



Showcasing research from Prof. Yuichi Negishi's laboratory, Tokyo University of Science, Japan.

Simple and high-yield preparation of carbon-black-supported ~1 nm platinum nanoclusters and their oxygen reduction reactivity

This work established a simple method for the size-selective synthesis of a series of ligand-protected platinum nanoclusters with ~1 nm particle size (~1 nm Pt_n NCs) and narrow size distribution under atmospheric conditions. Each ligand-protected ~1 nm Pt NC was adsorbed on carbon black (CB) and then most of the ligands were removed from the surface of the Pt NCs. The obtained ~1 nm Pt_n NCs/CB exhibited higher oxygen reduction reaction mass activities than that of commercial CB supported-Pt nanoparticles and also displayed high durability.

As featured in:



See Yuichi Negishi *et al.*, *Nanoscale*, 2021, 13, 14679.