

Electronic Supplementary Information

Magnetically Recoverable Ni/C Catalysts with Hierarchical Structure and High-Stability for Selective Hydrogenation of Nitroarenes

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Table S1. Catalytic performance of Ni/C catalysts for selective hydrogenation of *o*-CNB

Catalyst	Conversion (%)	Selectivity (%)
Ni/C-p	6.5	100
Ni/C-200	19.6	94.8
Ni/C-300	88.4	90.4
Ni/C-400	54.6	92.8
Ni/C-500	41.1	95.0
Ni/C-600	17.0	95.2
Ni/C-700	8.0	100

Reaction conditions: 0.50 g *o*-CNB, 0.05 g catalyst, 50 mL ethanol, 140 °C, 2 MPa H₂, time 1 h.

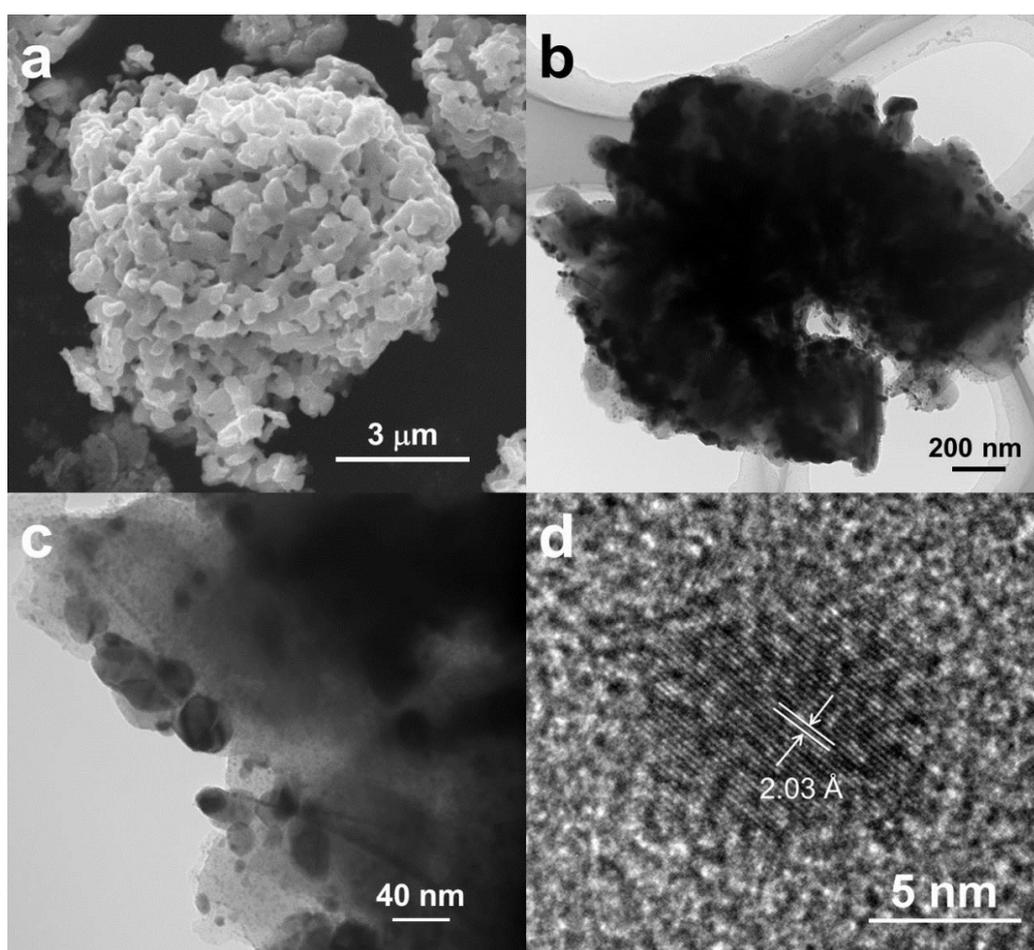


Figure S1. (a) SEM image, (b) typical TEM image, and (c) magnified TEM image of the Ni/C-400 catalyst, (d) HRTEM image of one typical Ni particle in the Ni/C-400 catalyst.

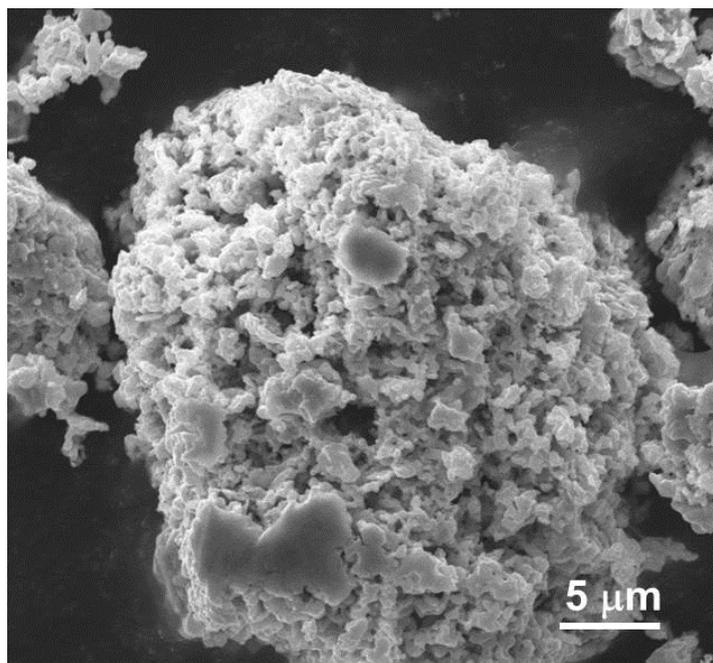


Figure S2. SEM image of the Ni/C-500 catalyst.

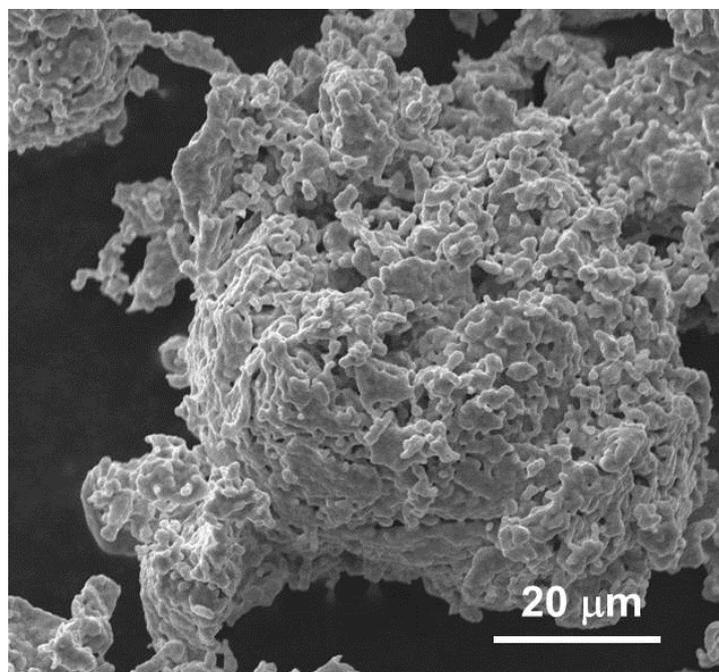


Figure S3. SEM image of the Ni/C-600 catalyst.

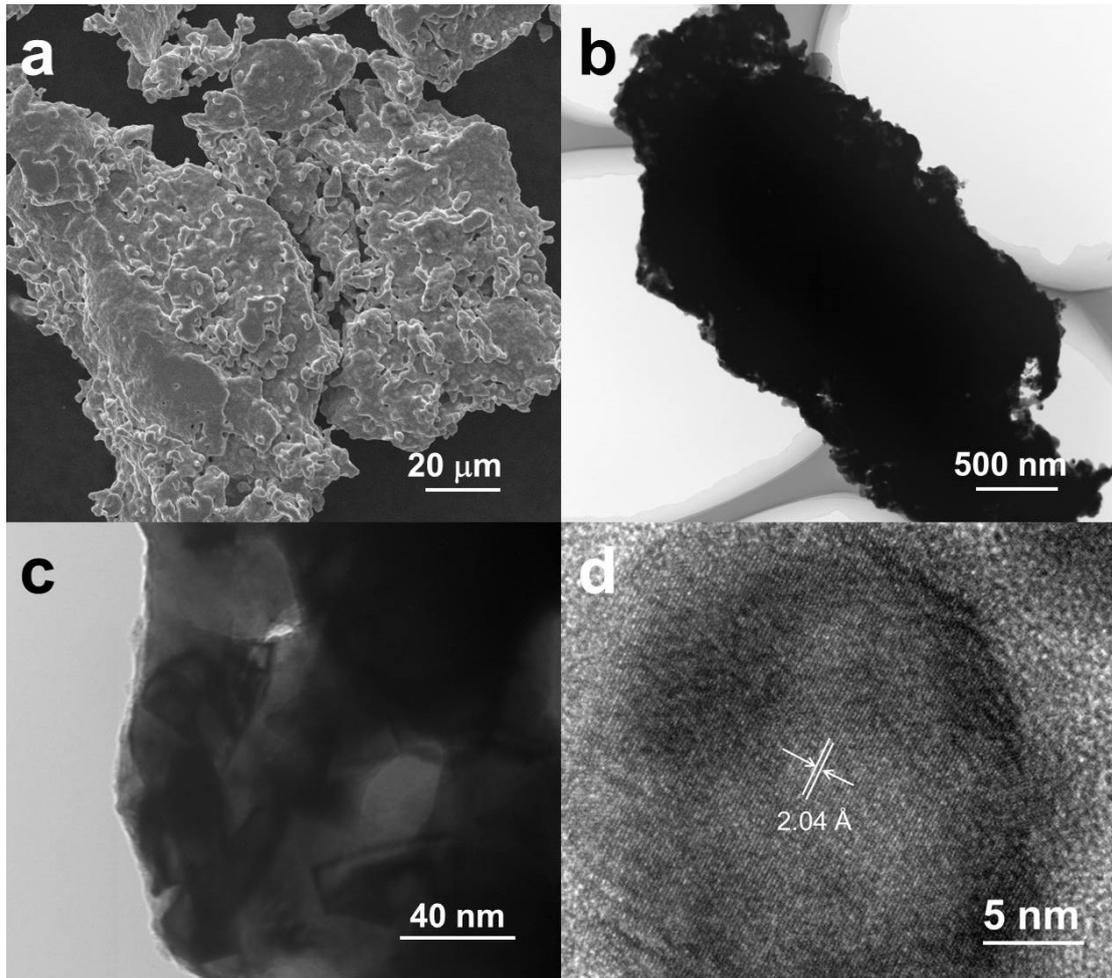


Figure S4. (a) SEM image, (b) typical TEM image, and (c) magnified TEM image of the Ni/C-700 catalyst, (d) HRTEM image of one typical Ni particle in the Ni/C-700 catalyst.

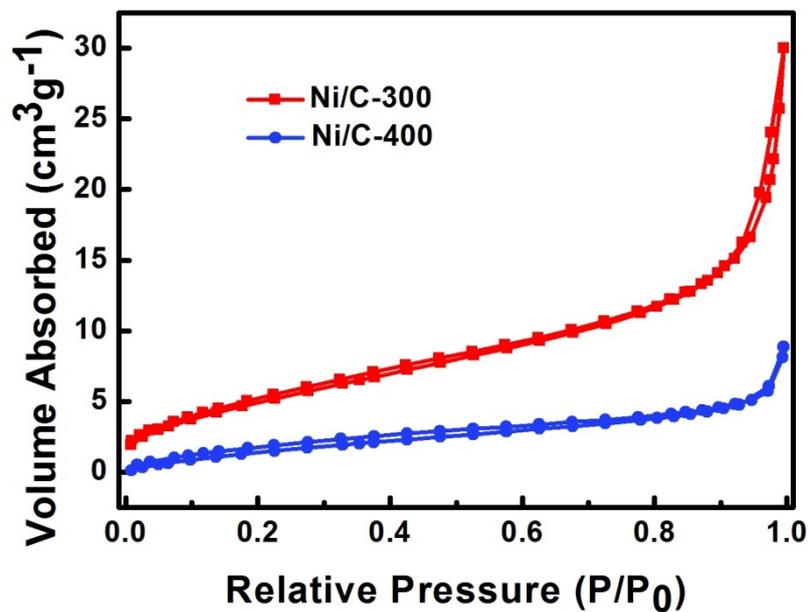


Figure S5. Nitrogen adsorption-desorption isotherms of the Ni/C-300 and Ni/C-400 catalysts.

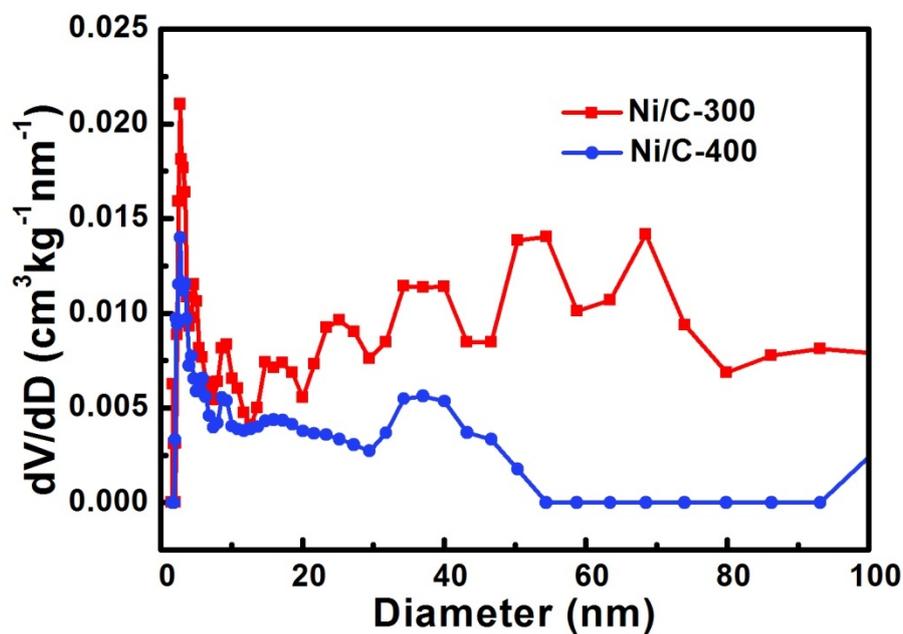


Figure S6. The pore size distribution of the Ni/C-300 and Ni/C-400 catalyst.

Table S2. Cycling performance of the Ni/C-300 catalyst for selective hydrogenation of *o*-CNB

Cycle times	Conversion (%)	Selectivity (%)
1	98.9	86.0
2	96.8	93.8
3	91.4	97.5
4	94.0	92.5
5	96.5	95.2
6	94.4	92.7
7	91.0	92.6
8	92.4	92.9
9	92.2	93.1
10	93.6	93.2

Reaction conditions: 0.50 g *o*-CNB, 0.05 g Ni/C-300, 50 mL ethanol, 140 °C, 2.0 MPa H₂, time 2 h.

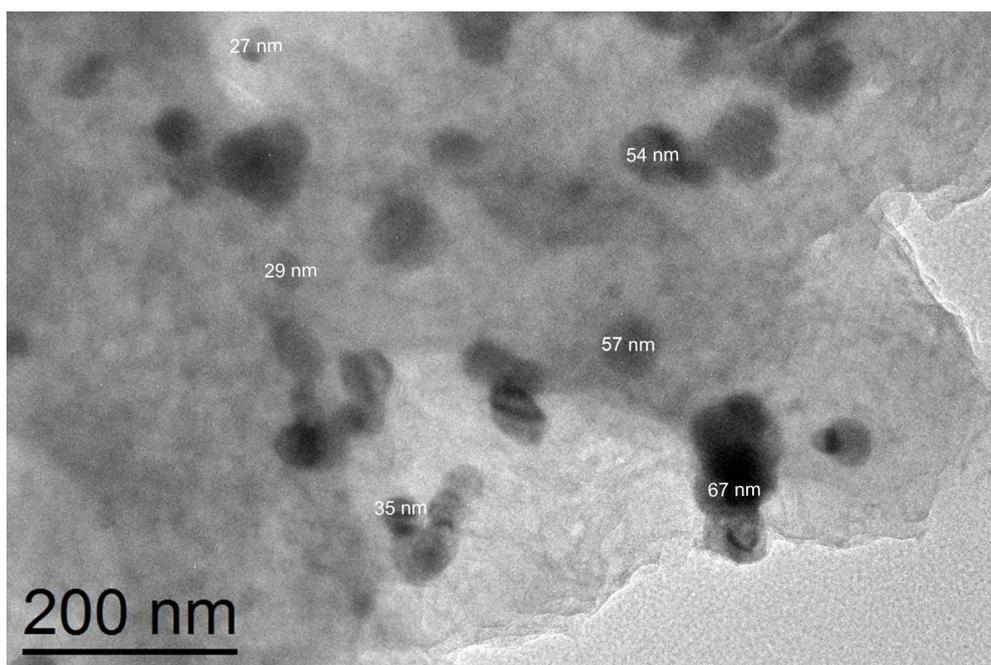


Figure S7. TEM image of the Ni/C-300 after 10 cycles.