# Selective Hydrogenation of Furfural for High-value Chemicals:

# Effect of Catalysts and Temperature

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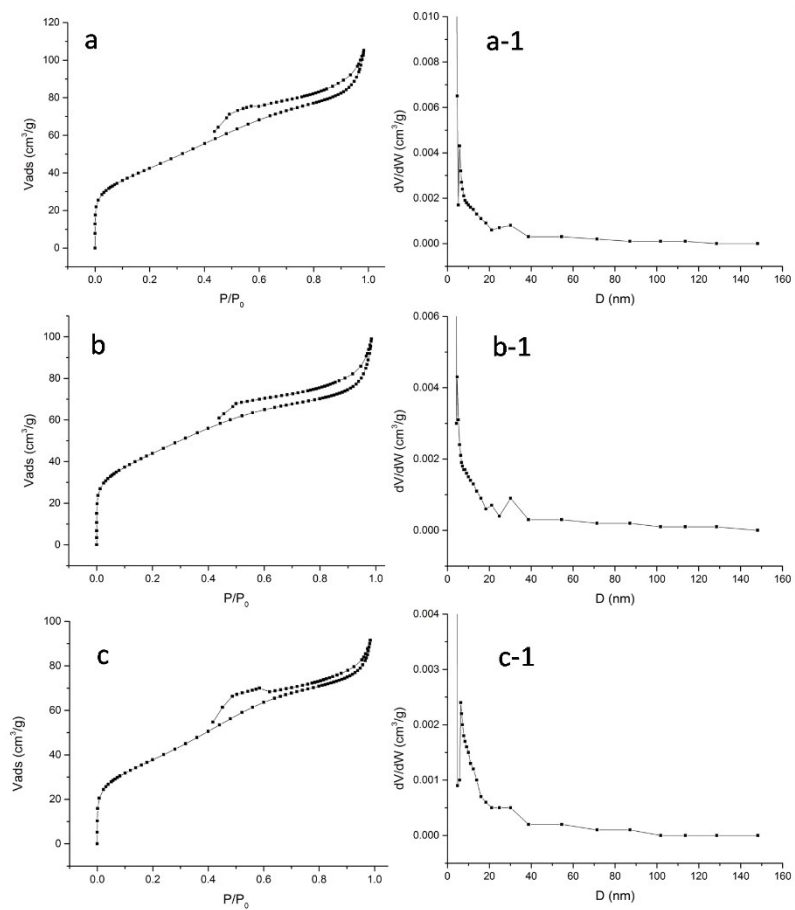†These authors contributed equally: Haihong Xia and Changzhou Chen

Figure S1. N$_2$ adsorption isotherms (a), Ni3Co1@C, (b) Ni2Co1@C, (c) Ni1Co1@C and pore-size distributions (a-1), Ni3Co1@C, (b-1) Ni2Co1@C, (c-1) Ni1Co1@C
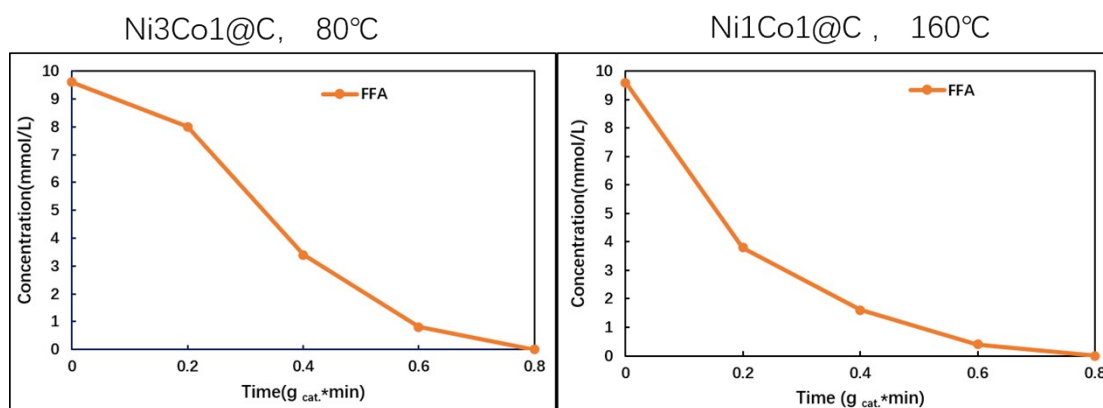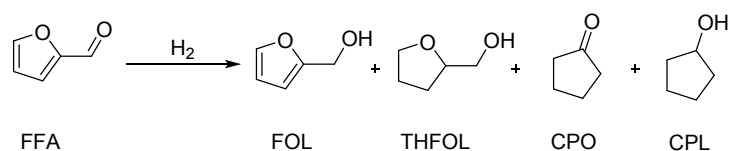
Fig S2. Concentration profiles for FFA hydrogenation.



FFA          FOL          THFOL          CPO          CPL

Table S1. Optimization of different catalysts of FFA hydrogenation

| Entry | T(℃) | Cat. | Initial reaction rate [a] (mmol/g$_{cat*}$min) | TOF(min$^{-1}$) | FOL Yield(%) | THFOL Yield(%) | CPO Yield(%) | CPL Yield(%) |
|---|---|---|---|---|---|---|---|---|
| 1 | 80 | Ni3Co1@C | 1.55 | 53 | 4 | 95 | 0 | 0 |
| 2 | 160 | Ni1Co1@C | 1.92 | 104 | 0 | 0 | 0 | 96 |

[a]Within the first 0.4 g $_{cat*}$min of reaction.