Electronic Supplementary Information For:

Ruthenium Bipyridine Complexes as Electrochemiluminescent Transducers for lonophore-based Ion-Selective Detection

Yinghong Tang⁺, Jingying Zhai^{+*}, Qinghan Chen^{§,+}, Xiaojiang Xie^{+*}

[†]Department of Chemistry, Southern University of Science and Technology, Shenzhen, 518055, China

[§]School of Chemistry and Chemical Engineering, Harbin Institute of Technology, Harbin, 150001, China

[†]Academy for Advanced Interdisciplinary Studies, Southern University of Science and Technology, Shenzhen, 518055, China

*E-mail: zhaijy@sustech.edu.cn; xiexj@sustech.edu.cn



Figure S1. CV of 0.1 mM of Ru(p-CF3-bpy)₃²⁺ in 0.1 M PBS buffer containing 0.01 M NaCl and half volume of THF to facilitate dissolution. Reference electrode: Ag/AgCl.



Figure S2. (a) ECL and CV of 0.2 μ M Ru(bpy)₃²⁺ in the presence of 0.10 M TPrA with 0.01 M NaCl / 0.19 M PBS buffer (pH = 7.4) at a glassy carbon electrode at a scan rate of 100 mV/s. (b) Changes of ECL intensity with time at different scanning voltages.



Figure S3. Fluorescence emission spectra of the $Ru(p-CF3-bpy)_{3^{2+}}$ in response to the Na^{+} . (excited at 453 nm)