Electronic Supplementary Information

Ultrasonic-electrodepositing PtPd alloy nanoparticles on ionic liquid–functionalized graphene paper: towards flexible and versatile nanohybrid electrode

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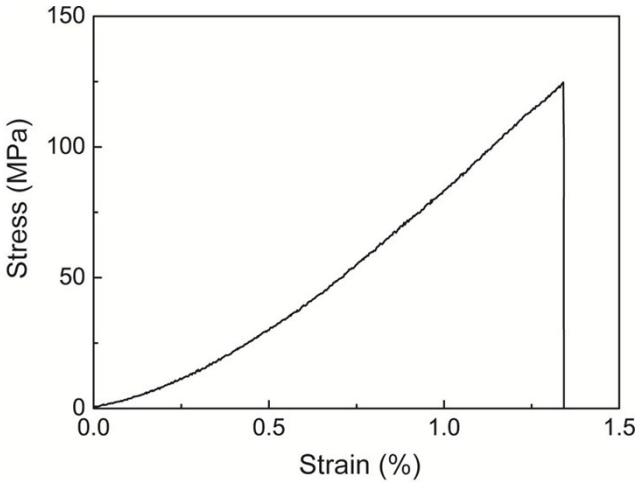

Figure S1 Stress-strain curve of the IL–rGOP.

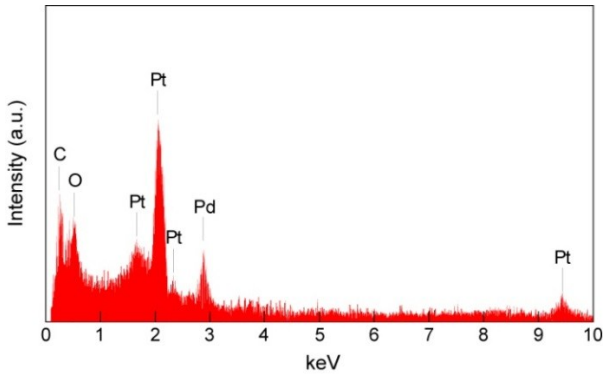

Figure S2 EDX spectrum of PtPd/IL–rGOP.

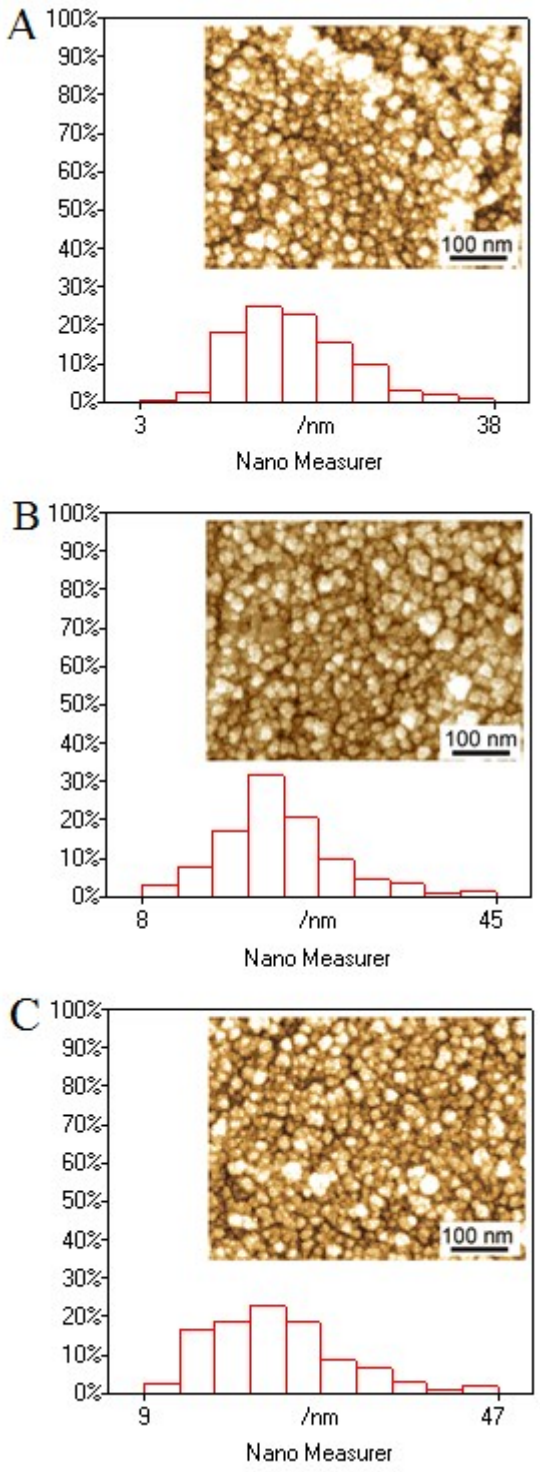

Figure S3 The particle size and size distribution of (A) Pt/IL–rGOP (I), (B) PtPd/IL–rGOP (I) and (C) Pd/IL–rGOP (I) derived from the SEM images (inset).

Table S1 Structural parameters of Pt, PtPd and Pd nanoparticles electrodeposited on IL–rGOP derived from XRD.

Peak (111)	2θ (°)	*d* (Å)	Grain size (nm)
Pt/IL–rGOP (I)	38.9	2.315	10.0
PtPd/IL–rGOP (I)	39.2	2.297	11.1
Pd/IL–rGOP (I)	39.8	2.263	8.3

Table S2 Influence of the potential interfering species on the determination of 5.0 mM glucose on PtPd/IL–rGOP (I) electrode in 0.1 M PBS (pH 7.0).

Foreign species	Concentration spiked (mM)	Change of amperometric response (%)	RSD (%) (n =10)
K^+	50.0	4.6	4.7
Na^+	50.0	3.2	2.6
Ca^{2+}	50.0	-3.8	3.9
Mg^{2+}	50.0	3.1	2.1
Zn^{2+}	50.0	-4.3	4.5
Sn^{2+}	50.0	-2.4	3.8
Mn^{2+}	50.0	-4.7	2.6
Fe^{2+}	50.0	4.4	3.5
Co^{2+}	50.0	3.5	4.3
Ni^{2+}	50.0	3.2	2.6
Al^{3+}	50.0	-3.0	1.9
adenine	10.0	2.4	3.7
guanine	10.0	2.1	1.8
cytosine	10.0	4.2	2.8
thymine	10.0	3.9	2.9
xanthine	10.0	-3.8	3.3
hypoxanthine	10.0	4.9	2.0
cysteine	10.0	4.6	2.5
glutamine	10.0	-4.1	3.6
glycine	10.0	-3.6	2.3
lactamine	10.0	2.2	2.4
phenylalanine	10.0	2.8	3.0
serine	10.0	3.7	3.5
tyrosine	10.0	4.2	4.2