Supporting information

Fluorescence Imaging of Surface-Versatile Latent Fingerprints at Second and Third level using double ESIPT based AIE fluorophore

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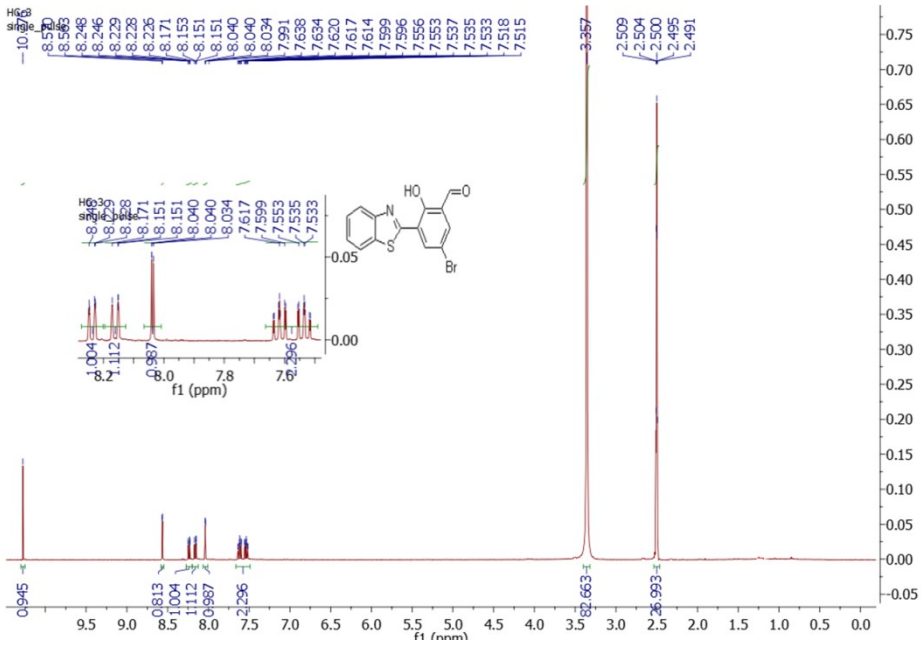

Figure S1: ^{1}H NMR spectrum of 2

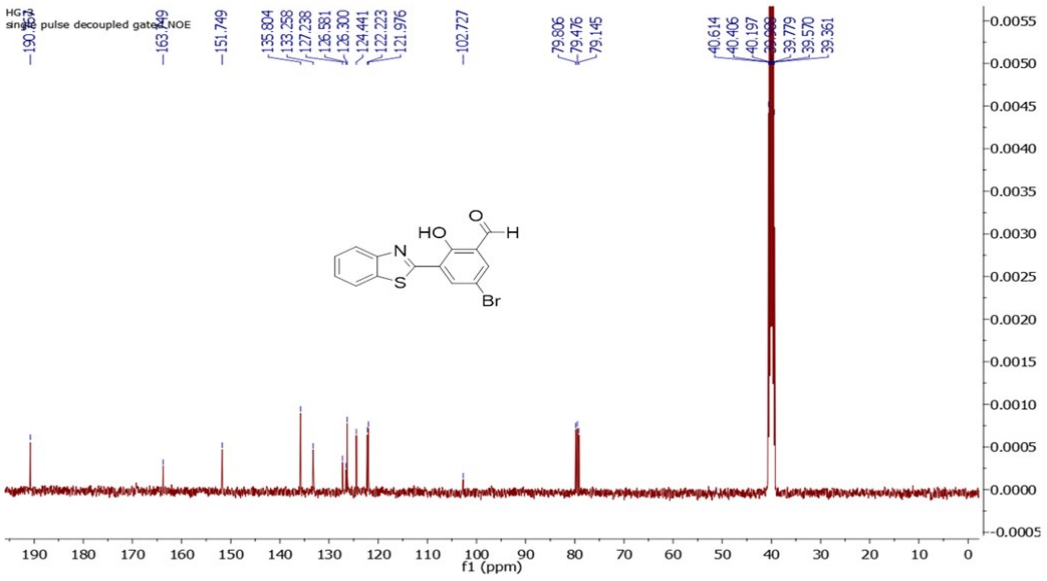

Figure S2: ^{13}C NMR spectrum of **2**

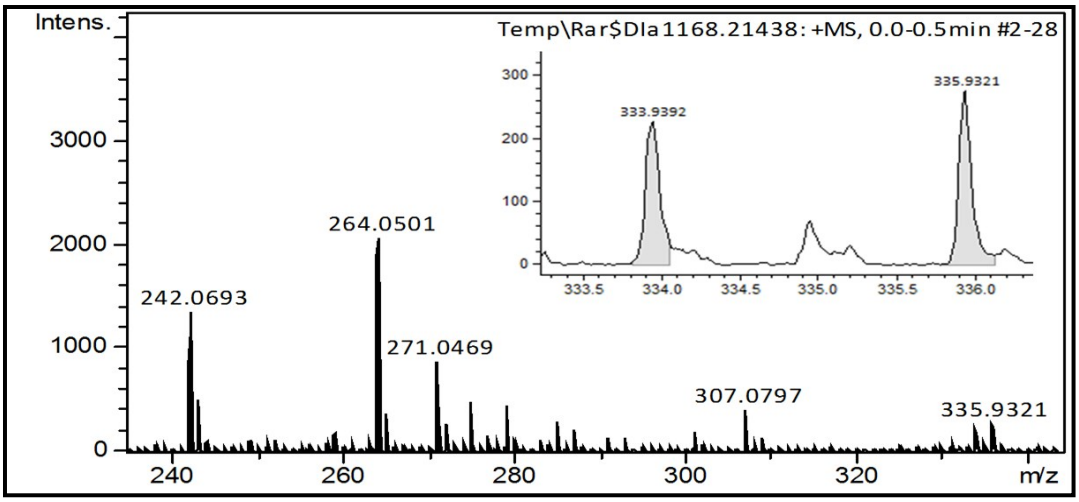

Figure S3: High resolution mass spectrum of **2**

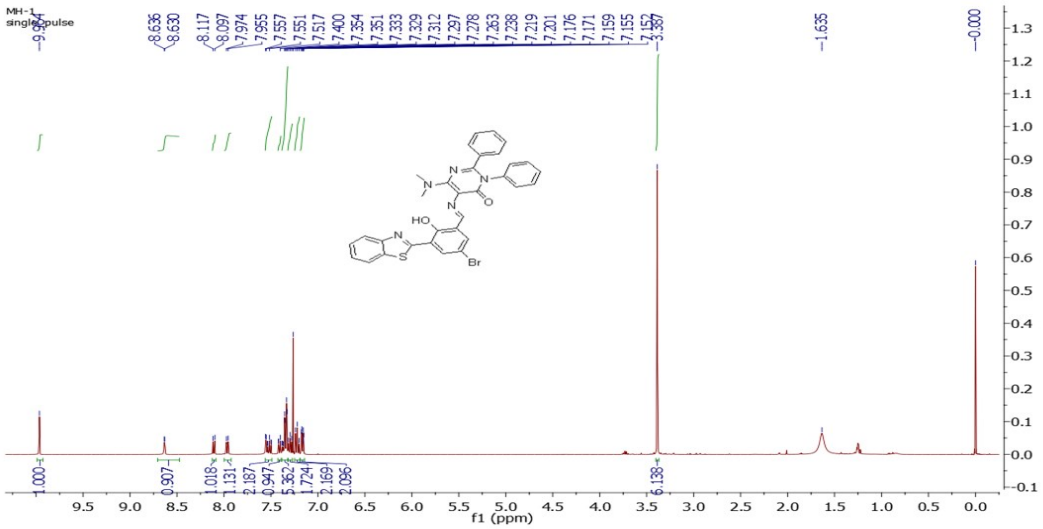

Figure S4: ^{1}H NMR spectrum of HBPI

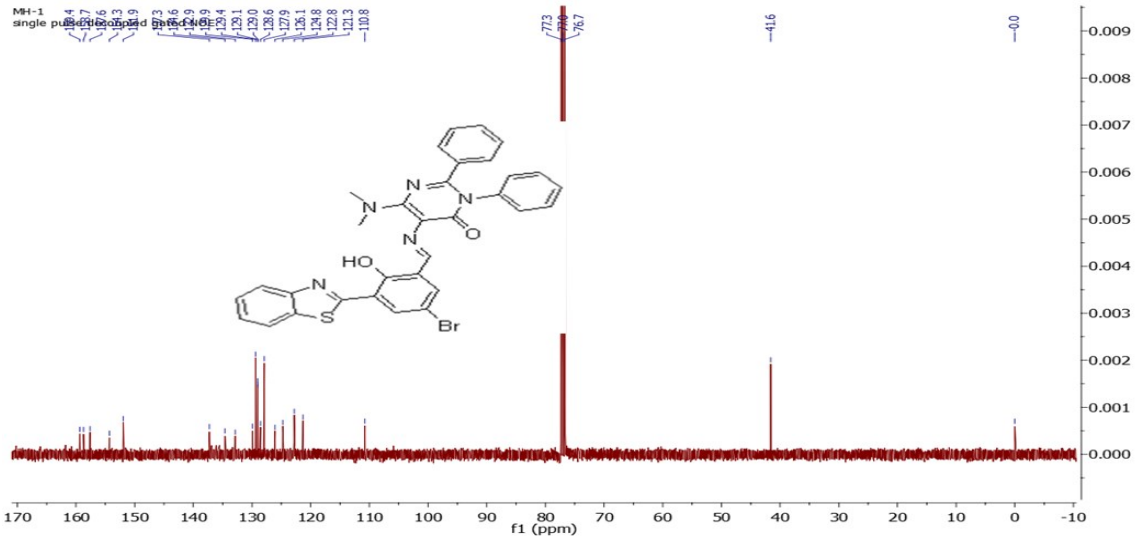

Figure S5: ^{13}C NMR spectrum of HBPI

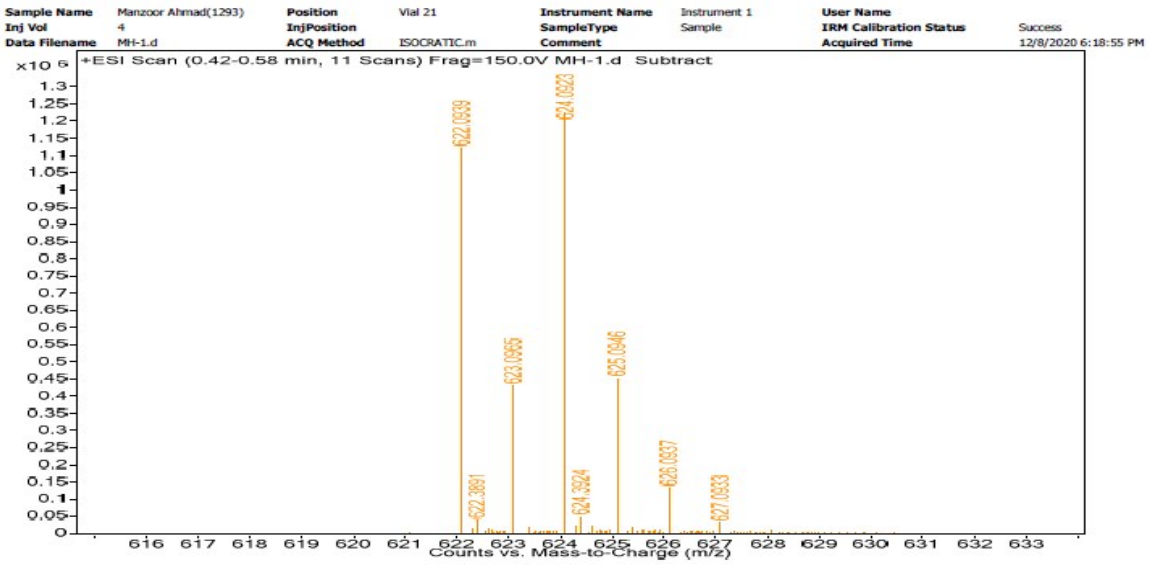

Figure S6: High resolution mass spectrum of HBPI

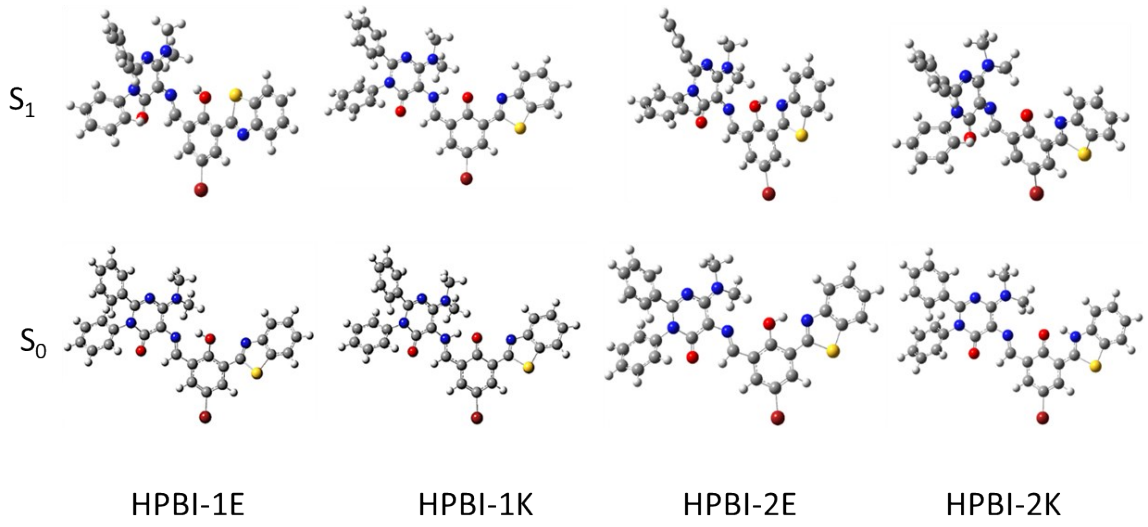

Figure. S7. TDDFT Optimized structures for HPBI conformations and their keto tautomers

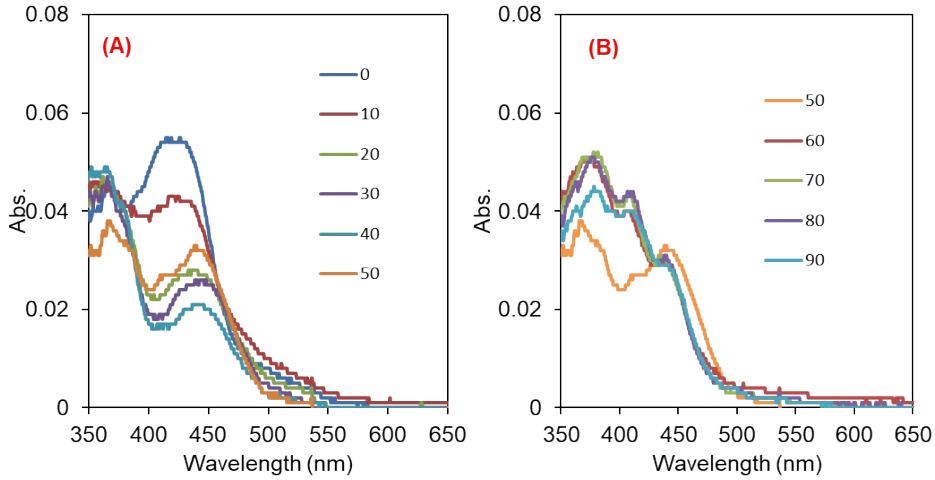

Figure S8: UV-Vis spectrum of HPBI (5µM) in CH_3CN-water binary mixtures; (A) 0 – 40% water; (B) 60 – 99% water

Table SI-1: Quantum yields of solutions of **HPBI**

Sr. No.	**HPBI** (5 µM)	Φ λ_{ex} 350 nm[a]	Φ λ_{ex} 430 nm[b]
1	CH_3CN	0.160	0.04
2	CH_3CN-H_2O (1:1)	0.218	0.03
3	CH_3CN-H_2O (1:9)	0.03	0.01

[a]quinine sulphate (1 µM, 0.1M $HClO_4$.); [b]fluorescein (1 µM, 0.1N NaOH)

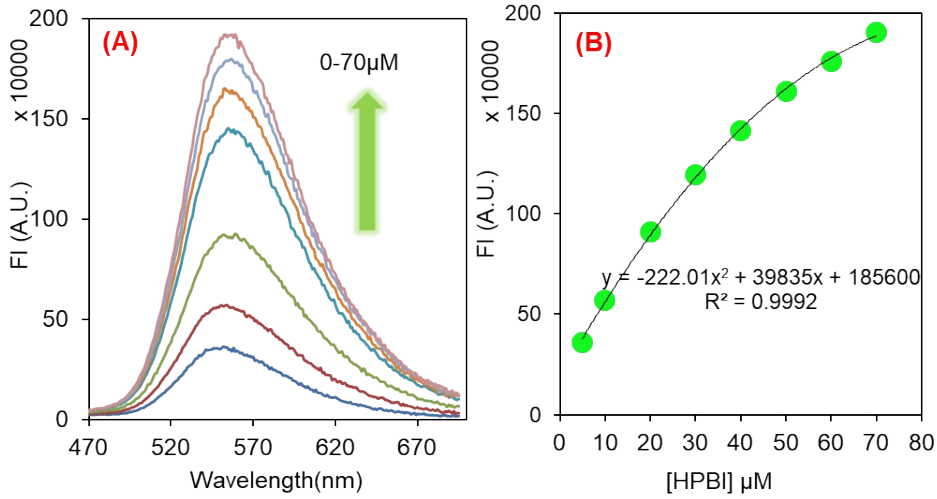

Figure S9: (A) HPBI concentration dependent fluorescence spectra; (B) Plot of fluorescence intensity against [HPBI] in 1:1 CH_3CN-water (1:1)

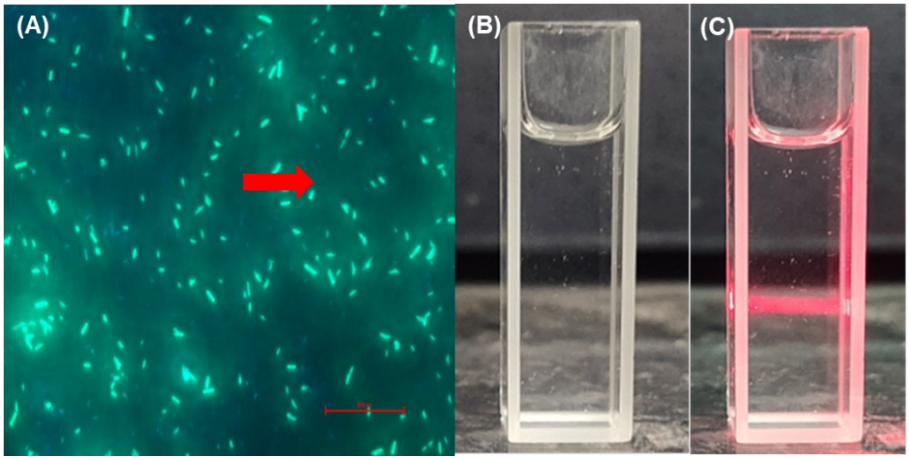

Figure S10: Solution of HPBI (50 μM, CH_3CN-water 1:1), (A) under fluorescence microscope; (B) in day light; (C) Scattering of light under red laser pointer - Tyndall effect

Figure S11:- The LFPs deposited on foil paper and developed after different intervals of time