Electronic Supplementary Information (ESI)

One-pot synthesis of a mechanochromic AIE luminogen: implication for rewritable optical data storage

Jingqi Han, Jingyan Sun, Yaping Li, Yuai Duan, and Tianyu Han

Department of Chemistry, Capital Normal University, 100048, Beijing, P. R. China. E-mail: phanw@163.com.

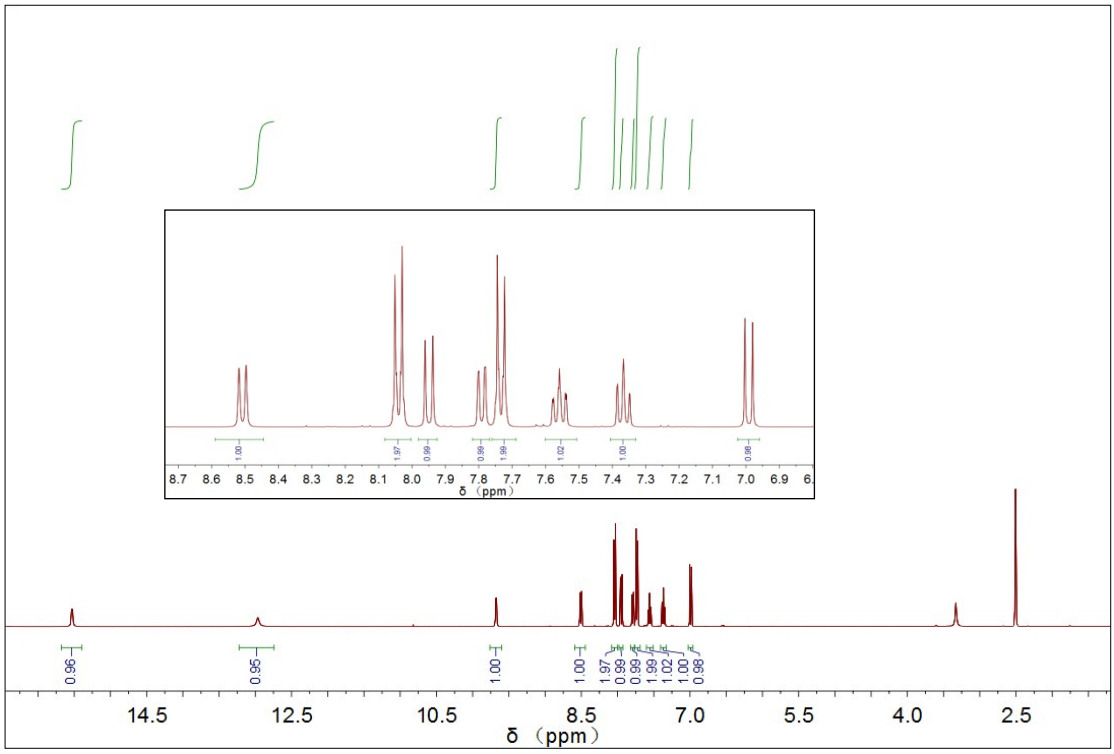

Fig. S1 ^{1}H NMR (600 MHz, 298 K) spectrum of HNMA in DMSO-d_6.

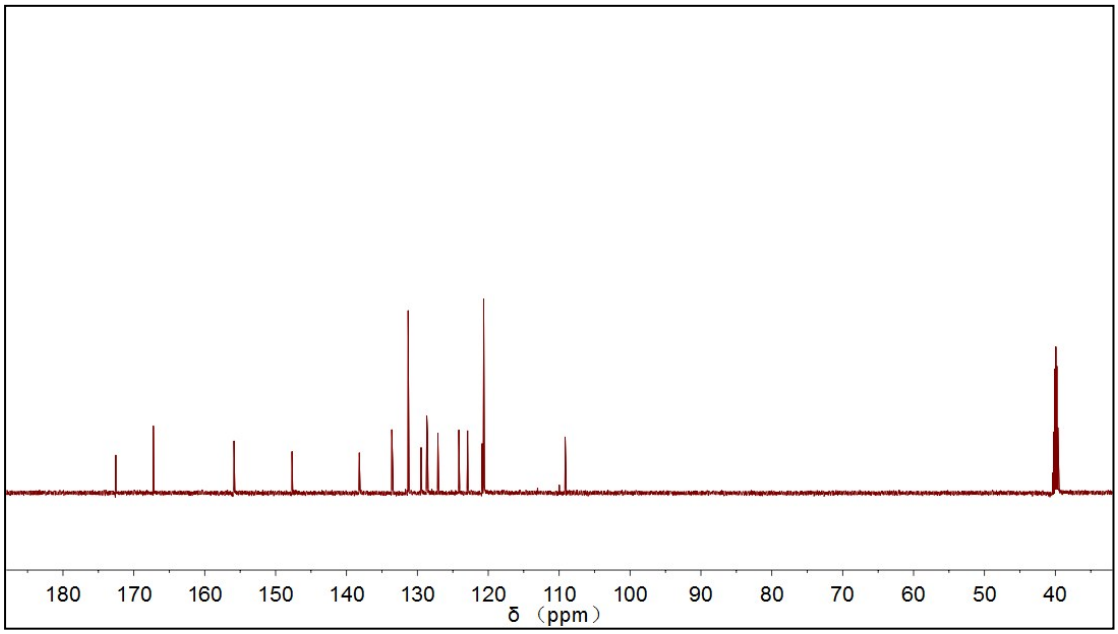

Fig. S2 ^{13}C NMR (600 MHz, 298 K) spectrum of HNMA in DMSO-d_6.

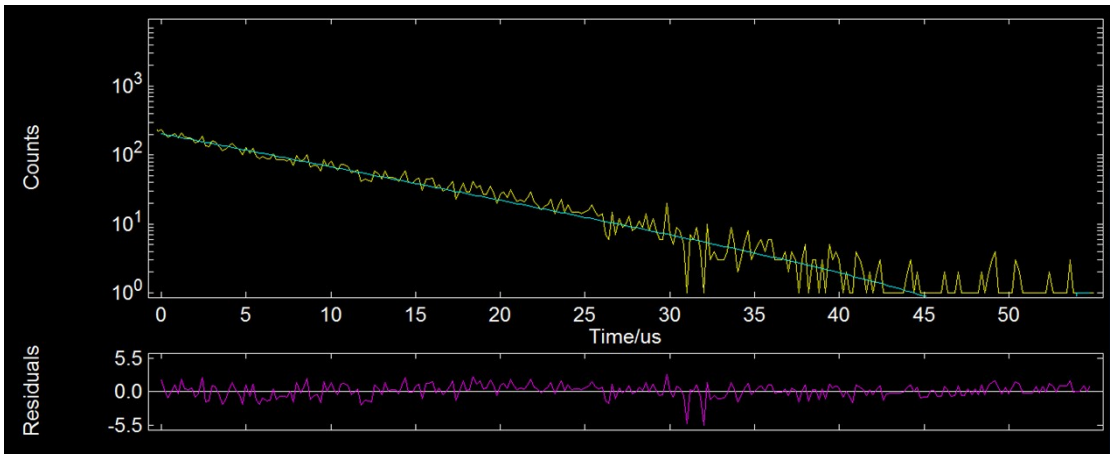

Fig. S3 Fluorescence lifetime decay profile for crystalline HNMA. Excitation wavelength: 390 nm.

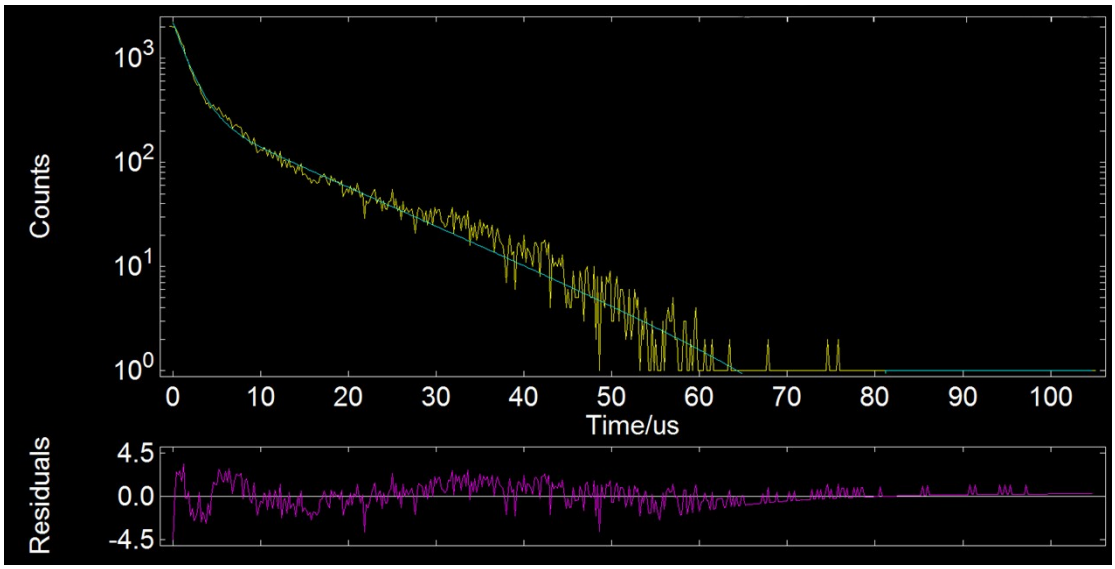

Fig. S4 Fluorescence lifetime decay profile for HNMA solution (DMSO, 10 μM). Excitation wavelength: 390 nm.

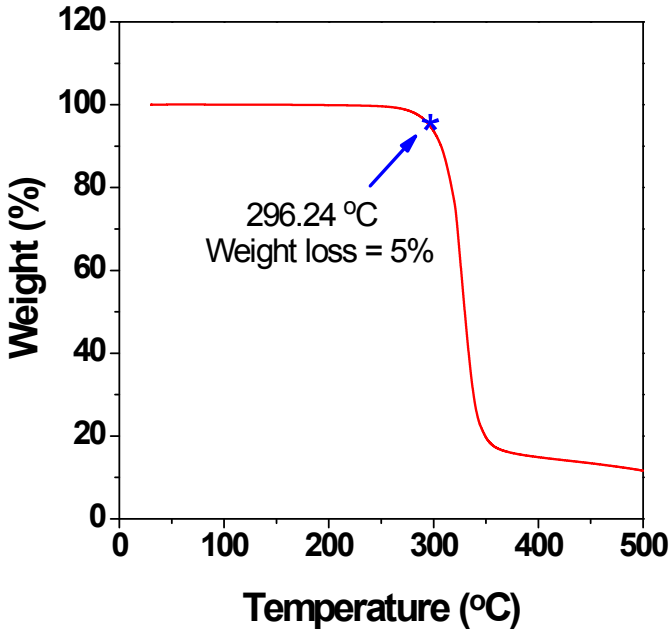

Fig. S5 TGA thermogram of HNMA recorded under nitrogen at a heating rate of 10 °C/min.

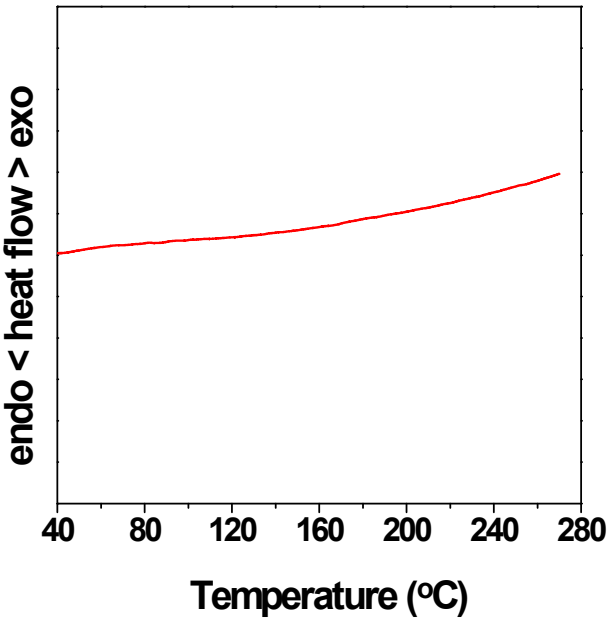

Fig. S6 DSC thermogram of crystalline HNMA recorded under nitrogen at a heating rate of 10 °C/min.

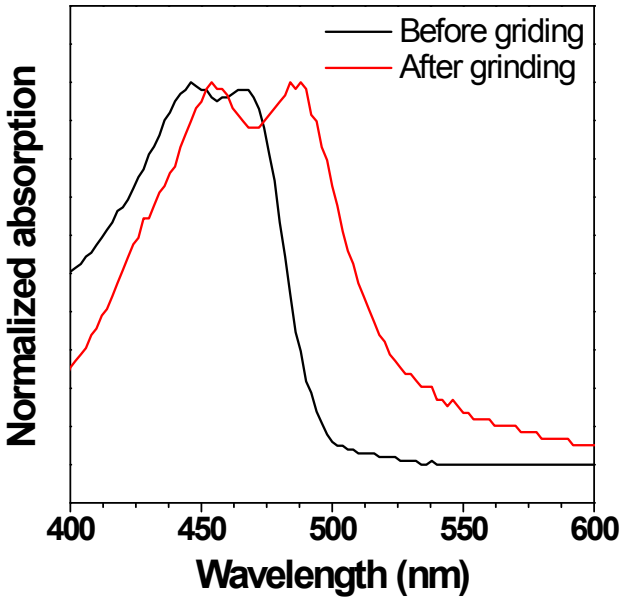

Fig. S7 Normalized absorption spectra of HNMA before (black) and after (red) grinding.

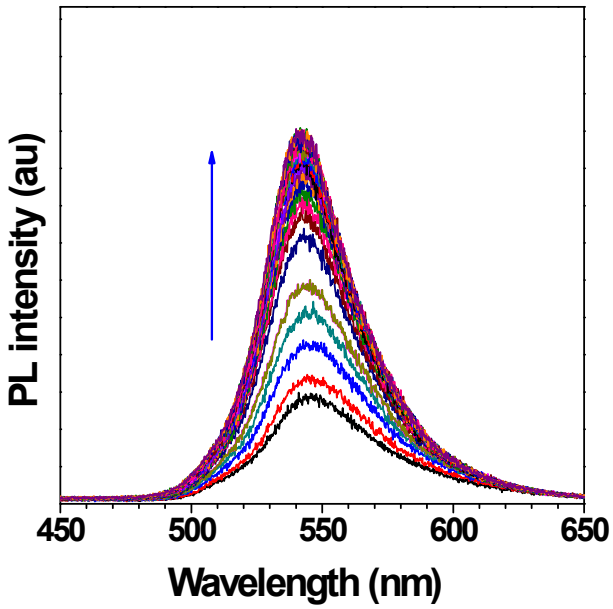

Fig. S8 Time-dependent emission spectra of the ground sample exposed to chloroform vapour. Time interval: 20 s. Excitation wavelength: 390 nm.

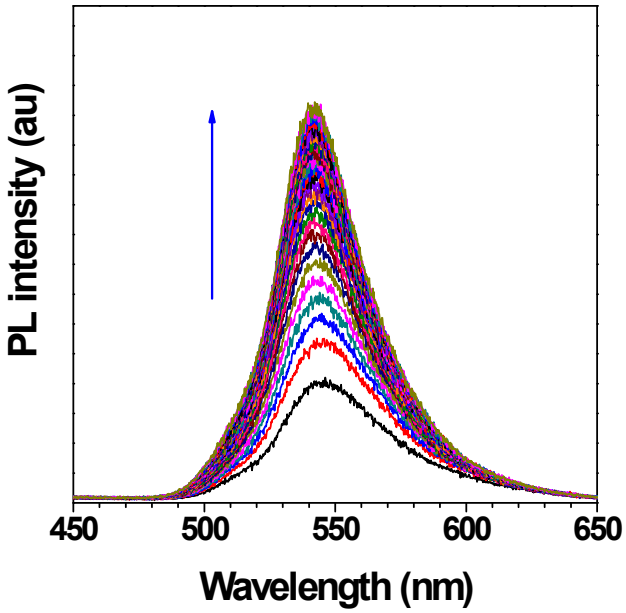

Fig. S9 Time-dependent emission spectra of the ground sample exposed to ethanol vapour. Time interval: 20 s. Excitation wavelength: 390 nm.

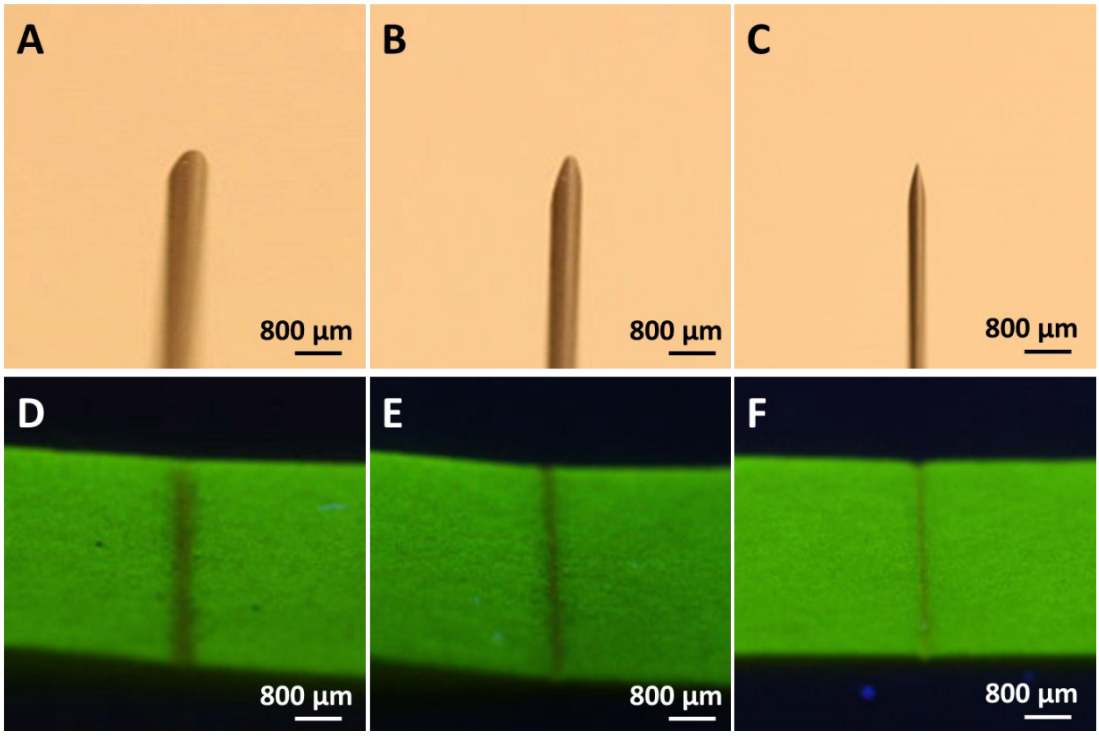

Fig. S10 Macrophotography of the pinpoints (A-C) and the corresponding force-induced data stripes (D-F). D, E and F were captured under UV irradiation in a UV lamp box.