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)$^2$/Fe(CN)$^4$.

Fig. S2 Effect of immersion time in 1.0 mL (1.0 $\times$ 10$^{-5}$ M) Ru(bpy)$_3$$^{2+}$ solution on the adsorptivity of different sulfonation time of PS microfibers (1 cm x 1 cm). The inset displays the fluorescence intensity of 1.0 $\times$ 10$^{-5}$ M Ru(bpy)$_3$$^{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.