catalysts

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Supplementary Materials

Influence of Ni on Fe and Co-Fe based Catalysts for High-Calorific Synthetic Natural Gas

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Table S1. CO conversion and selectivity with Fe-Ni and Co-Fe-Ni catalysts at a reaction time of 10 h.

Catalyst	CO conv. (%)	Selectivity (%)			
		CH_4	C_2-C_4	C_{5+}	CO_2
20Fe	54 ± 0.4	21.8 ± 0.2	26.6 ± 0.4	26.2 ± 0.2	25.4 ± 0.3
15Fe-5Ni	100 ± 0.1	65.1 ± 0.5	15.4 ± 0.2	4.8 ± 0.3	14.7 ± 0.2
10Fe-10Ni	100 ± 0.1	96.6 ± 0.4	0.2 ± 0.1	0.0	3.2 ± 0.4
20Ni	91.5 ± 0.3	77.1 ± 0.3	8.6 ± 0.1	9.4 ± 0.1	4.9 ± 0.2
5Co-15Fe	91.5 ± 1.0	23.5 ± 0.7	28.2 ± 0.6	26.0 ± 1.6	22.3 ± 0.4
5Co-15Fe-2Ni	98.3 ± 0.2	38.9 ± 0.2	22.3 ± 0.6	15.1 ± 0.7	23.6 ± 0.2
5Co-15Fe-5Ni	99.9 ± 0.1	51.9 ± 0.1	21.9 ± 0.2	14.1 ± 0.3	12.1 ± 0.2

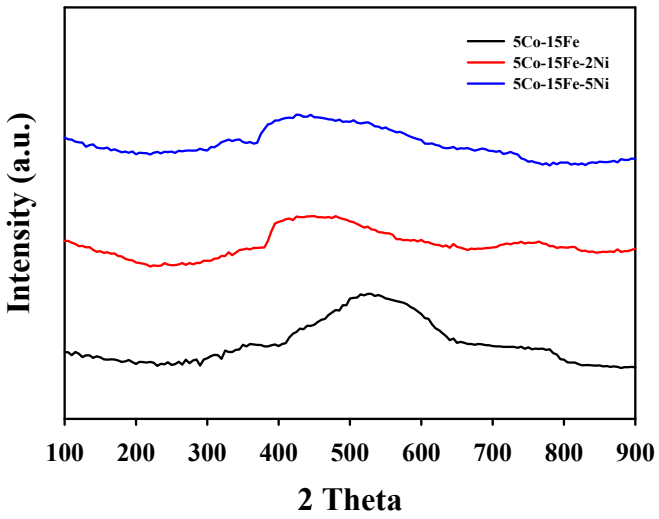

Figure S1. H2-TPR profiles of the Co-Fe and Co-Fe-Ni catalysts.

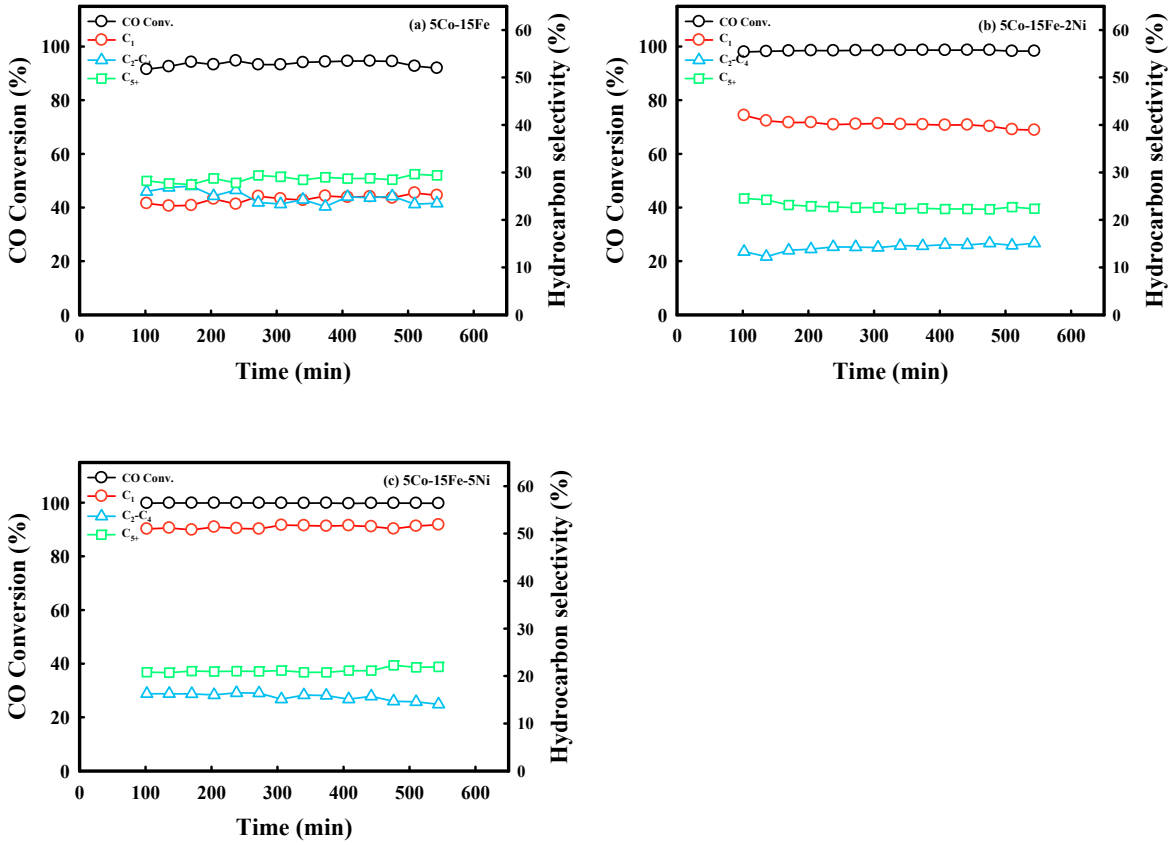

Figure S2. The CO conversion and hydrocarbon selectivity over Co-Fe and Co-Fe-Ni catalysts (**a**–**c**) as a function of time on stream.