

Supporting Information

Luminescence-enhanced Conjugated Polymer Dots Through Thermal Treatment for Cell Imaging

Yuyang Wu,^a Hanyu Yang,^a Chenyang Shi,^a Hang Sun,^c Shengyan Yin^{*a} and Guangbin Wang^{*b}

^aState Key Laboratory of Integrated Optoelectronics, College of Electronic Science and Engineering, Jilin University, Changchun, Jilin 130012, P. R. China. E-mail: syyin@jlu.edu.cn.

^bDepartment of Orthopedics, Shengjing Hospital of China Medical University, Shenyang, Liaoning, 110004, P. R. China. E-mail: wanggb@sj-hospital.org.

^cKey Laboratory of Bionic Engineering (Ministry of Education), College of Biological and Agricultural Engineering, Jilin University, Changchun, Jilin 130022, P. R. China.

1. The absorption and emission spectra of Pdots before and after thermal treatment at different temperature.

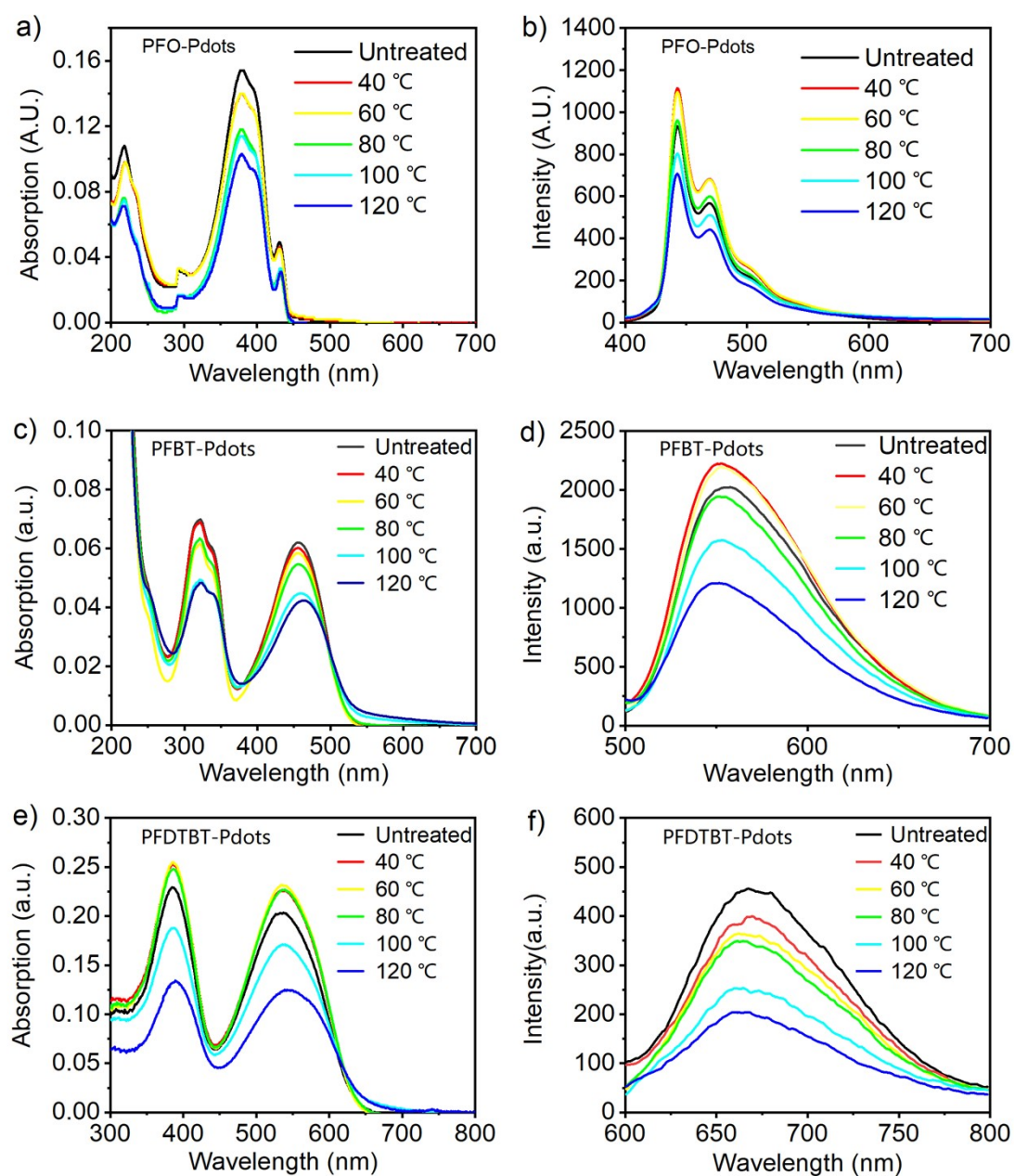


Fig.S1 Absorption and emission spectra of Pdots before and after thermal treatment at different temperature. (a, c, e) are the absorption spectra of PFO-Pdots, PFBT-Pdots and PFDTBT-Pdots, respectively. (b, d, f) are the emission spectra of PFO-Pdots, PFBT-Pdots and PFDTBT-Pdots, respectively.

2. Infrared spectra of Pdots before and after thermal treatment.

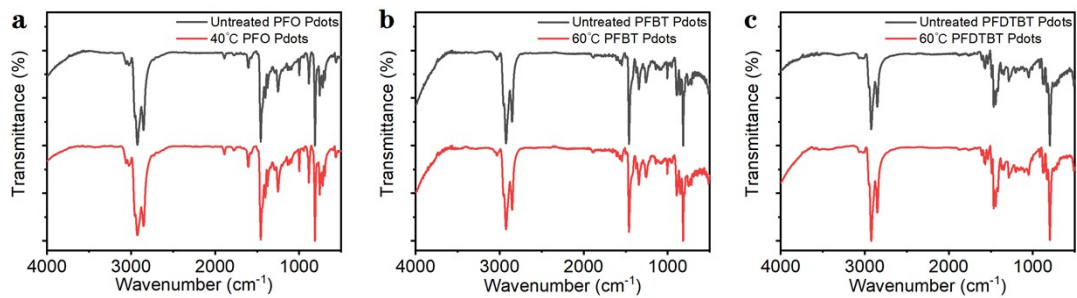


Fig.S2 FT-IR spectra of Pdots, a) PFO-Pdots before and after thermal treatment at 40 °C, b) PFBT-Pdots before and after thermal treatment at 60 °C, c)PFDTBT-Pdots before and after thermal treatment at 60 °C.

3. XPS spectra of PFO-Pdots, PFBT-Pdots, PFDTBT-Pdots before and after thermal treatment

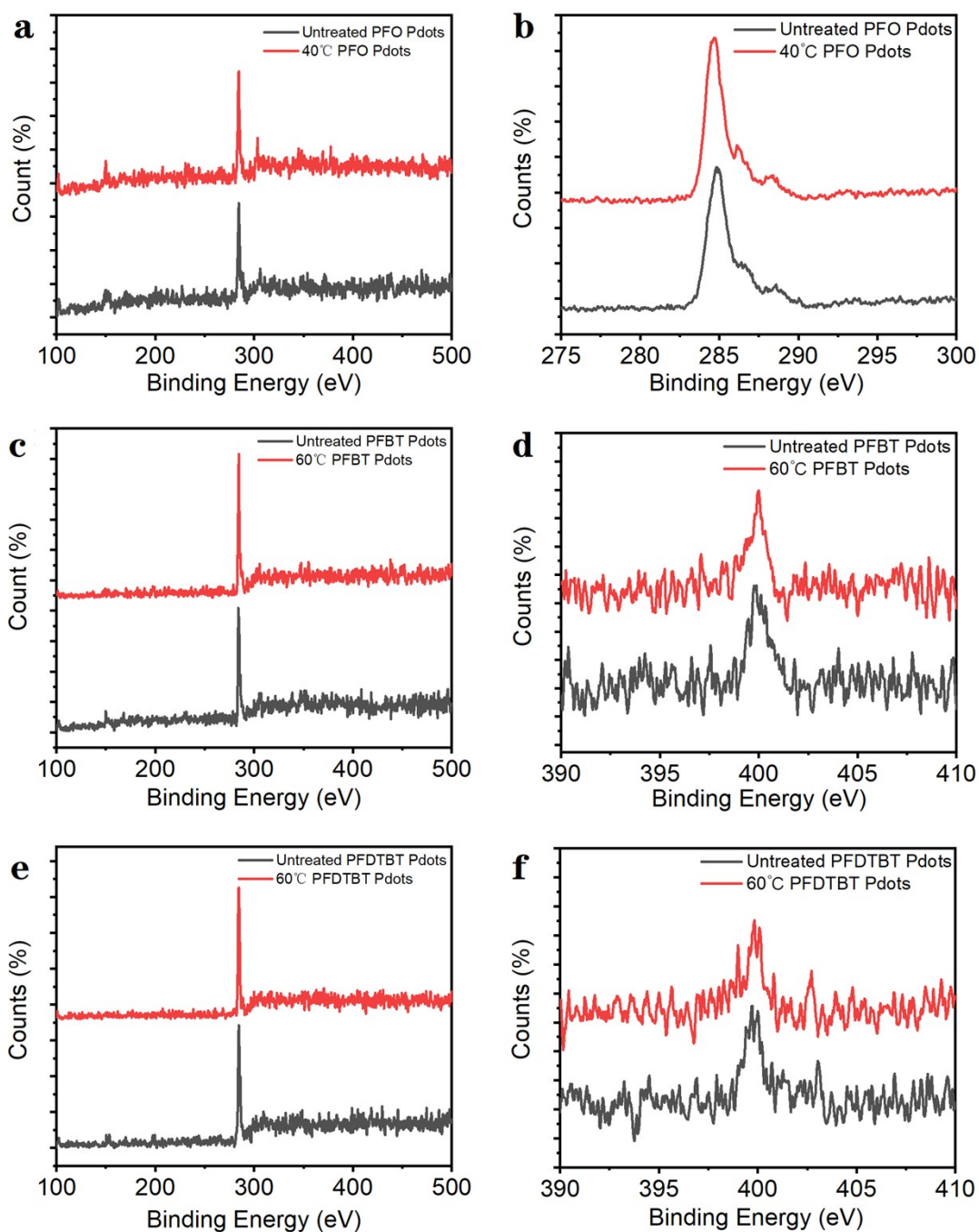


Fig.S3 XPS spectra of Pdots, a) full spectra of PFO-Pdots before and after thermal treatment at 40 °C, b) C 1s spectra of PFO-Pdots before and after thermal treatment at 40 °C, c) full spectra of PFBT-Pdots before and after thermal treatment at 60 °C, d) N 1s spectra of PFBT-Pdots before and after thermal treatment at 60 °C, e) full spectra of PFDTBT-Pdots before and after thermal treatment at 60 °C, f) N 1s spectra of PFDTBT-Pdots before and after thermal treatment at 60 °C.

4. Table. S1 Quantum efficiency of PFO-Pdots, PFBT-Pdots and PFDTBT-Pdots before and after thermal treatment at 40 °C, 60 °C and 60 °C, respectively.

quantum efficiency (%)	PFO-Pdots	PFBT-Pdots	PFDTBT-Pdots
Untreated	7.387	21.144	3.712
Treated	8.194 (Treatment at 40 °C)	27.375 (Treatment at 60 °C)	3.687 (Treatment at 60 °C)