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Degree	<ul style="list-style-type: none"> • 2004 Seoul National University, School of Chemical Engineering (B.S.) • 2010 Seoul National University, School of Chemical & Biological Engineering (Ph. D.)
Experience	<ul style="list-style-type: none"> • 2016~ Assistant Professor, Department of Chemistry, Incheon National University • 2016~ Editorial Board Member of Scientific Reports (Nature Publishing Group) • 2012~2016 Senior Researcher, Advanced Batteries Research Center, Korea Electronics Technology Institute (KETI) • 2010~2011 Post Doctoral Fellow, Department of Chemistry, Waterloo University
Major Teaching	<ul style="list-style-type: none"> • Energy Material, Energy Conversion & Storage, Lithium-ion Batteries • NanoEnergy Materials, Special Topic in Energy Materials
Representative Research	<ul style="list-style-type: none"> • Effective Polysulfide Rejection by Dipole-aligned BaTiO₃ Coated Separator in Lithium-Sulfur Batteries, <i>Adv. Funct. Mater.</i> 26, 7817-7823 (2016). • Self-extinguishing Lithium Ion Batteries Based on Internally Embedded Fire-extinguishing Microcapsules with Temperature-responsiveness, <i>Nano Lett.</i> 15, 5059-5067 (2015).
Researches	<p><Dissertation></p> <ul style="list-style-type: none"> • Tris(trimethylsilyl) Phosphite as an Efficient Electrolyte Additive to Improve the Surface Stability of Graphite Anodes, <i>ACS Appl. Mater. Interfaces</i> 9, 32851-32858 (2017). • Triphenyl borate as a bi-functional additive to improve surface stability of Ni-rich cathode material, <i>J. Power Sources</i> 372, 24-30 (2017). • Sulfonate-immobilized Artificial Cathode Electrolyte Interphases Layer on Ni-rich Cathode, <i>J. Power Sources</i> 360, 480-487 (2017). • Magnesium Anode Pretreatment Using a Titanium Complex for Magnesium Battery, <i>ACS Sustainable Chem. Eng.</i> 5, 5733-5739 (2017). • Investigation into the stability of Li metal anodes in Li-O₂ batteries with a redox mediator, <i>J. Mater. Chem. A</i> 5, 10609-10621 (2017). • Insight into the Electrochemical Behaviors of 5V-Class High-Voltage Batteries Composed of Lithium-Rich Layered Oxide with Multifunctional Additive, <i>J. Power Sources</i> 336, 465-474 (2016). • 5V-Class High-Voltage Batteries with Over-Lithiated Oxide and a Multi-Functional Additive, <i>J. Mater. Chem. A</i> 3, 6157-6167 (2015).
Current Research	<ul style="list-style-type: none"> • Energy materials for (post) lithium-ion batteries • Mechanism study for surface phenomenon on electrode/electrolyte interface