Electronic Supplementary information

Hydrodeoxygenation of bio-derived anisole to cyclohexane over bi-functional IM-5 zeolite supported Ni catalysts

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Table S1. Ni concentration of IM-5 supported Ni catalysts.

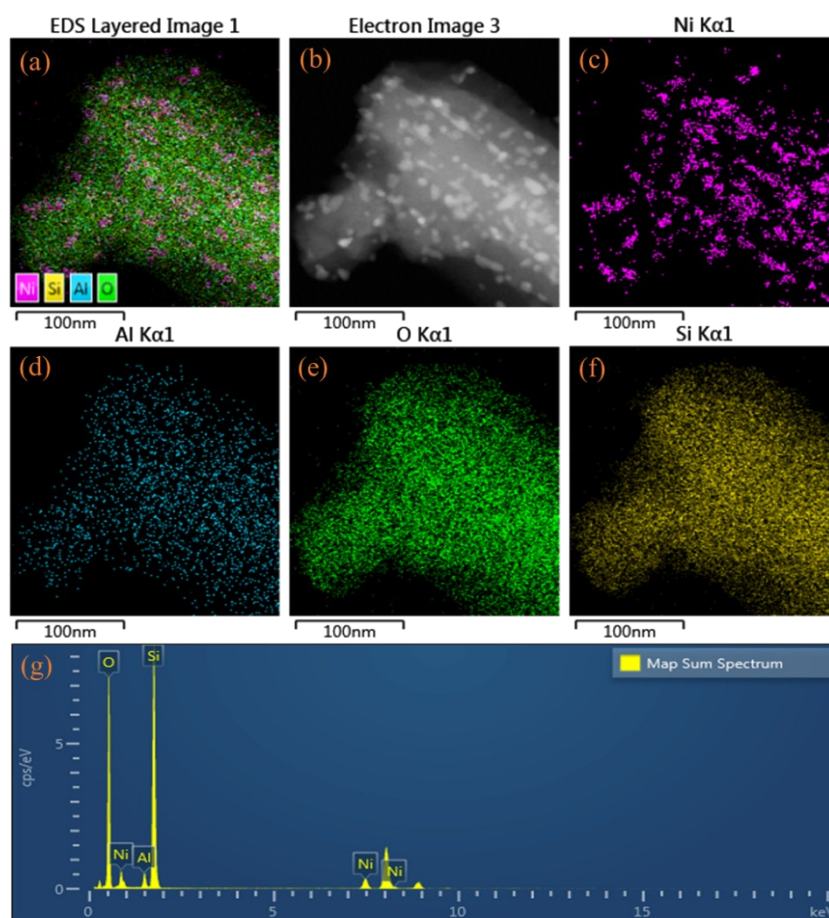| Sample	Ni content, wt % (ICP-MS)	Ni content, wt % (XPS)
Ni/IM-5	5.0	0.8
Ni/IM-5-h	4.9	1.0
Ni/IM-5-m	5.3	1.2

Figure S1. STEM image (a) and its corresponding EDX Ni, Al, O and Si elemental maps (b-g) for the Ni/IM-5-h catalyst.
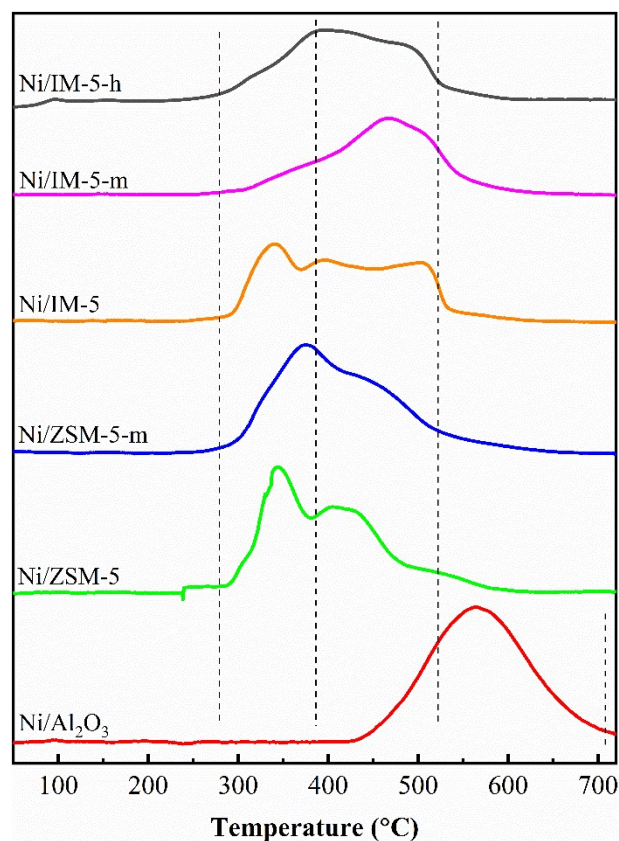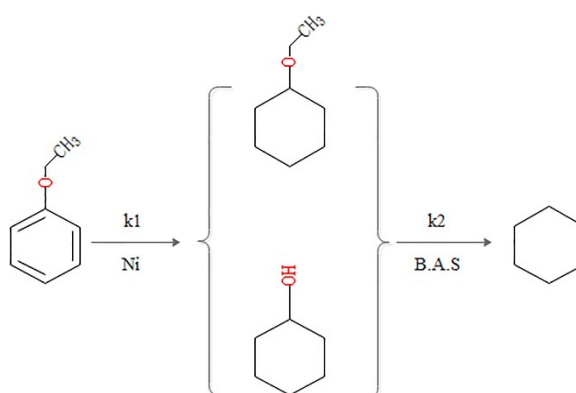
Figure S2. H$_2$-TPR curves of calcined catalysts.

Table S2. ICP-MS analysis of the fresh and spent Ni/IM-5-h samples.

Sample	Ni content, wt %
Ni/IM-5-h (fresh)	4.9
Ni/IM-5-h (spent)	4.3

Scheme S1. Simplified reaction mechanism for anisole hydrodeoxygenation.
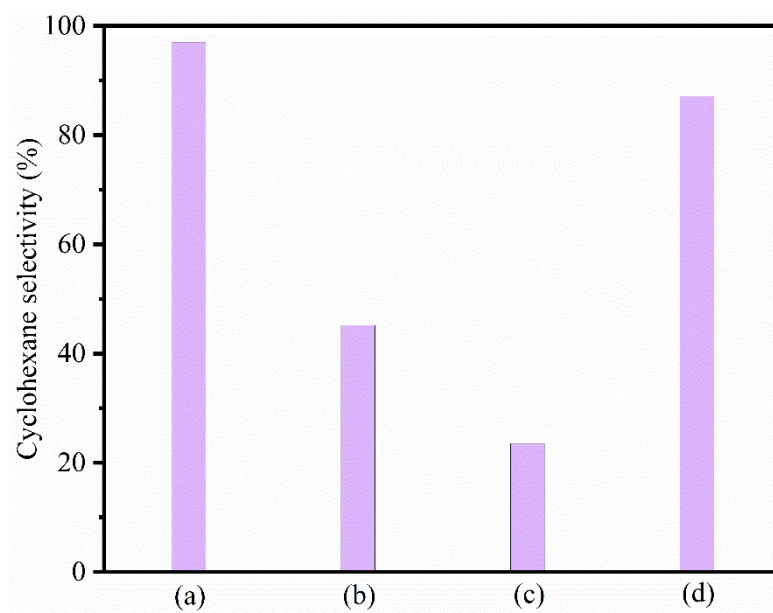
Figure S3. The cyclohexane selectivity over the Ni/IM-5-h catalyst with 1 catalytic cycle (a), 3 cycles (b) and 7

cycles (c), and the spent catalyst after regeneration (d).