Electronic Supplementary Material (ESI) for CrystEngComm.

Electronic supplementary information

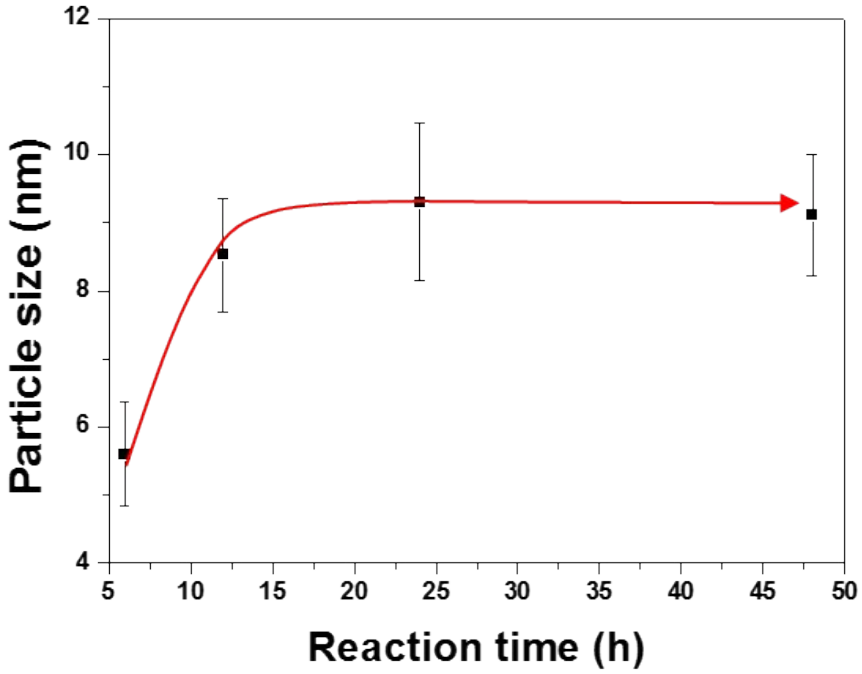

Fig. S1 Average size of the Pt nanoparticles prepared with 0.18 M C_{16}TABr and various reaction time. The error bars were obtained by analyzing 100 particles for each sample.

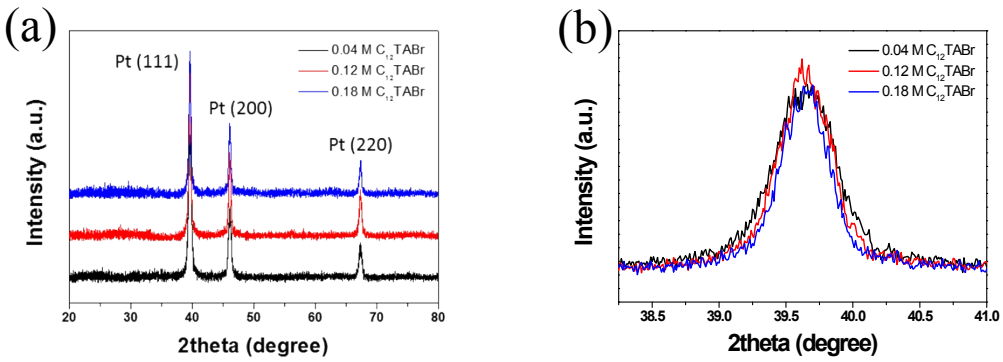

Fig. S2 XRD data of (a) Pt nanoparticles prepared with various concentrations of C_{12}TABr for 24 h and (b) magnification of (111) peak.

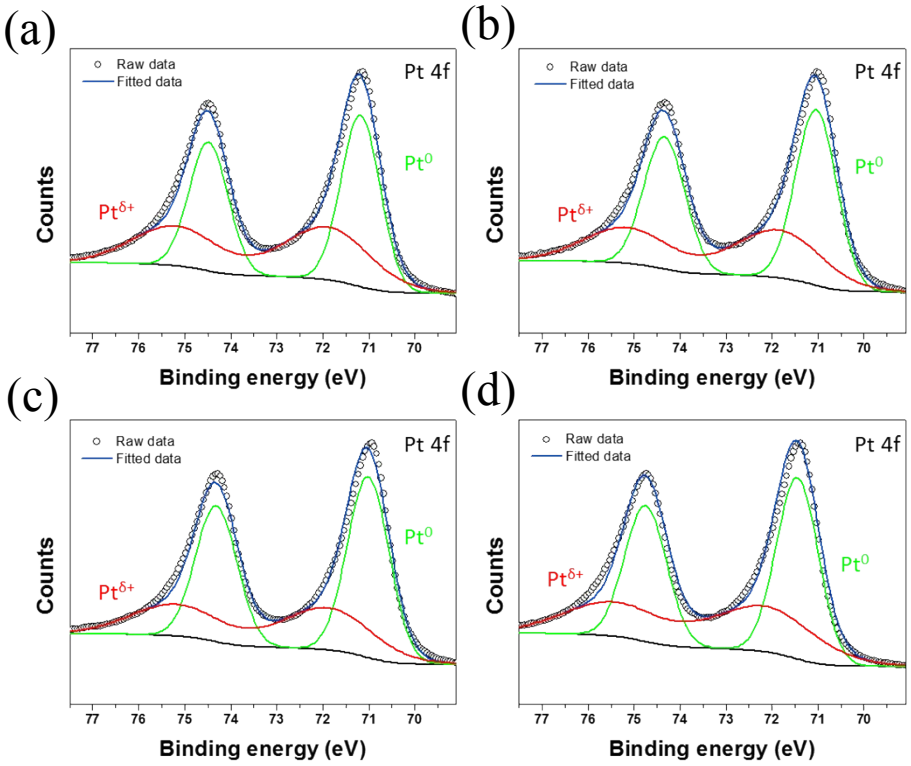

Fig. S3 High resolution XPS spectrum of the Pt 4f state of the Pt nanoparticles prepared with 0.12 M (a) C_{12}TABr, (b) C_{14}TABr, (c) C_{16}TABr and (d) C_{18}TABr for 24 h.

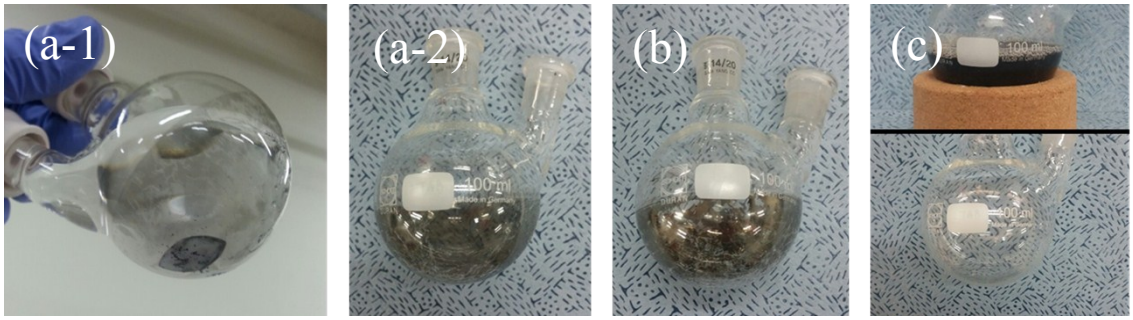

Fig. S4 Photographs of a flask after the Pt nanoparticle synthesis with (a-1&2) 0.005 M C_{12}TABr, (b) 0.008 M C_{12}TABr, and (c) 0.12 M of C_{12}TABr.

Table S1. Calculated size of the Pt nanoparticles prepared with C_{12}TABr by Scherrer equation from (111) peak in XRD patterns and TEM analysis.

	0.04 M	0.12 M	0.18 M
Particle size (Scherrer equation)	16.1 nm	19.2 nm	21.2 nm
Particle size (TEM analysis)	18.8 nm	21.8 nm	24.5 nm

Table S2. Critical micelle concentration (CMC) values of each surfactant.

	C_{10}TABr	C_{12}TABr	C_{14}TABr	C_{16}TABr	C_{18}TABr
CMC (mM)	65.6[19], 66.9[20]	15.7[20], 14.4[22]	3.94[19,20]	0.92[20], 0.9[21]	0.35[23]