Supporting Information

Design and Fabrication of Surface Capped Palladium Nanoclusters for the Subnanomolar Sensing of Glutathione

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Figure S1: Cyclic voltammogram of 5mM of $K_3[Fe(CN)_6]$ in 0.1M KCl as supporting electrolyte with scan rate of 50 mVs$^{-1}$ at bare glassy carbon (black curve) and PdAC/GCE (red curve).

Figure S2: Scan rate variation (10 to 90 mVs$^{-1}$) studies at Bare GCE (a) and PdAC/GCE (b) with 1mM $K_3[Fe(CN)_6]$ in 0.01 M KCl as supporting electrolyte.
**Figure S3**: MALDI-TOF-MS spectra of electrochemically synthesized PdAC in presence of 50 mM of SDS and 1mM of PdCl$_2$ solution using potentiodynamic method.

**Figure S4**: Absorbance spectra of palladium atomic clusters formed by potentiodynamic cycling in the range +0.50 to -0.50 V for 50 cycles in the presence of 50 mM of anionic surfactant SDS.
Figure S5: The effect of sweep rate on the electrocatalytic behaviour of PdAC-GCE modified electrode towards the oxidation of glutathione.

Figure S6: Selectivity studies using differential pulse cathodic stripping voltammetric signals of glutathione and other biologically co-existing molecules (1×10^{-6} M each).