

Supporting Information

Synthesis and Photophysical Properties of Hyperbranched Polyfluorenes Containing 2,4,6-tris(thiophen-2-yl)-1,3,5-triazine as the Core

Li Zou[†], Yan Liu[†], Nan Ma[†], Ermelinda Maçôas^{‡}, J. M. G. Martinho[‡], Mika Pettersson[§], Xingguo Chen^{†*}, Jingui Qin[†]*

[†]Department of Chemistry and Hubei Key Laboratory on Organic and Polymeric Opto-electronic Materials, Wuhan University, Wuhan 430072, China. [‡]Centro de Química-Física Molecular, Complexo I, Instituto Superior Técnico, Av. Rovisco Pais, 1049-001, Lisboa, Portugal. [§]Nanoscience Center, Department of Chemistry, P.O. Box 35, FI-40014 University of Jyväskylä, Finland

E-mails: *xgchen@whu.edu.cn; ermelinda.macoas@ist.utl.pt*

Contents

Figure S1. The IR spectra of **P1-P4**

Figure S2. TG thermograms of **P1-P4**

Figure S3: Ratio of absorption and emission intensity as a function of the triazien-tiophen core

Figure S4. The UV-vis absorption spectra of **P1-P4** in thin film

Figure S5. The PL spectra of **P1-P4** in thin film

Figure S6. The CV curves of **P1-P4** in CH₃CN

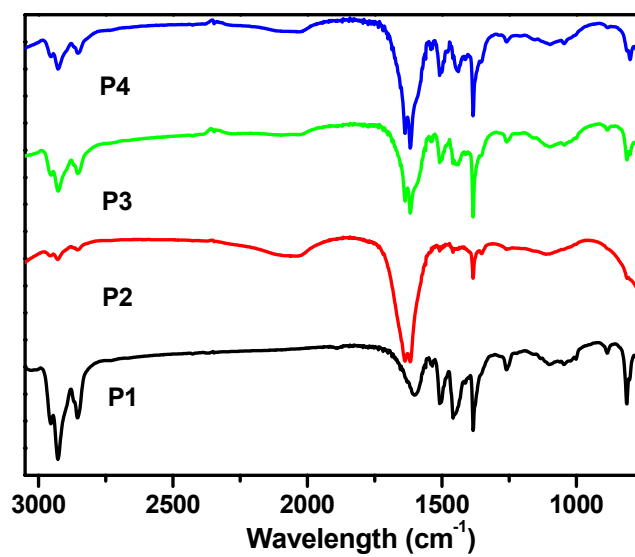


Figure S1. The IR spectra of **P1-P4**

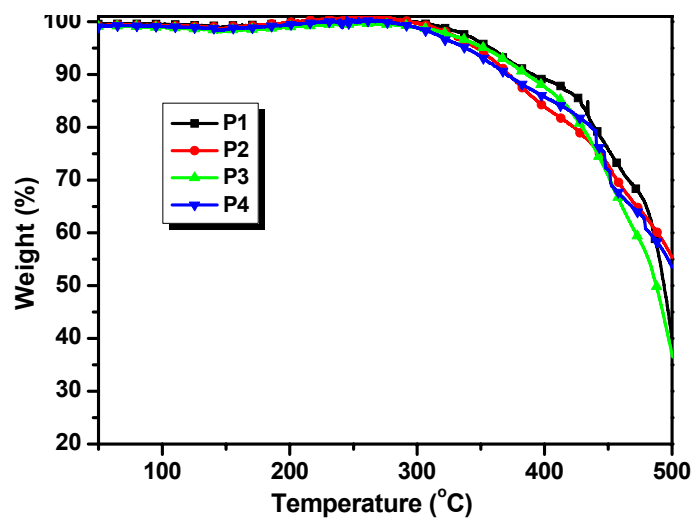


Figure S2. TG thermograms of **P1-P4**

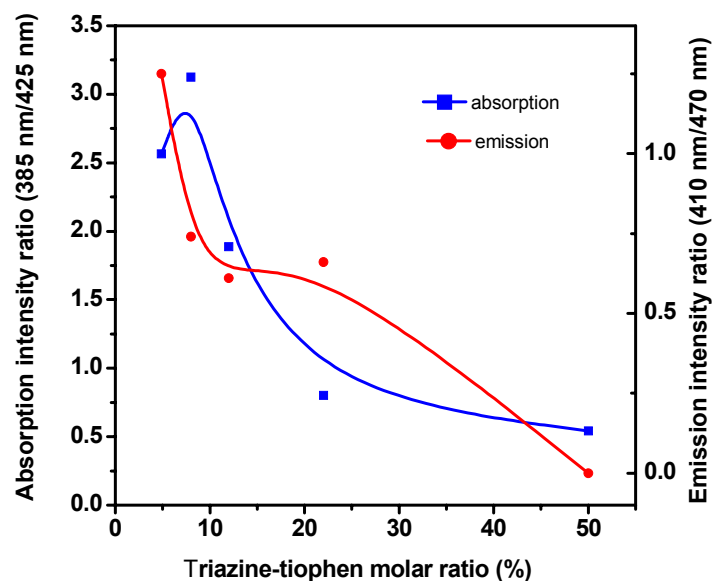


Figure S3. Absorption and emission intensity of the fluorine arm relative to that of the charge transfer state plotted as a function of the molar ratio of the triazine-thiophen core in the hyperbranched and linear polymers (P1: P2 : P3 : P4 : Linear $\approx$ 5 : 8 : 12 : 22 : 50 %).

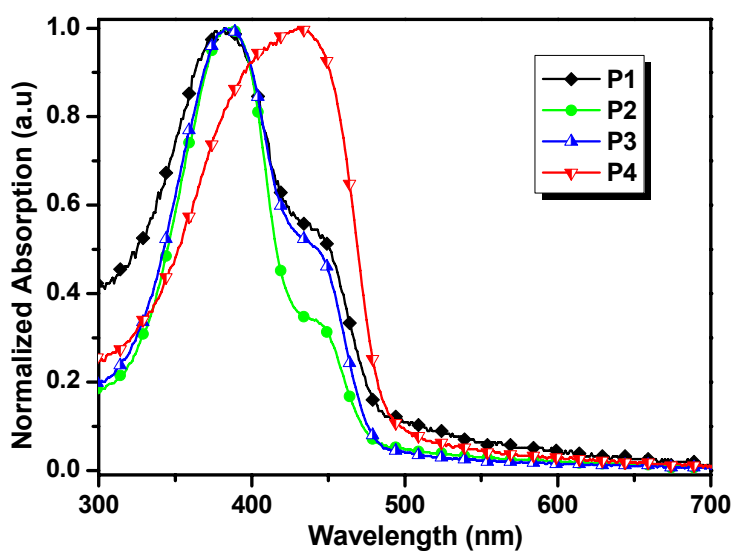


Figure S4. The UV-vis absorption spectra of **P1-P4** in thin film

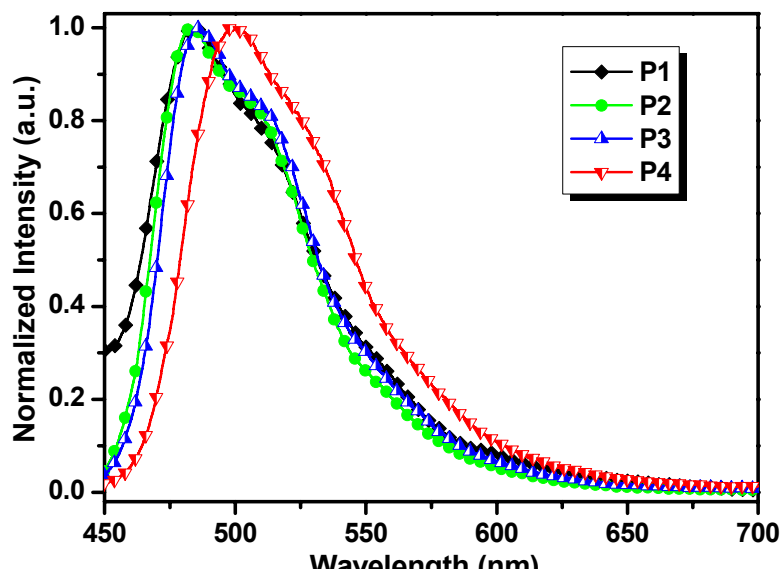


Figure S5. The PL spectra of **P1-P4** in thin film

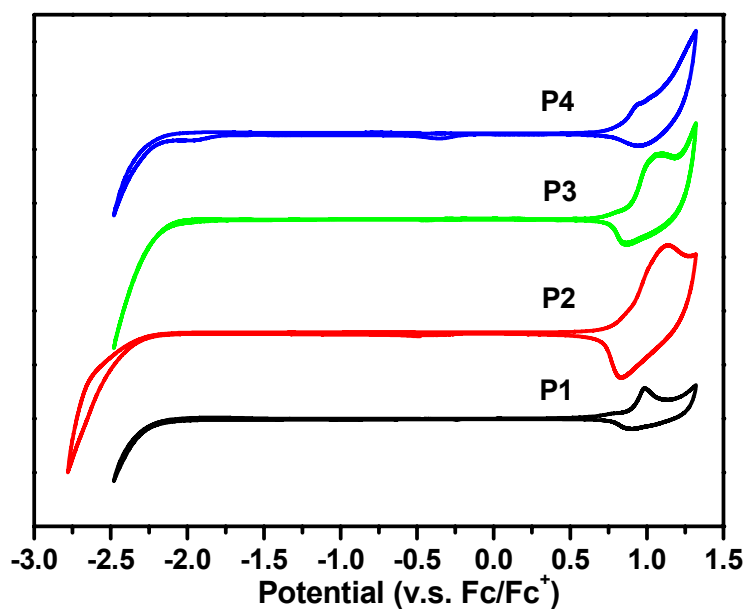


Figure S6. The CV curves of **P1-P4** in CH₃CN