Publications and Presentations

Alisyn J. Nedoma

Publications

[1] Rajeev Dattani, Mark T. F. Telling, Carlos G. Lopez, Siva H. Krishnadasan, James H. Bannock, Anne E. Terry, John C. de Mello, João. T. Cabral, and **Alisyn J. Nedoma**. Rapid Precipitation: an Alternative to Solvent Casting for Organic Solar Cells. *ChemPhysChem*, 16(6):1231–1238, 2015.

[2] Alejandro Sanz, Him Cheng Wong, **Alisyn J. Nedoma**, Jack F. Douglas, and João T. Cabral. Influence of c_{60} fullerenes on the glass formation of polystyrene. *Polymer*, 2015. *In press* doi:10.1016/j.polymer.2015.05.001.

[3] Andreas Mautner, Koon-Yang Lee, Panu Lahtinen, Tekla Tammelin, Aji P. Mathew, **Alisyn J. Nedoma**, Kang Li, and Alexander Bismarck. Cellulose Nanopapers as Tight Aqueous Ultra-Filtration Membranes. *Reactive and Functional Polymers*, 86:209–214, 2015.

[4] Rajeev Dattani, James H. Bannock, Zhuping Fei, Roderick C. I. MacKenzie, Anne A. Y. Guilbert, Michelle S. Vezie, Jenny Nelson, John C. DeMello, Martin Heeney, João. T. Cabral, and **Alisyn J. Nedoma**. A General Mechanism for Controlling Thin Film Structures in All-Conjugated Block Copolymer:Fullerene Blends. *Journal of Materials Chemistry A*, 2:14711–14719, 2014.

[5] Rajeev Dattani, Rolf Michels, **Alisyn J. Nedoma**, Ralf Schweins, Paul Westacott, Klaus Huber, and João. T. Cabral. Conformation and Interactions of Polystyrene and Fullerenes in Dilute to Semidilute Solutions. *Macromolecules*, 47(17):6113–6120, 2014.

[6] **Alisyn J. Nedoma**, Peggy Lai, Andrew Jackson, Megan L. Robertson, Nisita S. Wanakule, and Nitash P. Balsara. Phase Diagrams of Blends of Polyisobutylene and Deuterated Polybutadiene as a Function of Chain Length. *Macromolecules*, 44(8):3077–3084, April 2011.

[7] **Alisyn J. Nedoma**, Peggy Lai, Andrew Jackson, Megan L. Robertson, and Nitash P. Balsara. Phase Behavior of Off-Critical A/B/AC Blends. *Macromolecules*, 43(18):7852–7859, September 2010.

[8] Justin M. Virgili, **Alisyn J. Nedoma**, Rachel A. Segalman, and Nitash P. Balsara. Ionic Liquid Distribution in Ordered Block Copolymer Solutions. *Macromolecules*, 43(8):3750–3756, April 2010.

[9] **Alisyn J. Nedoma**, Peggy Lai, Andrew Jackson, Megan L. Robertson, Nisita S. Wanakule, and Nitash P. Balsara. Phase Behavior of Asymmetric Multicomponent A/B/AC Blends with Unequal Homopolymer Molecular Weights. *Macromolecules*, 43(7):3549–3555, April 2010.

[10] **Alisyn J. Nedoma**, Megan L. Robertson, Nisita S. Wanakule, and Nitash P. Balsara. Measurements of the Composition and Molecular Weight Dependence of the Flory-Huggins Interaction Parameter. *Macromolecules*, 41(15):5773–5779, August 2008.

[11] **Alisyn J. Nedoma**, Megan L. Robertson, Nisita S. Wanakule, and Nitash P. Balsara. Measurements of the FloryHuggins Interaction Parameter Using a Series of Critical Binary Blends. *Industrial & Engineering Chemistry Research*, 47(10):3551–3553, May 2008.

[12] Moon Jeong Park, **Alisyn J Nedoma**, Phillip L Geissler, Nitash P Balsara, Andrew Jackson, and David Cookson. Humidity-Induced Phase Transitions in Ion-Containing Block Copolymer Membranes. *Macromolecules*, 41(6):2271–2277, 2008.

[13] Nisita S Wanakule, **Alisyn J Nedoma**, Megan L Robertson, Zhuangxi Fang, Andrew Jackson, Bruce A Garetz, and Nitash P Balsara. Characterization of Micron-Sized Periodic

Structures in Multicomponent Polymer Blends by Ultra-Small-Angle Neutron Scattering and Optical Microscopy. *Macromolecules*, 41(2):471–477, 2008.

Manuscripts in Preparation

[1] Rajeev Dattani, Paul Westacott, Zhuping Fei, Natalie Stingelin, Martin Heeney, João T. Cabral, and Alisyn J. Nedoma. Fullerene Segregation in Block Copolymer Blends.

[2] Carlos Gonzalez Lopez, Rajeev Dattani, Zhuping Fei, Natalie Stingelin, Martin Heeney, João T. Cabral, and Alisyn J. Nedoma. The persistence length of poly-3-hexylthiophene from Small Angle Neutron Scattering.

Presentations

1. "Teasing Crystals from Soft Phases," Institute of Physics: Physical Aspects of Polymer Science, Sheffield, UK (10 September 2013)
2. "Controlled Domain Swelling for Block Copolymer-Based Solar Cells," American Physical Society Meeting, Baltimore, Maryland (22 March 2013)
3. "Controlled Bulk Heterojunctions via Block Copolymer and Daring Thermodynamics," The Rank Prize Funds Symposium:Nanomaterials for Solar Energy Generation and Storage, Grasmere, UK (19 June 2012)
4. "Robust Nanostructures from Block Copolymers: Towards Stable Organic Photovoltaics," Centre for Plastic Electronics Symposium, London, UK (31 May 2012)
5. "Thermodynamics Interactions in Polymer Nanocomposites towards Controlled Nanoparticle Dispersion," American Physical Society Meeting, Boston, Massachutsetts (1 March 2012)
6. "Microemulsions in Asymmetric Polymer Blends," American Physical Society Meeting, Pittsburgh, Pennsylvania (20 March 2009)
7. "Molecular Weight and Composition Dependent Flory-Huggins Parameters," American Physical Society Meeting, New Orleans, Louisiana (10 March 2008)
8. "Composition Dependent χ_{AB} Values in Critical Blends of Polyisobutylene and Deuterated Polybutadiene," American Physical Society Meeting, Denver, Colorado (9 March 2007)

Posters

1. "Block Co-Oligomer Solar Cells: a Case for Small Surfactants," Gordon Research Conference: Polymer Physics, Mount Holyoake, Massachutsetts
(13 July 2014)
2. "Robust Lamellar Phase Window in Ternary Polymer Blends," Institute of Physics: Physical Aspects of Polymer Science, Guildford, UK (12 September 2011)
3. "The Composition and Molecular Weight Dependence of the Flory-Huggins Interaction Parameter, χ, for Binary Blends of Model Polyolefins Using SANS," American Conference on Neutron Scattering, Santa Fe, New Mexico (13 May 2008)