



Showcasing research from Dr. Kyung Joong Yoon's laboratory, Korea Institute of Science and Technology and Prof. Jongsup Hong's laboratory, Yonsei University.

Atomically dispersed platinum electrocatalysts supported on gadolinia-doped ceria nanoparticles for practical high-temperature solid oxide cells

We report atomically dispersed Pt catalysts that are active and stable in high-temperature electrochemical devices operating above 600 °C. Our urea-based chemical synthetic method strongly anchors atomic-scale Pt species on the surface of ceria nanoparticles. This process enables *in situ* synthesis within the porous electrode and significantly improves performance. Furthermore, this electrode stably operated without noticeable degradation, thus proving the excellent thermal stability of atomically dispersed Pt/ceria catalysts.

As featured in:



See Jongsup Hong, Kyung Joong Yoon *et al.*, *J. Mater. Chem. A*, 2023, **11**, 25298.