Electronic Supplementary Material (ESI) for Polymer Chemistry.

Study of the mechanoluminescence and 'aggregation induced emission enhancement' Properties of a new conjugated oligomer containing tetraphenylethylene in the backbone: application in the selective and sensitive detection of explosives

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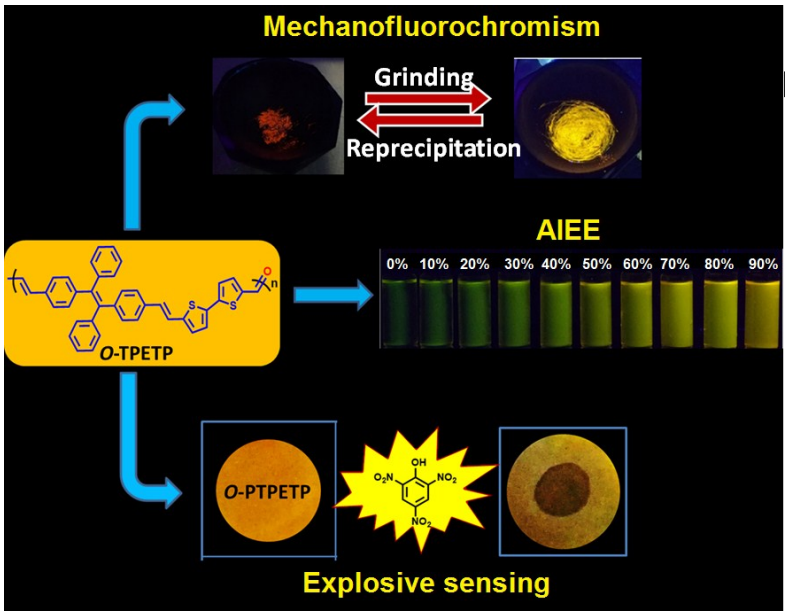
Graphical abstract



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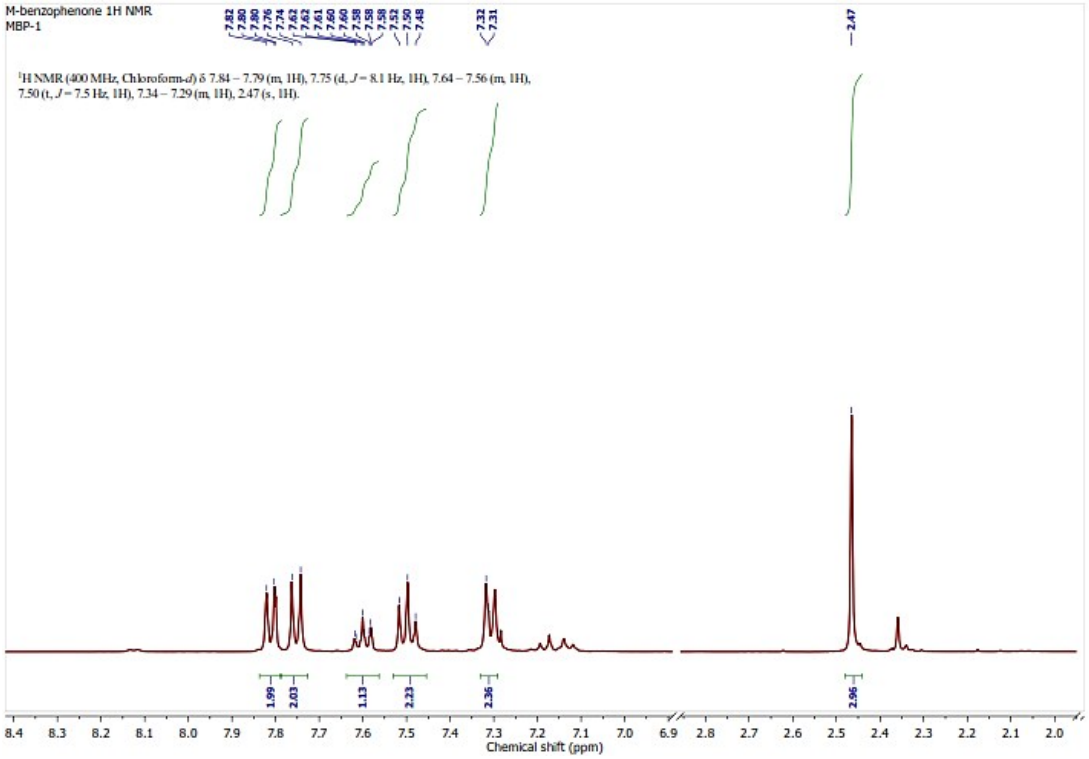

Fig. S1. ^{1}H NMR spectrum of 1

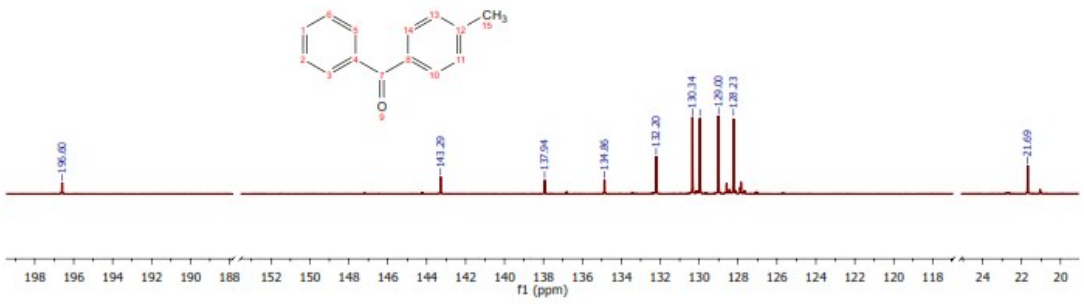

Fig. S2. ^{13}C NMR spectrum of 1

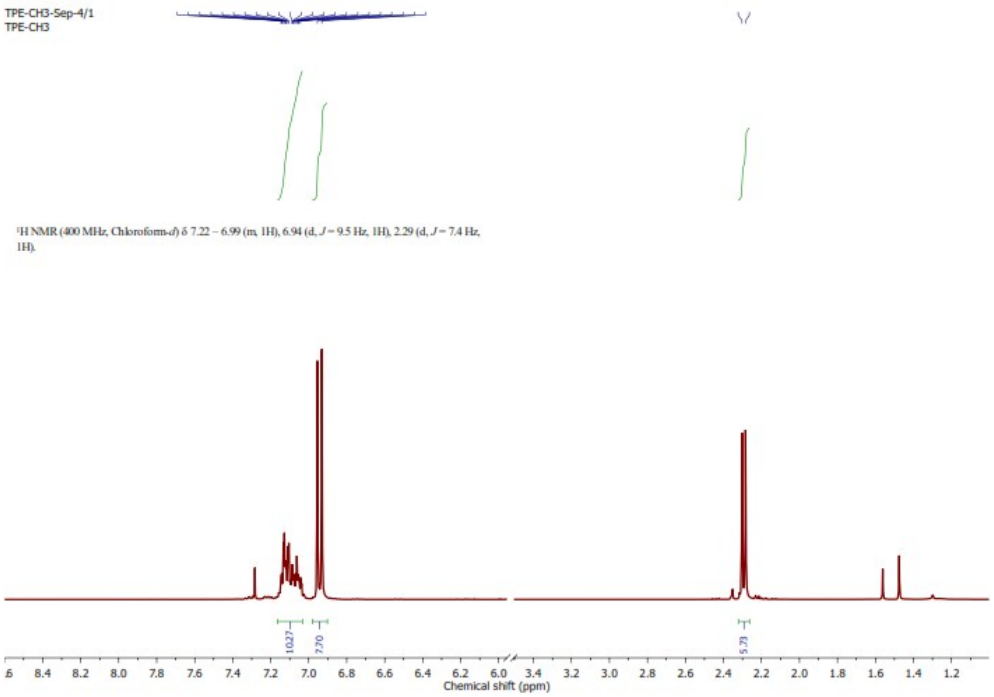

Fig. S3. ^{1}H NMR spectrum of 2

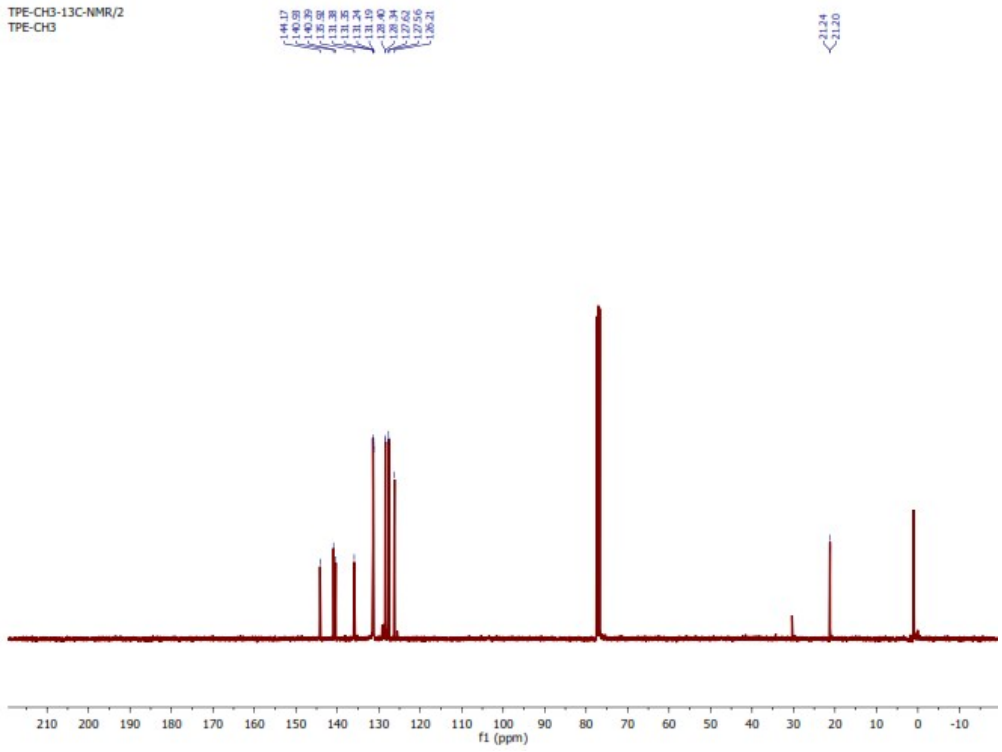

Fig. S4. ^{13}C NMR spectrum of 2

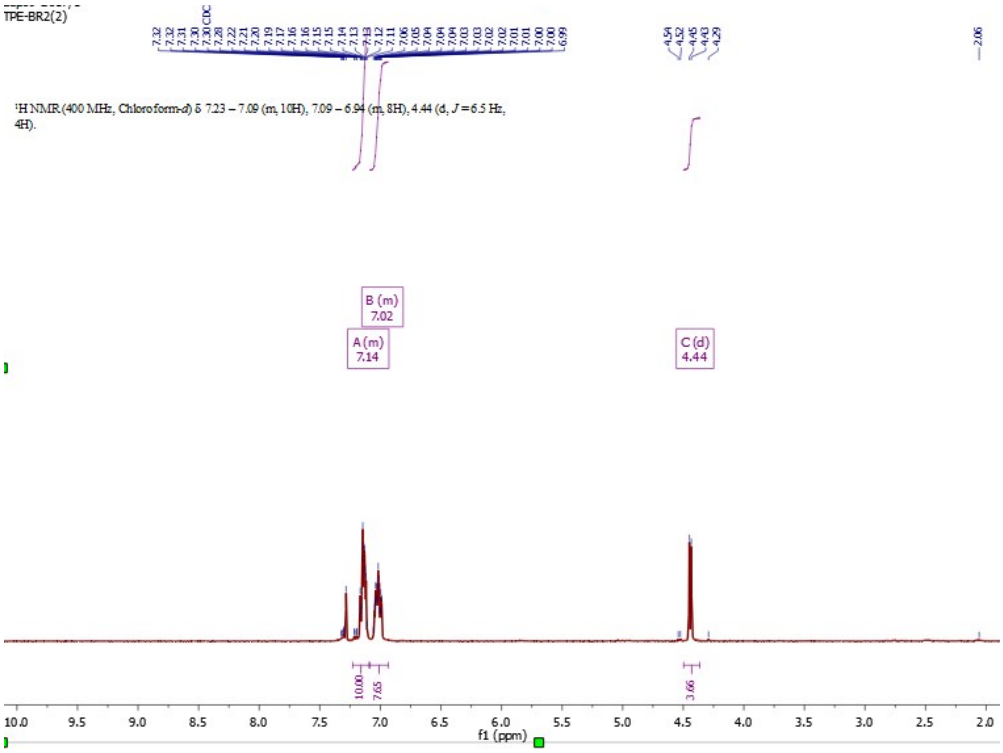

Fig. S5. ^{1}H NMR spectrum of 3

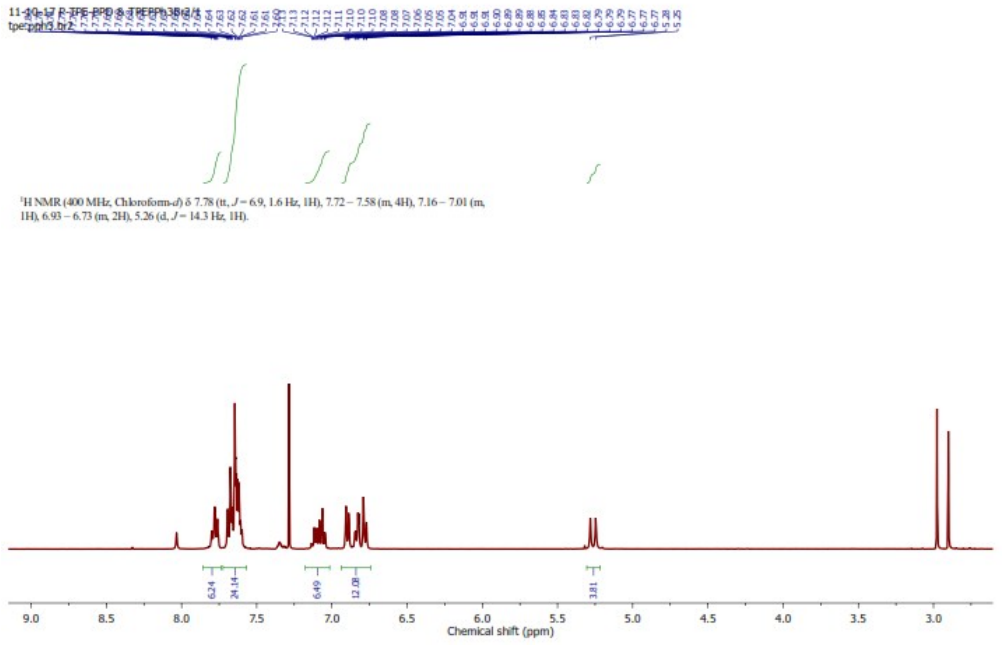

Fig. S6. ^{1}H NMR spectrum of 4

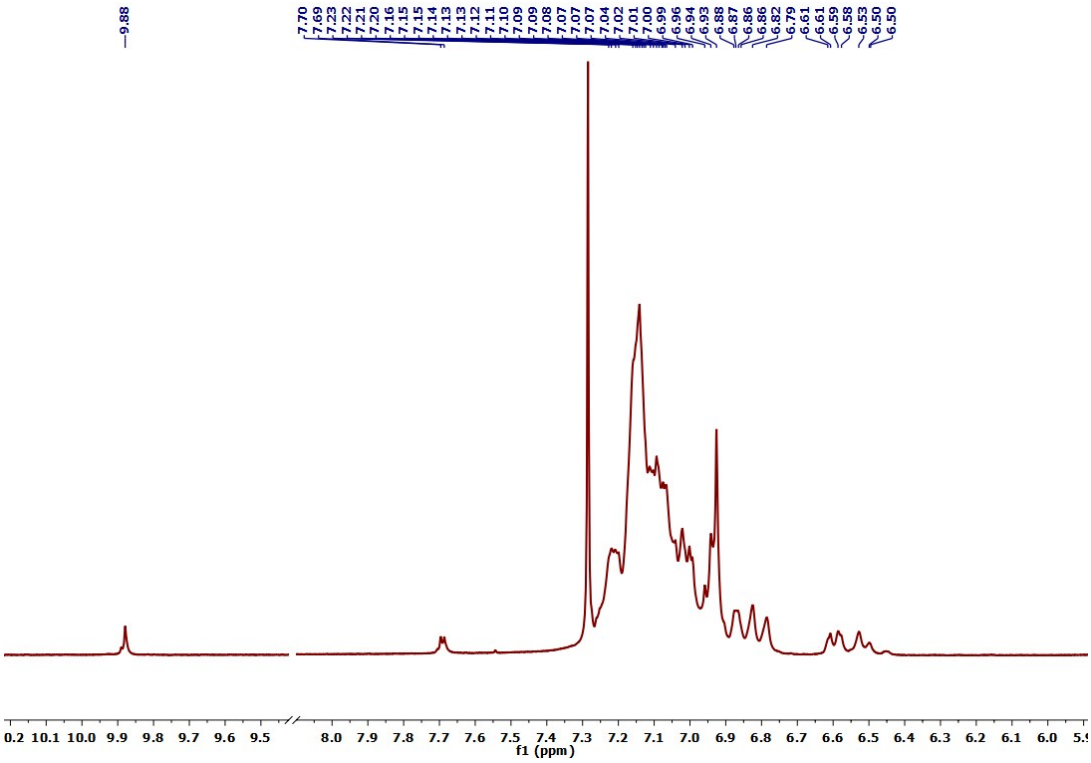

Fig. S7. ^{1}H NMR spectrum of *o*TPETPoligomer

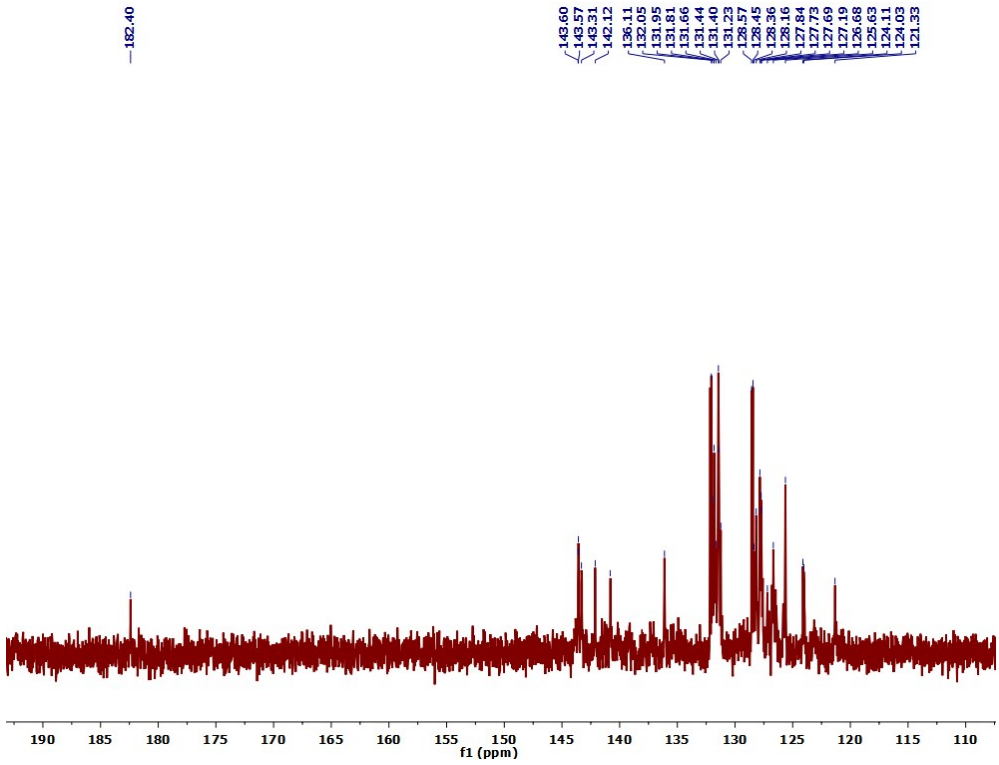

Fig. S8. ^{13}C NMR spectrum of *o*TPETPoligomer

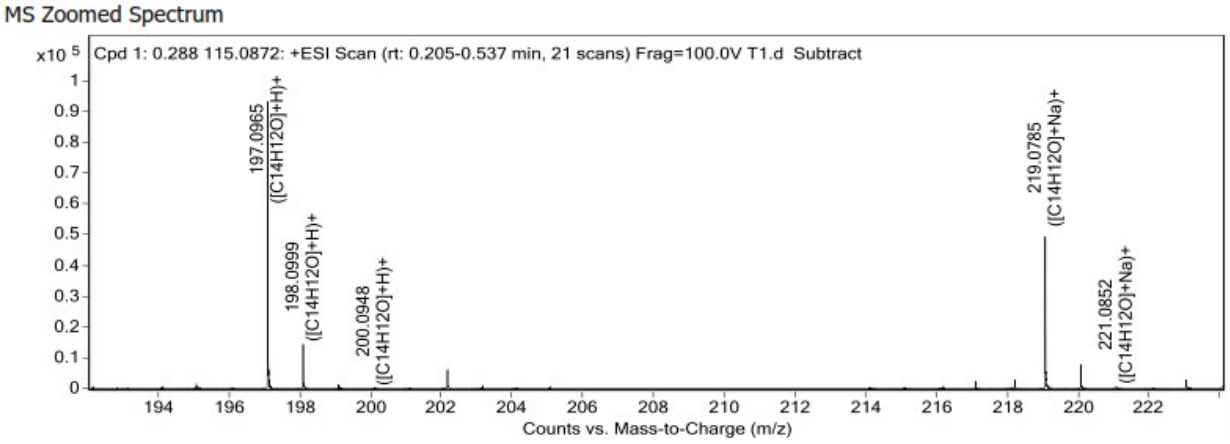

Fig. S9. Mass spectrum of compound 1

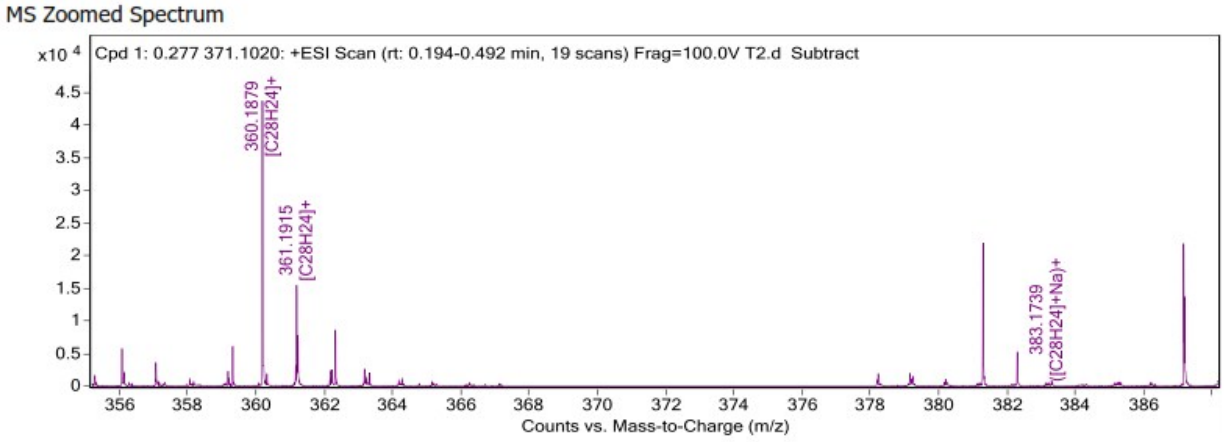

Fig. S10. Mass spectrum of compound 2

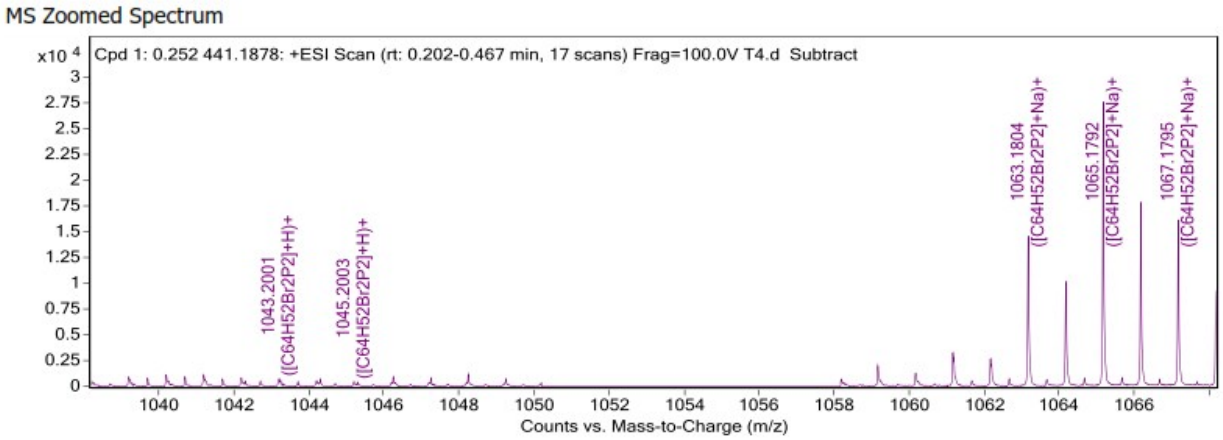

Fig. S11. Mass spectrum of compound 4

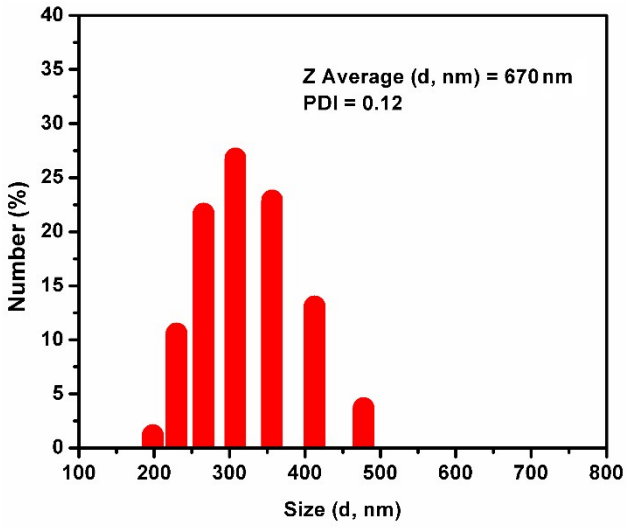

Fig. S12. Average particle size distribution of *o*TPETPat 90% aggregates in THF/Water mixture

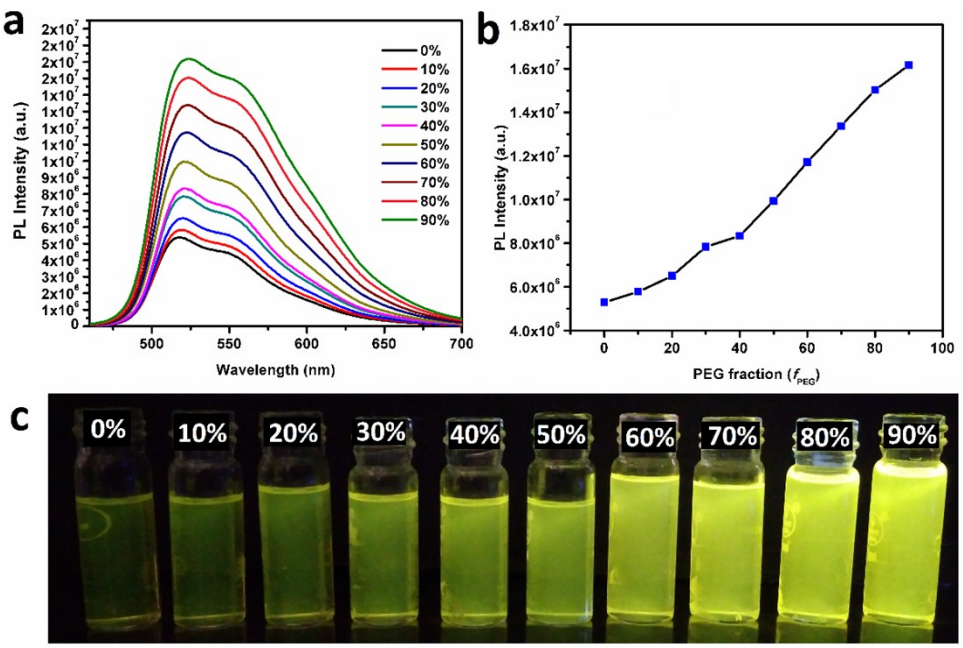

Fig. S13 (a) PL spectra of ***o*TPETP** in THF/PEG mixed solvents with different water fractions (f_{PEG}) with excitation at 445 nm; and (b) the changes of the PL intensity with different f_{PEG} excitation at 445 nm. (c) Photographs of ***o*TPETP**in THF/PEG mixtures with different fractions of PEG taken under UV illumination.

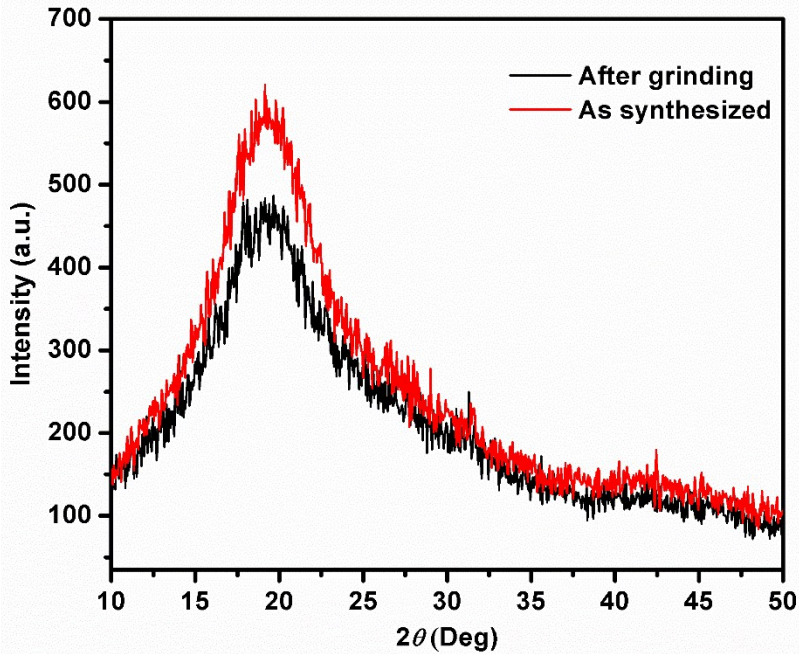

Fig. S14 PXRD patterns of pristine and ground ***o*TPETP**oligomer samples.