Supporting Information.

Spectrally Independent and Wide-Angle Light Extraction of Organic Light Emitting Diodes with Randomly Disassembled Nanostructure

Ndikumana Joel†, Kunsik An†*

† Department of Mechatronics Engineering, Konkuk University, Chungju 27478, Republic of Korea

* Corresponding author.

E-mail address: kunsik1214@kku.ac.kr (K. An).

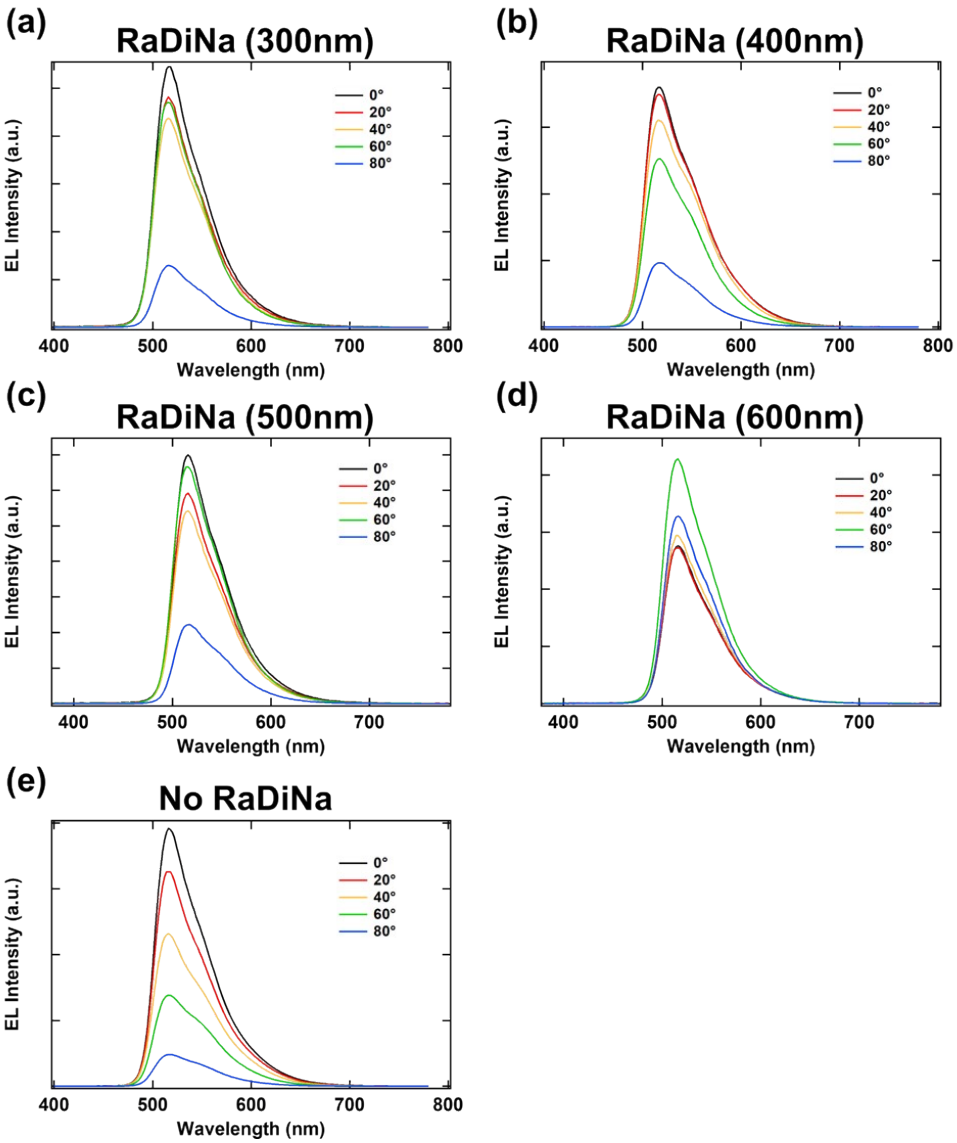

Figure S1. Unnormalized electroluminescence (EL) spectra at various average lengths of ZnO NRs: (a) 300 nm, (b) 400 nm, (c) 500 nm, (d) 600 nm, and (e) without RaDiNa. The spectra are plotted at different viewing angles (0°, 20°, 40°, 60°, and 80°) to illustrate the impact of RaDiNa on device performance.

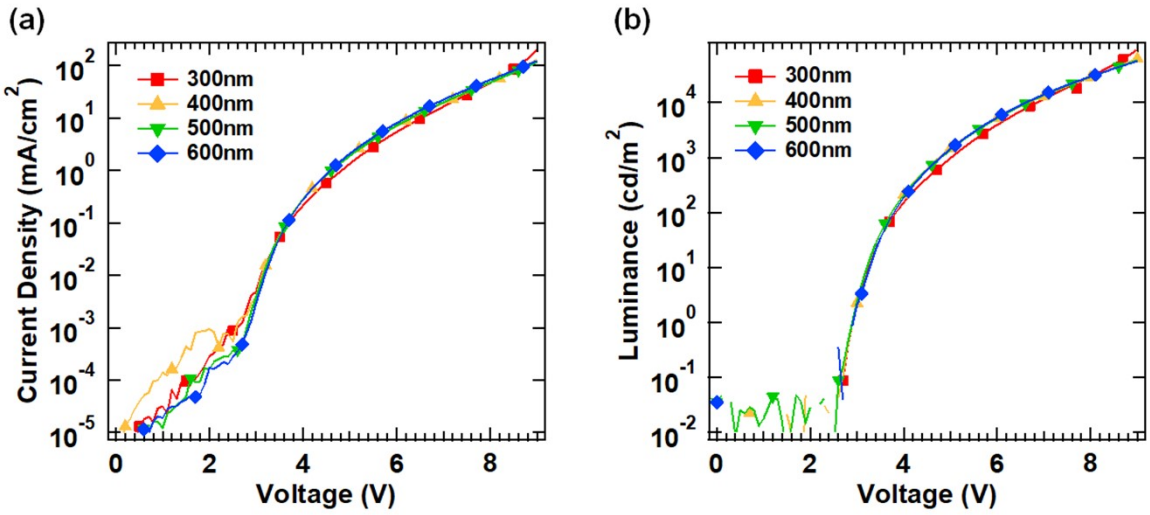

Figure S2. a) Current density-voltage characteristics and b) Luminance-voltage characteristics

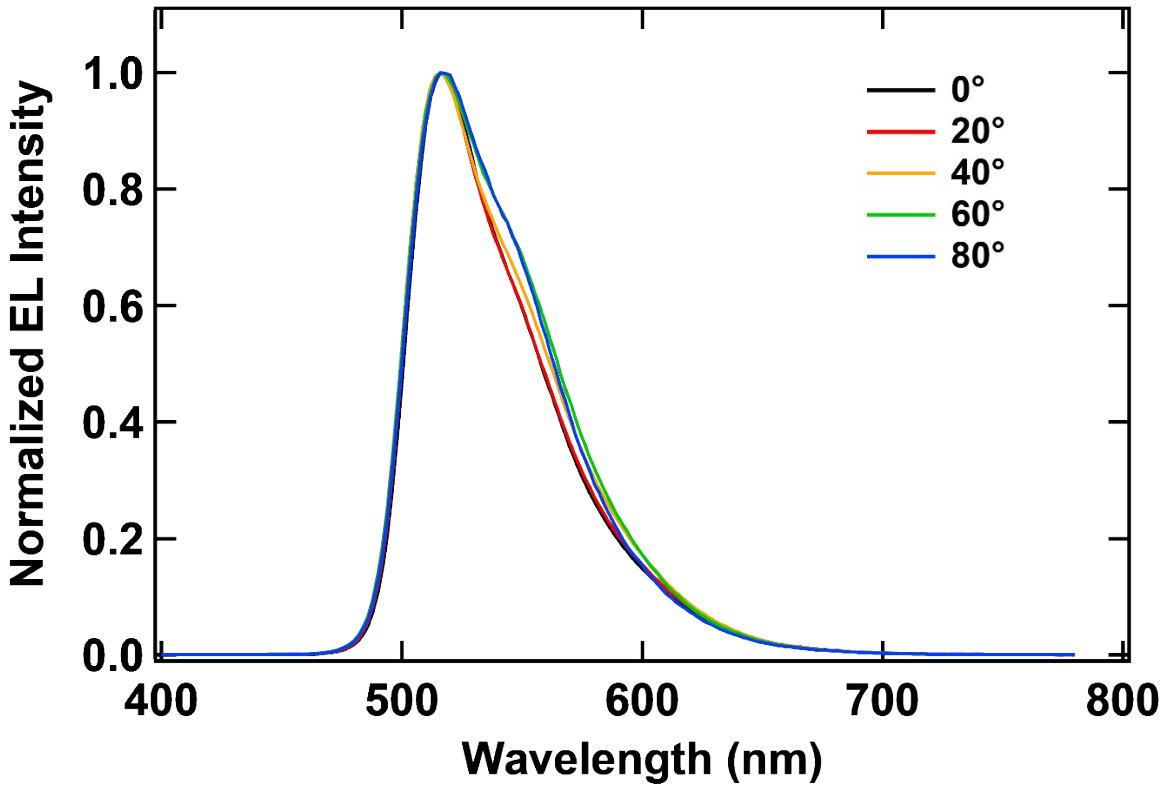

Figure S3. angular EL spectra of the fabricated OLEDs without RaDiNa across different viewing angles (0°, 20°, 40°, 60°, and 80°).