Andrew P. Shreve

Director, Center for Biomedical Engineering Professor, Chemical and Nuclear Engineering University of New Mexico, Albuquerque, NM 87131 phone: (505) 277-4939 FAX: (505) 277-1979 email: shreve@unm.edu

PROFESSIONAL PREPARATION

Cornell University	Physical Chemistry (Theoretical Chemistry minor)	Ph.D., 1991
Cornell University	Physical Chemistry (Theoretical Chemistry minor)	M.S., 1986
West Virginia Wesleyan Coll.	Chemistry (Mathematics minor)	B.S., 1983

ACADEMIC/PROFESSIONAL APPOINTMENTS

2012 to present:	Professor, Department of Chemical and Nuclear Engineering; Director, Center for Biomedical Engineering; University of New Mexico.
1994 to 2012:	Technical Staff Member, Materials Physics and Applications Division, Los Alamos National Laboratory.
2001 to 2012:	Scientific thrust leader, Interim chief scientist (2002-2003) and Acting co- director (2008-2009), Center for Integrated Nanotechnologies, Los Alamos and Sandia National Laboratories.
1991 to 1994:	National Institutes of Health Postdoctoral Fellow, Professor Richard A. Mathies, Department of Chemistry, University of California, Berkeley.

SELECTED RECENT PUBLICATIONS

D.Y. Sasaki, N. Zawada, S.F. Gilmore, P. Narasimmaraj, M.A.A. Sanchez, J.C. Stachowiak, C.C. Hayden, H.-L. Wang, A.N. Parikh, A.P. Shreve, "Lipid membrane domains for the selective adsorption and surface patterning of conjugated polyelectrolytes," *Langmuir* **29** (2013) 5214-5221.

J.G. Duque, H. Telg, H. Chen, A.K. Swan, A.P. Shreve, X.M. Tu, M. Zheng, S.K. Doorn, "Quantum interference between the third and fourth exciton states in semiconducting carbon nanotubes using resonance Raman spectroscopy," *Phys. Rev. Lett.* **108** (2012) 117404.

M.L. Neidig, J. Sharma, H.C. Yeh, J.S. Martinez, S.D. Conradson, A.P. Shreve, "Ag K-edge EXAFS analysis of DNA-templated fluorescent silver nanoclusters: Insight into the structural origins of emission tuning by DNA sequence variations," *J. Amer. Chem. Soc.* **133** (2011) 11837-11839.

L.A. Peteanu, G.A. Sherwood, J.H. Werner, A.P. Shreve, T.M. Smith, J. Wildeman "Visualizing core-shell structure in substituted PPV oligomer aggregates using fluorescence lifetime imaging microscopy (FLIM)," *J. Phys. Chem. C* **115** (2011) 15607-15616.

J.H. Werner, G.A. Montaño, A.L. Garcia, N.A. Zurek, E.A. Akhadov, G.P. Lopez, A.P. Shreve, "Formation and dynamics of supported phospholipid membranes on a periodic nanotextured substrate," *Langmuir* **25** (2009) 2986-2993.

H.H. Tsai, Z.H. Xu, R.K. Pai, L.Y. Wang, A.M. Dattelbaum, A.P. Shreve, H.-L. Wang, M. Cotlet, "Structural dynamics and charge transfer via complexation with fullerene in large area conjugated polymer honeycomb thin films," *Chem. Mater.* **23** (2011) 759-761.

H. Yoo, J. Sharma, J.K. Kim, A.P. Shreve, J.S. Martinez, "Tailored microcrystal growth: A facile solution-phase synthesis of gold rings," *Adv. Mater.* **23** (2011) 4431-4434.

D. Magana, D. Parul, R.B. Dyer, A.P. Shreve, "Implementation of time-resolved step-scan Fourier transform infrared (FT-IR) spectroscopy using a kHz repetition rate pump laser," *Appl. Spectrosc.* **65** (2011) 535-542.

A.P. Shreve, M.C. Howland, A.R. Sapuri-Butti, T.W. Allen, and A.N. Parikh, "Evidence for leafletdependent redistribution of charged molecules in fluid supported phospholipid bilayers," *Langmuir* **24** (2008) 13250-13253.

A.P. Shreve, E.H. Haroz, S.M. Bachilo, R.B. Weisman, S. Tretiak, S. Kilina, and S.K. Doorn, "Determination of exciton-phonon coupling elements in single-walled carbon nanotubes by Raman overtone analysis," *Phys. Rev. Lett.* **98** (2007) 037405.

SYNERGISTIC ACTIVITIES

Member External Advisory Committee, Nano-Bio Interfaces Center, University of Pennsylvania (2007-present); Member of Impact of Materials on Society Subcommittee of the Materials Research Society, 2006-present; Member National Institutes of Health special study sections, multiple occurrences, 2000-present; Invited participant in National Nanotechnology Initiative workshop on "Nanoscience Research for Energy Needs", 2004; Co-organizer of symposia, "Spatially Resolved Characterization of Local Phenomena in Materials and Devices" (2002 Materials Research Society fall meeting), "Developing Nano-bio Interfaces" (2005 Materials Research Society spring meeting); Member of organizing committee for the LANSCE Neutron Scattering Winter School, Los Alamos National Laboratory, January 2004; Member of governing council for The Masters Program, a STEM focused charter high school, Santa Fe, NM, 2011-present; Member of Executive Committee, Center for Nonlinear Studies, 1999-2012, Los Alamos National Laboratory; Chair of LANL Fellows Selection Committee, 2006; Member of LANL Directed Research Strategy Team, Laboratory Directed Research and Development program, 2000-2002, 2010-2012.

COLLABORATORS AND OTHER AFFILIATIONS

Collaborators and Co-Editors: C. Jeffrey Brinker (Sandia/UNM); Robert Blankenship (Washington Univ. St. Louis); James Brozik (Washington State University); Susan Brozik (Sandia); Mircea Cotlet (Brookhaven); Andrew Dattelbaum (LANL); Steven Doorn (LANL); R. Brian Dyer (Emory University); Steven Graves (UNM); Rashi Iyer (LANL); Srinivas Iyer (LANL); Gabriel Lopez (Duke University); Jennifer Martinez (LANL); Thomas Meyer (UNC); Gina MacDonald (James Madison University); Gabriel Montaño (LANL); Mike Neidig (University of Rochester); Reginaldo Rocha (LANL); Atul Parikh (UC Davis); Linda Peteanu (Carnegie Mellon); Darryl Sasaki (Sandia); Sunil Sinha (UCSD); Anna Swan (Boston University); Hsing-Lin Wang (LANL); James Werner (LANL).

Graduate Advisors and Postdoctoral Sponsors: Andreas C. Albrecht (Cornell University, deceased); Richard Mathies (UC Berkeley).

Thesis Advisor and Postgraduate-Scholar Sponsors: Graduate Students: Michael Zubelewicz[†], Jacqueline De Lora[†], Nadia Fernandez-Oropreza, Jon Dorsey, Joan Loughrin, Lennae Ismari[†], Jennifer Fetzer[†], Dan Kalb[†]. (8 total) Postdoctoral Fellows: Robert Provencal (Los Gatos Research); Dean Duncan[†] (Valdosta State University); Wayne Buschmann (Emerging Products Technical Consulting); Andrew Dattelbaum (LANL); Reginaldo Rocha (LANL); Gabriel Montaño (LANL); Mac Brown (LANL); Donny Magana[†] (Emory University); Mike Neidig[†] (University of Rochester); Nesia Zurek[†] (Intellicyte); Vijaya Subramanian[†] (UNM); Jaime Juarez (UNM). (12 total) ([†]comentored)