

### A Comparative Study of Reforming Catalysts for Solid Oxide Fuel Cell

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The investigation was a comparison on catalytic activities of commercial catalysts for steam-methane reforming, which is to apply to a reformer in Solid Oxide Fuel Cell system. For steam-reforming, usually Ni or the noble metals Ru, Rh, Pd, Ir, Pt are used as the active metal in catalysts. In this study, commercial catalysts FCR-4, FCR-4-02, RUA including Ni or Ru were tested on their activities under several reaction conditions such as steam to carbon ratio, space velocity and temperature. And their methane conversions and rates of hydrogen production were measured and calculated. In order to find out what is relevant between the activity and chemical/physical property, characterizations for the catalysts were conducted. The comparison work on long-term stability as well as reforming using city gas was added.