

**Prof. Yun Jung Lee**

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**Education**

Ph.D. Materials Science and Engineering, Massachusetts Institute of Technology, 2009

M. S. Inorganic Materials Engineering, Seoul National University 2000

B. S. Inorganic Materials Engineering, Seoul National University 1998

**Research Interests**

Advanced nanomaterials design for energy conversion and storage devices, lithium rechargeable battery, wearable battery, lithium-air battery, sodium ion battery, bio-inspired membranes for energy conversion and storage

**Career**

2011 – Present, Assistant Professor, Department of Energy Engineering, Hanyang University

2009 – 2011 Postdoctoral Fellow, Materials Sciences Group, Pacific Northwest National Laboratory, U.S.A.

2000 – 2003 Research Engineer, Semiconductor R&D Center, Samsung Electronics

**Author of about 8 scientific papers, 3 proceedings and 18 patents**

**Selected Publications**

1. A Lithium-Oxygen Battery Based on Lithium Superoxide, *Nature*, 529, 377-382, (2016)
2. Study on the Catalytic Activity of Noble Metal Nanoparticles on Reduced Graphene Oxide for Oxygen Evolution Reactions in Lithium-Air Batteries, *Nano Letters*, 15, 4261-4268, (2015)
3. Biomimetic Selective Ion Transport through Graphene Oxide Membranes Functionalized with Ion Recognizing Peptides, *Chemistry of Materials*, 27(4), 1255-1261 (2015)
4. Ruthenium-based Electrocatalysts Supported on Reduced Graphene Oxide for Lithium-Air Batteries, *ACS Nano*, 7(4), 3532-3539 (2013)
5. Biologically Activated Noble Metal Alloys Anode Electrodes for Lithium Ion Batteries, *Nano Letters*, vol.10(7) 2433-2440 (2010)
6. Fabricating Genetically Engineered High Power Lithium Ion Batteries Using Multiple Virus Genes, *Science*, vol.324(5930), 1051-1055 (2009)
7. Peptide-Mediated Reduction of Silver Ions on Engineered Biological Scaffolds, *ACS Nano*, vol.2(7), 1480-1486 (2008)