particles," Annual AIChE Meeting, San Francisco, California, November 27, 1984, (A).
103. "Modelling of Suspension Copolymerization/Crosslinking of Styrene," Annual AIChE Meeting, San Francisco, California, November 27, 1984, (A)*.
104. "Drug Diffusion in Aqueous Mucin Solution: Towards Understanding of Drug Absorption by the Intestine," Annual AIChE Meeting, San Francisco, California, November 28, 1984 (A)*.
105. "Some New Observations of Penetrant Transport in Crosslinked Polystyrene," Annual AIChE Meeting, San Francisco, California, November 29, 1984, (A)*.
106. "Comparison of the Macromolecular Structure of Coals with That of Stiff Polymer Chains," Annual AIChE Meeting, San Francisco, California, November 30, 1984, (P)*.
107. "Surface, Interfacial and Molecular Aspects of Polymer Adhesion on Soft Tissues," Annual AIChE Meeting, San Francisco, California, November 30, 1984, (A).
108. "The Effect of the Crystalline Structure of Membranes on their Solute Diffusion Behavior," Annual AIChE Meeting, San Francisco, California, November 30, 1984, (A)*.
109. "Bioadhesive Polymers: Design and Performance," International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii, December 18, 1984, (A). *Invited Lecture*.
110. "Theory and Experiments with Bioadhesive Swellable Delivery Systems," International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 28, 1985, *Invited Lecture*, (A).
111. "Integral Methods in Polymerization Reaction Engineering," Integral Methods in Science and Engineering 1985, Arlington, Texas, March 18, 1985, (A)*.
112. "Thermoplastic and Viscoelastic Properties of Coals," ACS Annual Meeting, Miami Beach, Florida, April 29, 1985, (P).
113. "Mechanisms of Amine Transport in Coal Particles," ACS Annual Meeting, Miami Beach, Florida, April 30, 1985, (P).
114. "Dynamic Swelling of Thin Coal Sections," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (A)*.
115. "Swelling Thermodynamics of Polymer Latex Particles by a Water-Soluble Solvent," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (P)*.
116. "Oxygen-permeable Silicon-based Contact Lenses: An Assessment of Permeation and Wettability Problems," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (A).
117. "Modeling of Suspension Copolymerization/Crosslinking of Styrene with Divinyl Benzene," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (P)*.
118. "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. V. Variable Storage Conditions," ACS Annual Meeting, Miami Beach, Florida, May 2, 1985, (P).
119. "Transport of Bioactive Agents through Polymers," Symposium on Properties of Polymers and Drug Delivery, Swedish Academy of Pharmaceutical Sciences, Stockholm, Sweden, May 9, 1985, *Invited-Plenary Lecture*, (A).
120. "Core Course Material in Polymers for Chemical Engineering Courses," 19th ACS Great Lakes Regional Meeting, West Lafayette, Indiana, June 10, 1985, (A).
121. "Models of Penetrant and Solute Transport in Glassy Polymers," 19th ACS Great Lakes Regional Meeting, West Lafayette, Indiana, June 12, 1985, (A) *.
122. "Penetrant Transport in Polystyrene," 19th ACS Great Lakes Regional Meeting, West Lafayette, Indiana, June 12, 1985, (A)*.
123. "Crosslinked Polyether-diol Micromatrices for Controlled Drug Release," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P)*.
124. "Relaxational Effects in Solute Transport and Release from Swelling-Controlled P(HEMA-co-MMA) Systems," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P).
125. "The Mathematics and Physics of Solute Transport in Continuously Swelling Hydrophilic Polymers," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P)*.

126. "Diffusion in Swellable Drug Delivery Systems," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P)*.
127. "Polymer/Glycoprotein Chain Interpenetration in Bioadhesion," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P).
128. "Swelling of Gels of PHEMA and Release of Phenylephrin $\square$ HCl from this Polymer," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 10, 1985, (P)*.
129. "Swelling Laws for Drug Release from Equilibrium Swollen Hydrogels," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 10, 1985, *Invited Lecture* (P).
130. "The Kinetics of Preparation of PHEMA Microparticles by Suspension Copolymerization/Crosslinking with EGDMA," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 11, 1985, (P)*.
131. "Release of Radioactive Isotopes from Stored Waste to the Ground," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 12, 1985, (P).
132. "Molecular Aspects of Polymer Adhesion on Mucus," ACS Annual Meeting, Chicago, Illinois, September 9, 1985, (A).
133. "The Effect of Degree of Crystallinity and Crystallite Size on Solute Diffusion through Membranes," ACS Annual Meeting, Chicago, Illinois, September 9, 1985, (A)*.
134. "Scaling Laws for Solute Diffusion in Equilibrium Swollen Gels," ACS Annual Meeting, Chicago, Illinois, September 10, 1985, (P)*.
135. "Bioadhesives: Fundamental Studies on Adhesion to Mucus Membranes," APS Annual Meeting, Minneapolis, Minnesota, October 21, 1985, (A).
136. "The Relaxational Aspects of Drug Release from P(HEMA-co-MMA) Copolymers," Annual AIChE Meeting, Chicago, Illinois, November 12, 1985, (A) *.
137. "The Surface of P(VA-co-NVP) Hydrogels as Revealed by Scanning Electron Microscopy," Annual AIChE Meeting, Chicago, Illinois, November 12, 1985, (A)*.
138. "Modeling of Multicomponent Transport in Swelling Polymers," Annual AIChE Meeting, Chicago, Illinois, November 13, 1985, (A) *.
139. "Kinetic Modelling of Copolymerization-Crosslinking Reactions," Annual AIChE Meeting, Chicago, Illinois, November 14, 1985, (A) *.
140. "Interfacial Phenomena Related to Bioadhesion of Polymers on the Intestinal Mucus," Annual AIChE Meeting, Chicago, Illinois, November 15, 1985, (A).
141. "Diffusion of Biological Molecules in Semidilute Gels," Annual Materials Research Society Meeting, Boston, Massachusetts, December 4, 1985, (A).
142. "New Observations of Anomalous Transport in Crosslinked Polystyrene," Annual Materials Research Society Meeting, Boston, Massachusetts, December 5, 1985, (A).
143. "Measurement of the Bioadhesive Force Between a Polymer Microparticle and Mucin Gel," International Biomedical Engineering Symposium, Salt Lake City, Utah, January 21, 1986, (A).
144. "Bioadhesive Controlled-Release Systems," Fourth International Conference on Pharmaceutical Technology, Paris, France, June 3, 1986, *Plenary Lecture*, (A).
145. "Influence de l' hydrosolubilite du principe actif sur la liberation a partir de microspheres de PHEMA et role joue par la nature du solvant," Fourth International Conference on Pharmaceutical Technology, Paris, France, June 4, 1986, (P) *.
146. "Relaxation-Coupled Diffusion in Glassy Polymers," Second Conference of European Rheologists, Prague, Czechoslovakia, June 18, 1986, (A).
147. "The Role of Polymer Structure in Bioadhesion to the Mucus," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 4, 1986, *Invited Lecture*, (P).
148. "Investigation of the Effects of Thickness on the Swelling Kinetics of P(HEMA-co-MMA) in Water," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986, (P).
149. "Drug Diffusion in Heterogeneous Polymeric Systems with Impermeable Domains," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986, (P).

150. "Comparison of Experimental Techniques for the Measurement of the Bioadhesive Forces of Polymeric Materials with Soft Tissues," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986, (P).
151. "The Design and Evaluation of Bioadhesive Controlled Release Systems," Third International Pharmaceutical Technology Symposium, Ankara, Turkey, September 9, 1986, *Invited Lecture*, (P).
152. "The Bioadhesive Behavior of 2-Hydroxyethyl Methacrylate-Containing Copolymer Microparticles with Aqueous Gels of Bovine Submaxillary Mucin," European Congress on Biomaterials, Bologna, Italy, September 15, 1986, (A).
153. "Dynamic Swelling of and Drug Release from Microparticles for Swelling-Controlled Release Applications," 13th Annual Meeting of the European Society of Artificial Organs, Avignon, France, September 18, 1986, (A).
154. "Macromolecular Release from Magnetically-Triggered Controlled-Release Polymer Systems," 13th Annual Meeting of the European Society of Artificial Organs, Avignon, France, September 20, 1986, (A).
155. "L'influence de la structure polymerique sur la liberation controlee des principes actifs," Journees Galeniques, Saint-Remy de Provence, France, September 26, 1986, (P).
156. "Transport of Drugs Through the Intestinal Mucus," Annual AIChE Meeting, Miami, Florida, November 6, 1986, (A).
157. "Polymer Microparticles on Biological Surfaces," Annual AIChE Meeting, Miami, Florida, November 5, 1986, (A)*.
158. "Preparation and Modelling of Water-Soluble Microparticles by Suspension Polymerization," Annual AIChE Meeting, Miami, Florida, November 7, 1986, (A)*.
159. "Membrane and Reservoir Systems," Symposium on Drug Delivery Systems, Danish Society of Polymer Technology, Copenhagen, Denmark, November 19, 1986, *Plenary Lecture*, (A).
160. "Bioadhesive Polymers," Symposium on Drug Delivery Systems, Danish Society of Polymer Technology, Copenhagen, Denmark, November 20, 1986, *Plenary Lecture*, (A).
161. "Model Experimental Study of a Transdermal System," International Symposium on Transdermal Drug Delivery Systems, New Ulm, Federal Republic of Germany, December 2, 1986, (A)*.
162. "Bioadhesive Analysis of Controlled Release Systems. I. Systems Containing Poly(acrylic acid)," APGI Colloquium, Paris, France, December 11, 1986, (A)*.
163. "Bioadhesive Analysis of Controlled Release Systems. II. Systems for Release of Metronidazole," APGI Colloquium, Paris, France, December 11, 1986, (A)*.
164. "Modele d' etude experimentale d' un systeme transdermique," First International Forum on Formulation Physical Chemistry and its Applications, Nice, France, February 5, 1987, (A)*.
165. "Prediction of Polymer Dissolution in Swellable Controlled Release Systems," International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 26, 1987, *Invited Lecture*, (A).
166. "Bioadhesion et microformes," First Scientific Meeting of the Industrial Health Group of East-Central France, Dijon, France, May 15, 1987, (A).
167. "Models of Solute Transport Through Block Copolymer Membranes," 1st Annual Meeting of the North American Membrane Society, Cincinnati, Ohio, June 2, 1987, (P)*.
168. "Hydroxyalkyl Methacrylate Copolymers for Biomedical Applications," 13th Annual Meeting of Society for Biomaterials, New York, N.Y., June 4, 1987, (P)*.
169. "The Interaction of Poly(acrylic acid)-Containing Polymeric Systems with Bovine Sublingual Mucus," Biointeractions '87, Cambridge, United Kingdom, July 8, 1987, (A).
170. "Fracture Analysis of the Bioadhesive Interactions Between Surface-swollen, Poly(acrylic Acid)-Containing Tablets and the Bovine Sublingual Tissue," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987, (P)*.
171. "The Time-Dependent Behavior of the Adhesive Interactions Between Poly(acrylic Acid) and Buccal Tissue," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987 (P).
172. "Coupled Diffusion/Dissolution Processes May Give Zero-Order Release of Drugs from Microspheres," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987, (P).

173. "Diffusive Characteristics of Drugs in Novel Gels," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987, (P)*.
174. "The Mechanisms of Disintegration of Compressed Particle Systems," International Symposium on Perspectives in Solid Dosage Form Design, Pavia, Italy, September 28, 1987, (A)*.
175. "Suspension Polymerization of 2-Hydroxyethyl Methacrylate," Annual AIChE Meeting, New York, N.Y., November 16, 1987, (A)*.
176. "A Rational Thermodynamics Theory for Penetrant Transport in Polymers," Annual AIChE Meeting, New York, N.Y., November 16, 1987, (A)*.
177. "Testing of the Adhesive Force Between Poly(acrylic acid) and Bovine Sublingual Mucus," Annual AIChE Meeting, New York, N.Y., November 18, 1987, (A).
178. "Dissolution Analysis of Model Positive Resists," Annual AIChE Meeting, New York, N.Y., November 19, 1987, (A).
179. "Crack Healing of Polymer-Polymer Interfaces of Linear Polymers," Fall Meeting Materials Research Society, Boston, MA, December 1, 1987, (A).
180. "Effect of Chain Entanglements on the Fracture Characteristics of Polymeric Materials," Fall Meeting, Materials Research Society, Boston, MA, December 3, 1987, (A)*.
181. "Modello Fisico per la Disgregazione di Compresse," 11th Symposium of ADRITELF, Erice, Italy, March 20, 1988, (A)*.
182. "Biomaterials Needs for the Next Generation of Drug Delivery," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, *Invited Lecture*, (A).
183. "Mechanisms of Dissolution of Compressed Tablets," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (A).
184. "Branching Theory in Sol-Gel Processing," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (P).
185. "Fracture Mechanics of Low Molecular Weight Polymers," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (P).
186. "The Thermodynamics of Perfume Incorporation and Release from Polymers," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (A).
187. "Structural Changes in Environmentally Sensitive Hydrogels," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (A)*.
188. "Tablet Disintegration: A Physical Model," 7th Pharmaceutical Technology Conference, London, April 14, 1988 (P)*.
189. "Synthesis and Swelling Characteristics of a Type of Hydrophilic/Hydrophobic Membranes," Second Annual Meeting, North American Membrane Society, Syracuse, NY, June 20, 1988, (P)*.
190. "Transport Properties of Water in Epoxy Resins and Composites," National Meeting, American Chemical Society, Toronto, Canada, June 9, 1988, (P)*.
191. "Application of Branching Theory to Curing Kinetics of Tetraepoxy-Diamine Systems," National Meeting, American Chemical Society, Toronto, Canada, June 9, 1988, (P)*.
192. "Measurement of the Forces Between Polymer Microparticles and Mucin Gels," National Meeting, American Chemical Society, Toronto, Canada, June 8, 1988, (A).
193. "Elements of Chemical Technology in the Byzantine University of Constantinople and in the Byzantine Empire," National Meeting American Chemical Society, Toronto, Canada, June 6, 1988, (A).
194. "Unit Processes Against Unit Operations: The Educational Fights of the Thirties," National Meeting, American Chemical Society, Toronto, Canada, June 6, 1988, (A).
195. "Academic Connections of the 20th Century U.S. Chemical Engineers: Influence of the 18th and 19th Century Swedish, French, German, and Italian Chemists," National Meeting, American Chemical Society, Toronto, Canada, June 6, 1988, (A).
196. "Delivery of Selected Principal Essential Oils Used in Flavoring," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P)*.
197. "Determination of Mesh Size in Hydrogels," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
198. "Production of Hydrophilic Homo- and Copolymer Microparticles by Suspension Polymerization," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.

199. "Macromolecular Network Characteristics and their Effect on Drug Release from Crosslinked Poly(vinyl alcohol) Micromatrices," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
200. "Swelling-controlled Release Systems of Poly(multiethylene glycol dimethacrylates) and their Copolymers," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P).
201. "Environmental Cracking of Long-term Antifouling Controlled Release Systems," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P).
202. "The Swelling Behavior of pH-Sensitive Hydrogels," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
203. "Videomicroscopic Study of the Stresses Formed in Hydrogels During Swelling," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 19, 1988, (P).
204. "Alginate Magnetic Release Systems: Crosslinked Structure, Swelling and Release Studies," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P).
205. "Drug Release from Swellable Matrices Restricted by Impermeable Film Coatings," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P)*.
206. "Gel Syneresis and Drug Release with Temperature-Sensitive Hydrogels," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 19, 1988, (P).
207. "Influence of the Composition of the Test Medium on the Adhesion of a Bioadhesive Tablet to a Biological Tissue," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P)*.
208. "Assessment of a New Method for the Determination of Bioadhesion," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
209. "Polydimethacrylates for Laser Videodisc Applications," ACS Annual Meeting, Anaheim, California, September 26, 1988, (P).
210. "Controlled Release Polymeric Systems for Essential Oils Used in Flavoring," ACS Annual Meeting, Anaheim, California, September 27, 1988, (A).
211. "Solute Transport in Heterogeneous Polymeric Systems with Semipermeable Domains," US-Europe Symposium on Advanced Membrane Science and Technology, Ravello, Italy, October 3, 1988, \fInvited Lecture\fr, (A).
212. "Copolymerization and Crosslinking Reactions of Hydrophilic Monomers," Annual AIChE Meeting, Washington, DC, November 19, 1988, (A)*.
213. "The Swelling Behavior of pH-Sensitive Hydrogels," Annual AIChE Meeting, Washington, DC, December 1, 1988, (A)*.
214. "Structure and Swelling Behavior of Poly(ethylene glycol-g-methacrylic acid)Networks," Annual AIChE Meeting, Washington, DC, December 1, 1988, (A)*.
215. "Preparation and Properties of Novel Methacrylate-Based Laser Videodisc Polymers," Annual AIChE Meeting, Washington, DC, November 28, 1988, (A)*.
216. "A Branching Theory for the Analysis of Certain Sol-Gel Processes," Annual AIChE Meeting, Washington, DC, November 30, 1988, (A)*.
217. "The Progress of Alkoxysilane Reactions for Sol-gel Processing," 7th International Symposium on Ceramics, Bologna, Italy, December 15, 1988, (A).
218. "Diffusive and Surface Problems During Utilization of Hydrogels in Ophthalmology," International Symposium on Advances in Biomedical Polymers, Perth, Australia, February 6, 1989, *Invited Lecture*, (P).
219. "Ampholytic Hydrogels Sensitive to Physiological Conditions," International Symposium on Advances in Biomedical Polymers, Perth, Australia, February 8, 1989, (P).
220. "Temperature Sensitive Hydrogels for Biomedical Applications," International Symposium on Advances in Biomedical Polymers, Perth, Australia, February 9, 1989, (P).
221. "Transport Characteristics of Glassy and Rubbery Polymers," Second Materials Science Symposium of the School of Optometry of the University of Missouri, St. Louis, Missouri, March 14, 1989, *Invited Lecture*.
222. "Theories of Penetrant Transport in Glassy Polymers," Annual ACS Meeting, Dallas, Texas, March 20, 1989, *Invited Lecture*, (P)*.

223. "Controlled Release of Drugs from pH-Sensitive Polymers," Annual Meeting of the Society of Biomedical Engineering, New Orleans, Louisiana, March 20, 1989 (A).
224. "Modelling the Complex Sequence of Sol-gel Processing Reactions," 91st Annual Meeting of American Ceramic Society, Indianapolis, Indiana, April 25, 1989, (A).
225. "Drying and Stresses in Non-crystalline and Crystalline Solids Derived from Gels," 91st Annual Meeting of American Ceramic Society, Indianapolis, Indiana, April 26, 1989, (A).
226. "Controlled Release of Drugs from pH-Sensitive Polymers," Annual Meeting Biomedical Engineering Society, April 26, 1989, (A)*.
227. "Thermodynamic Investigation of Equilibrium-Swollen Heterogeneous Networks," 15th Annual Meeting of Society for Biomaterials, Lake Buena Vista, Florida, May 1, 1989, (P)*.
228. "Protein Partitioning in Hydrophilic/Hydrophobic Graft and Block Copolymer Networks," 15th Annual Meeting of Society for Biomaterials, Lake Buena Vista, Florida, May 1, 1989, (P)*.
229. "Diffusional Peptide Release," First International Meeting on the Theory and Applications of Diffusion in Biomedical, Pharmaceutical and Food Sciences, Parma, Italy, May 16, 1989, *Invited Lecture*, (A).
230. "pH-Dependent Anomalous Swelling of Glassy Polymers," First International Meeting on the Theory and Applications of Diffusion in Biomedical, Pharmaceutical and Food Sciences, Parma, Italy, May 16, 1989, (A)*.
231. "Kinetics of Mucus-Polymer Interactions," International CRS/APV Workshop on Bioadhesion-Possibilities and Future Trends, Leiden, The Netherlands, May 23, 1989, *Invited Lecture*, (P).
232. "The Higuchi Model as a Tool to Obtain Information about the Structure of Ibuprofen-loaded Ethylcellulose Microspheres," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P)*.
233. "Dynamic Swelling Behavior of pH-Sensitive Swelling Controlled Release Systems," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P).
234. "Gel Syneresis as a Method to Release Drugs at Prescribed Intervals," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P).
235. "Drug Release Modulation by Physical Restriction of Matrix Swelling," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P)*.
236. "Water Uptake and Disintegration Force Development in Pharmaceutical Tablets," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P)*.
237. "Diffusion in Membranes Exhibiting Hydrophilic/Hydrophobic Phases," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
238. "Complex-forming Hydrogels Sensitive to Physiological Conditions," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
239. "The Response of pH-Sensitive Polymers to Successive Changes of pH or Ionic Strength in Solutions," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
240. "Recent Advances in Modeling of Swelling-Controlled Release Systems," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
241. "pH-Dependent Anomalous Swelling of Glassy Polymers," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P)*.
242. "Programmed Insulin Delivery Using Thermosensitive Hydrogels," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P).
243. "Fractal Analysis in Polymer Structures for Information Storage Technology," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
244. "Kinetics of UV-Induced Multiethylene Glycol Dimethacrylate Polymerizations," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
245. "Copolymerization/Crosslinking Reaction of 2-Hydroxyethyl Methacrylate with Ethylene Glycol Dimethacrylate," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
246. "Modeling of Protein Adsorption on Smooth Polymeric Surfaces Based on Calculated Interaction Parameters," Annual AIChE Meeting, San Francisco, California, November 6, 1989, (P)*.
247. "Fibrinolytic Activity of pH-Sensitive Streptokinase-Immobilized Poly(methacrylic acid-g-ethyleneoxide) Microspheres," Annual AIChE Meeting, San Francisco, California, November 7, 1989, (P).

248. "Swelling/Dissolution Front Synchronization as a Method of Zero-Order Release," Annual AIChE Meeting, San Francisco, California, November 7, 1989, (P).
249. "Self-Association of Poly(ethylene glycol-g-methacrylic acid) as Studied by Nuclear Overhauser Effect and NMR Relaxation Time Measurements," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
250. "Dynamic and Equilibrium Swelling Characteristics of Hydrophilic Copolymers with Carboxylic Functional Groups," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P).
251. "Soluble Fraction Effects on Dynamic Swelling of Hydrogels," Annual AIChE Meeting, San Francisco, California, November 7, 1989, (P)*.
252. "Development and Implementation of a Model for Penetrant Transport in Glassy Polymers," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
253. "Dynamic Penetrant Uptake and Equilibrium Sorption of Epoxy Resins," Annual AIChE Meeting, San Francisco, California, November 9, 1989, (P)*.
254. "Dissolution of Positive Resists," Annual AIChE Meeting, San Francisco, California, November 6, 1989, (P).
255. "Structural Changes in TEOS Gelation as Revealed by Compressive Creep Experiments," Annual AIChE Meeting, San Francisco, California, November 9, 1989, (P).
256. "Hydrogels of P(EO-g-MA) for Biomedical Applications," First European Symposium of Controlled Drug Delivery, the Hague, the Netherlands, March 29, 1990, (P), *Invited Lecture*.
257. "Penetrant Transport in Coal Networks," ACS Meeting, Boston, Massachusetts, April 25, 1990, (P).
258. "Modelling of Moisture Transport in Epoxy Composites," ACS Meeting, Boston, Massachusetts, April 24, 1990, (A).
259. "Mucoadhesive Polymers," ACS Meeting, Boston, Massachusetts, April 25, 1990, (A).
260. "Correlation Between Structure and Properties of Polymers and Drug Release," 10th Advanced Course on Pharmaceutical Chemistry, Italian Chemical Society, Bressanone, Italy, June 6, 1990, (P), *Invited Lecture*.
261. "Controlled Release from Bioadhesive Polymeric Systems," 10th Advanced Course on Pharmaceutical Chemistry, Italian Chemical Society, Bressanone, Italy, June 8, 1990, (P), *Plenary Lecture*.
262. "Swelling and Syneresis of Hydrogels due to Temperature, pH and Ionic Strength Changes," 33rd IUPAC Symposium on Macromolecules, Montreal, Canada, July 10, 1990, (A), *Invited Lecture*.
263. "Swelling Dimensionality and Drug Release from Swellable Matrices," Fifth International Pharmaceutical Technology Symposium, Ankara, Turkey, September 11, 1990, (P)*.
264. "Polymer Structure and Diffusion in Polymers," First Workshop on Controlled Release in Consumer Products, Cincinnati, Ohio, October 18, 1990, (P), *Invited Lecture*.
265. "Polymers and Hydrocolloids in Consumer Product Applications," First Workshop on Controlled Release in Consumer Products, Cincinnati, Ohio, October 18, 1990, (P), *Invited Lecture*.
266. "Perfume Release and Air Fresheners," First Workshop on Controlled Release in Consumer Products, Cincinnati, Ohio, October 19, 1990, (P), *Invited Lecture*.
267. "pH-Dependent Swelling Behavior of Carboxyl-Containing Copolymeric Networks," Annual AIChE Meeting, Chicago, IL, November 15, 1990, (A)*.
268. "Mathematical Modelling of Drug Release from Physiologically Sensitive Hydrogels," Annual AIChE Meeting, Chicago, IL, November 12, 1990, (A)*.
269. "Kinetics and Volume Relaxation for Polymerizations of Multiethylene Glycol Dimethacrylates," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
270. "Complexation of Polymeric Acids with Complementary Oligomeric Bases," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
271. "Modelling of Coupled Deformation and Mass Transport Processes," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
272. "Water Diffusion Kinetics in Graphite/Epoxy Composites," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
273. "A Novel Kinetic Gelation Simulation for Analysis of Free Radical Polymerizations of Multifunctional Monomers," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
274. "Imaging Polymer Interfaces by Scanning Electron Microscopy and Energy Dispersive X-Ray Analysis," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.

275. "Control of Mesh and Pore Size of Bioceramics Produced by Sol/Gel Processing," Third International Symposium on Ceramics in Medicine, Terre Haute, IN, November 20, 1990, (A).
276. "Fracture Energy and Critical Strength of High Molecular Weight Glassy Polymers," Fall Meeting, Materials Research Society, Boston, MA, November 26, 1990, (P)*.
277. "Effects of Aging on Polymerization Kinetics," Fall Meeting, Materials Research Society, Boston, MA, November 27, 1990, (P)*.
278. "Physiologically Responsive Hydrogels," USA-Czechoslovak Academy of Sciences Workshop on Novel Polymers and Properties for Biotechnology and Bioengineering, Prague, Czechoslovakia, December 13, 1990, (A), *Invited Lecture*.
279. "A Novel Kinetic Gelation Simulation for Analysis of Free Radical Polymerizations of Multifunctional Monomers," Annual American Physical Society Meeting, Cincinnati, OH, March 18, 1991, (A)*.
280. "A Model for Coupled Deformation and Mass Transport Processes in Polymers," Annual American Physical Society Meeting, Cincinnati, OH, March 18, 1991, (A)*.
281. "Chain Dynamics at a Gel/Gel Interface," Annual American Physical Society Meeting, Cincinnati, OH, March 19, 1991, (A)*.
282. "Structure of Hydrogels by Freezing-Thawing Cyclic Processing," Annual American Physical Society Meeting, Cincinnati, OH, March 19, 1991, (A)*.
283. "Swelling Dimensionality and Drug Release," 10th Pharmaceutical Technology Conference, Bologna, Italy, April 16, 1991, (P)*.
284. "Polymer Characterization and Polymerization Reaction Modeling for Advanced Dental Materials," Annual Meeting of the Society of Biomaterials, Scottsdale, AZ, May 1, 1991, (A)*.
285. "Effect of Ionic Strength, Temperature and pH on the Dynamic and Equilibrium Swelling Behavior of Ionic Hydrogels," AAPS Midwest Regional Meeting, Chicago, Illinois, May 6, 1991, (A)*.
286. "Modulated Release of Peptides and Drugs Using Physio-responsive Polymers," 25th Journées Galeniques Meeting, St. Remy, France, May 31, 1991, (P), *Invited Lecturer*.
287. "The Kinetics of Adhesive Bond Development Between Polymers and Mucus," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991, (P), *Invited Lecture*.
288. "A Method of Measuring Mucoadhesive Forces on Polymeric Microparticles," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991, (P)*.
289. "Solute Release from Polyelectrolytic Networks," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991, (P).
290. "Dimensionality in Swelling of Polymer Carriers and its Importance in Drug Release," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991 (P).
291. "Swelling Force Development in Ionic Polymeric Networks," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 10, 1991 (P)*.
292. "Release Behavior from pH-Sensitive Hydrogels Containing Bioactive Agents of Varying Thermodynamic Properties," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 10, 1991, (P)*.
293. "Physicochemical Characteristics of Drug Diffusion in Polymers," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 16, 1991, (P).
294. "Design and Optimization of Controlled Release Systems," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 16, 1991 (P).
295. "Swelling Controlled Release Systems," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 18, 1991, (P).
296. "Transdermal Delivery," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 19, 1991, (P).
297. "Bioadhesion," First Latin American Symposium on Drug Administration Strategies and Therapeutic Systems, Buenos Aires, Argentina, September 20, 1991, (P).
298. "Release Behavior of Bioactive Agents from pH-Sensitive Hydrogels," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.

299. "Dissolution of Glassy Polymers," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
300. "Dynamic Swelling of pH-Sensitive Controlled Release Systems," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
301. "Kinetics and Modelling of UV-Induced Multi-Ethylene Glycol Dimethacrylate Polymerizations," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
302. "Water Effects on the Interfacial Shear Strength of Graphite/Epoxy Interface," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
303. "Synthesis and Characterization of Acrylic Acid Hydrogels for Bioadhesive Applications," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
304. "Physiologically-Sensitive Hydrogels in Controlled Release Applications," US-Japan Symposium on Drug Delivery Systems, Maui, HI, December 17, 1991, (A), *Invited Lecture*.
305. "Modeling of Ionic Polymers for Controlled Drug Delivery Applications," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
306. "Effect of Physiological Conditions on Drug Release Behavior from Ionic Polymeric Devices," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
307. "Poly(acrylic acid) Hydrogels for Bioadhesive Controlled Release Applications," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
308. "Near-field FTIR Imaging as a Method for Studying Polymer Interdiffusion in Bioadhesive Controlled Release Systems," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
309. "Characterization of Polymer Dissolution for Design of Polymer Implant Devices," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
310. "Hydrogels and Bioadhesion," CRS Workshop on Biomaterials and Controlled Release, Jupiter Beach, FL, January 30, 1992, (A), *Invited Lecture*.
311. "Interfacial Adhesion of PVC/PEMA," Annual Adhesion Society Meeting, Hilton Head, SC, February 17, 1992, (P)*.
312. "PVT Properties of Crosslinked Polystyrene/Dodecane System," Annual Meeting of American Physical Society, Indianapolis, IN, March 19, 1992, (A)*.
313. "Interdiffusion in Compatible Polymer Pairs," Annual Meeting of American Physical Society, Indianapolis, IN, March 20, 1992, (A)*.
314. "Characterization of Polymer Dissolution," Annual Meeting of American Physical Society, Indianapolis, IN, March 20, 1992, (A)*.
315. "Penetrant Transport in Ionic Polymers," Annual Meeting of American Physical Society, Indianapolis, IN, March 20, 1992, (A).
316. "Bioresponsive Hydrogels for Controlled Release of Solutes," Annual Meeting of American Chemical Society, San Francisco, CA, April 7, 1992, (P), *Invited Lecture*.
317. "Hydrogels in Medicine and Biology," Fourth World Biomaterials Congress, Berlin, Germany, April 26, 1992, (P), *Plenary Lecture*.
318. "Diffusion Release from Polymers," Second Workshop on Controlled Release in Consumer Products, Secaucus, New Jersey, May 13, 1992, (P), *Invited Lecture*.
319. "Fundamentals of pH- and Temperature-sensitive Polymers," Symposium on Pulsatile Drug Delivery, Königswinter, Germany, May 20, 1992, (P), *Invited Lecture*.
320. "Use of Near-field FTIR Imaging to Investigate Polymer Interdiffusion in Relation to Bioadhesion of Controlled Release Systems," Second Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, May 28, 1992, (A), *Invited Lecture*.
321. "Bioadhesive Controlled Release Systems," Workshop on Developments in Biopharmaceutics and Pharmacokinetics, Athens, Greece, May 30, 1992, (A), *Invited Lecture*.
322. "Mechanisms of Peptide and Protein Transport in Hydrogels," 19th International Symposium on Controlled Release of Bioactive Materials, Orlando, Florida, July 29, 1992, (P), *Invited Lecture*.
323. "Characterization of Water Structure in Relation to Release Behavior of Drugs from pH-Sensitive Hydrogels," 19th International Symposium on Controlled Release of Bioactive Materials, Orlando, Florida, July 29, 1992, (P)*.
324. "Swelling Controlled Drug Release from Cationic Polymers," 19th International Symposium on Controlled Release of Bioactive Materials, Orlando, Florida, July 29, 1992, (P)*.

325. "Peptide Diffusion and Release from Polymeric Carriers," 7th Symposium on Peptide Delivery, Zermatt, Switzerland, September 29, 1992, (A), *Invited Lecture*.
326. "Photopolymerizations of Multifunctional Acrylates and Methacrylates," Annual AIChE Meeting, Miami Beach, FL, November 2, 1992, (A)*.
327. "Modeling and Characterization of Polymer Dissolution," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
328. "Near-field FTIR Imaging Studies of Polymer-polymer Diffusion," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A).
329. "Diffusional and Mechanical Behavior of the Dodecane/Polystyrene System," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
330. "Characterization of Polymer/Drug Interactions by ATR-FTIR," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
331. "Disintegration of Pharmaceutical Formulations," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
332. "Dynamic and Equilibrium Swelling of Polyacrylates," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
333. "Release of Essential Oils from Sweetable Polymers," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
334. "Use of ATR-FTIR Spectroscopy for the Investigation of Chain Interpenetration in Bioadhesion," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
335. "Investigation of Drug Distribution and Interaction with Polymer Microscopy," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
336. "New Hydrophilic/Hydrophobic Block and Graft Copolymers for Selective Solute Separation," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
337. "Physical and Mechanical Characterization of Polymultifunctional Acrylates and Methacrylates," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
338. "Measurement of the Concentration Profile at a Poly(vinyl chloride) and Poly(methyl methacrylate) Interface with Analytical Electron Microscopy," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
339. "Highly Crosslinked Polymers as Information Storage Systems," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
340. "Relaxational and Diffusional Phenomena Observed During Swelling and Release from Ionic Polymers," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
341. "Diffusion and Sorption in Amorphous Polymer," Fifth International Symposium on Properties of Water, Peniscola, Spain, November 10, 1992, (A), *Plenary Lecturer*.
342. "Interaction of Biologically Active Molecules with Ionic Polymer Networks," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, March 1, 1993, (A)*, *Invited Lecture*.
343. "Novel Preparation Method of PVA Microparticles," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, March 1, 1993 (A)*.
344. "Synthesis and Characterization of Poly(ethylene glycol-g-methacrylic acid) Hydrogels," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, March 1, 1993, (A)*.
345. "Highly Crosslinked Polymers in Information Technology Applications," Annual ACS Meeting, Denver, CO, March 31, 1993 (P).
346. "Contemporary Issues in Hydrogels Research," Annual ACS Meeting, Denver, CO, April 1, 1993, (P), *Invited Lecture*.
347. "Complexation in P(EG-p-MAA) Hydrogels," Annual ACS Meeting, Denver, CO, April 1, 1993, (P)*.
348. "pH-Responsive Hydrogels for Controlled Drug Delivery," Annual ACS Meeting, Denver, CO, April 1, 1993, (P).
349. "Recent Advances in Transdermal and Oral Bioadhesives," Nichiban Conference, Tokyo, Japan, May 28, 1993, (A).
350. "Bioresponsive Drug Delivery Systems," International Conference on Materials for Biomedical Applications, Capri, Italy, June 10, 1993, (A), *Invited Lecture*.
351. "Dedrimers and Star Polymers for Pharmaceutical and Medical Applications," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 27, 1993, (P), *Invited Lecture*.

352. "Thirty Years of Controlled Release Modelling," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 26, 1993, (P).
353. Synthesis and Characterization of P(EG-g-MAA) Hydrogels," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 27, 1993, (P)*.
354. Investigation of Poly(acrylic acid)/Mucin Bioadhesion Using ATR-FTIR Spectroscopy," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 28, 1993, (P).
355. "Kinetics of Photopolymerizations of Multifunctional Monomers," Annual ACS Meeting, Chicago, IL, August 1993, (P)*.
356. "The Dynamic Swelling of Ionic Networks," Annual ACS Meeting, Chicago, IL, August 1993, (P)*.
357. "Highly Swollen Copolymers of Poly(ethylene glycol-g-methacrylic acid)," Annual ACS Meeting, Chicago, IL, August 1993, (P).
358. "Near-Field FTIR and ATR-FTIR Spectroscopies for the Investigation of Diffusional Mechanisms, Annual ACS Meeting, Chicago, IL, August 1993, (P), *Invited Lecture*.
359. "Fundamentals of Controlled Release with Applications to Food Flavor Delivery," Annual ACS Meeting, Chicago, IL, August 1993, (A), *Invited Lecture*.
360. "Glassy/Rubbery Transition in Relation to Penetrant Transport and Controlled Release of Encapsulated Food Ingredients," Annual ACS Meeting, Chicago, IL, August 1993, (A), *Invited Lecture*.
361. "Controlling Protein Diffusion in Hydrogels," International Symposium on Delivery of Protein Drugs, Kyoto, Japan, September 4, 1993, (A), *Invited Lecture*.
362. "Bioadhesive Polymers," Symposium on Polymers and Bioengineering, Cambridge, MA, October 1, 1993, *Invited Lecture*.
363. "Release Mechanisms from Polymeric Carriers," First European Workshop and Exhibition on Controlled Delivery in Consumer Products, Geneva, Switzerland, October 21, 1993, (P), *Invited Lecture*.
364. "Evidence of Mucoadhesion by Chain Interpenetration at a PAA/Mucin Interface Using ATR-FTIR Spectroscopy," Annual AIChE Meeting, St. Louis, MO, November 7, 1993, (A)*.
365. "Experimental and Theoretical Studies of Diacrylate Photopolymerizations," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A)*.
366. "Poly(methacrylic acid) Copolymer Interactions with Mucin with Applications to Mucoadhesion," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A)*.
367. "Macromolecular Transport in Ionic Hydrogels," Annual AIChE Meeting, St. Louis, MO, November 1993, (A)*.
368. "Information Storage Systems from Highly Crosslinked Multifunctional (Meth)acrylates," Annual AIChE Meeting, St. Louis, MO, November 5, 1993, (A)*.
369. "Dissolution of Glassy Polymers," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A)*.
370. "Comparative Studies of Oscillatory Swelling and Solute Transport in Complexing Poly(ethylene glycol-g-methacrylic acid) and Poly(acrylic acid)-containing Hydrogels," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A), *Invited Lecture*.
371. "Environmentally Sensitive Membranes for Separation Processes," Annual AIChE Meeting, St. Louis, MO, November 7, 1993, (A)*.
372. "Intelligent Polymers as Carriers for Drug Delivery," Materials Research Society Meeting, Boston, MA, November 30, 1993, (A), *Plenary Lecture*.
373. "Poly(methacrylic acid-g-ethylene glycol) Hydrogels as pH Responsive Biomedical Materials," Materials Research Society Meeting, Boston, MA, November 30, 1993, (P)*.
374. "Temperature- and pH-Sensitive Hydrogels for Controlled Release of Antithrombotic Agents," Materials Research Society Meeting, Boston, MA, November 30, 1993, (P)*.
375. "Novel Preparation of Poly(vinyl alcohol) Microparticles Without Crosslinking Agent for Controlled Drug Delivery of Proteins," Materials Research Society Meeting, Boston, MA, November 30, 1993, (P)*.
376. "Controlled Release of Triamterene from Poly(dl-lactide-co-glycolide) Microspheres," Materials Research Society Meeting, Boston, MA, November 29, 1993, (P)*.
377. "Developments in Biomedical Research Polymers," ACS Meeting on Materials Technology for Competitive Advantage, St. Petersburg, FL, November 22, 1993, (A), *Invited Lecture*.

378. "Dissolution of Glassy Polymers," American Physical Society Meeting, Pittsburgh, PA, March 21, 1994, (A)*.
379. "Molecular and Modelling Aspects of Dissolution of Glassy Polymers," Israeli Institute of Chemical Engineers Meeting, Beer-sheva, Israel, March 29, 1994, (A), *Invited Lecture*.
380. "Poly(methacrylic acid-g-ethylene glycol) as a pH Sensitive Biopolymer," Society for Biomaterials Meeting, Boston, MA, April 7, 1994, (P).
381. "Recent Advances in the Development and Performance of Bioresponsive Drug Delivery Systems," 13th Pharmaceutical Technology Conference, Strasbourg, France, April 14, 1994, (A), *Plenary Lecture*.
382. "Penetrant Transport and Drug Release in pH-Sensitive Hydrogels," Midwest Meeting American Association of Pharmaceutical Scientists, Chicago, Illinois, May 23, 1994, (A)*.
383. "The Mucoadhesive Properties of Polymeric Microparticles," Midwest Meeting American Association of Pharmaceutical Scientists, Chicago, Illinois, May 23, 1994, (A)*.
384. "Moving Fronts and Drug Release from Hydrogel Matrices," 21st International Symposium on Controlled Release of Bioactive Materials, Nice, France, June 28, 1994, (P)*.
385. "Bioadhesive Interactions of PMAA and PAA with Mucin and Mucus," 21st International Symposium on Controlled Release of Bioactive Materials, Nice, France, June 29, 1994, (P).
386. "Recent Advances in Mucoadhesives for Drug Delivery," 11th Congress of ISABI, Boston, Massachusetts, July 25, 1994, (P), *Invited Lecture*.
387. "Crosslinking Methods: Applications to Controlled Release," Fourth Workshop on Controlled Delivery in Consumer Products, Chicago, IL, September 27, 1994, *Invited Lecture*.
388. "Past, Present and Future of Materials in Medicine," Meeting of Society of Medicine and Natural Sciences, Parma, Italy, October 3, 1994, *Plenary Lecture*.
389. "Future Directions in the Development of Biomaterials," Annual Meeting of the Biomedical Engineering Society, Tempe, AZ, October 15, 1994, (A), *Invited Lecture*.
390. "Mechanochemical Behavior of pH- and Temperature-Sensitive Gels," Annual Meeting of the Biomedical Engineering Society, Tempe, AZ, October 16, 1994, (A).
391. "Measurement of Chain Interpenetration at a Mucoadhesive Interface Using ATR-IR Spectroscopy," First Iranian Chemical Engineering Conference, Teheran, Iran, November 15, 1994, (A)*.
392. "Intelligent Biomaterials: Scientific Curiosity or Panacea?," Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A), *Invited Lecture*.
393. "P(NIPAAm-co-MAA) Hydrogels for Temperature-and pH-Sensitive Release of Antithrombotic Agents", Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A), *Invited Lecture*.
394. "Mechanistic Aspects and Transport Behavior during Polymer Dissolution", Annual AIChE Meeting, San Francisco, CA, November 14, 1994, (A)*.
395. "Understanding of Dissolution of Semicrystalline Polymers", Annual AIChE Meeting, San Francisco, CA, November 14, 1994, (A)*.
396. "Evidence of Mucoadhesion by Chain Interpenetration at a PAA/Mucin Interface Using ATR-FTIR Spectroscopy", Annual AIChE Meeting, San Francisco, CA, November 14, 1994, (A)*.
397. "Adhesive and Diffusive Characteristics of Novel PVA Films for Medical Applications", Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A)*.
398. "Kinetics of Multifunctional Acrylates for Information Storage Systems", Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A).
399. "Semicrystalline Polymers for Controlled Drug Delivery," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, February 16, 1995, (A)*.
400. "Release of Antithrombotic Agents," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, February 16, 1995, (A)*.
401. "New Interpolymer Complexes, Star Polymers and Ionic Hydrogels in Drug Delivery Applications," Seventh International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 28, 1995, (P), *Invited Lecture*.
402. "Pulsatile Release of Antithrombotic Agents from pH- and Temperature Sensitive Hydrogels," Seventh International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 28, 1995, (A)*.
403. "Polymer Dissolution: A Modeling Attempt to "Couch" Molecular Theories in a Phenomenological Framework," American Physical Society Meeting, San Jose, CA, March 22, 1995, (A)*.

404. "Recent Advances in Modeling and Physicochemical Behavior of Swellable Polymers, Biomaterials, and Drug Delivery Systems," 5th Iketani Conference and International Symposium on Biomedical Polymers, Kagoshima, Japan, April 19, 1995, (P), *Invited Lecture*.
405. "Zero Order Release by Partial Coating of HPMC Matrix Tablets with Permeable and Semipermeable Films," First World Congress of Pharmaceutics and Biopharmaceutics, Budapest, Hungary, May 9, 1995, (P)*.
406. "Bioadhesive Poly(vinyl alcohol) as a Carrier for Controlled Release of Growth Factors and Proteins," First World Congress on Pharmaceutics and Biopharmaceutics, Budapest, Hungary, May 9, 1995, (P).
407. "Mucoadhesive Properties of Hydrophilic Polymeric Microparticles," 35th Symposium of AFI, Italian Pharmaceutical Association, Riccione, Italy, June 9, 1995, (A)*.
408. "Control and Modeling of Drug Delivery Devices for the Treatment of Diabetes," American Control Conference, Seattle, June 22, 1995, (P)*.
409. "Fickian and non-Fickian Diffusion in Swellable Gels," 36th IUPAC Microsymposium on High-Swelling Gels, Prague, Czech Republic, July 10, 1995, (A), *Plenary Lecture*.
410. "Transport in Hydrophilic Polymer Gels: Applications in Controlled Release," 22nd International Symposium of Controlled Release of Bioactive Materials, Seattle, WA, August 1, 1995, (P)*.
411. "Effect of Dissolution on Lamellar Thickness Distribution of Semi-Crystalline Poly(vinyl alcohol)," Annual ACS Meeting, Chicago, IL, August 24, 1995, (P)*.
412. "Development of a Dissolution-controlled, Zero-order Release, Drug Delivery System," Annual ACS Meeting, Chicago, IL, August 21, 1995, (P)*.
413. "Recent Developments in Insulin Delivery and Control Using Hydrogel Systems," Spanish Portuguese Conference on Controlled Drug Delivery, Santiago de Compostela, Spain, September 25, 1995, (P), *Invited Lecture*.
414. "Chain Disentanglement and Reptation Mechanisms During Polymer Dissolution," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
415. "A New Model for Dissolution of Semicrystalline Polymers," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
416. "Transport in Swellable Polymer Systems for Controlled Drug Release," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
417. "Rate Behavior in Solution Polymerization of Acrylic Acid," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
418. "Swelling/Deswelling Behavior in pH-Responsive Hydrogels of Ethylene Glycol Poly(Methacrylic acid) Copolymers," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
419. "Glucose-responsive Gels for the Release of Insulin," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
420. "Intelligent Hydrogel Systems for Protein and Drug Release with Feedback Control," 3rd US-Japan Symposium on Drug Delivery Systems, Maui, HI, December 18, 1995, (A), *Invited Lecture*.
421. "A Self-Consistent Diffusivity Approach to Understand Polymer Dissolution," American Physical Society Meeting, St. Louis, MO, March 19, 1996, (A)*.
422. "Modeling of Dissolution of Semicrystalline Polymers," American Physical Society Meeting, St. Louis, MO, March 19, 1996, (A)*.
423. "Modification of Drug Release Profiles and Swelling Behavior in Poly(vinyl alcohol) due to the Presence of a Crystalline Phase," American Chemical Society Meeting, New Orleans, LA, March 26, 1996, (P)*.
424. "On the Mechanisms of Water Transport and Drug Release from Swellable Hydrogels," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
425. "Solid State NMR Spectroscopy for Characterization of Acrylate Reaction," American Chemical Society Meeting, New Orleans, LA, March 26, 1996, (P).
426. "Radiation Crosslinked Poly(ethylene oxide) Hydrogels Show Insignificant Diffusional Screening Effects," American Chemical Society Meeting, New Orleans, LA, March 26, 1996, (P).
427. "An Experimental Study of Acrylic Acid Crosslinking Polymerizations," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
428. "Molecular Aspects of the Swelling Behavior of Interpolymer Complexing Hydrogels," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.

429. "Glucose-responsive Complexation Hydrogels," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
430. "Kinetics of UV Polymerization of Acrylic Acid," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
431. "Release of Insulin from Glucose-Sensitive Hydrogel," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
432. "Design of New Biomaterials for Drug Delivery: Tailoring the Structure to Specific Delivery Needs and Release Requirements," European Course on New Forms and New Routes of Administration of Drugs, Parma, Italy, March 30, 1996, (A), *Plenary Lecture*.
433. "Mucoadhesive PVA Hydrogels for Release of Wound Healing Drugs," Fifth World Biomaterials Congress, Toronto, Canada, June 1, 1996, (P).
434. "Recent Advances on Characterization, Morphology and Structural Modification of PVA with Emphasis on Diffusional and Adhesive Characteristics," 108th Poly(vinyl alcohol) Meeting, Kyoto, Japan, July 6, 1996, (A), *Plenary Lecture*.
435. "Mucoadhesive PEG-tethered Microparticulate Systems for Gastrointestinal and Vaginal Drug Delivery," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996 (P).
436. "Oral Delivery Devices from Freeze/Thawed PVA Hydrogels," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996 (P).
437. "Mucoadhesive PVA Films Produced by Freezing/Thawing Processes for the Release of Small Molecular Weight Solutes and for Wound Healing Systems," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996 (P).
438. "Unique Swelling-Controlled Release Systems Based on Temperature- and pH-Sensitive Terpolymers for Fibrinolytic Enzyme Delivery," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 10, 1996 (P).
439. "Oscillatory Drug and Protein Release by a Complexation/Decomplexation Mechanism," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 10, 1996, (P)*.
440. "Robust Model-Based Control of Insulin Pumps and Devices," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 10, 1996, (P)*, *Plenary Lecture*.
441. "Investigation of Drug/Polymer Interactions in the Hydrated State," Conference on Advances in Controlled Delivery, Baltimore, MD, August 19, 1996, (P)*.
442. "Crystal Dissolution-Controlled Release Systems: A Novel Technology for Facile Programmed Release of Drugs," Conference on Advances in Controlled Delivery, Baltimore, MD, August 20, 1996, (P).
443. "Independent Effects of pH and Monomer Concentration on the Kinetics of Acrylic Acid Solution Polymerization," American Chemical Society Meeting, Orlando, FL, August 26, 1996, (P)*.
444. "Network Formation by Chain Polymerization of Liquid-Crystalline Monomers," Polymer Networks 96 Meeting, Doorn, The Netherlands, September 4, 1996, (A)*.
445. "Model Predictive Control for Infusion Pump Insulin Delivery," 18th Annual International Conference IEEE, Engineering in Medicine and Biology Society, Amsterdam, The Netherlands, November 2, 1996, (P)*.
446. "Influence of Molecular Parameters of Glassy Crosslinked Polymer on Swelling-Controlled Solute Release Profiles," Annual AIChE Meeting, Chicago, IL, November 12, 1996, (A)*.
447. "Insulin Delivery Using Model-Based Control of Insulin Infusion Pumps," Annual AIChE Meeting, Chicago, IL, November 12, 1996, (A)*.
448. "New Directions in Drug Delivery," Annual AIChE Meeting, Chicago, IL, November 12, 1996, (A), *Invited Lecture*.
449. "Understanding Polymer Dissolution Using Self-Consistent Diffusion Coefficient Models and Comparison with Magnetic Resonance Imaging Analysis," Annual AIChE Meeting, Chicago, IL, November 13, 1996, (A)*.
450. "Characterization of PVA Prepared by Freezing/Thawing Techniques," Annual AIChE Meeting, Chicago, IL, November 13, 1996, (A).
451. "A Calorimetric Evaluation of the pH- and Conversion-Dependent Kinetics of (Meth)acrylic Acid Solution Polymerization," Annual AIChE Meeting, Chicago, IL, November 14, 1996, (A)*.

452. "Dissolution Mechanism of Thin Semicrystalline Polymer Films," Annual AIChE Meeting, Chicago, IL, November 14, 1996, (A)*.
453. Crystal Dissolution Controlled Drug Delivery Systems: A New Method of Drug or Protein Delivery," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
454. "Glucose-Sensitive, Poly(ethylene glycol)-Graft Copolymer Networks for Feedback Responsive Insulin Delivery," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
455. "Interpolymer Complexation in Polyelectrolyte Biopolymers," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
456. "Preparation, Swelling Behavior, and Insulin Release from Glucose-Responsive Complexation Hydrogels," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
457. "Preparation and Characterization of pH-Sensitive, Cationic Hydrogels," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
458. "Design of New Biomaterials for Drug Delivery: Tailoring the Structure to Specific Delivery Needs and Release Requirements," UK CRS Meeting, Manchester, United Kingdom, January 6, 1997, (A), *Invited Lecture*.
459. "Application of pH Responsive Polymer to an insulin Oral Dosage Form," 12th Annual Meeting Academy Pharmaceutical Sciences and Technology, Ohmiya, Japan, April 41997, (P)*.
460. "Novel Networks and Gels Containing Increased Amounts of Grafted and Crosslinked Poly(ethylene glycol)," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
461. "Preparation and Characterization of Random Copolymers of Acrylic Acid and Multifunctional Acrylates," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
462. "Computer Simulations of Liquid-Crystalline Diacrylate Monomer Polymerization," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
463. "A Complexation/Decomplexation Mechanism in pH-Responsive Copolymer Networks," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
464. "Graft Copolymers of PEO-PPO-PEO Triblock Polyethers on Bioadhesive Polymer Backbones: Synthesis and Properties," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
465. "Molecular Analysis of the Dissolution of Glassy Polymers," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
466. "Preparation and Characterization of Glucose-Sensitive P(MAA-g-EG) Hydrogels," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
467. "Graft Copolymers of PEO-PPO-PEO Triblock Polyethers on Bioadhesive Polymer Backbones for use as Drug Delivery Carriers," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
468. "Pulsatile Drug Delivery Systems Based on Interpolymer Complexing Biopolymer Networks," Society for Biomaterials Meeting, New Orleans, LA, May 3, 1997, (P)*.
469. "Drug Delivery Systems Controlled by Polymer Carrier Dissolution: Formulation and Performance," Society for Biomaterials Meeting, New Orleans, LA, May 3, 1997, (P).
470. "Recent Applications in Therapeutic pH- and Temperature-Sensitive Systems," First Argentinian CRS International Symposium, Buenos Aires, Argentina, May 13, 1997, (P), *Invited Lecture*.
471. "Peptide and Protein Diffusion in Polymeric Systems," First Argentinian CRS International Symposium, Buenos Aires, Argentina, May 13, 1997, (P), *Invited Lecture*.
472. "Oral Drug Delivery Using Swellable and pH-Sensitive Systems," First Greek CRS Conference, Athens, Greece, May 26, 1997, (P), *Invited Lecture*.
473. "Analysis of Swelling-Controlled Release Systems for Optimization of Drug Delivery," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 17, 1997, (P)*.
474. "Magnetic Resonance Imaging Analysis of Soluble Drug Delivery Carriers," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 17, 1997, (P).
475. "Drug Concentration Profiles During Release from Hydrophilic Matrices," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 17, 1997, (P)*.
476. "Design of Oral Controlled Drug Delivery Systems for Insulin," 11th World Congress of the International Society for Artificial Organs, Providence, RI, July 1, 1997 (A)*.

477. "Variable-rate Implantable Insulin Infusion Pumps: Closed-loop Maintenance of Normoglycemia Under Patient Variability for Type I Diabetes," 11th World Congress of the International Society for Artificial Organs, Providence, RI, July 1, 1997 (A)*.
478. "Poly(ethylene glycol)-Tethered Controlled Release Systems with Improved Mucoadhesive Behavior: Preparation and Studies with ATR-FTIR Spectroscopy," Japanese Drug Delivery Systems Society Meeting, Sapporo, Japan, July 11, 1997(P), *Plenary Lecture*.
479. "Biomaterials for Developing Pharmaceutical Preparations of High Quality of Life," Annual Meeting of Academy of Pharmaceutical Sciences and Technology, Kitamazu, Chiba, Japan, July 14, 1997 (P), *Plenary Lecture*.
480. "Protein Delivery from Novel Bioadhesive Complexation Hydrogels," Alfred Benzon Symposium, Copenhagen, Denmark, August 19, 1997 (A), *Invited Lecture*.
481. "Self-diffusion and Molecular Mobility in PVA-based Dissolution-Controlled Systems for Drug Delivery," Fourth International Meeting of Recent Advances in Magnetic Resonance Applications to Porous Media, Trondheim, Norway, September 2, 1997 (A)*.
482. "Complexation Graft Copolymers as Oral Drug Delivery Systems," American Chemical Society Meeting, Las Vegas, NV, September 9, 1997 (P)*.
483. "Novel Copolymeric Acrylate Networks for Sustained Solute Delivery," American Chemical Society Meeting, Las Vegas, NV, September 10, 1997, (P)*.
484. "Preparation and Characterization of PEG-Containing pH-Sensitive, Cationic Hydrogels for Drug Delivery Applications," American Chemical Society Meeting, Las Vegas, NV, September 10, 1997, (P).
485. "Morphology of Poly(Vinyl Alcohol) Gels Prepared by a Freezing/Thawing Process," American Chemical Society Meeting, Las Vegas, NV, September 10, 1997, (A).
486. "Time and Frequency Domain Analysis of Blood Glucose Regulation Algorithms," 19th IEEE Engineering in Medicine and Biology Conference, Chicago, IL, November 1, 1997, (A)*.
487. "The Importance of the Drug Diffusion Front in Drug Delivery Kinetics from Swellable Matrices," American Association of Pharmaceutical Scientists Meeting, Boston, MA, November 4, 1997, (A)*
488. "Design of Oral Delivery Systems for Peptides and Proteins Using Complexation Graft Copolymer Networks," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
489. "Molecular and Release Characteristics of Dissolution-Controlled Drug Delivery Systems," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
490. "Glucose-Sensitive Cationic Hydrogels: Preparation Characterization and Modeling of Swelling Properties," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
491. "Analysis of Insulin Administration and Absorption from Ocular/Lacrimal/Nasal Systems with or without Enhancers," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
492. "Control Analysis of Pancreas Models for Optimal Insulin Delivery," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
493. "Protein and Drug Transport in PVA/PAA Composite Membranes Prepared by Freezing/Thawing Techniques," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P).
494. "Probing the Network Structure of Highly Crosslinked Ionizable Polymers," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
495. "Network Structure and Diffusion in Highly Crosslinked Ionizable Polymers," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
496. "NMR Imaging Analysis of Self-Diffusion and Molecular Mobility During Dissolution of Water-Soluble Polymers," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
497. "NMR Study of Interpolymer Complexation in Polyelectrolyte Gels Using the Nuclear Overhauser Effect," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
498. "Analysis of the Complexation/Decomplexation Behavior of Polyelectrolyte Gels," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
499. "Physicochemical and Mathematical Factors Influencing Drug Delivery," Annual Society for Biomaterials Meeting, San Diego, CA, April 21, 1998, (A), *Invited Lecture*.
500. "Novel Bioadhesive Complexation Gels for Oral Peptide Delivery," Annual Society for Biomaterials Meeting, San Diego, CA, April 23, 1998, (P)*.

501. "Interpretation of Drug Release Kinetics and Drug Concentration Profiles in HPMC Gels," Second World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Paris, France, May 26, 1998, (P)*.
502. "Poly(ethylene glycol)-containing Hydrogels in Drug Delivery," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 10, 1998, (P), *Invited Lecture*.
503. "Application of pH-Responsive Polymers to Insulin Oral Dosage Forms," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 11, 1998, (P)*, *Invited Lecture*.
504. "Nasal Administration and Bioadhesive Polymers in Rabbits," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 11, 1998, (P)*.
505. "Polymer Relaxation in Swellable Matrices Contributes to Drug Release," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 22, 1998, (P).
506. "Pure PVA Hydrogels Using Freezing/Thawing Techniques as Carriers for Drug Delivery," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 22, 1998, (P)*.
507. "Insulin Release from pH-Sensitive Cationic Hydrogels," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 23, 1998, (P)*.
508. "Molecular Design of Ionizable PEG-Containing Networks for Extended Solute Release," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 23, 1998, (P).
509. "Drug Transport Analysis in Complex Networks Using Molecular Probes," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 24, 1998, (P)*.
510. "Modelling of Controlled Release Systems for Consumer Products," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 23, 1998, (P).
511. "Synthesis and Characterization of Poly(ethylene glycol) Star Polymer Gels for Medical and Pharmaceutical Applications," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 24, 1998, (P)*.
512. "Novel PNIPAAm/PMAA Interpenetrating Polymer Networks," 25th International Symposium on Controlled Release of Bioactive Materials, Las Vegas, Nevada, June 24, 1998, (P)*.
513. "Solid-state NMR Investigation of Interpolymer Complexation in Swollen Copolymer Networks," Annual American Chemical Society Meeting, Boston, MA, August 27, 1998, (P)*.
514. "Long-term Morphological Changes in Freeze-thawed PVA Hydrogels," Annual American Chemical Society Meeting, Boston, MA, August 27, 1998, (P)*.
515. "Structure and Solute Size Exclusion of Poly(N-isopropylacrylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks," Annual American Chemical Society Meeting, Boston, MA, August 27, 1998, (P)*.
516. "Contract Research Organizations and Their Role and Importance," Symposium on New Drug Developments in Pharmaceutical Sciences and Drug Registration, Istanbul, Turkey, September 5, 1998.
517. "Macromolecules as Excipients," 9th International Pharmaceutical Technology Symposium, Ankara, Turkey, September 8, 1998 (A), *Plenary Lecture*.
518. "Excipients for Food, Cosmetic and Consumer Applications," 9th International Pharmaceutical Technology Symposium, Ankara, Turkey, September 8, 1998 (A), *Plenary Lecture*.
519. "Poly(ethylene glycol) Star Polymer Hydrogels," Sixth Annual Chemical Engineering Graduate Student Symposium, Lexington, Kentucky, September 18, 1998, (P)*.
520. "Kinetics and Modeling of UV Polymerizations Initiated with an Iniferter," Sixth Annual Chemical Engineering Graduate Student Symposium, Lexington, Kentucky, September 18, 1998, (P)*.
521. "Novel pH-Sensitive Hydrogels for the Oral Delivery of Salmon Calcitonin," Sixth Annual Chemical Engineering Graduate Student Symposium, Lexington, Kentucky, September 18, 1998, (P)*.
522. "Modelling of the Swelling Process and the Diffusion Front Position in Hydrophilic Matrices," Sixteen Meeting of ADRITELF, Pisa, Italy, October 9, 1998, (A)*.
523. "Advances in Drug and Protein Delivery," First International Pharmaceutical Students Federation Meeting, Coimbra, Portugal, November 3, 1998 (A), *Plenary Lecture*.

524. "A New Model Describing the Swelling and Drug Release Kinetics from HPMC Tablets," Annual American Association of Pharmaceutical Scientists Meeting, San Francisco, CA, November 13, 1998, (P)*.
525. "Some Properties of Novel Multifunctional pH-Sensitive and Bioadhesive Polymers," Annual American Association of Pharmaceutical Scientists Meeting, San Francisco, CA, November 13, 1998, (P)*.
526. "Biomaterials and Drug Delivery Systems," Annual AIChE Meeting, Miami Beach, FL, November 12, 1998, *Plenary Lecture*.
527. "Poly(ethylene glycol) Star Polymer Hydrogels," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
528. "Structure and Morphology of Novel Poly(vinyl alcohol) Hydrogels Prepared by Freezing/Thawing Processes," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
529. "Molecular Level Investigation of Interpolymer Complexation in Copolymer Gels," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
530. "Experiments and Modelling of Ultraviolet Polymerizations," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
531. "Uncertainty and Robustness in Diabetic Patient Blood Glucose Control," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
532. "Preparation and Characterization of Poly(N-isopropyl acrylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
533. "pH-Sensitive Hydrogels with PEG-tethered Chains for Oral Delivery of Calcitonin," Annual MRS Meeting, Boston, MA, December 1, 1998, (A)*.
534. "Molecular Aspects of Muco- and Bioadhesion: Tethered Structures and Site-Specific Surfaces," Ninth International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 22, 1999, (P), *Invited Lecture*.
535. "Advances in Gel Science and Technology," US-Israel-Turkey NSF Meeting on Chemical Engineering, Haifa, Israel, March 10, 1999, (A), *Invited Lecture*.
536. "The Characterization of P(PEGMA-co-PEGDMA) Gels for Use in Coating the Tract of a Transjugular Intrahepatic Porto-systemic Shunt," Annual American Chemical Society Meeting, Anaheim, CA, March 24, 1999 (P)*.
537. "Structural and Morphological Characteristics of Carriers Based on Poly(acrylic acid)," Annual American Chemical Society Meeting, Anaheim, CA, March 24, 1999 (P)*.
538. "pH-Dependent Swelling of Nano-sized Poly(methacrylic acid-g-ethylene glycol) Gels," Annual American Chemical Society Meeting, Anaheim, CA, March 24, 1999 (P)*.
539. "A Thermodynamic Study of Polymer Chains Tethered on Gel Surfaces," Annual American Physical Society Meeting, Atlanta, GA, March 25, 1999 (A)*.
540. "Poly(N-isopropyl acrylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks in Drug Delivery," Midwestern AAPS Meeting, Chicago, IL, May 17, 1999 (A)*.
541. "Targeted Oral Delivery of Insulin from Complexation Hydrogels," Annual Meeting of Society for Biomaterials, Providence, RI, April 30, 1999 (P)*, *Invited Lecture*.
542. "Intelligent Hydrogels and their Biotechnological and Separation Applications," Meeting of International Atomic Energy Agency, Takasaki, Japan, May 18, 1999 (P).
543. "Tailor-made Networks of Poly(ethylene glycol) for Controlled Drug Delivery," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
544. "P(AA-g-PEG) Copolymer Gels as Carriers for Delivery of Chemotherapeutic Agents," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
545. "A New Model Elucidating the Transport Mechanisms and Predicting the Release Kinetics from HPMC Matrices," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
546. "Protein Release from PVA Gels Prepared by Freezing and Thawing Techniques," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
547. "Kinetic Gelation Modeling of Polymer Networks Formed by a Living Radical Polymerization," Annual American Chemical Society Meeting, New Orleans, LA, August 23, 1999 (P)*.

548. "Interpenetrating Polymeric Networks with pH and Temperature Sensitivity," Annual American Chemical Society Meeting, New Orleans, LA, August 24, 1999 (P)*.
549. "Recent Advances and Molecular Observations on the Controlled Drug and Protein Delivery," Third Central European Symposium on Pharmaceutical Technology, Portoroz, Slovenia, September 23, 1999 (P), *Plenary Lecture*.
550. "Long and Short Chains Tethered on Gel Surfaces," Annual AIChE Meeting, Dallas, TX, October 31, 1999 (A)*.
551. "Kinetic Simulation and Analysis of PEG-containing Networks synthesized by Free Radical Polymerizations," Annual AIChE Meeting, Dallas, TX, November 1, 1999 (A)*.
552. "Robust H_{∞} Control of Type I Diabetic Patient Blood Glucose," Annual AIChE Meeting, Dallas, TX, November 2, 1999 (A)*.
553. "Analysis of Diffusional and Structural Characteristics of PVA Hydrogels Prepared by Freezing-Thawing Techniques," Annual American Association of Pharmaceutical Scientists Meeting, New Orleans, LA, November 16, 1999 (A).
554. "Poly(ethylene glycol) Tethered Chains and Their Roles in Gel Mucoadhesion," Annual American Association of Pharmaceutical Scientists Meeting, New Orleans, LA, November 16, 1999 (A).
555. "Molecular Structure and Diffusive Behavior of Poly(ethylene glycol)-Grafted Poly(acrylic acid) Hydrogels as Drug Carriers," Annual American Association of Pharmaceutical Scientists Meeting, New Orleans, LA, November 16, 1999 (A).
556. "Advances in Protein and Bioadhesive Delivery," US-Japan Drug Delivery Meeting, Maui, HI, December 14, 1999 (A).
557. "Development of Nano-sized pH-sensitive Complex Hydrogels for Oral Peptide Delivery," Annual Meeting of Society of Powder Technologies, Japan, Kobe, Japan, November 24, 1999.
558. "Gaseous and Solute Transport in Hydrogels," Symposium on Biomedical Polymers for the 21st Century, Boston, MA, March 17, 2000 (P), *Plenary Lecture*.
559. "Novel Patterned Films for Free-Radical Polymerization Techniques," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
560. "Kinetic Simulation of Networks Synthesized by Free Radical Polymerization," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
561. "Morphology and Dynamics of Interpenetrating Polymeric Networks with Combined pH and Temperature Sensitivity," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
562. "A New Mean-field Theory for Equilibrium Gel Swelling," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
563. "Tethered Polymer Chains Contribute to Gel-Gel Adhesion," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
564. "Fickian and non-Fickian Processes in Swellable Controlled Release Systems," Annual American Chemical Society Meeting, San Francisco, CA, March 26, 2000 (A), *Invited Lecture*.
565. "Cytotoxicity and Transport Enhancement of Proteins Through Cell Monolayers Using Novel pH-Sensitive Hydrogels," Third World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Berlin, Germany, April 6, 2000 (P)*.
566. "Calculation of the Required Size and Shape of HPMC Matrices to Achieve Desired Drug Release Profiles," Third World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Berlin, Germany, April 6, 2000 (P)*.
567. "Micropatterning and Molecular Imprinting for Medical Applications," Sixth European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, Netherlands, April 12, 2000 (P), *Invited Lecture*.
568. "Tethered Polymers for Controlled Drug Delivery," Millennial World Congress of Pharmaceutical Sciences, San Francisco, CA, April 18, 2000, (A), *Invited Lecture*.
569. "Design of Advanced Biomaterials and Drug Delivery Carriers," Sixth World Congress for Biomaterials, Kamuela, Hawaii, May 19, 2000, (P), *Plenary Lecture*.
570. "Calcitonin Transport Through Poly(methacrylic acid)-PEG-Grafted Hydrogels Using a CaCo-2 Model," Sixth World Congress for Biomaterials, Kamuela, Hawaii, May 16, 2000 (P)*.
571. "Patterning and Molecular Imprinting with Polyfunctional Methacrylates," Sixth World Congress for Biomaterials, Kamuela, Hawaii, May 16, 2000 (P)*.

572. "Intelligent Biopolymers in Protein and Drug Delivery," Eleventh North American Membrane Society Meeting, Boulder, Colorado, May 26, 2000 (A), *Plenary Lecture*.
573. "Molecularly Imprinted Hydrogels with Polyfunctional Methacrylates," First International Workshop on Molecularly Imprinted Polymers, Cardiff, United Kingdom, July 5, 2000 (P)*.
574. "Non-covalent Molecular Imprinting of Glucose: Recognition in Aqueous Media," First International Workshop on Molecularly Imprinted Polymers, Cardiff, United Kingdom, July 5, 2000 (P)*.
575. "A New Mathematical Model to Predict Drug Release from Hydrophilic Matrices: The "Sequential Layers" Model", 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 11, 2000, (P)*.
576. "Molecular Design of New Biomaterials for Controlled Release," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 13, 2000, (P)*, *Invited Lecture*.
577. "A New Dispersion Technique for Micro- and Nanoparticle Formation of Drug Delivery Carriers Based on Poly(acrylic acid)", 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 13, 2000, (P)*.
578. "A New Dispersion Technique for Micro- and Nanoparticle Formation of Drug Delivery Carriers Based on Poly(acrylic acid)," 40 th Minisymposium on Polymers in Medicine, Prague, July 19, 2000, (A)*.
579. "Glucose Responsive pH-Dependent Hydrogels," World Congress of Biomedical Engineering, Chicago, IL, July 25, 2000 (A)*.
580. "Novel pH-Sensitive Hydrogels for the Oral Delivery of Calcitonin: Caco-2 Cell Studies," World Congress of Biomedical Engineering, Chicago, IL, July 26, 2000 (A)*.
581. "UV Free Radical Polymerization for Micropatterning Poly(ethylene glycol)-containing Films," 45th SPIE Meeting, San Diego, CA, July 31, 2000 (P)*.
582. "Protein and Drug Delivery: Recent Successes and Future Challenges," Whitaker Foundation Meeting, La Jolla, CA, August 13, 2000 (A), *plenary lecture*.
583. "Molecular Dynamics of pH-Sensitive Hydrogels Based on Poly(acrylic acid)," Annual ACS Meeting, Washington, DC, August 23, 2000 (P)*.
584. "Molecular Design of Mucoadhesive Drug Delivery Systems," British Pharmaceutical Conference, Birmingham, United Kingdom, September 12, 2000 (A), *invited lecture*.
585. "Molecularly Imprinted Polyfunctional Methacrylates for Drug Delivery Applications," Tenth International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 12, 2000 (P)*.
586. "New Biomedical Gels Materials with Tethered Chains: Theory and Biological Interactions," Third Joint China/USA Chemical Engineering Conference, Beijing, China, September 27, 2000 (P)*.
587. "Poly(ethylene glycol)-containing Hydrogels as Insulin Delivery Carriers," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
588. "New Biomedical Gel Materials with Tethered Chains: Theory and Biological Interactions," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
589. "Poly(ethylene glycol)-containing Hydrogels as Insulin Delivery Carriers," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
590. "pH-Sensitive Drug Delivery Carriers Based on Modified Poly(acrylic acid)," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
591. "Recognition Mechanisms of Molecularly Imprinted Polymers: Smart Systems for Drug Delivery," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
592. "Non-covalent Molecular Imprinting of Glucose in Polar Protic Media," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
593. C. Donini, D.N. Robinson and N.A. Peppas, "Preparation and Characterization of pH-Sensitive Poly(methacrylic acid-g-Ethylene Glycol) Microspheres for Oral Insulin Delivery," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
594. "Drug Release Mechanisms from HPMC Matrices," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
595. "Novel pH-Sensitive Hydrogels for Oral Peptide Delivery: In Vitro Evaluation of their Cytocompatibility and Insulin-Transport Enhancing Effect in Caco-2 cell Monolayers," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.

596. "Development and Cytotoxicity of Poly(methacrylic acid-g-Poly(ethylene glycol)) Microparticles for Use as Drug Carriers in Oral Delivery," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
597. "Preparation of Thermosensitive Hydrogel Nanoparticles Containing Poly(ethylene glycol) for Microencapsulation of Peptides in the Wurster Coating Process," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
598. "Multilaminate PVA Hydrogel Systems as Protein Controlled Release Devices," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
599. "Drug Volume Fraction Profiles in HPMC Matrices by Image Analysis," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
600. "The Use of Self-Assembled Monolayers to Study Mucoadhesion," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
601. "Design of Advanced Biomaterials and Drug Delivery Carriers," Annual AIChE Meeting, Los Angeles, CA, November 13, 2000 (A), *invited lecture*.
602. "Future Directions of Drug and Protein Delivery," Annual AIChE Meeting, Los Angeles, CA, November 13, 2000 (A), *invited lecture*.
603. "Temperature-Sensitive Particulate Systems Containing Poly(ethylene glycol)," Annual AIChE Meeting, Los Angeles, CA, November 13, 2000 (A)*.
604. "Poly(methacrylic Acid-g-Ethylene Glycol) Microspheres for Protein Delivery Applications," Annual AIChE Meeting, Los Angeles, CA, November 14, 2000 (A)*.
605. "Poly(ethylene glycol)-Containing Hydrogels for Insulin Delivery Systems," Annual AIChE Meeting, Los Angeles, CA, November 14, 2000 (A)*.
606. "Patterned Poly(ethylene glycol)-Containing Films by UV Free-Radical Polymerization Techniques," Annual AIChE Meeting, Los Angeles, CA, November 15, 2000 (A)*.
607. "Molecularly Imprinted Gels Using Polymethacrylates and Poly(ethylene glycol)," Annual AIChE Meeting, Los Angeles, CA, November 16, 2000 (A)*.
608. "New Complexation-Sensitive Hydrogels for Oral Protein Delivery," Annual MRS Meeting, Boston, MA, November 27, 2000 (A), *invited lecture*.
609. "Direct Measurement of Interactions Between Tethered PEG Chains and Adsorbed Mucin Layers by Surface Force Apparatus," Annual MRS Meeting, Boston, MA, November 28, 2000 (A)*.
610. "Stimuli-sensitive Polymers," APGI/GRTV Meeting, "New Trends in Polymers for Oral and Parenteral Administration," Paris, France, March 12, 2001 (A), *Invited Lecture*.
611. "Protein/Carrier Interactions in Novel Protein Delivery Systems Examined by FTIR Spechoscopy," Second Mediterranean Meeting of the Controlled Release Society, Athens, Greece, April 28, 2001 (A)*.
612. "Teaching of Biomaterials Science and Engineering in a Modern Engineering Curriculum," Annual Meeting of the Society for Biomaterials, St. Paul, MN, April 26, 2001 (A), *invited lecture*.
613. "Compositional Dependence of Copolymerization Kinetics in an Intraocular Lens Formation," Annual Meeting of the Society for Biomaterials, St. Paul, MN, April 28, 2001 (P)*.
614. "Evaluation of Poly(ethylene glycol)-based Copolymers for Contact Lenses," Annual Meeting of the Society for Biomaterials, St. Paul, MN, April 28, 2001 (P).
615. "Study of the Network Structure of Swollen Cellulose Derivatives Used in Pharmaceutical Applications," 28th International Symposium on Controlled Release of Bioactive Materials, San Diego, CA, June 25, 2001 (P)*.
616. "New Glucose-Containing Poly(methacrylic acid-g-ethylene glycol) Hydrogels," Annual ACS Meeting, Chicago, IL, August 26, 2001 (P)*.
617. "Acrylic-Based Copolymers for Oral Insulin Delivery Systems," Annual ACS Meeting, Chicago, IL, August 26, 2001 (P)*.
618. "Macroscopic and Microscopic Investigations of HEMA-Based Molecularly Imprinted Networks," Annual ACS Meeting, Chicago, IL, August 27, 2001 (P)*.
619. "Biomimetic Materials for Drug Targeting and Drug Delivery," Annual ACS Meeting, Chicago, IL, August 28, 2001 (A)*, *invited lecture*.
620. "Length and Breadth Polyrotaxane Structures: A Concept in Three Dimensional Polymeric Systems for Biomedical Applications," Sixth International Symposium on Polymers for Advanced Technologies, Eilat, Israel, September 3, 2001 (P)*.

621. "Micropatterning and Microimprinting of Poly(ethylene glycol)-Containing Films," Sixth International Symposium on Polymers for Advanced Technologies, Eilat, Israel, September 5, 2001 (P), *plenary lecture*.
622. "Characterization of the Network Mesh Size of Swollen Cellulose Ethers Used for Controlled Release," Fourth Central European Symposium on Pharmaceutical Technology, Vienna, Austria, September 24, 2001 (P)*.
623. "Microfabrication of Biomedical Polymers for Sensor Applications," Second BioMEMS and Biomedical Nanotechnology World 2001, Columbus, OH, September 24, 2001 (A)*.
624. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning," Annual Meeting of the National Academy of Engineering, Washington, D.C., October 8, 2001 (A), *invited lecture*.
625. "The Sequential-Layer Model Quantifying Drug Release from Hydrophilic Matrix Tablets: Experimental Verification," Annual Meeting of American Association of Pharmaceutical Scientists, Denver, CO, October 24, 2001 (A)*.
626. "PEG-Containing Complexation Hydrogels Enhance Calcitonin Transport Across Caco-2 Cell Monolayers," Annual AIChE Meeting, Reno, NV, November 6, 2001 (A)*.
627. "Molecular Imprinting in PHEMA Copolymers," Annual AIChE Meeting, Reno, NV, November 6, 2001 (A)*.
628. "pH-Sensitive Hydrogels with Pendent Saccharides for Protein Delivery Applications," Annual AIChE Meeting, Reno, NV, November 7, 2001 (A)*.
629. "Use of Methacrylic Acid-Containing Hydrogels to Increase Protein Transport Across the Intestinal Epithelium," Annual Meeting of the American Physical Society, Indianapolis, IN, March 19, 2002 (A)*.
630. "Biomimetic Materials for Selective Recognition of Biologicals: Theoretical and Experimental Analysis," Annual Meeting of the American Physical Society, Indianapolis, IN, March 19, 2002 (A)*.
631. "Environmentally Sensitive Hydrogels Patterned on Silicon Microcantilevers," Annual Meeting of the American Physical Society, Indianapolis, IN, March 20, 2002 (A)*.
632. "Modeling of the Specific Binding of Biomolecules by Molecularly Imprinted Polymeric Gels," Annual Meeting of the American Physical Society, Indianapolis, IN, March 21, 2002 (A)*.
633. "Producing Networks for Recognition of Biomolecules: Biomimetic Materials for Drug Delivery and Targeting," Materials Research Society Annual Meeting, San Francisco, CA, April 2, 2002 (A)*.
634. "Selective Recognition of Biologically Significant Molecules," Materials Research Society Annual Meeting, San Francisco, CA, April 5, 2002 (A)*.
635. "Use of Complexation Hydrogels for Oral Delivery of Cancer Therapeutics," Materials Research Society Annual Meeting, San Francisco, CA, April 5, 2002 (A)*.
636. "Environmentally Sensitive Hydrogels Patterned on Silicon Microcantilevers," Materials Research Society Annual Meeting, San Francisco, CA, April 3, 2002 (A)*.
637. "Star Polymers for Molecular Recognition," Materials Research Society Annual Meeting, San Francisco, CA, April 4, 2002 (A)*.
638. "Requirements for Molecular Recognition by Imprinted Polymers," Materials Research Society Annual Meeting, San Francisco, CA, April 5, 2002 (A)*.
639. "Advances in Oral Protein Delivery," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 8, 2002 (A), *Plenary Lecture*.
640. "Characterization and Optimization of P(MAA-g-EG) Insulin-Loaded Nanospheres," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 9, 2002 (P)*.
641. "Novel Core-Shell Nanoparticles with Thermo- and pH-Responsive Swelling Properties for Oral Peptide Delivery," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 9, 2002 (P)*.
642. "Simulation of the Rupture of a Pulsatile Drug Delivery System," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 9, 2002 (P)*.
643. "Micro- and Nanospheres of Intelligent Biopolymers in Protein/Drug Delivery and Molecular Imprinting," Particles 2002, Orlando, FL, April 22, 2002 (A), *Plenary Lecture*.
644. "Template-sensitive Polymers for Biomimetic Applications," Annual Meeting of the Society for Biomaterials, Tampa, FL, April 25, 2002 (A)*.

645. "Biomimetic Materials for Selective Recognition and Microsensing of Biologically Significant Molecules," Annual Meeting of the Society for Biomaterials, Tampa, FL, April 25, 2002 (A).
646. "25 Years of Oral Drug Delivery Research," 29th Annual Meeting of the Controlled Release Society, Seoul, Korea, July 22, 2002 (P), *Invited Lecture*.
647. "Intelligent Biomaterials in Protein Delivery, Molecular Imprinting and Micropatterning," 29th Annual Meeting of the Controlled Release Society, Seoul, Korea, July 23, 2002 (P), *Invited Lecture*.
648. "In vivo Studies of Oral Delivery Systems Based on Complexation Hydrogels," 29th Annual Meeting of the Controlled Release Society, Seoul, Korea, July 23, 2002 (P)*.
649. "Molecular Imprinting with Small Molecules: Effects on Polymerization and Imprinted Properties," Annual Meeting of American Chemical Society, Boston, MA, August 20, 2002 (P)*.
650. "Devices Based on Intelligent Biopolymers for Oral Protein Delivery," 11th International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 9, 2002 (P), *Plenary Lecture*.
651. "Recognition-based Hydrogel Networks as Intelligent Drug Delivery Systems," 11th International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 9, 2002 (P).
652. "Histopathological Evaluation of Drug Loaded P(MAA-g-EG) Hydrogels," 11th International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 9, 2002 (P).
653. "Ultrasensitive BioMEMS Sensor Based on Silicon Microcantilevers Patterned with Environmentally Responsive Hydrogels," Third Annual BioMEMS and Biomedical Nanotech Conference, Columbus, OH, September 8, 2002 (P).
654. "Biomimetic Networks for Selective Recognition of Biomolecules: Materials for Bionanotechnology," Third Annual BioMEMS and Biomedical Nanotech Conference, Columbus, OH, September 8, 2002 (P).
655. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning," ACS Prospectives Meeting, Boston, MA, October 13, 2002 (A), *Plenary Lecture*.
656. "Molecular Design and Cellular Studies with Oral Insulin Delivery Systems," Annual Meeting of the Biomedical Engineering Society, Houston, TX, October 22, 2002 (A), *Invited Lecture*.
657. "Use of Complexation Hydrogels for Oral Delivery of Chemotherapeutic Agents," Annual Meeting of the Biomedical Engineering Society, Houston, TX, October 23, 2002 (A)*.
658. "A BioMEMS Sensor Platform Based on a Cantilever with a Precisely Patterned Environmentally Sensitive Hydrogel," Annual Meeting of the Biomedical Engineering Society, Houston, TX, October 23, 2002 (A)*.
659. "Computer Simulation of the Formation of Recognitive Polymer Networks," Annual AIChE Meeting, Indianapolis, IN, November 4, 2002 (A)*.
660. "Biomimetic Networks as Selective Recognition Elements for Detection of Biomolecules in Microsensor and Microarray Devices," Annual AIChE Meeting, Indianapolis, IN, November 4, 2002 (A)*.
661. "Protein Transport and Cell Interactions of Polymer Carriers with a Caco-2 Cell Line," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A).
662. "Swelling and Insulin Loading and Release from pH-sensitive hydrogels," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A).
663. "Poly(ethylene glycol)-tethered Structures as Improved Buccal and Oral Mucoadhesive Drug Delivery Systems," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A)*.
664. "Modified pH-Sensitive Copolymer Networks with Pendent Saccharides as Biomedical Materials," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A)*.
665. "Transport Mechanisms of Salmon Calcitonin and Other Model Molecules Using the Caco-2 Cell Model," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A)*.
666. "Environmentally Sensitive Hydrogels Patterned onto Silicon Microcantilevers as a Biomems Sensor Platform," Annual AIChE Meeting, Indianapolis, IN, November 6, 2002 (A)*.
667. "Development of Acyclic-Based Copolymers for Oral Protein Delivery," Annual AIChE Meeting, Indianapolis, IN, November 6, 2002 (A).
668. "Biomolecular Specific Polymers for Sensing and Diagnostics," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
669. "Biological Recognition by Smart Hydrogels," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.

670. "Glucose-Binding Polymeric Networks: Correlations Between Computational Simulations and Experiment," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
671. "Biomimetic Materials for Selective Recognition of Biomolecules: Recognitive Networks for Drug Delivery, Targeting, and Biosensors," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
672. "Novel Poly(ethylene glycol)-containing Hydrogels for Transmucosal Protein Delivery," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
673. "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents," Annual AIChE Meeting, Indianapolis, IN, November 8, 2002 (A)*.
675. "Direct Measurements of Adhesion Between Mucin and Poly(ethylene glycol)," Annual AIChE Meeting, Indianapolis, IN, November 8, 2002 (A)*.
676. "The Role of Preparation Conditions on Particle Size and Redispersion Ability of P(MAA-g-EG) Nanospheres," Annual AAPS Meeting, Toronto, Canada, November 12, 2002 (A)*.
677. "Simulation of Polymeric Network Formation with Atomic Level Interactions for the Study of Templated and Recognitive Materials," Annual Meeting of the American Physical Society, Austin, TX, March 3, 2003 (A)*.
678. "Biomprinted Polymer Scaffolds for Selective Recognition of RGD Peptides," Annual Meeting of the American Physical Society, Austin, TX, March 3, 2003 (A)*.
679. "Integration of Environmentally Responsive Hydrogels with Silicon Microcantilevers for Biosensor Applications," Annual Meeting of the American Physical Society, Austin, TX, March 4, 2003 (A)*.
680. "Micropatterning of Biomimetic Recognitive Hydrogels for Microsensing Applications", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
681. Bioimprinted Polymer Scaffolds for Selective Recognition of RGD Peptides", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
682. Improved Mucoadhesive Formulations for Buccal and Oral Drug Delivery", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
683. Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
684. Synergistic Effect of Complexation Hydrogels and Permeation Enhancers on Model Intestinal Cell Monolayer: Implications to the Oral Delivery of Insulin", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
685. "Biotechnology in a Chemical Engineering World", Council of Chemical Research, Austin, TX, April 8, 2003.
686. "Protein-Imprinted Polymeric Microparticles for Tissue Engineering Applications," Annual Meeting of the Society for Biomaterials, Reno, NV, May 2, 2003 (P)*.
687. "Insulin Transport Across Cell Monolayers in the Presence of Complexation Hydrogels," Annual Meeting of the Society for Biomaterials, Reno, NV, May 2, 2003 (P)*.
688. "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents", Annual Meeting of the Society for Biomaterials, Reno, NV, May 2, 2003 (P)*.
689. "New Biomaterials for Intelligent Biosensing, Recognitive Drug Delivery and Therapeutics", 37th Annual Meeting of the Academy of the Alpilles, St Remy, France, June 12, 2003 (P), *Invited Lecture*.
690. "Experimental Investigation of the Effect of Complexation Hydrogels on Insulin Transport Across Model Intestinal Cell Monolayers", Annual Meeting of the Japanese Drug Delivery Systems Society, Kyoto, Japan, June 20, 2003 (A)*.
691. "Development of Oral Insulin Delivery Systems and Evaluation as Pharmaceutical Dosage Forms in Diabetic Rats", Annual Meeting of the Japanese Drug Delivery Systems Society, Kyoto, Japan, June 20, 2003 (A)*.
692. "Comparison of Low and High Molecular weight HPMC Types: Drug and Polymer Release from Matrix Tablets", 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003 (P)*.
693. "Calculation of the Erosion and Swelling Front Positions in Swellable Controlled Release Tablets", 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003 (P)*.

694. "Oral Administration of P(MAA-g-EG) Particles to Rats: Histological Characterization", 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003 (P)*.
695. "Intelligent Mucoadhesive Nanospheres for Transmucosal Protein Delivery and Other Pharmaceutical Applications", 4th BioMEMS and NanoTech World Meeting, Washington, DC, August 25, 2003 (A), *Plenary Lecture*.
696. "Novel BioMEMS Sensor Platform: Fusion of Silicon Technologies with Intelligent Polymer Networks", 4th BioMEMS and NanoTech World Meeting, Washington, DC, August 25, 2003 (A)*.
697. "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents", Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
698. "Biomimetic Polymer Scaffolds for Selective Recognition of Cell Adhesion Proteins", Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
699. "Biologically Intelligent Complexation Hydrogels for the Oral Delivery of Therapeutic Proteins" Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
700. "Role of Complexation Hydrogels in Insulin Transport Across Model Intestinal Cell Monolayer", Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
701. "Nanotechnology to Enhance Human Health", NIH-NSF Nanobiotechnology Workshop, Washington, DC, October 9, 2003 (P), *Plenary Lecture*.
702. "Elucidation of Water, Drug and Polymer Transport in Swellable Matrix tablets Unders Steric Restriction", Annual AAPS Meeting, Salt Lake City, UT, October 27, 2003 (A)*.
703. "Novel Poly(ethylene glycol) Containing Polymers as Mucoadhesive Drug Delivery Systems", Annual AAPS Meeting, Salt Lake City, UT, October 28, 2003 (A)*.
704. "Intelligent Polymer Networks as Sensing Elements: Enabling Technologies for Novel Biosensor Platforms" Annual AIChE Meeting, San Francisco, CA, November 17, 2003 (A)*.
705. "Templated Polymeric Networks for Molecular Recognition: Simulation and Experimental Correlations," Annual AIChE Meeting, San Francisco, CA, November 19, 2003 (A)*.
706. "Oral Delivery of Insulin Bioconjugates Using Complexation Hydrogels," Annual AIChE Meeting, San Francisco, CA, November 19, 2003 (A)*.
707. "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents," Annual AIChE Meeting, San Francisco, CA, November 20, 2003 (A)*.
708. "Biomimetic Polymer Scaffolds for Selective Recognition of Blood Proteins In Tissue Engineering Applications," Annual AIChE Meeting, San Francisco, CA, November 21, 2003 (A)*.
709. "Novel Biomimetic Polymer Networks: Development and Application as Selective Recognition Elements for Biomolecules at the Micro/Nano-scale" Annual AIChE Meeting, San Francisco, CA, November 21, 2003 (A)*.
710. "Development and Application of Intelligent Polymer Networks as Recognition Elements for Novel Microdevices," Materials Research Society Annual Meeting, Boston, MA, December 1, 2003 (A)*.
711. "Molecular Simulations of Recognitive Polymer Networks Prepared by Biomimetic Configurational Imprinting as responsive Biomaterials," Materials Research Society Annual Meeting, Boston, MA, December 1, 2003 (A)*, *Invited Lecture*.
712. "Molecular Design and Cellular Response of Novel Intelligent Mucoadhesive Carriers for Oral Delivery of Proteins an Chemotherapeutic Agents," Materials Research Society Annual Meeting, Boston, MA, December 1, 2003 (A)* *Invited Lecture*.
713. "Molecular Imprinting of Novel Biodegradable Polymer Matrices for Drug Delivery Applications," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
714. "Oral Administration of Chemotherapeutic Agents from Complexation Hydrogels," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
715. "Development and Application of Intelligent Polymer Networks as Recognition Elements for Novel Biomedical Microdevices," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
716. "Advanced Oral Protein Delivery Systems: Modifying the Molecular Design to Create Biologically Intelligent Complexation Hydrogels," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
717. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Micropatterning", Inaugural Meeting, Texas Academy of Science, Engineering and Medicine, San Antonio, TX, January 7, 2004, *Invited Lecture*, (A).

718. "Complexation Hydrogels for Oral Delivery of Insulin: Overcoming the Enzymatic Barriers", 21st Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 12, 2004 (A)*.
719. "A Novel Technique Using Degradable Components to Create configurationally Biomimetic Imprinted Polymers", 21st Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 12, 2004 (A)*.
720. "Biologically Intelligent Complexation Hydrogels for the Oral Delivery of Proteins", 21st Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 12, 2004 (A)*.
721. "Nanotechnology and Intelligent Therapeutics: Configurationally Biomimetic Imprinting and Protein Delivery", Southwest Regional Conference of the National Academy of Engineering, Houston, TX, March 25, 2004, *Invited Lecture*, (A).
722. "Voies de progrès en formulation: Quelles perspectives?", Gattefossé Meeting, Lyon, France, April 22, 2004. *Plenary Lecture*, (A).
723. "Transport Phenomena in Drug and Protein Delivery Processes and Therapeutics", NSF/NIH Workshop on Transport Processes in Biomedical Systems, Washington, DC, May 6, 2004, *Invited Lecture*, (A).
724. "Drug Release Mechanisms in Swellable Matrix Tablets with Steric Restriction", European Conference on Drug Delivery and Pharmaceutical Technology, Seville, Spain, May 10, 2004, (P).
725. "Configurational Biomimesis as a Method for Preparation of Novel Biomaterials and Drug Delivery Carriers," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, May 31, 2004, *Invited Lecture*, (A).
726. "Elucidation of the Mechanisms for Increasing Oral Insulin Absorption in Delivery Systems Based on Complexation Hydrogels," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, June 1, 2004, (A)*.
727. "Development of Oral Delivery Systems for Peptide and Protein Drugs Based on Complexation Hydrogels," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, June 1, 2004, (A)*.
728. "Oral Insulin Delivery Systems Based on Complexation Hydrogels: Single and Multiple Administration Studies in Type 1 and 2 Diabetic Rats," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, June 1, 2004, (A)*.
729. "Application of Complexation Hydrogels to Oral Delivery Systems for Peptide and Protein Drugs", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 14, 2004 (P)*.
730. "Characterization of Insulin Protection Properties of Complexation Hydrogels in Gastric and Intestinal Enzyme Fluids", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 15, 2004 (P)*.
731. "Gastrointestinal Transit of Mucoadhesive Complexation Hydrogels in Rats", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 15, 2004 (P)*.
732. "Successful Oral Insulin Carrier Systems Based on complexation Polymer Hydrogels: Single and Multiple Administration Studies in Type I and II Diabetic Rats", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 16, 2004 (P)*.
733. "Cellular and Molecular Evaluation of Novel Carriers for Oral Chemotherapy", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 16, 2004 (P)*.
734. "Bionanotechnology in Drug Delivery, Drug Design and Therapeutic Systems", 4th Asan-Harvard Joint International Symposium on Nanotechnology in Biology and Medicine, Seoul, Korea, June 16, 2004 (A), *Plenary lecture*.
735. "Intelligent Biomaterials in Microfabricated and Nanoscale Devices for Pharmaceutical Applications", 4th Asan-Harvard Joint International Symposium on Nanotechnology in Biology and Medicine, Seoul, Korea, June 16, 2004 (A), *Plenary lecture*.
736. "Bionanotechnology in Drug Delivery and Intelligent Therapeutic Systems", 20th Japanese Drug Delivery Systems Meeting, Tokyo, Japan, July 15, 2004 (P), *Plenary lecture*.
737. "Novel Biomimetic Polymer Networks with Tailored Recognition Properties: Functional Components in Diagnostic and Therapeutic Devices", 5th BioMEMS and NanoTech World Meeting, Washington, DC, August 17, 2004 (A).

738. "Advances in Intelligent Biomaterials for Protein Delivery, Biological Recognition and Responsive Systems", European Materials Research Society, Warsaw, Poland, September 6, 2004 (A), *Plenary lecture*.
739. "Novel Biomimetic Polymer Networks: Tailored Recognition Properties for Biomedical Applications", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 15, 2004 (A)*.
740. "Molecular design and Evaluation of Complexation Hydrogels as Advanced Oral Protein delivery Systems", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 15, 2004 (A)*.
741. "Configurational Biomimetic Imprinted Polymers Selective for Angiotensin II", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 15, 2004 (A)*.
742. "Novel Molecularly Imprinted Hydrogels for the Recognition of Blood Proteins", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 16, 2004 (A)*.
743. "Investigation of Degradable, Imprinted Microspheres for the Development of a Tissue Engineering Scaffold", Meeting on "Biomaterials in Regenerative Medicine", Philadelphia, PA, October 17, 2004 (P)*.
744. "Cellular and Molecular Evaluation of Oral Delivery Systems for Chemotherapeutic Agents", Annual AIChE Meeting, Austin, TX, November 8, 2004 (A)*.
745. "Biomimetic, Molecularly Imprinted Hydrogels for Recognition and Capture of High Molecular Weight Proteins" Annual AIChE Meeting, Austin, TX, November 8, 2004 (A)*.
746. "Protein Recognition and Binding at Interfaces: Engineering Polymeric Materials to Bind Specific Molecules", Annual AIChE Meeting, Austin, TX, November 9, 2004 (A)*.
747. "Biomimetic Polymers in Drug Delivery and Sensing Applications: Effect of Network Molecular Structure on Recognition Properties, Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
748. "Incorporation of Degradable Components into a Configurationally Biomimetic Imprinted Polymer, Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
749. "Molecular Design of Advanced Oral Protein Delivery Systems Using Complexation Hydrogels", Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
750. "Thermo-responsive Polymer Nanoparticles for Stealth Drug Delivery and Molecular Recognition", Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
751. "Use of Complexation Hydrogels in Overcoming Enzymatic Barriers to Oral Insulin Delivery", Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
752. "Theory and Applications of Intelligent Biomaterials, Annual AIChE Meeting, Austin, TX, November 9, 2004, (A), *Invited lecture*.
753. "The Future of Intelligent Therapeutics", Annual AIChE Meeting, Austin, TX, November 10, 2004
754. "Complexation Hydrogels As Oral Delivery Vehicles For Insulin-Transferrin Conjugates", Annual AIChE Meeting, Austin, TX, November 11, 2004, (A)*.
755. "Kinetic Studies of Iniferter Photopolymerizations for Highly Crosslinked Polymer Networks", Annual AIChE Meeting, Austin, TX, November 11, 2004, (A)*.
756. "Modeling And Control Of The Behavior Of Glucose Sensing Devices", Annual AIChE Meeting, Austin, TX, November 12, 2004, (A)*.
757. "Transmucosal Drug Delivery Systems Using Mucoadhesive Brush-containing Networks", Annual AIChE Meeting, Austin, TX, November 12, 2004, (A)*.
758. "Influence of Electrolytes on the Dissolution Properties of Chlorpheniramine Maleate from Hot-Melt Extruded Tablets Containing Chitosan and an Anionic Polymer", Annual AAPS meeting, Baltimore, MD, November 12, 2004, (A)*.
759. "Design of pH and Buffer-species Independent Sustained Release Hot-Melt Extruded Tablets: Application of Inter- and Intra-Molecular Hydrogelation", Annual AAPS meeting, Baltimore, MD, November 12, 2004, (A)*.
760. "Novel Chronopharmacological Protein Delivery Systems Based on PEG-containing Hydrogels" Meeting on "Chronobiology and Chronotherapy", Austin, TX, November 12, 2004.
761. "Diseño y síntesis de hidrogeles acrílicos modificados para la liberación controlada de fármacos", Seventh Congress of the Spanish Society of Industrial and Galenic Pharmacy, Salamanca, Spain, February 7, 2005.

762. "Biomimetic Polymers in Sensing Applications and Drug Delivery", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A), *Invited lecture*.
763. "Integrating Strategies for Improved Oral Delivery of Therapeutic Proteins", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A)*.
764. "Utilization of the Adhesion Promoter Poly(ethylene glycol) in Mucoadhesive Biomaterials", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A)*.
765. "Applications of Modeling and Control Toward the Development of Novel Therapies for Diabetes Mellitus", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A)*.
766. "Improvement of Novel Biomedical devices via Kinetic Studies of Iniferter Photopolymerization", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 11, 2005 (A)*.
767. "Temperature-Sensitive Stealth Nanoparticles as Intelligent Therapeutic Systems", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 11, 2005 (A)*.
768. "Biomimetic Systems and Nanotechnology in Intelligent Therapeutics", Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 17, 2005, (A), *Plenary Lecture*.
769. "Intelligent Therapeutics and Nanoscale Delivery: Impact on Absorption and Transport", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 18, 2005 (A), *Plenary lecture*.
770. "Formulation Optimization for Oral Peptide and Protein Delivery", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 18, 2005 (A)*, *Plenary lecture*.
771. "Improved Absorption of Therapeutic Agents Through Acrylic-based Biohydrogels: Investigation of the in vitro Release Properties and Cytocompatibility", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 19, 2005 (A)*.
772. "In vitro Investigation of lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 19, 2005 (A)*.
773. "Poly(methacrylic acid-g-ethylene glycol) Microparticles as Modulators of Tight Junction Morphology, Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 19, 2005 (A)*.
774. "Biomimetic Imprinted Microparticles for the Recognition and Capture of Serum Proteins," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P)*.
775. "Mucoadhesive Characteristics of Biomaterials Containing the Adhesion Promoter PEG," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P)*.
776. "Molecular Design and Evaluation of Complexation Hydrogels as Advanced Oral protein Delivery Systems," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P)*.
777. "Hydrogels as Biomaterials: Infinite Possibilities in Bionanotechnology, Drug Delivery, Biological Recognition and Tissue Engineering," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P), *plenary lecture*.
778. "The Swelling Behavior of Hydrophilic Tablets as Revealed by High-Resolution X-ray Computed Tomography", Pharmaceutical Sciences Fair and Exhibition, Nice, France, June 14, 2005 (A)*
779. "Structural Analysis and Diffusional Behavior of Molecularly Imprinted Polymer Networks for Cholesterol Recognition", Pharmaceutical Sciences Fair and Exhibition, Nice, France, June 14, 2005 (A)*.
780. "Recognitive and Diagnostic Polymer Networks: Formation, Simulations and Thermodynamics", European Polymer Congress, Moscow, Russia, June 28, 2005 (P), *Plenary lecture*.
781. "The Swelling Behavior of Hydrophilic Tablets as Analyzed by High-Resolution X-Ray Computed Tomography", Symposium on Innovative Therapeutics, Louvain, Belgium, July 12, 2005 (A)*.
782. "Smart Drug Delivery and Bionanotechnology", 15th International Symposium on Microencapsulation, Parma, Italy, September 19, 2005, (P), *Plenary lecture*.
783. "Configurational Biomimetic Imprinting of Angiotensin II for Novel Drug Delivery Systems", 15th International Symposium on Microencapsulation, Parma, Italy, September 19, 2005, (P)*.

784. "Modeling the Effect of Scaffold Architecture on Diffusion of Oxygen in Tissue Engineering Constructs", Annual Meeting Biomedical Engineering Society, Baltimore, MD, September 30, 2005 (A)*.
785. "Calcium Dependent Epithelial Permeability Enhancement", Annual Meeting Biomedical Engineering Society, Baltimore, MD, September 30, 2005 (A)*.
786. "Molecular Imprinting of Peptides for Novel Drug Delivery Systems", Annual Meeting Biomedical Engineering Society, Baltimore, MD, October 1, 2005 (A)*.
787. "Complexation Hydrogels for Biological Recognition and Intelligent Delivery", International Symposium on Polymer Gels, Sapporo, Japan, October 17, 2005 (A), *Plenary lecture*.
788. "Temperature Sensitive Nanoparticles as Intelligent Therapeutic Systems", International Symposium on Polymer Gels, Sapporo, Japan, October 18, 2005 (A)*.
789. "Synthesis and Characterization of pH Responsive Mucoadhesive Tethered Biomaterials", International Symposium on Polymer Gels, Sapporo, Japan, October 18, 2005 (A)*.
790. "Investigation of Lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
791. "Properties of Sustained Release Floating Tablets Prepared by a Hot-Melt Extrusion Process", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
792. "Development of PEG-Containing pH-Responsive polymers for Oral Drug Delivery", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
793. "Properties of Mucoadhesive Oral Drug Delivery Systems for Spatial Localization of Levodopa", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
794. "Molecularly Designed Mucoadhesive pH Responsive Tethered Biomaterials and their Use in Spatially Controlled Therapeutic Delivery", Annual AIChE Meeting, Cincinnati OH, October 30, 2005 (A)*.
795. "Mucoadhesive Oral Insulin Delivery Systems Using Lectin Functionalized Complexation Hydrogels", Annual AIChE Meeting, Cincinnati OH, October 31, 2005 (A)*.
796. "Novel Mucoadhesive Formulations Employing pH-Responsive Biomaterials", Annual AIChE Meeting, Cincinnati OH, October 31, 2005 (A)*.
797. "Molecularly Designed Mucoadhesive pH-Responsive tethered Biomaterials", Annual AIChE Meeting, Cincinnati OH, November 1, 2005 (A)*.
798. "Membrane Science and Intelligent Therapeutics", Annual AIChE Meeting, Cincinnati OH, November 1, 2005 (A), *Invited lecture*.
799. "Temperature-Sensitive Polymer-Gold Nanocomposites as Intelligent Therapeutic Systems", Annual AIChE Meeting, Cincinnati OH, November 3, 2005 (A)*.
800. "Intelligent Therapeutics and Bionanotechnology", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2005 (A), *Invited lecture*.
801. "Gold-Polymer Nanocomposites as Intelligent Therapeutic Systems", US-Japan Drug Delivery Meeting, Maui, HI, December 20, 2005 (A)*.
802. "Molecularly-Designed Mucoadhesive pH-Responsive Tethered Biomaterials", US-Japan Drug Delivery Meeting, Maui, HI, December 20, 2005 (A)*.
803. "Configurational Biomimetic Polymers for Novel Drug Delivery Systems", US-Japan Drug Delivery Meeting, Maui, HI, December 20, 2005 (A)*.
804. "Metal-Polymer Nanocomposites as Externally Triggered Intelligent Therapeutic Systems", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
805. "Temperature-Responsive Interpenetrating Polymer Network Nanospheres as Intelligent Therapeutic Systems", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
806. "Application of Process Control Techniques Towards Type 1 Diabetes Mellitus", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
807. "Oral Insulin Delivery Using Lectin Functionalized Complexation Hydrogels", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
808. "Lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", 9th European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, the Netherlands, April 6, 2006 (P)*.

809. "Selective Recognition of Angiotensin II for Novel Drug Delivery Systems", 9th European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, the Netherlands, April 6, 2006 (P)*.
810. "Integration of Thermally Responsive Nanosphere Hydrogels with Gold Nanoparticles for Intelligent Therapeutic Applications" Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006 (P)*.
811. "Effect of Scaffold Architecture on Diffusion of Oxygen in Tissue Engineering Constructs" Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006 (P)*.
812. "Biomimetic Polymers in Intelligent Drug Delivery", 3rd World Congress on Biomimetics, Artificial Muscles and Nanobiotechnology, Lausanne, Switzerland, May 26, 2006 (A), *Invited lecture*.
813. "The Fascinating World of Bionanotechnology", ASEE Annual Conference, Chicago, IL, June 19, 2006 (A), *Plenary lecture*.
814. "Molecular Design and Cellular Studies of Oral Protein Delivery", 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P)*.
815. "Externally triggered Metal-Polymer Nanocomposites for Controlled Release Applications, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P)*.
816. "Loading and Mobility of Spin-Labeled Insulin in Repsonsive Complexation Hydrogels", 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P)*.
817. "Oral Delivery of Proteins", 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P), *Plenary lecture*.
818. "Polymeric Drug Delivery- Past, Present and Future", PolyPharma meeting, Halle, Germany, September 25, 2006, *Plenary lecture*.
819. "Loading and Mobility of Spin-Labeled Insulin in Responsive Complexation Hydrogels- An ESR Study", PolyPharma meeting, Halle, Germany, September 25, 2006 (P)*.
820. "Molecularly Imprinted Hydrogels for Recognition of Serum Proteins for Sustained Drug Delivery", Annual Meeting of the Biomedical Engineering Society, Chicago, IL, October 12, 2006 (A)*.
821. "Considering Mucus in the Enhancement of Paracytosis by P(MAA-g-EG) Drug Carriers", Annual Meeting of the Biomedical Engineering Society, Chicago, IL, October 12, 2006 (A)*.
822. "Molecular Imprinted Hydrogels as Intelligent Drug Delivery Systems", Annual Meeting of the Biomedical Engineering Society, Chicago, IL, October 12, 2006 (A)*.
823. "Influence of Sulfobutyl Ether Beta-Cyclodextrin on the Dissolution Properties of a Poorly Soluble drug from Extrudates Prepared by Hot-Melt Extrusion", Annual AAPS Meeting, San Antonio, TX, October 31, 2006 (A)*.
824. "Dynamics of Tethered Biomaterials and their Development into pH Responsive Mucoadhesive Oral Drug Delivery Systems", Annual AAPS Meeting, San Antonio, TX, October 31, 2006 (A)*.
825. "pH-Sensitive Complexation Hydrogels for the Oral Delivery of Proteins", Annual AAPS Meeting, San Antonio, TX, October 31, 2006 (A)*.
826. "Modeling of the Dynamics of Insulin Release from pH Responsive Cationic Hydrogel Nanospheres", Sixth Annual Diabetes Technology Meeting, Atlanta, November 3, 2006 (A)*.
827. "Metal-Polymer Nanocomposites for Therapeutic and Imaging Applications", Annual AIChE Meeting, San Francisco, CA, November 13, 2006 (P)*.
828. "Glucose-Responsive Systems for Insulin Delivery Based on Poly(Ethylene Glycol)-Containing, pH-Sensitive, Cationic Hydrogels", Annual AIChE Meeting, San Francisco, CA, November 13, 2006 (P)*.
829. "Dynamics of Novel Multifunctional, Intelligent Mucoadhesive Copolymers", Annual AIChE Meeting, San Francisco, CA, November 14, 2006 (P).
830. "In Vitro Investigation of Oral Insulin Delivery Systems Using Lectin Functionalized Complexation Hydrogels", Annual AIChE Meeting, San Francisco, CA, November 14, 2006 (P).
831. "Thermally Responsive Interpenetrating Polymer Network Nanoparticles", Annual AIChE Meeting, San Francisco, CA, November 14, 2006 (P)*.
832. "Drug Absorption in the Upper Small Intestine and Its Implications in the Design of Oral Protein Delivery Carriers", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P).
833. "Penetrant Transport in Well-Characterized Glassy Polymers as Revealed by High-Resolution X-Ray Computed Tomography", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.

834. "Engineering of Novel Drug Delivery Devices Based on Convex/Concave Geometries and Dynamic Analysis Using X-Ray Tomography", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P).
835. "Tethered pH Responsive Biomaterials for Mucoadhesive Oral Controlled Release Drug Delivery Systems", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
836. "Selective Recognition of Angiotensin II", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P).
837. "Characterizing Transport Enhancement by P(MAA-g-EG) Drug Carriers in the Presence of Mucus", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
838. "Molecular Analysis of Interpolymer Complexing Hydrogels Based on Poly(Methacrylic Acid) and N-Vinyl Pyrrolidone as Carriers for Protein Delivery by Transmucosal Transport", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
839. "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
840. "Bionanotechnology and Responsive, Biomimetic Drug Delivery Systems", Fifteenth Nisshin Engineering Particle Technology International Meeting "Nanotechnology in Life Sciences", Awajishima, Japan, December 11, 2006 (P), *Plenary lecture*.
841. "nanostructured Biomaterials and Surfaces for Recognition", Meeting on Biomaterials from 2D to 3D to Larger than Life, Maui, HI, December 15, 2007 (A). *Invited lecture*.
842. "Growth Hormone Release Using pH-Sensitive Complexation Hydrogels", 24th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2007 (P)*.
843. "Development and Characterization of Polycationic Nanogels for Targeted Intracellular Drug Delivery", 24th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2007 (P)*.
844. "Comparing pH-Sensitive Carriers in Transporting Growth Hormone", 24th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2007 (P)*.
845. "Targeting with Molecularly Decorated Nanoparticles", Pharmaceutical World Congress, Amsterdam, The Netherlands, April 24, 2007 (A).
846. "Photoemulsion Polymerization of Polycationic Nanogels for Intracellular Drug Delivery", Pharmaceutical World Congress, Amsterdam, The Netherlands, April 24, 2007 (A)*.
847. "Nanotechnology and Intelligent Response: What Have They Done for Biomaterials Lately?" Annual Meeting of the Society for Biomaterials, Chicago, IL, April 20, 2007 (P).
848. "Growth Hormone Release from pH-Sensitive Complexation Hydrogels", Annual Meeting of the Society for Biomaterials, Chicago, IL, April 20, 2007 (P)*.
849. "Characterization of Hydrogel-Conductive Polymer Recognitive Interpenetrating Networks", Annual Meeting of the Society for Biomaterials, Chicago, IL, April 20, 2007 (P)*.
850. "Nanotechnology and Drug Delivery", BIO2007, Boston, MA, May 7, 2007.
851. "*Le plus ça change...* Nanotechnology and Bioengineering in an Evolving Chemical Engineering World", 9th Greek Scientific Chemical Engineering Conference, Athens, Greece, May 31, 2007 (P), *Plenary lecture*.
852. "Nanotechnology and Intelligent Systems in Drug Delivery", National Biotechnology Conference, AAPS, San Diego, CA, June 26, 2007 (A), *Plenary lecture*.
853. "Design of a Polymeric Insulin Infusion System for Blood Glucose Control", IEEE Control Systems Society and American Automatic Control Council Meeting, New York, NY, July 10, 2007 (P)*.
854. "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", 14th International Symposium of Microncapsulation, Lexington, KY, September 11, 2007 (P)*.
855. D.A. Carr, W.A. Hunt and N.A. Peppas, "Evaluation of Therapeutic Protein Encapsulation and Release from pH-Sensitive Complexation Hydrogels", 14th International Symposium of Microncapsulation, Lexington, KY, September 11, 2007 (P)*.
856. "The Next Generation of Drug Delivery Technologies", Conference on the Impact of New technologies on the Future of Pharmacy Practice and Science, University of Central Lancashire, Preston, UK, September 13, 2007 (A), *Plenary Lecture*.
857. "Chemical Engineering in Bioengineering and Bionanotechnology", CHEMECA Meeting, Melbourne, Australia, September 25, 2007 (A), *Plenary Lecture*.

858. "Biomolecular Sensing with Polyaniline-Polymer Acid Complex", Annual Meeting Biomedical Engineering Society, Los Angeles, CA, September 28, 2007 (A)*.
859. "What Has Nanotechnology Done for Drug Delivery Lately?", Meeting of APGI and ADRITELF on Innovation in Drug Delivery, Naples, Italy, October 1, 2007 (P), *Plenary Lecture*.
860. "Complexation Hydrogels as Biomimetic Smart Materials," Materials and Complex Fluids Workshop, The University of Texas at Austin. Austin, TX. October 12, 2007 (A).
861. "Dynamics of Novel Multifunctional, Intelligent Mucoadhesive Copolymers". Annual AIChE Meeting, Salt Lake City, UT, November 5, 2007 (A)*.
862. "Polymerizations in the Service of Nanotechnology and Intelligent Biomaterials Science". Annual AIChE Meeting, Salt Lake City, UT, , November 5, 2007 (A), *Invited Lecture*.
863. "Computer Evaluation of Hydrogel-Based Systems for the Closed Loop Treatment of Type I Diabetes Mellitus", Annual AIChE Meeting, Salt Lake City, UT, November 5, 2007 (A)*..
864. "Polysaccharide-Tethered Hydrogels for Drug Delivery", Annual AIChE Meeting, Salt Lake City, UT, November 5, 2007 (A)*.
865. "Molecular Design and Dynamic Behavior of Interpolymer Complexing Hydrogels as Carriers for the Oral Delivery of Therapeutic Proteins" Annual AIChE Meeting, Salt Lake City, UT, November 6, 2007 (A)*.
866. "*In Situ* Dynamics of Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Salt Lake City, UT, November 6, 2007 (A)*.
867. "Le Plus ça Change...Nanotechnology and Bioengineering in an Evolving Chemical Engineering World". Annual AIChE Meeting, Salt Lake City, UT, November 7, 2007 (A), *Plenary Institute Lecture*.
868. "Cationic Polymeric Systems for Glucose-Responsive Insulin Delivery". Annual AIChE Meeting, Salt Lake City, UT, November 8, 2007 (A)*.
869. "Oral Delivery of Insulin-Transferrin Bioconjugates Using Intelligent Complexation Hydrogels", Annual AIChE Meeting, Salt Lake City, UT, November 8, 2007 (A)*.
870. "Intelligent Biomaterials in Protein Delivery, Molecularly Reognitive Systems and Microdevices", International Conference on Cellular and Molecular Engineering, Singapore, December 11, 2007 (A), *Plenary Lecture*.
871. "Complexation Hydrogels of Methacrylic Acid and N-Vinyl Pyrrolidone for the Oral Delivery of Therapeutic Proteins", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
872. "Conductive Polymers for Recognitive Hydrogels", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
873. "Oral Delivery of Insulin-Transferrin Bioconjugates Using Intelligent Complexation Hydrogels", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
874. "Carbohydrate-Containing hydrogels for Oral Protein Delivery", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
875. "Intelligent Glucose-Responsive Insulin Delivery via Cationic Hydrogel Systems, US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
876. "Metal-Polymer Composites as Externally-Controlled Intelligent Therapeutic Systems", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
877. "Towards the Development of Biodegradable Sensors from Smart Hydrogels", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
878. "Hydrogel and Conductive Polymer Composite as a Sensing Device", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
879. "Material Characterization of pH-Sensitive Polycationic Nanocarriers for Intracellular Drug Delivery", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
880. "PEGylated Insulin Loading of Poly(Methacrylic Acid-G-Ethylene Glycol) Particles", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
881. "pH-Sensitive Polycationic Hydrogels for Intracellular Drug Delivery", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
882. "Recognitive Biomaterials for Neurotransmitters", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.

883. "Bioengineering Advances to Improve the Quality of Life Throughout the World", 17th Annual Event of the American Institute for Medical and Biological Engineering, Washington, DC, February 21, 2008, *Galletti Award Lecture*.
884. "Visualization and Analysis of the Dynamics of Methanol Transport in Poly(methyl methacrylate)", American Physical Society Meeting, New Orleans, LA, March 14, 2008, (A)*.
885. "Protein Bioconjugate Delivery via Intelligent Complexation Systems", Tenth European Controlled Release Meeting, Noordwijk, the Netherlands, April 3, 2008 (P), *Invited Lecture*.
886. "Oral Insulin Bioconjugate Delivery Using Intelligent Complexation Systems", 6th World meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Barcelona, Spain, April 9, 2008, (A)*.
887. "New pH-sensitive Hydrogel for an Oral Delivery of Proteins with a High Isoelectric Point" 6th World meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Barcelona, Spain, April 9, 2008, (A)*.
888. "Oral Delivery of Insulin and Other Proteins", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 30, 2008 (P).
889. "Molecular Design of a Novel Complexation Hydrogel for the Oral Delivery of Therapeutic Proteins" 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 30, 2008 (P)*.
890. "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 30, 2008 (P)*.
891. "Cationic Hydrogels for Intelligent Insulin Delivery", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008 (P)*.
892. "Analysis of Poly(Ethylene Glycol) Tethered Poly(Acrylic Acid) Networks for Mucoadhesive Applications", ", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008 (P)*.
893. "Metal-Polymer Nanocomposites as Externally Triggered Therapeutic Systems", ", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008 (P)*.
894. "Fast- vs. Slow- Paclitaxel Eluting Degradable Stents and Their Impacts on Coronary Artery Smooth Muscle Cells Proliferation", ", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008 (P)*.
895. "Design of Functional and Intelligent Polymeric Carriers for Improved Cellular Transport and Biorecognition", 6th International Conference of the Chemical Societies of the SE European Countries, September 13, 2008 (A), *Plenary Lecture*.
896. "The Role of Chemical Engineering in the Growth of Bioengineering and Nanotechnology", 11th Mediterranean Congress of Chemical Engineering, October 23, 2008 (P), *Plenary Lecture*.
897. "Conductive Polymer and Hydrogel Composites as Functional Biomaterials", Annual AIChE Meeting, Philadelphia, PA, November 16, 2008 (A)*.
898. "Investigating Dynamic Penetrant Transport In Glassy Polymers for High-Tech Applications", Annual AIChE Meeting, Philadelphia, PA, November 16, 2008 (A)*.
899. "Photopolymerized pH-Responsive Nanomatrices for Applications In Nanomedicine", Annual AIChE Meeting, Philadelphia, PA, November 16, 2008 (A)*.
900. "An Examination of Structural Parameters Affecting the Dynamics of Penetrant Transport In Glassy Polymers", Annual AIChE Meeting, Philadelphia, PA, November 17, 2008 (A)*.
901. "Past, Present and Future of Drug Delivery", Annual AIChE Meeting, Philadelphia, PA, November 17, 2008 (A)*.
902. "Biomolecular Sensing with Polyaniline-Poly(2-acrylamidomethylpropane sulfonic acid) Nanosystems", Annual AIChE Meeting, Philadelphia, PA, November 18, 2008 (A)*.
903. "Towards the Development of Biodegradable Sensors from Smart Hydrogels", Annual AIChE Meeting, Philadelphia, PA, November 21, 2008 (A)*.
904. "Diffusional Mechanisms in Glassy Polymers", Annual APS Meeting, Pittsburgh, PA, March 17, 2009 (A)*.
905. "The Development of an Oral Protein Delivery System Using PEGylated Proteins", Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
906. "Hydrogels Modified with Carbohydrates for Oral Protein Delivery," Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
907. "Temperature-Sensitive Polymer-Gold Nanocomposites for Externally Controlled Therapeutic Systems," Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.

908. "Protein Recognitive Hydrogel Systems for Biosensor/Biodiagnostic Applications", Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
909. "Biodegradable, pH-Responsive Hydrogels as Sensing Microstructures", Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
910. "Swelling Controlled Release 30 Years Later: Responsive Intelligence and Delivery Design", PharmSciFAir, Nice, France, June 10, 2009 (P), *Invited lecture*.
911. "Novel Microsensors From Biodegradable Smart Hydrogels", Annual AIChE Meeting, Nashville, TN, November 7, 2009 (A)*.
912. "Protein Recognitive Hydrogel Systems for Biosensor Applications", Annual AIChE Meeting, Nashville, TN, November 9, 2009 (A)*.
913. "Recent Advances in Hydrogels as Biomaterials", Annual AIChE Meeting, Nashville, TN, November 10, 2009 (A), *Invited Lecture*.
914. "Recognitive Networks in Advanced Responsive Systems", Annual AIChE Meeting, Nashville, TN, November 11, 2009 (A), *Invited Lecture*.
915. "Dynamics of Non-Fickian Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
916. "Microcantilever Sensors Utilizing Biodegradable, pH-Responsive Hydrogel", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
917. "Investigating Dynamics Penetrant Transport in Glassy Polymers for High-Tech Applications", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
918. "Development of pH-Responsive Nanogels for Delivery of siRNA", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
919. "Synthesis and Characterization of Polyaniline-Polymer Acid Complexes for Use in Biosensing Applications", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
920. "Recognition and Delivery: The Next Generation of Medical Microdevices", US-Japan Drug Delivery Meeting, Maui, HI, December 18, 2009 (A)*, *Invited lecture*.
921. "Intelligent and Feedback-Controlled Nanoparticles for Intelligent Drug Delivery", First Global Congress on NanoEngineering for Medicine and Biology, ASME, Houston, TX, February 9, 2010 (A), *Plenary Lecture*.
922. "Nanoparticulate Metal-Polymer Systems for Externally-Controlled Delivery", First Global Congress on NanoEngineering for Medicine and Biology, ASME, Houston, TX, February 9, 2010 (A), *Plenary Lecture*.
923. "Protein Recognitive Hydrogel Systems for Biosensor Applications", First Global Congress on NanoEngineering for Medicine and Biology, ASME, Houston, TX, February 9, 2010 (A), *Plenary Lecture*.
924. "The Evolution of Controlled Drug Delivery Devices and Systems: Pioneers and Imaginative Solutions", 7th World Meeting on Pharmaceuticals, Biopharmaceutics and Pharmaceutical Technology, Valletta, Malta, March 8, 2010, *Maurice-Marie Janot Award Lecture*.
925. "The Future of Biomedical Engineering", Annual Meeting of the Southeastern Universities Research Association, Duke University, Durham, NC, March 10, 2010, *Distinguished Scientist Lecture*.
926. "Biomaterials in the Service of World Health and the Improvement of our Patients' Quality of Life", Society for Biomaterials meeting, Seattle, WA, April 22, 2010 (A), *Hall Award Lecture*.
927. "Nanoparticulate Gold-Polymer Systems for Externally-Controlled Delivery", Society for Biomaterials meeting, Seattle, WA, April 22, 2010 (A)*.
928. "Protein Recognitive Hydrogel Systems for Biosensor Applications", Society for Biomaterials meeting, Seattle, WA, April 22, 2010 (A)*.
929. "Health Care and Advanced Therapeutics", Meeting on Innovation in Health Care Delivery Systems, April 30, 2010 (A), *Invited Lecture*.
930. "Engineering Better Materials", Grand Challenges Summit of the National Academy of Engineering, University of Washington, Seattle, WA, May 3, 2010 (A), *Plenary Lecture*.
931. "Protein Recognitive Hydrogel Systems for Biosensor Applications", 20th World Congress on Biosensors, Glasgow, United Kingdom, May 27, 2010 (A)*.
932. "Controlled Release 50 Years Later: Responsive Intelligence and Delivery by Design", 37th Annual Meeting & Exposition of the Controlled Release Society, Portland, OR, July 14, 2010 (A), *Plenary Lecture*.

933. "Advanced Responsive and Feedback-Controlled Nanoparticles for Drug and Protein Delivery", 3rd International Meeting on Pharmacy & Pharmaceutical Sciences, Istanbul, Turkey, June 11, 2010 (A), *Plenary Lecture*.
934. "Chronotherapy of Hypertension: Past, Present and Future", 26th meeting of the International Society of Chronobiology, Vigo, Spain, July 12, 2010 (A)*.F
935. "Advances in Hydrogels as Intelligent Biomaterials", Annual BMES meeting, Austin, TX, October 7, 2010 (P), *Plenary Lecture, Acta Biomaterialia Lecture*.
936. "From Therapeutics and Drug Delivery to Advanced, Intelligent Biomedical Devices for Improvement of the Quality of Life of our Patients", Annual BMES meeting, Austin, TX, October 7, 2010 (P), *Plenary Lecture, BMES Distinguished Achievement Award Lecture*.
937. "Kinetic Swelling Responses of Iron Oxide/Hydrogel Nanocomposites", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
938. "Optimizing Protein Recognitive Hydrogel Systems for Biosensor Applications", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
939. "Polybasic 2-(Diethylaminoethyl) Methacrylate Nanogels and Their Application in Oral siRNA Delivery", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
940. "Metal-Polymer Composite Nanoparticle Systems for Externally Controlled Delivery", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
941. "Development of PH-Responsive Nanoparticles for Targeted, Controlled Release of 5-Fluorouracil", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
942. "Swelling and Insulin Release of Glucose-Responsive Microparticles and Nanogels", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
943. "Carbohydrate Surface Modification for Oral Protein Delivery", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
944. "Investigating Case II and Anomalous Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Salt Lake City, UT, November 7, 2010 (A)*.
945. "Hydrogel-Based Protein Recognitive Systems for Diagnostic Applications", Annual AIChE Meeting, Salt Lake City, UT, November 8, 2010 (A)*.
946. "Case II and Anomalous Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Salt Lake City, UT, November 8, 2010 (A)*.
947. "Synthesis and in vitro Characterization of pH-Responsive Nanogels for Oral Delivery of siRNA", Annual AIChE Meeting, Salt Lake City, UT, November 10, 2010 (A)*.
948. "Seeking Art-ful Science in Biomaterials", Annual TERMIS Meeting, Orlando, FL, December 4, 2010 (A), *Invited Lecture*.
949. "Advances in Protein Delivery and Responsive Nanoscale Drug Delivery Systems", Congress of the Spanish Society of Industrial Pharmacy, Madrid, February 2, 2011 (P), *Plenary Lecture*.
950. "Development of pH-Responsive Biodegradable Hydrogels for the Controlled Release of Antitumor Drugs", Congress of the Spanish Society of Industrial Pharmacy, Madrid, February 2, 2011 (P)*.
951. "New Frontiers in Drug Delivery: Emerging Applications in Oral Administration", 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 15, 2011 (A), *Invited Lecture*.
952. "Tuning the Dynamics of Penetrant Transport in Glassy Polymers through Network Structure Modification," Annual American Physical Society Meeting, Dallas, TX, March 24, 2011 (A)*.
953. "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Chemotherapeutics", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
954. "Protein Conformational Studies for Molecularly Imprinted Polymers", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
955. "Amphiphilic Interpenetrating Networks for Oral Anticancer Drug Delivery", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
956. "Rapidly Degradable Dual-Responsive Nanoscale Hydrogels for siRNA Delivery", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
957. "Advanced siRNA and Protein Delivery Through Smart Hydrogels", 7th International Symposium on Controlled Release Systems, Istanbul, Turkey, June 2, 2011 (A), *Plenary Lecture*.
958. "Evaluation of Polysaccharide-Modified Complexation Hydrogels for Oral Protein Delivery", Annual BMES meeting, Hartford, CT, October 13, 2011 (P).

959. "Temperature-Responsive Interpenetrating Polymer Network Nanogels and Nanocomposites", Annual BMES meeting, Hartford, CT, October 13, 2011 (P).
960. "Hydrophobic-Hydrophilic Interpenetrating Networks for Oral Chemotherapeutic Delivery" ", Annual BMES meeting, Hartford, CT, October 13, 2011 (P)*.
961. "Hydrophobic Nanoparticles Encapsulated in Hydrophilic Hydrogel for Oral Delivery of Chemotherapeutics", Annual BMES meeting, Hartford, CT, October 13, 2011 (P)*.
962. "An Injectable, Synthetic Immune Center for Cancer Vaccines: Efficient Delivery of Tumor-Antigens and Immune-Modulatory Nucleic Acids to Dendritic Cells", Annual BMES meeting, Hartford, CT, October 14, 2011 (P)*.
963. "Responsive Nanoscale Drug Delivery Systems", Biointerface meeting, Minneapolis, MN, October 26, 2011 (A), *Plenary Lecture*.
964. "An Injectable, Synthetic Immune-Priming Center for Efficient Delivery of Immunomodulatory Nucleic Acids and Protein/Peptide Antigens", US-Japan Drug Delivery Meeting, Maui, HI, December 18, 2011 (A)*.
965. "Oral Delivery of Interferon-alpha for Chemotherapy", US-Japan Drug Delivery Meeting, Maui, HI, December 18, 2011 (A)*.
966. "Applications of Intelligent Nanotechnologies in Therapeutic Delivery, Miami 2012 Winter Symposium: Nanotechnology in Biomedicine, Miami, FL, February 29, 2012, *Plenary Lecture*.
967. "Advances in Hydrogels for Medical Applications", 6th International Symposium on Intelligent Drug Delivery, Seoul, South Korea, March 15, 2012 (A), *Plenary Lecture*.
968. "Advances in Intelligent and Recognitive Hydrogels for Treatment of Diabetes, Cancer and Multiple Sclerosis", International Symposium, Drugs, Nanomedicine and Biomaterials, Areces Foundation, Madrid, Spain, April 25, 2012 (A), *Plenary Lecture*.
969. "Intelligent Biomaterials for Medical Devices with Molecular Recognition Capabilities", 9th World Biomaterials Congress, Chengdu, China, June 2, 2012 (P), *Plenary Lecture*.
970. "Efficient Delivery of siRNA with Dual-responsive Nanoscale Hydrogels", 9th World Biomaterials Congress, Chengdu, China, June 2, 2012 (P).
971. "Promoting Convergence in Biomaterials Engineering", Top-Level Forum: Biomaterials Science and Engineering, Present, Future and Development Strategy, Chengdu, China, June 2, 2012 (A).
972. "Intelligent Biomaterials to Control Recognition and Specificity in Naomedicine", NanoBioSeattle, Seattle, WA, July 23, 2012 (A), *Plenary Lecture*.
973. "Hydrogels as Biomaterials: A 40-year saga", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
974. "Responsive polycationic nanoparticles for co-delivery of siRNA and chemotherapeutic agents to overcome multidrug resistance in cancer therapy", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
975. "pH-Responsive Hydrogels for Oral Delivery of Therapeutic Proteins", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
976. "Comparing ARGET ATRP with traditional free radical polymerization for versatile polycationic hydrogel nanoparticles", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
977. "Two-part oral siRNA delivery system: polycationic hydrogel nanoparticles and alginate matrix", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
978. "Design of pH-Responsive Carriers for the Oral Delivery of High Molecular Weight Protein Therapeutics", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
979. "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Antibodies", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
980. "Synthesis and Characterization of Composite Hydrogel Particles for Oral Delivery Small Interfering RNA", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
981. "Intelligent Polymeric Biomaterials for the Oral Delivery of Hydrophobic Therapeutic Agents for Cancer Treatment", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
982. "Externally-Triggered Thermally-Responsive Nanocomposites for Advanced Therapeutic Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.

983. "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Protein-Based Chemotherapeutic Agents", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
984. "The Influence of Enhanced Core Hydrophobicity on Membrane Disruptive Properties of Polycationic Nanoscale Hydrogels Containing 2-(Diethylaminoethyl) Methacrylate, Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
985. "Enhanced Membrane Disruption and siRNA Delivery through Responsive Nanoscale Hydrogels", Annual AAPS meeting, Chicago, IL, October 18, 2012.
986. "An injectable, immune priming center for cancer vaccines: Simultaneous, single-carrier delivery of tumor-antigens and immune-modulatory nucleic acids to dendritic cells", CPRIT Conference, October 25, 2012 (P).
987. "Nanohydrogels as delivery systems of antineoplastic drugs and siRNA to overcome multidrug drug resistance in cancer treatment" CPRIT Conference, October 25, 2012 (P).
988. "Two-part oral siRNA delivery systems for the treatment of colon cancer", CPRIT Conference, October 25, 2012 (P).
989. "Synthesis and Characterization of Composite Hydrogel Particles for Oral Delivery of siRNA," Annual BMES Meeting, Atlanta, GA, October 25, 2012 (P).
990. "Intelligent Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual BMES meeting, Atlanta, GA, October 27, 2012 (P).
991. "Composite Hydrogel Particles for Oral Small Interfering RNA Delivery", Annual BMES meeting, Atlanta, GA, October 26, 2012 (P).
992. "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Antibodies," Annual BMES Meeting, Atlanta, GA, October 25, 2012 (P).
993. "Development of pH-Responsive Hydrogel Networks for the Oral Delivery of Human Growth Hormone", Annual BMES meeting, Atlanta, GA, October 26, 2012 (P).
994. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive, Intelligent Medical Microdevices", Topical Conference, Annual AIChE meeting, Pittsburgh, PA, October 29, 2012, (A) *Plenary Lecture*.
995. "pH-Responsive, Polycationic Nanoparticles Designed for Intracellular siRNA Delivery", Annual AIChE meeting, Pittsburgh, PA, October 30, 2012, (A)*.
996. "Nanoscale Anionic Hydrogel Prepared by Emulsion Polymerization for Oral Delivery of siRNA", Annual AIChE meeting, Pittsburgh, PA, October 30, 2012, (A)*.
997. "Surface Hydrolysis Mediated PEG Conjugation of Poly(N-isopropyl acrylamide-co-acrylamide) Nanospheres", Annual AIChE meeting, Pittsburgh, PA, October 30, 2012, (A)*.
998. "pH-Responsive Hydrogels for Oral Delivery of Therapeutic Proteins", Annual AIChE meeting, Pittsburgh, PA, November 1, 2012, (A)*.
999. "Grafted Polymeric Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual AIChE meeting, Pittsburgh, PA, November 1, 2012, (A)*.
1000. "Dynamics and Diffusional Behavior of Complexation Networks and gels with Applications to Drug Delivery and Molecular Recognition", 9th Society of Polymer Science Japan International Polymer Conference, Kobe, Japan, December 12, 2012, (A), *Plenary Lecture*.
1001. "Intelligent Hydrogels and the Future of Nanomedicine", NIPAM-80 meeting in honor of Allan Hoffman, December 16, 2012 (P), *Invited Lecture*.
1002. "Protein Transport Mechanisms and Protein/Polymer Dynamics in Transmucosal Delivery", Keynote Speaker, 4th International Conference on Biomolecular Engineering, Miami, FL January 13, 2013 (P), *Keynote Lecture*.
1003. "Development of a pH-Responsive Hydrogel Network for the Oral Delivery of Human Growth Hormone", Society for Biomaterials meeting, Boston, MA, April 10, 2013 (A)*.
1004. "Polycationic Hydrogel Nanoparticles for siRNA Delivery", Society for Biomaterials meeting, Boston, MA, April 12, 2013 (A)*.
1005. "Microencapsulated Polymeric Systems for the Oral Delivery of siRNA", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1006. "Strategies for the Enhanced Bioavailability of Orally-Delivered Growth Hormone Utilizing pH-Responsive Polymeric Platforms", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.

1007. "Smart Hydrogel Nanocarriers for the Oral Delivery of Chemotherapeutics", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1008. "pH-Responsive polymer nanoparticles synthesized using ARGET ATRP for therapeutic siRNA delivery, Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1009. "pH-Responsive Hydrogels for Improved Bioavailability of Therapeutic Proteins by Oral Administration, Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1010. "Oral delivery of siRNA Using pH-Responsive Hydrogel Nanoparticles", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1011. "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Proteins: Evaluation of Protein Release and Bioactivity", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1012. "Novel Biocompatible Nanoparticles for Externally Triggered Drug Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1013. "Novel Intelligent and Recognitive Carriers for siRNA Delivery and Theranostics", 5th Asian Arden Conference, Nagoya, Japan, August 6, 2013, *Plenary Lecture* (P).
1014. "Novel Intelligent and Recognitive Carriers for siRNA Delivery and Theranostics," XXV Symposium of the European Symposium for Biomaterials, Madrid, Spain, September 8, 2013, *Plenary Lecture* (P).
1015. "Advanced Responsive and Feedback-Controlled Nanoparticles for Consumer and Cosmetic Applications," 19th International Symposium on Microencapsulation, Pamplona, Spain, September 10, 2013, *Plenary Lecture* (P).
1016. "Oral delivery of siRNA Using pH-Responsive Hydrogel Nanoparticles", Annual BMES meeting, Seattle, WA, September 26, 2013 (P)*.
1017. "Delivery Vectors for Oral Protein Therapeutics: Characterization and Cellular Transport", Annual BMES meeting, Seattle, WA, September 26, 2013 (P)*.
1018. "Synthesis and Characterization of pH-sensitive Hydrogel Carriers for Oral Vaccine Delivery", Annual BMES meeting, Seattle, WA, September 27, 2013 (P)*.
1019. "Development and optimization of a pH-responsive hydrogel system for the oral delivery of high molecular weight protein therapeutics", Annual BMES meeting, Seattle, WA, September 28, 2013 (P)*.
1020. "Design of surface imprinted nanoparticles for enhanced recognition of biomacromolecules", Annual BMES meeting, Seattle, WA, September 28, 2013 (P)*.
1021. "Biodegradable microencapsulated nanogel system for the oral delivery of siRNA", Annual Meeting Society of Women Engineers, Baltimore, MD, October 25, 2013, (P)*.
1022. "Oral Delivery of Therapeutic Proteins Exhibiting High Isoelectric Points in pH-Responsive Hydrogels," 2013 Annual AIChE Meeting, San Francisco, CA, November 4, 2013, (P)*.
1023. "Responsive Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics," 2013 Annual AIChE Meeting, San Francisco, CA, November 4, 2013, (P)*.
1024. "NSEF Forum Award Presentation: Intelligent and Recognitive Nanoscale Systems for a New Generation of Therapeutic Applications," 2013 Annual AIChE Meeting, San Francisco, CA, November 4, 2013, (P), *Award Lecture*.
1025. "Microencapsulated Nanogel System for the Oral Delivery of siRNA," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 11, 2013 (P)*.
1026. "Therapeutic siRNA Delivery Using pH-Responsive Polymer Nanoparticles," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013, (P)*.
1027. "Improved Release of Salmon Calcitonin from pH-Responsive Hydrogels," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013, (P)*.
1028. "Smart, Hydrogel Nanoparticles for the Oral Delivery of Hydrophobic Therapeutics," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013 (P)*.
1029. "Development and Characterization of Surface-modified pH-Responsive Hydrogels for Oral Delivery of Protein Therapeutics," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013 (P)*.
1030. "Advanced Biomaterials and Nanotechnology for Improved Health Care," 2013 MRS Fall Meeting, Boston, MA, December 2, 2013, *Plenary Lecture*.

1031. "Development and characterization of a pH-responsive hydrogel system for the oral delivery of high molecular weight protein therapeutics", US-Japan Drug Delivery meeting, Lahaina, HI, December 15-19, 2013*.
1032. "Development of pH-responsive hydrogel carriers for targeted oral vaccine delivery", US-Japan Drug Delivery meeting, Lahaina, HI, December 15-19, 2013*.
1033. "Microencapsulated polymeric systems for the oral delivery of siRNA" , US-Japan Drug Delivery meeting, Lahaina, HI, December 15-19, 2013*.
1034. "Stimuli-Responsive Hydrogels for Oral Delivery of High Isoelectric Point-Exhibiting Therapeutic Proteins," 2014 Annual ACS Meeting, Dallas, TX, March 18, 2014, (P)*.
1035. "Intelligent and Recognitive Networks and Hydrogels: From Theory to Biomedical Applications," 2014 Annual ACS Meeting, Dallas, TX, March 18, 2014, *Award Address*. (P)*.
1036. "Surface-Modification of P(MAA-co-NVP) Microparticles for Oral Protein Delivery," 2014 Annual ACS Meeting, Dallas, TX, March 18, 2014, (P)*.
1037. "Investigation of Core-Shell N-alkyl Substituted Acrylamides for Theranostic Delivery of Chemotherapeutics," 2014 Annual ACS Meeting, Dallas, TX, March 19, 2014, (P)*.
1038. "Environmentally Responsive Theranostic Carrier Systems for Oral Delivery of Chemotherapeutic Agents," 2014 Annual ACS Meeting, Dallas, TX, March 20, 2014, (P)*.
1039. "pH-Responsive Mannan-modified P(HEMA-co-MAA) Nano-hydrogel Carriers for Oral Vaccine Delivery, 9th PBP World Meeting, Lisbon, Portugal, April 10, 2014 (P)*.
1040. "Fabrication of Intelligent, Protein Recognitive Polymers on the Surface of Biodegradable Nanoparticles," 2014 Annual SFB Meeting, Denver, CO, April 17, 2014, (P)*.
1041. "Surface Hydrolysis Mediated PEGylation for the Passivation of pNIPAM Nanogels," 2014 Annual SFB Meeting, Denver, CO, April 17, 2014, (P)*.
1042. "Design of a Polyanhydride-Releasing Oral Microparticle Technology (PROMPT) for Oral Vaccine Delivery," 2014 Annual SFB Meeting, Denver, CO, April 18, 2014, (P)*.
1043. "Evaluation of Surface-Modified P(MAA-co-NVP) Hydrogels for Oral Protein Delivery," 2014 Annual SFB Meeting, Denver, CO, April 18, 2014, (P)*.
1044. "Future Directions in Drug Delivery and Interlligent/ Responsive Materials", Recovery of Biological Products XVI Conference, Hohe Düne, Rostock, Germany, (A), July 30, 2014, *Plenary Lecture*.
1045. "Intelligent/Recognitive Nanoscale Systems for New Therapeutic Applications", US-China Symposium on Nanobiology and Nanomedicine, Washington, DC (P), October 16, 2014, Keynote Lecture.
1046. "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1047. "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors", Annual BMES meeting, San Antonio, TX, October 22, 2014 (P)*.
1048. "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 22, 2014 (P)*.
1049. "Passivation of pNIPAM Nanogels through Surface Hydrolysis Mediated PEGylation", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1050. "Enzymatically Degradable Microgels for the Oral Delivery of siRNA", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1051. "Optimization of pH-Responsive Hydrogels for Delivery of HMW Proteins", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1052. "Development of pH-Responsive Hydrogel Carriers for Oral Vaccine Delivery", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1053. "pH-Responsive P(IA-co-NVP) Hydrogels for the Oral Delivery of High Isoelectric Point Proteins" Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1054. "Hydrogel Polymer Libraries for Developing Induced Pluripotent Stem Cell Derived Cardiac Patches", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1055. "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 24, 2014 (P)*.
1056. "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors" Annual BMES meeting, San Antonio, TX, October 24, 2014 (P)*.

1057. "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 24, 2014 (P)*.
1058. "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics ", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1059. "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors" Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1060. "Biomedical Engineering: Health Care's Secret Weapon", UT in a Day meeting, Houston, TX, November 13, 2014.
1061. "Characterization of pH-Sensitive Polymers for the Delivery of Hemophiliac Factors", 2014 Annual AIChE Meeting, Atlanta, GA, November 19, 2014, (P)*.
1062. "pH-Sensitive P(IA-co-NVP) Hydrogels As Oral Delivery Vehicles for High Isoelectric Point-Exhibiting Therapeutic Proteins" 2014 Annual AIChE Meeting, Atlanta, GA, November 18, 2014, (P)*.
1063. "Core/Shell structures for the improved retention of hydrophobic chemotherapeutics", 2014 Annual AIChE Meeting, Atlanta, GA, November 18, 2014, (P)*.
1064. "Hydrogel Polymer Libraries for Developing Induced Pluripotent Stem Cell Derived Cardiac Patches", 2014 Annual AIChE Meeting, Atlanta, GA, November 19, 2014, (P)*.
1065. "The next Generation of Intelligent Hydrogels: Molecular Recognition, Cellular Interactions and Advanced Delivery Studies", MaterialsToday Asia2014 meeting, Hong Kong, (A), December 9, 2014, *Plenary Lecture*.
1066. "Recognition of macromolecular biomarkers using core-shell imprinted nanoparticles", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1067. "The Effect of Particle Swelling on Protein Adsorption and Recognition", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1068. "Novel Biomaterial-Based Carriers for Oral Delivery of Hemophiliac Factor IX", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1069. "Improved Oral Delivery of High Isoelectric Point Therapeutic Proteins using P(IA-co-NVP) Hydrogels", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1070. "Innovation and Invention in the Pharmaceutical and Biomedical Industry: How to Improve Treatment and Quality of Life of our Patients" National Academy of Inventors meeting, Pasadena, CA, March 20, 2015 (A), *Plenary Lecture*.
1071. "Fundamentals and Applications of Biopolymers in Medical Applications and Drug Delivery", series of 12 lectures at Sichuan University, Chengdu, China, March 22-26, 2015.
1072. "Mathematical Modelling in Drug Delivery: How to Design New Systems Based on Modeling Analysis", Sichuan University, Chengdu, China, March 26, 2015.
1073. "Biomaterials: Past, Present and Future", Chinese Academy of Engineering, Beijing, China, March 27, 2015, *Invited Lecture*.
1074. "Cationic Block Copolymers for the Co-Delivery of siRNA and Chemotherapeutics", Materials Research Society meeting, San Francisco, CA, April 7, 2015 (P)*.
1075. "Molecularly imprinted polymer-based biosensors for detection of biomacromolecules", Materials Research Society meeting, San Francisco, CA, April 7, 2015 (P)*.
1076. "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", Materials Research Society meeting, San Francisco, CA, April 7, 2015 (P)*.
1077. "Molecularly Imprinted Polymers on Surface-Modified Gold Nanoparticles for Biosensing Applications", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.
1078. " PROMPT: Polyanhydride- Releasing Oral Microparticle Technology as an Oral Vaccine Strategy, ", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.
1079. "pH-Responsive Carriers for the Oral Delivery of Hemophiliac Factor IX, 2015 Annual SFB Meeting, Charlotte, NC, April 17, 2015, (P)*.
1080. "pH Responsive Nanoparticles-in- Microparticles System for Oral Delivery of siRNA", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.
1081. "Surface Hydrolysis for the Functionalization of pNIPAAm Nanogels", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.

1082. "Synthesis and Characterization of Smart Molecularly Imprinted Polymers, Using Structural Analogue Templates, for the Capture and Detection of Biomolecules", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1083. "Optimizing Microcarrier Loading for Oral Drug Delivery Systems", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1084. "Surface Hydrolysis Mediated PEGylation of PNIPAAm Nanogels", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1085. "Encapsulation of Polyanhydride Nanoadjuvants in Biodegradable Microgels for Oral Delivery", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1086. "Synthesis and Characterization of Cationic Nanogels for Enhanced Cancer Therapy", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1087. "Design and development of pH-responsive hydrogel systems for the oral delivery of therapeutic proteins", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1088. "Intelligent, Recognitive Nanoscale Systems for New Therapeutic Applications", 10th Panhellenic Research Congress of Chemical Engineering, Patras, Greece, (A), June 4, 2015, *Plenary Lecture*.
1089. "Responsive polymer based nanobiosensors for diagnostic applications.", 2nd Polaris Conference, Guimaraes, Portugal, June 30, 2015, (P)*.
1090. "Molecularly Imprinted Polymers Capture Biomolecules According to Molecular Weight and Isoelectric Point", 2nd Polaris Conference, Guimaraes, June 30, 2015, (P)*.
1091. "Hydrogels in Drug Delivery". Controlled Release Society meeting, Edinburgh, Scotland, July 28, 2015, (A), *Plenary Lecturer*.
1092. "Thermodynamic Response and Structural Dynamics of Nanogels for Concurrent Delivery of Hydrophilic and Hydrophobic Chemotherapeutic Agents", Fouth Texas Soft Matter meeting, Houston, TX, August 21, 2015, (A)*.
1093. "Hydrogels as Biomaterials". European Society for Biomaterials meeting, Krakow, Poland, (A), September 1, 2015, *Award Lecture*.
1094. "Synthesis and Characterization of Smart Molecularly Imprinted Polymers, Using Structural Analogue Templates, for the Capture and Detection of Biomolecules", Annual BMES Meeting, Tampa, FL, October 7, 2015, (P) *.
1095. "Optimizing Synthesized Nanoparticles for Applications in Drug Delivery", Annual BMES Meeting, Tampa, FL, October 9, 2015, (P) *.
1096. "Detection of Protein Biomarkers Based On Fluorescence Quenching of Polymer-Coated Conjugated Polymer Nanoparticles", Annual BMES Meeting, Tampa, FL, October 8, 2015, (P) *.
1097. "Stimuli-Responsive Polymer Shells on Surface-Modified Gold Nanomaterials for Biosensing Applications", Annual BMES Meeting, Tampa, FL, October 8, 2015, (P) *.
1098. "Oral Delivery of siRNA Using Dual Stimuli-Responsive Microparticles", Annual BMES Meeting, Tampa, FL, October 9, 2015, (P) *.
1099. "Encapsulation of Polyanhydride Nanoadjuvants in Biodegradable Microgels for Oral Delivery", Annual BMES Meeting, Tampa, FL, October 9, 2015, (P) *.
1100. "Design & Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", Annual BMES Meeting, Tampa, FL, October 8, 2015, (P) *.
1101. "Design and Optimization of Smart Hydrogels for Protein Recognition", AIChE Southwest Regional Conference, Houston, TX, April 9, 2016*.
1102. "Avoiding the Needle: Novel Oral Delivery Systems of Hemophiliac Factor IX", Annual Society of Women Engineers Meeting, Nashville, TN, October 21, 2015*.
1103. "Design and Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", Annual Society of Women Engineers Meeting, Nashville, TN, October 21, 2015*.
1104. "Intelligent Nanogels for the Concurrent Delivery of Hydrophilic and Hydrophobic Chemotherapeutic Agents", Annual AIChE Meeting, Salt Lake City, UT. November 11, 2015, (A) *.
1105. "Tailoring Biomaterial Microcarriers for the Improved Delivery of Hemophiliac Factor IX", Annual AIChE Meeting, Salt Lake City, UT. November 11, 2015, (A) *.
1106. "Cationic Nanogels for the Co-delivery of siRNA and Chemotherapeutics", Annual AIChE Meeting, Salt Lake City, UT. November 11, 2015, (A) *.
1107. "P-NIPMAMM Based Core/Shell Systems for Improved Retention of Hydrophobic Chemotherapeutics", Annual AIChE Meeting, Salt Lake City, UT. November 12, 2015, (A) *.
1108. "The Challenge to Improve the Response of Biomaterials to the Physiological Environment", Grand Challenges in Biomaterials for the 21st Century, Chengdu, China, November 27, 2015 (A), *Invited Lecturer*,
1109. "Biomaterials: Past, Present and Future", 2015 Chinese Biomaterials Congress and the 3rd China-US

Joint Forum on Innovation and Regulation of Biomaterials, Haiku, China, November 20, 2015, (A), *Invited Lecturer*.

- 1110. "The Challenge to Improve the Response of Biomaterials to the Physiological Environment", US-China Entrepreneurship Symposium, Guangzhou, China, December 1, 2015, (A),
- 1111. "Advanced Intelligent Polymers" Annual Meeting of the Texas Academy TAMEST, Dallas, TX, January 12, 2016, (A), *Plenary Lecturer*.
- 1112. "Optimization of methacrylic acid-based pH-responsive hydrogels for the oral delivery of therapeutic proteins", Annual ACS Meeting, San Diego, CA, March 13, 2016, (A) *.
- 1113. "pH-Responsive Microcarriers for the Improved Oral Delivery of Hemophiliac Factor IX", Annual ACS Meeting, San Diego, CA, March 13, 2016, (A) *.
- 1114. "Design and Development of a pH-Responsive Nanoscale Hydrogel Platform for Tumor-Targeted Drug Delivery", World Biomaterials Congress, Montreal, Canada, May 19, 2016, (A) *.
- 1115. "Molecularly Imprinted Polymers for Protein Capture, Sequestration, and Delivery", World Biomaterials Congress, Montreal, Canada, May 21, 2016, (A) *.
- 1116. "Development of protein biosensors using surface-imprinted silica-gold nanoshells", World Biomaterials Congress, Montreal, Canada, May 19, 2016, (A) *.
- 1117. "Hydrogel microencapsulation of polyanhydride nanoparticles for antibiotic treatment", World Biomaterials Congress, Montreal, Canada, May 19, 2016, (A)*.
- 1118. "Polyanhydride-releasing oral microparticle technology (PROMPT) as a strategy for subunit vaccine administration", World Biomaterials Congress, Montreal, Canada, May 19, 2016, (A)*.
- 1119. "Synthesis and Characterization of Tertiary Amine Methacrylate Nanogels for Co-delivery of Multiple Therapeutic Agents", World Biomaterials Congress, Montreal, Canada, May 20, 2016, (A)*.
- 1120. "Development of a Dual-Responsive Hydrogel Platform for Tumor-Targeted Drug Delivery", UT Austin-Portugal Collaboration Conference, Lisbon, Portugal, May 24, 2016, (A)*.
- 1121. "Intelligent Polymers for Tissue Engineering Applications", UT Austin-Portugal Collaboration Conference, Lisbon, Portugal, May 24, 2016, (A)*.
- 1122. "Recognitive Alginate Nanoparticles for Protein Therapeutics", UT Austin-Portugal Collaboration Conference, Lisbon, Portugal, May 24, 2016, (A)*.
- 1123. "Nanoscale Biomaterials", *NanoDay 2016" here at Bilkent University* May 29, 2016, (A), *Invited Lecturer*.
- 1124. "Development of pH-Responsive Nanogels for Tumor-Targeted Drug Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.
- 1125. "Influence of Copolymer Composition in Hydrogel-Mediated Chemotherapeutic Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.
- 1126. "Design and Optimization of Smart Hydrogels for Protein Recognition", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.
- 1127. "Toward Protein Recognition Within Oligopeptide-Containing Imprinted Hydrogels", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.
- 1128. "Co-Delivery of Multiple Therapeutic Agents to Liver Cancer", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.
- 1129. "Molecularly and Cellularly Imprinted, Intelligent Scaffolds for Tissue Engineering", International Symposium on Clinical and Translational Medicine 2016, Shanghai, China, September 24, 2016, (A), *Invited Lecturer*.
- 1130. "Intelligent Biomaterials to Control Recognition and Specificity, Research Forum on Frontiers in Materials, Sichuan University, Chengdu, China, September 26, 2016, (A), *Plenary Lecturer*.
- 1131. "Designing the Next Generation of Intelligent Biomaterials and Hydrogels: Molecular Recognition and Advanced Protein and Cell Delivery." Annual BMES Meeting, Minneapolis, MN, October 7, 2016, (P)*, *Pritzker Lecturer*.
- 1132. "Affinity-Mediated Retention and Delivery of High-Isoelectric Point Exhibiting Therapeutic Proteins from Molecularly Imprinted Microparticles", Annual BMES Meeting, Minneapolis, MN, October 7, 2016, (P)*.
- 1133. "Stimuli-Responsive Nanoscale Hydrogels for the Co-Delivery of Chemotherapeutic Agents", Annual Society of Women Engineers Meeting, Philadelphia, PA, October 28, 2016, (A)*.
- 1134. "Design and Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", Annual Society of Women Engineers Meeting, Philadelphia, PA, October 28, 2016, (A)*.
- 1135. "Impact of Novel Intelligent and Recognitive Biomaterials in Medical Sciences", 2016 World Life Science Conference, Beijing, China, November 3, 2016, (A), *Plenary Lecturer*.
- 1136. "Rational Design of Charged Nanogels for Differential Protein Capture", Annual AIChE Meeting, San Francisco, CA, November 16, 2016, (A)*.

1137. "Multiplexed Detection of Protein Biomarkers Using Recognitive Polymers in a Localized Surface Plasmon Resonance Sensor Array", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1138. "Molecularly Imprinted Polymer-Peptide Hybrid Materials for Engineered Protein Recognition", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1139. "Polymer Nanoparticle Synthesis and Characterization for the Delivery of Osteoinductive Molecules", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1140. "Optimization of Cationic Nanogel Composition for Enhanced Co-Delivery of siRNA and Chemotherapeutics", Annual AIChE Meeting, San Francisco, CA, November 14, 2016, (A)*.
1141. "A Self-Assembled pH-Responsive Multi-Component Platform for Oral Vaccination", Annual AIChE Meeting, San Francisco, CA, November 16, 2016, (A)*.
1142. "Cell, Peptide and Protein Delivery Problems in Regenerative Engineering", Annual AIChE Meeting, San Francisco, CA, November 16, 2016, (A)*.
1143. "Design, development, and optimization of pH-responsive hydrogels for the oral delivery of human growth hormone", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1144. "Recognitive Methacrylated Alginate Nanoparticles for Protein Therapeutics", Annual AIChE Meeting, San Francisco, CA, November 14, 2016, (A)*.
1145. "Intelligent Hydrogel Systems for Recognitive and Responsive Delivery", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1146. "Stimuli-Responsive Nanoscale Hydrogels for the Co-Delivery of Chemotherapeutic Agents", Annual AIChE Meeting, San Francisco, CA, November 15, 2016, (A)*.
1147. "Development and Characterization of Stimuli-Responsive Hydrogel Microcarriers for Oral Protein Delivery", Annual SFB Meeting, Minneapolis, MN, April 6, 2017, (A)*.
1148. "Synthesis and Characterization of Polymer Nanogels for the Delivery of Therapeutic Small Molecule Analogs", Annual SFB Meeting, Minneapolis, MN, April 6, 2017, (A)*.
1149. "Characterization of Protein Interactions with Molecularly Imprinted Hydrogels that Possess Engineered Affinity for High Isoelectric Point Biomarkers", Annual SFB Meeting, Minneapolis, MN, April 8, 2017, (A)*.
1150. "Influence of Molecular Architecture in the Design and Development of a pH-Responsive Nanoscale Hydrogel Platform for Tumor-Targeted Drug Delivery", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.
1151. "Design of pH Responsive Systems for the Oral Delivery of High pI, High Molecular Weight Protein Therapeutics", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.
1152. "Polymer Nanogels for the Delivery of Osteoinductive Small Molecule Analogs", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.
1153. "Hydrophobic Modifications of Cationic Nanogels for Enhanced Coloaded of Cationic Chemotherapeutic Agents", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.
1154. "Development of a Smart Nanogel Platform for Tumor-Targeted Drug Delivery", Abstr. 2017 University of Texas at Austin GAIN Symposium, Abstract (January 2017).
1155. "Synthesis and Characterization of Polymer Nanogels for the Delivery of Therapeutic Small Molecule Analogs", Abstr. Annual SFB Meeting, Abstract (April 2017).
1156. "ARGET ATRP PEGylation of Cationic Nanogels with PEG Macromonomers", Abstr Texas Biomaterials Day, Abstract (June 2017).
1157. "Influence of Molecular Architecture in the Design and Development of a pH-Responsive Nanoscale Hydrogel Platform for Tumor-Targeted Drug Delivery", Abstr. Texas Biomaterials Day, Abstract (June 2017).
1158. "Polymer Modified Silica-Gold Nanoshells for the Detection of Low Isoelectric Point Proteins", Abstr. Texas Biomaterials Day, Abstract (June 2017).
1159. "Hydrophobic Modifications of Cationic Nanogels for Enhanced Co-Loading of Cationic Chemotherapeutic Agents", Abstr, 44th Annual Meeting & Exposition of the Controlled Release Society, Abstract (July 2017).
1160. "Design of pH Responsive Systems for the Oral Delivery of High pI, High Molecular Weight Protein Therapeutics", Abstr 44th Annual Meeting & Exposition of the Controlled Release Society, Abstract (July 2017).

1161. "Design and Development of Stimuli-Responsive Nanoscale Hydrogels for the Co-Delivery of Paclitaxel and Carboplatin", Abstr 44th Annual Meeting & Exposition of the Controlled Release Society, Abstract (July 2017).
1162. "Polymer Nanogels for the Delivery of Osteoinductive Small Molecule Analogs", Abstr 44th Annual Meeting & Exposition of the Controlled Release Society, Abstract (July 2017).
1163. "Polymer Nanoparticles for the Delivery of Osteoinductive Small Molecule Analogs", Abstr. 28th Annual Conference of the European Society for Biomaterials, Abstract (September 2017).
1164. "Molecularly Imprinted Polymer-Peptide Hybrid Materials for the Recognition and Sequestration of Proteins", Abstr. BMES Annual Meeting. Abstract (October 2017).
1165. "Polymer Modified Silica-Gold Nanoshells for the Detection of Model Protein Biomarkers for Disease Diagnostic Applications", Abstr. BMES Annual Meeting, Abstract (October 2017).
1166. "Engineering Intelligent Hydrogel Nanoparticles to Enable Co-Loading of Chemotherapeutic Agents", Abstr. 2nd Bioengineering and Translational Medicine Conference, Abstract (October 2017).
1167. "High Throughput Screening of Biodegradable Nanogels with Tunable Size and Swelling for Intracellular Drug Delivery", Abstr Annual AIChE Meeting, Abstract (November 2017).
1168. "Self-Assembled Polymer Carriers for the Oral Delivery of High Isoelectric Point, High Molecular Weight Protein Therapeutics", Abstr. Annual AIChE Meeting, Abstract (November 2017).
1169. "Alginate nanoparticle platform for controlled release of biotherapeutics", Abstr. Annual AIChE Meeting, Abstract (November 2017).
1170. "Surface-Functionalized, Intelligent Hydrogel Nanoparticles with Tunable Release Properties", Abstr. AIChE Meeting, Abstract (November 2017).
1171. "Recent Advances in Theory and Applications of Stimuli-Responsive and Recognitive Gels", Abstr. Materials Research Society Fall Meeting, Abstract (November 2017).
1172. "Versatile Anionic Nanogels for the Targeted Delivery of Therapeutic Small Molecules via Active and Passive Mechanisms", Abstr. US-Japan Drug Delivery Symposium, Abstract (December 2017).
1173. "Engineering Self-Assembled Nanoparticles for the Oral Delivery of High pI, High Molecular Weight Protein Therapeutics", Abstr. US-Japan Drug Delivery Symposium, Abstract (December 2017).
1174. "Cationic Nanogels with Non-statistical Architectures for Enhanced Intracellular Drug Delivery", Abstr. US-Japan Drug Delivery Symposium, Abstract (December 2017).
1175. "Natural polymer platform for the controlled release of biotherapeutics", Abstr. US - Japan Symposium on Drug Delivery Systems, Abstract (December 2017).
1176. "Thermodynamic Response and Structural Dynamics of Nanogels for Concurrent Delivery", Abstr. US-Japan Drug Delivery Symposium, Abstract (December 2017).
1177. "Thermoresponsive Nanogels for the Delivery of Osteoinductive Small Molecule Analogs", Abstr. US - Japan Symposium on Drug Delivery
1178. "The Promise of Biotechnology: Solving Scientific Puzzles in Biomaterials and Drug Delivery", Center for Nanomedicine Seminar Series, February 2017.
1179. "Multiresponsive Nanogels for the Delivery of Small Interfering RNA and Advanced Protein Therapeutic Agents for Treatment of Autoimmune Diseases", Chinese Academy of Medical Sciences and Peking Union Medical College Master Forum, April 2017.
1180. "130 Years of Chemical Engineering Education, Mentoring and Research: What I Learned from my Teachers", American Society for Engineering Education Summer School for Chemical Engineering Faculty, July 2017.
1181. "The Promise of New Intelligent and Recognitive Carriers for Better Drug Delivery", Abstr 44th Annual Meeting & Exposition of the Controlled Release Society, Abstract (July 2017).

1182. "From the Early Contributions of Don Paul in Hydrogels and Drug Delivery to a New Generation of Intelligent Materials", Symposium Honoring Don Paul's 50th year at UT Austin, October 2017.
1183. "Impact of Novel Intelligent and Recognitive Biomaterials and Drug Release Devices in Medicine", Choosing Wisely STARS Summit, December 2017.
1184. "Nanotechnology in Therapeutics: New Solutions for Important Medical Problems", 5th Nano Today Conference, December 2017.
1185. "Protein, Antibody and siRNA Delivery Using Intelligent Polymers with Molecular Recognition Capabilities", Abstr. XII Spanish-Portuguese Conference on Controlled Drug Delivery, Abstract (January 2018).
1186. "Engineering Intelligent Hydrogel Nanoparticles with Tunable Release Properties", Abstr. 255th ACS National Meeting & Exposition, Abstract (March 2018).
1187. Elucidating the Independent and Combinatorial Effects of Gel Diameter and Hydrophobicity on Protein Adsorption. Abstr. SFB Annual Meeting, Abstract (April 2018).
1188. Tunable Poly((Methacrylic acid)-co-acrylamide) Nanoparticles Through Inverse Emulsion Polymerization. Abstr. SFB Annual Meeting, Abstract (April 2018).
1189. "Development and Transfer of Innovative Problem Solving Strategies and Related Confidence in Biomedical Engineering". Proc. ASEE GSW Meeting, April 2018.
1190. "Engineering pH-Responsive Hydrogel Nanoparticles for Enhanced Cancer Therapy", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1191. "Development of Anionic Polymeric Nanoparticles via an Inverse Emulsion Free Radical Polymerization", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1192. "Design of a Two-Phase Scaffold-Nanoparticle System for the Controlled Delivery of Growth Factors in Bone Tissue Engineering Applications", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1193. "Optimization of pH-Responsive Hydrogel Nanoparticles for Ovarian Cancer Treatment", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1194. "Optimization of Self-Assembled Nanoparticles for the Oral Delivery of High pI, High Molecular Weight Protein Therapeutics", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1195. "Covalent Binding of Nanoparticles to a Scaffold Backbone for the Sustained Retention of Growth Factors for Bone Tissue Engineering", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1196. "Alginate nanoparticle platform for protein delivery applications", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1197. "Detection of Select Autoimmune Disease Biomarkers in Human Tears using Polymer Modified Gold Nanoshells", Abstr. Annual SFB Texas Biomaterials Day, Abstract (June 2018).
1198. "Evolution of Biomedical Engineering Students' Perceptions of Problem Solving and Instruction Strategies During a Challenge-Based Instruction Course". Proc. ASEE Annual Meeting, (June 2018).
1199. "Nanotechnology and Bioengineering for Intelligent Medical Devices", 40th International Conference of the IEEE Engineering in Medicine and Biology Society, July 2018.
1200. "Engineering pH Responsive, Self-assembled Nanoparticles for the Oral Delivery of Antibody Therapeutics", Abstr. Annual CRS Meeting, Abstract (July 2018).
1201. "Stimuli Responsive Nanoscale Hydrogels in Cancer Therapy", Abstr. Annual CRS Meeting, Abstract (July 2018).
1202. "How Bob Langer's pre-1988 MIT days shaped the societal and economic impact of his work", Celebrating 42 years of Bob Langer's Science and Bob's 70th Birthday, September 2018.

1203. “Advances in Regenerative Medicine using Smart Materials, Scaffolds, and 3D Printing Methods”, National Engineering Research Center for Biomaterials in Chengdu, China, September 2018.
1204. “Promoting Convergence, Integration and Combination of Disciplines in a Comprehensive University”, Third Plenary Meeting of the International Advisory Board of Sichuan University, September 2018.
1205. “Recognitive, Responsive, and Biodegradable Nanogels for Colorectal Cancer Chemotherapy”. Abstr. Annual BMES Meeting, Abstract (October 2018).
1206. “Synthesis and Characterization of Anionic Polymeric Nanoparticles for Biosensing Applications”, Abstr. Annual BMES Meeting, Abstract (October 2018).
1207. “Detection of Sjogren's Syndrome Biomarkers in Human Tears using Polymer Modified Gold Nanoshells”, Abstr. Annual BMES Meeting, Abstract (October 2018).
1208. “Quantifying Structure-Function Relationships of Protein-Selective Networks at the Micro- and Macro-Scale.” Abstr. AIChE Annual Meeting, Abstract (October 2018).
1209. “Design of a Two-Phase Scaffold-Nanoparticle System for the Controlled Delivery of Growth Factors in Bone Tissue Engineering Applications”, Abstr. AIChE Annual Meeting, Abstract (October 2018).
1210. Development of LSPR-Based Biosensor for the Detection of Sjogren’s Syndrome Biomarkers”. Abstr. AIChE Annual Meeting, Abstract (October 2018).
1211. “Synthesis and Characterization of pH-Responsive Hydrogels for Oral Delivery of High Isoelectric Point Therapeutic Proteins”, Abstr. AIChE Annual Meeting, Abstract (October 2018).
1212. “Advances in Intelligent Hydrogels for Biomedical Applications”, Abstr. AIChE Annual Meeting, Abstract (October 2018).
1213. “pH responsive polycationic nanoparticles for siRNA delivery in Inflammatory Bowel Diseases”, Abstr. AIChE Annual Meeting, Abstract (October 2018).
1214. “Optimizing the Surface Property-Activity Relationship of Nanoscale Hydrogel Drug Delivery Systems”, Abstr. AIChE Annual Meeting, Abstract (October 2018).
1215. “Bioengineered Nanoparticles for Increased Transepithelial Transport of Macromolecules in the Small Intestine”, Abstr. Annual CMBE Conference, Abstract (January 2019).
1216. “Delivery and Function of GMCSF for Dendritic Cell Differentiation”, Abstr. Annual CMBE Conference, Abstract (January 2019).
1217. “Thermoresponsive Nanogels for Drug Delivery Applications in Tissue Engineering”, Abstr. Annual CMBE Conference, Abstract (January 2019).

P = preprint available; A = abstract available; * = paper presented by collaborator.

Invited Lectures at Universities and Companies

1. "Novel Heat Resistant Oligomeric Structures as Crosslinking Agents for Polystyrene," Bell Laboratories, Department of Chemistry and Plastics, Murray Hill, New Jersey, November 29, 1976.
2. "Approaches to the Development of Synthetic Biomedical Materials," Stevens Institute of Technology, Department of Chemistry and Chemical Engineering, Hoboken, New Jersey, November 30, 1976.
3. "Transport Properties of Flexible Packaging Materials," American Can Company, Neenah, Wisconsin, February, 1978.
4. "Crystallization of Polymer Networks and its Effect on their Mechanical and Transport Properties," Polymer Department, General Motors Technical Center, Warren, Michigan, October 12, 1978.
5. "Fundamental Studies of Molecular Structure of Polymer Networks in Relation to Applications in Biomedical Engineering," Iowa State University, Department of Chemical Engineering, Ames, Iowa, February 1, 1979.
6. "Non-Gaussian Macromolecular Network Models for the Investigation of the Structure of Bituminous Coals," University of Washington, Department of Chemical Engineering, Seattle, Washington, March 6, 1979.
7. "Hydrophilic Networks for Biomedical Applications," University of Washington, Bioengineering Center, Seattle, Washington, March 6, 1979.
8. "Crystallinity Effects on the Mechanical and Transport Properties of Polymer Films," Oregon State University, Department of Chemical Engineering, Corvallis, Oregon, March 8, 1979.
9. "Effect of Crystallinity on the Mechanical and Diffusion Properties of Polymer Films and Membranes," University of Alberta, Department of Chemical Engineering, Edmonton, Alberta, Canada, March 9, 1979.
10. "Design Possibilities for Portable Artificial Kidneys," University of Geneva, School of Medicine, Geneva, Switzerland, May 17, 1979.
11. "Fundamental Studies of Hydrophilic Polymeric Networks with Applications to Blood-Compatible Materials," University of Geneva, Departments of Chemistry and Pharmacy, Geneva, Switzerland, May 18, 1979.
12. "Crystallization of Hydrophilic Polymers," Federal Technical University of Lausanne, Departments of Chemical Engineering and Materials Science, Lausanne, Switzerland, May 21, 1979.
13. "Statistical Mechanics of Non-Gaussian Polymeric Networks," University of Naples, Department of Chemical Engineering, Naples, Italy, May 22, 1979.
14. "Diffusion through Model Polymeric Networks," University of Naples, Department of Chemical Engineering, Naples, Italy, May 23, 1979.
15. "Design Possibilities for Portable Artificial Kidneys," University of Athens, School of Medicine, Nephrology Section, Athens, Greece, May 30, 1979.
16. "Recent Research on the Mechanical Properties of and the Diffusion Through Hydrophilic Polymers," Greek Atomic Energy Commission, Democritos Nuclear Research Center, Athens, Greece, June 5, 1979.
17. "A Multi-phase Stefan Problem for Swelling of Glassy Polymers," Greek Atomic Energy Commission, Democritos Nuclear Research Center, Athens, Greece, June 5, 1979.
18. "Investigation of the Macromolecular Structure of Bituminous Coals with Applications to Coal Liquefaction," National Technical University of Athens, Department of Chemical Engineering, Athens, Greece, June 12, 1979.
19. "Transport Properties of Hydrophilic Polymers," University of Maine, Department of Chemical Engineering, Orono, Maine, August 15, 1979.
20. "Crystallinity Effects on the Mechanical and Transport Properties of Polymer Films," Rohm and Haas Company, Research Laboratories, Springhouse, Pennsylvania, November 8, 1979.
21. "Structure Effects on the Diffusion Through Rubbery and Glassy Polymers: Theory, Experiments and Applications," Michigan State University, Department of Chemical Engineering, East Lansing, Michigan, January 10, 1980.
22. "Investigation of the Crosslinked Macromolecular Nature of Bituminous Coals," Exxon Research Co., Corporate Research, Linden, New Jersey, May 9, 1980.

23. "Structural Effects on the Diffusion through Rubbery and Glassy Polymers," DuPont de Nemours & Co., Engineering Experimental Station, Wilmington, Delaware, June 25, 1980.
24. "Prediction of Food Packaging Stability," American Can Co., Barrington Technical Center, Barrington, Illinois, July 8, 1980.
25. "Alcohol Diffusion in PVC," Democritos Nuclear Research Center, Athens, Greece, August 28, 1980.
26. "Effect of Polymer Structure on the Diffusion of Solutes through Membranes," Celanese Research Co., Summit, New Jersey, October 7, 1980.
27. "Theoretical and Experimental Studies of Solute Diffusion in Water-Swollen Polymers with Applications in Hemodialysis and Controlled Release Systems," University of Utah, Departments of Bioengineering and Pharmaceutics, Salt Lake City, Utah, February 10, 1981.
28. "Transport and Relaxation Phenomena in Polymer-Diluent Systems," Stanford University, Department of Chemical Engineering, Palo Alto, California, February 11, 1981.
29. "Solute Diffusion in Swollen Crosslinked Polymers," California Institute of Technology, Department of Chemical Engineering, Pasadena, California, February 12, 1981.
30. "Macromolecular Structures in Bituminous Coals," California Institute of Technology, Department of Chemical Engineering, Pasadena, California, February 13, 1981.
31. "Theoretical and Experimental Studies of Solute Diffusion in Water-Swollen Polymers," University of Michigan, Department of Chemical Engineering, Ann Arbor, Michigan, April 2, 1981.
32. "Controlled Release Technology," Rose-Hulman Institute and Terre-Haute AIChE Chapter, Terre-Haute, Indiana, November 17, 1981.
33. "Molecular Exclusion and Junction Fluctuations: Molecular Theories of Diffusion in Swollen Polymer Networks," University of California at San Diego, Department of Chemical Engineering, LaJolla, California, January 6, 1982.
34. "Macromolecular Structural Analysis of Coals: A New Tool for Investigation of Coal Structure and Coal Liquefaction," University of Houston, Department of Chemical Engineering, Houston, Texas, January 22, 1982.
35. "Molecular Diffusion in Swollen Polymeric Networks: Theories and Applications in Biomedical Separation and Solute Release," Virginia Polytechnic Institute, Department of Chemical Engineering, Blacksburg, Virginia, January 25, 1982.
36. "Recent Advances in Solute Diffusion Through Rubbery and Glassy Polymers," M.I.T., Department of Chemical Engineering, Cambridge, Massachusetts, March 11, 1982.
37. "Controlled Release Technology: Theory and Applications," University of Maine, Department of Chemical Engineering, Orono, Maine, March 12, 1982.
38. "How Polymer Theories Contribute to Our Understanding of Coal Utilization Processes," University of Illinois at Chicago Circle, Department of Energy Engineering, Chicago, Illinois, March 16, 1982.
39. "Recent Developments in EVAc-Based Controlled Release Systems," IMC Corporation, Terre Haute, Indiana, May 4, 1982.
40. "Swelling-Controlled Release Behavior," University of Geneva, Department of Pharmacy, Geneva, Switzerland, May 28, 1982.
41. "Biocompatible Polymers for Non-thrombogenic Applications," University of Lille, Faculty of Sciences, Lille, France, December 14, 1982.
42. "Anomalous Transport of Penetrants and Solutes in Polymers Undergoing Transitions," University of Bologna, Department of Chemical Engineering, Bologna, Italy, January 10, 1983.
43. "Diffusion in Polymer Networks," University of Naples, Department of Chemical Engineering, Naples, Italy, January 12, 1983.
44. "Engineering Aspects of Arteriosclerosis," University of Geneva, Department of Industrial Pharmacy, Geneva, Switzerland, January 14, 1983.
45. "Release of Bioactive Agents from Swellable Polymers: Theory and Experiments," Sandoz Ltd., Pharmaceutical Division, Basle, Switzerland, January 19, 1983.
46. "Transport of Bioactive Agents in the Nasal and Gastric Mucus," Zyma S.A., Nyon, Switzerland, January 26, 1983.
47. "Development, Characterization and Evaluation of New Membranes for Artificial Kidney Applications," Hospital Center of Vaud of the University of Lausanne, Department of Internal Medicine, Division of Nephrology and Hypertension, Lausanne, Switzerland, January 27, 1983.

48. "Contact Lenses as Biomaterials," University of Geneva, Faculty of Sciences, Geneva, Switzerland, February 4, 1983.
49. "Recent Developments in Controlled-Release Drug Delivery Systems," University Hospital Center of Vaud of the University of Lausanne, Institute of Pharmacology, Lausanne, Switzerland, February 2, 1983.
50. "Diffusional Release from Polymers," Fournier S.A. and University of Dijon, Dijon, France, February 7, 1983.
51. "Recent Advances in Controlled-Release Systems," University of Geneva, Faculty of Sciences, Geneva, Switzerland, February 11, 1983.
52. "Recent Developments in Controlled-Release Drug Delivery Systems," University of Liege, Faculty of Medicine and Institute of Pharmacy, Liege, Belgium, February 14, 1983.
53. "Topological and Free Volume Analysis of Solute Diffusion in Hydrophilic Networks," Twente University of Technology, Department of Chemical Engineering, Enschede, The Netherlands, February 15, 1983.
54. "Topological and Free Volume Analysis of Solute Diffusion in Hydrophilic Networks," University of Leiden, Gorlaeus Laboratory, Department of Physical Chemistry, Leiden, The Netherlands, February 16, 1983.
55. "Energetics of Polymer Surfaces," University of Lausanne, Departments of Chemistry and Pharmacy, Lausanne, Switzerland, February 17, 1983.
56. "Physical Structure and Biocompatibility of Polymers," University of Paris (Paris-Sud), School of Science, Châtenay-Malabry, Paris, France, February 22, 1983.
57. "Some Recent Developments of Modeling and Physical Understanding of Transport of Solutes and Solvents in Glassy Polymers," University of California at Los Angeles, Department of Chemical Engineering, Los Angeles, California, March 18, 1983.
58. "Topological and Free Volume Analysis of Solute Diffusion in Polymeric Networks," University of California at Berkeley, Department of Chemical Engineering, Berkeley, California, April 11, 1983.
59. "Controlled Release of Bioactive Molecules *in vitro* and *in vivo*," California Institute of Technology, Department of Chemical Engineering, Pasadena, California, April 21, 1983.
60. "Controlled Release of Bioactive Molecules," University of California at Davis, Department of Chemical Engineering, Davis, California, May 19, 1983.
61. "Drug Transport in Dynamically Swelling Hydrophilic Polymers," University of California at San Francisco, Department of Pharmaceutical Chemistry, San Francisco, California, May 27, 1983.
62. "Polymer Structure and Controlled Release of Biomolecules," a set of four seminars on "Diffusion of Solutes in Polymers," "Theories and Experiments of Solute Diffusion in Membranes," "Use of Swellable Polymers in Controlled Release" and "Biocompatibility of Polymers," Zyma Foundation, Nyon, Switzerland, November 24, 1983.
63. "Novel Hydrophilic Systems for Zero-Order Release of Drugs," Farmitalia Carlo Erba of Montedison, Milan, Italy, November 25, 1983.
64. "Swelling-and Relaxation-Controlled Release of Bioactive Agents from Polymers," Purdue University, School of Chemical Engineering, West Lafayette, Indiana, December 1, 1983.
65. "Free-Volume Theories of Solute Diffusion in Membranes," Indiana University-Purdue University at Indianapolis, Department of Chemistry, Indianapolis, Indiana, January 18, 1984.
66. "Swelling-Controlled Release of Bioactive Agents from Polymers," Purdue University, Department of Chemistry, West Lafayette, Indiana, January 25, 1984.
67. "Macromolecular Structure of Bituminous Coals," ACS Pittsburgh Section, Pittsburgh, Pennsylvania, February 16, 1984.
68. "Dynamic Swelling of Coal Particles as a Probe of their Macromolecular Structure," Pennsylvania State University, Department of Materials Science and Engineering, Fuel Science Program, University Park, Pennsylvania, March 8, 1984.
69. "Diffusion of Penetrants and Solutes in Swellable Polymers with Applications to Controlled Release Technology," University of Missouri-Rolla, Department of Chemical Engineering, Rolla, Missouri, April 11, 1984.
70. "Diffusion in Membranes," University of Vienna, Department of Physical Chemistry, Vienna, Austria, June 6, 1984.
71. "Polymers in Controlled Release," Schering Co., New York, New York, October 1, 1984.

72. "Swellable Polymers for Controlled Release of Biomolecules," Smith, Kline and Beckman, Philadelphia, Pennsylvania, December 11, 1984.
73. "A New Experimental Method for the Determination of the Bioadhesive Bond Strength Between Polymers and Mucus," Menley and James Laboratories, King of Prussia, Pennsylvania, December 12, 1984.
74. "Gel Membrane Structure and Solute Diffusion," Department of Chemical Engineering, State University of New York, Buffalo, New York, January 8, 1985.
75. "Transport of Penetrants and Solutes Through Swellable Glassy Polymers," Department of Chemical Engineering, Washington University, St. Louis, Missouri, March 11, 1985.
76. "Development and Use of Polymer Time-Release Medications," Indianapolis AIChE Section, Indianapolis, Indiana, April 23, 1985.
77. "Characterization of Polymers for Sustained Release Dosage Forms," Upjohn Co., Kalamazoo, Michigan, June 7, 1985.
78. "Characterization Methods of Polymers for Controlled Release," University of Paris-Sud, Department of Pharmacy, Châtenay-Malabry, France, July 2, 1985.
79. "Hydrogels in Controlled Release: Structure of Hydrogels and Mathematical Modeling of Controlled Release Processes," Interx and University of Kansas, Department of Pharmaceutical Chemistry, Lawrence, Kansas, September 17, 1985.
80. "Multicomponent Diffusion in Glassy Polymers," University of Colorado, Department of Chemical Engineering, Boulder, Colorado, October 3, 1985.
81. "Anomalous Penetrant Transport in and Solute Release from Glassy Polymers," University of Wisconsin, Department of Chemical Engineering, Madison, Wisconsin, October 30, 1985.
82. "Bioadhesive Polymers," Hercon Co., S. Plainfield, New Jersey, January 13, 1986.
83. "Bioadhesive Controlled Release Systems," Eli Lilly & Co., Indianapolis, Indiana, February 4, 1986.
84. "Anomalous Transport in Glassy Polymers," University of Akron, Institute of Polymer Science, Akron, Ohio, April 3, 1986.
85. "Anomalous Transport in Glassy Polymers," Owens Corning, Conroe, Texas, May 12, 1986.
86. "Bioadhesion," Rhône-Poulenc Recherches, Saint-Fons, France, October 1, 1986.
87. "Diffusional Phenomena and Stresses Observed During Penetrant Transport and Solute Release in Hydrogels," Leiden University, Center for Biopharmaceutical Sciences, Leiden, Netherlands, October 9, 1986.
88. "Biocompatible Polymers," University of Paris-Sud, Department of Industrial Pharmacy, Châtenay-Malabry, France, October 16, 1986.
89. "Molecular Phenomena in Bioadhesion," Columbia University, Department of Chemical Engineering, New York City, New York, October 24, 1986.
90. "Unusual Applications of Biomaterials: Reconstruction of Vocal Cords, Cartilage and Genital Organs," University of Paris XI, Faculty of Sciences, Châtenay-Malabry, France, November 18, 1986.
91. "Modeling of Solute Diffusion in Polymers," Rhône-Poulenc Recherches, Saint-Fons, France, November 26, 1986.
92. "Solute Diffusion in Block Copolymer Membranes," Rhône-Poulenc Recherches, Saint-Fons, France, November 27, 1986.
93. "Bioadhesion," University of Trieste, Department of Pharmacy, Trieste, Italy, November 28, 1986.
94. "The Effect of Polymer Structure on Drug Delivery," University of Siena, Faculty of Chemistry, Siena, Italy, December 3, 1986.
95. "The Effect of Polymer Structure on Drug Delivery from Controlled-Release Systems," University of Milan, Faculty of Pharmacy, Milan, Italy, December 5, 1986.
96. "Novel Bioadhesive Controlled Release Systems for the Delivery of Febuverine and Metronidazole," Farmitalia Carlo Erba, Milan, Italy, December 5, 1986.
97. "Recent Studies on the Delivery of Peptides Using Swellable Polymers," University of Marmara, Faculty of Sciences, Istanbul, Turkey, December 22, 1986.
98. "Diffusion Studies of Testosterone Through Low Molecular Weight Gels for Transdermal Applications," Hercon Co., S. Plainfield, New Jersey, January 16, 1987.
99. "Bioadhesive Systems for Gastrointestinal and Nasal Applications," Smith, Kline and Beckman, Philadelphia, Pennsylvania, January 22, 1987.

100. "Interactions of Swellable Polymer Microparticles with Mucus," University of Texas, Department of Chemical Engineering, Austin, Texas, February 17, 1987.
101. "Liquid Diffusion in Glassy Polymers," Rice University, Department of Chemical Engineering, Houston, Texas, February 19, 1987.
102. "A New Approach to Targeting of Genetically-Engineered Molecules: Use of Mucoadhesive Polymeric Microparticles as Carriers for Biomolecular Delivery," Duke University, Department of Biomedical Engineering, Durham, North Carolina, March 17, 1987.
103. "Bioadhesive Polymers," Cygnus Research Co., Redwood City, California, April 4, 1987.
104. "Polymer Microparticle/Mucus Interactions," North Carolina State University, Department of Chemical Engineering, Raleigh, North Carolina, April 6, 1987, *McCabe Lecture*.
105. "New Types of Gels for Biopharmaceutical Applications," Ciba-Geigy Corporation, Basic Pharmaceuticals Division, Ardsley, New York, April 14, 1987.
106. "Tablet Disintegration Mechanisms," University of Pavia, Department of Pharmacy, Pavia, Italy, July 3, 1987.
107. "Structure, Swelling and Transport Properties of Methacrylate-Based Networks," University of Cincinnati, Department of Chemical and Nuclear Engineering, Cincinnati, Ohio, October 29, 1987.
108. "Controlled Release Within and Beyond Pharmaceutical Research," University of Pavia, Department of Pharmacy, Pavia, Italy, November 24, 1987, *Inaugural Lecture*.
109. "Bioadhesive Controlled Release Systems," University of Parma, Department of Pharmacy, Parma, Italy, November 25, 1987.
110. "Controlled Release Applications of Hydrophilic Polymers," University of Arizona, Department of Chemical Engineering, Tucson, Arizona, December 8, 1987.
111. "Controlled Release of Perfumes and Other Cosmetic Products," University of Paris XI, Department of Pharmacy, Châtenay-Malabry, France, December 14, 1987.
112. "Environmentally-sensitive Hydrogels," Purdue University, Department of Industrial and Physical Pharmacy, West Lafayette, Indiana, January 19, 1988.
113. "Interactions of Polymers with Mucus: Analysis of Bioadhesive Problems," Johns Hopkins University, Department of Chemical Engineering, Baltimore, Maryland, April 11, 1988.
114. "Swelling-controlled Release Systems," American Cyanamid Company, Lederle Laboratories, Pearl River, New York, April 15, 1988.
115. "Controlled Release from Swellable and Environmentally-Sensitive Polymers," University of Minnesota, College of Pharmacy, Minneapolis, Minnesota, April 21, 1988, *Minnetonka Lecture*.
116. "Polymers as Carriers for Controlled Release Applications," Tecnofarmaci, Milan, Italy, May 6, 1988.
117. "Swelling and Dissolution of Polymers," University of Modena, School of Pharmacy, Modena, Italy, May 13, 1988.
118. "Bioadhesion," University of Pisa, Faculty of Sciences, Pisa, Italy, May 16, 1988.
119. "Swelling and Dissolution of Tablets for Zero-order Controlled Release Systems," University of Geneva, School of Pharmacy, Geneva, Switzerland, May 20, 1988.
120. "Swelling and Dissolution of Polymers," University of Turin, School of Pharmacy, Turin, Italy, May 23, 1988.
121. "Polymer Considerations in the Design of Peptide Delivery Systems," University of Parma, School of Pharmacy, Parma, Italy, May 26, 1988.
122. "Swelling and Collapse of Gels," University of Houston, Department of Chemical Engineering, Houston, Texas, September 23, 1988.
123. "Hydrogels Sensitive to pH, Ionic Strength and Temperature Changes," Northwestern University, Department of Chemical Engineering, Chicago, Illinois, November 10, 1988.
124. "Polymers and Transdermal Systems," Cygnus Research Company, Redwood City, California, November 17, 1988.
125. "pH-Sensitive Hydrogels," University of Washington, Department of Chemical Engineering, Seattle, Washington, March 6, 1989.
126. "Crosslinking in Multimethacrylate Reactions," University of South Florida, Department of Chemical Engineering, Tampa, Florida, March 17, 1989.
127. "Temperature- and pH-Sensitive Hydrogels," University of Pennsylvania, Department of Chemical Engineering, Philadelphia, Pennsylvania, March 20, 1989.
128. "Ionic Hydrogels," Dow Chemical USA, Midland, Michigan, May 5, 1989.

129. "Polymers as Carriers for Controlled Release," Procter & Gamble, Cincinnati, Ohio, October 3, 1989.
130. "Novel Release Systems for the Delivery of Perfumes and Essential Oils Used in Flavorings," Procter & Gamble, Cincinnati, Ohio, October 3, 1989.
131. "Temperature and pH-Sensitive Hydrogels in Biomedical and Pharmaceutical Applications," University of Michigan, Department of Pharmacy, Ann Arbor, Michigan, October 11, 1989.
132. "The Effect of the Chemical and Physical Polymer Structure on the Release of Bioactive Agents," Ethyl Corporation, Baton Rouge, Louisiana, February 8, 1990.
133. "Swelling Characteristics and Mechanical Properties of Highly Swollen Hydrogels," Kimberly-Clark, Neenah, Wisconsin, February 15, 1990, *Distinguished Lecturer*.
134. "Programmed Insulin Delivery Using Thermosensitive Hydrogels," University of Parma, Department of Pharmaceutical Sciences, Parma, Italy, March 6, 1990.
135. "Ionic Permeability of Polymer Films," C.R. Bard Co., Tewksbury, Massachusetts, April 18, 1990.
136. "Diffusion of Oxygen in Hydrogels," Vistakon, Inc., Jacksonville, Florida, June 20, 1990.
137. "Mechanical Properties of Hydrogels," Vistakon, Inc., Jacksonville, Florida, June 20, 1990.
138. "Drug Release from Hydrogels that Respond to pH and Temperature," University of Geneva, School of Pharmacy, Geneva, Switzerland, September 24, 1990.
139. "Polymers for Articular Cartilage Replacement," Rose-Hulman Institute of Technology, Terre-Haute, Indiana, October 8, 1990.
140. "Structure-Property Relationships in Poly(ethylene oxide-g-methacrylic acid) Hydrogels," Bausch and Lomb Co., Contact Lens Division, Rochester, New York, March 26, 1991.
141. "Recent Advances in Environmentally Sensitive Polymers," Virginia Polytechnic Institute, Department of Chemical Engineering, Blacksburg, Virginia, April 9, 1991.
142. "Characterization of Polymeric Hydrogels," Johnson & Johnson Co., New Brunswick, New Jersey, April 23, 1991.
143. "Diffusional Phenomena and Processes in Polymers in Relation to Consumer Products Development," Kimberly-Clark, Roswell, Georgia, May 17, 1991, *Horizons Lecturer*.
144. "Biodegradable Absorbent Polymers," Dow Chemical Co., Midland, Michigan, August 6, 1991.
145. "Peptide and Protein Delivery from Novel Poly(vinyl alcohol) and Poly(N-vinyl pyrrolidone) Carriers," University of Toronto, Department of Pharmacy, Toronto, Ontario, Canada, October 15, 1991.
146. "Physiologically-sensitive Hydrogels for Biomedical and Drug Delivery Applications," University of Toronto, Department of Chemical Engineering, Toronto, Ontario, Canada, October 16, 1991, *Distinguished Lecturer*.
147. "Bioadhesion of Polymer Gels with Mucin and Mucus: Interdiffusion, Wetting Phenomena and Experimental Verification," Center for Biomaterials, Ontario Center for Materials Research, Toronto, Ontario, Canada, October 16, 1991.
148. "Fast UV Curing Kinetics of Multimethacrylates and their Applications to the Field of Information Storage Systems," McMaster University, Department of Chemical Engineering, Hamilton, Ontario, Canada, October 17, 1991.
149. "Kinetics and Properties of Crosslinked Polymers from Multifunctional Methacrylates," Princeton University, Department of Chemical Engineering, Princeton, New Jersey, November 6, 1991.
150. "Mathematical Modeling of Controlled Release Systems," University of Geneva, Department of Pharmacy, Geneva, Switzerland, April 29, 1992.
151. "Bioadhesive Polymers," University of Santiago, Department of Pharmacy, Santiago de Compostella, Spain, November 12, 1992.
152. "Polymer Gels in Medicine and Biology," Texas A&M University, Department of Chemical Engineering, College Station, Texas, January 29, 1993.
153. "Controlled Release with Ionic Polymers," Landec Corporation, Redwood City, California, May 5, 1993.
154. "Recent Advances in Bioadhesive," Nichiban Co., Tokyo, Japan, April 27, 1993.
155. "Hydrogels in Drug Delivery," Advanced Polymer Systems, Menlo Park, California, July 1, 1993.
156. "Physiologically Sensitive Controlled Release Systems," Seoul National University, Department of Pharmacy, Seoul, Korea, August 30, 1993.
157. "Modeling of Multifunctional UV Polymerizations of Multimethacrylates," Seoul National University, Department of Chemical Engineering, Seoul, Korea, August 30, 1993.

158. "Bioadhesive Controlled Release Systems," Korean Institute of Science and Technology, Department of Polymer Science, Seoul, Korea, August 31, 1993.
159. "Poly(vinyl alcohol) Hydrogels," Kyoto University, Department of Biomedical Engineering, Kyoto, Japan, September 1, 1993.
160. "Temperature Sensitive Networks," Osaka University, Department of Chemistry, Osaka, Japan, September 2, 1993.
161. "Bioadhesive Polymers," Massachusetts Institute of Technology, Department of Chemical Engineering, Cambridge, Massachusetts, October 1, 1993.
162. "Classification of Release Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 22, 1993.
163. "Fundamental of Diffusion," University of Parma, Faculty of Pharmacy, Parma, Italy, October 22, 1993.
164. "Polymer Structure and Controlled Release," University of Parma, Faculty of Pharmacy, Parma, Italy, October 25, 1993.
165. "Diffusion Controlled Systems (Matrix Devices)," University of Parma, Faculty of Pharmacy, Parma, Italy, October 25, 1993.
166. "Reservoir and Osmotic Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
167. "Swelling-Controlled Release Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
168. "Pulsatile Delivery and pH-Sensitive Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
169. "Bioadhesive Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
170. "Microencapsulation," University of Parma, Faculty of Pharmacy, Parma, Italy, October 27, 1993.
171. "Polymers for Drug Targeting Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 27, 1993.
172. "Swelling Controlled Release Systems," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, January 17, 1994.
173. "Bioresponsive Drug Delivery Systems," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, January 25, 1994.
174. "Recent Advances in Swelling Controlled DDS for Release of Drugs and Proteins," Kyoto University, Faculty of Pharmaceutical Sciences, Sakyo, Kyoto, Japan, January 26, 1994.
175. "Bioresponsive Drug Delivery Systems," Takeda Chemical Industries, Yodogawa, Osaka, Japan, January 27, 1994.
176. "Contemporary Issues in Hydrogel Development," Kyoto University, Research Center for Biomedical Engineering, Sakyo, Kyoto, Japan, January 28, 1994.
177. "Novel Applications of Star Polymers in Drug Delivery," Sanagawa Academy of Science and Technology, Kawasaki, Japan, February 2, 1994.
178. "Bioresponsive Drug Delivery Systems," Tokyo Institute of Technology, Department of Biomolecular Engineering, Midori, Tokohama, Japan, February 2, 1994.
179. "Diffusion in Polymers," Nichiban Co., Hidaka, Japan, February 3, 1994.
180. "Novel Applications of Star Polymers in Drug Delivery," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, February 4, 1994.
181. "Contemporary Issues in Hydrogels Research," Tokyo Women's Medical College, Shinjuku, Tokyo, Japan, February 7, 1994.
182. "Cationic Hydrogels as pH-Sensitive Materials," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, February 8, 1994.
183. "Bioadhesives," Teijin Ltd., Chiyoda, Tokyo, Japan, February 10, 1994.
184. "Bioadhesive Polymers," Hebrew University, Faculty of Medicine, Jerusalem, Israel, March 20, 1994.
185. "Polymer Dissolution," Ben-Gurion University, Chemical Engineering Department, Beer-sheva, Israel, March 28, 1994.
186. "Probing the Nature of the Mucoadhesive Behavior of PEG and PAA-Containing Hydrogels via ATR-FTIR Spectroscopy, Near Field FTIR Spectroscopy and the Falling Liquid Film Technique," Cygnus Therapeutic Systems, Redwood City, California, September 15, 1994.

187. "Trends, New Technologies and Smart Polymers in Controlled Release," Colorcon, Princeton, NJ, October 12, 1994.
188. "Issues in Contemporary Hydrogels Research for Medical Applications", University of Wisconsin, Department of Chemical Engineering, Madison, Wisconsin, December 1, 1994.
189. "Chain Interpenetration and Fracture in Gel/Gel and Gel/Mucin Adhesion," Michigan State University, Department of Chemical Engineering, East Lansing, Michigan, February 16, 1995.
190. "Bioadhesive Poly(vinyl alcohol) as a Carrier for Controlled Release of Proteins and Factors for Wound Healing," Sankyo Company, Research Institute, Tokyo, Japan, March 7, 1995.
191. "Smart Materials in Medicine Applications," Ventritex Co., Sunnyvale, California, April 5, 1995.
192. "Contemporary Hydrogels Research," Kagoshima University, Department of Applied Chemistry and Chemical Engineering, Kagoshima, Japan, April 17, 1995.
193. "Hydrogels: Synthesis, Properties and Biomedical Applications," ConvaTec, Princeton, New Jersey, June 15, 1995.
194. "Diffusion and Drying Phenomena in Hydrogels: Influence of Gels' Structure and Hydrophilicity," Cygnus, Redwood City, California, August 31, 1995.
195. "Multifunctional Methacrylates as Biomaterials in Ocular Applications," Alcon Labs, Ft. Worth, Texas, January 23, 1996.
196. "Molecular Dynamics in Polymer Networks with Applications in Biomedical and Drug Delivery Systems," University of Michigan, Department of Chemical Engineering, Ann Arbor, Michigan, January 25, 1995.
197. "Hydrogels in Pharmaceutical Applications," B.F. Goodrich, Brecksville, Ohio, February 1, 1996.
198. "Mechanistic Aspects of Polymer Dissolution," University of Kentucky, Department of Chemical Engineering, Lexington, Kentucky, February 7, 1996.
199. "Mechanistic Aspects of Polymer Dissolution," City University of New York, Department of Chemical Engineering, New York, New York, March 18, 1996.
200. "Poly(vinyl alcohol)-Based Release Systems," ALZA Corporation, Palo Alto, California, April 30, 1996.
201. "Intelligent Biomaterials: Scientific Curiosity or Panacea?" Ohio State University, Department of Chemical Engineering, Columbus, OH, May 2, 1996.
202. "Diffusion in Polymers," University of Naples, Department of Materials Science, Naples, Italy, May 15, 1996.
203. "Use of Hydrogels in Drug Delivery," University of Naples, Department of Pharmaceutical Chemistry, Naples, Italy, May 21, 1996.
204. "Swelling-Controlled Release Systems," University of Rome, Department of Pharmaceutical Chemistry, Rome, Italy, May 24, 1996.
205. "Crystal-Dissolution-Controlled Poly(Vinyl Alcohol)-Based Release Systems," University of Pavia, Department of Pharmaceutical Sciences, Pavia, Italy, November 26, 1996.
206. "Recent Advances in Drug Delivery," Vectorpharma Co., Trieste, Italy, November 28, 1996.
207. "Solute and Water Transport in Polymeric, Swelling-Controlled Release Systems," Cygnus, Redwood City, California, February 6, 1997.
208. "Protein Delivery Using Novel Hydrogel Systems," B.F. Goodrich Co., Brecksville, Ohio, March 19, 1997.
209. "Kinetics and Properties of Crosslinked Polymers from Multifunctional Methacrylates," New Mexico State University, Department of Chemical Engineering, Las Cruces, NM, April 11, 1997.
210. "Protein Release from Hydrogels," B.F. Goodrich, Brecksville, Ohio, June 23, 1997.
211. "Poly(vinyl alcohol)-based Gels by Freezing/Thawing Processes," Hokkaido University, Division of Biological Sciences, Sapporo, Japan, July 10, 1997.
212. "Carriers from PEG Star Polymers for Drug Delivery and Molecular Imprinting," University of Parma, Department of Pharmacy, Parma, Italy, May 19, 1998.
213. "Protein Delivery with Poly(ethylene glycol) Systems," University of Ferrara, Faculty of Pharmacy, Ferrara, Italy, May 21, 1998.
214. "Glassy/rubbery Transitions in Food Products and Importance in Flavor Release," Kellogg, Battle Creek, MI, September 23, 1998.
215. "Intelligent Biomaterials and Advanced Methods of Drug Delivery," University of Ghent, Belgium, *Honorary Doctorate Lecture*, March 19, 1999.

216. "Drug Delivery from PVA Networks," University of Parma, Department of Pharmacy, Parma, Italy, May 5, 1999.
217. "Dynamics of Chain Interpenetration of PEG-Tethered Hydrogels," Washington University, Department of Chemical Engineering, St. Louis, Missouri, September 7, 1999.
218. "Interpolymer Complexes, Star Polymers and Ionic Hydrogels in Protein and Drug Delivery," Carnegie Mellon University, Department of Chemical Engineering, September 14, 1999.
219. "Intelligent Biomaterials and Advanced Methods of Drug Delivery," University of Parma, Italy, *Honorary Doctorate Lecture*, October 13, 1999.
220. "Interpolymer Complexes, Star Polymers and Ionic Hydrogels in Protein and Drug Delivery," University of Akron, Department of Chemical Engineering, October 21, 1999.
221. "Molecular Chemical Engineering: The Contributions of Chemical Engineers to Biomaterials and Pharmaceutical Engineering," University of Pittsburgh, Department of Chemical Engineering, *Bayer Lecture*, February 24, 2000.
222. "Poly(ethylene glycol)-based Hydrogels for Protein Delivery and Molecular Imprinting," University of Pittsburgh, Department of Chemical Engineering, *Bayer Lecture*, February 25, 2000.
223. "Intelligent Biomaterials and Advanced Methods of Drug Delivery," University of Athens, Greece, *Honorary Lecture*, March 9, 2000.
224. "Poly(ethylene glycol)-based Hydrogels for Protein Delivery and Molecular Imprinting," Aventis Research and Technologies, Frankfurt, Germany, March 15, 2000.
225. "Advances in Mucoadhesive Delivery," Aventis Research and Technologies, Frankfurt, Germany, March 15, 2000.
226. "Novel Oral Protein Delivery Systems: Design, Formulation, Cellular and in vivo Studies," Free University of Berlin, Department of Pharmacy, Berlin, Germany, January 19, 2001.
227. "Oral Protein Delivery Systems Based on Complexation Hydrogels," University of Santiago de Compostela, Department of Pharmacy and Pharmaceutical Technology, Santiago de Compostela, Spain, March 7, 2001.
228. "Mucoadhesive Drug Delivery Systems," University of Santiago de Compostela, Department of Pharmacy and Pharmaceutical Technology, Santiago de Compostela, Spain, March 8, 2001.
229. "Polymer-cell Interactions in Relation to the Development of Oral Delivery Systems," University of Santiago de Compostela, Department of Pharmacy and Pharmaceutical Technology, Santiago de Compostela, Spain, March 8, 2001.
230. "UV Free Radical Polymerizations for Micropatterning and Molecular Imprinting of Poly(ethylene glycol)-containing Films," National Science Foundation, Institute of Science and Technology of Polymers, Madrid, Spain, March 15, 2001.
231. "Advances in Oral Delivery of Proteins Using Smart Polymer Carriers," University of Seville, Department of Chemistry, Seville, Spain, March 16, 2001.
232. "Mucoadhesive Systems in Drug Delivery," University of Barcelona, Department of Pharmacy and Pharmaceutical Technology, Barcelona, Spain, March 23, 2001.
233. "Novel Complexation Hydrogels for Oral Protein Delivery," University of Marburg, Departments of Chemistry and Pharmacy, Marburg, Germany, May 14, 2001.
234. "Molecular Imprinting and Micropatterning in Pharmaceutical and Biomedical Applications," Institute of Pharmacy, Free University of Berlin, May 23, 2001.
235. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning", Department of Chemical and Biochemical Engineering, Rutgers University, March 28, 2002, *Named Lecture*.
235. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognition," University of Texas, Departments of Chemical and Biomedical Engineering, May 9, 2002.
236. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning," Texas A&M University, Department of Chemical Engineering, May 16, 2002.
237. "Mucoadhesion and Bioadhesion: Mechanisms, Experimental Techniques and Development of New Systems," Schering A.G., Berlin, Germany, October 7, 2002.
238. "Intelligent Systems for Transmucosal Delivery of Insulin, Calcitonin and Other Proteins," Eurand, Milan, Italy, November 25, 2002.
239. "Intelligent Biomaterials for Configurational Biomimesis: New Devices for Molecular Recognition," Eurand, Milan, Italy, November 25, 2002.

240. "Solvent-Activated Controlled Release Systems: Swelling Systems and the Use of Hydrogels in Controlled Release," Eurand, Trieste, Italy, November 26, 2002.
241. "Mucoadhesion and Bioadhesion: Mechanisms, Experimental Techniques and Development of New Systems," Eurand, Trieste, Italy, November 26, 2002.
242. "Devices Based on Intelligent Biopolymers for Oral Protein Delivery," Eurand, Trieste, Italy, November 26, 2002.
243. "Advances in Protein Delivery, Molecular Recognition and Micropatterning", Iowa State University, Department of Chemical Engineering, Ames, IA, April 10, 2003, *Named Lecture*.
244. "Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Imprinting", University of Oklahoma, Department of Chemical Engineering, Norman, OK, April 17, 2003, *Named Lecture*.
245. "Mucoadhesive Polymers", Amano Enzymes, Elgin, IL, August 6, 2003.
246. "Advances in Intelligent Biomaterials; Protein Delivery, Configurational Biomimetic Systems and Bionanotechnology", Johnson & Johnson, Somerville, NJ, August 7, 2003.
247. "Advanced Sensor-Based Control", Becton Dickinson, Chapel Hill, NC, December 18, 2003.
248. "The Future of Biomaterials", EI duPont de Nemours, Wilmington, DE, January 9, 2004.
249. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Micropatterning", EI duPont de Nemours, Wilmington, DE, January 9, 2004.
250. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Micropatterning", Rice University, Department of Biomedical Engineering, Houston, TX, February 5, 2004.
251. "Intelligent Polymer Networks in Protein Delivery and Molecular Recognition", MIT, Program in Polymer Science and Technology, Cambridge, MA, March 17, 2004.
252. "New Hydrogel Systems for Smart Delivery of Drugs and Proteins", University of Tokyo, Department of Materials Science, Tokyo, Japan, July 16, 2004.
253. "Cellular and Molecular Evaluation of Oral Delivery Systems for Chemotherapeutic Agents", Hoshi University, Tokyo, Japan, July 17, 2004.
254. "The Future of Nanotechnology with Special Emphasis on Biomedical Applications", Technical University of Lodz, Poland, September 9, 2004.
255. "Intelligent Biomaterials in Protein Delivery, Micropatterning and Molecular Recognition", Technical University of Lodz, Poland, September 9, 2004.
256. "Materials and Methods of Bio- and Mucoadhesion", Technical University of Lodz, Poland, September 9, 2004.
257. "Bionanotechnology and Molecular Recognition," Texas A&M University, Department of Chemical Engineering, College Station, Texas, December 17, 2004.
258. "Polymers for Medical Applications: The Future of Biomaterials", Nanyang Technological University, Department of Materials Science and Engineering, Singapore, January 11, 2005.
259. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Bionanotechnology", Nanyang Technological University, Singapore, January 12, 2005.
260. "Fast UV-Polymerization Kinetics and Reaction Engineering: Kinetics and Network Structure in Relation to Microfabrication", Nanyang Technological University, Department of Chemical Engineering, Singapore, January 13, 2005.
261. "Oral Delivery Systems for Chemotherapeutic Agents and Protein", Nanyang Technological University, Department of Materials Science and Engineering, Singapore, January 14, 2005.
262. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Bionanotechnology", University of Texas at San Antonio, College of Engineering, San Antonio, TX, January 24, 2005.
263. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Bionanotechnology", University of Texas at Austin, IGERT Program, Austin, TX, February 4, 2005.
264. "Intelligent Protein and Drug delivery Systems", University of Barcelona, College of Pharmacy, Barcelona, Spain, March 30, 2006.
265. "Intelligent Acrylic and Methacrylic Biohydrogels for Protein Delivery, Molecular Imprinting and Micropatterning", Arkema, King of Prussia, PA, June 8, 2006.
266. "Biomimetic Polymers in Responsive and Intelligent Drug Delivery," University of Kentucky, Department of Chemical Engineering, Lexington, Kentucky, October 20, 2006, *Ashland Lecture*.

267. "The Next Generation of Drug Delivery Technologies", School of Pharmacy, University of Central Lancashire, Preston, UK, September 13, 2007, *Named Lecture*.
268. "Nanotechnology and Intelligent Response: Their Impact in Biomaterials and Drug Delivery", Nanyang Technological University, Department of Materials Science and Engineering, Singapore, December 12, 2007.
269. "Advances in Biomaterials for Intelligent Biomedical and Pharmaceutical Systems", University of Puerto Rico at Mayagüez, Mayagüez, PR, March 6, 2008, *Merck Lecture*.
270. "Molecular Recognition using Intelligent Biomaterials", University of Massachusetts, Amherst, MA, May 6, 2008, *Rohm & Haas Lecture*.
271. "Recognition and Delivery: Thermodynamics and Kinetic Phenomena in the Design of Medical Microdevices", Naval Research Laboratory, Center for Bio/Molecular Science & Engineering, Washington, DC, March 24, 2009, *Distinguished Lecture*
272. "Recognition and Delivery: The Next Generation of Medical Microdevices", MIT, Department of Chemical Engineering, Cambridge, MA, April 3, 2009, *Alan Michaels Lecture*.
273. "Recognition and Delivery: The Next Generation of Medical Microdevices", Duke University, Department of Chemical and Biological Engineering, Rolla, MO, April 15, 2009, *Missouri Academy Lecture*.
274. "Addressing Educational Problems in an Evolving, Global and Challenging Engineering World", Duke University, Department of Chemical and Biological Engineering, Rolla, MO, April 15, 2009, *Missouri Academy Lecture*.
275. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning", Duke University, Department of Biomedical Engineering, Durham, NC, April 23, 2009, *Kewaunee Lecture*.
276. "Responsive Biomaterials and Feedback-Controlled Medical Devices for Protein Delivery, Molecular Imprinting and Microfabricated Systems", Department of Biomedical Engineering, University of California at Davis, Davis, CA, February 4, 2010, *Distinguished Lecturer*.
277. "Molecular and Cellular Aspects of Transmucosal Protein Delivery", Collège de France, Paris, France, March 15, 2010, *Distinguished Lecturer*.
278. "Responsive and Feedback-Controlled Materials for Protein Delivery, Molecular Imprinting and Microfabricated Systems, Imperial College, Department of Chemical Engineering, London, England, May 12, 2010, *Distinguished Lecturer*.
279. "Biomaterials and Drug Delivery Systems", MIT, Department of Chemical Engineering, Cambridge, MA, May 14, 2010, *Merrill Symposium*.
280. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognitive Devices", Northwestern University, Department of Chemical Engineering, Evanston, IL, February 10, 2011, *Eugene W. Skinner and Eugene P. Lautenschlager Memorial Lecture*.
281. "Intelligent Biomaterials for the Next Generation of Responsive Drug and Protein Delivery Systems", Auburn University, February 23, 2011, *Bashore Distinguished Lecture*.
282. "Mass Transfer in Drug Delivery and Cellular Biological Media", University of Houston, Houston, TX, March 4, 2011, *Alkiviades Payatakes Lecture*.
283. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognitive Devices", University of Delaware, Department of Chemical Engineering, Newark, DE, April 29, 2011, *Kurt Wohl Memorial Lecture*.
284. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive, Intelligent Medical Microdevices", ETH Zurich, Chemical Engineering Department, Zurich, Switzerland, September 26, 2011.
285. Centennial Lecture, Purdue University, School of Chemical Engineering, October 7, 2011.
286. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognitive Medical Devices" University of North Carolina, Eshelman School of Pharmacy and Department of Biomedical Engineering, Chapel Hill, NC, November 14, 2011, *UNC/Eisai Distinguished Lecture in Drug Delivery*.
287. "Novel Methods of siRNA Delivery", Eisai Co, Durham, NC, November 15, 2011.
288. "Intelligent Biomaterials for Responsive Delivery of Therapeutic Agents", Department of Chemical and Biomolecular Engineering, University of California, Berkeley, CA, April 2, 2012, *The Berkeley Lectures*.

289. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive Micro- and Nanodevices", Department of Chemical and Biomolecular Engineering, University of California, Berkeley, CA, April 4, 2012, *The Berkeley Lectures*.
290. "Intelligent Biomaterials for Responsive Delivery of Therapeutic Agents", RTI International, Research Triangle, NC, June 26, 2012.
291. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive Micro- and Nanodevices", RTI International, Research Triangle, NC, June 26, 2012.
292. "Micro- and Nanotechnology in Drug Delivery", Corporate Research & Engineering - Materials Science, Kimberly-Clark Corp, Neenah, WI, August 2, 2012, *Extrapolations Lecture*.
293. "Hydrogels", National Academy of Engineering, October 2012, *Founders Award Lecture*.
294. "Advances in Intelligent and Recognitive Hydrogels for Treatment of Diabetes, Cancer and Multiple Sclerosis", College of Pharmacy, University of Ljubljana, Ljubljana, Slovenia, December 5, 2012, *Distinguished Lecture*.
295. "New Frontiers in the Pharmaceutical and Medical Sciences: Improving Health Care through New Medical Devices and Treatments", University-wide Lecture, University of Ljubljana, Ljubljana, Slovenia, December 5, 2012, *Honorary Doctoral Lecture*.
296. "Intelligent Protein Delivery Systems", Dainippon Sumitomo Pharma, Osaka, Japan, December 11, 2012, *Distinguished Lecture*.
297. "Intelligent Polymer Systems for the Delivery of Proteins, siRNA and Chemotherapeutics", Department of Pharmacy, Kobe Gakuin University, Kobe, Japan, December 13, 2012.
298. "New Frontiers in the Pharmaceutical and Medical Sciences: Advanced Intelligent Hydrogels for Treatment of Diabetes, Cancer and Multiple Sclerosis", College of Engineering, Michigan Tech, Houghton, MI, March 7, 2013, *Distinguished Lecture*.
299. "Intelligent and Diagnostic Therapeutic Systems: Advanced Biomaterials and Improved Health Care", University of Buffalo, Department of Chemical Engineering, Buffalo, NY, April 23, 2013, *Ruckenstein Lecture*.
300. "New Frontiers in the Pharmaceutical and Medical Sciences: Advanced Intelligent Hydrogels for Protein Delivery", University of Illinois at Urbana, Department of Chemical and Biomolecular Engineering, Urbana, IL, April 25, 2013, *Parr Lecture*.
301. "Fundamentals and Applications of Controlled Release and Drug Delivery", Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia, May 23, 2013, *University Lecture*.
302. "Advances in Intelligent Hydrogels for Recognitive and Protein Delivery Systems", Institute of Bioengineering, School of Life Sciences & School of Engineering, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, July 4, 2013.
303. "Hydrogels, Intelligence and Therapeutic Systems: Is there a Future?", Department of Bioengineering, University of Washington, Seattle, WA, October 13, 2013, *Hoffman Lecture*.
304. "Molecular Imprinting and Recognitive Medical Devices", School of Engineering, University of Minho, Braga, Portugal, January 23, 2014.
305. "Hydrogels for Recognitive and Protein Delivery Systems", Bioengineering Department, University of California San Diego, CA, February 3, 2014, *Skalak Lecture*.
306. "Advances in Intelligent Hydrogels for Recognitive and Protein Delivery Systems", Department of Chemical and Biochemical Engineering, University of Iowa, Iowa City, IA, March 6, 2014, *Kammermeyer Lecture*.
307. "Intelligent and Recognitive Nanoscale Systems for New Therapeutic Applications", Louisiana Tech University, Ruston, LA, September 22, 2014, *Frontiers in Biomedical Research Lecture*.
308. "Biomedical Engineering Responding to Personal Needs", Louisiana Tech University, Ruston, LA, September 23, 2014 *Frontiers Lecture*.
309. "Responsive and Intelligent Biopolymers for Recognitive Systems, Biosensing and Protein Delivery", Department of Chemical Engineering, Columbia University, New York, NY, October 28, 2014, *Gaden Memorial Lecture*.
310. "Intelligent Delivery of Therapeutic Agents: A Tribute to Didi Sangalli and an Ever Changing Field", Department of Pharmaceutical Sciences, University of Milan, Milan, November 5, 2014, *Sangalli Lecture*.

311. “Intelligent/Recognitive Nanoscale Systems for New Therapeutic Applications”, Dipartimento di Chimica, Materiali ed Ingegneria Chimica :Giulio Natta”, Politecnico di Milano, Milan, Italy, November 7, 2014, *Giulio Natta Lecture*.
312. “Advances in Intelligent Biomaterials and Recognitive Systems, Biosensors and Protein Delivery Systems”, Strategic Research Theme, Biomedical Engineering and Nanotechnology, University of Hong Kong, December 12, 2014.
313. “Advances in siRNA and Protein Delivery Through Smart Polymers”, Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, IN, March 31, 2015, *Reilly Lecture 1*.
314. “Nanotechnology and Bioengineering in an Evolving Chemical Engineering World”, Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, IN, March 31, 2015, *Reilly Lecture 2*.
315. “Thermodynamics of Intelligent Hydrogels for Recognitive and Protein Delivery Systems”, Department of Chemical and Biochemical Engineering, Rutgers University, New Brunswick, NJ, April 21, 2015, *J&J Distinguished Lecture*.
316. “Multiresponsive Nanogels for the Delivery of Small Interfering RNA and Advanced Protein Therapeutic Agents”, Department of Chemical Engineering, Purdue University, West Lafayette, IN, April 28, 2015, *50th Kelly Lecture 1*.
317. “Intelligent Polymer Hydrogels: From Obscure Molecular Structures to Useful Multifunctional Systems”, Department of Chemical Engineering, Purdue University, West Lafayette, IN, April 29, 2015, *50th Kelly Lecture 2*.
318. “Advances in siRNA and Protein Delivery Through Smart Polymers”, Chemical Engineering Department, City College of New York, CUNY, New York, NY, May 11, 2015, *Stanley Katz Lecture*.
319. “Smart Biomaterials for Diagnosis of Diseases and Improvement of the Quality of Life of Patients”, Simson Querrey Institute for BioNanotechnology, Northwestern University, Evanston, IL, June 1, 2015, *Inaugural Lecture*.
320. “Advances in Polymer Networks and Biomaterials”, University of Patras, Patras, Greece, June 5, 2015, *Invited Doctoral Lecture*.
321. “Intelligent Nanoscale Biopolymers for Recognitive and Responsive Delivery of Drugs, Peptides and Proteins” Chinese Academy of Engineering, Beijing, China, March 28, 2015, *Distinguished Lecturer*.
322. “Intelligent Nanoscale Biopolymers for Recognitive and Responsive Delivery of Drugs, Peptides and Proteins”, Illinois Institute of Technology, Chicago, Illinois, *Pritzker Lecturer*, February 17, 2016.
323. “Advances in Protein and siRNA Delivery Through Smart Polymers”, Department of Chemical Engineering, Ohio State University, Columbus, OH, April 1, 2016, *Lowrie Lecturer 1* “A Historical
324. “Perspective of Nanotechnology and Bioengineering in an Evolving Chemical Engineering World,” Department of Chemical Engineering, Ohio State University, Columbus, OH April 2, 2016, *Lowrie Lecturer 2*.
325. “Intelligent Nanoscale Biopolymers for Recognitive and Responsive Delivery of Drugs, Peptides and Proteins”, University of California Davis, Davis, CA, College of Engineering, April 21, 2016, *Distinguished Lecturer*.

Research Grants

1. Research Corporation - Cottrell Research Grant
"Migration of Low Molecular Weight Components from Plasticized Polymeric Systems"
\$10,000
9/1/77 - 2/29/80
2. Rohm and Haas Company
Unrestricted Funds
\$2,500
6/1/77 - 5/31/78
"Migration of Plasticizers through Polymers"
\$2,500
6/1/79 - 12/31/79
"ESCA Studies"
\$2,500
6/1/82-12/31/82
3. Purdue Energy Engineering Center
"Fundamental Studies of Macromolecular Networks in Coal"
\$6,500
11/1/77 - 6/30/78
4. Dow Corning Corporation
"Vapor Pressure Osmometer"
\$5,000
8/1/78 - 12/31/78
5. Mediornea Eastern
"Development and Evaluation of Polymeric Materials for Contact Lens Applications"
\$34,853,
7/1/78 - 6/30/79
6. N.S.F. - Division of Engineering - Engineering Equipment
Grant Request (with J.M. Caruthers)
"Investigation of Rheological Properties of Polymers Utilizing a Rotary Rheometer"
\$74,040 (cost-shared)
9/1/78 - 8/31/79
7. Ford Motor Company
"Dynamic Viscoelastometer"
\$15,000
1/1/79 - 8/31/79
8. Eli Lilly Foundation
"Development of a Blood Treatment Cell for Use as an Artificial Kidney"
(with S.R. Ash, R. Barile, D. Kessler, J. Thornhill, B. Hillberry)
\$347,844
7/1/78 - 6/30/79
\$384,923,
7/1/79 - 6/30/80
\$229,888
7/1/80 - 6/30/81
9. Department of Energy - Pittsburgh Energy Technology Center
"Investigation of the Crosslinked Polymeric Nature of Bituminous Coals"
\$99,998,
9/1/78 - 8/31/80,
10. Purdue University, Schools of Engineering,
"Polymer Equipment" (with J.M. Caruthers)
\$56,000
1/1/79 until expended
11. Purdue Research Foundation - David Ross Grant

- "Swelling and Diffusional Behavior of Plasticized Glassy Polymers"
\$9,120
9/1/79 - 8/31/81
12. Olin Corporation Charitable Trust,
"Diffusion through Polymer Membranes with Applications to Industrial Separations"
\$1,500,
6/18/79 - 8/24/79
\$1,700
6/15/80 - 8/25/80
\$1,700
1/15/81 - 8/25/81
\$1,800
1/15/82 - 8/25/82
13. National Science Foundation - Instructional Scientific Equipment Proposal
"Development of a Polymer Science Laboratory Course" (with J.M. Caruthers)
\$46,540 (cost-shared)
9/1/79 - 8/31/80
14. Medicornea Eastern
"Evaluation of Polymeric Materials for Contact Lens Applications"
\$3,500
12/1/79 - 8/31/80
15. North Atlantic Treaty Organization - Scientific Affairs Division
"Fundamental Investigation of the Structure, Physical and Diffusive Properties of Charged and Non-Charged Polystyrene Gels and Membranes"
\$11,070
1/1/80 - 12/31/82
16. Department of Energy - Pittsburgh Energy Technology Center
"Molecular Characterization of Bituminous Coals during Coal Extraction and Solubilization: Coal Crosslinks, Entanglements and Molecular Weight Distributions"
\$187,643
9/1/80 - 8/31/83
17. Continental Oil Company
"Molecular Weight Distribution of Degraded Coal Products"
\$57,000
3/8/80 - 6/30/81
\$46,000
7/1/81 - 8/31/83
\$5,000
3/1/83 - 12/31/83
18. Exxon Research Foundation
"Coal as a Polymer"
\$10,000
11/1/80 - 10/31/81
\$10,000
11/1/81 - 10/30/82
\$10,000
11/1/82 - 10/31/83
19. National Science Foundation - Thermodynamics and Mass Transfer Program
"Mechanisms of Solute Diffusion in Swellable Hydrophilic Polymer Systems"
\$90,000
9/1/82 - 8/31/84
20. Chevron Education Foundation
"Biointerfacial Phenomena"
\$2,500
6/1/83 - 9/1/83

21. Department of Energy - Pittsburgh Energy Technology Center
 "Anomalous Solvent Transport in Macromolecular Coal Networks"
 199,440
 9/1/83-8/31/86
22. Dow Corning Corporation
 "Fundamental Studies of Solute Diffusion in Membranes of PVA, PHEMA and their Silicon-Containing Monomers"
 \$26,000
 12/1/83 - 11/30/85
23. National Science Foundation - Separation Processes Program
 "Ultrafiltration and Hyperfiltration Membranes from Heat-Treated Hydrophilic Polymers"
 \$204,157
 9/1/84 - 8/31/87
24. National Science Foundation - Western Europe Cooperative Science Program
 "Release of Macromolecular Drugs from Swelling-Controlled Polymeric Systems"
 \$12,670
 9/1/84 - 8/31/85
25. Electric Power Research Institute
 "Computerized Data Base on Dielectric Materials" (with C.Y. Ho and H.H.Li)
 \$350,000
 7/1/85-12/31/86
26. David Ross Grant
 "Bioadhesive Interactions of Polymers with Mucus"
 \$19,800
 7/1/85-6/30/88
27. Rohm & Haas Company
 Polymer Laboratory
 \$30,000
 3/1/86-until expended
28. Plastics Institute of America
 "A Predictive Model for Diffusion in Polymers"
 \$2,500
 7/1/86 - 6/30/87
29. National Science Foundation - Engineering Equipment Grant Request
 "Acquisition of a Mercury Intrusion Porosimeter" (with D.N. Winslow and C.W. Lovell)
 \$47,500
 9/1/86-8/31/87
30. North Atlantic Treaty Organization - Scientific Affairs Division,
 "Fundamental Studies of Solute Diffusion in Swellable Polymers"
 \$12,930
 1/1/87-12/31/89
31. National Science Foundation - Process & Reaction Engineering
 "Suspension Polymerization of Hydrophilic Monomers"
 \$160,002
 4/1/87-3/31/90
32. National Science Foundation - Engineering Equipment Grant Program
 "Acquisition of an Interferometer/Polariscope"
 \$31,508
 6/1/87-5/31/88
33. National Science Foundation - Process and Reaction Engineering
 "Poly(alkyl methacrylates) in Microlithography, Audio and Video Technology"
 \$7,988
 8/15/87 - 8/14/88
34. Trask Fund

- "Polymerization of Multifunctional Methacrylates to Produce Polymers for Replication of Laser Videodiscs"
\$14,810
4/15/87 - 4/14/88
35. Department of Energy - Pittsburgh Energy Technology Center
"Macromolecular Coal Structure as Revealed by Novel Diffusion Tests"
\$196,862
9/15/87 - 9/14/90
36. National Science Foundation - Separation and Purification Processes
"Block Copolymer Membranes with Hydrophilic/Hydrophobic Domains"
\$127,098
9/1/87 - 8/31/89
37. National Science Foundation - Separation and Purification Processes
"Release of Volatile Compounds Using Block Copolymers"
\$5,418
11/15/87 - 11/14/88
38. Rhône Poulenc
"Polymer Membranes"
\$10,000
12/1/88 - 2/28/90
39. National Institutes of Health
"pH-Sensitive Hydrogels for Drug Release"
\$232,536
12/1/89 - 11/30/92
40. National Science Foundation - Instrumentation and Laboratory Improvement
"New Directions in ChE Undergraduate Laboratory Experience"
(with G.V. Reklaitis, R.P. Andres, W.N. Delgass)
\$254,740
1/1/90 - 12/31/90
41. National Science Foundation - Scientific Equipment Proposal
"In Situ Infrared Analysis of Reaction and Transport in Advanced Materials"
(with E.I. Franses, J.M. Caruthers, W.N. Delgass, C.G. Takoudis)
\$200,000
5/1/90 - 10/31/91
42. Dow Chemical Company
"Biodegradable Superabsorbent Polymers"
\$48,180
8/1/90 - 7/31/91
43. National Institutes of Health
"Mucoadhesive Polymers for Nasal and Buccal Drug Delivery"
\$382,650
5/1/91 - 4/30/94
44. David Ross
"Dynamic and Equilibrium Behavior of Ionic Hydrogels of P(EG-g-MAA)"
\$18,000
3/1/91 - 2/28/93
45. National Science Foundation - Western Europe Cooperative Science Program
"Swellable Controlled Release Polymeric Systems With or Without Dissolution"
\$10,790
5/1/91 - 4/30/92
46. Trask Fund
"Novel Bioadhesive Controlled Release Polymeric Systems"
\$11,850
5/1/91 - 4/30/92
47. Department of Education

- "Program for Graduate Assistance in Chemical Engineering Areas of National Need"
(with G.V. Reklaitis, J.M. Caruthers, D. Ramkrishna and W.N. Delgass)
\$336,269
6/1/91 - 5/30/94
48. National Science Foundation - Scientific Equipment Proposal
"An Advanced Thermal Analysis System for Macromolecular Coal Studies"
\$168,140
8/1/91 - 12/31/92
49. National Science Foundation - Undergraduate Curriculum Development
"Development of a Unique Modular Materials Education Package" (with G.V. Reklaitis, W.N. Delgass, J.M. Caruthers and J.M. Wiest)
\$70,000
7/1/91 - 6/30/92
50. Dow Chemical Company
"Biodegradable Superabsorbent Polymers Based on Poly(vinyl Alcohols)"
\$49,888
11/1/91 - 10/31/92
51. National Science Foundation - Interfacial Transport
"Thermal Analysis Studies of Polymerization Reaction Dynamics"
\$7,825
12/1/91 - 11/30/92
52. National Science Foundation
"An REU Site in Chemical Engineering" (with J. Wiest, W.N. Delgass, J.M. Caruthers)
\$50,000
7/1/92 - 6/30/93
53. National Science Foundation - Interfacial Transport
"Polymer Dissolution"
\$196,313
9/15/92 - 9/14/95
54. National Science Foundation - Undergraduate Materials Education Initiative - (with J.M. Caruthers, D.R. Gaskell, K.J. Bowman and K.P. Trumble)
"An Innovative Undergraduate Materials Curriculum"
\$350,000
10/1/92 - 9/30/95
55. National Science Foundation
"An REU Site for New Directions in Chemical Engineering" (with J. Wiest, E.I. Franses, W.N. Delgass, H.L. Lackritz)
\$150,000
7/1/93 - 6/30/96
56. PRF Research Grant
"Kinetics of Multimethacrylate Polymerizations and Structure Analysis of Networks Thereof"
\$19,800
3/1/93-2/28/95
57. National Science Foundation
"Multifunctional Polymerization Kinetics and Network Structure Thereof"
\$187,923
8/15/93-8/14/96
58. Showalter Foundation
"Biomedical Engineering"
\$120,000
11/15/93-11/14/95
59. National Science Foundation
"Polymer Dissolution"
\$5,000
3/1/94-2/28/95

60. National Science Foundation
"Multifunctional Polymerizations"
\$9,496
2/1/94-1/31/95
61. National Science Foundation (with G.V. Reklaitis, W.N. Delgass, R.P. Andres, J.M. Caruthers)
"Renovation of Advanced Materials Laboratory"
\$337,500
3/1/94-11/30/95
62. Showalter Foundation (with F.J. Doyle III)
"Insulin Response and Delivery Using Controlled Drug Delivery Devices for the Treatment of Diabetes Mellitus"
\$50,000
7/1/94-6/30/95
63. North Atlantic Treaty Organization
"Investigation of Water and Solute Diffusion in Hydrophilic Polymers"
\$10,927
9/1/94-8/31/97
64. National Institutes of Health
"pH-Sensitive Complex Hydrogels and IPNs for Drug Release"
\$690,735
9/1/95-8/31/99
65. National Science Foundation
"Polymer Dissolution"
\$6,250
9/1/95-8/30/96
66. Showalter Foundation
"Biomedical Engineering"
\$120,000
11/15/95-10/14/96
67. Nagai Foundation
"Nasal Powder Forms: Materials, Technology and Therapeutic Applications"
\$700,000
7/1/96-6/30/97
68. Showalter Foundation
"Novel Mucoadhesive Biopolymers for the Targeted Delivery of Peptides and Other Drugs to Tissues"
\$50,000
7/1/96-6/30/97
69. Whitaker Foundation
"A New Graduate Program in Biomedical Engineering" (with G. Wodicka)
\$50,000
12/1/96 - 8/31/97
70. Showalter Foundation
"Biomedical Engineering"
\$60,000
7/1/97 - 6/30/98
71. Showalter Foundation
"Blood Thrombosis Prevention Using Fibrinolytic Enzyme-Immobilized Star Polymers"
\$50,000
8/1/97 - 7/31/98
72. Showalter Foundation (with S. Badylak)
"Development of a New Composite Biodegradable Material"
\$50,000
8/1/97 - 7/31/98
73. United States-Israel Binational Science Foundation
"Length and Breadth" and Interlooping Hydrogel Systems" (with A. Domb)

- \$36,000
7/1/97 - 6/31/98
74. Alcon
"Copolymerizations"
\$10,000
7/1/97 - 9/30/97
75. National Institutes of Health
"PEG-Promoted Mucoadhesive Drug Delivery Systems"
\$406,625
8/1/97 - 7/31/00
76. National Science Foundation
"Polymer/Mucin Adhesion for Targeted Therapy"
\$360,000
9/1/97 - 8/30/00
77. Whitaker Foundation (with G. Wodicka et al.)
"A Collaborative Program in Biomedical Engineering"
\$991,000
12/1/97 - 11/30/00
78. Alcon
"Copolymerizations"
\$19,000
1/1/98-4/30/98
79. National Institutes of Health
"pH-Sensitive Complex Hydrogels for Protein Drug Release"
\$1,435,717
7/1/99-6/31/03
80. National Science Foundation
"Training Program on Therapeutic and Diagnostic Devices"
\$2,695,000
8/1/99-7/31/04
81. Alcon
"Copolymerization"
\$22,200
4/1/00-3/31/01
82. National Institutes of Health (with S. Badylak and K. Park)
"Origin of Cells that Repopulate ECM Scaffolds"
\$1,649,497
7/1/00-6/30/04
83. Argonne National Laboratories
"Molecular Imprinting"
\$60,000
5/1/03-3/1/04
84. National Science Foundation (with R. Richards-Kortum)
"Cellular and Molecular Imaging for Diagnostics and Therapeutics"
\$3,871,200
10/01/03-9/30/08
85. National Science Foundation
"Configurational Biomimetic Imprinting Methods for Advanced Drug Delivery"
\$190,000
11/1/03-10/31/05
86. National Institutes of Health
"pH-Sensitive Complex Hydrogels for Protein Drug Release"
\$1,890,000
3/1/05-2/28/09
87. National Science Foundation (with D. Lloyd and R. Bonnecaze)

- “Structure Control in Membrane Formation”
\$150,016
9/1/06-8/31/08
88. Emergent Technologies
“Novel Nanodevices for Biomolecular Sensing”
\$60,000
10/1/06-8/31/07
89. Portuguese Science and Technology Fdn
“International Collaboratory for Emerging Technologies-CoLab”
\$1,635,834
3/2/07 – 12/31/20
90. Emergent Technologies
“Novel Nanodevices for Biomolecular Sensing”
\$20,000
5/1/09-4/30/10
91. National Cancer Institute
“Center of Transport Oncophysics” (with M. Ferarri, R Paqualini, R. Richards-Kortum and others)
\$11,600,000
11/1/09-10/30/14
92. Bill and Belinda Gates Foundation
“Targeted Oral Vaccines to Induce Cellular & Mucosal Immunity”
\$100,000
10/1/09-10/1/10
93. National Science Foundation
“siRNA Delivery”
09/01/10-08/31/12
94. National Institutes of Health
“pH-Sensitive Complex Hydrogels for Protein Drug Release”
\$1,698,733
3/5/11–2/28/15
95. National Institutes of Health
“Thermosensitive Hydrogels”
\$275,000
12/1/11- 11/30/13
96. Texas 4000
“Optimization of Environmentally Responsive Nanocarriers for the Oral Delivery of
Chemotherapeutic Agents for the Treatment of Cancer”
\$25,000
9/1/14–8/31/15
97. International Collaboration for Emerging Technologies
“Development of Scaffolds for Regenerative Medicine by Molecular Imprinting”
\$100,000
9/1/14 – 12/31/17
98. UT-Portugal Program, Portuguese Science and Technology Foundation (with R. Reis, M. Gomes)
“Intelligent scaffolds for molecular recognition of advanced applications in regenerative medicine”
\$200,000
4/1/15-3/31/17
99. UT-Portugal Program, Portuguese Science and Technology Foundation (with H. Florindo, R. Gaspar)
“Multidisciplinary strategy for the development of a new multiple nanosystem for modulation of
immunologic response”
\$200,000
4/1/15-3/31/17
100. National Institutes of Health
“Sensor arrays based on molecularly imprinted polymers for diagnosis of Sjogren's syndrome:”
\$1,550,000

Graduate Students and Researchers Supervised

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Ph.D. and M.S. Theses Supervised

1. Larry A. Feig (with Prof. C.K. Colton, K.A. Smith and R.S. Lees) "In-vivo Penetration of Albumin Through the Arterial Wall in Acute Hypertension Studies," M.S. Thesis, Department of Chemical Engineering, M.I.T., 1976.
2. Todd W.B. Gehr: "Radiation Induced Copolymerization of Vinyl Acetate and N-Vinyl-2-pyrrolidone," M.S. Thesis, 1978.
3. William R. Bussing: "Improved Polystyrene Through Friedel-Crafts Polymerization and Crosslinking Methods," M.S. Thesis, 1978.
4. Ming-Shih Yen: (with Prof. Schoenhals), "A Study of Thermally-Induced Pumping of Carbon Dioxide through Natural Rubber Membranes," Ph.D. Thesis, School of Mechanical Engineering, 1979, **Ph.D. Thesis No 1**.
5. Catherine T. Reinhart: "Characterization of and Solute Diffusion in Water-Swollen Membranes," M.S. thesis, 1980.
6. Kenneth F. Zieminski: "Transport and Relaxation Phenomena in Polymer-Diluent Systems Exhibiting State Transitions," M.S. Thesis, 1980.
7. Scott J. Napp: "Preparation, Characterization and Oxygen Transport of Glassy Copolymers of Methyl Methacrylate and Disiloxane Derivatives," M.S. Thesis, 1980.
8. Richard W. Korsmeyer: "Drug Diffusion in Swellable Polymer Systems," M.S. Thesis, 1980.
9. Donald T. Hooker, II: "Macromolecular Network Structure of Bituminous Coals: Analysis of Coal-Derived Products," M.S. Thesis, 1981.
10. Mary Elizabeth Hill-Lieven: "Macromolecular Network Structure of Bituminous Coals: Analysis of Molecular Weight Distribution of Coal Extracts and Coal-Derived Liquids," M.S. Thesis, 1981.
11. Eva A. Swan: "Mechanistic Aspects of Transport of Water Soluble Molecules Through Porous. Hydrophobic Polymers: A Study of Ethylene/Vinyl Acetate Based Systems," M.S. Thesis, 1981.
12. David L. Meadows: "Non-Equilibrium Thermodynamic Analysis of Solute Diffusion Through Polymer Membranes," M.S. Thesis, 1982.
13. G.W. Raymond Davidson, III: "Hematological Studies of Heparinized and Enzyme-Immobilized Polymeric Surfaces," M.S. Thesis, 1982.
14. Donald G. Barar: "Macromolecular Structure of Friedel-Crafts Crosslinked Polystyrene Particles," M.S. Thesis, 1982.
15. Lucy M.H. Lucht: "Macromolecular Network Structure of Coals: Interpretation of Equilibrium and Dynamic Swelling Experiments," Ph.D. Thesis, 1983, **Ph.D. Thesis No 2**.
16. Humphrey J. Moynihan, "Molecular Theories of Solute Diffusion in Crosslinked Polymeric Membranes," M.S. Thesis, 1983.
17. Richard W. Korsmeyer, "Solute and Penetrant Diffusion in Swellable Polymers," Ph.D. Thesis, 1983, **Ph.D. Thesis No 3**.
18. Donald R. Miller, "Surface Properties of Poly(Vinyl Alcohol-co-N-vinyl-2-Pyrrolidone) for Blood Compatibility Studies," Ph.D. Thesis, 1984, **Ph.D. Thesis No 4**.
19. Barbara D. Barr-Howell, "Characteristics of Diffusion in Highly Crosslinked Macromolecular Networks," M.S. Thesis, 1984.
20. Christian Bindschaedler (with Prof. E. Doelker and Dr. R. Gurny) "Etude thermodynamique des microdispersions aqueuses d'acetate de cellulose et processus de formation de membranes semi-permeables: Caracteristiques de permeabilite et application a des comprimés osmotiques," Department of Industrial Pharmacy, University of Geneva, Ph.D. Thesis, 1984, **Ph.D. Thesis No 5**.
21. G.W. Raymond Davidson, III, "Dimensionless Analysis of Solute Release from Swellable Polymer Systems," Ph.D. Thesis, 1985, **Ph.D. Thesis No 6**.
22. Antonios G. Mikos, "Kinetic Modeling of Suspension Copolymerization-Crosslinking Reactions," M.S. Thesis, 1985.
23. Ronald S. Harland, "Solute Diffusion through Semicrystalline Polymer Membranes," M.S. Thesis, 1985.
24. Steven R. Lustig, "Scaling Analysis and Mathematical Modeling of Solute and Penetrant Transport in Equilibrium Swollen and Dynamically Swelling Polymers," M.S. Thesis, 1985.
25. Kent G. Urdahl, "Cyclohexane Transport in Crosslinked Polystyrene," M.S. Thesis, 1985.

26. Philip L. Ritger, "Anomalous Solvent Transport in Macromolecular Coal Networks," M.S. Thesis, 1985.
27. Serge Segot-Chicq "Mecanismes de liberation des principes actifs medicamenteux a partir des formes polymeriques a liberation controlee," Department of Pharmacy, University of Paris-XI, D. Pharm. Thesis, 1985, **Ph.D. Thesis No 7**.
28. M. Lisa Brannon, "Preparation and Characterization of, and Preliminary Solute Transport Studies in Novel Asymmetric Poly(vinyl Alcohol) Membranes," M.S. Thesis, 1986.
29. John Klier, "Equilibrium and Dynamic Transport Properties of Swellable Polymers," M.S. Thesis, 1986.
30. Narsimhan Sundaram, "Investigation of Energetic Interactions Governing Solute Permeation in Amorphous Polymer Membranes," M.S. Thesis, 1986.
31. Frederic Touchard (with Prof. D. Duchene), "Mise au point et etude d' un systeme bioadhesif a base de metronidazole," Department of Pharmacy, University of Paris-XI, D.E.A. (M.S.) Thesis, 1986, **Ph.D. Thesis No 8**.
32. Frederique Pothier-Lallemant (with Dr. J.P. Benoit), "Mise au point de microspheres d' agarose contenant du cisplatine," Department of Pharmacy, University of Paris-XI, D.E.A. thesis, 1986, **Ph.D. Thesis No 9**.
33. Guillaume Conrath (with Dr. F. Falson-Rieg), "Modele d' etude experimentale d' un systeme transdermique," Department of Pharmacy, University of Paris-XI, D.E.A. Thesis, 1986, **Ph.D. Thesis No 10**.
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35. Christian Robert (with Prof. P.A. Buri), "Elaboration et caracteristiques de microspheres de polymethacrylate d' hydroxyethyle a liberation prolongee," Department of Industrial Pharmacy, University of Geneva, Ph.D. Thesis, 1986, **Ph.D. Thesis No 12**.
36. Hai-Shung Andy Tsou, "Water Transport into Epoxy Resins and Composites," Ph.D. Thesis, 1987, **Ph.D. Thesis No 13**.
37. Catherine Dubernet (with Patrick Couvreur), University of Paris-XI, D.Sc. Thesis, 1988, **Ph.D. Thesis No 14**.
37. M. Lisa Brannon, "Structural Characteristics and Swelling Behavior of pH-Sensitive Hydrogels," Ph.D. Thesis, 1988, **Ph.D. Thesis No 15**.
38. Ronald S. Harland, "Synthesis, Characterization and Transport Studies of Hydrophilic/Hydrophobic Block and Graft Copolymer Membranes," Ph.D. Thesis, 1988, **Ph.D. Thesis No 16**.
39. Antonios G. Mikos, "Fracture of and Adhesion Between Biological and Synthetic Macromolecular Materials," Ph.D. Thesis, 1988, **Ph.D. Thesis No 17**.
40. Rashmi K. Drummond, "The Fibrinolytic Behavior of Streptokinase-Immobilized Poly(methacrylic acid-g-ethylene oxide)," M.S. Thesis, 1989.
41. John Klier, "Self-Associating Networks of Poly(methacrylic Acid-g-Ethylene Glycol)," Ph.D. Thesis, 1989, **Ph.D. Thesis No 18**.
42. Jennifer Sahlin, "Characterization of Penetrant Transport into Epoxy Resins," M.S. Thesis, 1989.
43. Steven Lustig, "A Continuum Thermodynamics Theory for Transport in Polymer/Fluid Systems," Ph.D. Thesis, 1989, **Ph.D. Thesis No 19**.
44. Alec B. Scranton, "Structure of Hydrophilic Polymer Networks Formed by Copolymerization/Crosslinking Reactions," Ph.D. Thesis, 1990, **Ph.D. Thesis No 20**.
45. Jorge Olivares, "The Effect of Temperature Treatment on the Transport of Solvents in Coal," M.S. Thesis, 1990.
46. Olivier Saslawski (with Prof. P. Couvreur), "Systemes a liberation pulsee d' insuline a partir de matrices polymeriques hydrophiles," Department of Pharmacy, University of Paris-XI, D.Sc. Thesis, 1990, **Ph.D. Thesis No 21**.
47. Myung Cheon Lee, "Investigation of the Diffusion and Mechanical Behavior of Epoxy Composites Upon Water Sorption," Ph.D. Thesis, 1991, **Ph.D. Thesis No 22**.
48. Christopher N. Bowman, "Kinetic, Structural and Relaxational Aspects of Polymerizations of Multifunctional Monomers," Ph.D. Thesis, 1991, **Ph.D. Thesis No 23**.
49. Cristi L. Bell, "Synthesis and Characterization of Superabsorbent Polyacrylates," M.S. Thesis, 1991.

50. Jennifer J. Sahlin, "Polymer Chain Interdiffusion in Gel/Gel Adhesion," Ph.D. Thesis, 1992, ***Ph.D. Thesis No 24.***
51. Atul R. Khare, "Structure and Physical Behavior of pH-Sensitive Anionic Copolymeric Networks," Ph.D. Thesis, 1992, ***Ph.D. Thesis No 25.***
52. Jianchu Wu, "Solvent Diffusion and Dissolution of Glassy Polymers," Ph.D. Thesis, 1992, Ph.D. Thesis No 26.
53. Dukjoon Kim (with Prof. J. Caruthers), "Penetrant Transport in Glassy Polymers," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 27.***
54. Esmaiel Jabbari, "Modelling and Experimental Investigation of Interdiffusion at Compatible Polymer Interfaces with Dissimilar Properties," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 28.***
55. Deepak Hariharan, "Mathematical Modelling and Experimental Studies with Physiologically Sensitive Polymers," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 29.***
56. Mary T. am Ende, "Transport and Interaction of Ionizable Drugs and Proteins in Hydrophilic Polymers," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 30.***
57. Lakshminarayana Achar, "Preparation, Characterization and Mucoadhesive Interactions of Poly(methacrylic acid) Copolymers" M.S. Thesis, 1993.
58. Linda F. Gudeman, "Environmentally Responsive Polymers for Membrane Processes," M.S. Thesis, 1994.
59. Christopher S. Brazel, "Synthesis and Characterization of pH- and Temperature-Sensitive Hydrogels for Controlled Release of Antithrombotic Agents," M.S. Thesis, 1994.
60. Cristi L. Bell, "Water and Solute Transport in Responsive Hydrogels of Poly(ethylene glycol) and Poly(methacrylic acid)," Ph.D. Thesis, 1994, ***Ph.D. Thesis No 31.***
61. J. Eric Dietz, "Influence of the Chemical Structure of Multifunctional Acrylates and Methacrylates on their UV Photopolymerization Kinetics, the Crosslinked Structure of the Ensuing Polymers, and their Physicochemical Properties," Ph.D. Thesis, 1994, ***Ph.D. Thesis No 32.***
62. Devdatt L. Kurdikar, "Polymerization Kinetics of Multifuntional Monomers, and Crosslinked Structure of the Resulting Polymers," Ph.D. Thesis, 1994, ***Ph.D. Thesis No 33.***
63. Robert A. Scott, "An Experimental Study of Acrylic Acid Solution Polymerization," M.S. Thesis, 1996.
64. Shelia L. Wright, "Size Exclusion Phenomena in Drug Transport Through Ionizable Hydrogels," M.S. Thesis, 1996.
65. Alessia deAscentis, Ph.D. Thesis, 1994, ***Ph.D. Thesis No 34***
66. Rugero Bettini, Ph.D. Thesis, 1994, ***Ph.D. Thesis No 35.***
65. Balaji Narasimhan, "Macromolecular Dynamics During Polymer Dissolution: Molecules Modeling and Experimental Characterization," Ph.D. Thesis, 1996, ***Ph.D. Thesis No 36.***
66. Surya Mallapragada, "Molecular Analysis and Experimental Investigation of Semicrystalline Polymers," Ph.D. Thesis, 1996, ***Ph.D. Thesis No 37.***
67. Christie Dorski, "Dynamic Behavior of Glucose-Responsive Poly(methacrylic acid-g-ethylene glycol) Hydrogels," M.S. Thesis, 1996.
68. Christopher S. Brazel, "Solute and Water Transport in Polymeric, Swelling-Controlled Release Systems," Ph.D. Thesis, 1997, ***Ph.D. Thesis No 38.***
69. Monica D. Little, "Poly(ethylene glycol) as a Mucoadhesion Promoter of Poly(acrylic acid) Microparticles," M.S. Thesis, 1997.
70. Lisa M. Schwarte, "Preparation and Characterization of pH-Sensitive, Cationic Hydrogels," M.S. Thesis, 1997.
71. Anthony M. Lowman, "The Dynamics of Complexation Graft Copolymers: Structural Analysis, NMR Copolymers: Structural Analysis, NMR Spectroscopy and their Implications for Biomedical Applications," Ph.D. Thesis, 1997, ***Ph.D. Thesis No 39.***
72. Kelley B. Keys, "Poly(ethylene glycol) Star Polymer Hydrogels," M.S. Thesis, 1998.
73. Robert A. Scott, "Highly Crosslinked Ionizable Acrylates: Polymerization Kinetics and Network Structure," Ph.D. Thesis, 1998, ***Ph.D. Thesis No 40.***
74. Kairali Podual, "Glucose-sensitive Cationic Hydrogels for Insulin Release," Ph.D. Thesis, 1998, ***Ph.D. Thesis No 41.***
75. Madeline Torres-Lugo, "Novel pH Sensitive Hydrogels for the Oral Delivery of Salmon Calcitonin," M.S. Thesis, 1999.

76. Christie M. Hassan, "Structure and Morphology of Poly(vinyl alcohol) Gels Prepared by Freezing and Thawing Processes," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 42.***
77. Aaron C. Foss, "Controlled Release of 5-Fluorouracil from Hydrogels," M.S. Thesis, 1999.
78. Robert S. Parker, "Model-based Analysis and Control for Biosystems," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 43.***
79. Jürgen Siepmann (with Prof. R. Bodmeier), "Polymer Controlled Drug Delivery Systems: Elucidation of Transport Mechanisms and Optimization of Release Patterns," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 44.***
80. Mette Ingemann, "Drug Delivery Systems for Oral Enzyme Administration," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 45.***
81. Jing Zhang, "Structure and Morphology of Poly(methacrylic acid)/Poly(N-isopropyl acrylamide) Interpenetrating Polymeric Networks with pH and Temperature Sensitivity," Ph.D. Thesis, 2000, ***Ph.D. Thesis No 46.***
82. Jennifer Harting Ward, "Kinetic Simulation, Network Analysis and Biomedical Applications of PEG-Containing Network Polymers Synthesized from Free-Radical Polymerizations," Ph.D. Thesis, 2000, ***Ph.D. Thesis No 47.***
83. Javier Pacheco-Gomez, "Glucose Sensitive Hydrogel Membranes for Controlled Delivery of Insulin," M.S. Thesis, 2000.
84. Yanbin Huang (with Prof. I. Szleifer), "A Fundamental Study of Tethered Polymer Chains in Gel Systems," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 48.***
85. Petr Bures, "Structure and Morphology of Ionic Polymer Networks Modified with Poly(ethylene glycol)," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 49.***
86. Madeline Torres-Lugo, "Physicochemical Behavior and Cellular Interactions of Novel Oral Calcitonin Delivery Systems," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 50.***
87. William Leobandung, "Novel Chronopharmacological Drug Delivery Systems Based on Poly(ethylene glycol)-Containing Hydrogels for Protein Delivery," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 51.***
88. Daphne N. Robinson, "Synthesis and Characterization of Poly(methacrylic acid-g-ethylene glycol) Nanospheres," M.S. Thesis, 2001.
89. Aaron Foss, "Development of Acrylic-Based Copolymers for Oral Protein Delivery," Ph.D. Thesis, 2002, ***Ph.D. Thesis No 52.***
90. Zachary Hilt, "A Microsensor Based on Microcantilevers Patterned with Environmentally Sensitive Hydrogels," M.S. Thesis, 2002.
91. Jennifer Lopez, "Cellular Evaluation of Transmucosal Insulin Delivery," M.S. Thesis, 2002.
92. Alexander Streubel, Ph.D. Thesis, 2002, ***Ph.D. Thesis No 53.***
93. Bumsang Kim, "Molecular Design of Environmentally Sensitive Complexation Hydrogels for Oral Protein Delivery," Ph.D. Thesis, 2002, ***Ph.D. Thesis No 54.***
94. Sasa Baumgartner, Ph.D. Thesis, 2002, ***Ph.D. Thesis No 55.***
95. Ebru Oral, "Recognitive Biocompatible Networks for Therapeutic and Diagnostic Devices," Ph.D. Thesis, 2002, ***Ph.D. Thesis No 56.***
96. Marcos Garcia, Ph.D. Thesis, 2002, ***Ph.D. Thesis No 57.***
97. Till Bussemer, "Oral Pulsatile Drug Delivery Systems," Ph.D. Thesis, 2003, ***Ph.D. Thesis No 58.***
98. Cristina Donini (with Prof. P. Colombo), "Preparation and Characterization of Oral Drug Delivery Systems for the Administration of Proteins," Ph.D. Thesis, 2003, ***Ph.D. Thesis No 59.***
99. Oya Sipahigil (with Prof. A. Gürsoy), "In vitro and in vivo Evaluation of Low Molecular Weight Drugs Loaded with Crushed Particles Prepared from Poly(methacrylic acid) Grafted with Poly(ethylene glycol) ", Ph.D. Thesis, 2003, ***Ph.D. Thesis No 60.***
100. Mark Byrne, "Biomimetic Materials for Selective Recognition of Biomolecules: Recognitive Networks for Drug Delivery and Bionanotechnology", Ph. D. Thesis, 2003, ***Ph.D. Thesis No 61.***
101. Jay O. Blanchette, "Cellular and Molecular Evaluation of Oral Delivery Systems for Chemotherapeutic Agents", Ph. D. Thesis, 2004, ***Ph.D. Thesis No 62.***
102. J. Zachary Hilt, "Novel Micro- and Naoscale Doagnostic and Therapeutic Devices Based on Intelligent Polymer Networks", Ph. D. Thesis, 2004, ***Ph.D. Thesis No 63.***
103. David B. Henthorn, "Simulation and Study of Densely Crosslinked Polymeric Systems for Use as Biomaterials", Ph. D. Thesis, 2004, ***Ph.D. Thesis No 64.***

104. Nilkhal Kavimandan, "In vitro and In vivo Behavior of Insulin Delivery Systems Based on Poly(ethylene glycol)-Grafted Poly(methacrylic acid) Hydrogels", Ph.D. Thesis, 2005, ***Ph.D. Thesis No 65.***
105. Nicole M. Bergmann, "Molecularly Imprinted, Polyacrylamide Polymers and Copolymers with Specific Recognition for Serum Proteins", Ph.D. Thesis, 2005, ***Ph.D. Thesis No 66.***
106. Gianfranco Spizzirri (with Prof. N. Picci), "Polymers for Recognition, Targeting and Modified Release of Bioactive Molecules", Ph.D. thesis, 2005, ***Ph.D. Thesis No 67.***
107. Laura Serra (with Prof. J. Domenech), "Molecular Design of Intelligent Mucoadhesive Polymer Networks for the Controlled Release of Therapeutic Agents", Ph.D. thesis, 2006, ***Ph.D. Thesis No 68.***
108. Elena Losi (with Prof. P. Colombo), "Innovation of Oral Administration of Drugs: Assembly of Controlled Release Modules for Drug Delivery", PhD Thesis, 2006, ***Ph.D. Thesis No 69.***
109. Kristy M. Wood, "Hydrogels in Biology and Medicine: From Molecular Principles to Bionanotechnology", PhD Thesis, 2006, ***Ph.D. Thesis No 70.***
110. J. Brock Thomas (with Prof. J. McGinity), "Lightly Crosslinked Poly(ethylene glycol)-Tethered, pH Responsive Biomaterials", PhD Thesis, 2006, ***Ph.D. Thesis No 71.***
111. E. Hunter Lauten (with Prof. L. Brannon-Peppas), "Configurationaly Imprinted Biomimetic Polymers with Specific Recognition for Oligopeptides " PhD Thesis 2006, ***Ph.D. Thesis No 72.***
112. F. Michael Marks, "Analysis of Poly(ethylene glycol)-Tethered Poly(acrylic acid) Networks for Mucoadhesive Applications", MS Thesis, 2006.
113. Donald E. Owens III (with Prof. R. Richards-Kortum), "Thermally-responsive Polymer Nanoparticles and Nanoshells as Intelligent Therapeutic Systems", PhD Thesis, 2006, ***Ph.D. Thesis No 73.***
114. Terry G. Farmer (with Prof. T. Edgar), "Intravenous Closed-Loop Glucose Control in Type I Diabetic Patients", PhD Thesis, 2007, ***Ph.D. Thesis No 74.***
115. Irma Yolanda Sanchez (with Prof. S. Martinez), "Evaluation of Hydrogel Materials for Insulin Delivery in Closed Loop Treatment of Diabetes Mellitus", PhD Thesis, 2008, ***Ph.D. Thesis No 75.***
116. Jeffrey J. Wilson (with Jennifer Brodbelt), "development of Photodissociation methods for Biomolecule Analysis in a Quadropole Ion Trap Mass Spectrometer", PhD Thesis, 2008, ***Ph.D. Thesis No 76.***
117. Mamoru Fukuda (with Prof. J. McGinity), "Novel Approaches of Hot-Melt Extrusion Technique for Pharmaceutical Dosage Forms: Applications to Enhancement of Drug Solubility and Controlled Drug Release Systems", PhD Thesis, 2008, ***Ph.D. Thesis No 77.***
118. J. Ruben Morones (with Prof. W. Frey), "Development of an Opto-Thermally Responsive Nanocomposite with Potential Applications as Nanovalves for the In Vitro Single-Cell Addressable Delivery Systems", PhD Thesis, 2008, ***Ph.D. Thesis No 78.***
119. Omar Z Fisher, "Novel pH-Responsive Microgels and Nanogels a Intelligent Polymer Therapeutics", PhD Thesis, 2008, ***Ph.D. Thesis No 79.***
120. Daniel A. Carr, "Molecular Design of Biomaterial Systems for the Delivery of Therapeutic Proteins", PhD Thesis, 2008, ***Ph.D. Thesis No 80.***
121. Amber L. Doiron, "Microparticles and nanoparticles for the Magnetic Resonance Imaging of Atherosclerosis", PhD Thesis, 2008, ***Ph.D. Thesis No 81.***
122. Justin P. Shofner, "Oral Delivery of Protein-Transporter Bioconjugates Using Intelligent Complexation Hydrogels", PhD Thesis, 2009, ***Ph.D. Thesis No 82.***
123. Melissa A. Kanzelberger, "The Development of Oral Drug Delivery Systems Using PEGylated Insulin", PhD Thesis, 2009, ***Ph.D. Thesis No 83.***
124. Marta Gómez Burgaz, "Pharmaceutical Development of Novel Intragastric Clrithromycin Delivery Systems", PhD Thesis, 2009, ***Ph.D. Thesis No 84.***
125. Carolyn L. Bayer, "Conductive and recognitive Hydrogels for Biosensing Applications", PhD Thesis, 2009, ***Ph.D. Thesis No 85.***
126. Stephen R. Marek, "Intelligent Delivery via Enzyme-Active Hydrogels", PhD Thesis, 2009, ***Ph.D. Thesis No 86.***
127. Diana K. Snelling, "Biodegradable Microdevices for Biological Detection and Smart Therapy", PhD Thesis, 2010, ***Ph.D. Thesis No 87.***
128. Edgar Perez Herrero, "Protein imprinting by means of alginate based polymer microcapsules", PhD Thesis, 2010, ***Ph.D. Thesis No 88.***

129. Adam K. Ekenseair, “A Fundamental Investigation of Non-Fickian and Case II Penetrant Transport in Glassy Polymers”, PhD Thesis, 2010, ***Ph.D. Thesis No 89.***
130. Martin L. Gran, “Metal-Polymer Nanoparticulate Systems for Externally Controlled Delivery”, PhD Thesis, 2010, ***Ph.D. Thesis No 90.***
131. Margaret A. Phillips, “Polysaccharide Decoration of Complexation Hydrogel Networks for Oral Protein Delivery”, PhD Thesis, 2011, ***Ph.D. Thesis No 91.***
132. David Kryscio, “Novel Insights into Macromolecularly Imprinted Polymers for the Specific Recognition of Protein Biomarkers”, PhD Thesis, 2011, ***Ph.D. Thesis No 92.***
133. Coro Echeverria, “Development of Hybrid Thermosensitive Microgels: From Structure to Potential Applications”, PhD Thesis, 2011, ***Ph.D. Thesis No 93.***
134. Cody Schoener, “Polymer Carriers with Amphiphilic Properties for the Oral Delivery of Therapeutic Agents for Cancer Treatment”, PhD Thesis, 2011, ***Ph.D. Thesis No 94.***
135. Eileen Dawson, “Simultaneous, Single-carrier Delivery of Antigens and Immune-modulatory Molecules to Dendritic cells”, PhD Thesis, 2013, ***Ph.D. Thesis No 95.***
136. William Liechty, ” Tunable, responsive nanoscale hydrogels for intracellular delivery of small interfering RNA”, PhD Thesis, 2013, ***Ph.D. Thesis No 96.***
137. Diane Forbes, “pH-Responsive Polymer Nanoparticles Synthesized Using ARGET ATRP”, PhD Thesis, 2014, ***Ph.D. Thesis No 97.***
138. Brian Slaughter, “Temperature Responsive Hydrogels and Nanoparticles for Advanced Drug Delivery”, PhD Thesis, 2014, ***Ph.D. Thesis No 98.***
139. Jennifer M. Knipe, “multi-responsive Microencapsulated Nanogels for the Oral Delivery of Small Interfering RNA”, PhD Thesis, 2014, ***Ph.D. Thesis No 99.***
140. Amey Puranik, “Intelligent nanoscale Hydrogels for the Oral delivery of Hydrophobic Therapeutics”, PhD Thesis, 2015, ***Ph.D. Thesis No 100.***
141. Michael C. Koetting, “Stimulus-Responsive Delivery Systems for Enabling the Oral Delivery of Protein Therapeutics Exhibiting High Isoelectric Point”, PhD Thesis 2015, ***Ph.D. Thesis No 101.***
142. Jonathan Peters, “Composite Nanogels for the Triggerable Release of Chemotherapeutic Agents”, PhD Thesis 2015, ***Ph.D. Thesis No 102.***
143. Giulia Pasotti, Drug Combination: Pharmaceutical Technologies Applied to the Manufacturing of Combined Dosage Forms for oral administration, PhD Thesis 2015, ***Ph.D. Thesis No 103.***
144. Sarena Horava, Novel Carriers for Oral Delivery of Hemophilic Factor IX, ***Ph.D. Thesis No 104.***
145. Stephanie Steichen, Design, Development and Optimization of Methacrylic Acid-Based pH-Responsive Hydrogels for the Oral Delivery of Model Protein Therapeutics, PhD Thesis 2015, ***Ph.D. Thesis No 105.***
146. Heidi Culver, Investigation of Micro- and Nanoscale Hydrogels as Protein Receptors for Use in Diagnostic Biosensors, PhD Thesis 2017, ***Ph.D. Thesis No 106.***
147. Lindsey Sharpe, Development and Characterization of Microencapsulated Nanoparticle Systems for Oral Vaccination by Protein-Antigens, PhD Thesis 2017, ***Ph.D. Thesis No 107.***
148. Ana Fernandez Olleros, Diseño, caracterización y evaluación biológica de diferentes nanomicropartículas poliméricas como sistemas de liberación controlada de tamoxifeno, PhD Thesis 2017, ***Ph.D. Thesis No 108.***
149. David Spencer, Structure-Function Relationships of Biodegradable Cationic Nanogels for Intracellular Drug Delivery PhD Thesis 2018, ***Ph.D. Thesis No 109.***
150. Tinke De Witte, MS Thesis 2018.
151. John Clegg, Molecularly Imprinted Polymers for the Detection and Capture of Extracellular Structures, PhD Thesis 2019, ***Ph.D. Thesis No 110.***
152. Angela Wagner, Rational Design and Engineering of Novel Nanoparticle Systems for Controlled Drug Delivery, PhD Thesis 2019, ***Ph.D. Thesis No 111.***
153. Marissa Wechsler, PhD Thesis 2019, ***Ph.D. Thesis No 112.***

Current Theses Supervision

Ph.D. Theses:

Matthew Miller (NSF Fellow)

Expected graduation August 2021.
Heidi Oldenkamp (NSF Fellow)
Expected graduation August 2021.
Andrew Murphy (NSF Fellow)
Expected graduation August 2021.
Aaliyah Shodeinde
Expected graduation August 2023.
Denis Huang
Expected graduation August 2023
Mariya Schevchuk
Expected graduation August 2023
Nathan Richbourgh (NSF Fellow)
Expected graduation August 2023
Deidra Ward (GEM Fellow)
. Expected graduation August 2024
Youwan Guo
Expected graduation August 2024

B.S. Theses Supervised

1. Eugenia S. Diamanti (with Prof. G.N. Valkanas) "Oligo- and Polybenzylenes as Polymeric Grafting Agents," Dipl. Eng. Thesis, Department of Chemical Engineering, N.T.U., 1974.
2. Corie A. Anastassion (with Profs. R.S. Lees and S. Hicks) "A Study of the Precursors of Rabbit Atherosclerosis," B.S. Thesis, Department of Chemistry, Wellesley College, 1976 (performed at M.I.T.).
3. Robert C. Lijana (with Profs. C.K. Colton and K.A. Smith) " *In-vitro* Studies of Macromolecular Penetration of Arterial Tissue," Department of Chemical Engineering, M.I.T., 1976, B.S. Thesis.
4. Linda S. Flosenzier, "Macromolecular Release from Ethylene-Vinyl Acetate Containing Magnetic Microparticles," B.S. Thesis, 1986.
5. Edward E. Parsonage, "The Dissolution Characteristics of Positive Resists," B.S. Thesis, 1986.
6. Christopher Bowman, "Preparation and Properties of Novel Polymeric Materials for Use in Laser Videodisc Applications," B.S. Thesis, 1988.
7. Curt Walker, "Penetrant Transport in Highly Crosslinked, Hydrophilic Networks," B.S. Thesis, 1988.
8. Lisa Y. Shieh, "The Preparation, Structure and Swelling Characteristics of Highly Crosslinked Polymeric Networks Containing Multiethylene Glycol Dimethacrylates," B.S. Thesis, 1989.
9. Dawn E. Edwards, "Sol/gel Processing of Tetraethoxysilane-based Ceramics," B.S. Thesis, 1989.
10. Vanessa S. Niemeier, "Degradation of Polystyrene Structures," B.S. Thesis, 1990.
11. Lisa K. Smith, "Preparation and Characterization of pH-Sensitive Cationic Hydrogels," B.S. Thesis, 1990.
12. Brian E. Saunders, "Development of Novel Materials for Information Storage Systems," B.S. Thesis, 1990.
13. Shauna R. Stauffer, "Novel Poly(vinyl alcohol) Hydrogels by Freezing-Thawing Cyclic Processing," B.S. Thesis, 1990.
14. Linda S. Manning, "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging," B.S. Thesis, 1991.
15. Jill E. Scott, "The Use of PVA Hydrogels in Controlled Release," B.S. Thesis, 1991.
16. Carrie L. Byrnes, "Preparation Dissolution Characteristics Novel Positive Resist Materials for Microelectronic Applications," B.S. Thesis, 1991.
17. Saumitra Bhargava, "Synthesis and Characterization of Novel Poly(ethylene oxide) Star and Starburst Polymers," B.S. Thesis, 1992.
18. Kristi S. Anseth, "Kinetic and Structural Aspects of Network Formation from Photopolymerized Multifunctional Acrylates and Methacrylates," B.S. Thesis, 1992.
19. Brad D. Berkowicz, "P(PEGDMA-co-HEMA) Copolymers for Medical Applications," B.S. Thesis, 1993.
20. Becky J. Ficek, "Novel Preparation Methods of PVA Microspheres for Controlled Drug Delivery," B.S. Thesis, 1993.
21. Amy D. Ouellette, "Controlled Release from PLA/PGA Microspheres," B.S. Thesis, 1993.
22. Matthew M. Helmkamp, "Thermomechanical Investigation of Photopolymerized Homo- and Copolymers of Tetraethylene Glycol Diacrylate and 1,1,1-Trimethylolpropane Triacrylate," B.S. Thesis, 1993.
23. Mina S. Mazdai, "Controlled Release of Progesterone from PLA/PGA Microspheres," B.S. Thesis, 1993.
24. Jennifer A. Smith, "Adsorption of Bovine Serum Albumin onto PVA Hydrogel Surfaces Using ATR-FTIR Spectroscopy," B.S. Thesis, 1993.
25. Brian J. Elliott, "Experimental Investigation of the Kinetics of Network Formation of Multifunctional Acrylates," B.S. Thesis, 1994.
26. Natalie A. Wisniewski, "Evidence of Mucoadhesion at a Poly(acrylic acid)/ Mucin Interface Studied by Contact Angle Analysis and ATR-FTIR Spectroscopy," B.S. Thesis, 1994.
27. Shawn D. Teague, "Preparation and Physical Characterization of Star Polymers," B.S. Thesis, 1994.
28. Adam L. Turk, "Preparation and Characterization of Crosslinked, Hydrophilic Microparticles," B.S. Thesis, 1994.

29. Michelle L. McFerrin, "Multifunctional Acrylate Polymerizations for UV-Sensitive Surgical Tapes/Adhesives: Influence of Light Intensity, Irradiation Time, and Photoinitiator Concentration on Reaction Conditions," B.S. Thesis, 1995.
30. Jennifer L. Swiger, "Preparation and Structure of Radiation Crosslinked Poly(ethylene oxide) Hydrogel Membranes," B.S. Thesis, 1995.
31. Michele H. Bland, "Preparation and Properties of Dental Biomaterials from Photopolymerized Multifunctional (Meth)acrylates," B.S. Thesis, 1995.
32. Amy S. Luttrell, "Development of Freeze/Thaw Poly(vinyl alcohol) Systems for Controlled Release Applications," B.S. Thesis, 1995.
33. Bradley G. Chadwell, "Water Transport in Crosslinked Poly(vinyl alcohol)," B.S. Thesis, 1995.
34. Kelley A. Britton, "Crosslinked Poly(acrylic acid) Microparticles for Cancer Treatment," B.S. Thesis, 1995.
35. Christie M. Dorski, "Preparation and Swelling Behavior of Novel Glucose-Responsive Complexation Hydrogels for Insulin Delivery," B.S. Thesis, 1995.
36. Jennifer M. Bauerle, "Mucoadhesive Microparticulate Controlled Release Systems for Gastrointestinal and Vaginal Drug Delivery," B.S. Thesis, 1995.
37. Sarah K. Vakkalanka, "Release of Antithrombotic Agents from Novel pH- and Temperature- Sensitive Hydrogels," B.S. Thesis, 1995.
38. Neena Mongia, "Ultrapure Poly(vinyl alcohol) Hydrogels with Bioadhesive and Drug Delivery Characteristics: Applications to Wound Healing," B.S. Thesis, 1995.
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40. Jennifer Harting, "Low Order Model-Based Control Studies for Insulin Delivery," B.S. Thesis, 1996.
41. Patrina Trakarnpan, "Poly(vinyl alcohol) Hydrogels for Controlled Release Applications," B.S. Thesis, 1997.
42. Upma Sharma, "Synthesis and Characterization of a Temperature- and pH Sensitive Hydrogels," B.S. Thesis, 1998.
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44. Thomas Dziubla, "The Potential of Poly(Ethylene Glycol) (PEG) as a Copolymer for Contact Lens Applications," B.S. Thesis, 1998.
45. Kevin Rabinovitch, "Reactor Modeling for Suspension Polymerization of Styrene in a CSTR," B.S. Thesis, 1998.
46. Sujata Harshvardhan, "Controlled Release Using pH-and Temperature-Sensitive Interpenetrating Polymer Networks Containing Poly(methacrylic acid) and Poly(N-isopropyl acrylamide)," B.S. Thesis, 1999.
47. Rachel Peck, "Controlled Drug Delivery Systems Based on PVA Gels," B.S. Thesis, 1999.
48. David B. Henthorn, "Engineering of PEG-rich Microparticles," B.S. Thesis, 1999.
49. Kimberly A. Furman, "Preparation and Characterization of New PEG-Containing Networks for Drug Delivery Applications," B.S. Thesis, 2000.
50. Kelli S. Bousum, "PEG-Containing Hydrogels for Drug Delivery," B.S. Thesis, 2000.
51. Diane M. Whirledge, "Crystallization Techniques of PVA for Biomedical Applications," B.S. Thesis, 2000.
52. Jennifer E. Witman, "Beyond the Poisson Boltzmann Expression: The Effect of Ion Size and Shape," B.S. Thesis, 2001.
53. Erin Moulesong, "Preparation and Characterization of Poly(ethylene glycol) Containing Nanoparticles for Protein Stabilization," B.S. Thesis, 2001.
54. Ming Lin, "Synthesis and Characterization of pH-Sensitive Polycationic Poly(diethyl aminoethyl methacrylate -g- ethylene glycol) Nanoparticles for Intracellular Drug Delivery", Plan II Thesis, 2007.
55. Tsu-Shin Gail Su, "Novel Systems for Oral Protein Delivery", Plan II Thesis, 2007.
56. S. Michael Sinclair, "Oral Delivery of Calcitonin-Transferrin Biocomjugates Using Intelligent Complexation Hydrogels", Plan II Thesis, 2008.
57. Alper A. Konuk, "Synthesis and Characterization of Polyaniline-Polymer Acid Complexes for Use in Biosensing Applications", Plan II Thesis, 2008.
58. James Dempsey, "Optimization of BSA Monomer-Template Interactions in the Pre-Polymerization Solution a Molecularly Imprinted Polymer", Plan II Thesis, 2009.

59. Daniel R. Strinden, "Incorporation of Gold Nanorods into PINIPA Nanocomposite Systems for Intelligent Drug Delivery", Honors Thesis, 2010.
60. Heather N. Hutson, "Preparation and Characterization of Carrier for Oral Delivery of Chemotherapeutic Agents to Treat Colorectal Cancer", BS Thesis, 2012.
61. Grace K. Fletcher, "P(MMA-co-AAc) as a Responsive Drug Delivery System for Small Molecular Weight Therapeutics", BS Thesis, 2013.

Original Undergraduate Student Papers

1. P.J. Hansen, "Crystallization During Weathering of Packaging Films. Polymers with Kinetic Hindrance for Crystallization," 28th AIChE Student Papers Contest, Manuscript, *third prize*, April 1978.
2. R.E. Benner, Jr., "Development and Characterization of Model Poly(vinyl Alcohol) Membranes," 28th AIChE Student Papers Contest, Manuscript, April 1978.
3. C.R. Rhodes and K.A. Slight, "Structural Investigation of Friedel-Crafts Crosslinked Polystyrene and Its Sulfonated Ion-Exchange Resins," *AIChE Stud. Bull.*, 23-27, (1979).
4. P.J. Hansen, "Diffusion Controlled Mechanism of Crystallization of Crosslinked and Uncrosslinked Polymers," 29th AIChE Student Papers Contest, Manuscript, April 1979.
5. R. Khanna, "Mathematical Analysis of Permeability of Polymer Films," 29th AIChE Student Papers Contest, Manuscript, *third prize*, April, 1979.
6. R. Khanna, "Mathematical Analysis of Permeability Properties of Polymer Films for Packaging in Relation to Food Storage Stability," SPE National Student Papers Contest, *first prize*, May 1979.
7. G. Sekhon, "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging," SPE National Student Papers Contest, *first prize*, May 1980.
8. N.M. Franson, "Investigation of Swelling-Induced Solute Release from Glassy Polymers," 32nd AIChE Student Papers Contest, Manuscript, *third prize*, April 1982.
9. J.M. Larson, "Probing the Macromolecular Nature of Coal by Swelling and Thermal Experiments," 32nd AIChE Student Papers Contest, Manuscript, *third prize*, April 1982.
10. K.P. Staller, "Molecular Structure of Crosslinked Polystyrene Particles," 32nd AIChE Student Papers Contest, Manuscript, April 1982.
11. N.M. Franson, "Swelling-Induced Release of Drugs from Glassy Polymers," ACS Student Papers Contest, Manuscript, *third prize*, April 1982.
12. J.L. Sinclair, "Anomalous Transport of Penetrants in Glassy Polymers," 33rd AIChE Student Papers Contest, Manuscript, *second prize*, April 1983.
13. M.J. Smith, "Unexpected Phenomena During the Transport of Cyclohexane in Polystyrene," 34th AIChE Student Papers Contest, Manuscript, *third prize*, April 1984.
14. J.G. Mounts, "Diffusional Release of Drugs from Copolymers," 34th AIChE Student Papers Contest, Manuscript, *second prize*, April 1984.
15. G.J. Howsmon, "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging: Coupling of Moisture and Oxygen Transport Using Langmuir Sorption Isotherms," 35th AIChE Student Papers Contest, *third prize*, Manuscript, April 1985.
16. E.E. Parsonage, "The Dissolution of Standard and Novel Positive Resists," 36th AIChE Student Papers Contest, *second prize*, Manuscript, April 1986.
17. U. Röcken, "Diffusion of Penetrants in Glassy Polymers," 36th AIChE Student Papers Contest, Manuscript, April 1986.
18. C.M. Walker, "The Transport of Penetrants and Drugs through Highly Crosslinked Hydrophilic Polymers," 38th AIChE Student Papers Contest, *second prize*, Manuscript, April 1988.
19. C.N. Bowman, A. Carver, S. Kennett and M. Williams, "Preparation and Properties of Novel Poly(multiethylene glycol dimethacrylates) for Laser Videodisc Applications," 38th AIChE Student Papers Contest, Manuscript, April 1988.
20. L.A. Keneipp, L.E. Malone and S.M. Shoup, "Controlled Release of Perfumes and Other Flavors from Methacrylate-containing Polymeric Devices," 38th AIChE Student Papers Contest, Manuscript, April 1988.

21. K. Blinstrub, "Swelling and Controlled Release from pH-Sensitive Polymers," 39th AIChE Student Papers Contest, Manuscript, April 1989.
22. L.A. Keneipp, "Polymer Systems for Controlled Release of Fragrances and Flavors," 40th AIChE Student Papers Contest, Manuscript, March 1990.
23. A.K. Brown, "An Interferometric Method to Study Volume Relaxation in Highly Crosslinked Polymers," 41st AIChE Student Papers Contest, *first prize*, Manuscript, March 1991.
24. A. Ouellette, "Controlled Release from PLA/PGA Microspheres," 43rd AIChE Student Papers Contest, March 1993.
25. B. Elliott, "Mechanical and Thermal Properties of Polymultimethacrylates," 43rd AIChE Student Papers Contest, March 1993.
26. N. Wisniewski, "Bioadhesion of PAA Microparticles," 44th AIChE Student Papers Contest, *first prize*, April 1994.
27. Z. Mogri, "Kinetics of Methacrylic Acid Polymerization," 46th AIChE Student Papers Contest, April 1996.
28. J. Harting, "Low Order Model-Based Control Studies for Insulin Delivery," 46th AIChE Student Papers Contest, *second prize*, April 1996.
29. U. Sharma, "Modulation of Solute Permeation in Graft Copolymer Networks via a Complexation/Decomplexation Mechanism," 47th AIChE Student Papers Contest, *second prize*, April 1997.
30. T. Dziubla, "Characterization of Novel PEG Grafted Hydrogels," 47th AIChE Student Papers Contest, April 1997.
31. U. Sharma, "Synthesis and Characterization of a Temperature- and pH Sensitive Hydrogels," 48th AIChE Student Papers Contest, *third prize*, April 1998.
32. T. Dziubla, "The Potential of Poly(Ethylene Glycol) (PEG) as a Copolymer for Contact Lens Applications," 48th AIChE Student Papers Contest, April 1998.
33. D. Henthorn, "Microparticulate Polymerization," 49th AIChE Student Papers Contest, *third prize*, March 1999.
34. D. Whirlledge, "Crystallization of PVA for Medical Applications," 50th AIChE Student Papers Contest, March 2000.
35. B. Ekerdt, 59th AIChE Student Papers Contest, *first prize*, March 2009.
36. A. Konuk, 59th AIChE Student Papers Contest, *second prize*, March 2009.
37. B. Ekerdt, Annual AIChE Meeting, *third prize*, November 2009.
38. J. Zhong, AIChE Student Papers Contest, *first prize*, March 2016.
39. J. Zhong, AIChE Student Papers Contest, *first prize*, March 2017.
40. J. Gu, AIChE Student Papers Contest, *second prize*, March 2016.