Supplementary Materials

Nano-Ru supported on Ni nanowires for lowtemperature carbon dioxide methanation

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Figure S1 Positive TOF-SIMS spectra obtained from sample 1 before (blue) and 2 after (red) process presented in narrowed mass range (a) 5-40 u (b) 40-80 u, (c) 80-145 u. The coincidental cover of some Ni and carbon species is possible, e.g., O-CO₂⁺ (m/z=60) and ⁶⁰Ni⁺ (m/z=60).

Figure S2 Negative TOF-SIMS spectra obtained from sample before (blue) and after (red) process presented in narrowed mass range (a) 5-40 u , (b) 40-80 u, (c) 80-151 u.





0.2 0.4 0.6 0.8 x10⁵





110

120

130

140 Mass (u)

100

90

A



B



Figure S2 Negative TOF-SIMS spectra obtained from sample before (blue) and after (red) process presented in narrowed mass range (**A**) 5-40 u , (**B**) 40-80 u, (**C**) 80-151 u.

A