

Electrocatalytic Oxidation of Formic Acid in Acid Medium at Pd Electrodeposited onto TiO₂ Nanotubes

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TiO₂ nanotubes were electrolytically formed on a Ti surface after which Pd was electrodeposited for different times. The electrodes thus produced were evaluated for the HCOOH electro-oxidation in an acid aqueous solution. It is shown that the HCOOH oxidation current density varies as a function of the Pd electrodeposition time. The best performing electrode was that achieved after 1200 seconds Pd electrodeposition.

Keywords: Palladium; TiO₂ nanotubes; formic acid; oxidation.

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