

## Education

Seoul National University, Seoul, Korea	Physics	B.S., <i>Summa Cum Laude</i> , 2006
Seoul National University, Seoul, Korea	Physics	Ph.D., 2012

## Professional Experience

2015 – p Postdoctoral Research Associate (Advanced Short Term Research Opportunity), Scanning Probe Microscopy Group, Center for Nanophase Materials Sciences, ORNL

2013 – 2015 Visiting Scholar, Scanning Probe Microscopy Group, Center for Nanophase Materials Sciences, ORNL

2012 – 2015 Postdoctoral Research Associate, Center for Correlated Electron Systems, Institute for Basic Science, and Department of Physics & Astronomy, Seoul National University, Korea

## Professional and Synergistic Activities

2012 – p Referee for *Journal of the American Ceramic Society*

## Honors and Awards

2012 The Graduate Student Research Award “1<sup>st</sup> Place” from Department of Physics & Astronomy, Seoul National University

2012 The Excellent Presentation Award (Poster) at the 9<sup>th</sup> Korea-Japan Conference on Ferroelectrics

2011 Best Oral Presentation Award at the Korean Physical Society Fall Meeting

2009 Best Oral Presentation Award at the Korean Physical Society Fall Meeting

2007 – 2009 Seoul Science Fellowship from Seoul City

**Publications** (Over 38 publications in peer reviewed journals, 1 book chapter (submitted), 2 invited presentation)

## Research Synopsis

### 1. *Domain Switching Dynamics in Ferroelectrics and Multiferroics*

Nanoscale investigation of how ferroelectric domains create and grow in ferroelectric and multiferroic thin films using various BE-PFM techniques

### 2. *Nanoscale Probing of Ion Transport and Electrochemical Phenomena*

Nanoscale probing of ion transport and reversible/irreversible electrochemical phenomena in metal-ion conducting glasses and solid oxide electrolytes using ESM and FORC-IVz techniques