

[SAMPLE] U-LINK CV Form

Basic Information

Full Name	Hong Gil-dong (홍길동)	 Photo 3.5 × 4.5 cm (Formal Attire)
Student ID Number	02XXXXXX	
School	KIST (Korea Institute of Science and Technology)	
Major	Nano-Materials Engineering	
Phone Number	+82-10-0000-0000	
E-mail	hong.gildong@ust.ac.kr	
Linkedin	linkedin.com/in/hong-gildong-nano	

※ You may modify this table to better suit your profile. You can also include a personal website or social media link (e.g., Facebook, GitHub) instead of LinkedIn.

Professional Information

Current Visa Status	D-2 (Student Visa)
Desired Job Role	R&D Engineer / Research Scientist (Materials/Battery)
Target Companies	Samsung SDI, LG Energy Solution, Hyundai Motor Company

Professional Summary

A results-driven materials researcher with 4+ years of experience in solid-state battery technology and nano-materials synthesis. Skilled in multi-scale characterization (XRD, TEM, XPS) and computational modeling. Demonstrated track record of peer-reviewed publications, a filed patent, and a successful technology transfer. Eager to transition into an industry R&D role at a leading Korean energy company to accelerate the commercialization of next-generation battery solutions.

Education

Ph.D. in Nano-Materials EngineeringMar 2022 - Present

University of Science and Technology (UST) — KIST Campus, Seoul, South Korea

- Research Focus: Development of Sulfide-Based Solid Electrolytes for All-Solid-State Lithium Batteries
- GPA: 4.35 / 4.50 | Advisor: Prof. Lee Min-jun

Research Experience

Graduate Research Scientist

Mar 2022 - Present

Center for Energy Storage Research, KIST — Seoul, South Korea

- Developed a scalable wet-chemistry synthesis route for $\text{Li}_6\text{PS}_5\text{Cl}$ solid electrolytes, achieving a 20% improvement in ionic conductivity (2.1 mS/cm at 25°C) over existing baselines.
- Performed multi-scale structural characterization (XRD, SEM, TEM, XPS) to elucidate interfacial degradation mechanisms at the cathode/electrolyte interface.
- Collaborated with LG Energy Solution as part of a government-funded project (#1.2B, 2023–2025) to validate prototype all-solid-state pouch cells.

Work Experience

Junior Process Engineer

Jan 2020 - Feb 2022

NanoTech Materials Co., Ltd. — Suwon, Gyeonggi-do, South Korea

- Managed incoming quality control for anode/cathode active materials, reducing defect rate by 15% through statistical process control (SPC) methods.
- Led a cross-functional team of 4 technicians to deliver a 10 Ah prototype battery pack for a partner company's electric scooter project on schedule.

Skills & Certifications

Technical Skills: Python (NumPy, Pandas, PyTorch for ML-based material prediction), COMSOL Multiphysics, OriginPro, AutoCAD, Advanced Characterization (XRD, SEM, TEM, XPS, EIS)

Certifications & Training: KIRD R&D Project Management (2023) | AWS Cloud Practitioner (2022) | POSTECH Battery Technology Short Course (2021)

Languages

Korean: TOPIK Level 5 — Advanced Business Communication

English: Fluent — TOEIC 920 / TOEFL iBT 105

Native Language: Vietnamese

Publications

- Hong, G., Kim, C., & Lee, M. (2024). "Room-temperature ionic conductivity enhancement in $\text{Li}_6\text{PS}_5\text{Cl}$ via wet-chemistry synthesis." *Journal of Power Sources*, 601, 234-241. <https://doi.org/10.1016/j.jpowsour.2024.00234>
- Hong, G., Park, J., & Lee, M. (2023). "Interfacial stability of Li-metal anodes in sulfide-based solid-state batteries." *Advanced Energy Materials*, 13(12), 2300512. <https://doi.org/10.1002/aenm.202300512>
- Hong, G. (2022). "Computational screening of garnet-type solid electrolytes using machine learning descriptors." *Electrochimica Acta*, 421, 140498. (Co-first author)

Patents

- Lee, M., Hong, G., & Park, J. "Method for Low-Temperature Synthesis of High-Purity Sulfide Solid Electrolytes." Korean Patent Application No. 10-2023-0198432 (Filed: Nov 2023; Under review).
- Lee, M., & Hong, G. "Composite Protective Coating for Lithium Metal Anodes in All-Solid-State Batteries." PCT International Application No. PCT/KR2024/005671 (Filed: May 2024; Designated Countries: US, EU, CN, JP).

Technology Transfer

- "Scalable Wet-Chemistry Synthesis Process for $\text{Li}_6\text{PS}_5\text{Cl}$ Solid Electrolytes" — Exclusive license transferred to EcoBattery Co., Ltd. (Seongnam, Korea). Contract Value: KRW 120,000,000 (upfront) + 3% royalty on net sales. Effective: December 2024. Technology developed at KIST under KIST Project No. 2Z06780.

Books / Book Chapters

- Hong, G., & Lee, M. (2025). "Chapter 5: Sulfide-Based Solid Electrolytes — Synthesis, Properties, and Interfacial Engineering." In S. Park & Y. Cho (Eds.), *Advanced Solid-State Battery Materials* (pp. 103-138). Springer, Cham. ISBN 978-3-031-60012-3.

Awards & Performances

- Best Oral Presentation Award — 2024 International Battery Association (IBA) Conference, Tokyo, Japan (Jun 2024).
- KIST Outstanding Graduate Researcher of the Year — KIST President's Award (Dec 2023). Awarded for top-ranking research performance among 180+ KIST graduate students.

- *National Research Foundation (NRF) Global Ph.D. Fellowship — Full scholarship + monthly stipend (KRW 1,500,000/month), Mar 2022 – Feb 2026.*
- *Finalist (Top 10) — 2024 Korea Deep-Tech Startup Challenge. Proposed a battery electrolyte recycling platform; awarded KRW 5,000,000 seed prize.*
- *Excellence Award — 2023 UST Academic Festival Research Poster Competition (1st place in Engineering Division).*