

A study on Me-Ce_{0.6}Zr_{0.4}O₂ (Me=Ni, Cu, Co, Mo) catalysts for deoxygenation reaction

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Ce_{0.6}Zr_{0.4}O₂ supported transition metal (Ni, Cu, Co, Mo) catalysts have been investigated to screen the catalytic activity/selectivity for deoxygenation (DO) reaction of oleic acid. Me-Ce_{0.6}Zr_{0.4}O₂ catalysts were prepared by a co-precipitation method. As a result, Ni-Ce_{0.6}Zr_{0.4}O₂ showed much higher oleic acid conversion and C₉ ~ C₁₇ selectivity than the others. This is due to free NiO species and the synergy effect of nickel and Ce_{0.6}Zr_{0.4}O₂.