Supporting Information

Facile synthesis of a Ag nanoparticles/ polyoxometalate/ carbon nanotubes tri-component hybrid and its activity in the electrocatalysis of oxygen reduction

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Table S1 The cathodic peaks of oxygen reduction on the five electrodes

Electrode material	peak potential / V vs. SCE	peak current density / mA cm^{-2}
bare CNTs	-0.51	-0.29
(active mass loading 5.36×10^{-3}mg)	-0.92	-0.35
pure Ag NPs	-0.52	-0.17
(Ag loading ~3.20×10^{-3} mg)	-0.81	-0.39
10% Ag NPs@POM-CNTs	-0.4	-0.6
(Ag loading ~5.95×10^{-4} mg)		
20% Ag NPs@POM-CNTs	-0.39	-1.11
(Ag loading ~1.34×10^{-3} mg)		
36% Ag NPs@POM-CNTs	-0.38	-1.31
(Ag loading ~3.00×10^{-3} mg)		

Table S2 The numbers of electrons transferred for ORR on the five electrodes calculated from the slopes of the Koutecky–Levich plots (shown in Fig. 8A, see in the text) at various potentials

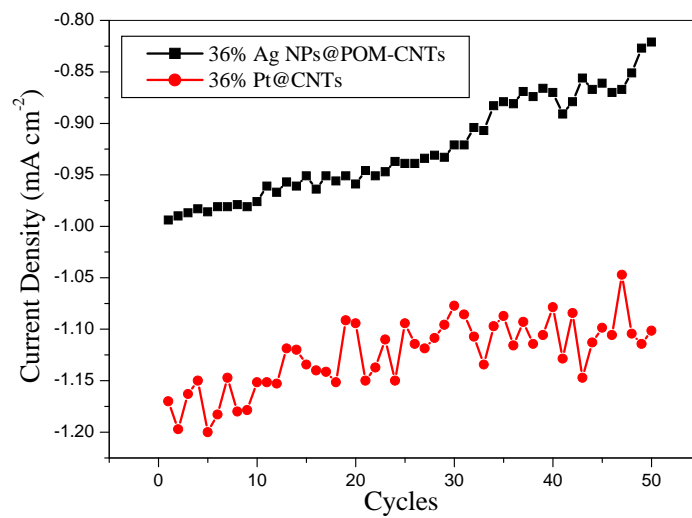| Electron / Electrode number / Potential	bare CNTs	Ag NPs	10% Ag NPs@POM-CNTs	20% Ag NPs@POM-CNTs	36% Ag NPs@POM-CNTs
-0.4 V	2.52	2.42	4.01	4.21	4.01
-0.5 V	2.18	2.12	4.18	3.96	4.06
-0.6 V	2.14	2.08	4.01	3.86	3.89
-0.7 V	2.32	2.35	3.69	3.76	3.87
-0.8 V	2.61	2.68	3.98	3.71	4.11

Figure S1 Current–cycle response of 36% Ag NPs@POM-CNTs and 36% Pt/CNTs modified GC electrodes at -0.4 V vs. SCE during continuous cyclic voltammetric measurements.