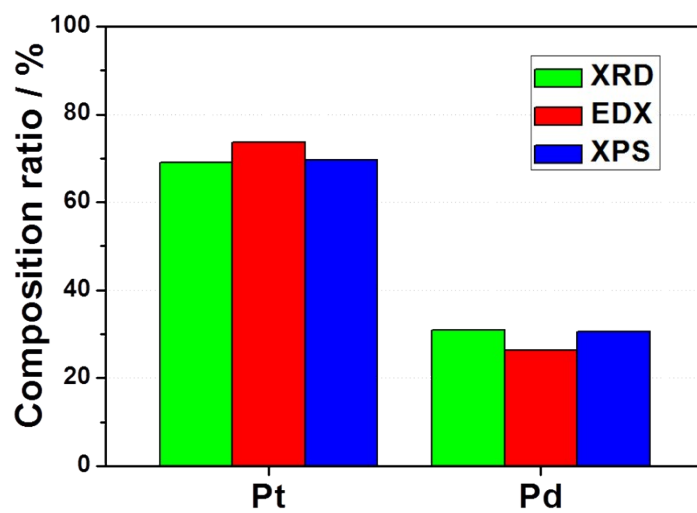
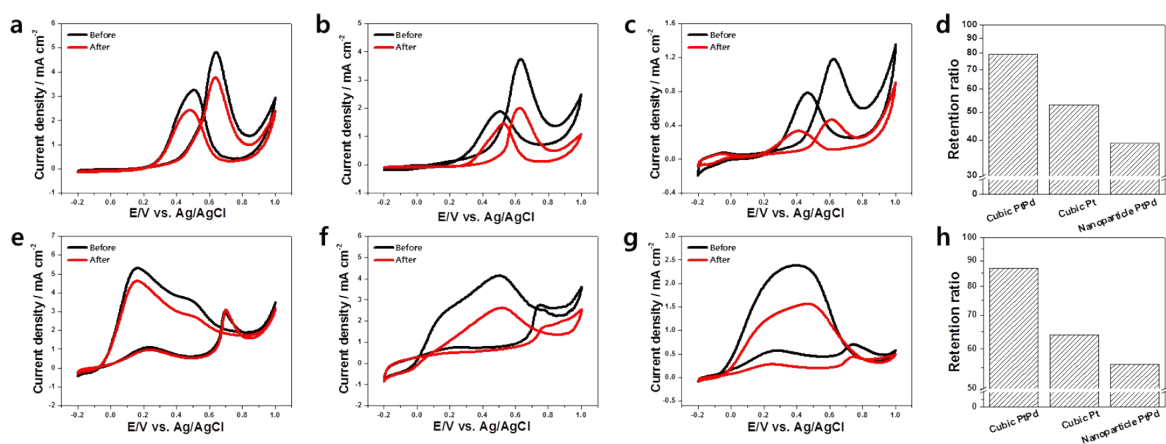


**Fig. S1** HR-TEM images, size distribution histograms, high-resolution TEM images, and FFT patterns of the PtPd NPs ((a)-(d)) synthesized in the presence of  $W(CO)_6$  and poly-PtPd ((e)-(h)) prepared using borohydride reduction method.



**Fig. S2** Comparison of the elemental compositions of Pt and Pd in the cubic PtPd NPs measured using EDX, XRD, and XPS.



**Fig. S3** CVs of the cubic PtPd ((a),(e)), cubic Pt ((b),(f)), and poly-PtPd ((c),(g)) NPs before and after the stability test of MOR and FAOR, respectively. Comparison of retention ratios of the as-prepared NPs before and after the stability test of (d) MOR and (h) FAOR.