Study of Mixed Gas Diesel Reforming using Hydrogen Production Catalyst System under Hard conditions

황주순, 전유권, 송현우, 송순호, 설용건†
연세대학교
(shulyg@yonsei.ac.kr†)

There are several mechanisms already known for producing hydrogen from reforming of hydrocarbon fuels such as steam reforming, partial oxidation and autothermal reforming. However, recently, situations arise where these methods are hard to implement, also data for reforming operation on these conditions is insufficient. Exhaust gas diesel reforming which we research is one of them. Exhaust gas contain various gases such as O2, CO2, H2O and temperature of 200 to 600℃. Compared with general fuel reforming, the operation condition of Diesel Reforming using exhaust gas are burdening due to several reasons such as lower temperature, rapid gas flow, carbon coking, catalyst. We observed diesel reforming operated on these conditions using commercial Ni as a catalyst, researched new catalyst systems for promotion.