

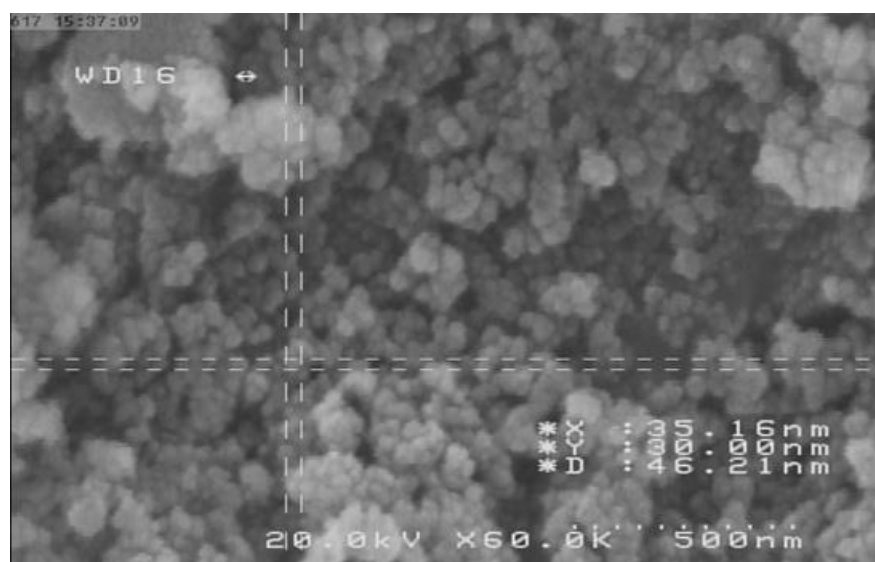
Supplementary data



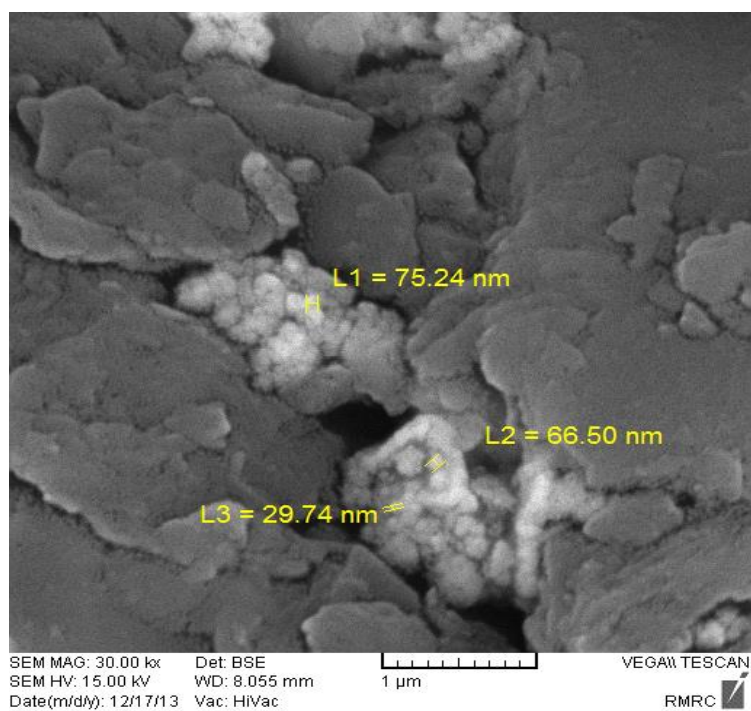
Fig.S1Fl-win lab photomultiplier LS 50(Perkin-Elmer)and fixed on holder



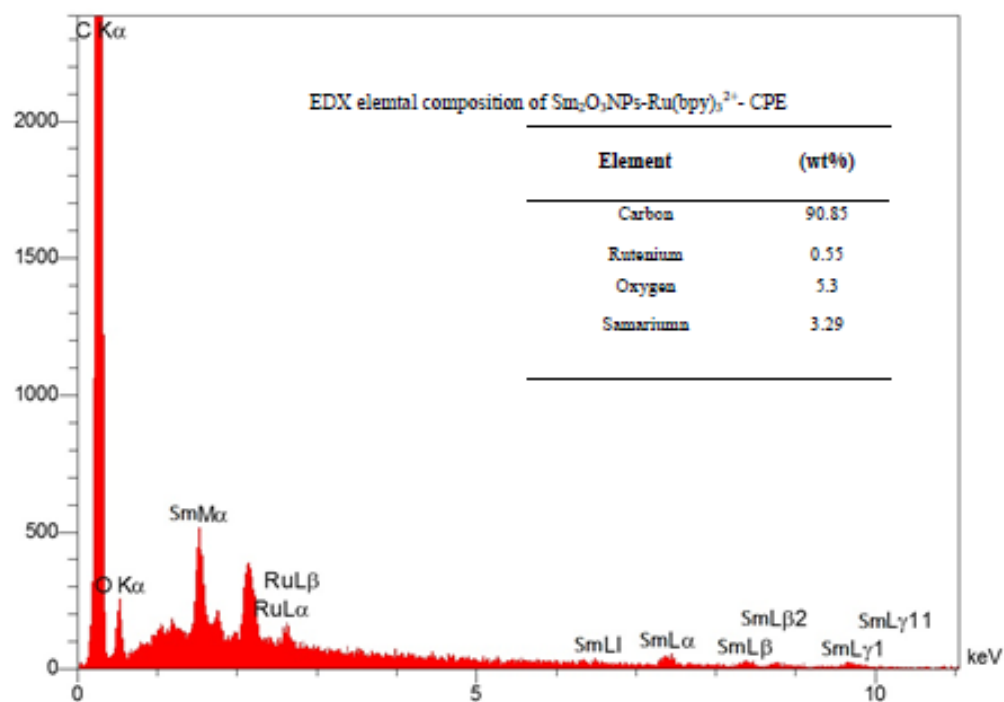
Fig.S2Carbon paste electrode (CPE)



A



B



C

Fig. S3. SEM image of $\text{Sm}_2\text{O}_3\text{NPs}$ (A), incorporation of $\text{Sm}_2\text{O}_3\text{NPs}$ in carbon paste(B) EDX

Spectra $\text{Sm}_2\text{O}_3\text{NPs-Ru}(\text{bpy})_3^{2+}$ - CPE (C)

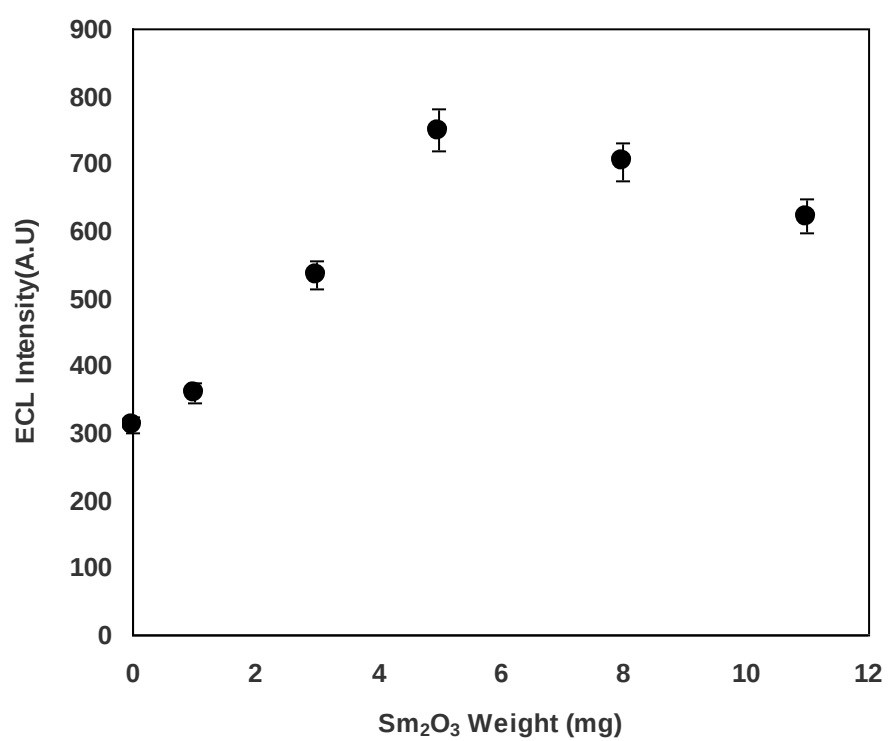


Fig.S4. Effect of Sm_2O_3 on the ECL intensity