Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

A Facile, Selective, High Recovery System for Precious Metal Based on Complexation Between Melamine and Cyanuric Acid

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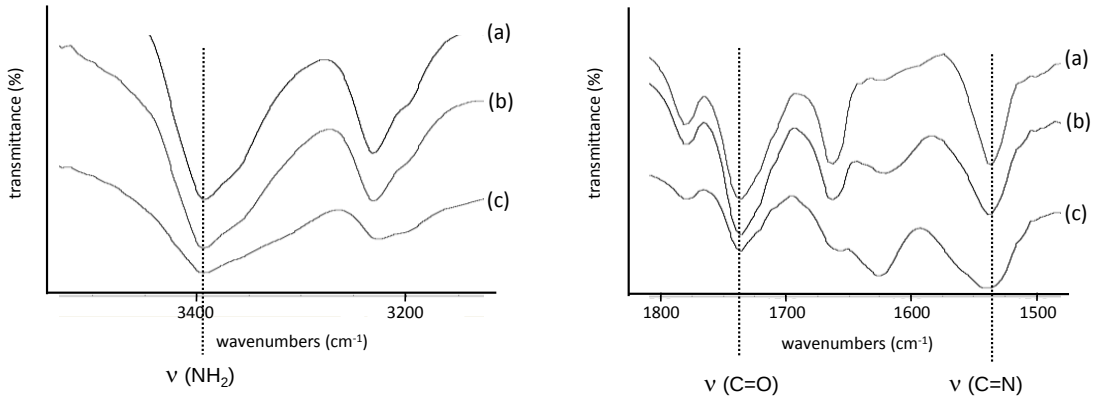

Figure S1. IR spectra of Pd-MC complexes. (a) before recovery; (b) after recovery (recovery amount: 0.122 g_{Pd}/g_{MC}); (c) after recovery (recovery amount: 0.264 g_{Pd}/g_{MC}).

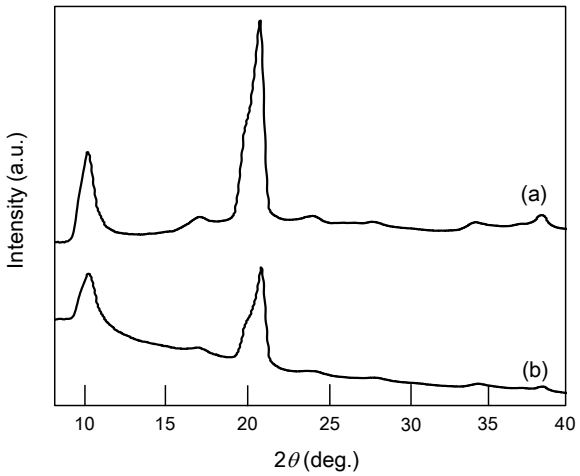

Figure S2. Wide-angle X-ray diffraction (WAXD) spectra of MC complex. (a) before recovery; (b) after recovery (recovery amount: 0.122 g_{Pd}/g_{MC}).

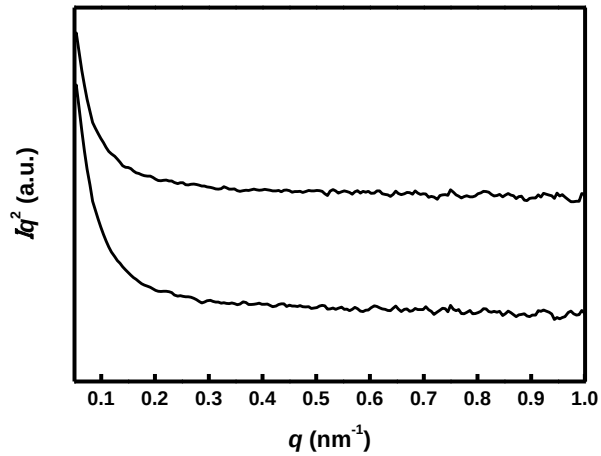

Figure S3. Small-angle X-ray scattering (SAXS) spectra of MC complex. (a) before recovery; (b) after recovery (recovery amount: 0.122 g_{Pd}/g_{MC}). The scattering vector $q = (4\pi\sin\theta)/\lambda$, where λ is the X-ray wavelength. The intensity (I) was Lorentz-corrected by Iq^2. The lower q region ($q < 0.05$ nm^{-1}) corresponding to the beam stopper was eliminated.

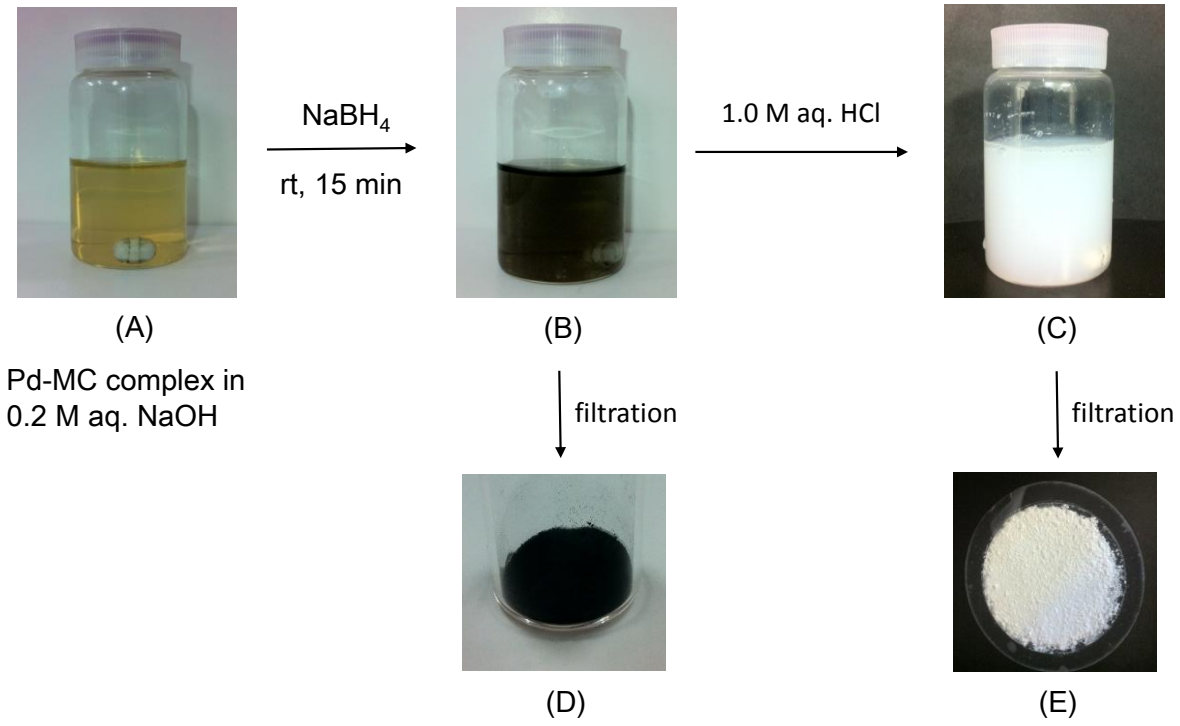

Figure S4. Separation of Pd tom Pd-MC complex.

The XRD pattern of the separated Pd was consistent with that in the literature,[1] although the crystallinity decreased (Figure S8).

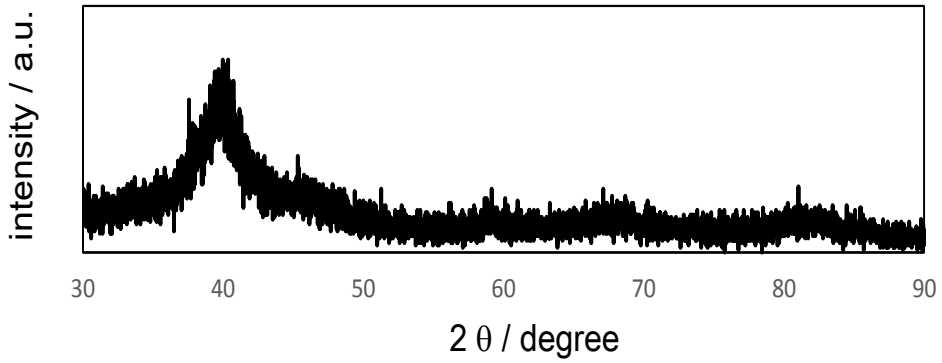

Figure S5. XRD spectrum of the separated Pd.

Reference

1. C. C. Tseng, Y. H. Lin, Y. Y. Shu, C. J. Chen, M. D. Ger *J. Taiwan Inst. Chem. E.* **2011**, *42*, 989-995.