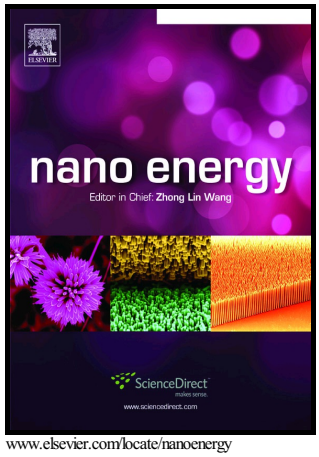

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Highly active nanostructured palladium-ceria electrocatalysts for the hydrogen oxidation reaction in alkaline medium☆

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Abstract

We report an interesting new class of bifunctional electrocatalysts, Pd/C-CeO_2, with excellent activity and stability for the hydrogen oxidation reaction (HOR) under alkaline conditions. The unique structure of palladium deposited onto a mixed support of Vulcan XC-72 carbon and CeO_2 consists of Pd metal preferable deposited on the ceria regions of the catalyst. The CeO_2-Pd interaction leads to enhanced HOR kinetics and increased stability. Here we compare catalysts with three different Pd loadings and show that the 10 wt% Pd sample has optimized activity. Hydrogen

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