

Effect of ceria on Rh/CeO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> catalyst for autothermal reforming of iso-octane

정연규, 양세일, 장성철, 이창하<sup>1</sup>, 남석우, 최대기\*  
KIST; <sup>1</sup>연세대학교  
(dkchoi@kist.re.kr\*)

Hydrogen is abundantly available from various hydrocarbons and water in the universe. Hydrogen can be cleanly and efficiently transformed into electricity power by application in Polymer electrolyte membrane fuel cell (PEMFC) and Solid oxide fuel cell (SOFC). Among the hydrocarbon fuels, liquid fuel have a number of advantages which are high volumetric and gravimetric hydrogen density, low start-up cost and ease handling. In this study, the autothermal reforming of iso-octane was carried out using Rh/CeO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> catalyst. At this time, the test was performed by changing contents of CeO<sub>2</sub> from 10 wt.% to 40 wt.%.