

The Effect of Additive Materials for SR of Mixed Hydrocarbon over Hydrotalcite like Ni-based Catalysts

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In this work, we report the high and stable performance of Ni/MgAl catalyst modified by various additive materials for the steam reforming of mixed hydrocarbon. The prepared catalysts were characterized by BET, TPR, XRD, TEM & SEM. The catalytic steam reforming of mixed hydrocarbon was performed under the condition of S/C = 1.0 ~ 2.0, GHSV = 20,000h⁻¹ and temperature = 600 ~ 850 °C in a fixed bed reactor system. It is found that the catalyst displayed a clearly small size of Ni metal particles and well dispersion on the surface. It was found that the prepared catalyst showed high catalytic stability under the tested conditions.