

Pd loading effect in micro reactor for methanol reforming

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Micro-channel reactor for steam reforming of methanol seems to be attractive for portable application as one part of fuel processor in fuel cell. In the present study, steam reforming of methanol was performed in one stainless steel micro-channel reactor coated with commercial catalyst. and to investigate the effect of Pd, Pd particles from 0.1wt% to 1wt% were dispersed on the commercial catalyst by impregnation method. The different sols (mixed sol of alumina and zirconia) as a binder to attach the catalyst on the stainless plate were applied. the stability and performance was compared with prepared and commercial catalysts.. Among them, prepared catalyst with commercial catalyst comparatively showed better stability and performance at relatively low temperature(<260°C)