SUROJIT GUPTA

Professional Preparation:

University of Calcutta	Ceramic Engineering	B.S. 2001	(First Class with Honors)
Drexel University	Materials Science and Engineer	ring	Ph.D. 2001-2006
The Pennsylvania State University	Materials Science and Engineer	ring	Postdoctoral 2006-2008
University of Massachusetts, Amherst	MBA		2013-2017

Academic Appointments:

2019-present: Associate Professor, University of North Dakota, Grand Forks, North Dakota

2012-2018: Assistant Professor, University of North Dakota, Grand Forks, North Dakota

2014: Adjunct Professor in Henan Polytechnic Institute, China

2008 - 2012: Research Assistant, Rutgers University, Piscataway, New Jersey

2006- 2008: Postdoctoral Fellow, The Pennsylvania State University, State College, Pennsylvania

2001-2006: Research Fellow, Drexel University, Philadelphia, PA

Industrial Positions/Collaboration:

2008-2012: Technical collaborator with Solidia Technologies (formerly CCS Materials)
2009-2012: CTL Group, Skokie, IL 60077-1030
2006–2008: Environmental Materials Division, Corning Incorporated.
2007-2008: Consultant for EPCOS, Austria.
2003-2006: Aerospace Division of Honeywell International.
2003-2006: 3one2, NJ (a startup company).

Five Publications Related to Proposed Research (h-index 25 and over 1300 citations)

- 1. "Novel MAB Phase-based nanolaminates suit high performance applications", Surojit Gupta and Maharshi Dey, Advanced Materials & Processes 177, 22-26 (2019).
- "Synthesis and characterization of novel polymer matrix composites reinforced with max phases (Ti₃SiC₂, Ti₃AlC₂, and Cr₂AlC) or MoAlB by fused deposition modeling", K Hall, M Dey, C Matzke, S Gupta, International Journal of Ceramic Engineering & Science 1 (3), 144-154 (2019).
- 3. "Synthesis and Characterization of Novel Ti₃SiC₂ Reinforced Ni-Matrix Multilayered Composite-Based Solid Lubricants", Q Tran, M Fuka, M Dey, S Gupta, Lubricants 7 (12), 110 (2019).
- 4. "On the Synthesis and Characterization of Poly Lactic Acid (PLA), Polyhydroxyalkanoate (PHA), Cellulose Acetate (CA), and Their Engineered Blends by Solvent Casting", Saud Abu Aldam, Maharshi Dey, Sabah Javaid, Yun Ji, and Surojit Gupta, Journal of Materials Engineering and Performance (Accepted).
- "Beneficial usage of recycled polymer particulates for designing novel 3D printed composites", R. Dunnigan, J. Clemens, M. N. Cavalli, N. Kaabouch, and S. Gupta, Prog Addit Manuf (2018) 3: 33. <u>https://doi.org/10.1007/s40964-018-0046-2</u>

Additional Publications and Patents

- 1. "Vibrational behavior of the $M_{n+1}AX_n$ phases from first-order Raman scattering (M = Ti, V, Cr; A = Si; X = C, N)", Spanier, J. E., Gupta, S., Amer, M. and Barsoum, M. W., Phys. Rev. B **71**, 012103 (2005).
- 2. "Tribological behavior of select MAX phases againist Al₂O₃ at elevated temperatures", S. Gupta, D. Filimonov, T. Palanisamy and M. W. Barsoum, Wear 265, 560-565 (2008).
- "High-temperature oxidation of Ti₃GeC₂ and Ti₃Ge_{0.5}Si_{0.5}C₂ in air", S. Gupta, A. Ganguly, D. Filiminov and M. W. Barsoum, J. Electrochem. Soc. 153(7), J61-J68 (2006).

- 4. "Ternary Carbide and Nitride Composites having Tribological Applications and Methods of Making Same", T. Palanisamy, S. Gupta, C. W. Li and M. W. Barsoum, (US Patent 7,572,313 B2, Aug. 11, 2009).
- 5. "Ternary carbide and nitride materials having tribological applications and methods of making same", S. Gupta, T. Palanisamy, M.W. Barsoum and C.W. Li, (U.S Patent 7,553,564 BA, June 30, 2009).

Synergistic Activities

- Chair, Engineering Ceramics Division, American Ceramics Society
- Associate Editor (guest) of Journal of Materials Engineering and Performance and Japanese Journal of the Ceramics Society for Special Issues (2019).
- ♦ Volume Editor of Ceramics Proceedings published by the American Ceramics Society (2017).
- ✤ Adjunct Professor, Henan Polytechnic University, China (2014).
- Lifetime member of ASM International, American Ceramics Society (ACerS), and Indian Institute of Metals (IIM).
- Member-at-large of Red River Chapter of American Chemical Society (ACS).
- Member (2015-17) and Chair of Awards Committee of Engineering Ceramics Division (ECD) (2017).
- Member of the committee on the Cobel awards of the American Ceramics Society (Appointment from 2015-2017).
- Awarded global ambassador of the American Ceramics Society (ACerS).

Awards and Honors

- ✤ Du-Co Ceramics Award (2019).
- ♦ Young Leader's Professional Development Award, Functional Materials Division (FMD), 2019.
- Chatwal Memorial Award, Western UP Chapter, Indian Ceramics Society (2019).
- Dean's Teaching Professor (2018-2020)
- Fellow of Center of Innovation, University of North Dakota (2019)
- ♦ Featured article (slippery when dry) in University of North Dakota Discovery (2017).
- Awarded IIM/ASM lectureship (Invited lectures in IISc, NIT Dimapur, ASM Pune Chapter).
- Lifetime membership in American Society of Metals (ASM), American Ceramics Society (ACeRs), and Indian Institute of Metals (IIM).
- ♦ Featured scholar of the month in University of North Dakota (May, 2016).
- The Dean's Outstanding Faculty Award (May 2016).

Collaborators and Other Affiliations

- 1. Dr. C. Tang, Department of Mechanical Engineering, University of North Dakota
- 2. Dr. Y. Ji, Department of Chemical Engineering, University of North Dakota
- 3. Dr. H.C. Chelmo, Department of Mechanical Engineering, University of North Dakota
- 4. Dr. M. Hoffman, Department of Chemistry, University of North Dakota
- 5. Prof. M. Cavalli, Associate Dean, Western Michigan University
- 6. Prof. M. Mann, Department of Chemical Engineering, University of North Dakota
- 7. Prof. Radhika Barua, Virginia Commonwealth University
- 8. Dr. M. Singh and M. Halbig, NASA Glenn Research Center
- 9. Dr. S. Berkebile, Army Research Lab
- 10. Dr. V. Wiesner, NASA Langley

Advisors and Mentors:

- 1. Ph.D Thesis Advisor: Prof. Michel W. Barsoum, Dept. of Materials Science and Engineering, Drexel University.
- 2. Postdoctoral Advisors: Profs. Gary L. Messing, and David J. Green, Dept. of Materials Science and Engineering, The Pennsylvania State University.

Graduate and Undergraduate Students (University of North Dakota): Advising 2 PhDs and 2 MS students, and have graduated 14 Master students.