Electronic Supplementary Material (ESI) for Analyst

Supporting Information

The self-assembled $Ru(bpy)_3(PF_6)_2$ nanoparticle on polystyrene microfibers and its application for ECL sensing

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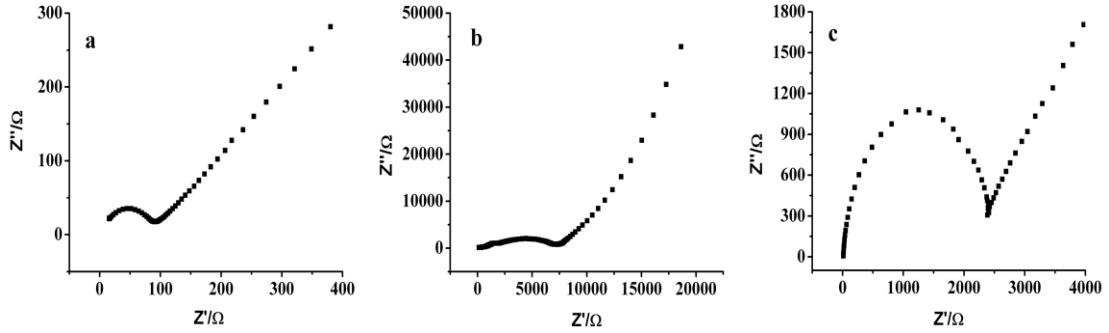

Fig.S1 Nyquist plot of EIS behaviours of the bare GCE (a), Ru/SPS/GCE (b), and RuNP/SPS/GCE (c) in 0.10 M KCl solution containing 5 mM $Fe(CN)_6^{3-}/Fe(CN)_6^{4-}$.

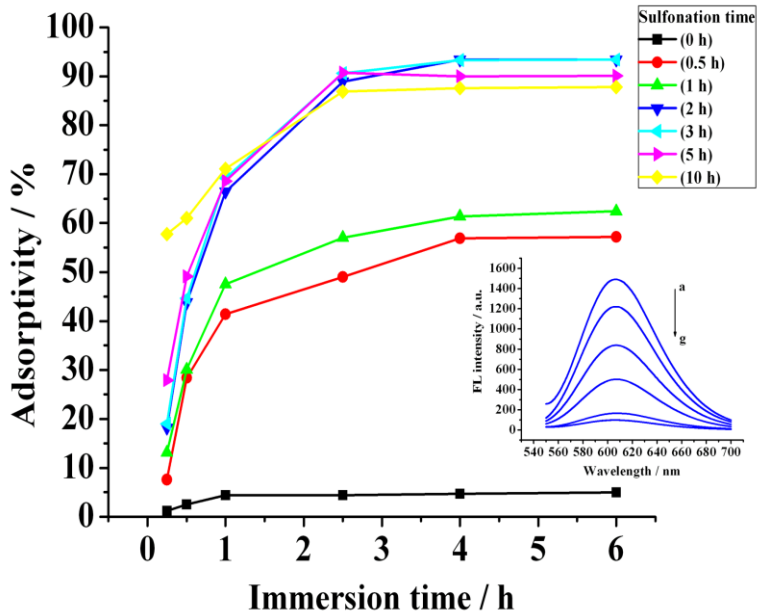

Fig.S2 Effect of immersion time in 1.0 mL (1.0×10^{-5} M) $Ru(bpy)_3^{2+}$ solution on the adsorptivity of different sulfonation time of PS microfibers (1 cm×1 cm). The inset displays the fluorescence intensity of 1.0×10^{-5} M $Ru(bpy)_3^{2+}$ solution without (curve a) and with (curve b-g) SPS microfibers (2 h sulfonation), the immersion time was 0.25 h (b), 0.50 h (c), 1.0 h (d), 2.5 h (e), 4.0 h (f), 6.0 h (g), respectively.

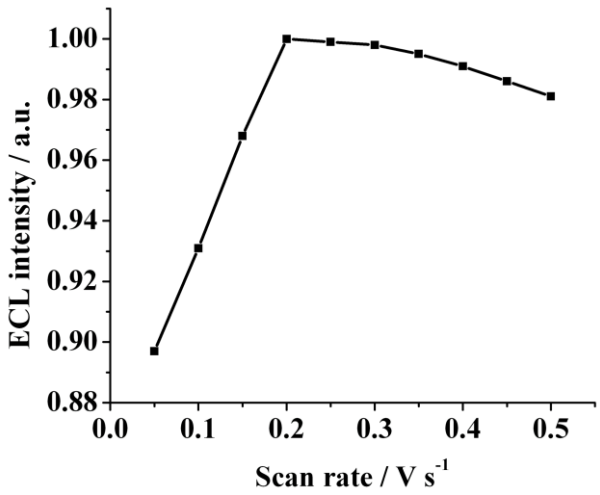

Fig.S3 Effect of scan rate on ECL intensity of the RuNP/SPS/GE in 0.10 M PBS (pH 7.5) containing 2.5 mM TPrA.

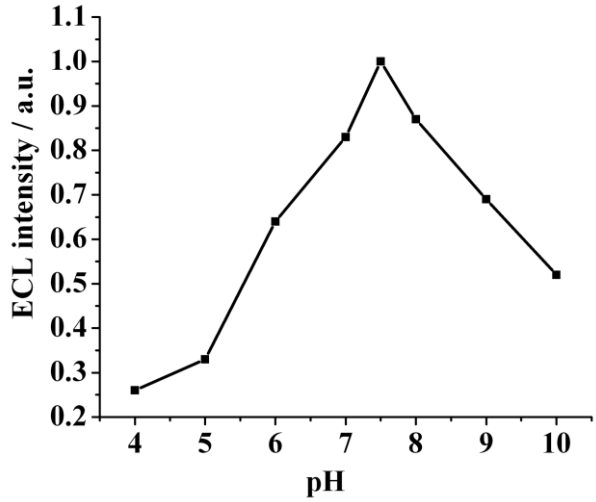

Fig.S4 Effect of pH on ECL signals of the RuNP/SPS/GE in 0.10 M PBS (pH 7.5) containing 2.5 mM TPrA.