Supporting Information

Interaction between CO and a Coke-Resistant NiIn/SiO_2 Methane Dry Reforming Catalyst: A DRIFTS and CO Pulse Study

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Content: Table S1, Figure S1 and Figure S2.

Table S1

Suggested main assignments of carbonyl bands observed during DRIFTS studies

on Ni/SiO_2	**on NiIn/SiO_2**
2087 cm^{-1} linear di- or tricarbonyls on low-coordinated Ni^o atoms of highly dispersed particles	2075 cm^{-1} linear di- or tricarbonyls bonded on low-coordinated Ni^o atoms with In atoms in close vicinity
2050 cm^{-1} linearly adsorbed CO on Ni^o (high surface coverage)/physisorbed $Ni(CO)_4$	2050 cm^{-1} linearly adsorbed CO on Ni^o (high surface coverage)
2040 cm^{-1} linearly adsorbed CO on Ni^o (low surface coverage)	2035 cm^{-1} linearly adsorbed CO (low surface coverage) on Ni^o surrounded by less In atoms
	2020-2010 cm^{-1} linearly adsorbed CO (high-low surface coverage) on Ni^o surrounded by many In atoms
1940 cm^{-1}-1820 cm^{-1} bridge or multiply-bonded CO on Ni on low index planes	

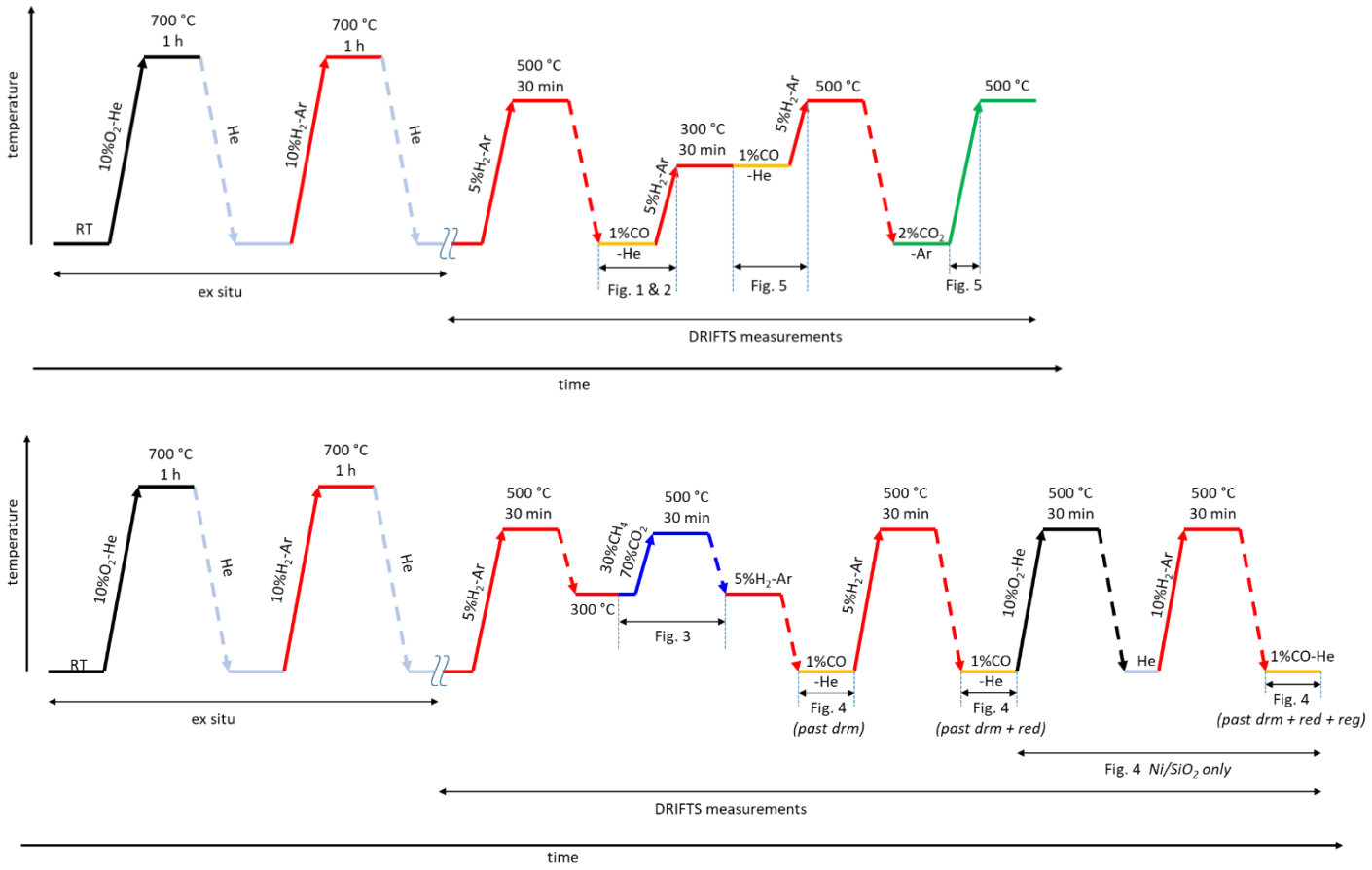

Figure S1. Scheme of individual experimental steps of DRIFTS studies

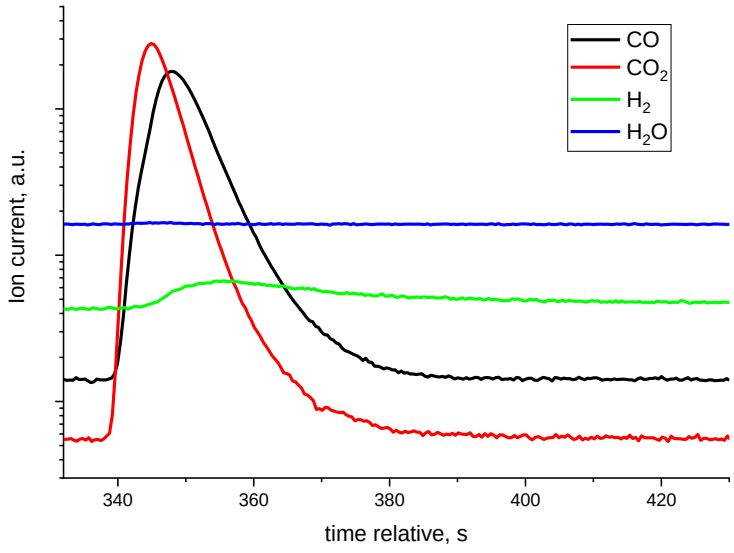

Figure S2. First pulse of the CO pulse-flow experiments on the NiIn/SiO_2 catalyst detected by MS.