Supplementary Materials: Catalytic Performance of Metal Oxides Promoted Nickel Catalysts Supported on Mesoporous γ-Alumina in Dry Reforming of Methane

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X-ray diffraction (XRD)

The powder X-ray diffraction (XRD) technique was used to explore the phase composition of the prepared samples. The phases present were identified with the aid of standard powder XRD cards (JCPDS). The strong diffraction lines appeared at 2θ = 37°, 46°, and 67° were due to reflection from (311), (200) and (220) plans of cubic gamma aluminum oxide phase (JCPDS card Nos: 01-080-0955 and 01-075-0921). No peaks of the promoter were found which indicated its good dispersion. However, after the addition of promoter, the peak intensity of gamma aluminum oxide was found to increase.

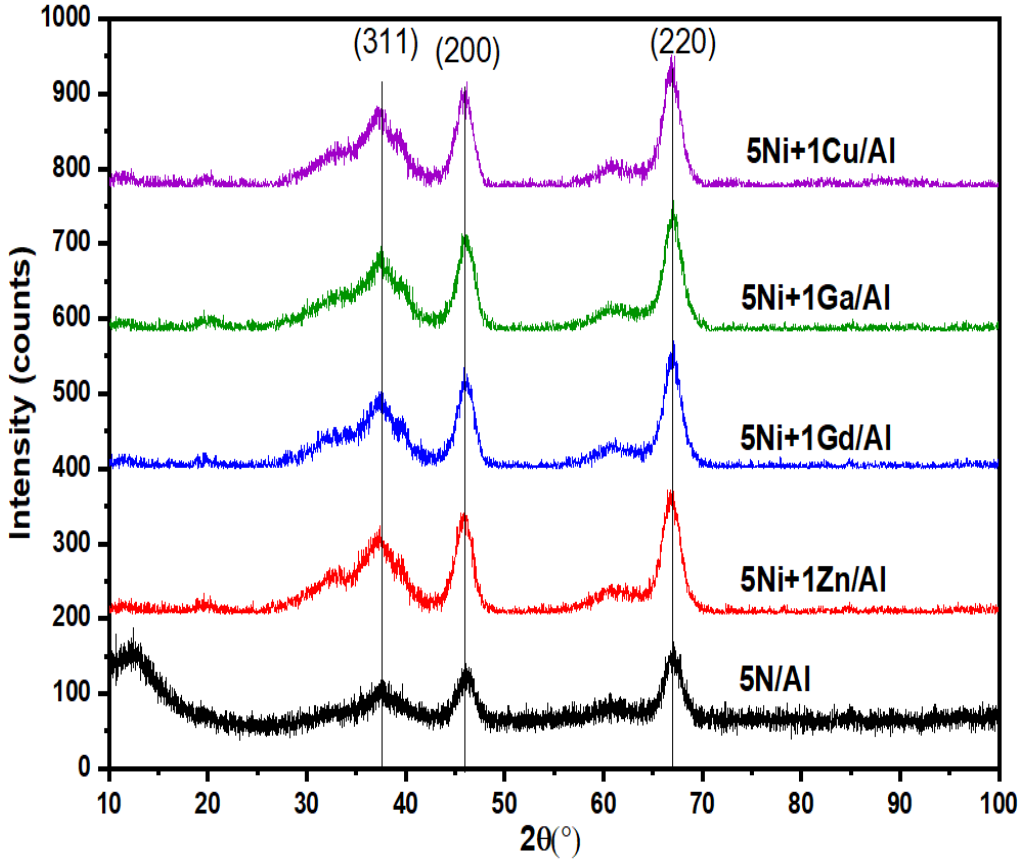

Figure S1: XRD patterns of the non-prompted and the promoted catalysts.