Electronic Supplementary Material (ESI) for New Journal of Chemistry. This journal is © The Royal Society of Chemistry and the Centre National de la Recherche Scientifique 2017

## **Electronic Supplementary Information**

## White light emission from simple AIE-ESIPT-Excimer tripled single molecular system

Soham Samanta, Utsab Manna and Gopal Das\*

Department of Chemistry Indian Institute of Technology Guwahati, Guwahati 781039, Assam, India E-mail: gdas@iitg.ernet.in



Figure S1: <sup>1</sup>H-NMR spectra of L<sub>1</sub>.



**Figure S2:** Expanded <sup>1</sup>H-NMR spectra of L<sub>1</sub>.



Figure S3: <sup>13</sup>C-NMR spectra of L<sub>1</sub>.



Figure S4: Mass spectrum of L<sub>1</sub>.



Figure S5: <sup>1</sup>H-NMR spectra of L<sub>2</sub>.



Figure S6: <sup>13</sup>C-NMR spectra of L<sub>2</sub>.



Figure S7: Mass spectrum of L<sub>2</sub>.



Figure S8: <sup>1</sup>H-NMR spectra of L<sub>3</sub>.



Figure S9: <sup>13</sup>C-NMR spectra of L<sub>3</sub>.



Figure S10: Mass spectrum of L<sub>3</sub>.



**Figure S11:** UV-vis spectra of  $L_1$  (25  $\mu$ M) (A);  $L_2$  (25  $\mu$ M) (B) and  $L_3$  (10  $\mu$ M) (C) upon changing the water fraction of methanol-water mixed solvent.



**Figure S12:** DLS-based particle size analysis of  $L_1$  (10µM) upon changing the solvent from 5:5 methanol-water to 1:9 methanol-water.



Figure S13: DLS-based particle size analysis of  $L_2$  (10µM) upon changing the solvent from 5:5 methanol-water to 1:9 methanol-water.



**Figure S14:** AFM images of the aggregates obtained from the drop casted solution of  $L_1$  (10  $\mu$ M) and  $L_2$  (10  $\mu$ M) in 1:9 methanol-water mixed solvent.



**Figure S15:** Solid state/film state fluorescence spectra of  $L_1$ ,  $L_2$  and  $L_3$ ;  $\lambda_{ex}$ =380 nm.



Figure S16: Fluorescence spectra of L<sub>3</sub> (10  $\mu$ M); upon changing the water fraction of acetonitrile-water mixed solvent;  $\lambda_{ex} = 365$  nm



Figure S17: Fluorescence spectra of  $L_3$  in different solvents;  $\lambda_{ex}$ =380 nm.



Figure S18: Fluorescence spectra of  $L_3$  in methanol upon increasing concentration (1 $\mu$ M-10 $\mu$ M).



Figure S19: Fluorescence spectra of  $L_3$  in Hexane and acetonitrile;  $\lambda_{ex}$ =365 nm.



Figure S20: Fluorescence spectra of  $L_1,\,L_2$  and  $L_3$  (10  $\mu M)$  in methanol.