Alloys of Pt with other transition metals are a promising class of fuel cell cathode catalysts. In the present work it is shown that the surface compn. of high surface area Pt3Co electrocatalysts can be changed in situ by means of different electrochem. treatments. Surface segregation is detected by cyclic voltammetry in base electrolyte where the Pt alloy is stable and specific peaks reflect the surface compn. During CO annealing Pt surface segregation takes place and Co atoms disappear from the surface. Contrary, by cycling in Ar satd. soln. to high potentials the inverse process takes place and Co atoms re-emerge on the surface, an effect of high importance considering the stability of alloy electrocatalysts in acidic PEM fuel cells. [on SciFinder(R)]
http://doi.org/10.1149/1.3210606

Occurences:
- Einrichtungen > Fakultäten > Fakultät für Chemie > Department Chemie > Lehrstuhl für Physikalische Chemie (Prof. Heiz) > current_papers > Arbeitsgruppe Physikalische Chemie (Prof. Heiz) > from_2004 [1342628] > 2009

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