

Supporting Information

Supramolecular tuning of Thioflavin-T aggregation hosted by polystyrene sulfonate

Shrishti P. Pandey,^{a,b} Ankur A. Awasthi,^b and Prabhat K. Singh^{b,c,}*

^aAmity Institute of Biotechnology, Amity University, Mumbai-Pune Expressway, Bhatan,
Panvel, Mumbai, 410206, INDIA

^bRadiation & Photochemistry Division, Bhabha Atomic Research Centre, Mumbai 400 085,
INDIA

^cHomi Bhabha National Institute, Training School Complex, Anushaktinagar, Mumbai 400 094,
INDIA

*Authors for correspondence: Email: prabhatk@barc.gov.in; prabhatsingh988@gmail.com

Tel. 91-22-25590894, Fax: 91-22-5505151

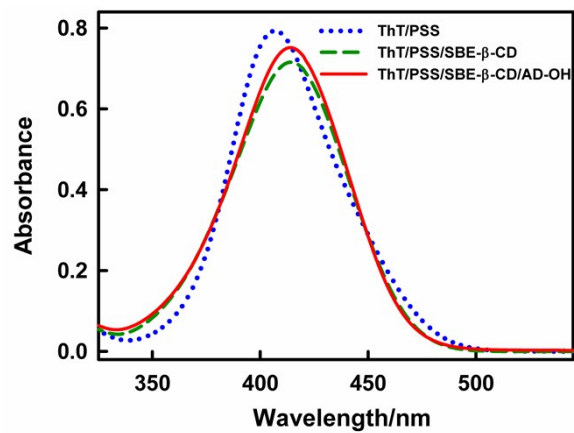


Figure S1. Ground-state absorption for ThT in PSS and SBE- β -CD at varying concentration of 1-adamantanol. (1) 0 mM (2) 4.2 mM. The dotted blue represents ground-state spectra for ThT in PSS.

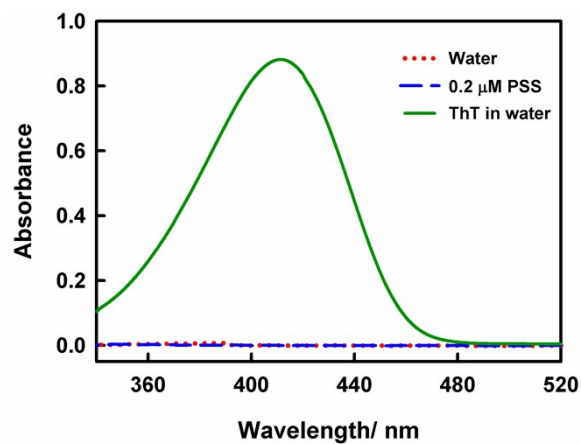


Figure S2: Ground-state absorption spectra of (1) water (dotted red line) (2) 0.2 mM PSS (dashed blue line) (3) ThT in water (solid green line).

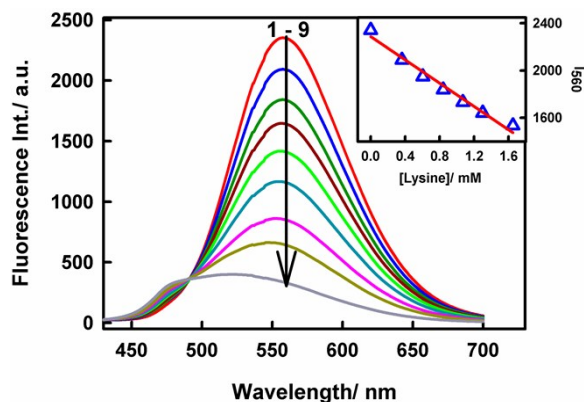


Figure S3: Steady-state emission spectra ($\lambda_{\text{ex}} = 410 \text{ nm}$) of ThT in PSS at various concentrations of Lysine (1) 0 mM (2) 0.12 mM (3) 0.84 mM (4) 1.30 mM (5) 2.10 mM (6) 3.42 mM (7) 5.83 mM (8) 9.02 mM (9) 21.99 mM. Inset: Variation in the emission intensity at 560 nm with increasing concentrations of Lysine. $I_{560} = -492 [\text{Lysine}]/\text{mM} + 2287$, $R^2 = 0.977$, LOD = 26.4 μM .

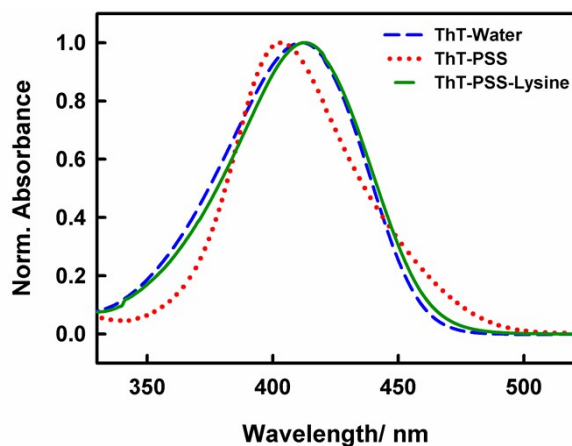


Figure S4: Ground-state absorption spectra of ThT in water (dashed blue line), ThT in 0.2 μM PSS (dotted red line) and ThT-PSS complex in presence of 21.99 mM Lysine.

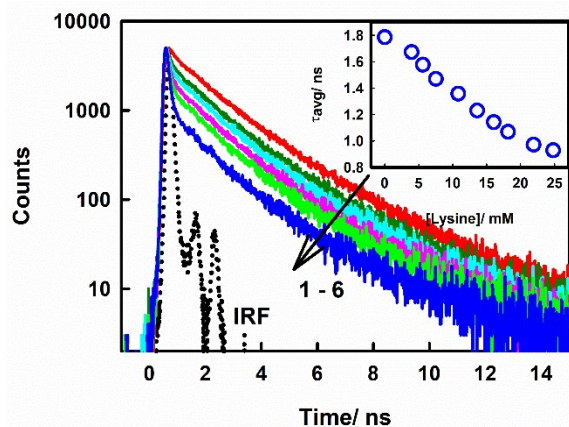


Figure S5: Transient emission decay traces of ThT in PSS ($\lambda_{\text{ex}} = 406 \text{ nm}$, $\lambda_{\text{em}} = 560 \text{ nm}$) at varying concentration of Lysine (1) 0 mM (2) 5.6 mM (3) 7.5 mM (4) 10.8 mM (5) 12.8 mM (6) 24.8 mM. The black dotted line represents the Instrument response function. Inset: Variation in excited-state lifetime (τ_{avg}) for ThT-PSS complex at varying concentration of Lysine.