Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting information for

Development of an endoplasmic reticulum-targeting fluorescent probe for the imaging of polarity in living cells and tissues

Wenhui Song, Baoli Dong, Yaru Lu, Xiuqi Kong, Abdul Hadi Mehmood and Weiying Lin*

Institute of Fluorescent Probes for Biological Imaging, School of Chemistry and Chemical Engineering, School of Materials Science and Engineering, University of Jinan, Jinan, Shandong 250022, P.R. China.

*Corresponding Author.
Tel.: +86 53182769108.
E-mail address: weiyinglin2013@163.com.

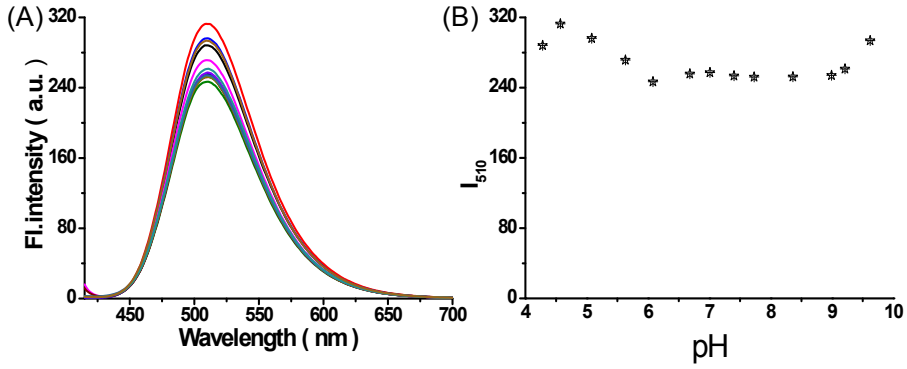

Fig. S1. (A) Fluorescence spectra of 5 μM **NSp** at various pH. (B) Fluorescence intensities at 510 nm of 5 μM **NSp** at various pH. λ_{ex} = 405 nm

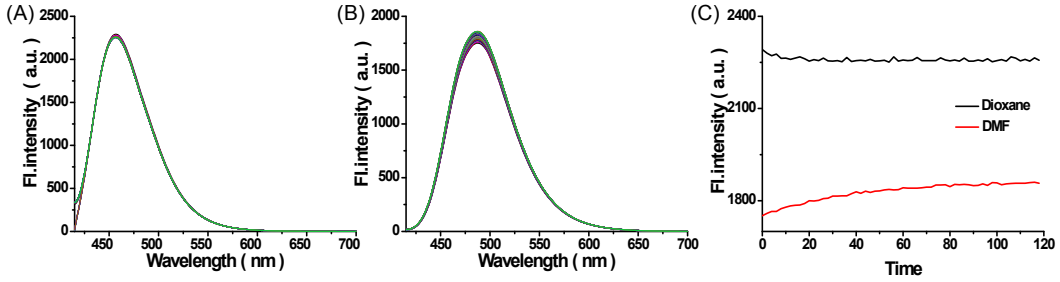

Fig. S2. Photostability of compound **NSp** at Dixane and DMF. λ_{ex} = 405 nm

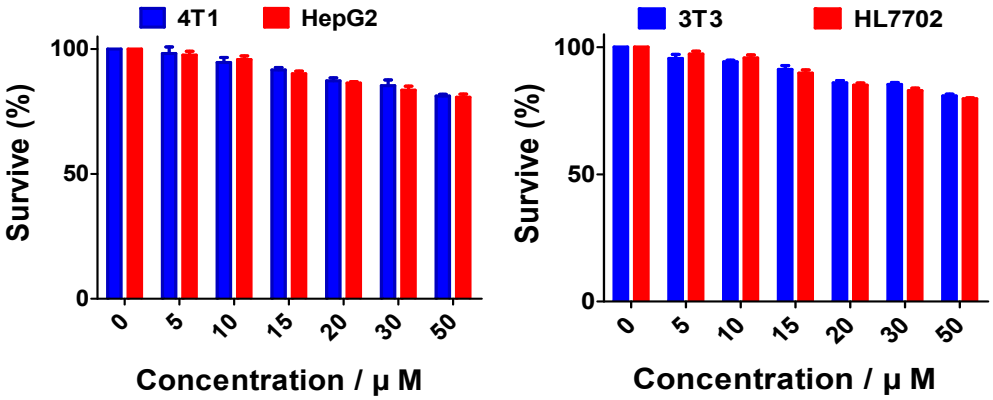

Fig. S3. The MTT experiments of **NSp** under different concentrations for 4T1 cells; 3T3 cells; HepG2 cells; HL-7702cells.

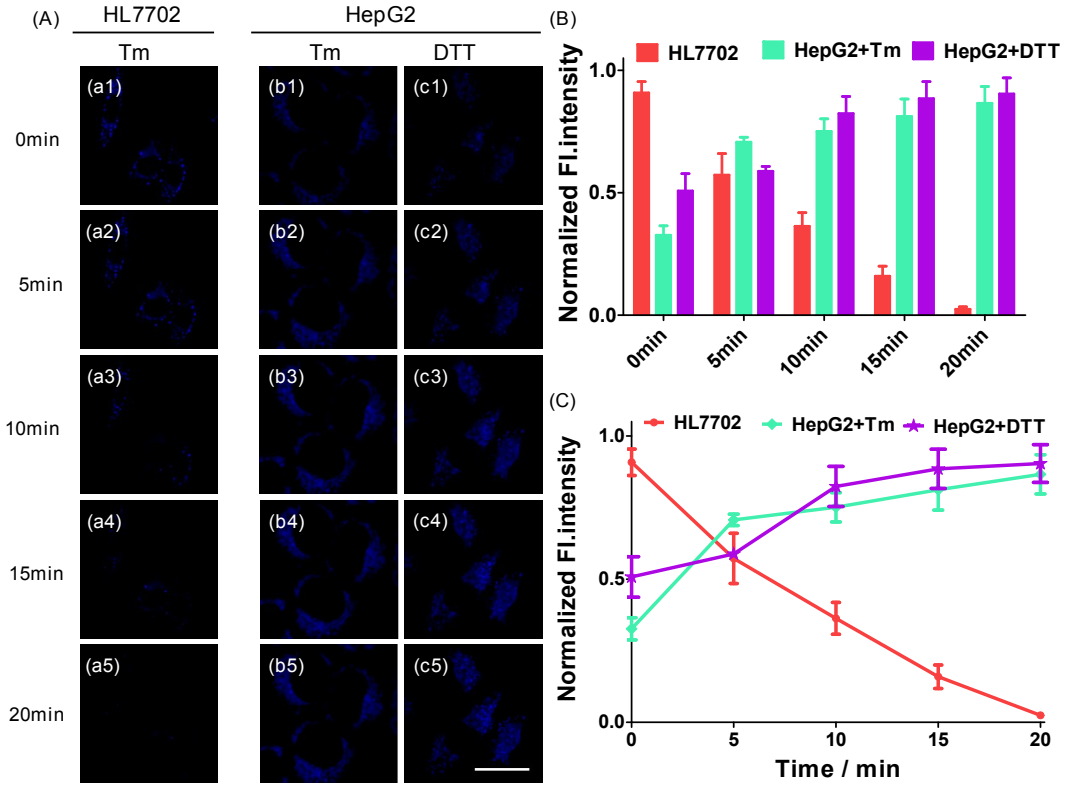

Fig.S4 (A) Fluorescence images of **NSp** (5 μM) in live cells at different times after the addition of ER stress stimuli. a1–a5: Fluorescence images of **NSp** in HL-7702 cells after the addition of Tm (50 mg / mL). b1–b5: Fluorescence images of **NSp** in HepG2 cells after the addition of Tm (50 mg / mL). b1–b5: Fluorescence images of **NSp** in HepG2 cells after the addition of DTT (5.0 mM). λ_{ex} = 405 nm, λ_{em} = 425 - 475 nm, Scale bar: 20 μm. (B) Analysis of the quantitative fluorescence intensity in (A) using ImageJ software. (C) The average fluorescence intensity output of **NSp** at different times. Scale bar: 20 μm.

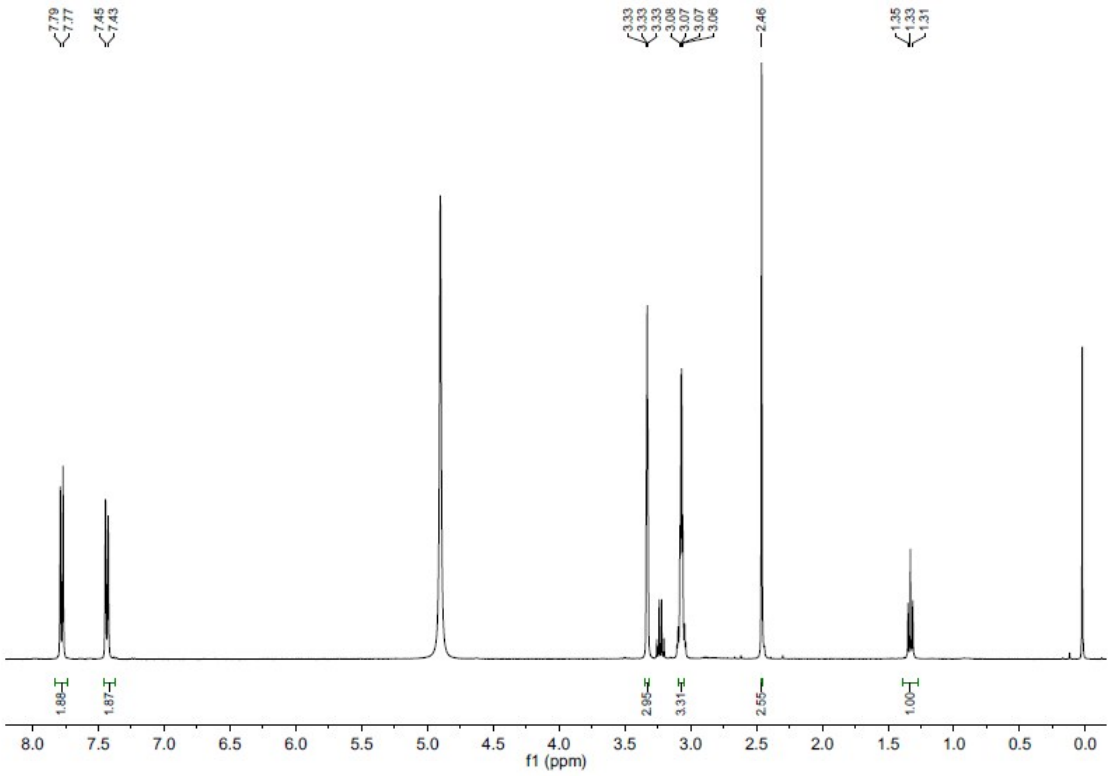

Fig. S5. [1]H-NMR spectrum of **compound 1** in MeOH-*d4*.

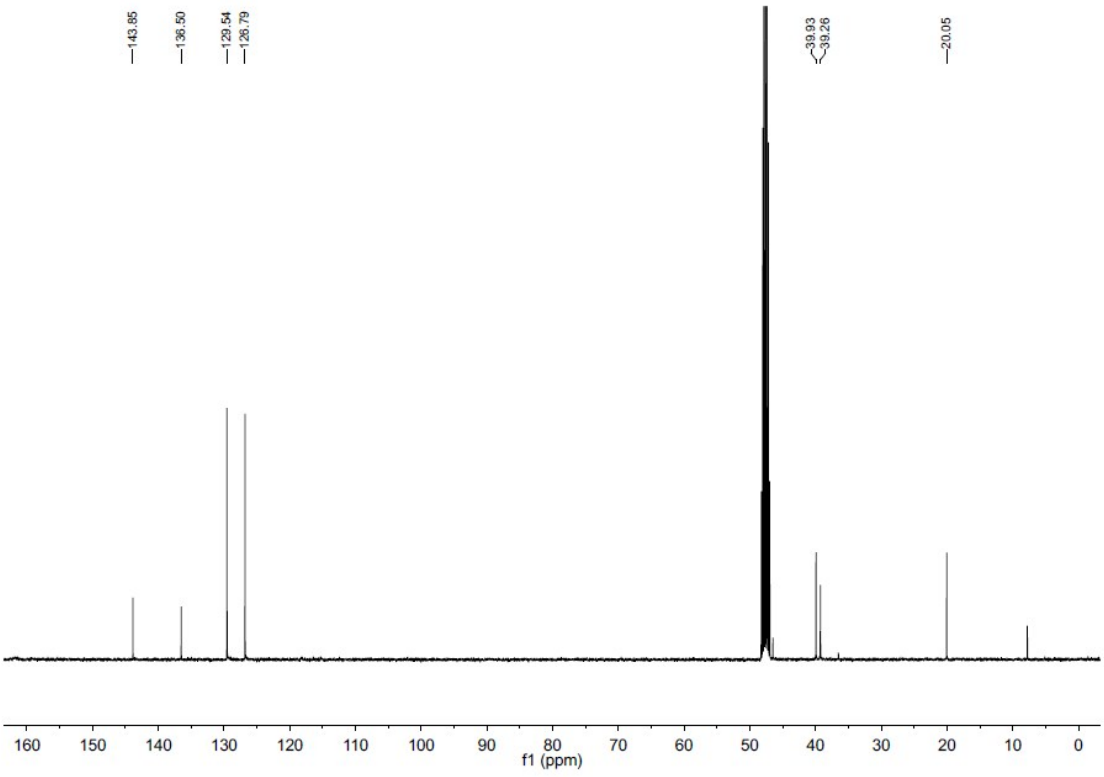

Fig. S6. [13]C-NMR **compound 1** in MeOH-*d4*.

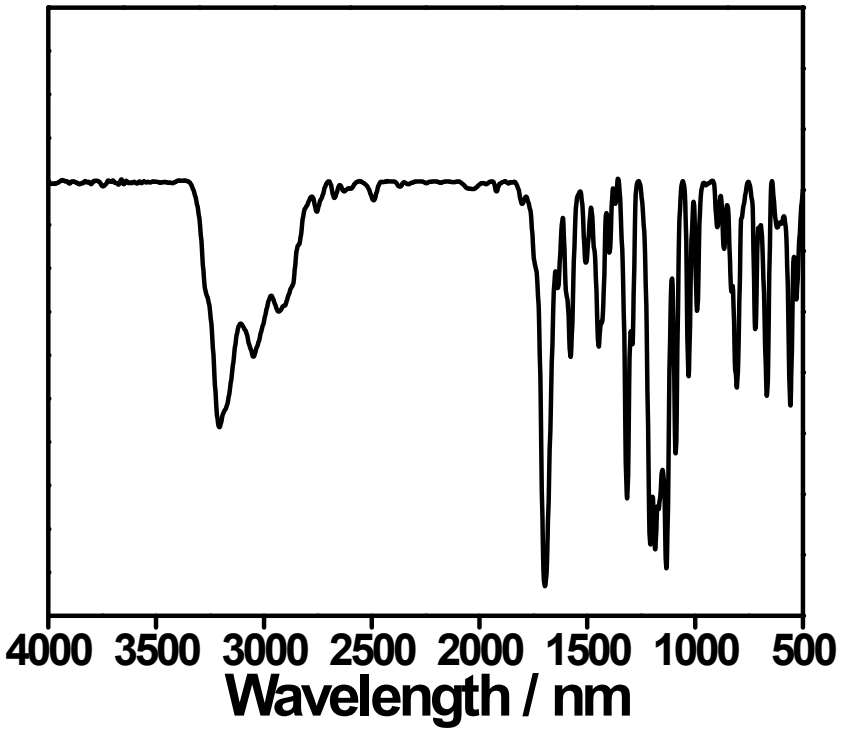

Fig. S7. FT-IR data of **compound 1**.

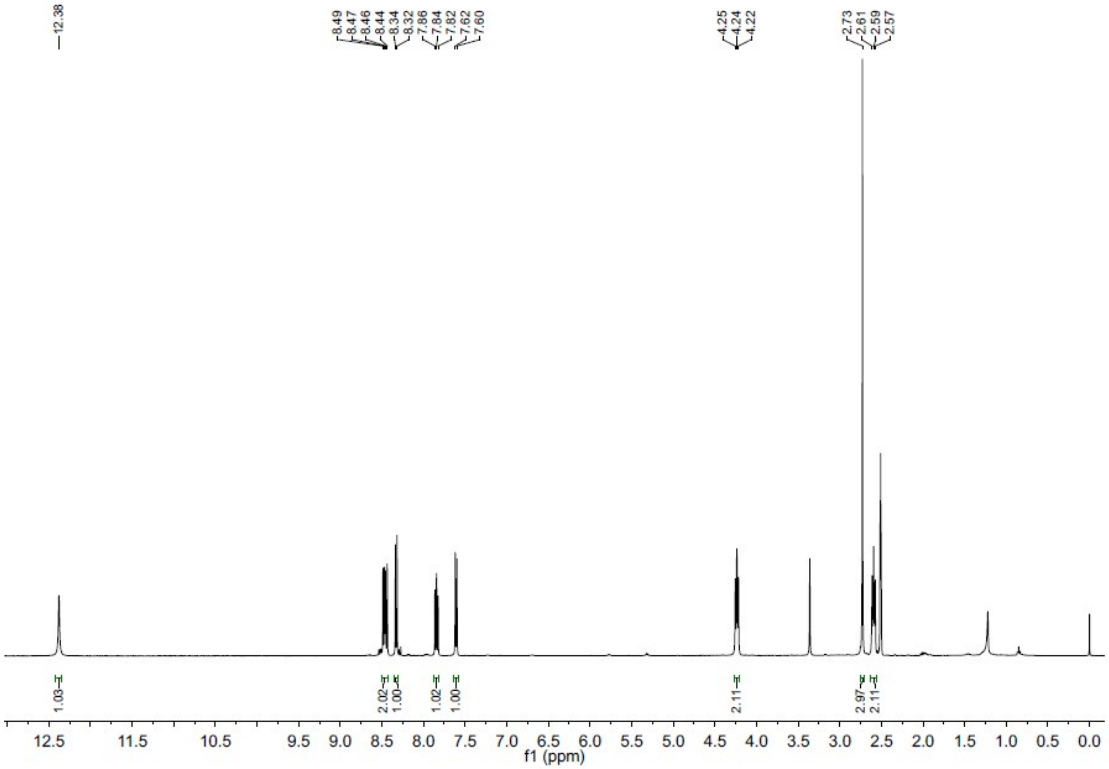

Fig. S8. ^{1}H-NMR spectrum of **Compound 2** in DMSO-*d6*.

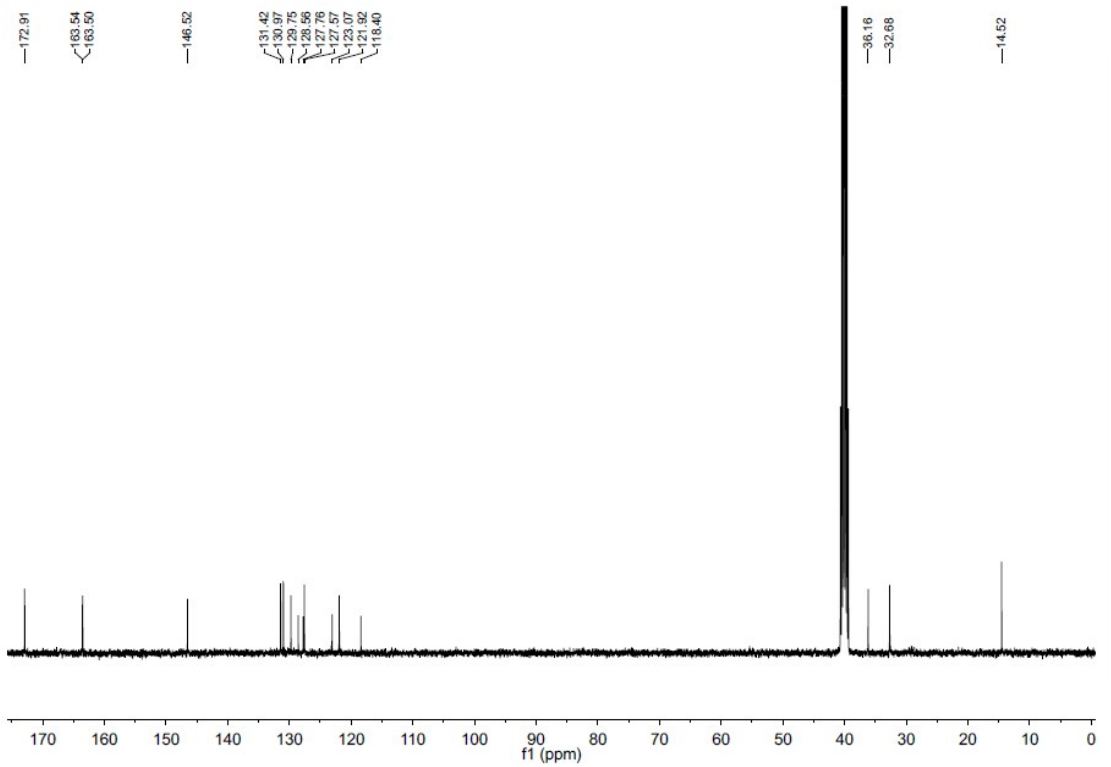

Fig. S9. ^{13}C-NMR spectrum of **Compound 2** in DMSO-*d6*.

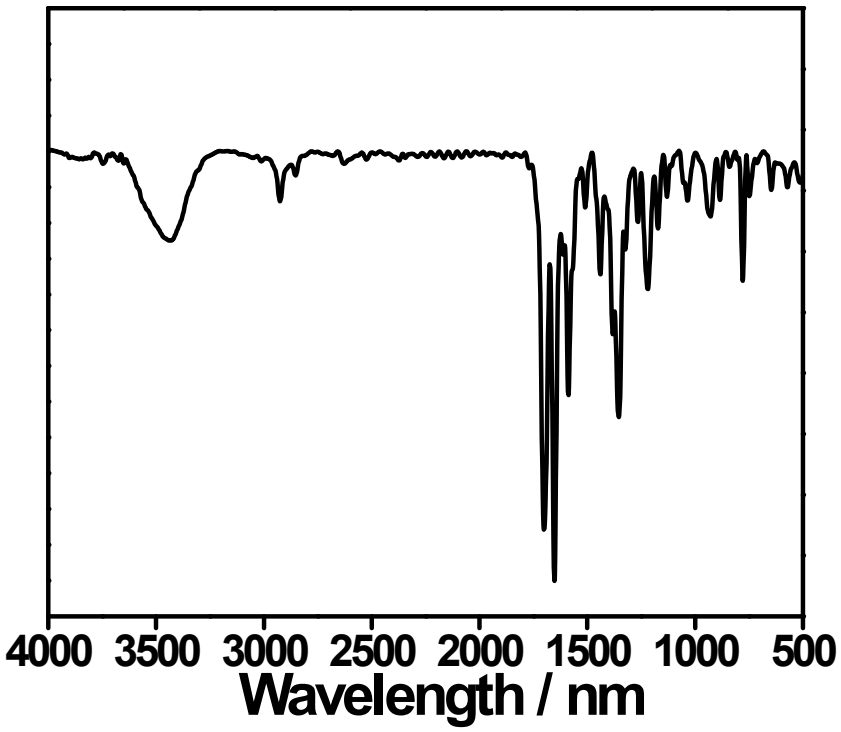

Fig. S10. FT-IR data of **compound 2**.

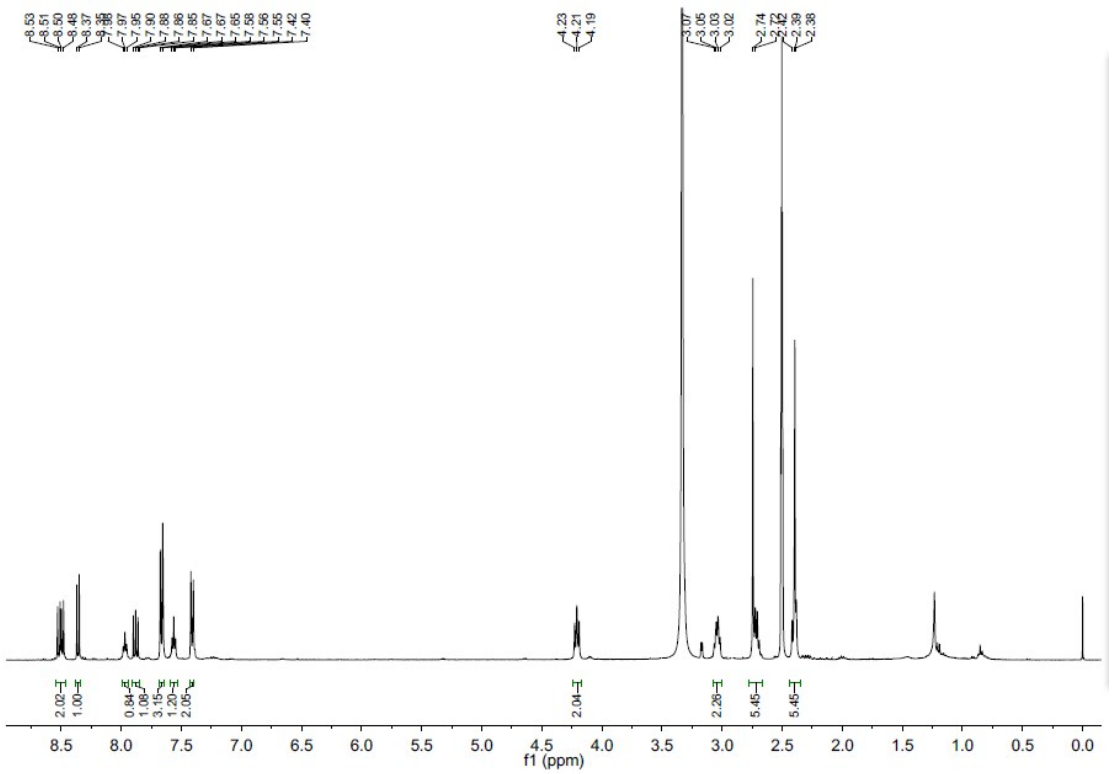

Fig. S11. [1]H-NMR spectrum of **NSp** in DMSO-d_6.

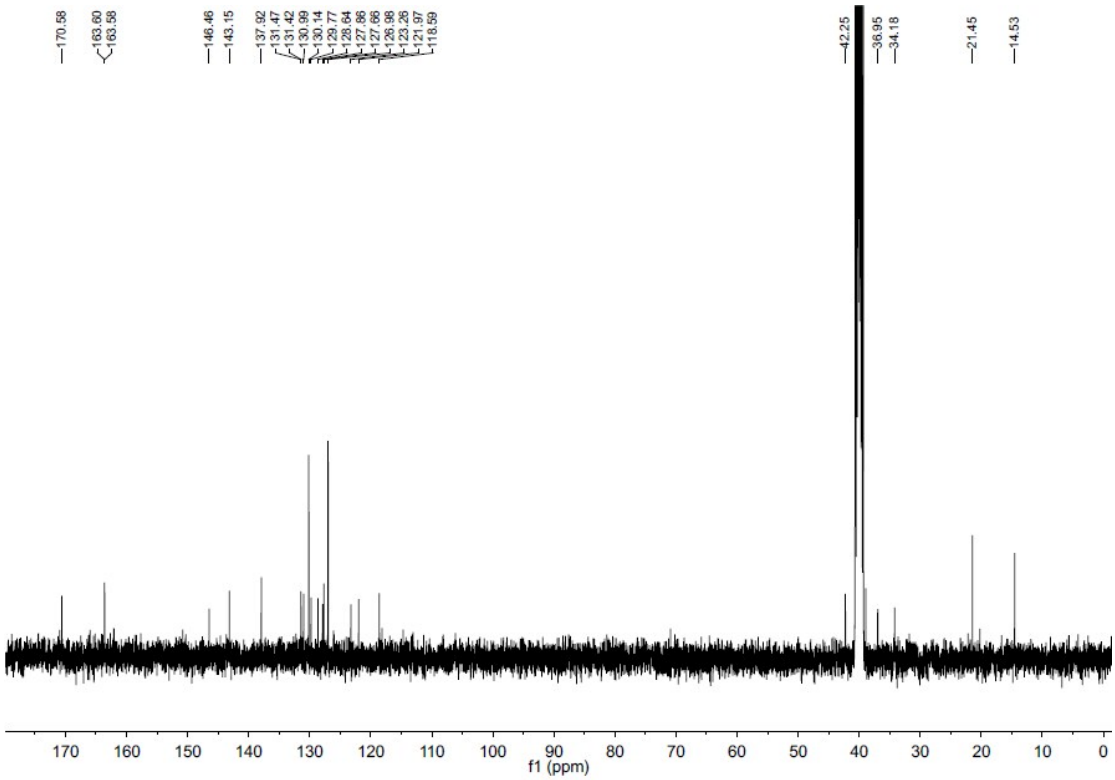

Fig. S12. [13]C-NMR spectrum of **NSp** in DMSO-*d6*.

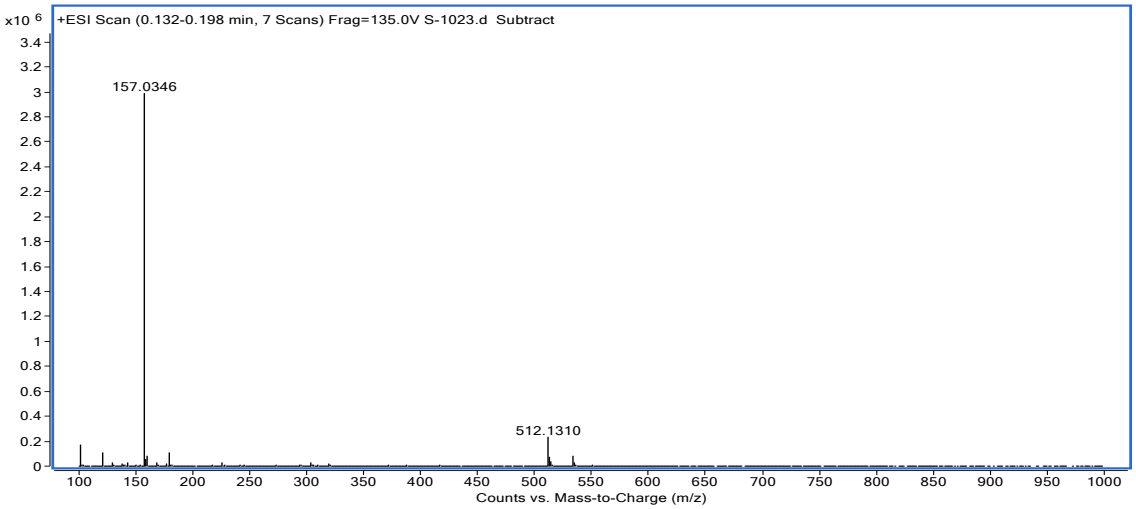

Fig. S13. HRMS data of the probe **NSp**.

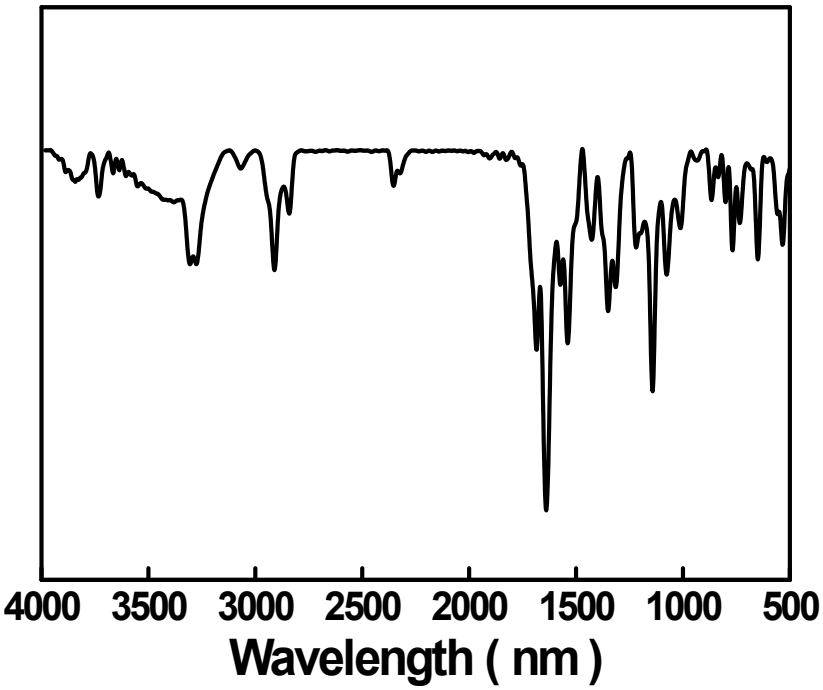

Fig. S14. FT-IR data of the probe **NSp**.