

## Methane Reforming with Catalytic Combustion in Micro Heat Exchanger

이승재\*, 정남조, 유인수, 김희연, 강성규, 송광섭  
한국에너지기술연구원  
(seungjae@kier.re.kr\*)

Micro heat exchanger was built by brazing stainless steel foils with microchannels. One of two flow paths was washcoated with a mixture of Pd/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub> powder and alumina sol for methane combustion. Also, the other flow path was washcoated with Pt/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub> powder and alumina sol for methane reforming. This work demonstrates that the heat of methane combustion could be supplied into the highly endothermic reforming reaction.