



SEMINAR

Monday, 4.11.2019 at 13:00

Kolar's lecture hall

The voltammetric behaviour of Ni nanowires electrodes in KOH and their application in the electrocatalytic oxidation of formaldehyde

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ABSTRACT

Highly ordered modified Ni-nanowires-based electrodes were electrochemically fabricated/modified and tested for formaldehyde (HCHO) detection by monitoring their catalytic ability in alkaline media. The electrochemical transformation of the Ni-nanowire surfaces was performed in the KOH-modification process (potential cycling) by changing the scan rate (0–400 mV s⁻¹). The improved catalytic activity of Ni nanowires electrode modified at scan rate 200 mV s⁻¹ towards HCHO was attributed to the small work function of surface Ni(OH)₂/NiOOH, due to electron doping from under the layered Ni.

Kindly invited.