All-around coating of CoNi nanoalloy by hierarchically porous carbon derived from bimetallic MOFs for highly efficient hydrolytic dehydrogenation of ammonia-borane

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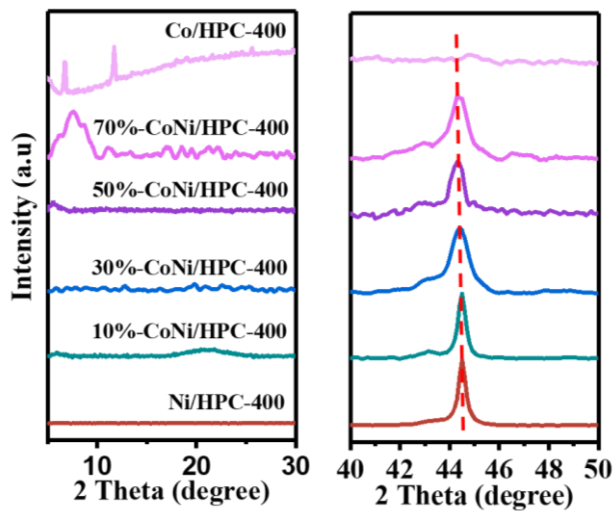
E-mail: shaoweitie@163.com; changgang2016@whut.edu.cn

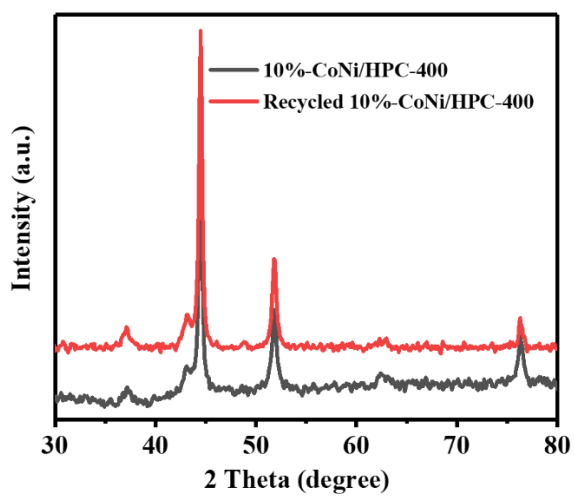**Fig.S1** XRD patterns of x%-CoNi/HPC-400.

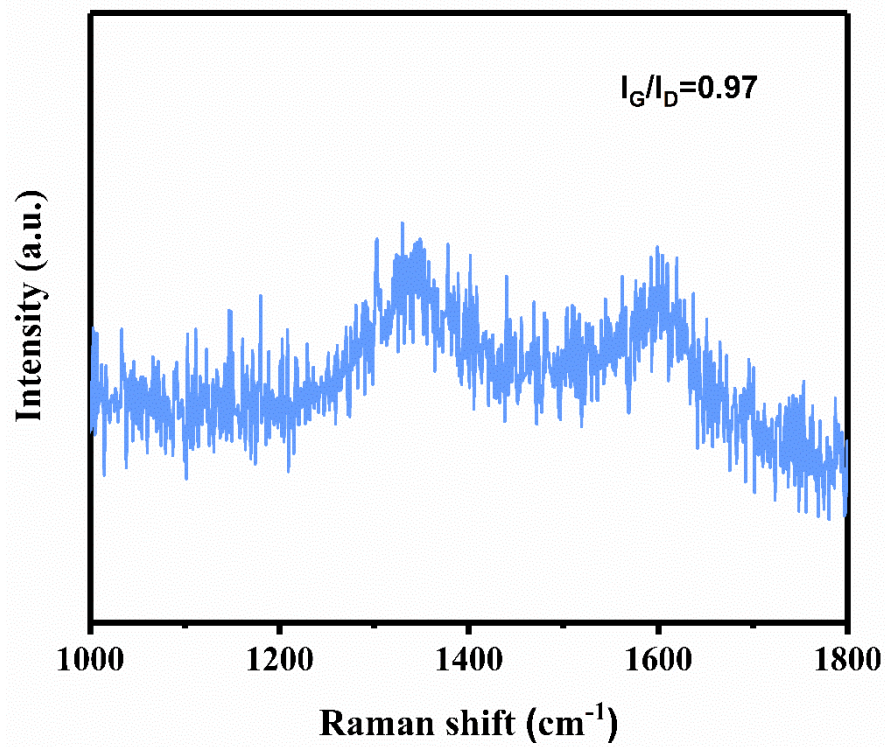**Fig.S2** XRD patterns of 10%-CoNi/HPC-400 before and after reaction

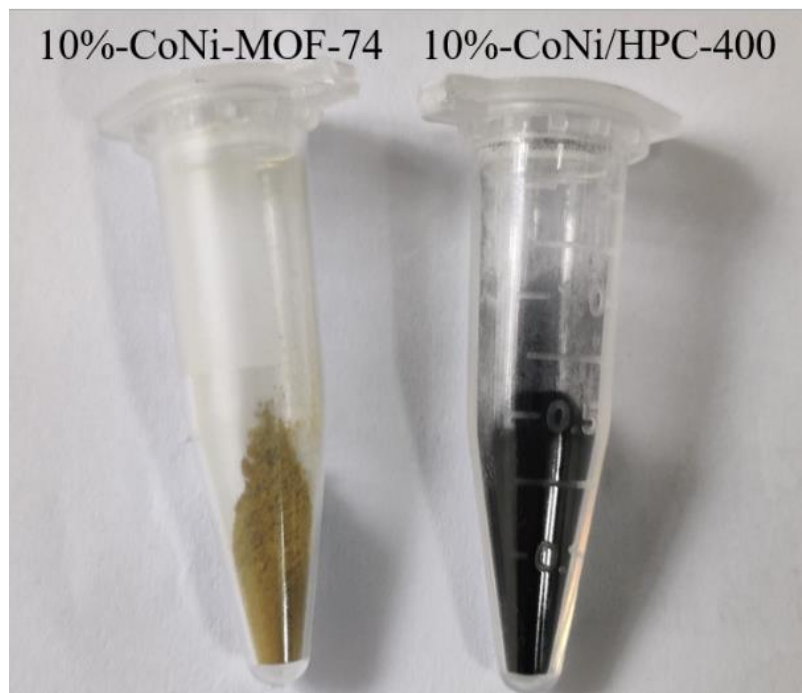**Fig.S3** The Raman spectrum for 10%-CoNi/HPC-400.

Fig.S4 The color change of 10%-CoNi-MOF-74 in the carbonization.

Table S1. ICP results of catalysts and catalytic activities for the hydrolytic dehydrogenation of AB.

Sample	Co *Wt%*	Ni *Wt%*	TOF *(min^{-1})*
Ni/HPC-400	——	73.1%	1.10
10%-CoNi/HPC-400	5.6%	37.48%	27.22
30%-CoNi/HPC-400	28.64%	43.32%	7.18
50%-CoNi/HPC-400	36.93%	25.80%	3.53
70%-CoNi/HPC-400	28.40%	9.13%	3.25
Co/HPC-400	36.85%	——	0.96
10%-CoNiHPC-300	5.06%	43.58%	3.35
10%-CoNi/HPC-500	11.92%	87.50%	0.36
10%-CoNi/HPC-600	10.05%	89.46%	0.04
10%-CoNi/HPC-700	11.02%	88.27%	0.02