

PREPARATION AND ELECTROCHEMICAL ANALYSIS OF NITROGEN-DOPED GRAPHENE
SUPPORTED PT NANOCOMPOSITES FOR METHANOL ELECTROCATALYTIC
OXIDATION

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In this study, nitrogen-doped graphene (NG) was prepared via pyrolysis of graphene oxide with a solid nitrogen precursor such as melamine, which are low-cost and being manufactured in large quantities. Subsequently, In order to prepare a conductive support on the anode of fuel cells, pt nanoparticles were deposited on the surface of the resultant NG. The structure and morphology of the composites were examined by scanning electron microscopy (SEM). Electrochemical properties were characterized by cyclic voltammetry (CV). The Pt/NG catalysts showed a high catalytic activity for methanol oxidation reaction (MOR) than Pt/GO. The nitrogen doping of graphene can lead to that uniform dispersion and reduce metal particle size by generating nitrogen-doped graphene interactions.