

# **FACILE SYNTHESIS OF HIGH PERFORMANCE PLATINUM-PRASEODYMIUM OXIDE NANOCATALYSTS FOR METHANOL OXIDATION**

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Electrooxidation of methanol has been studied intensively in the scientific community, and various catalysts have been developed for direct methanol fuel cells.

In this study, platinum-praseodymium oxide nanoparticles have been synthesised, exhibiting high activity towards methanol electrooxidation. The materials were characterised using electrochemical and physical characterisation methods.

Even at low platinum loadings, the materials have a lower overpotential towards methanol oxidation than commercial Pt-Vulcan catalysts. High currents for methanol oxidation were achieved. The stability of the synthesised catalysts was very good.

The good results of the study are a continuation of the investigation of nanocatalysts containing rare earth metal oxides as efficient methanol electrooxidation co-catalysts.

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