Electronic Supplementary Material (ESI) for RSC Advances.

Supporting information

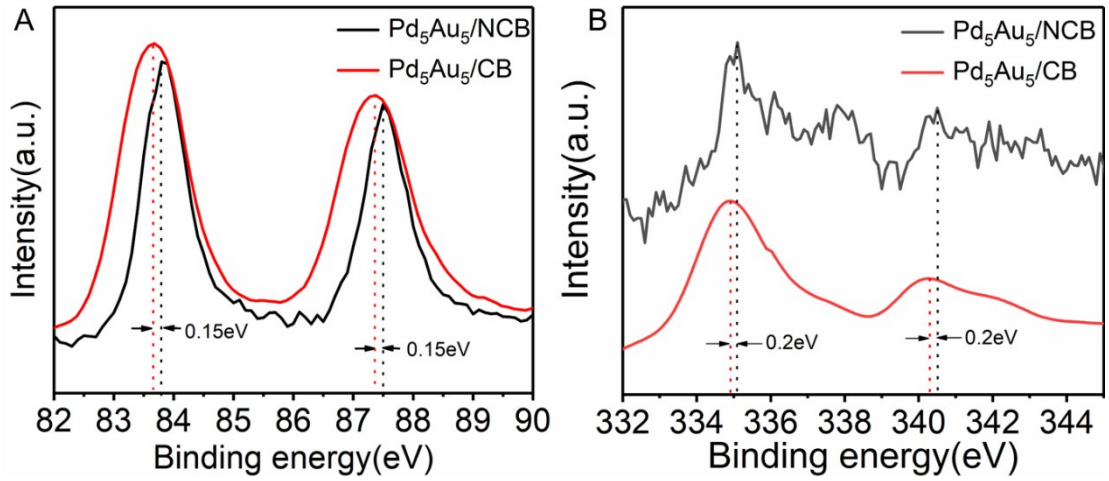

Fig.S1 XPS spectra of Au 4f (A) and Pd 3d (B) of Pd_5Au_5/NCB and Pd_5Au_5/CB

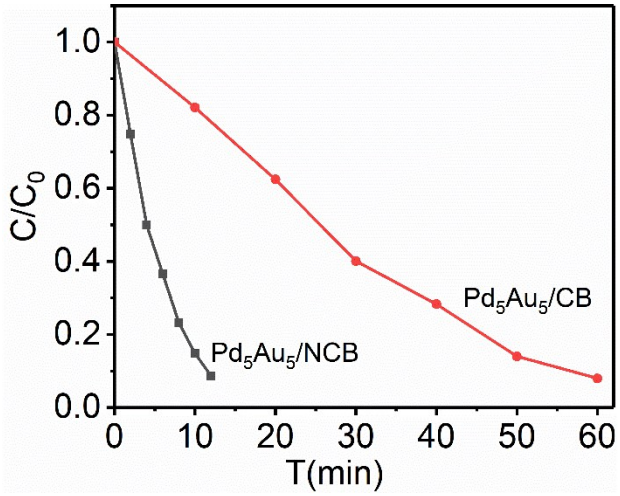

Fig. S2 c/c_0 against reaction time for the hydrogenation of 4-NP over Pd_5Au_5/NCB and Pd_5Au_5/CB

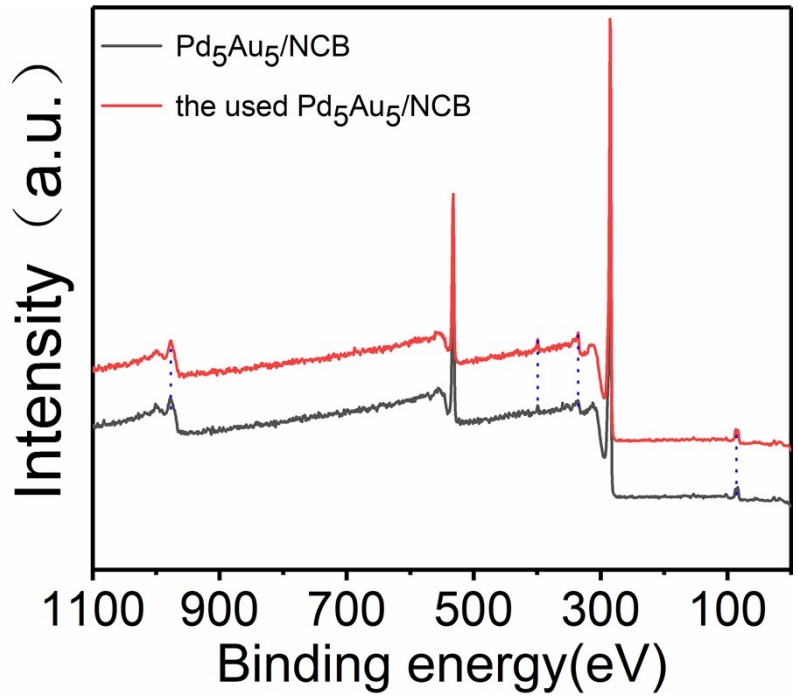

Fig. S3 XPS spectrum of fresh and used Pd_5Au_5/NCB

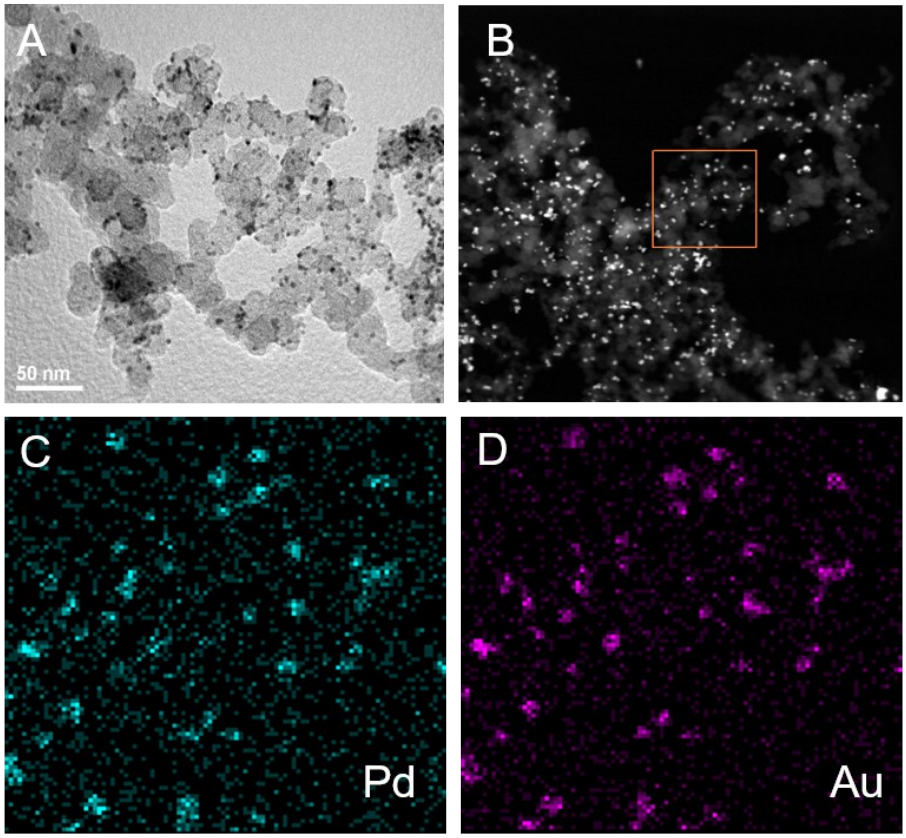

Fig. S4 (A) TEM image (B) HAADF-STEM images of Pd_5Au_5/NCB after 10 cycle (C) EDS mapping of Pd (D) EDS mapping of Au element

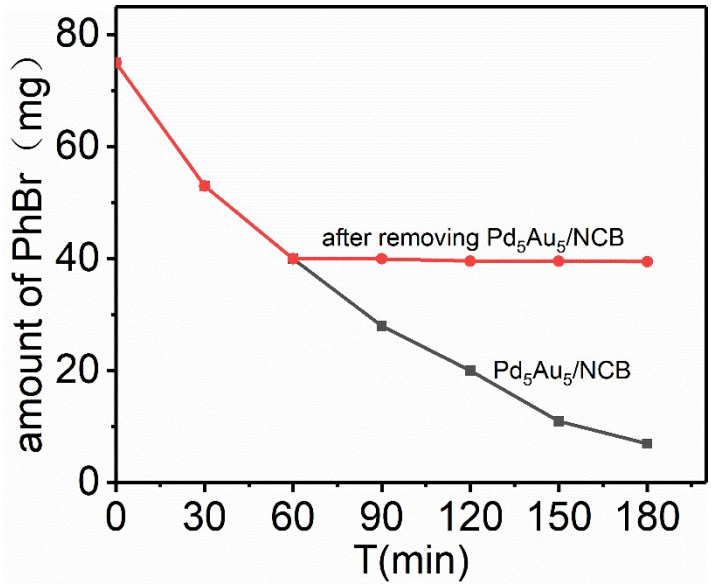

Fig. S5 Amount of PhBr at different time with and without Pd_5Au_5/NCB

Table. S1 concentration of Pd and Au before and after 10 cycles by ICP

Element	Before reaction (mg/L)	After tenth cycle (mg/L)	Leaching (mg/L)
Pd	2.2409	2.1281	0.1128
Au	4.1325	3.9136	0.2189

Table. S1 concentration of Pd and Au before and after 10 cycles by ICP