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Education

- 2025– **Ph.D Student in Mechanical Engineering,**
Korea Advanced Institute of Science and Technology.
Advisor: Prof. Jungchul Lee
- 2023–2025 **Masters of Integrated Energy-AI,**
Jeonbuk National University.
Advisor: Prof. Mohhammad Shaheer Akhtar
- 2017–2022 **Bachelor of Chemical Engineering,**
Hanoi University of Science and Technology.

Research Area

- Crack-free silicon nanoparticles for reliable battery anode materials
- Advanced electrode materials for high-performance lithium-ion battery

Publications

1. **T. Thu Phuong Vu**, M. Thien Phung, M. Shaheer Akhtar, O-Bong Yang.
“Coherent anode based on mesoporous carbon integrated ZnCo_2O_4 composite for efficient lithium-ion batteries” ***Journal of Power Sources*** 655, 237977 (2025). DOI:10.1016/j.jpowsour.2025.237977
2. M. Thien Phung, **T. Thu Phuong Vu**, Seung Beop Lee, Ing Kong, Min Kim, M. Shaheer Akhtar, O-Bong Yang . “Coupling of Ammonium Dihydrogen Phosphate Additives with LiPF_6 Electrolytes for Improving Thermal Stability and Performance of Lithium-Ion Batteries” ***Micromachines*** 16, 9, 966 (2025). DOI:10.3390/mi16090966

Conferences

- Nov. 2024 **Korean Battery Society Fall Conference**, Daejeon
(Poster) **T. Thu Phuong Vu**, M. Shaheer Akhtar, O-Bong Yang,
- Highly Porous ZnCo_2O_4 Nanocubes as Effective Anode for High performance Lithium-Ion Battery

Apr. 2024 **Spring Conference of Korean Institute of Chemical Engineers**, Jeju
(Poster) **T. Thu Phuong Vu**, M. Thien Phung, M. Shaheer Akhtar, O-Bong Yang,
- Synthesis and Characterization of ZnCo_2O_4 @Mesoporous Carbon Composite
for Enhanced Lithium-Ion Battery Performance