



Curriculum Vitae

Jungjin Park, Ph.D.

Senior Research Scientist
Energy Storage Research Center
Korea Institute of Science and Technology (KIST)

Personal Information

Address (Work) 5, Hwarang-ro 14-gil, Seongbuk-gu, Seoul 02792, Republic of Korea
Phone (Cell) +82 (2) 958-5207
Email jpark716@kist.re.kr
Google Scholar [Jungjin Park Google Scholar](#)
Linkedin [Linkedin](#)

Life-Long Achievement Summary

Total SCI(E) Papers	1 st &Corresponding Author	Total Citation	H-Index
33	19 (first) / 3 (corresponding)	3284	21

1. Understandings about functionalized porous carbon via scanning transmission x-ray microscopy (STXM) for high sulfur utilization in lithium-sulfur batteries
Nano Energy, 100, 107446 (2022)
2. Fictitious phase separation in Li layered oxides driven by electro-autocatalysis
Nature Materials, 20, 991-999 (2021)
3. Revisiting the strategies for stabilizing lithium metal anodes
Journal of Materials Chemistry A, 8, (28) 13874 (2020)
4. Design of structural and functional nanomaterials for lithium-sulfur batteries
Nano Today, 18, 35 (2018)
5. The Importance of Confined Sulfur Nano-Domains and Adjoining Electron Conductive Pathways in Sub-Reaction Regimes of Li-S Batteries
Advanced Energy Materials, 7, 1700074 (2017)
6. Synchrotron-based X-ray Absorption Spectroscopy for the Electronic Structure of $\text{Li}_x\text{Mn}_{0.8}\text{Fe}_{0.2}\text{PO}_4$ Mesocrystal in Li^+ Batteries
Nano Energy, 31, 495 (2017)
7. Tungsten Disulfide Catalysts Supported on a Carbon Cloth Interlayer for High Performance Li-S Battery
Advanced Energy Materials, 7, 1602567 (2017)
8. Insights on the Delithiation/Lithiation Reactions of $\text{Li}_x\text{Mn}_{0.8}\text{Fe}_{0.2}\text{PO}_4$ Mesocrystal in Li-Ion Batteries by In Situ Techniques
Nano Energy, 3, 42 (2017)
9. Graphene quantum dots: structural integrity and oxygen functional groups for high sulfur/sulfide utilization in lithium sulfur batteries
NPG Asia Materials, 8 (5), e272 (2016)
10. The use of elemental sulfur as an alternative feedstock for polymeric materials
Nature Chemistry, 5, 518 (2013)

Education

Doctor of Philosophy (Ph.D.)

Sep. 2011 – Aug 2015

Seoul National University (SNU), School of Chemical and Biological Engineering,

Seoul, 08826, South Korea

Advisor: Prof. Yung-Eun Sung

Thesis: Improving Electrochemical Performance in Lithium-Sulfur Batteries using Carbonaceous Materials

Master of Science (M.S.)

Sep. 2009 – Aug 2011

Seoul National University (SNU), Department of Material Science and Engineering,

Seoul, 08826, South Korea

Advisor: Prof. Byungwoo Park

Thesis: Development of Nanostructured Platinum/Cerium Phosphate Anode Catalyst for Direct Methanol Fuel Cell

Bachelor of Science (B.S.)

Mar. 2002 – Aug 2008

Hongik University, Department of Electrical and Electronic Engineering,

Seoul, 04066, South Korea

Research Experience

Senior Research Scientist

Oct. 2021 – Present

Korea Institute of Science and Technology (KIST), Energy Storage Research Center,

Seoul, 02792, South Korea

Associate Professor

Mar. 2023 – Present

University of Science and Technology (UST), Division of Energy & Environment Technology,

Seoul, 02792, South Korea

Adjunct Professor

Mar. 2023 – Present

Kyung Hee University, KHU-KIST Department of Converging Science and Technology,

Seoul, 02447, South Korea

Postdoctoral Researcher

Mar. 2018 – Aug. 2021

Stanford University, Department of Materials Science and Engineering,

Stanford CA, 94305, United States

Advisor: Prof. William C. Chueh

SLAC National Accelerator Laboratory, Stanford Institute for Materials and Energy Sciences,

Menlo Park CA, 94305, United States

Postdoctoral Researcher

Sep. 2016 – Feb. 2018

University of California, Berkeley (UCB), Department of Chemical and Biomolecular Engineering

Berkeley, 94720, United States

Advisor: Prof. Elton J. Cairns

Lawrence Berkeley National Laboratory (LBNL), Advanced Light Source (ALS)
Berkeley, 94720, United States

Senior Research Scientist

Sep. 2015 – Aug. 2016

Institute for Basic Science (IBS), Center for Nanoparticle Research, Seoul, 08826, South Korea

Advisor: Prof. Yung-Eun Sung

Research Assistant

Jan. 2012 – Feb. 2012

University of Arizona, Department of Chemistry and Biochemistry, Tucson, 85721, United States

Advisor: Prof. Jeffry Pyun

Research Interests

- **Fields:** Electrochemistry, Inorganic Chemistry, Analytical Chemistry, Materials Chemistry
- **System:** Li-Ion Batteries, Lithium-Sulfur Battery, Lithium Metal Battery, All Solid-State Battery
- **Material Synthesis:** Solid State Reaction, Co-precipitation Reaction, Molten-Salt Reaction, Hydrothermal Reaction, Solvothermal Reaction, Spray Pyrolysis
- **Analysis:** Ex-situ/In-situ/Operando Synchrotron X-ray Spectroscopies and Microscopies
- **Computational Analyses:** Data Driven Diagnostics for the Rechargeable Battery