



Supplementary Material: Selective Conversion of Furfural to Cyclopentanone or Cyclopentanol using Co-Ni Catalyst in Water

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Table S1 The compositions of 10%Co-10%Ni-TiO₂ catalysts.

Catalyst	Ni content (wt.%) ^a	Co content (wt.%) ^b
Before reaction	10	10
After five reaction cycles	8.98	9.94

^{a, b} Determined by ICP.

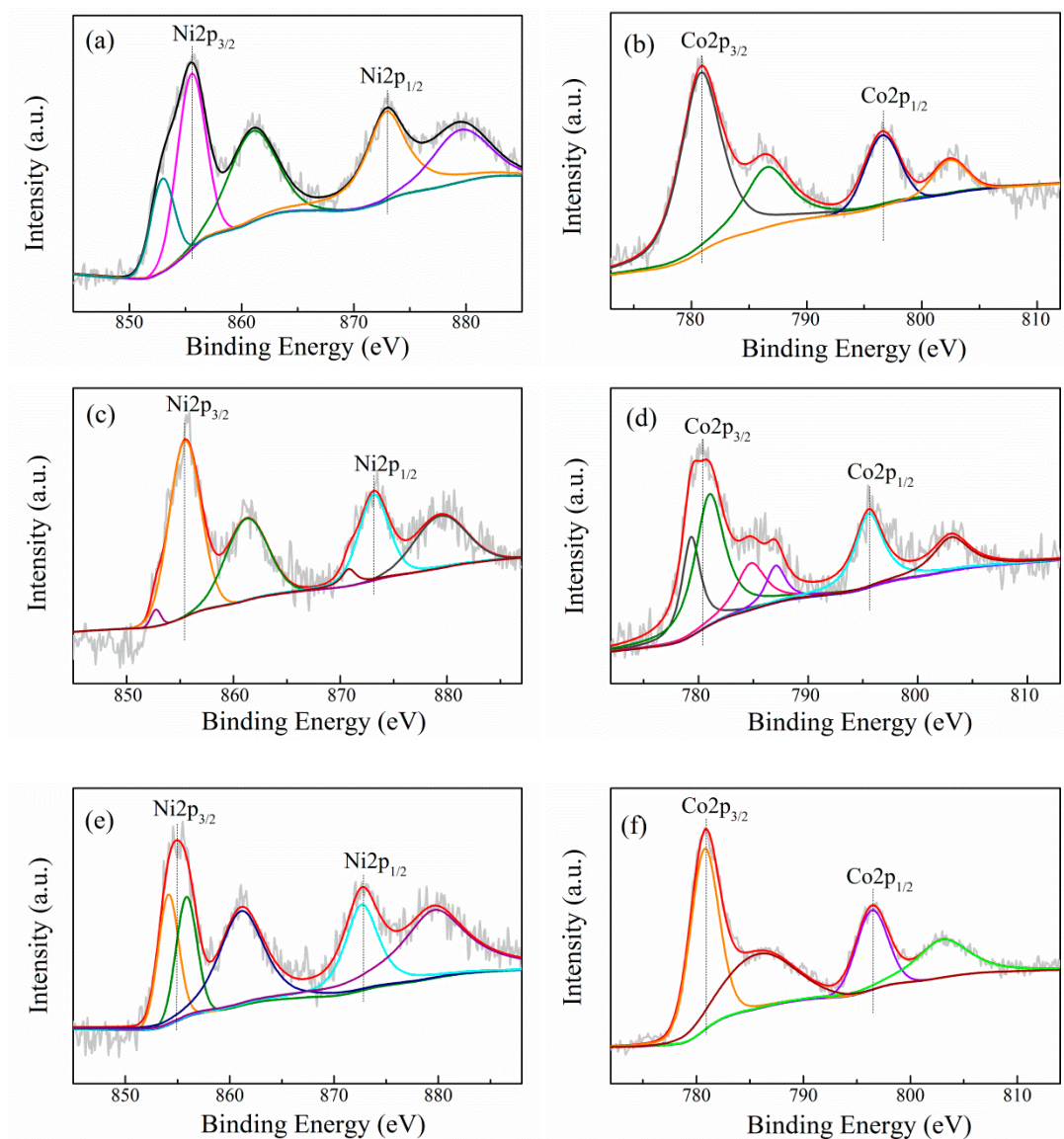


Figure S1. XPS spectras and the deconvoluted configurations for (a) 20%Ni/TiO₂, (b, c) 10%Ni-10%Co/TiO₂, (d, e) 10%Ni-10%Co/TiO₂-A and (f) 20%Co/TiO₂ catalysts.

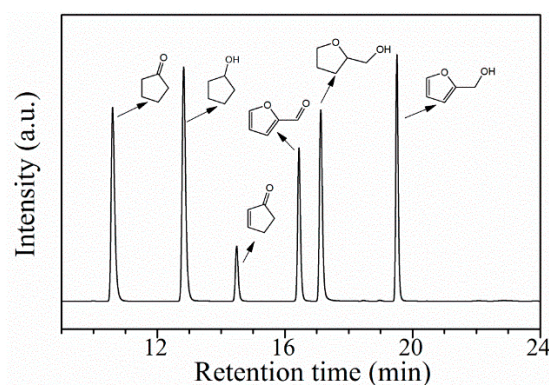


Figure S2. Representative GC spectrum of furfural hydrogenation in water over.
10%Ni-10%Co/TiO₂.

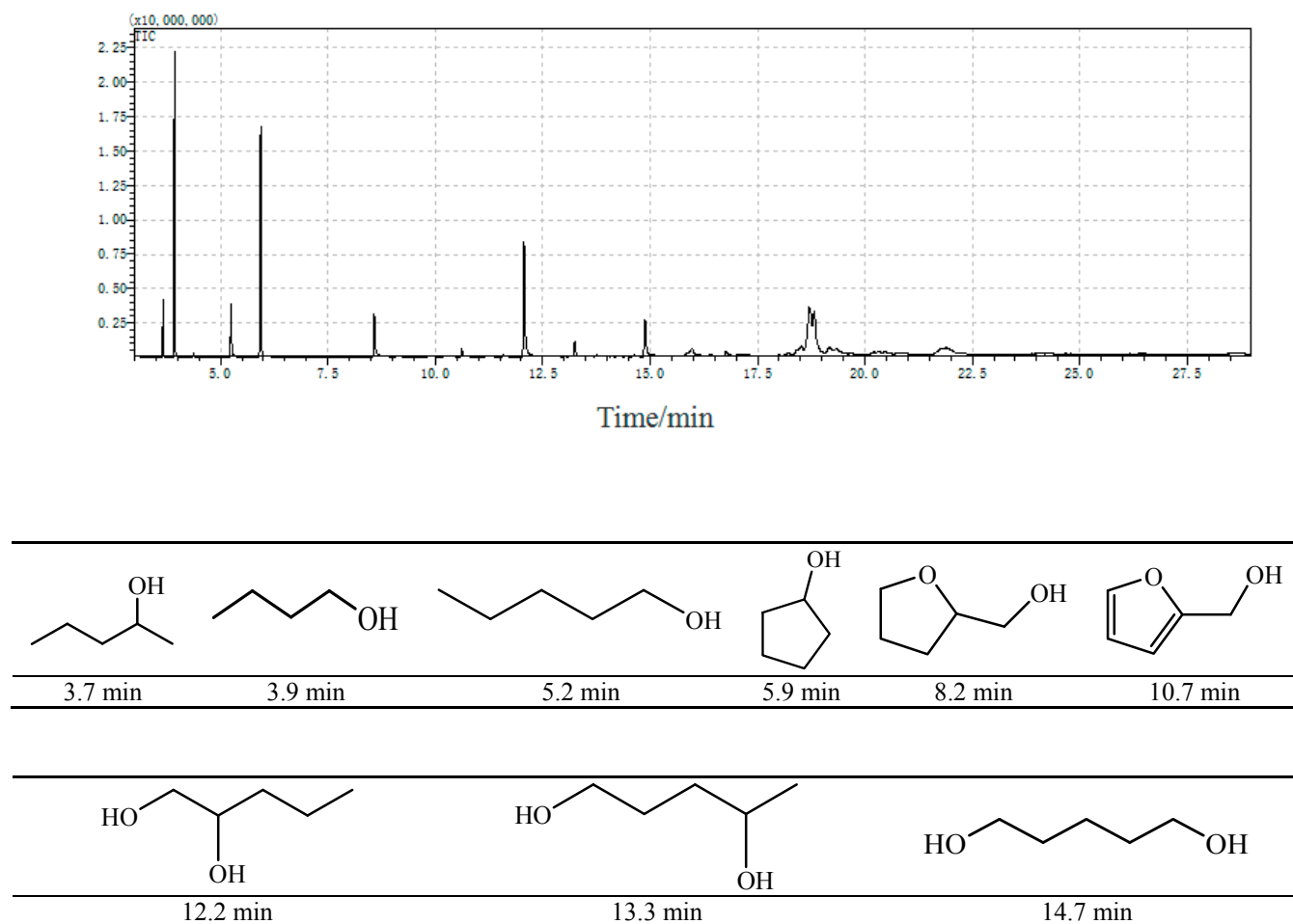


Figure S3. The qualitative results for liquid products from furfural hydrogenation by GC-MS.

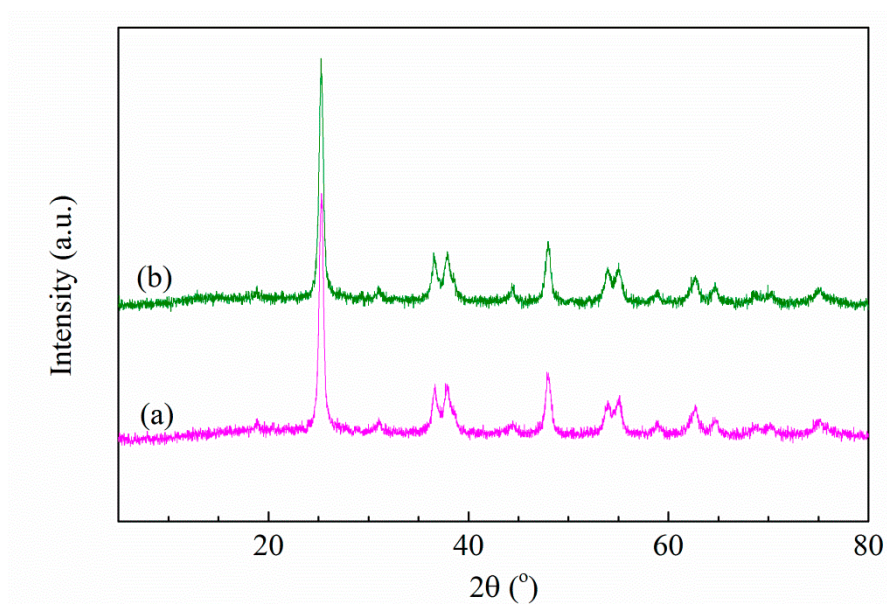


Figure S4. XRD patterns of fresh (a) and used (b) 10%Co-10%Ni-TiO₂ catalyst.

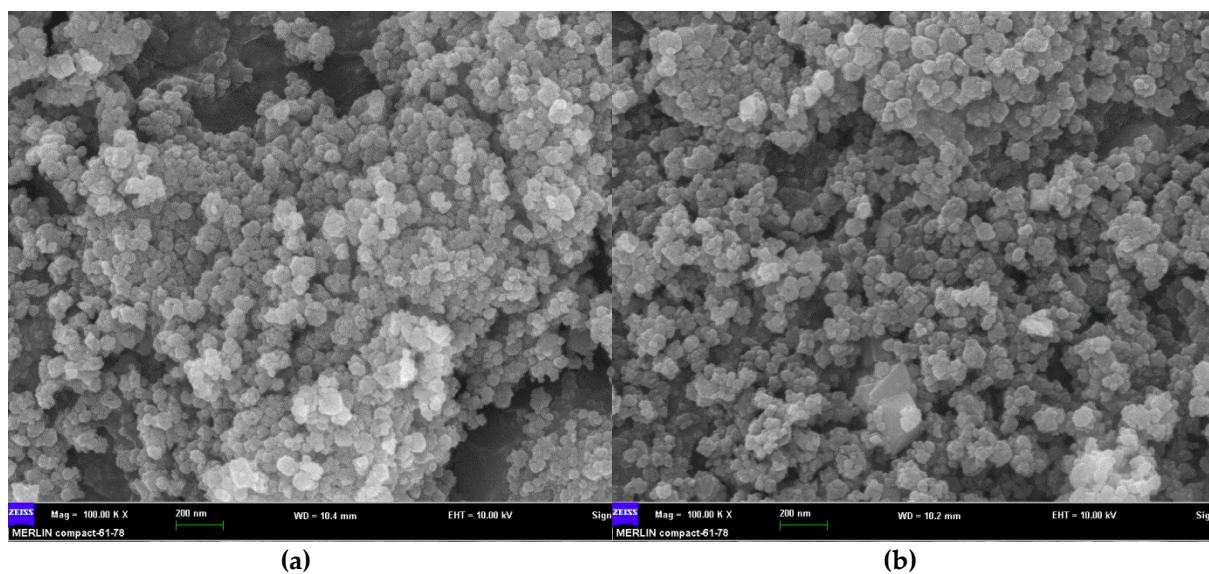


Figure S5. SEM micrograph for the fresh (a) and used (b) 10%Co-10%Ni-TiO₂ catalyst.

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