

## Supporting information for

### Mechanochromism of dumbbell D- $\pi$ -A- $\pi$ -D phenothiazine derivative

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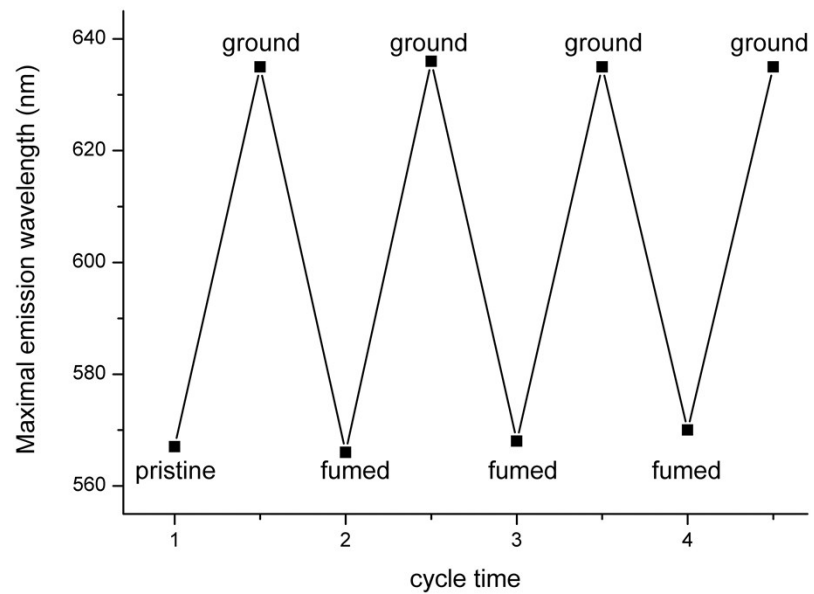
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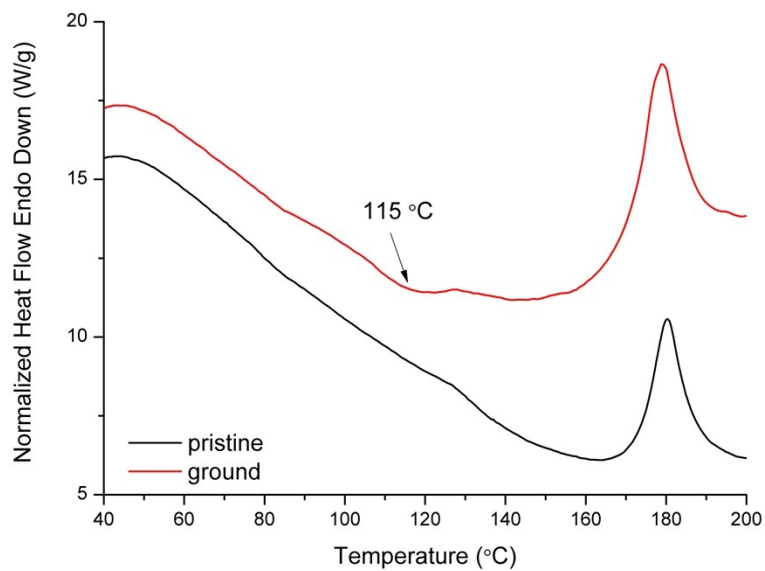
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**Table S1.** Photophysical data of PBPAN obtained by quantum chemical calculation.

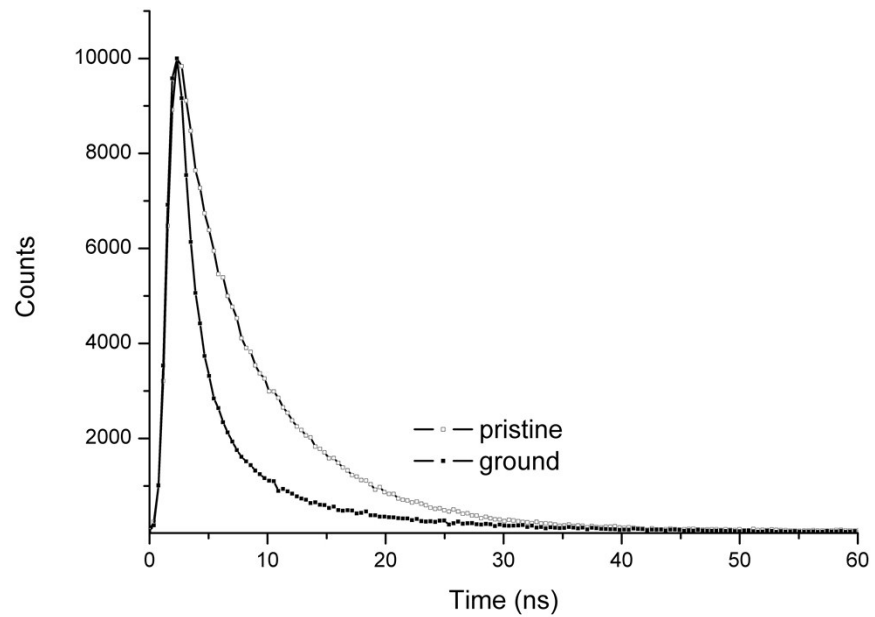
	Transition assignment	Transition energy (eV)	Maximal absorption (nm)	Oscillator strength
PBPA N	HOMO-1→ LUMO (4.35%)	2.5898	478.74	1.4546
	HOMO→ LUMO (94.83%)			
	HOMO-2→ LUMO+1 (2.02%)	2.8063	441.81	0.00
	HOMO-1→ LUMO (93.55%)			
	HOMO→ LUMO+1 (2.79%)			



**Fig. S1** The plot of maximal emission wavelengths vs cycle times.



**Fig. S2** DSC curves of PBPAN in pristine and ground states.



**Fig. S3** Time-resolved fluorescence spectra of PBPAN in pristine and ground states. Excitation wavelengths of pristine and ground solids are 570 and 635 nm, respectively.