### 2018

### **Best Posters:**

First place - William Huddleston; Case Western Reserve University; "Freeze casting of LAGP for 3D textured solid-state structural electrolytes"

Second place - Krishna Chaitanya Pitike; University of Connecticut; "Shape and size dependent phase transformations and field-induced behavior in ferroelectric nanoparticles"

Third place - Lukasz Kuna; University of Connecticut; "Mesoscale modeling of stress induced band-gap attenuation in ZnO Nanowires"

## **Best Oral Presentations:**

First place - Richard Veazey; University of Sheffield; "The Influence of Electrode Geometry on the Average and Local Electrical Responses of Electroceramics"

Second place - Kassiopeia Smith; Boise State University; "Understanding Electrochemical and Structural Behaviors of Irradiation Induced Defects in TiO2"

Third place - Todd Surta; Oregon State University; "Exploring the rich defect chemistry of amorphous carbon using a combination of experiments and theory"

### 2017

## **Best posters:**

First place - Tassie Andersen, Northwestern University, "Evolution of Brownmillerite Structure in SrCoO2.5 Under Varying Molecular Beam Epitaxy Growth Conditions"

Second place - William Huddleston, Case Western Reserve University, "Sintered Cathodes for All-Solid-State Structural Lithium-Ion Batteries"

Third place - Kevin Pachuta, Case Western Reserve University, "Characterization of Solution-Based Exfoliated Nanosheets"

# **Best oral presentations:**

First place - Ching-Yen Tang, University of Illinois at Urbana Champaign, "In situ X-ray Photoelectron and Auger Electron Spectroscopic Characterization of Reaction Mechanisms during Li-ion Cycling of CuO Electrodes"

Second place - Ran Gao, University of California, Berkeley, "Ferroelectricity in Epitaxial  $Pb_{1+\delta}ZrO_3$  Thin Films"

Third place - Xiaorui Tong, West Virginia University, "Kinetic Poisson-Cahn Model of Defect Segregation Near Grain Boundaries During Thermal Annealing in Oxygen-Conducting Solid Electrolytes"

## **Best posters:**

First place - Daniel M. Long, (1) Andreas Klein, (2) Elizabeth Dickey (1)

- (1) North Carolina State University
- (2) Technische Universität Darmstadt

"Band Alignment Characterization of Barium Titanate"

Second place - <u>Gerardo Rodriguez-Hernandez</u>, Peiman Hosseini, Harish Bhaskaran, University of Oxford

"Study of Ge2Sb2Te5 Properties for Opto-Electronic Applications

3rd Place - <u>Dong Hou</u>,(1) Tedi-Marie Usher,(1) Natthaphon Raengthon,(2,3) Narit Triamnak,(2) David P. Cann,(2) and Jacob L. Jones(1)

- (1) North Carolina State University
- (2) Oregon State University
- (3) Chulalongkorn University

"Temperature-induced Average and Local Structural Changes of BaTiO3-Bi(Zn0.5Ti0.5)O3"

## **Best oral presentations:**

First place - Kyle Kelley, Edward Sachet, Kniang Kham, Stefan Franzen, and Jon-Paul Maria,

North Carolina State University

"Doping control in epitaxial thin films via reactive RF co-sputtering"

Second place - <u>Jeffrey Braun</u>,(1) Mirza Elahi,(2) John Gaskins,(1) Thomas E. Beechem III,(3) Zayd C. Leseman,(2) Hiroyuki Fujiwara,(4) Sean King,(5) and Patrick E. Hopkins(1)

- (1) University of Virginia
- 2) University of New Mexico
- (3) Sandia National Laboratories
- (4) Gifu University
- (5) Intel Corporation

Third place - <u>Steven Brewer</u>,(1) McKinley Paul,(2) Kenzie Fisher,(3) Jonathon Guerrier,(4) Jacob L. Jones,(4) Ryan Rudy,(5) Ronald G. Polcawich,(5) Evan Glaser,(6) Cory Cress,(6) and Nazanin Bassiri-Gharb(1)

- (1) Georgia Institute of Technology
- (2) Woodward Academy
- (3) Riverwood International Charter School
- (4) North Carolina State University

- (5) U.S. Army Research Laboratory
- (6) Naval Research Laboratory

### 2015

# **Best posters:**

First place - Gye Hyun Kim, MIT "Effect of surface energy anisotropy on Rayleigh-like solid-state dewetting and nanowire stability"

Second place - Youngho Jin, Georgia Institute of Technology "Microstructure and electrical properties in PMMA/ATO conductive composites with phase segregated microstructures"

Third place - Jun-Young Cho, Seoul National University "The effect of nano-structure on the thermoelectric properties of bulk copper selelnide"

# **Best oral presentations:**

First place - Christina Rost, North Carolina State University "Entropy Driven Oxides: configurationally disordered solid solutions and their structure-property"

Second place - Edward Sachet, North Carolina State University "Extreme electron mobility in cadmium oxide through defect equilibrium engineering"

Third place - Jon Mackey, University of Akron "Analytic thermoelectric couple modeling: variable material properties and transient operation"

### 2014

## **Best posters:**

First place - Shin ik Kim, Korea Institute of Science and Technology "Non volatile control of 2DEG Conductance at oxide interfaces"

Second place - Dhruv Seshadri, Case Western University "Lithithum titanate as Anode Material in Lithium-Ion Batteries"

Third place - Lisheng Gao, The Pennsylvania State University "Co-fired Multilayer ceramic batteries for safe electrochemical energy storage"

# **Best oral presentations:**

First place - Brian Foley, University of Virginia "Glass-like Thermal Conductivity of (010)-Textured Lanthanum doped dStrontium Niobate Synthesized with Wet Chemical Deposition"

Second place - Brian Donovan, University of Virginia "Temperature Dependent Thermal Conductivity of nano-Grained Barium Titanate"

Third place - Russell Maier, Penn State University "Investigation of Defect Dipole Kinetics in the Ferroelectric and Paraelectric Phases of Acceptor Doped BaTiO<sub>3</sub> Single Crystals"

## 2013

# **Best posters:**

First place - Jonathan Mackey, Case Western Reserve University, for "Analytic Thermoelectric Device Optimization"

Second place - Ali Henriques, University of Florida, for "Structural changes in Lead Zirconate Titanate due to High Neutron Radiation Exposure"

Third place - Michelle Nolan, University of Florida, for "Phase equilibria, crystallographic structure, and piezoelectric properties of tetragonal Pb(1-1.5x)SmxZr(1-y)TiyO3"

# **Best oral presentations:**

First place - Chris Shelton, North Carolina State University, for "Control of ZnO thin film polarity through interface chemistry"

Second place - Tedi-Marie Usher, University of Florida, for "Domain wall motion and electric-field-induced strains in NBT-xBT solid solutions from in situ neutron diffraction"

Third place - Jon Bock, the Pennsylvania State University, for "The Influence, Role, and Property Variations in Ferroelectricity at the Edge of the Metal-Insulator Transition and Its Influence on Thermoelectric Properties"

### 2012

**Best poster:** Elena Aksel, Univerity of Flsorida, for "Crystal Structure and Phase Transitions in Chemically Modified Sodium Bismuth Titanate"

**Best oral presentation:** Cassandra Llano, University of Florida, for "Development and Implementation of a Polarization and Strain Measurement System"

### 2011

**Best poster:** not awarded in 2011

**Best oral presentation:** Elena Aksel, University of Florida, for "Sodium Bismuth Titanate - Resolving Structural Contradictions"

### 2010

**Best poster:** Jin Woo Jung, Hoseo University, South Korea, for "Development of AZO-based Transparent, Thin Film Transistors on Transparent Structures"

**Best oral presentation:** Beverly B. Hinojosa, University of Florida, for "Developing the Link Between Atomic Structure and Macroscopic Properties of Cubic Pyrochlores"

### 2009

**Best poster:** not awarded in 2009

**Best oral presentation:** Anderson Prewitt, University of Florida for "Effects of Field & Temperature During Poling on the Ferroelectric Properties of Lead Zirconate Titanate"

### 2008

**Best poster**: Christopher T. Shelton, Oregon State University for "Epitaxial Piezoelectric Thin Films on Flexible Substrates"

**Best oral presentation**: Vivek Tomer, Penn State University for "Induced Anisotropy in Electrically Modified Polymer/Ceramic Nano-composites"

## 2007

**Best oral presentation**: Mark D. Losego, North Carolina State University, for "Engineering Oxide Interfaces to Gallium Nitride by Molecular Beam Epitaxy"

## 2006

**Best poster**: Weiqun Chen, University of California, Davis, for "Energetics of Cerium-Zirconium Substitution in the xCe0.8Y0.2O1.9-(1-x)Ze0.8 Y0.2O1.9 System"

**Best oral presentation**: Meagen A. Gillispie, Iowa State University, for "Crystal Chemistry and Electrical Properties of Delafossite Compounds"

## 2005

**Best poster**: Yusuke Tohdo, Nagoya Institute of Technology, for "Crystal Structur analusis of Homologous Compounds ALa4Ti4O15 and its Microwave Dielectric Properties"

**Best oral presentation**: Niall J. Donnelly, Pennsylvania State University, for "Investigation of Nonlinear and Relaxation Phenomena in PMN-0.07PT Films Under Large AC Field"