

Determination of Core-Shell Structures in Pd-Hg Nanoparticles by STEM-EDX - DTU Orbit (08/11/2017)

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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 H₂O₂.

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