Electrocatalytic Oxidation of Formic Acid in Acid Medium at Pd Electrodeposited onto TiO$_2$ Nanotubes

J. Aldana-González$^{1,2}$, J. Uruchurtu-Chavarin$^2$, M. G. Montes de Oca$^1$, M. T. Ramírez-Silva$^3$, M. Palomar-Pardavé$^1$, M. Romero-Romo$^{1,*}$

$^1$Universidad Autónoma Metropolitana Azcapotzalco. Departamento de Materiales, Av. San Pablo #180, Col. Reynosa-Tamaulipas, CDMX, C.P. 02200, Mexico
$^2$Universidad Autónoma del Estado de Morelos. CIICAP. Av. Universidad No. 1001, Col. Chamilpa, Cuernavaca. C.P. 62209, Morelos, México.
$^3$Universidad Autónoma Metropolitana-Iztapalapa, Departamento de Química, Av. San Rafael Atlixco #186, Col. Vicentina, CDMX, C.P. 09340, Mexico

$^*$E-mail: mmrr@correo.azc.uam.mx

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TiO$_2$ 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; TiO$_2$ nanotubes; formic acid; oxidation.

FULL TEXT

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