

## Electronic Supplementary Material

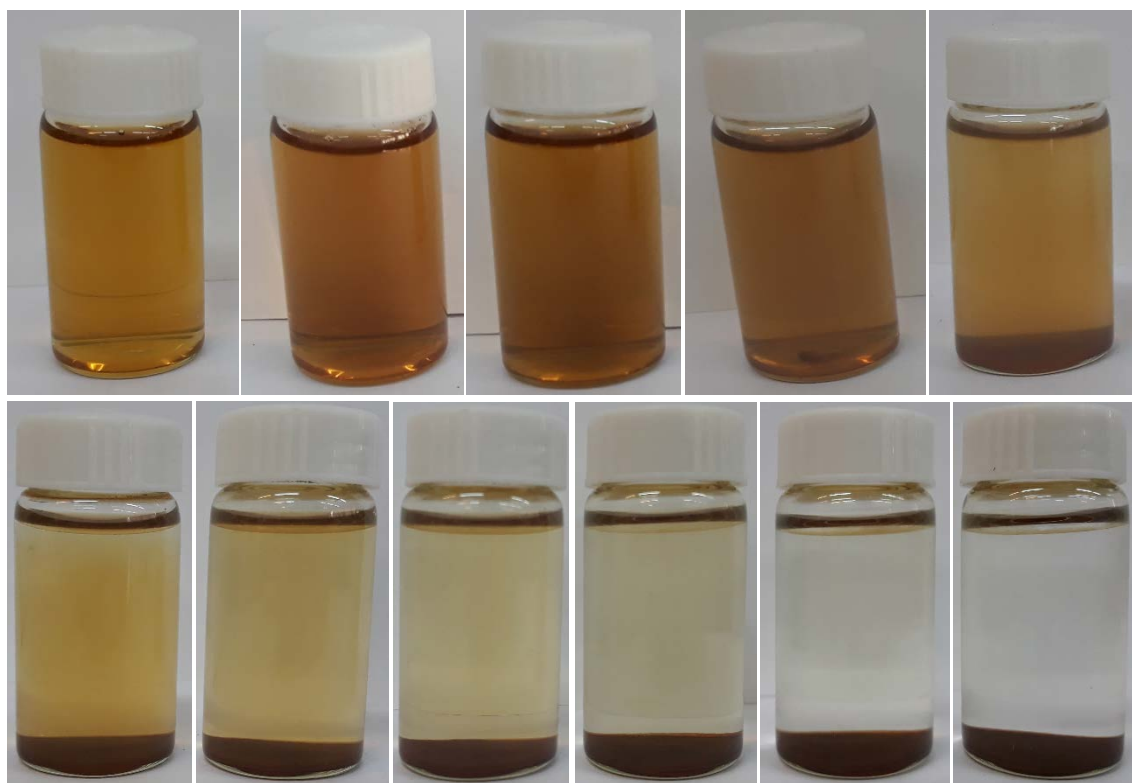
### Conversion of CO into CO<sub>2</sub> by high active and stable PdNi nanoparticles supported on a metal-organic framework

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**Fig. S1.** 0.2 mg/ml Pd(NO<sub>3</sub>)<sub>2</sub> was prepared. From left to right, the stability of the solution has been shown at t = 0, 7 hr, 8hr, 1day, 7 days, 10 days, 21 days, 28 days, 36 days, 46 days, 85 day.

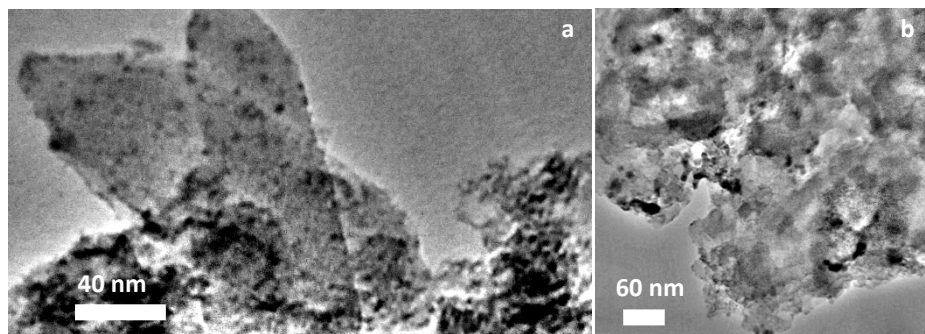


Fig. S2. TEM image of Pd<sub>70</sub>Ni<sub>30</sub>/MNH<sub>2</sub>.

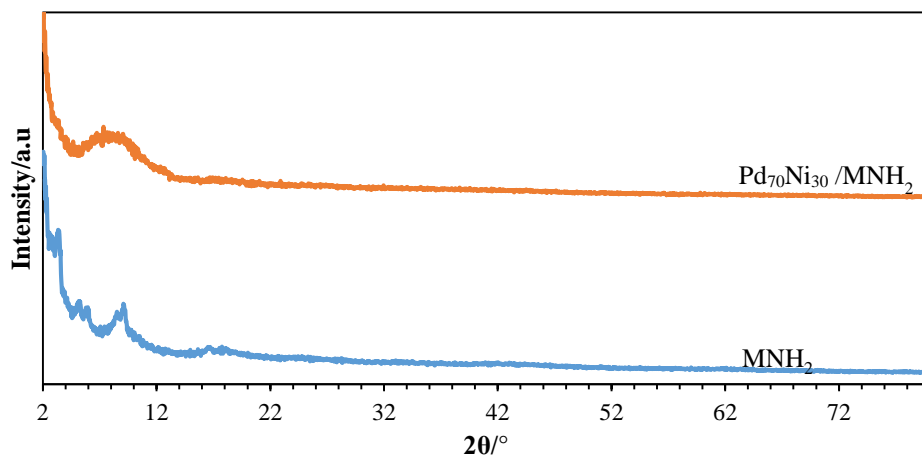


Fig. S3. XRD patterns of MNH<sub>2</sub> and Pd<sub>70</sub>Ni<sub>30</sub>/MNH<sub>2</sub>. The XRD pattern of MNH<sub>2</sub> is similar to that reported by Chen et al. [1]

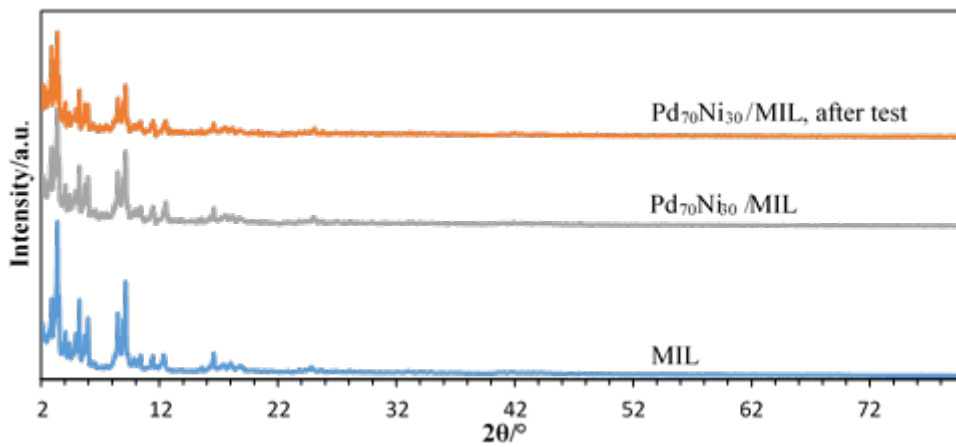
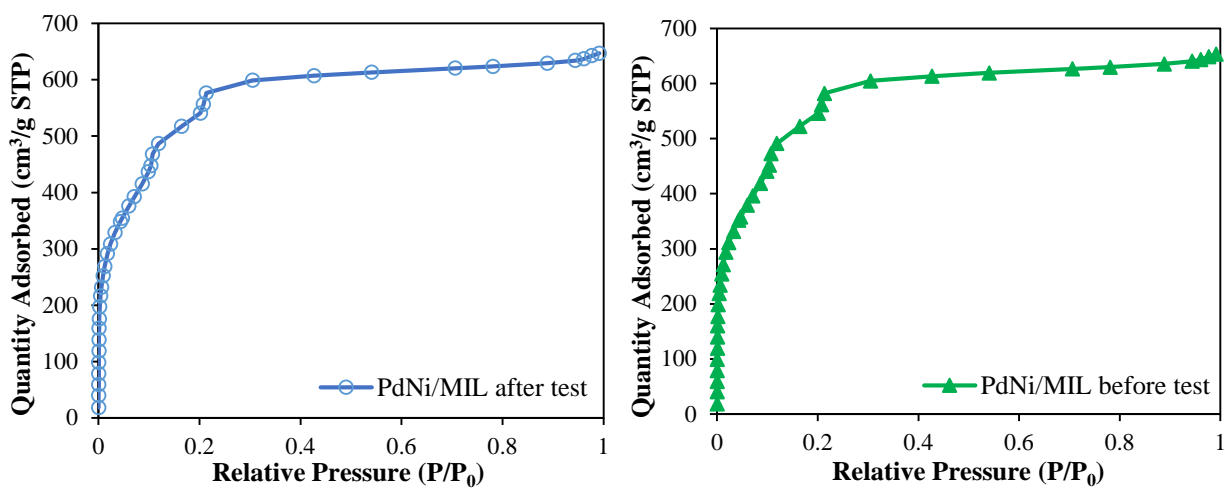


Fig. S4. XRD patterns of MIL, Pd<sub>70</sub>Ni<sub>30</sub>/MIL, and Pd<sub>70</sub>Ni<sub>30</sub>/MIL after CO oxidation test.



**Fig. S5.** nitrogen adsorption-desorption isotherms of the PdNi/MIL after and before CO oxidation

- [1] Q. Yan, Y. Lin, C. Kong, and L. Chen, "Remarkable CO<sub>2</sub>/CH<sub>4</sub> selectivity and CO<sub>2</sub> adsorption capacity exhibited by polyamine-decorated metal-organic framework adsorbents," *Chemical Communications*, vol. 49, pp. 6873-6875, 2013.