

Poster Session A  
Goodyear Polymer Center  
Second Floor Atrium  
9:00 – 9:45 a.m.

- 1A **Lindsay K. Amos**, NASA Glenn Research Center and Washington & Jefferson College, *Synthesis and Optical Properties of Triphenylamine Substituted Anthracene Bisimide Derivatives*
- 2A **Allison Buddie**, The University of Akron and Saint Mary's College, *Synthesis of Boron-Containing  $\pi$ -Conjugated Polymers*.
- 3A **Andrea Charif**, The University of Akron and Universidad Nacional de Colombia, *Synthesis of Vinyl-Ethylbenzocyclobutenyl Ether and its Copolymers with Styrenes*
- 4A **Meghan Gallagher**, NASA Glenn Research Center, *Aluminosilicate Aerogels and Aerogel Composites for High Temperature Applications*
- 5A **David Hadaway**, NASA Glenn Research Center and The Ohio State University, *Triphenylamine Substituted Anthracene Bisimide Derivatives: Synthesis and Optical Properties*
- 6A **Brad Hauser**, The University of Akron and John Carroll University, *Controlling the Orientation of POSS-C<sub>60</sub> Conjugate Crystals*
- 7A **Danielle LaHurd**, The University of Akron and Kent State University, *X-ray Studies of Surface Dynamics of Branched Polymers*
- 8A **Harris Lam**, The University of Akron and University of New Orleans, *Miscibility Behavior of Blends of Spiropyran and Mesogenic Diacrylate*
- 9A **Anthony Lucio**, The University of Akron and Saginaw Valley State University, *Synthesis and Solution Properties of an Amphiphilic Macrocrown Ether*
- 10A **Doreen Martof**, The University of Akron and John Carroll University, *Enzymatic Functionalization of Poly(isobutylene) Macroinitiator*
- 11A **Melanie Naumenko**, NASA Glenn Research Center and Rochester Institute of Technology, *Parametric Study for Cross-linking Silica Aerogels with Epoxies in Ethanol as Solvent*
- 12A **Allyson Palker**, NASA Glenn Research Center and University of Cincinnati, *The Synthesis and Use of Poly(ether Sulfone)s Containing Triazine Rings in Fuel Cells*
- 13A **Katie Pickrahn**, NASA Glenn Research Center and University of California, Irvine, *ASZ Aerogels for High Temperature Applications*

- 14A Kevin Pollock**, The University of Akron and Careleton College, *Synthesis and Characterization of Sulfonated Styrene Block Copolymers Using RAFT Polymerization*
- 15A Nathan Shewmon**, The University of Akron and University of Illinois at Urbana-Champaign, *Fabrication of Moth-Eye Antireflection Structure on Glass*
- 16A Rachel Shi**, The University of Akron and Baldwin-Wallace College, *Friction and Adhesion of Synthetic Gecko-Inspired Materials*
- 17A Robert Thompson**, The University of Akron and Cal Poly Pomona, *Synthesis and Characterization of Alkyd-b-(meth)acrylate Copolymers by Atom Transport Radical Polymerization*
- 18A Johanna Villate**, The University of Akron and National University of Colombia, *Analysis of X-ray Scattering Results for the Surface Ordered Phase in Comb Polymers*

Poster Session B  
Goodyear Polymer Center  
Second Floor Atrium  
11:30 a.m. – 12:15 p.m.

- 1B** **TreChelle Carson**, Case Western Reserve University and Fisk University, *Phenotypic Characterization of Embryonic Stem Cell Derived Neuronal Cells*
- 2B** **Alexis Crosby**, Case Western Reserve University, *Cross-linking Montmorillonite Aerogel Materials with Diisocyanates*
- 3B** **Taneisha Deans**, Case Western Reserve University, *Preparation of a low  $T_g$  Phosphate Glasses and Their Composites with Polymers for Gas Barrier Applications*
- 4B** **Ashlyn Dennis**, Case Western Reserve University and Clemson University, *Decoration of Cellulose Whiskers*
- 5B** **G. Connor Evans**, Case Western Reserve University, *Towards Optical Switching in Opaline Films*
- 6B** **Liana Geddes**, Case Western Reserve University and Fisk University, *Angle Dependence of 1D Photonic Crystal Reflections*
- 7B** **Danielle Hampton**, Case Western Reserve University, *DBR Laser Utilizing a DNA-based Gain Layer*
- 8B** **Christian Haws**, Case Western Reserve University and Penn State University, The Behrend College, *Self-assembly of Side-Chain Functionalized Polystyrene Oligomers within Multilayers*
- 9B** **Jamara Johnson**, Case Western Reserve University, *All-Plastic Lasers*
- 10B** **John King**, Case Western Reserve University and State University of New York at Fredonia, *Chromogenic Cyano-PPVs*
- 11B** **Kevin Lamison**, Case Western Reserve University, *Cleveland's Scientists, Engineers, and Artists Design (C-SEAD)*
- 12B** **Edmund Lewis**, Case Western Reserve University, *Analyzing the Mechanical Properties of Vertical Multi-layered Films Produced by Co-extrusion*
- 13B** **Kathie Lifer**, Case Western Reserve University and Ohio Northern University, *Creation of Nacre like Structures*
- 14B** **Thomas Martz**, Case Western Reserve University and Penn State Erie, The Behrend College, *Synthesis of Silica Core/Shell Nanoparticles*

- 15B** **Jessica Patz**, Case Western Reserve University and Penn State Erie, The Behrend College, *Study of Mechanical and Rheological Behaviors of Dendritic/Polyurethane Nanocomposites*
- 16B** **Neeka Rogers**, Case Western Reserve University, *CIRG in SAN25*
- 17B** **Victoria Rusnak**, Case Western Reserve University, *Nafion/fPOSS Nanocomposite for Use as Fuel Cell Membranes*
- 18B** **Scott Seidel**, Case Western Reserve University, *Commercial Viability of Cellulose Whiskers*
- 19B** **Jessica Shipman**, Case Western Reserve University and Youngstown State University, *Using Terahertz Time-Domain Spectroscopy to Analyze Physical Properties of Amorphous Materials*
- 20B** **Joseph R. Sturgess**, Case Western Reserve University and Fisk University, *Optimizing Parameters for DC Sputtering of Indium Tin Oxide on Glass Substrates*
- 21B** **Rocco Viggiano**, Case Western Reserve University and Penn State Erie, The Behrend College, *The Synthesis and Characterization of High Molecular Weight Poly(trimethylene oxide)*
- 22B** **Lillian Zamecnik**, Case Western Reserve University, *Novel Polymeric Layered Systems Containing Well-defined POSS Architectures*

Poster Session C  
Goodyear Polymer Center  
Second Floor Atrium  
1:15 – 2:00 p.m.

- 1C **Firehiwt Achamyeh**, Kent State University, *Differences in Transcriptional Activation Activities of Splicing Variants FTF and CPF*
- 2C **Hannah Ainsworth**, Kent State University and Salem College, *DNA-Silver Nanoparticle Assay using Surface-Enhanced Raman Spectroscopy*
- 3C **Meagan Atwood and James Deininger**, Kent State University, *Synthesis of Bent Core Liquid Crystals*
- 4C **Peter Bach**, Kent State University, *Exploring the Role of Lewis Acid and Solvent in Hydrosilylation of Aromatic Aldehydes and Ketones*
- 5C **Nathan Barefoot**, Kent State University and Westminster College, *Structural Studies of 2-Butanol Water Complexes and Molecular Spectra of o-Cyanophenol*
- 6C **Andrew Brown**, Kent State University and Westminster College, *2D NMR Technique for Detecting Multiple Quantum Coherences using Projective Measurement*
- 7C **John Hwang**, Kent State University, *Synthesis and Characterization of Vanadium-B<sub>12</sub> Complexes as Potential Therapeutics for Treating Diabetes*
- 8C **Avishek Kumar**, Kent State University and Carnegie Mellon University, *Size Controlled Synthesis of Lipid Bilayer-Covered Gold Nanoparticles*
- 9C **Nara Lee**, Kent State University and George Washington University, *Synthesis and Functionalization of High-Aspect Gold Nanorods*
- 10C **Elaine Lin**, Kent State University, *Synthesis and Characterization of Mesoporous Magnesium and Calcium Aluminum Oxides*
- 11C **Cheryl E. McCullough**, Kent State University, *The Effects of Ceramide-1-Phosphate on the Interaction of PTEN with Model Membranes*
- 12C **Jessie Monegan**, Kent State University, *A Structurally Characterized Series of 1,1,3,3-Tetramethylguanidine Solvated Magnesium Aryloxide Complexes*
- 13C **Julia Ng**, Kent State University, *A Family of 1,1,3,3-Tetraalkylguanidine (H-TAG) Stabilized Zinc Aryloxide Catalysts for the Ring-Opening Polymerization of Lactide*
- 14C **Jesus Ocana**, Kent State University, *A Synthetic and Theoretical Investigation of Cyclic Multinuclear Group II Guanadinate Complexes*

- 15C Katherine Poinski**, Kent State University, *Interactions of Malachite Green Analogs with G-Quadruplex Forming ILPR DNA*
- 16C Robert Rakosi III**, Kent State University, *Cyclization of Alkynyl Alcohols using Lanthanide Catalysts*
- 17C Elizabeth Schindler**, Kent State University, *Kinetic Studies on the Reaction between Cyanocobalamin and Silver Nitrate*
- 18C Pat Toothaker**, Kent State University, *Low-Humidity Fast Protonic Conductors Based on Crystalline Organic Materials with Closely Spaced Sulfonic Acid Groups*
- 19C Saba Hamidi Vadeghani**, Kent State University and South Carolina State University, *Liquid Crystal Membranes Underwater*