Preparation and Catalytic Properties of Pd Nanoparticles Supported on Micro-crystal DUT-67 MOFs

Gui-lin Zhuang, Jia-qi Bai, Li Tan, Hong-liang Huang, Yi-fen Gao, Xing Zhong, Chong-li Zhong, Jian-guo Wang*

Institute of Industrial Catalysis, College of Chemical Engineering, Zhejiang University of Technology, Hangzhou, People's Republic of China, 310032. Fax: (+86)571-88871037 Tel: (+86)571-88871037. E-mail: jgw@zjut.edu.cn

1. TEM image of 0.3%Pd/DUT and 1.0% Pd/DUT



Fig.S1. TEM images (a-b), Pd-NPs distribution curve (c) and EDS analysis result (d) for

1.0% Pd/DUT-67



Fig.S2. TEM images (a-c), Pd-NPs distribution curve (d) for 0.3% Pd/DUT-67.



Fig. S3 EDS analysis result for 0.3% Pd/DUT-67.

2. SEM image of 0.5% Pd/DUT before and after catalytic reaction



Fig. S4 SEM image of 0.5% Pd/DUT before (a) and after (b) catalytic reaction



3. Reusability meatures of 5% Pd/DUT-67 in two model reaction

Fig. S5 the plot of conversion vs cycle in reusability measurement for Suzuki coupling reaction (a) and nitrobenzene hydrogenation (b).



Fig. S6 PXRD after 4 cycles Suzuki reaction.