

## Supporting Information

of

### **Covalent Triazine Framework Supported Palladium Nanoparticles for Catalytic Hydrogenation of *N*-Heterocycles**

Teng He,<sup>a,\*</sup> Lin Liu,<sup>a</sup> Guotao Wu,<sup>a</sup> Ping Chen<sup>a,b</sup>,

<sup>a</sup>Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 116023, Dalian, China

<sup>b</sup> State Key Laboratory of Catalysis, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 116023, Dalian, China

\* Corresponding author. Tel: +86-411-84379583, Fax: +86-411-84379583, E-mail: [heteng@dicp.ac.cn](mailto:heteng@dicp.ac.cn)

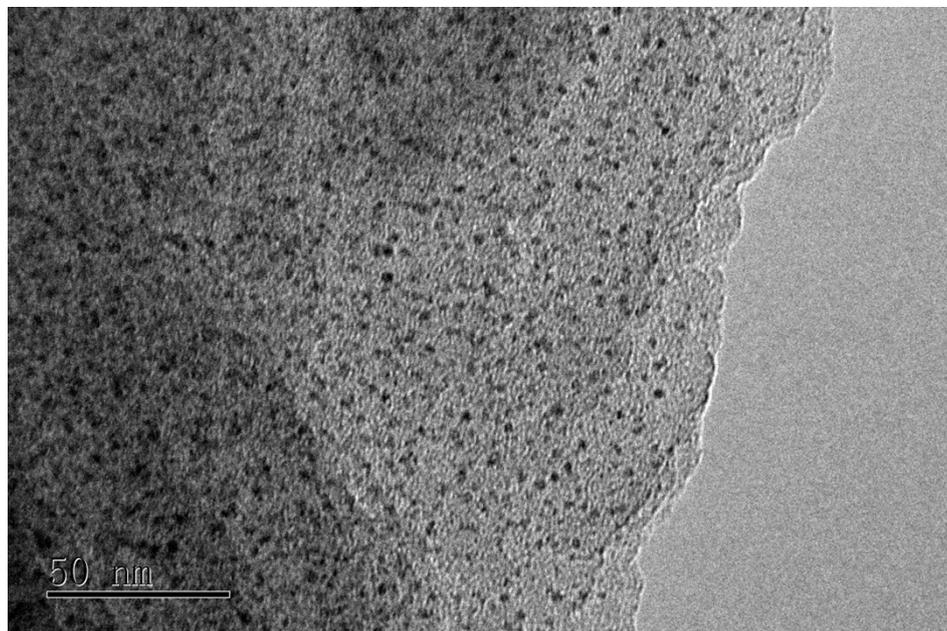


Figure S1 TEM image of 4% Pd/CTF-1

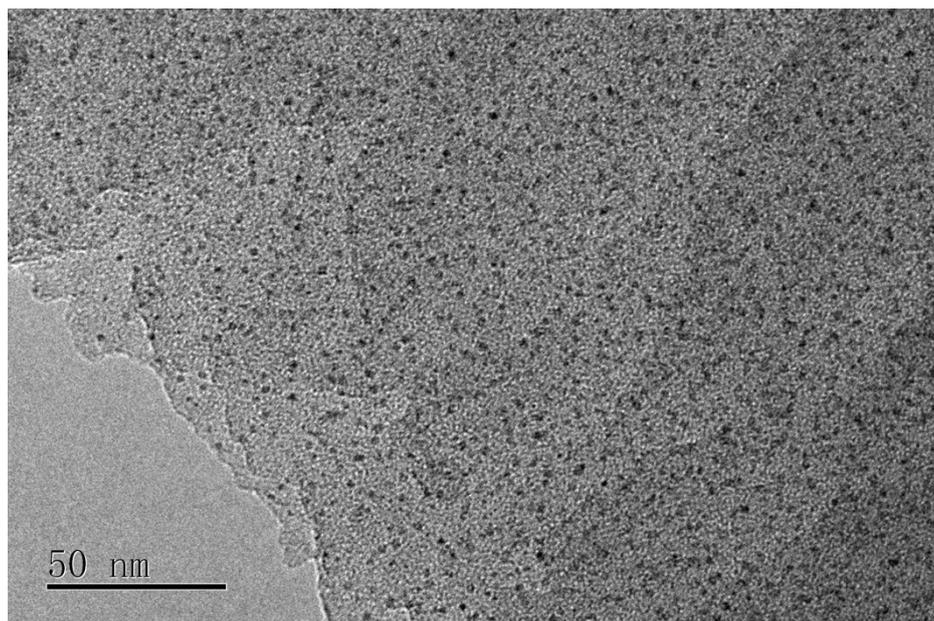


Figure S2 TEM image of 4% Pd/CTF-1 after used for 3 times for the hydrogenation of *N*-methypyrrole.

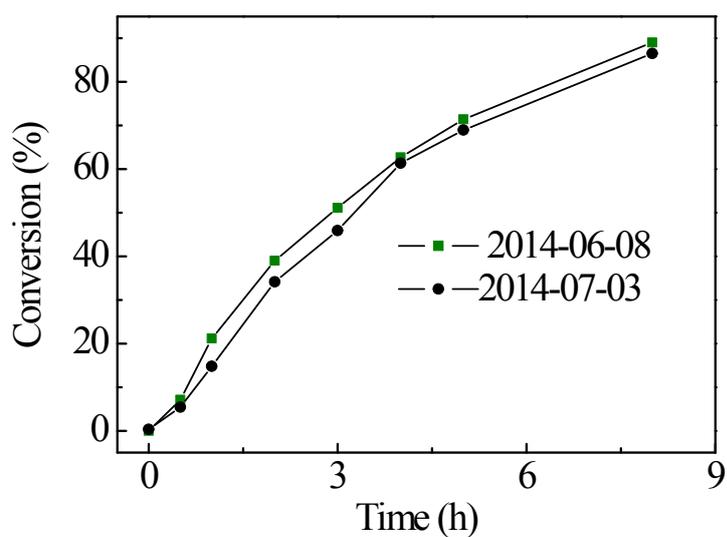


Figure S3 Catalytic hydrogenations of *N*-methypyrrole by using different batches of 4% Pd/CTF catalyst.

Two batches of Pd/CTF catalysts synthesized on different data were compared on catalytic hydrogenations of *N*-methypyrrole. We found only a slight difference between each batches as shown in Figure S3.

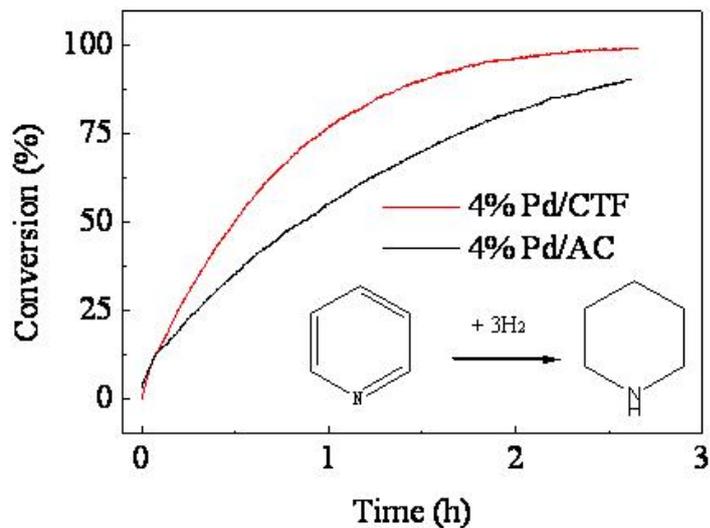


Figure S4. Catalytic hydrogenation of pyridine to piperidine at 100 °C by using 4% Pd/CTF-1 and 4% Pd/AC under 30 bar H<sub>2</sub> in ethanol.

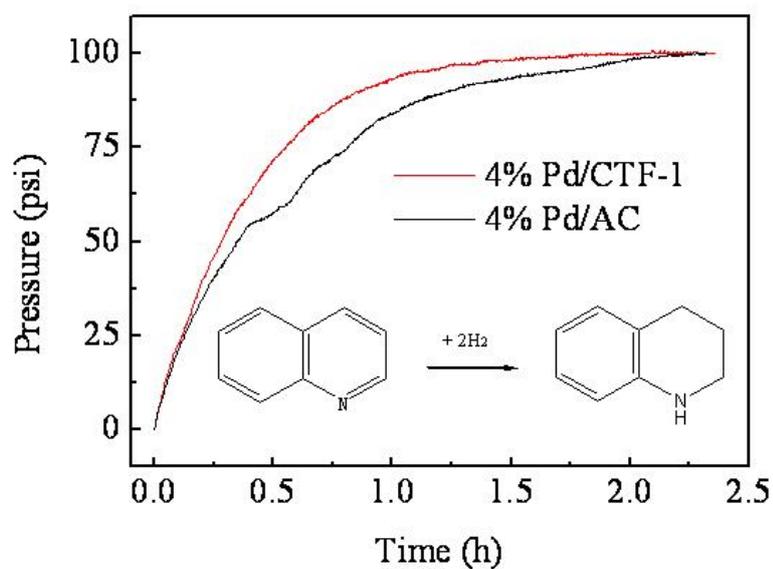


Figure S5. Catalytic hydrogenation of quinoline to 1,2,3,4-tetrahydroquinoline at 100 °C by using 4% Pd/CTF-1 and 4% Pd/AC under 20 bar H<sub>2</sub> in ethanol.

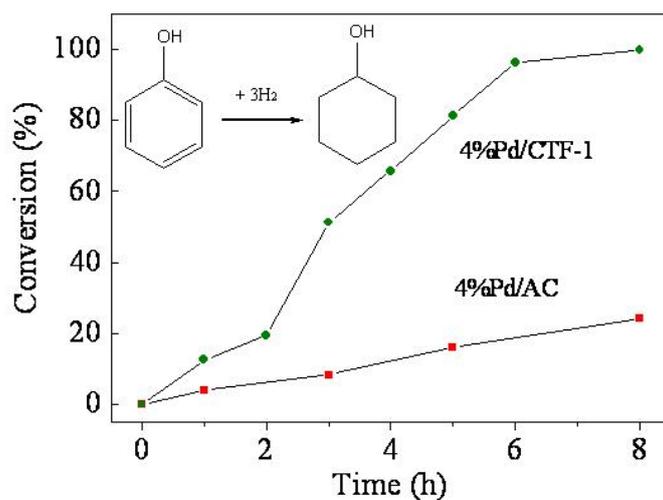


Figure S6. Catalytic hydrogenation of phenol to cyclohexanol at 70 °C by using 4%Pd/CTF-1 and 4%Pd/AC catalysts under 1bar H<sub>2</sub> in water.

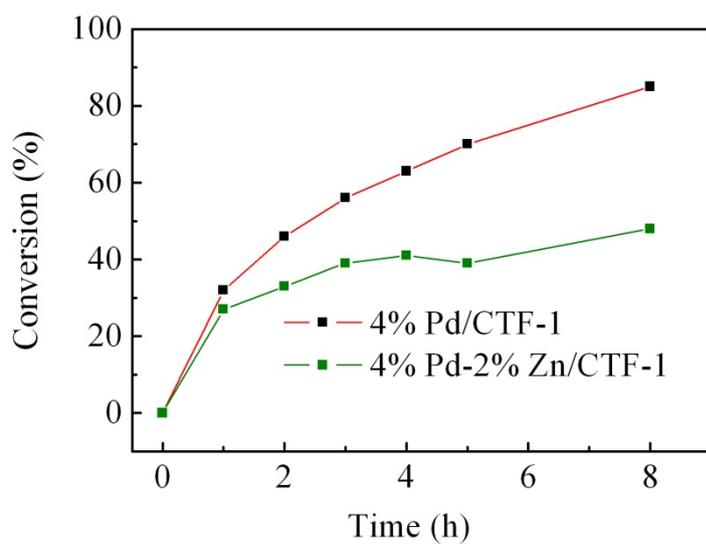


Figure S7 Catalytic hydrogenation of *N*-methylpyrrole by using 4%Pd /CTF-1 and 4%Pd-2%Zn/CTF-1.