

### Influence of Support Type and Pt loading on the Aqueous-Phase Reforming of Ethylene Glycol

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The effect of support type on the production of hydrogen from an ethylene glycol solution by aqueous phase reforming (APR) process over supported platinum catalysts was studied. Catalysts were characterized by X-ray powder diffraction (XRD), transmission electron microscopy (TEM), N<sub>2</sub>-sorption, and CO chemisorption techniques. Of a variety of catalysts tested, the mesoporous carbon supported catalyst has the best performance for both hydrogen production and carbon conversion to gas. After reaction, the MC supported catalyst was still maintained the textural properties such as the mesoporous structure and porosity. In further investigations, the influence of platinum loading was studied. The rate of hydrogen production and hydrogen yield were gradually increased with Pt loading by 7 wt.% having no significant change after there.