

Supplementary Materials

Aggregation-Induced Emission (AIE)-Labeled Cellulose Nanocrystals for the Detection of Nitrophenolic Explosives in Aqueous Solutions

Xiu Ye, Haoying Wang, Lisha Yu and Jinping Zhou *

Department of Chemistry, Engineering Research Center of Natural Polymer-based Medical Materials in Hubei Province, and Key Laboratory of Biomedical Polymers of Ministry of Education, Wuhan University, Wuhan 430072, China; yx444131997@gmail.com (X.Y.); wang159hy@gmail.com (H.W.); LisaYu12@whu.edu.cn (L.Y.)

*Correspondence: zhoujp325@whu.edu.cn; Tel.: +86-27-68752977 (J.Z.)

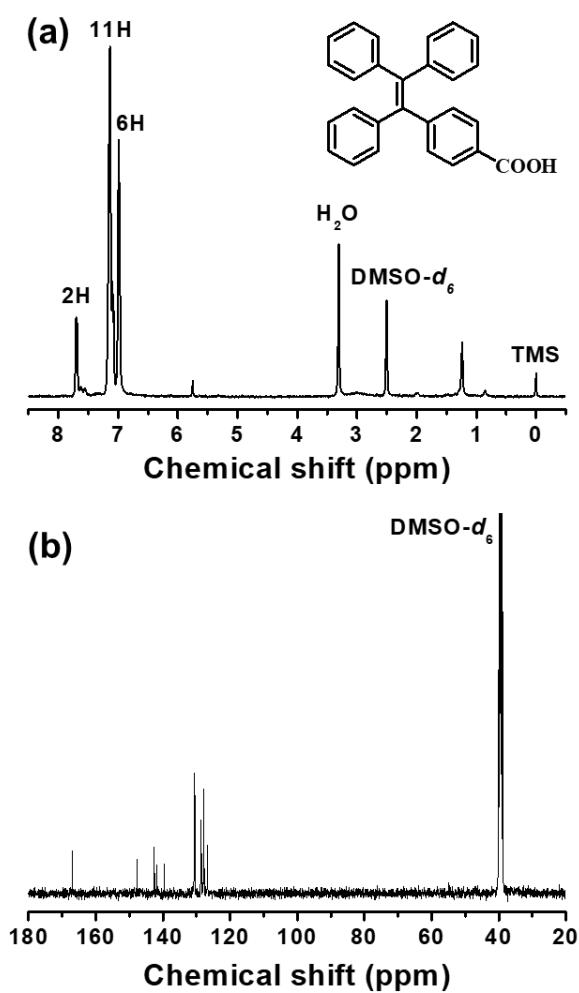


Figure S1. (a) ^1H and (b) ^{13}C NMR spectra of TPE-COOH in $\text{DMSO}-d_6$ at 25°C .

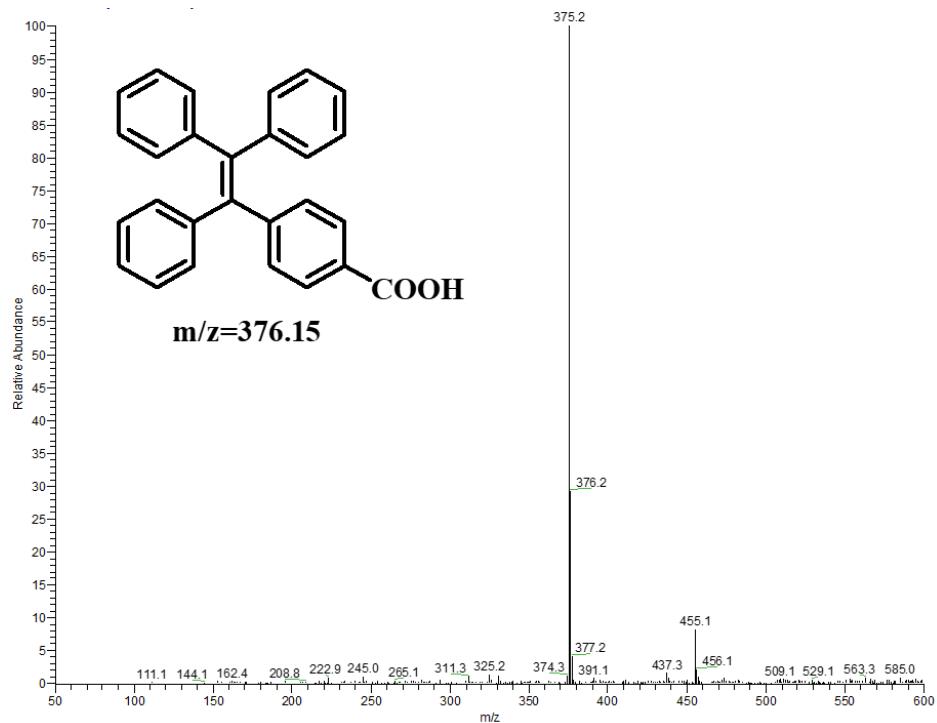


Figure S2. ESI-MS spectrum of TPE-COOH.

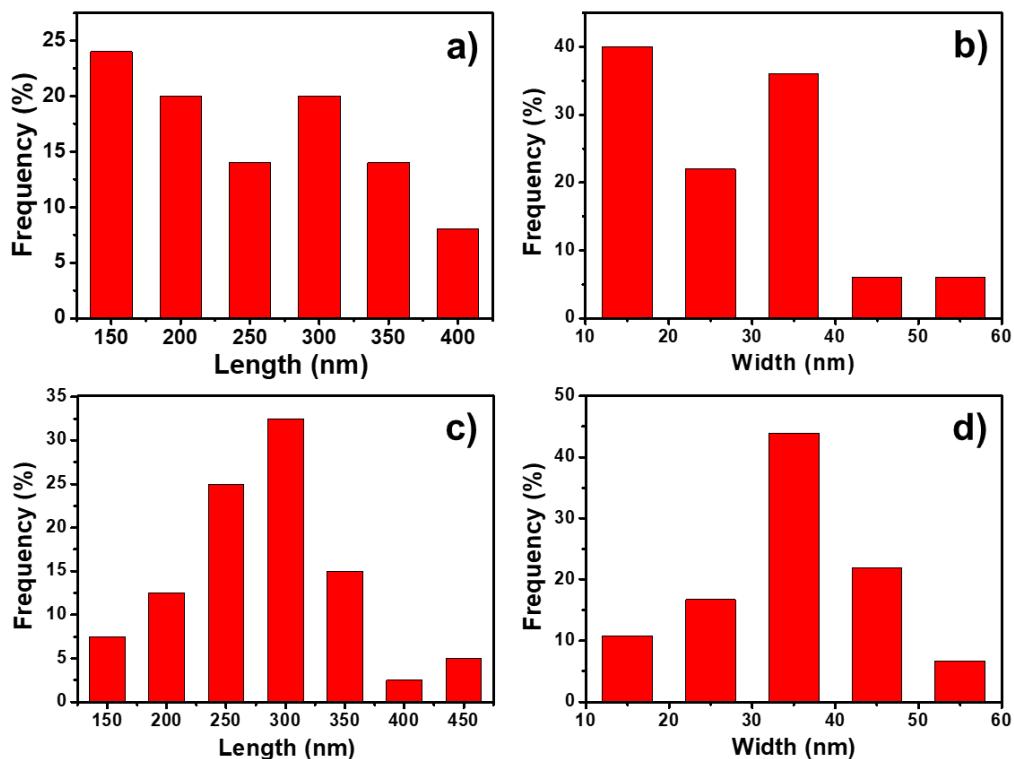


Figure S3. Size distribution histograms of (a,b) CNCs and (c,d) TPE-CNCs calculated from AFM images.

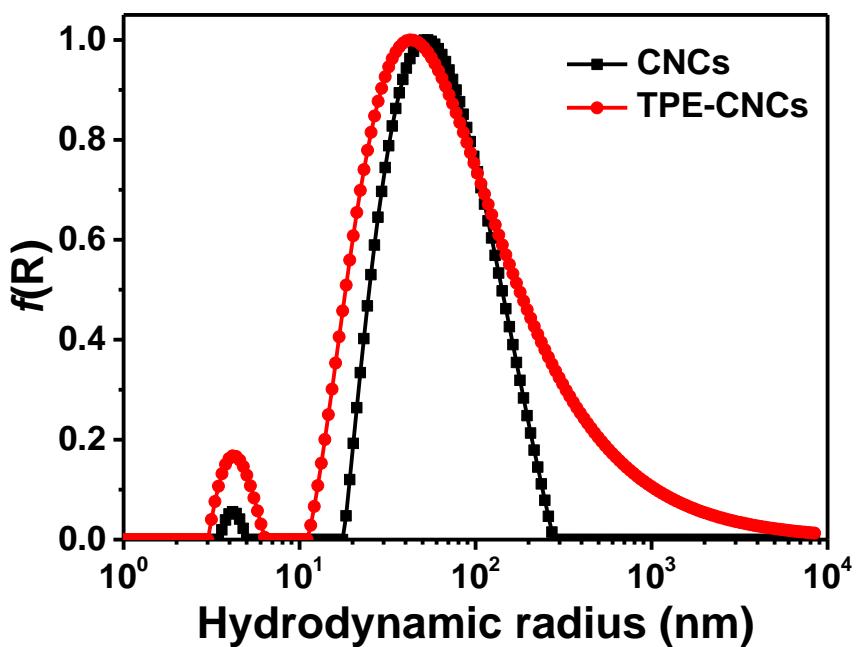


Figure S4. Hydrodynamic radius (R_h) distributions of CNCs and TPE-CNCs in aqueous suspensions.

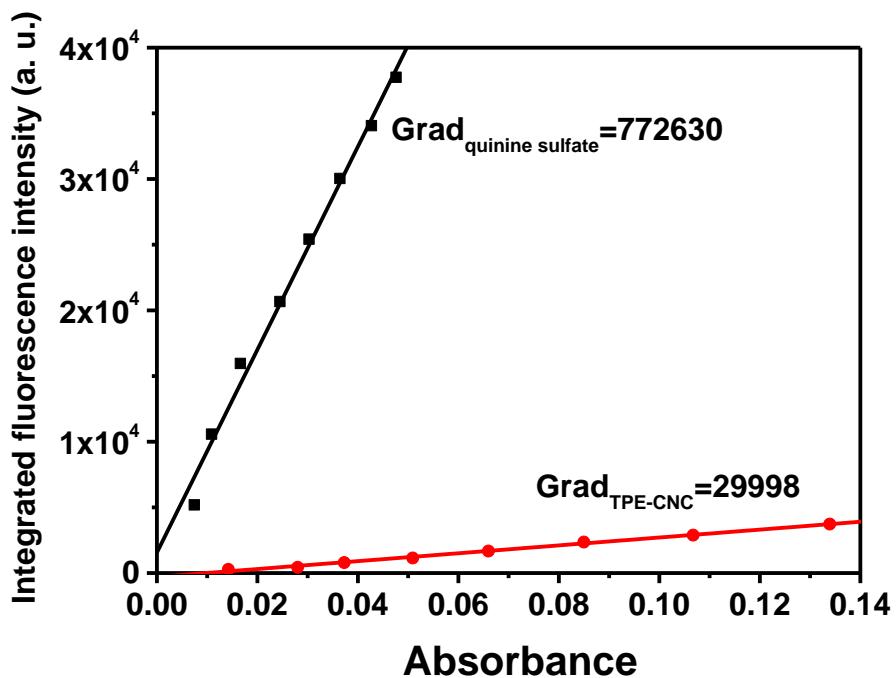


Figure S5. Integrated fluorescence intensity versus absorbance plots of TPE-CNCs and quinine sulfate.

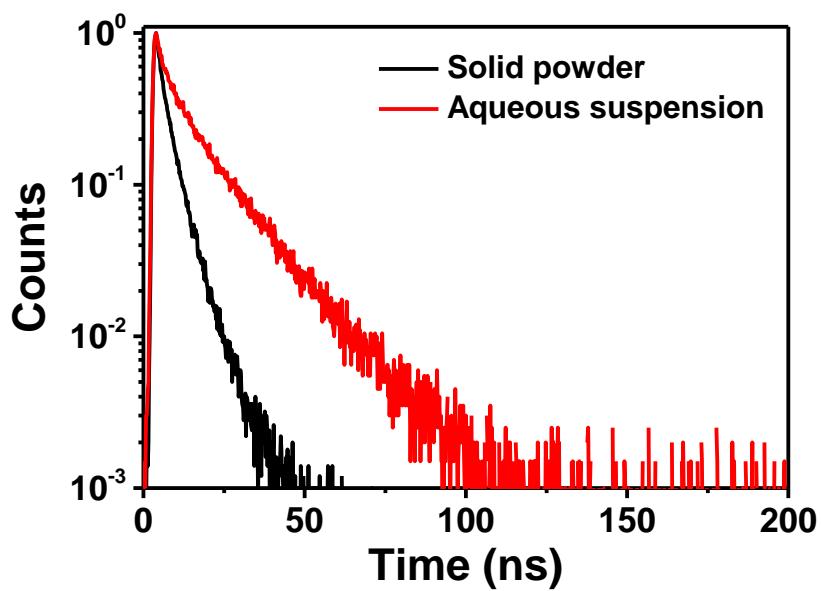


Figure S6. Fluorescence decay profiles ($\lambda_{\text{em}} = 431$ and 468 nm) of TPE-CNCs in aqueous suspension and solid powder.

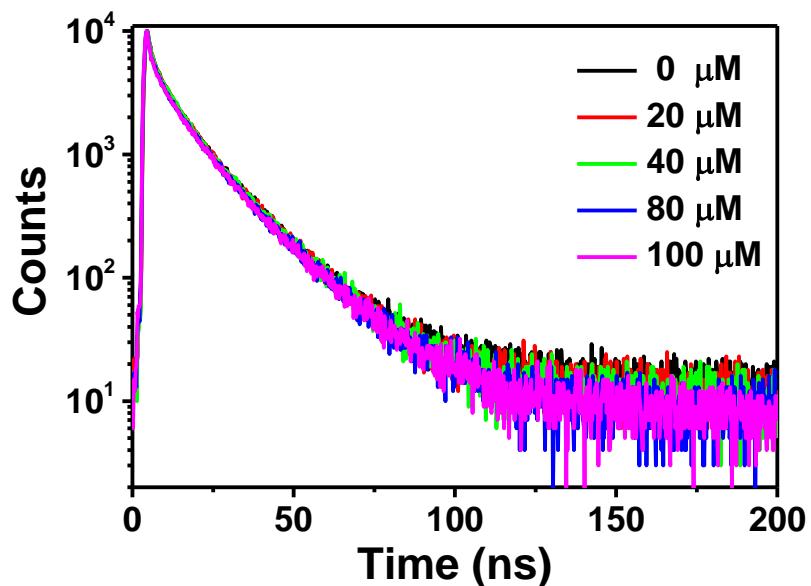


Figure S7. Fluorescence decay profiles ($\lambda_{\text{em}}=431$ nm) of TPE-CNCs aqueous suspensions in the presence of various PA concentrations.

Table S1. Elemental analysis results of CNCs, CNC-NH₂ and TPE-CNCs.

Sample	C (wt %)	O (wt %)	H (wt %)	N (wt %)
CNCs	41.75	48.66	6.32	0
CNC-NH ₂	41.79	49.00	6.22	0.18
TPE-CNCs	42.25	48.73	6.65	0.37