Short Communication

Electrochemical Study of the Oxygen Evolution Reaction on MoNi/Carbon Fibre Electrode in 0.1 M NaOH

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The oxygen evolution reaction (OER) was investigated on pure carbon fibre CF and MoNi/CF tow electrodes in 0.1 M NaOH electrolyte at room temperature. MoNi alloy modification of CF was carried-out by electrodeposition in an electrolytic bath. The OER activity of both catalyst materials was examined by means of a.c. impedance spectroscopy and Tafel polarization techniques. The deposition of MoNi alloy on the CF material was evidenced by energy dispersive X-ray (EDX) spectroscopy; additionally, its presence had a significant influence on the recorded electrochemical parameters, such as charge-transfer resistance and exchange-current density.

Keywords: Carbon fibre; CF; MoNi alloy; impedance spectroscopy; OER

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