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Education

Undergraduate: Louisiana State University Physics B.S. 1971

Graduate: Louisiana State University Physics M.S. 1973

 Louisiana State University Physics Ph.D.1974

Appointments

Distinguished Member of Technical Staff, Sandia National Laboratories, 1998-present

Senior Staff Physicist, Exxon Research and Engineering Company, 1984-1998

Staff Physicist, Exxon Research and Engineering Company, 1981-1984

Assistant Professor, Purdue University, 1979-1981

Editor, Physical Review E, 2002- present

Publications

1. *Capillary Waves at the Liquid-Vapor Interface and the Surface Tension of Water*, A. E. Ismail, G. S. Grest, and M. J. Stevens, J. Chem. Phys. 125, 014702 (2006).
2. *Structure and Dynamics of Water near the Interface with Oligo(ethylene oxide) Self-Assembled Monolayers*, A. E. Ismail, G. S. Grest, and M. J. Stevens, Langmuir 23, 8508 (2007).
3. *Water in Nano-Confinement between Hydrophilic Self-Assembled Monolayers*, J. M. D. Lane, M. Chandross, M. J. Stevens, and G. S. Grest, Langmuir 24, 5209 (2008).
4. *Surface Tension and Surface Orientation of Perfluorinated Alkanes*, M. Tsige and G. S. Grest, J. Phys. Chem. C 112, 5029 (2008).
5. *Interfacial Properties of Semifluorinated Alkane Diblock Copolymers*, F. Pierce, M. Tsige, O. Borodin, D. Perahia, and G. S. Grest, J. Chem. Phys. 128, 214903 (2008).
6. *Liquid-Liquid Interfaces of Semifluorinated Alkane Diblock Copolymers with Water, Alkanes, and Perfluoroalkanes*, F. Pierce, M. Tsige, D. Perahia, and G. S. Grest, J. Phys. Chem. B 112, 16012 (2008).
7. *Molecular Dynamics Simulations of Water Confined Between Matched Pairs of Hydrophobic and Hydrophilic Alkylsilane Self-Assembled Monolayers*, C. D. Lorenz, J. M. D. Lane, M. Chandross, M. J. Stevens, and G. S. Grest, Langmuir 25, 4535 (2009).
8. *Interfacial Structure and Dynamics of Siloxane Polymers: PDMS-vapor and PDMS-Water*, A. E. Ismail, G. S. Grest, D. R. Heine, M. J. Stevens, and M. Tsige, Macromolecules 42, 3186 (2009).
9. *Forces between Functionalized Silica Nanoparticles in Solution*, J. M. D. Lane, A. E. Ismail, M. Chandross, C. D. Lorenz, and G. S. Grest, Phys. Rev. E 79, 050501 (2009).
10. *Spreading of Liquid Polymer Droplets on a Permeable Polymer Liquid*, F. Pierce, D. Perahia, and G. S. Grest, EPL 86, 64004 (2009).

Collaborators (last 48 months, outside of Sandia): M. Z. Bazant (M. I. T.), O. A. Borodin (University of Utah), J. D. Curro (University of New Mexico), D. Ertas (ExxonMobil Research), R. Everaers (Lyon, France), A. Habenschuss (Oak Ridge National Laboratory, retired), T. C. Halsey (ExxonMobil Research), D. R. Heine (Corning), H. Jaeger (University of Chicago), K. Kremer (Max Planck Institute, Germany), S. Kumar (Columbia University), A. Levine (UCLA), C. Lorenz (King's College, London), S. R. Nagel (University of Chicago), D. Perahia (Clemson University), C. Savenborg (University of Aarhus, Denmark), L. Silbert (University of Southern Illinois), M. Tsige (University of Southern Illinois), M. van Hecke (University of Leiden)

Thesis Advisor and Postgraduate – Scholar Sponsor: P. J. in 't Veld, J. M. D. Lane, Christian Lorenz, Flint Pierce, Matt Petersen, and C. Rycroft

Graduate and Postdoctoral Advisors: A. K. Rajagopal, Naval Research Laboratory, Washington, D. C. (Ph.D. Advisor); E. Abrahams and M. J. Stephen, Department of Physics, Rutgers University (Post-Doctoral Advisors, 1974-1977); M. H. Cohen, Department of Physics, The University of Chicago (Post-Doctoral Advisor, 1977-1978)

Synergistic Activities

Awards:

Chaim Weizmann Postdoctorate Fellowship, 1977 - 1978

Alfred P. Sloan Foundation Fellowship, 1981

Best Paper in Acta Metallurgica, 1985

Fellow - American Physical Society, 1989

Sandia Computational Science Prize, 1st Place, 2001

Alexander Humboldt Senior Research Fellow, 2002

Award for Excellence, Laboratory Research and Development, 2006

American Physical Society Aneesur Rahman Prize in Computational Physics, 2008

Member of the National Academy of Engineering, 2008

Adjunct Professor, Chemistry Department, Clemson University, 2009

Publications: 12 reviews, 360 journal articles

Professional Society Offices: Member-at-Large - Executive Committee of the Division of Condensed Matter Physics, American Physical Society, 1992-1995

Advisory Board: Divisional Associate Editor, Physical Review Letters, 1994-2000

Institute for Theoretical Physics, University of California, Santa Barbara, 2001-2003