

VILUPANUR A. RAVI

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A. Professional Preparation

University of Madras, Chennai	Physics	B.Sc.	1980
Indian Institute of Science, Bangalore	Metallurgy (with distinction)	B.E.	1983
The Ohio State University, Columbus	Metallurgical Engineering	M.S.	1986
The Ohio State University, Columbus	Metallurgical Engineering	Ph.D.	1988

B. Appointments

1/2018 – Present	Director of Research and Partnerships, College of Engineering, Cal Poly Pomona
9/2011 – Present	Chair, Dept. of Chemical & Materials Engineering, Cal Poly Pomona
9/2006 – Present	Professor (tenured), Dept. of Chem. & Materials Engineering, Cal Poly Pomona
9/2000 – 9/2006	Associate Professor, Chemical & Materials Engineering, Cal Poly Pomona
6/1994 – 8/2000	Technologist, W. L. Gore and Associates, Elkton, MD 21922
10/1988 – 6/1994	Member of Technical Staff, Lanxide Corporation, Newark, DE 19711

C. Products.

i. Relevant Publications (73 peer-reviewed publications overall – journal articles, conference papers, book chapters)

1. P.H. Davis, K. Robles, K. Livingston, S. Johns, V.A. Ravi, E. Graugnard and M.F. Hurley, “Phase Separation in Ti-6Al-4V Alloys with Boron Additions for Biomedical Applications: Scanning Kelvin Probe Force Microscopy Investigation of Microgalvanic Couples and Corrosion Initiation,” 2017, JOM 69 (8): 1446-1454, 2017
2. Pierce, S., Lukiman, C., Shah, T., and Ravi, Vilupanur A. (2018) “Selection of Salts and Containment Materials for Solar Thermal Energy Storage,” *Corrosion/2018*, Paper No. C2018-11678 (Houston, TX: NACE, 2018).
3. Logier, J., Wang, J., Villalpando, O., Jalbuena, A. and Ravi, V. (2017) “Corrosion of Ferrous Alloys in a Molten Chloride Salt for Solar Thermal Energy Storage,” *Corrosion/2017*, Paper No. C2017-9562 (Houston, TX: NACE, 2017).
4. Villalpando, O., Nava, J.C. and Ravi, V. (2016) “Electrochemical Characterization of Ni and Fe-Based Alloys in Simulated Biomass Environments,” *Corrosion/2016*, NACE, Vancouver, Paper No. C2016-0007822
5. Stuart, B., Nava, J.C., Villalpando, O. and Ravi, V. (2016) “Hot Corrosion of Nickel-Chromium Alloys in a Molten Eutectic Salt Environment,” *Corrosion/2016*, NACE, Vancouver, Paper No. C2016-0007824

ii. Significant Publications (co-editor for 3 bound conference proceedings; guest editor for 8 issues of JOM; co-inventor on 41 US and international patents and patent applications)

1. Ikeda, T., Collins, L., Ravi, V., Gascoin, F., Haile, S., Snyder, G. (2007) “Self-assembled nanometer lamellae of thermoelectric PbTe and Sb₂Te₃ with epitaxy-like interfaces,” *Chemistry of materials*, 19 (4): 763-767.

2. Ikeda, T., Haile, S., Ravi, V., Azizgolshani, H., Gascoin, F., Snyder, G. (2007) "Solidification processing of alloys in the pseudo-binary PbTe–Sb₂Te₃ system," *Acta Materialia*, 55 (4): 1227-1239.
3. Ikeda, T., Ravi, V., Snyder, G. (2009) "Formation of Sb₂Te₃ Widmanstätten precipitates in thermoelectric PbTe," *Acta Materialia*, 57 (3): 666-672.
4. Ravi, V. (2003), "Pack Cementation Coatings," *Metals Handbook: Corrosion: Fundamentals, Testing, and Protection* (ASM International) 13 A: 763–771.
5. Claar, T., Ravi, V., Roach, P. (1994) "Method for forming a self-supporting body using vapor-phase parent metals and solid oxidants," US Patent 5,277,933.

D. Synergistic Activities

- Editor, *Materials at High Temperatures* (2011 – Present); Editorial Board, *International Materials Reviews* (2013 – Present); Editorial Board, *Metallography, Microstructure, and Analysis* (2014 – Present); Member, Board of Review, *Metallurgical and Materials Transactions* (1994 - 2017); Member, Editorial Committee, *Advanced Materials and Processes* (2001 – 2004)
- Lead organizer, 99th Annual Meeting of the Pacific Division of the American Association for the Advancement of Science with the theme "From atoms to applications" (June 12 - 15, 2018) ; Symposium Chair, "Corrosion and Biocompatibility of Biomedical Alloys and Implant Devices" Research in Progress Symposium, Corrosion 2018 & Corrosion 2013 (NACE International); Conference and Symposium Organizer: Symposium Chair, "High Temperature Issues and Materials for the Process Industry," Corrosion 2016, 2013 and 2012 (NACE International); Symposium Chair, "Advances in Materials and Corrosion in Fossil Fuels Conversion and Combustion," Corrosion/2003, San Diego, CA (NACE International); Symposium Vice Chair, *Advances in Materials and Corrosion in Fossil Fuels Conversion and Combustion, Corrosion/2002*, Denver, CO
- Outreach to K-12: Teaching/demonstration kits and teacher training for elementary schools (funded proposal "Teaching and Learning Through Materials," Claremont Community Foundation, 2003); Conducted outreach for the public at the Family Science Day organized by The American Museum of Ceramic Art (AMOCA) exhibition on "Ceramics for the New Millennium," (April 2011).
- Service to the scientific, materials and corrosion communities, e.g., President, Pacific Division of the American Association for the Advancement of Science (2017-2018); Member, Board of Trustees, ASM International (2010-2013); President, Alpha Sigma Mu, Intl. Honor Society for MSE (2003 – 2005), Chair, Action in Education Committee, ASM International (2006-2008); Chair, Student Chapter Grants, Action in Education Team, ASM International (2003 – Present)
- Faculty Advisor, Material Advantage Chapter (2004 – Present), Founding Faculty Advisor, NACE Student Section, Cal Poly Pomona (2008 (chartered) – Present), Founding Faculty Advisor, Alpha Sigma Mu (2003 (chartered) – Present).