

Fine tuning on the photophysical and electroluminescent properties of DCM-type dyes by changing the structure of the electron-donating group

Yi-Shan Yao^a, Qian-Xiong Zhou^a, Xue-Song Wang^{*a}, Yue Wang^{*b}, Bao-Wen Zhang^{*a}

a Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing 100101, P. R. China
Tel: 86-010-6488-8103 Fax: 86-010-6487-9375 E-mail: xswang@mail.ipc.ac.cn; g203@mail.ipc.ac.cn

b Key Laboratory for Supramolecular Structure and Materials of Ministry of Education, College of Chemistry, Jilin University, Chang Chun 130012, P. R. China
Tel: 86-431-5168-494 Fax: +86-431-5193421 E-mail: yuewang@jlu.edu.cn

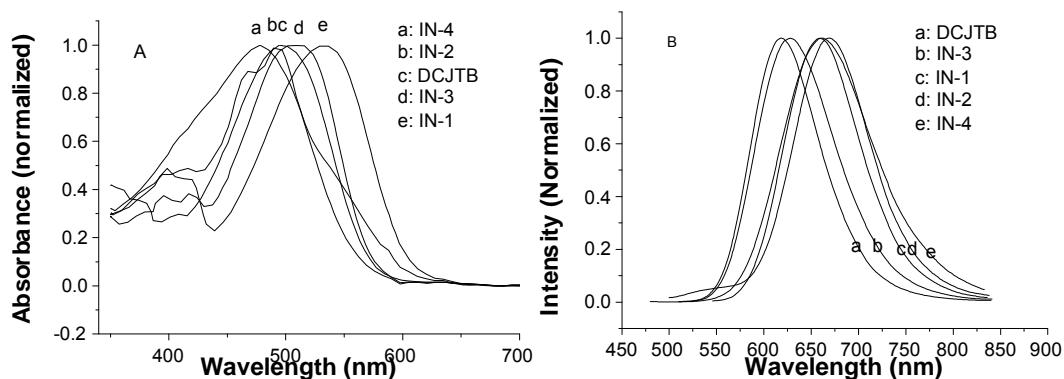


Figure 1S. Normalized absorption (A) and fluorescence (B) spectra of IN-1, IN-2, IN-3, IN-4, and DCJTB in THF solutions (1×10^{-6} M).

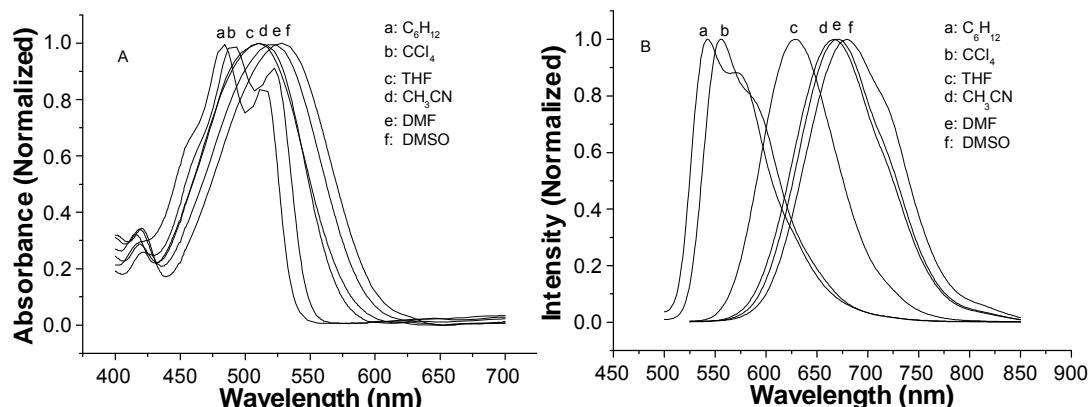


Figure 2S. Normalized absorption (A) and fluorescence (B) spectra of IN-3 in solutions with varied polarity (1×10^{-6} M).

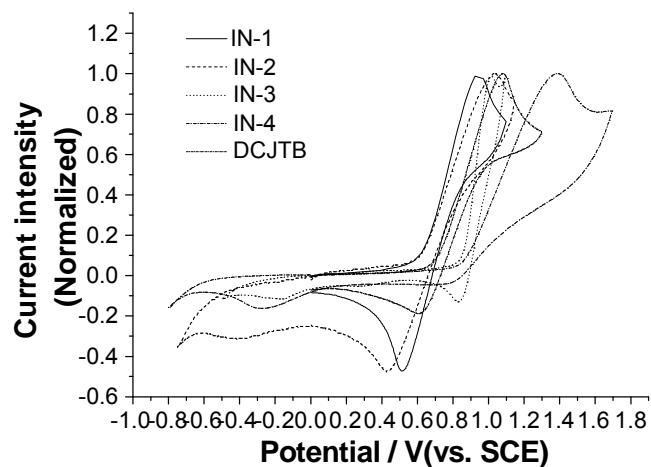


Figure 3S. Cyclic Voltammograms of DCJTB, IN-1, IN-2, IN-3, and IN-4 in CHCl_3 with a scan rate of 100 mV/s.

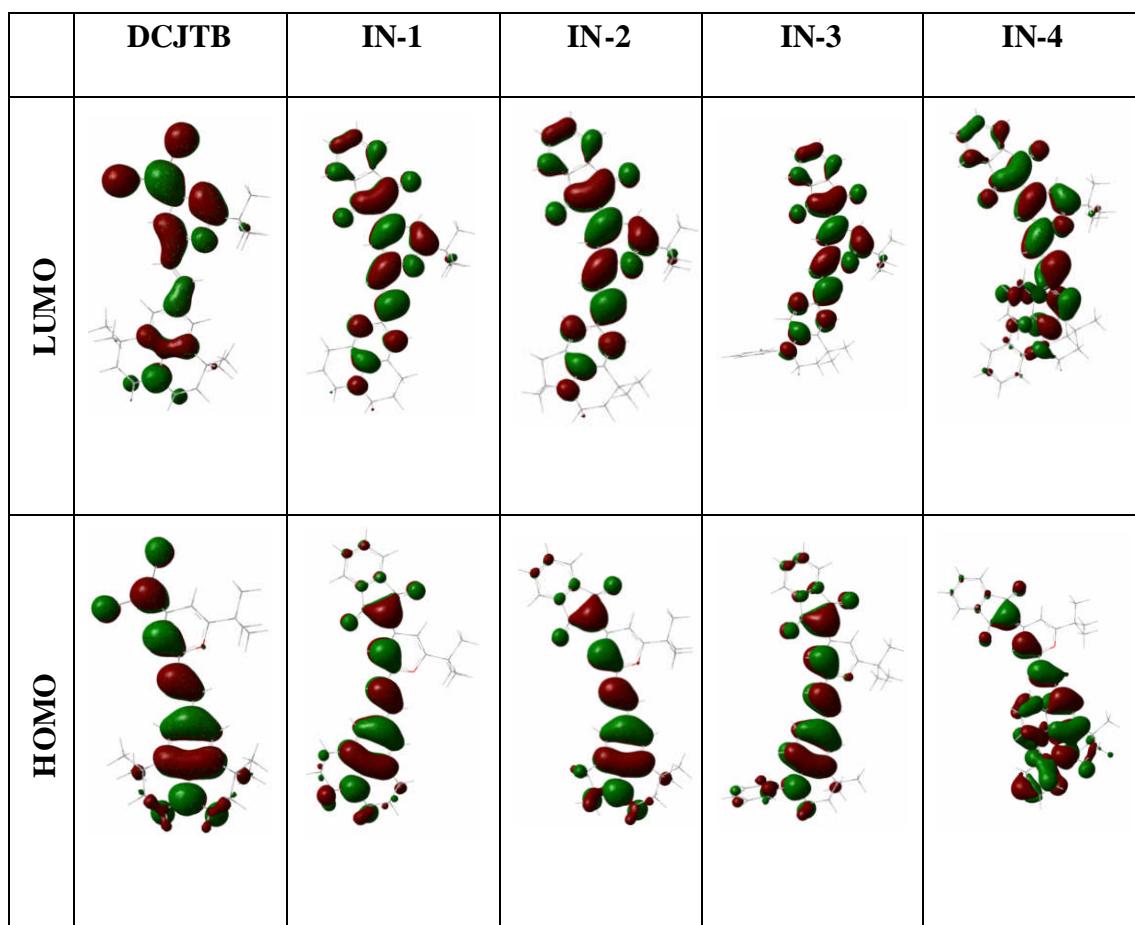


Figure 4S. HOMO and LUMO orbitals for the optimized ground-state structures of DCJTB, IN-1, IN-2, IN-3, and IN-4 using B3LYP/6-31G(d) method.