Effect of particle size on catalystic performance for combined steam carbon dioxide reforming

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The purpose of present work is to study the effects of catalyst particle on catalyst activity. Ni, Fe and Ce were prepared by impregnation method on 3x3 and 3x5 cylinder pellets. Activity test was conducted at 900℃, 20 bar with increasing GHSV. The results showed that the conversion of 3x3 cylinder pellet was higher than 3x5 cylinder pellet at every GHSV owing to the larger geometric active area for catalyst reaction. The effect of different catalyst particle size on activity was enhanced along with increasing GHSV.