



## TECHNOLOGY

# Heteroaggregate Nanoparticles for Heterogeneous Catalysis

## OVERVIEW

Hydrocarbon (HC) fuels are currently the source for producing the majority of commercial hydrogen. Hydrogen produced from HC fuel sources contains relatively high levels of carbon monoxide (CO) impurities that can interfere with its use as a fuel in Proton-Exchange Membrane fuel cell applications.

University of Maryland researchers are believed to be the first to have invented a nanoparticle architecture with unique catalytic activity. The state of the art catalyst is more efficient at activating hydrogen in the presence of CO contaminants and the catalyst simultaneously oxidizes CO to carbon dioxide. No other catalyst reported to date exhibits such dual-purpose efficiency. This novel nanoparticle can potentially be used as a superior anode catalyst for hydrogen fuel cells.

## CONTACT INFO

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## Additional Information

### INSTITUTION

University of Maryland, College Park

### PATENT STATUS

Patent(s) pending

### LICENSE STATUS

Contact OTC for licensing information

### CATEGORIES

- Nanotechnology + Nanoparticles + Nanomaterials

### EXTERNAL RESOURCES

- [US Patent 8,038,763](#)

PS-2005-109