

### Dry reforming of methane to synthesis gas over activated carbon

이승철, 한귀영\*  
성균관대학교  
(gyhan@skku.edu\*)

The dry reforming of methane, respectively, is promising alternatives to industrial steam methane reforming. In this study, the catalytic activity and kinetic behavior of catalytic reforming of methane with carbon dioxide over activated carbon were investigated as a function of reaction temperature and partial pressure of methane and carbon dioxide. Activated carbon was employed as the catalyst to examine the reaction activity. The  $\text{CH}_4$  and  $\text{CO}_2$  conversion were greatly influenced by the reaction temperature in the range of 1,073 ~ 1,223 K. The reaction rate of methane and carbon dioxide was affected significantly by the partial pressure. The deactivation patterns were similar to the decomposition of methane over activated carbon.