

# Suk Gyu Lim

#B1.317A, 2105 Comal Street, Austin, TX 78722 ▪ sglim@utexas.edu ▪ (512)-731-2554

## RESEARCH OBJECTIVES

---

My passion lies in utilizing Molecular Dynamics methodology to address challenges within the realm of chemical engineering. I would like to analyze characteristics of electrolytes in rechargeable batteries, especially lithium-ion batteries. Ultimately, my goal is to enhance battery efficiency and to effectively address the significant energy challenges of the contemporary era.

## EDUCATION

---

### Seoul National University (SNU), Seoul, Korea

*Bachelor of Science in Chemical and Biological Engineering*

March 2016 – February 2024

- *Summa cum laude*
- GPA: 3.99 / 4.30

## HONORS & AWARDS

---

### Presidential Science Scholarship

April 2016 – December 2022

Korea Student Aid Foundation (KOSAF)

- Awarded a scholarship that covered full tuition for all 8 semesters and provided additional funding in the form of a \$2,000 stipend per semester

## PUBLICATIONS

---

• Hogeun Chang, Byung Hyo Kim, **Suk Gyu Lim**, Hayeon Baek, Jungwon Park\*, and Taeghwan Hyeon\*. Role of the precursor composition in the synthesis of metal ferrite nanoparticles. *Inorganic Chemistry*, 60(7), 4261-4268. (2021).

• Inae Jang, Aeran Jeon, **Suk Gyu Lim**, Duk Ki Hong, Min Soo Kim, Jae Hyeong Jo, Sang Tak Lee, Bongjin Moon, and Han Bin Oh. Free radical-initiated peptide sequencing mass spectrometry for phosphopeptide post-translational modification analysis. *Journal of The American Society for Mass Spectrometry*, 30(3), 538-547. (2018).

## RESEARCH EXPERIENCE

---

### Wang Materials Group, The University of Texas at Austin

*Graduate Research Assistant*

October 2024 – Present

### Theoretical and Computational Soft Matters Laboratory, Seoul National University

*Undergraduate Intern*

August 2022 – March 2024

- Analyzed the behavior of electrolytes in lithium-ion battery using GROMACS

### Multi-Dimensional Materials Chemistry Laboratory, Seoul National University

*Undergraduate Intern*

August 2020 – February 2022

- Synthesized ternary oxide nanoparticles
- Analyzed synthesized nanoparticles using TEM & MALDI-TOF

## SKILLS AND LANGUAGES

---

**Molecular Dynamics Computation Tools:** GROMACS

**Programming Languages:** C, Python, MATLAB

**Languages:** Native in Korean, Fluent in English

## OTHER ACTIVITIES

---

### Gwacheon National Science Museum

*Social Volunteering Program*

December 2022 – January 2023

- Developed educational programs for children under 12 visiting the science museum

**Republic of Korea Air Force (ROKAF)**

*Staff Sergeant*

July 2018 – June 2020

- Served 22 months at Basic Military Training Wing, Education and Training Command

**Hoyeonjigi(Vast Spirit)**

*SNU School of Chemical and Biological Engineering Computer Club*

July 2016 – July 2018

- Engaged in monthly routine computer room inspections within the department.
- Managed the OS upgrade process, transitioning computers from Windows 7 to Windows 10.