

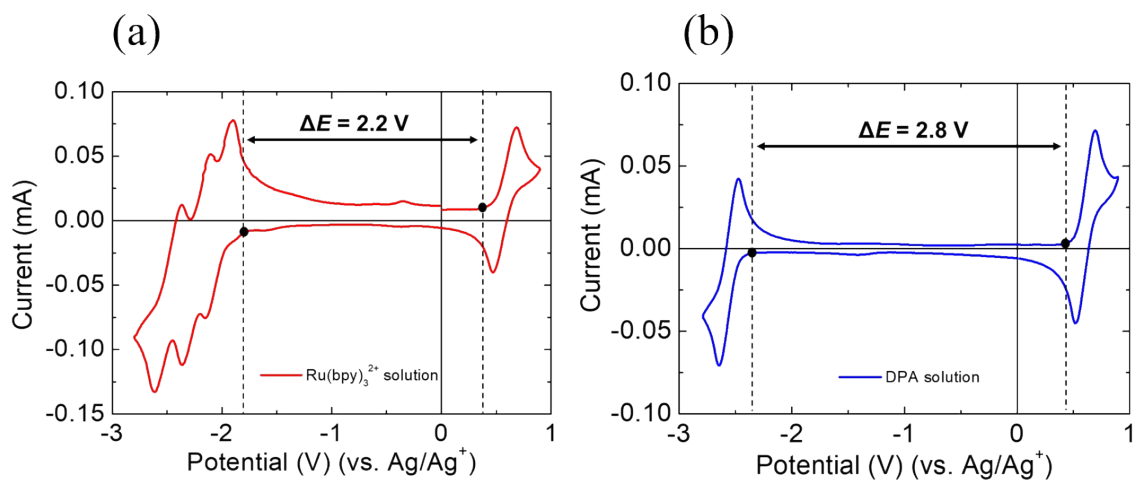
Electronic Supplementary Information (ESI)

**Upconverted blue electrochemiluminescence of 9,10-diphenylanthracene with ultrafast response on photo-electro functional DNA/Ru(bpy)<sub>3</sub><sup>2+</sup> hybrid electrode**

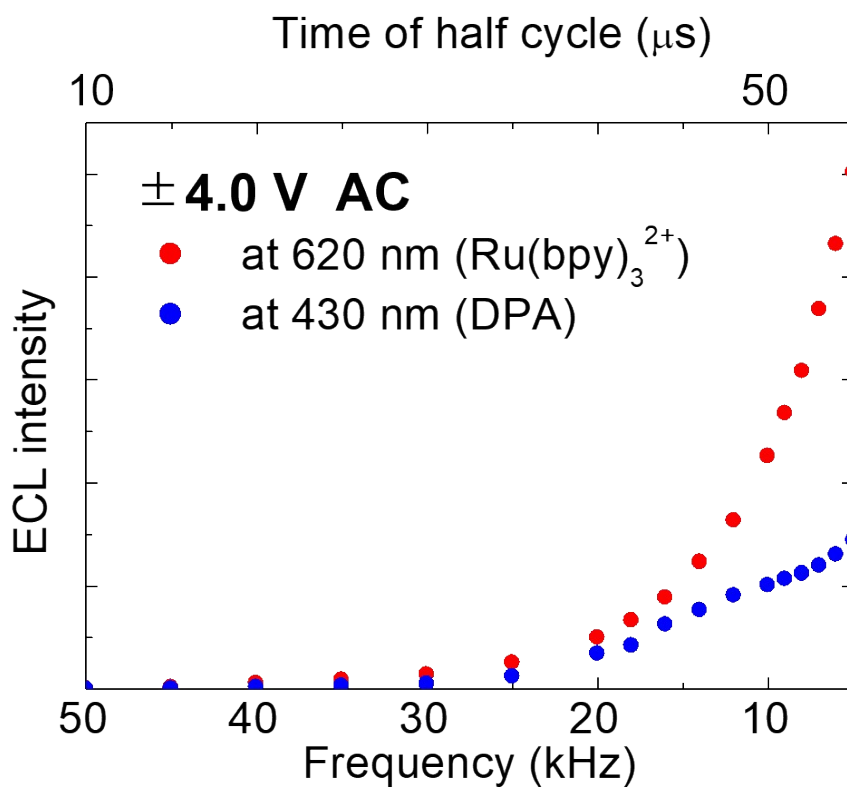
Ryuki Ozawa, Haruki Minami, Kazuki Nakamura, Norihisa Kobayashi\*

*Graduate School of Engineering, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba, 263-8522 Japan*

*E-mail: koban@faculty.chiba-u.jp*



**Figure S1.** CVs of 3-electrode cells with (a) 10 mmolL<sup>-1</sup> Ru(bpy)<sub>3</sub><sup>2+</sup> and (b) 10 mmolL<sup>-1</sup> DPA in PC/toluene. Scan rate: 50 mVs<sup>-1</sup>.



**Figure S2.** Frequency dependence of ECL intensity from the DNA/ $\text{Ru}(\text{bpy})_3^{2+}$ -DPA device at 620 and 430 nm under the application of rectangular-wave  $\pm 4.0 \text{ V AC}$ .