

Supplementary information:

## Carbon supported catalysts in low temperature steam reforming of ethanol: Study of catalyst performance

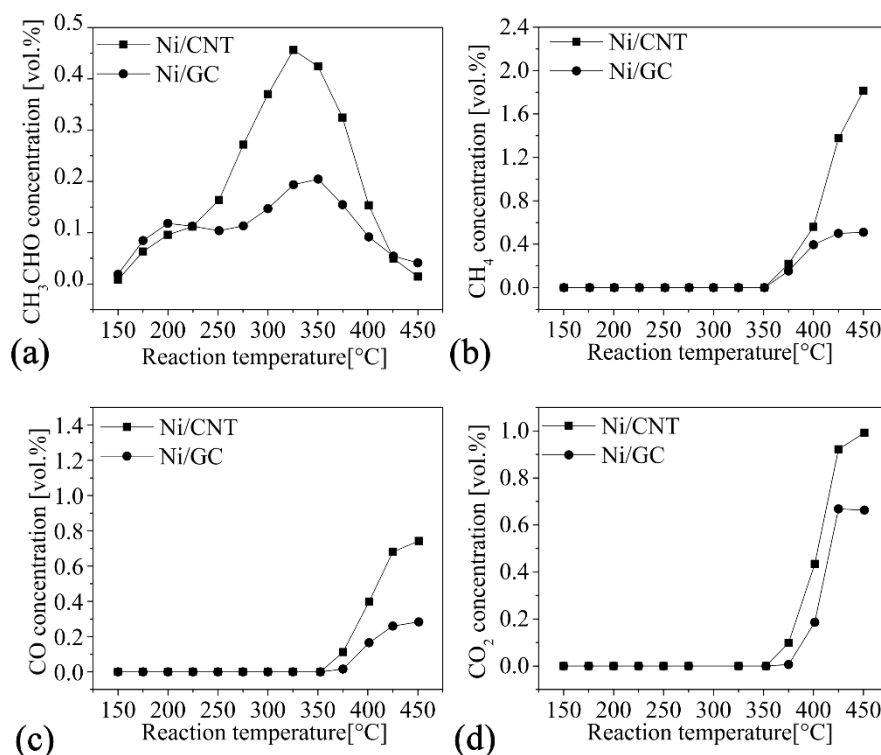
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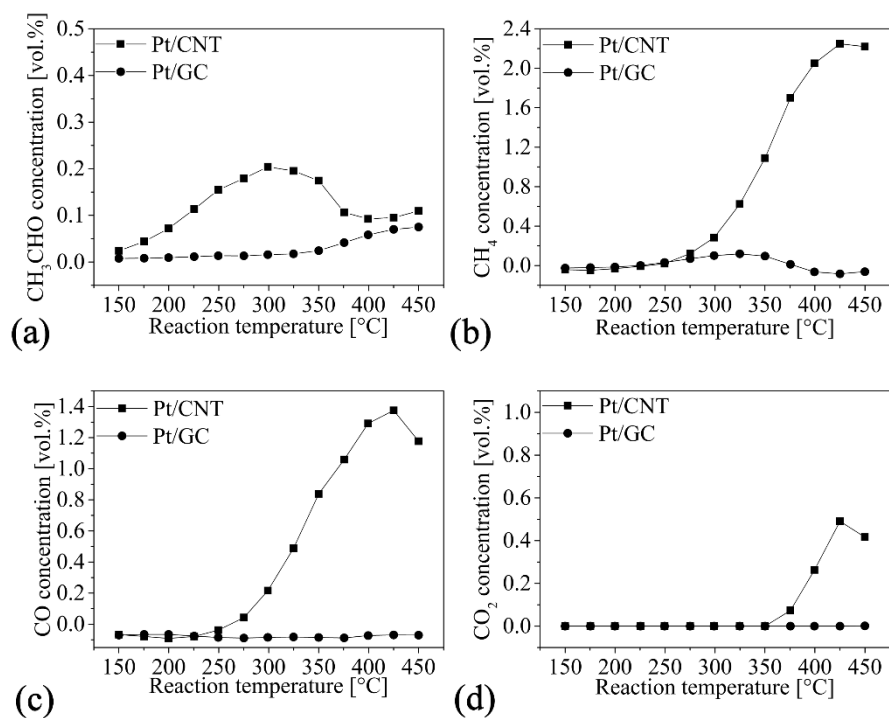
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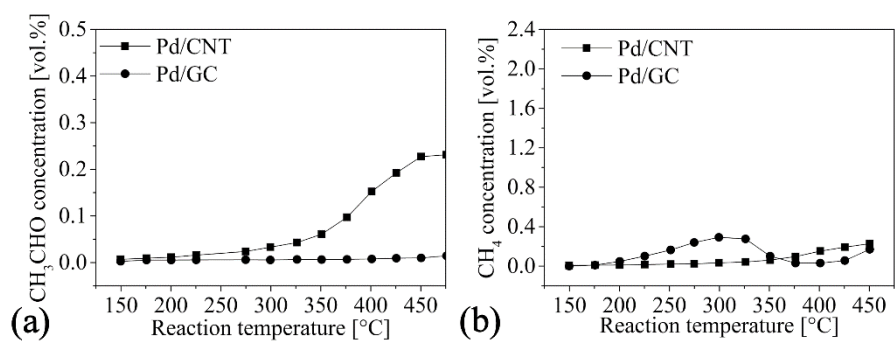


**Figure S1** The concentrations (vol.%) of minor products formed over Ni supported catalysts (Ni/CNT and Ni/GC) in SRE reaction: (a) CH<sub>3</sub>CHO, (b) CH<sub>4</sub>, (c) CO and (d) CO<sub>2</sub>.

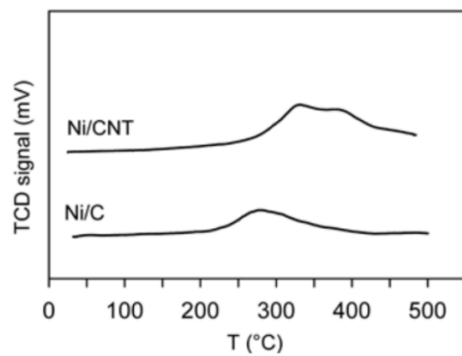
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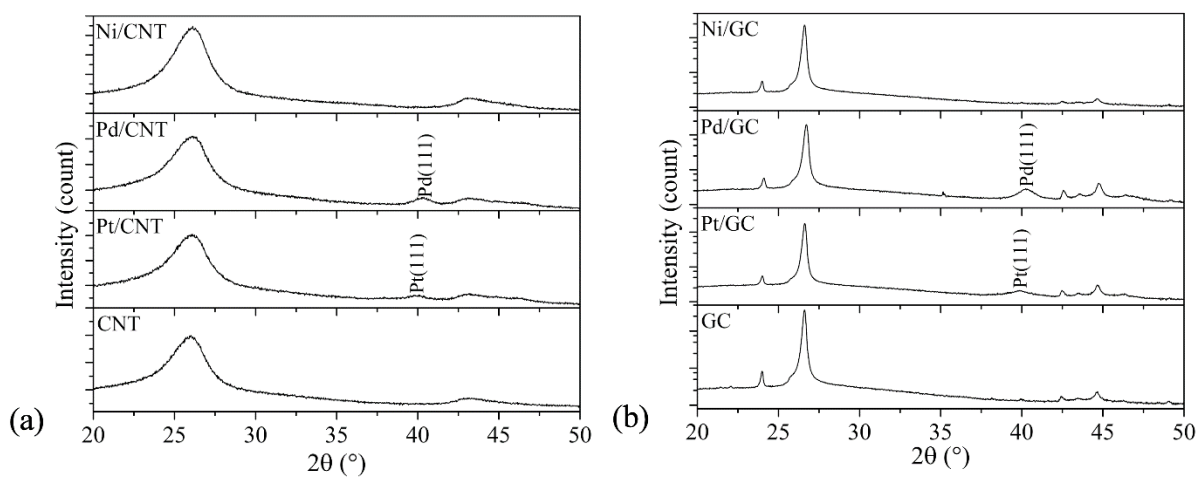
**Figure S2** The concentrations (vol.%) of minor products formed over Pt supported catalysts (Pt/CNT and Pt/GC) in SRE reaction: (a)  $\text{CH}_3\text{CHO}$ , (b)  $\text{CH}_4$ , (c)  $\text{CO}$  and (d)  $\text{CO}_2$ .



**Figure S3** The concentrations (vol.%) of minor products formed over Pd supported catalysts (Pd/CNT and Pd/GC) in SRE reaction: (a)  $\text{CH}_3\text{CHO}$  and (b)  $\text{CH}_4$ .



**Figure S4** TPR-H<sub>2</sub> profiles of Ni doped carbon-based catalysts.



**Figure S5** XRD patterns recorded to catalyst materials and their supports. (XRD patterns: Pt: 00-004-0802; Pd: 00-046-1043.)