

Modified Ni-MnO/Al₂O₃ Catalyst as Application for Dry Reforming of Methane

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Recently, global warming problem due to greenhouse gases has been paid considerable attention. Since industrial revolution, many industries have used fossil fuel and emitted CO₂ and other gases. Dry reforming of methane is one of promising method to convert carbon dioxide because product of reforming process is syngas which is very useful to produce methanol or hydrocarbon.

Nickel is the most expected metal for dry reforming catalyst owing to their low price and high activity but there are several demerits exist to overcome. One of the most serious problems is low stability which is caused by carbon deposition on nickel surface. Ni-Mn/Al₂O₃ is already reported a stable catalyst for dry reforming of methane. In this work we modified several synthesis conditions and composition of catalyst to increase their own activity and stability. BET, XRD, SEM and ICP were investigated to check their properties.