Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

Performance of bimetallic PdRu catalysts supported on gamma alumina for 2-ethylanthraquinone hydrogenation

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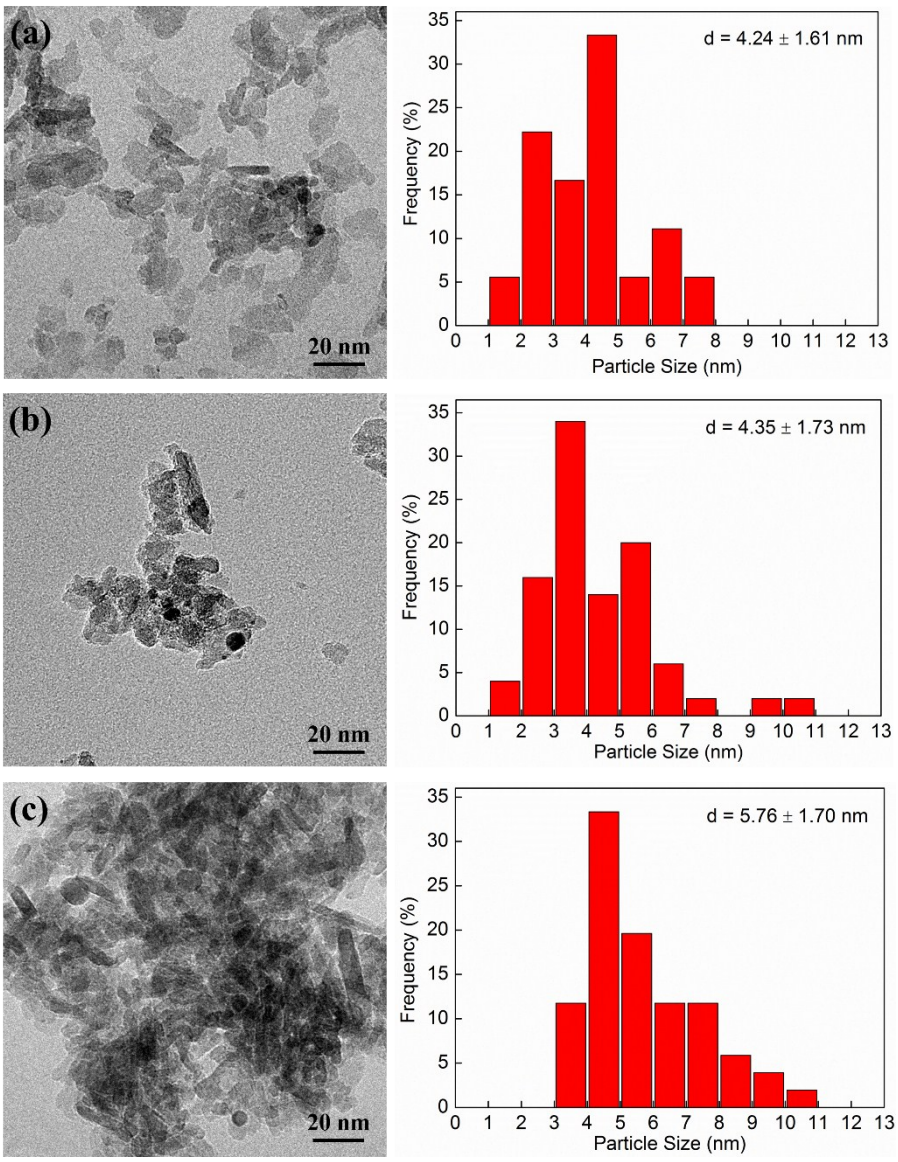

Fig. S1 TEM images and particle size distribution histograms of the fresh reduced catalysts.

(a) 0.6Pd0.4Ru, (b) 0.6Pd0.8Ru, (c) 0.6Pd1.6Ru.

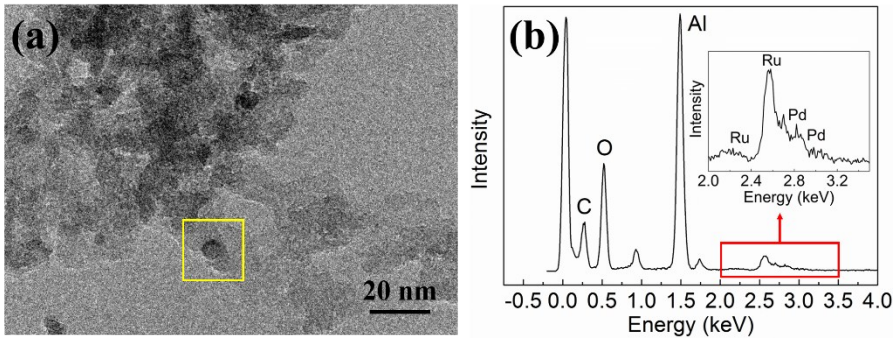

Fig. S2 (a) TEM image of 0.6Pd1.2Ru, (b) EDS spectrum recorded from the selected region of (a).

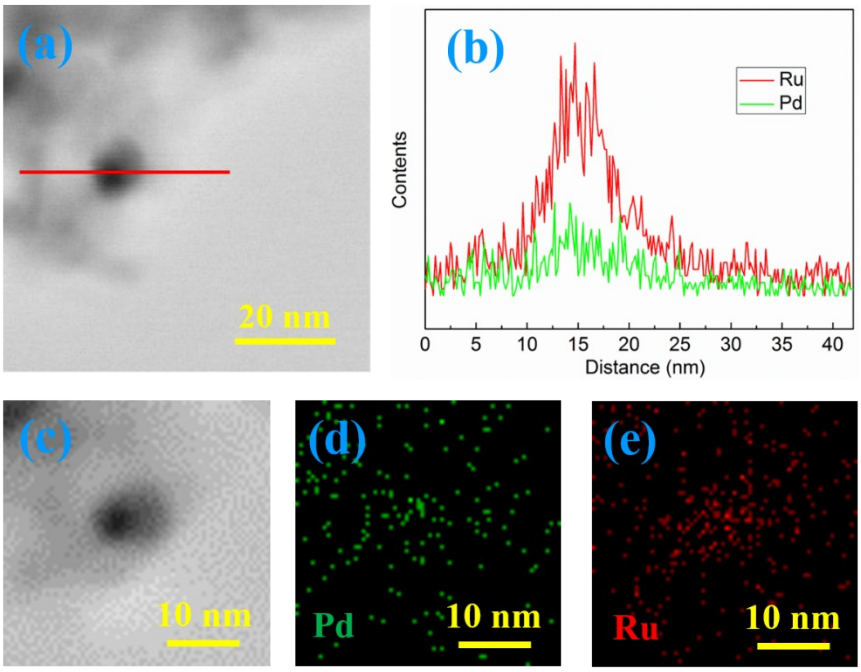

Fig. S3 (a) TEM-HAADF image of 0.6Pd1.2Ru catalyst, (b) Line-scanning EDS of the metal particle indicated with a line in TEM-HAADF image, (d) Pd-L and (e) Ru-L TEM-EDS mapping obtained from the corresponding region of (c).

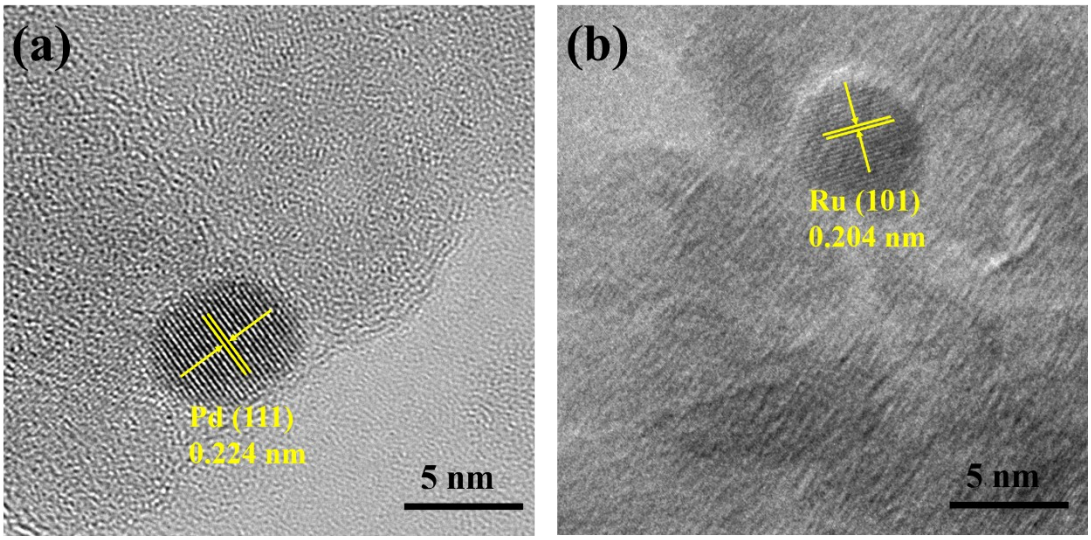

Fig. S4 HRTEM image of 0.6Pd1.2Ru sample. (a) Pd particle with the characteristic lattice spacing of Pd (111), (b) Ru particle with the characteristic lattice spacing of Ru (101).

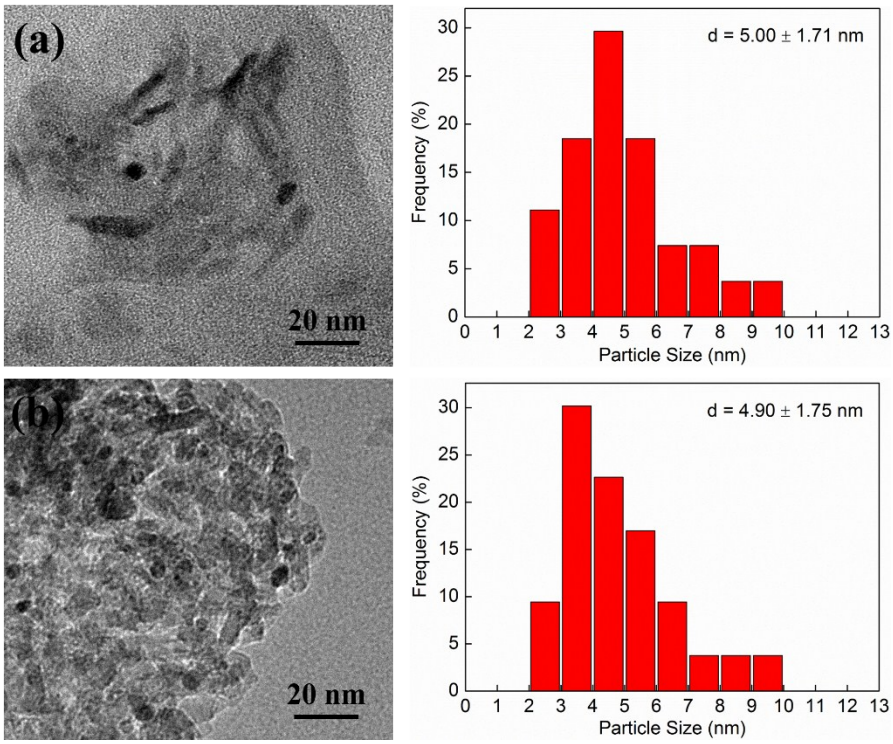

Fig. S5 TEM and particle size distribution histograms of catalysts after three runs: (a) 0.6Pd, (b) 0.6Pd1.2Ru.

Table S1 Metal content of the fresh and used catalysts after three runs as determined by ICP-AES.

Samples	Fresh Catalyst		Used Catalyst	
	Pd Content (wt. %)	Ru Content (wt. %)	Pd Content (wt. %)	Ru Content (wt. %)
0.6Pd	0.51	/	0.49	/
0.6Pd1.2Ru	0.50	0.99	0.49	0.96