

## Supporting information

### Facile one-pot tandem reductive amination of aldehydes from nitroarenes over a hierarchical ZSM-5 zeolite containing palladium nanoparticles

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## **Contents of figure**

X-ray powder diffraction (XRD) .....	3
XRD pattern of H-hierarchical ZSM-5 .....	3
FT-IR spectroscopy.....	4
FT-IR spectrum of H-hierarchical ZSM-5 .....	4
Physisorption analysis.....	5
N2 adsorption/desorption isotherm of H-hierarchical ZSM-5 .....	5
Pore size distribution of H-hierarchical ZSM-5 by BJH method .....	6
Pore size distribution of H-hierarchical ZSM-5 by MP-Plot method .....	7

X-ray powder diffraction (XRD)

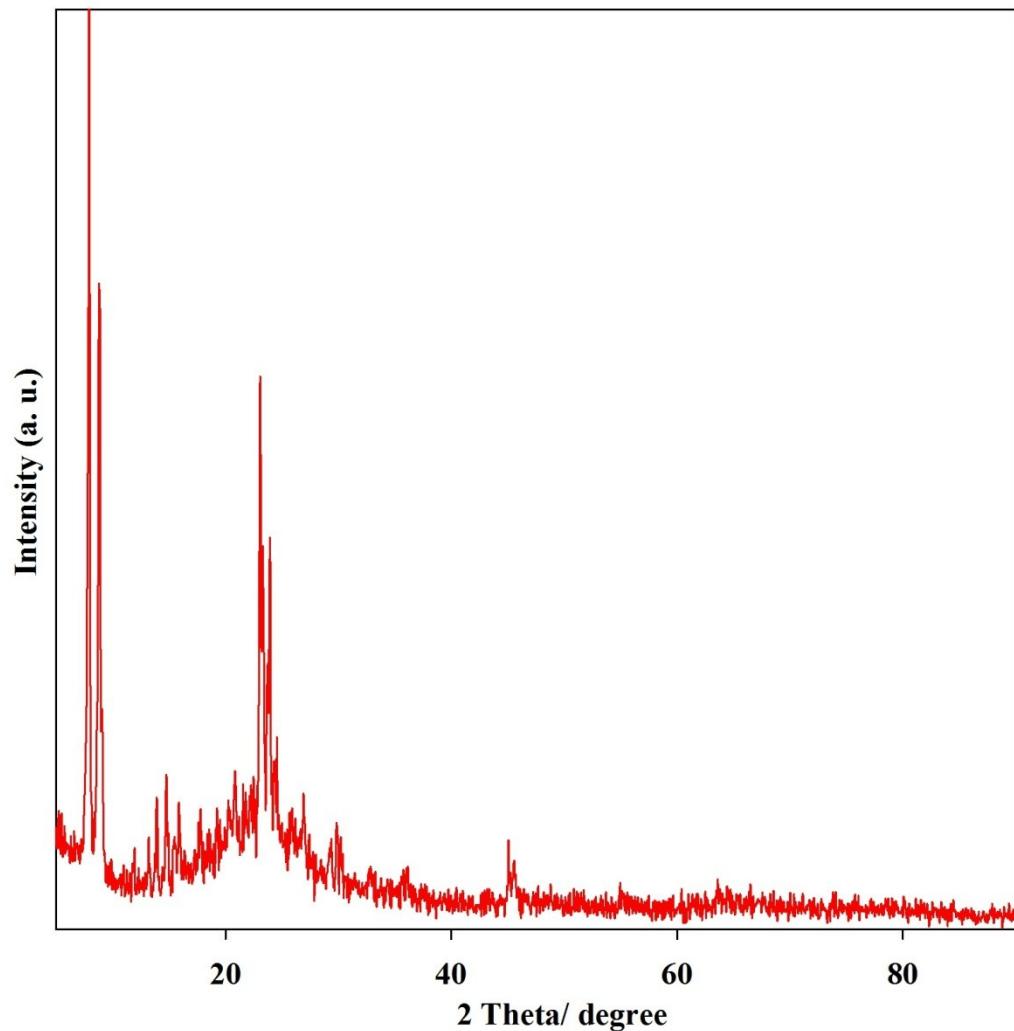


Figure S1. XRD pattern of H-hierarchical ZSM-5 ( $2\theta = 5$ - $90$ ).

FT-IR spectroscopy

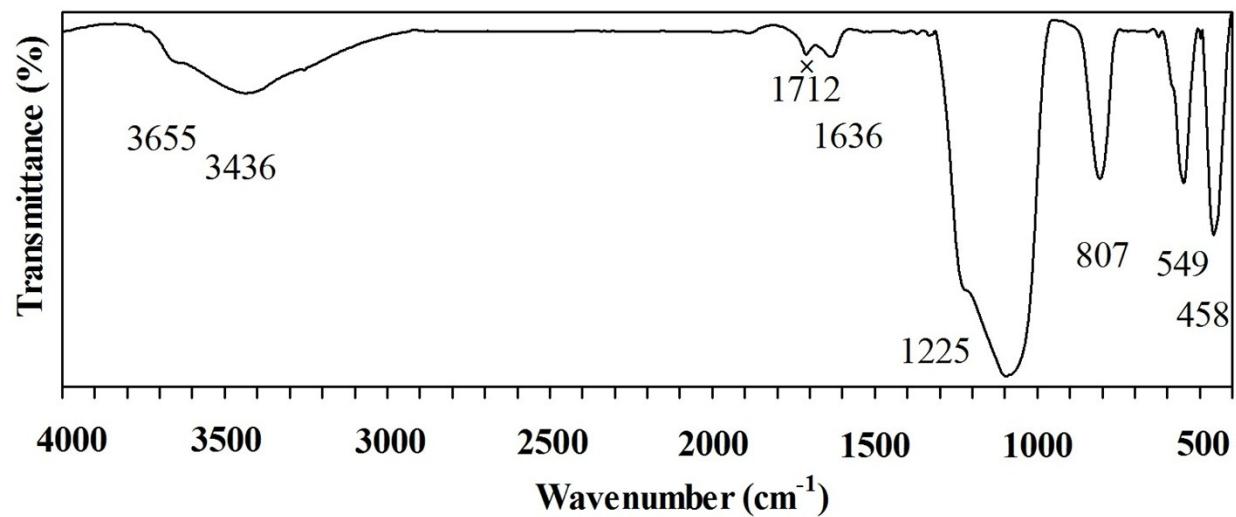


Figure S2. FT-IR spectrum of H-hierarchical ZSM-5. (× Impurity: carbonyl bond of acetone, which was used for rinse off the silicon wafer while preparation of KBr pellet).

Physisorption analysis

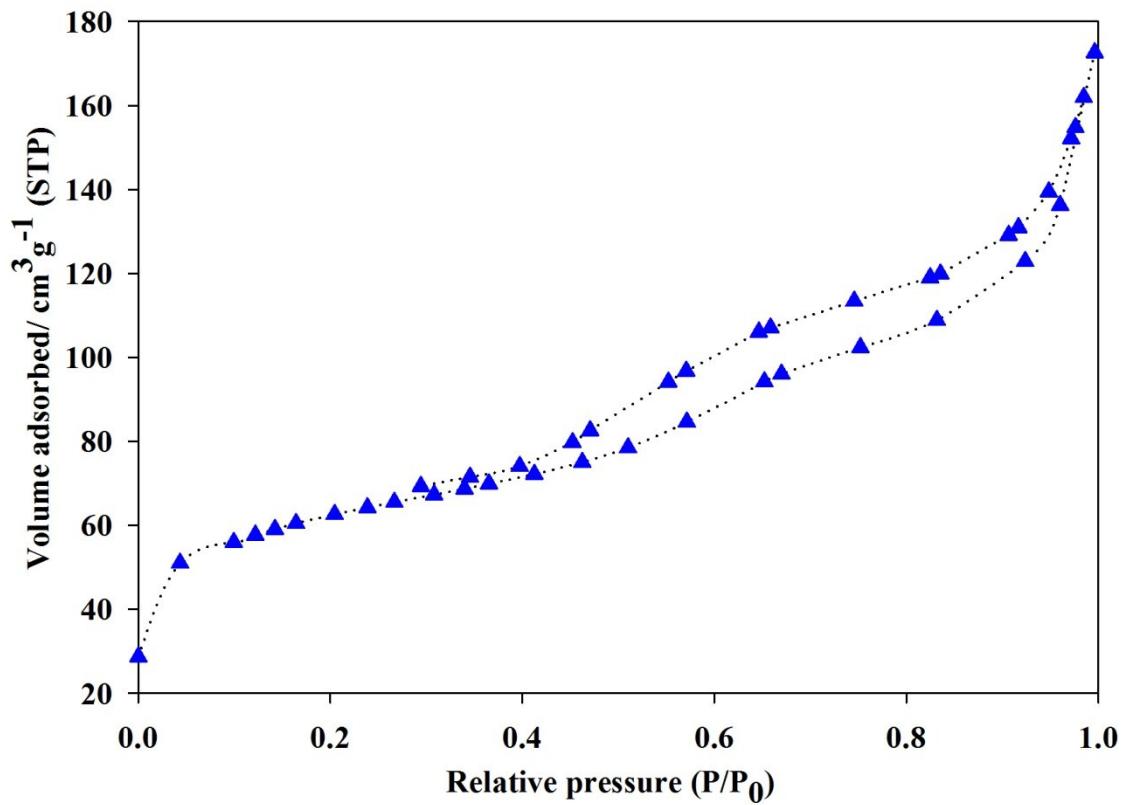


Figure S3. N<sub>2</sub> adsorption/desorption isotherm of H-hierarchical ZSM-5.

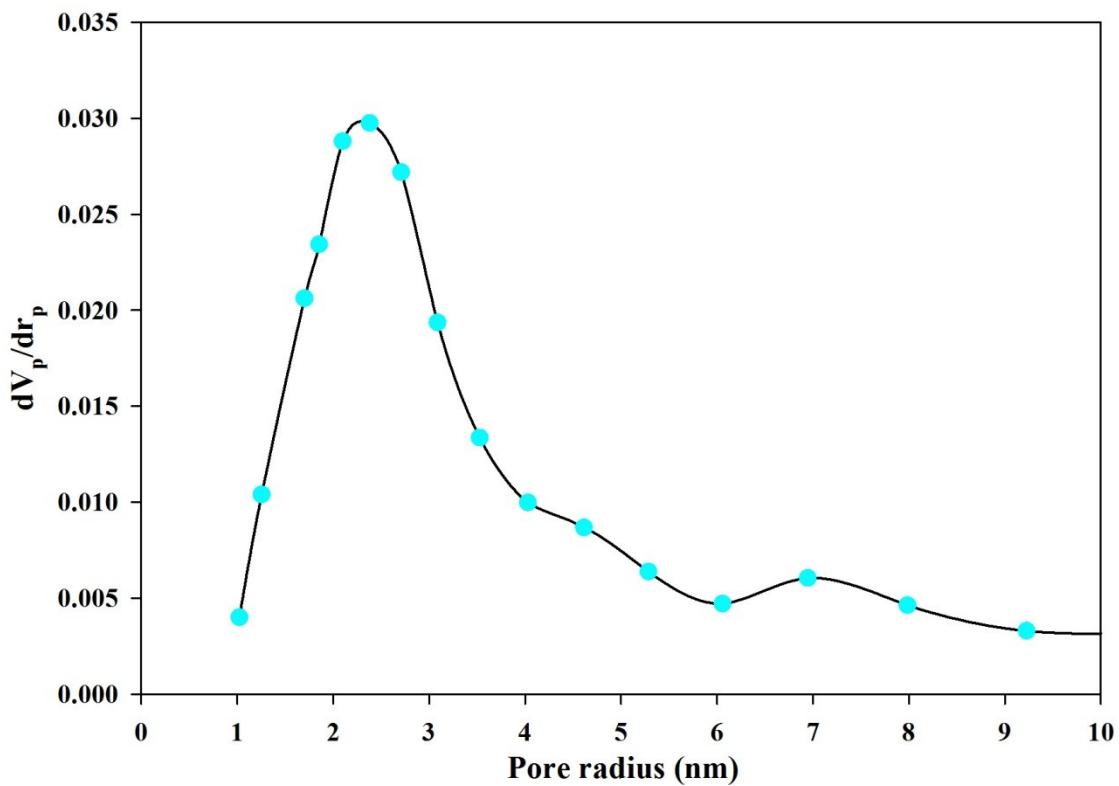


Figure S4. Pore size distribution of H-hierarchical ZSM-5 obtained by BJH method.

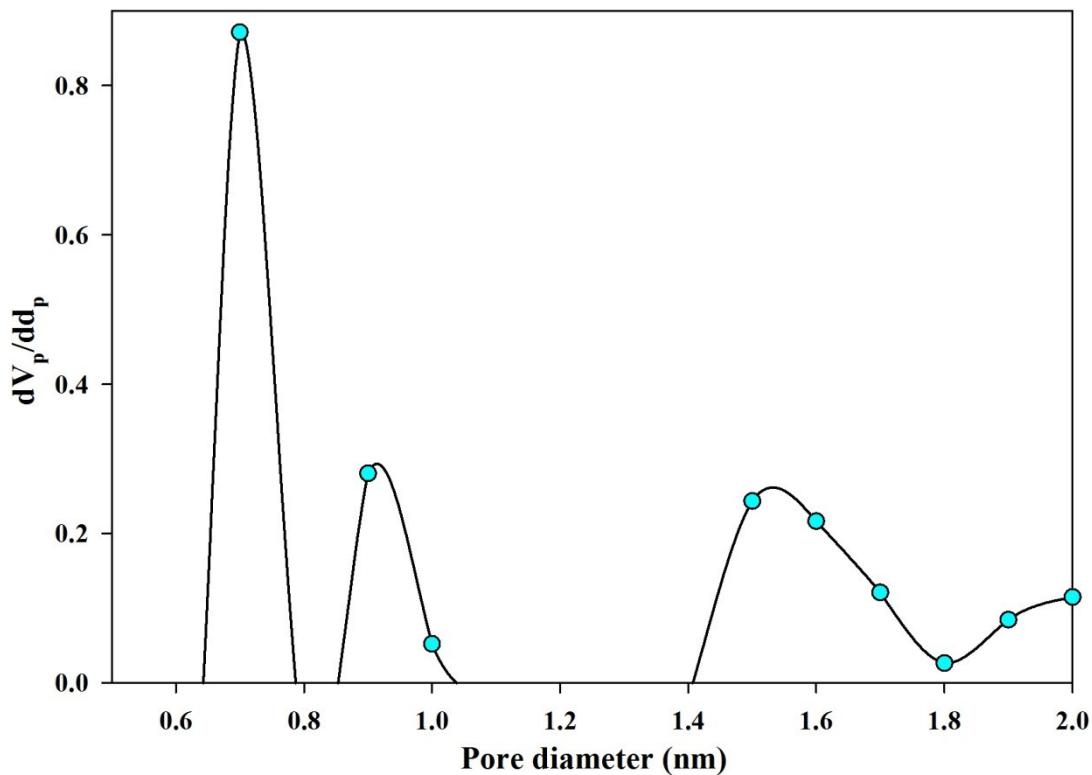


Figure S5. Pore size distribution of H-hierarchical ZSM-5 obtained by MP-Plot method.