

Name: David Uhrig
Center for Nanophase Materials Sciences
Oak Ridge National Laboratory
1 Bethel Valley Rd., Oak Ridge, TN 37831-6494

Position Title: Technical Professional Staff
(865) 241-2901
(865) 574-1753 FAX
uhrigdw@ornl.gov

Education:

University of Alabama-Birmingham, B.A. 1991 Music, with Chemistry Minor
University of Alabama-Birmingham, M.S. 2000 Chemistry
University of Alabama-Birmingham, Ph.D. 2001 Chemistry

Professional Experience:

2007–present Technical Professional Staff, Macromolecular Nanomaterials Group, ORNL
2004–2007 Research Associate, Oak Ridge Institute of Science and Education/ORNL
2002–2003 Research Associate, Flinders University and the University of South Australia

Professional and Synergistic Activities:

Associate Member, American Scientific Glassblowers Society

Professional Memberships:

American Chemical Society

Selected Peer-Reviewed Publications: (total 40)

- "Scattering Studies on Poly(3,4-ethylenedioxythiophene)–Polystyrenesulfonate in the Presence of Ionic Liquids," Ryan J. Murphy, Katie M. Weigandt, David Uhrig, Ahmed Alsayed, Chantal Badre, Larry Hough, Murugappan Muthukumar, in *Macromolecules* accepted Nov 2015.
- "Understanding the decreased segmental dynamics of supported thin polymer films reported by incoherent neutron scattering," Changhui Ye, Clinton G. Wiener, Madhusudan Tyagi, David Uhrig, Sara V. Orski, Christopher L. Soles, Bryan D. Vogt, and David S. Simmons, in *Macromolecules* 2015, 48, 801-808.
- "Thin film behavior of bottlebrush / linear polymer blends," Indranil Mitra, Xianyu Li, Stacy L. Pesek, Boris Makarenko, Brad S. Lokitz, David Uhrig, John F. Ankner, Rafael Verduzco, Gila E. Stein, in *Macromolecules* 2014, 47, 5269-5276.
- "Structural evolution of polylactide molecular bottlebrushes: kinetics study by size exclusion chromatography, small angle neutron scattering, and simulations," Suk-kyun Ahn, Jan-Michael Y. Carrillo, Youngkyu Han, Tae-Hwan Kim, David Uhrig, Deanna L. Pickel, Kunlun Hong, S. Michael Kilbey, II, Bobby G. Sumpter, Gregory S. Smith, Changwoo Do, in *ACS Macro Letters* 2014, 3, 862-866.
- "Molecular Heterogeneity of Polystyrene-Modified Fullerene Core Stars," David Uhrig, George C. Morar, Monojoy Goswami, Jingsong Huang, Bobby G. Sumpter, Jia Zhou, S. Michael Kilbey, II, and Deanna L. Pickel, *Macromolecules* 2013, 46, 7451–7457.
- "Hydrodynamics of polystyrene-polyisoprene miktoarm star copolymers in a selective and a non-selective solvent," Juan Pablo Hinestrosa, David Uhrig, Deanna L. Pickel, Jimmy W. Mays, and S. Michael Kilbey II, *Soft Matter* 2012, 8, 10061-10071.
- "Impact of chain architecture (branching) on the thermal and mechanical behavior of polystyrene thin films," Jessica M. Torres, Christopher Stafford, David Uhrig, Bryan D. Vogt, *Journal of Polymer Science: Part B: Polymer Physics* 2012, 50, 370-377.
- "High-strain-induced deformation mechanisms in block-graft and multigraft copolymers," R. Schlegel, Y.X. Duan, R. Weidisch, S. Holzer, K. Schneider, M. Stamm, D. Uhrig, J.W. Mays, G. Heinrich, N. Hadjichristidis, *Macromolecules* 2011, 44, 9374-9383.
- "Synthesis of well-defined multigraft copolymers," David Uhrig and Jimmy W. Mays, *Polymer Chemistry* 2011, 2(1) 69-76.
- "Experimental Techniques in High-vacuum Anionic Polymerization," David Uhrig and Jimmy Mays, *Journal of Polymer Science: Part A: Polymer Chemistry* 2005, 43, 6179-6222.

Collaborators:

Craig Burkhart, Goodyear

Ryan Murphy, Solvay

Maciej Kawecki, Franz Adlmann, and Max Wolff, Uppsala University, Sweden

Shannon Yee, Georgia Institute of Technology

Bulent Akgun, Bogazici University, Istanbul, Turkey

David Bucknall, Georgia Institute of Technology

Bryan Vogt, University of Akron

Roland Weidisch and Ralf Schlegel, Fraunhofer Institute for Mechanics of Materials and University of Halle, Germany

Gregory Beaucage, University of Cincinnati

Nsoki Phambu, Tennessee State University

Brad Chmelka, Justin Jahnke, University of California-Santa Barbara

Ting Xu, University of California-Berkeley

Julia Kornfield and Jeremy Wei, California Institute of Technology

Kalman Migler and Neal Scruggs, National Institute of Standards and Technology, Maryland

Mark Dadmun, University of Tennessee

Mu-Ping Nieh, University of Connecticut

Rafael Verduzco, Rice University

Chi Wu and Jianqi Wang, Chinese University of Hong Kong

Taihyun Chang, Pohang University of Science and Technology, South Korea

Graduate and Postdoctoral Advisors:

PhD Advisor: J. Mays, Univ. of Alabama-Birmingham [currently at University of Tennessee-Knoxville]

Postdoctoral Advisor: Janis Gunars Matisons, Flinders University, Adelaide, Australia [currently at Gelest-U.S.A.]

Thesis Advisor and Postgraduate-Scholar Sponsor: None

Total Graduate Students Advised: 0

Total Postdoctoral Scholars Advised: 0