

Supporting Information

Pyrene-functionalized carbazole derivatives as non-doped blue emitters for highly efficient blue organic light-emitting diodes

Palita Kotchapradist,^a Narid Prachumrak,^a Ruangchai Tarsang,^a Siriporn Jungsuttiwong,^a Tinnagon Keawin,^a Taweesak Sudyoadsuk^a and Vinich Promarak^{b}*

^a Department of Chemistry, Faculty of Science, Ubon Ratchathani University, Ubon Ratchathani, 34190, Thailand.

^b School of Chemistry and Center of Excellence for Innovation in Chemistry, Institute of Science, Suranaree University of Technology, Muang District, Nakhon Ratchasima, 30000, Thailand. Tel: 66 4422 4277; Fax: 66 4422 4648

E-mail: pvinich@sut.ac.th

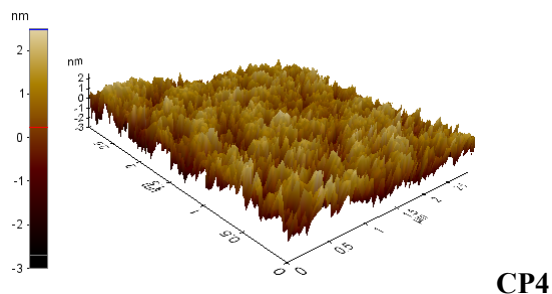
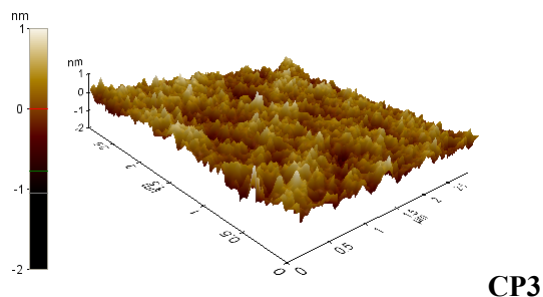
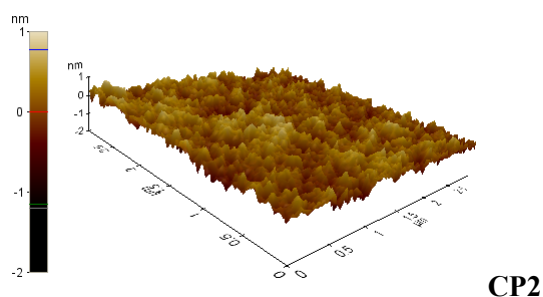


Fig. S1 AFM images of the spin-coated thin films of CP_n.

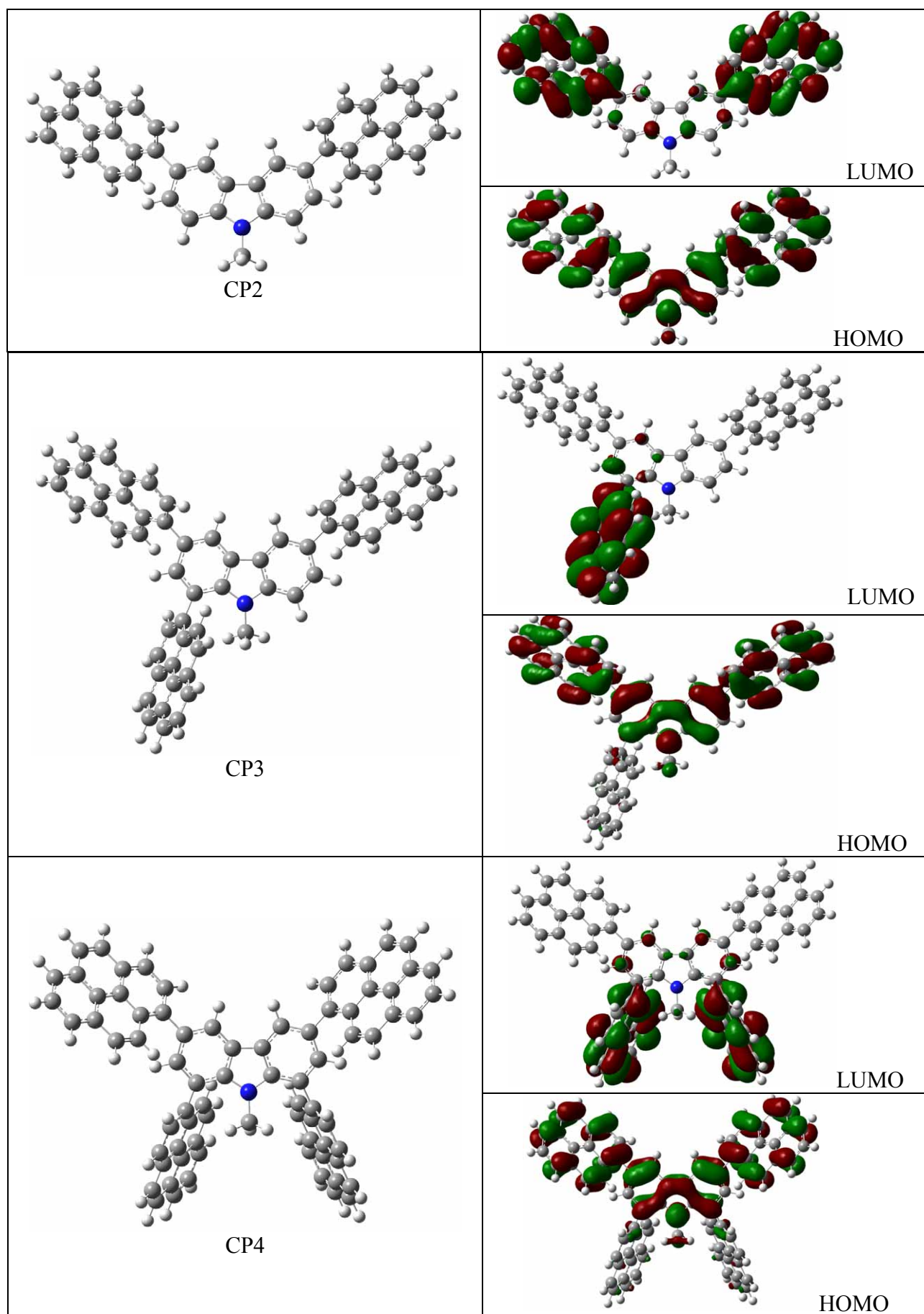


Fig. S2 Optimized ground-state geometries and HOMO and LUOM orbitals of **CP_n** calculated by B3LYP/6-31g(d,p) method.

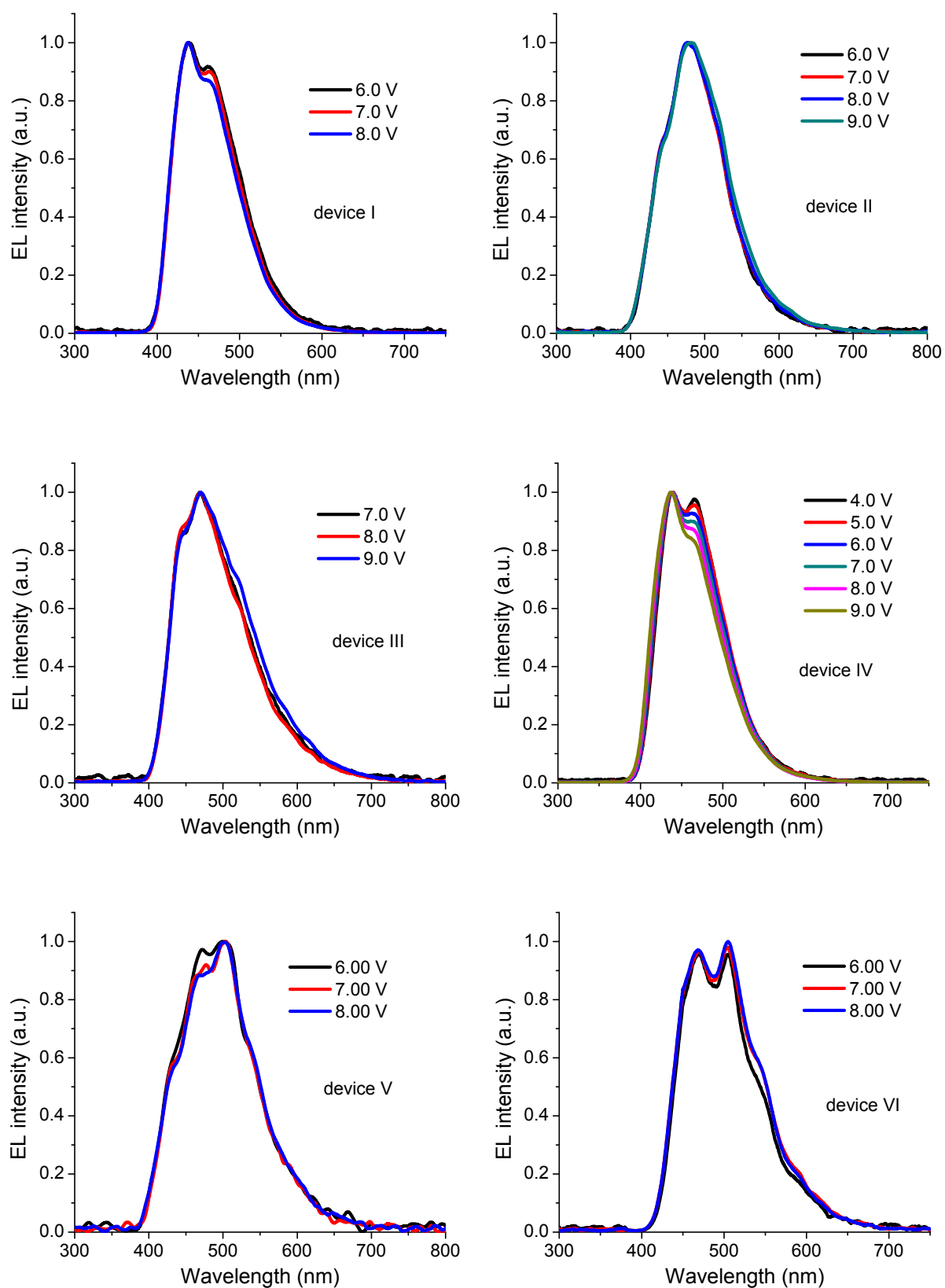
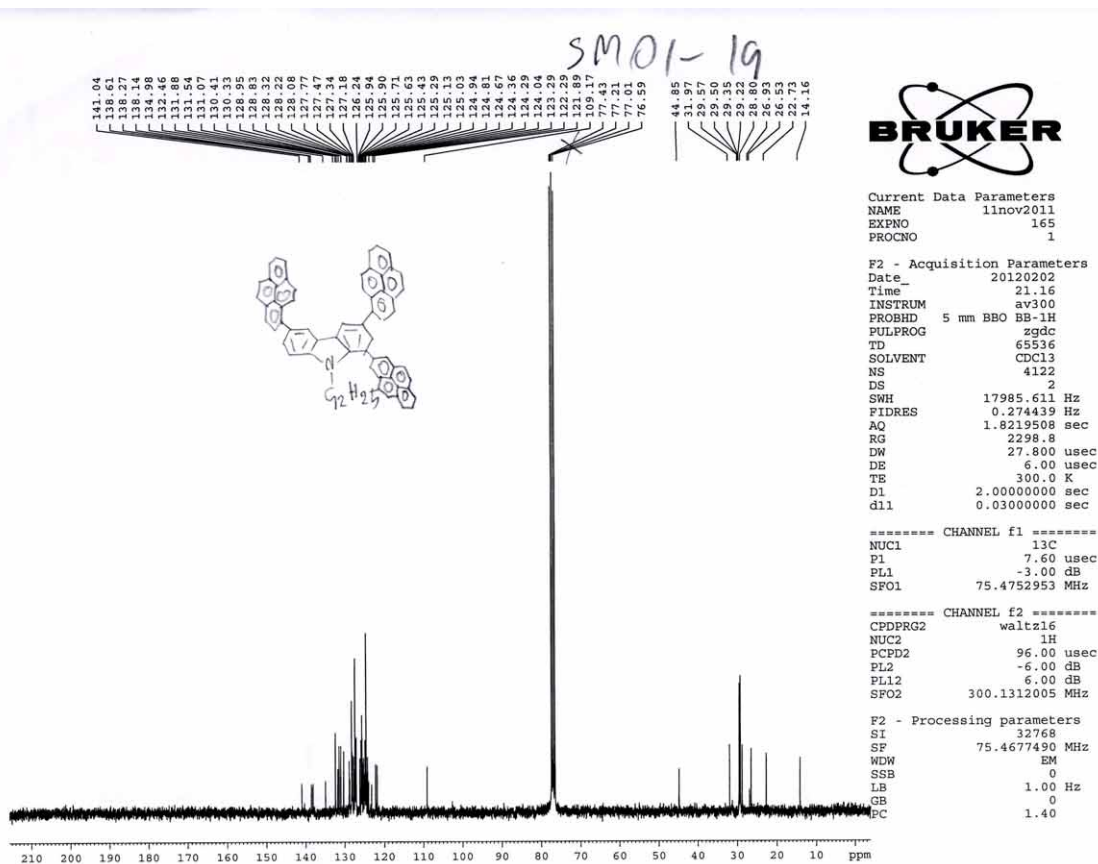
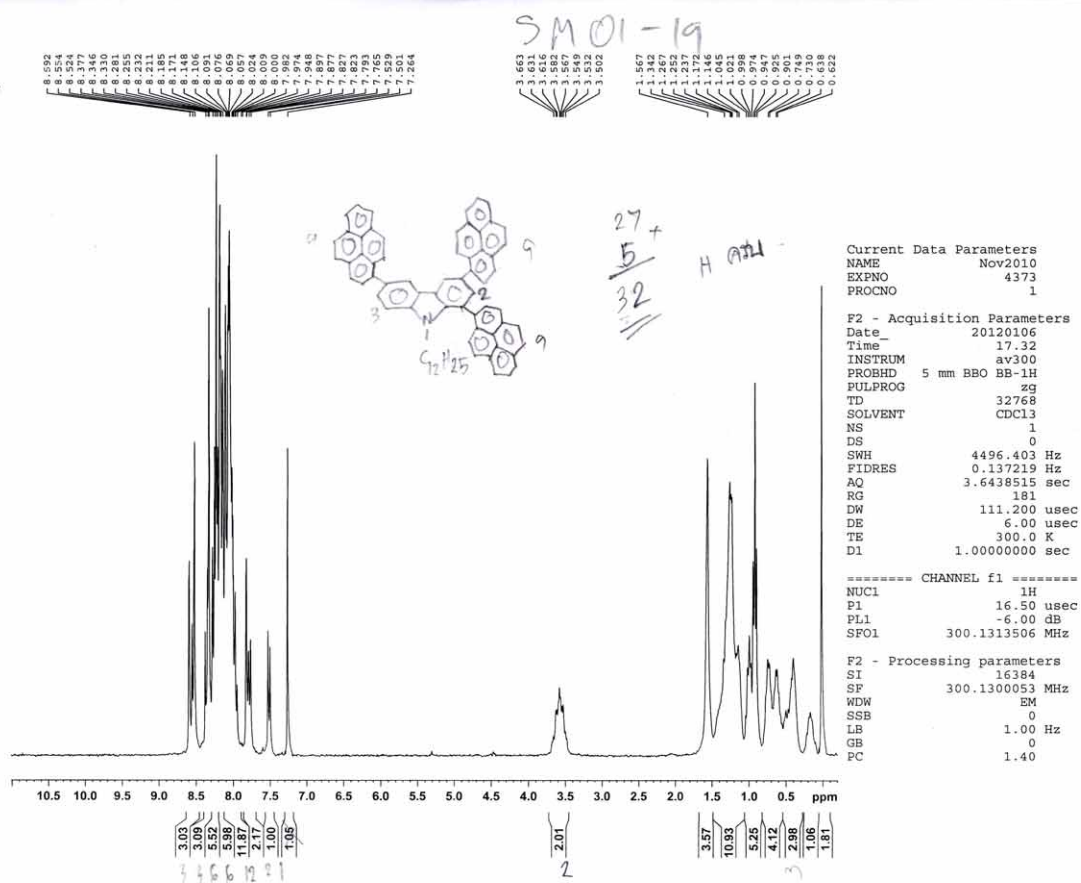


Fig S3. EL spectra of the OLEDs (devices I-VI) under different applied voltages.

CP3



CP4

