

Nitrogen-functionalized Ordered Mesoporous Carbons as multifunctional supports of ultrasmall Pd Nanoparticles for Hydrogenation of Phenol

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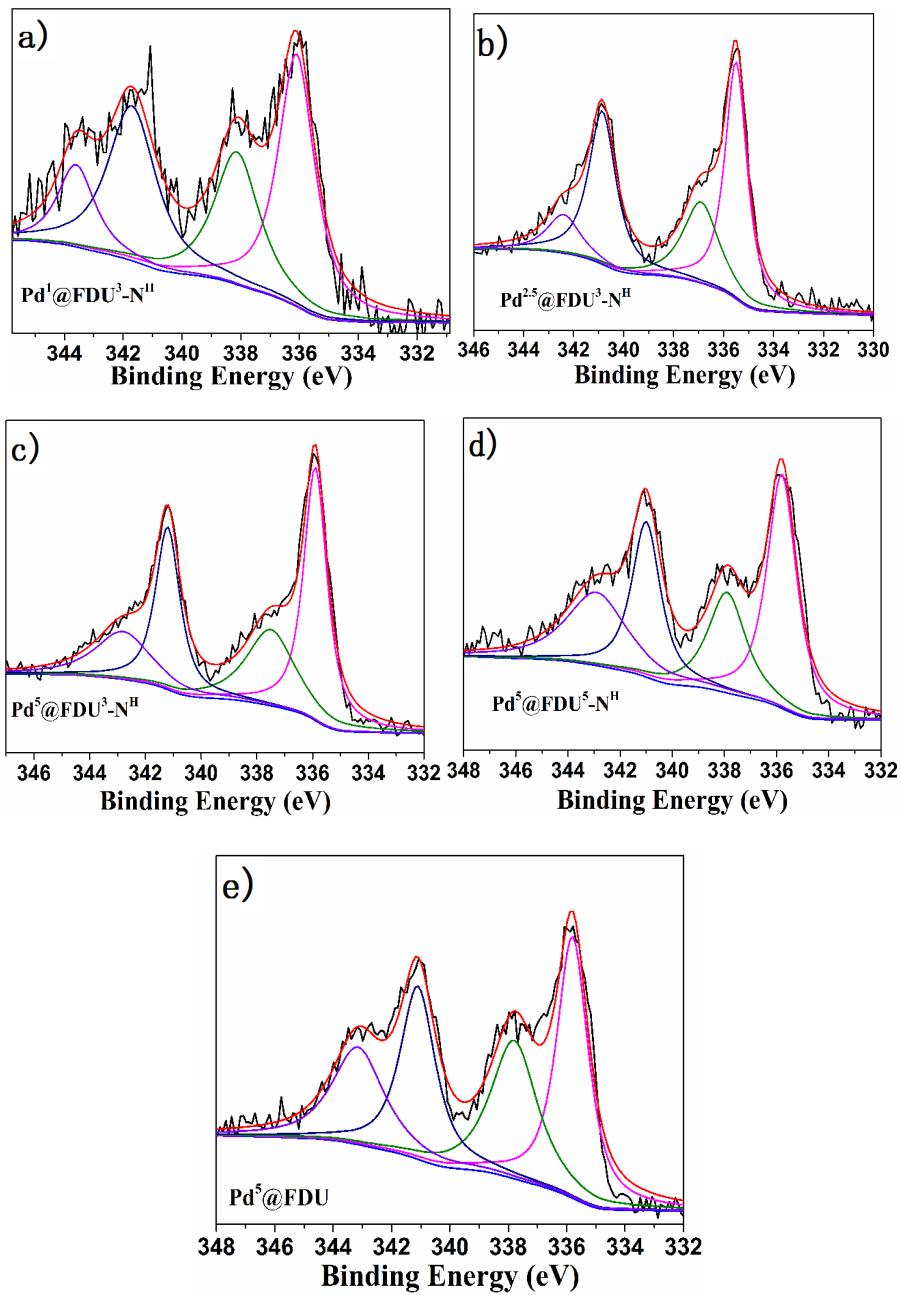


Figure S1. The XPS Pd 3d spectra of: a) Pd¹@FDU³-N^H, b) Pd^{2.5}@FDU³-N^H, c) Pd⁵@FDU³-N^H, d) Pd⁵@FDU⁵-N^H, e) Pd⁵@FDU³.

Table S1. Hydrogenation of Phenol in Water under Various Conditions^a

Entry	T (°C)	Time (h)	Conv %	Sel %	
				C=O	C-OH
1	30	24	85	98	2
2	40	16	99	98	2
3	50	10	99	99	1
4	60	5	99	99	1
5	80	3	99	99	1
6	100	2	99	99	1
7 ^b	100	2	99	99	1
8 ^c	100	2	99	99	1
9 ^d	100	2	99	99	1
10 ^e	100	2	99	99	1

^aReaction conditions: phenol (0.5 mmol), Pd^{2,5}@FDU³-N^H (5 mol % Pd relative to phenol), water (2 mL), H₂ (0.1 MPa).^bPd¹@FDU³-N^H (5 mol % Pd relative to phenol). ^cPd⁵@FDU³-N^H (5 mol % Pd relative to phenol). ^dPd⁵@FDU⁵-N^H (5 mol % Pd relative to phenol). ^ePd⁵@FDU³-N^C (5 mol % Pd relative to phenol).