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Titel des Beitrags:
Adsorbate-Induced Surface Segregation for Core-Shell Nanocatalysts

Abstract:
Coming to the surface: The surface compn. of carbon-supported Pt3Co catalyst particles changes upon a CO-annealing treatment. Platinum atoms segregate to the particle surface so that nanoparticles with a platinum shell surrounding an alloy core are formed. This modified catalyst has a superior activity in the oxygen redn. reaction compared to both a plain platinum catalyst and the untreated alloy particles. [on SciFinder(R)]

Stichworte:
Adsorbed substances Annealing Controlled atmospheres Cyclic voltammetry Nanoparticles Reduction Surface composition Surface segregation (adsorbate-induced surface segregation for core-shell nanocatalysts) Electric potential (at electrode surface, indicative of surface compn. adsorbate-induced surface segregation for core-shell nanocatalysts) Catalysts (electrocatalysts adsorbate-induced surface segregation for core-shell nanocatalysts) Fuel cell cathodes (materials for adsorbate-induced surface segregation for core-shell nanocatalysts) Electric current-potential relationship (of electrode behavior adsorbate-induced surface segregation for core-shell nanocatalysts) adsorbate surface segregation core shell nanocatalyst fuel cell cathode platinum cobalt compd electrocatalyst cathode annealing surface segregation

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