

## RESEARCH SUPPORT FUNDING SCHEMES REPORT FORM

DATE: 30 January 2025

**NAME:** Kaye Minkyung Kang

**SCHOOL:-** School of Chemistry

**SCHEME:** Selby Research Award

**PROJECT:-** Nanocatalyst Design for Efficient Hydrogen Production

**REPORT:-** Receiving support from this scheme has been crucial in advancing my research and career development. It has allowed me to explore a new direction in my work, specifically investigating the phase transition of hydrogen in small volumes. This novel approach is essential for overcoming efficiency limitations in hydrogen gas production and aligns with my broader goal of improving nanocatalyst stability and performance.

With this support, I have already made significant progress and am currently preparing a research paper manuscript based on my findings. This contribution will enhance my publication record and strengthen my research profile in the field of electrochemical energy conversion. Additionally, the funding, with a progress in new research, has enabled me to expand my research group by recruiting a postdoctoral research assistant and a PhD student.

This growth not only accelerates project progress but also enhances collaboration and knowledge exchange within the team. Leading a larger group further develops my leadership and mentorship skills, which are essential for my long-term academic career. Furthermore, this support allows me to attend the 11th International Conference on Advanced Materials and Nanotechnology, providing a valuable platform to present my work to a global audience. Engaging with international experts will foster new collaborations, keep me informed of the latest advancements, and position me as a key contributor in the field.