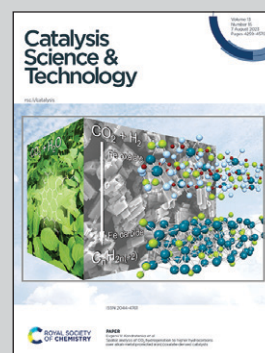


Showcasing research from Professor Jun-Seok Ha's laboratory, School of Chemical Engineering, University of Chonnam National, Gwangju, Korea.

A surface-engineered Si photocathode with synergistic Ni-graphene core-shell for efficient hydrogen evolution

In this collaborative research work Prof. Jun-Seok Ha, Prof. Sang Hyun Lee, and co-workers from Chonnam National University reported the successful fabrication of a highly efficient p-Si/Ni-Gr Core-Shell photocathode toward hydrogen generation in acidic media. The photocathode comprises a Ni particle as the core and a high-quality Gr monolayer as the shell. The surface engineering of silicon with Ni-Gr ore-shell revealed synergistic effects to enhance the PEC water-splitting efficiencies. This work paves the way for the development of cutting-edge photocathodes to design highly efficient solar-driven water-splitting systems.

As featured in:



See Sang Hyun Lee, Jun-Seok Ha *et al.*, *Catal. Sci. Technol.*, 2023, **13**, 4378.