

Carbon dioxide Reforming of Methane over modified Ni-MnO/Al₂O₃

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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 promising metal for reforming catalyst to replace noble metal 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-MnO/Al₂O₃ is already reported in our lab as a stable catalyst for dry reforming of methane. In this work we modified several synthesis conditions of Ni-MnO/Al₂O₃ catalyst to increase their own activity and stability.