Determination of Core-Shell Structures in Pd-Hg Nanoparticles by STEM-EDX

The structural and elemental configuration of a high-performing Pd-Hg electrocatalyst for oxygen reduction to hydrogen peroxide has been studied by means of high-resolution scanning transmission electron microscopy. Pd-Hg nanoparticles are shown to have a crystalline core-shell structure, with a Pd core and a Pd-Hg ordered alloy shell. The ordered shell is responsible for the high oxygen reduction selectivity to $\text{H}_2\text{O}_2$.

General information
Publication status: Published
Organisations: Center for Electron Nanoscopy, Department of Physics, Experimental Surface and Nanomaterials Physics
Number of pages: 5
Pages: 3748-3752
Publication date: 2015
Peer-reviewed: Yes

Publication information
Journal: ChemCatChem
Volume: 7
Issue number: 22
ISSN (Print): 1867-3880
Ratings:
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 4.57 SJR 1.731 SNIP 1.007
Web of Science (2015): Impact factor 4.724
Web of Science (2015): Indexed yes
Original language: English
DOIs:
10.1002/cctc.201500791
Source: FindIt
Source ID: 2287055936
Research output: Contribution to journal ➔ Journal article – Annual report year: 2015 ➔ Research ➔ peer-review