

Figure S1: XRD patterns of (a) urchin-like, (b) flower-like and (c) pompon-like Pd particles prepared with 0.5 mM H_2PdCl_4 .

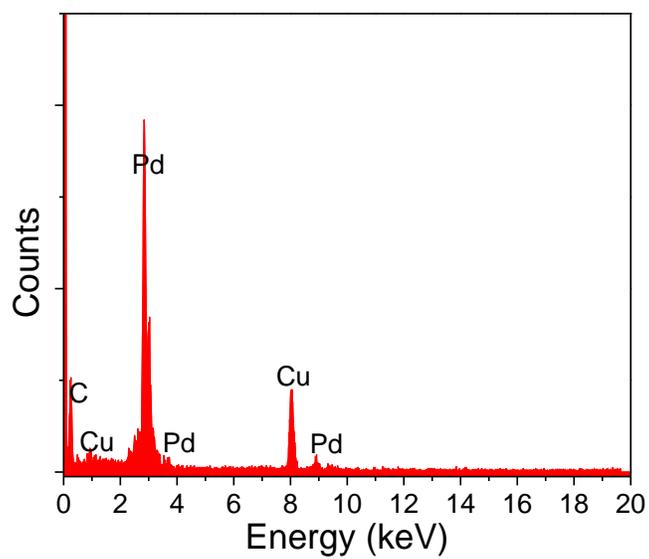


Figure S2: EDX spectrum of single Pd dimer prepared with 0.1 mM H_2PdCl_4 in the presence of PVP (1 mM) by reaction for 3 min.

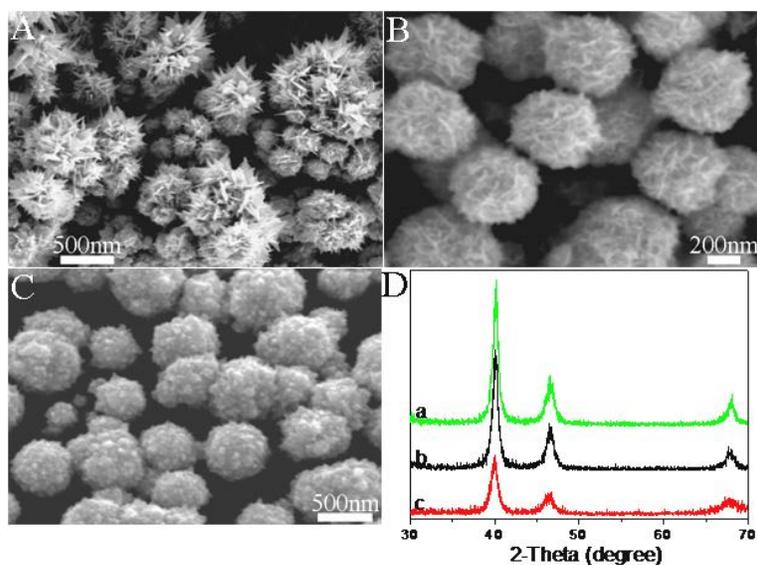


Figure S3: (A) SEM image of urchin-like Pt particles prepared with 0.3 mM H_2PtCl_6 by 10 min reaction; (B, C) SEM images of flower-like and spherical Pt particles prepared with 0.3 mM H_2PtCl_6 in the presence of CTAB (2.4 mM) and PVP (1 mM), respectively, by 20 min reaction; (D) XRD patterns of (a) urchin-like, (b) flower-like and (c) spherical Pt particles.