

Electronic Supplementary Information (ESI):

Synthesis, two-photon absorption and aggregation-induced emission properties of multi-branched triphenylamine derivatives based on diketopyrrolopyrrole for bioimaging

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Content list

Fig. S1 One-photon absorption spectra of **YJ-1** in different solvents at the concentration of $1 \times 10^{-5} M$ S-1

Fig. S2 One-photon absorption spectra of **YJ-2** in different solvents at the concentration of $1 \times 10^{-5} M$ S-1

Fig. S3 One-photon absorption spectra of **YJ-3** in different solvents at the concentration of $1 \times 10^{-5} M$ S-2

Fig. S4 Viability of 803 and Hela cells after incubation with **YJ-1** ($1 \times 10^{-5} M$) for 24h S-2

Fig. S5 Dulbecco's modified Eagle's medium (DMEM) studied by dynamic light scattering (DLS) S-3

Fig. S6 **YJ-1** in DMSO/DMEM (1: 99 v/v) mixtures studied by DLS at concentration of $1 \times 10^{-5} M$ S-3

Characterization S-4

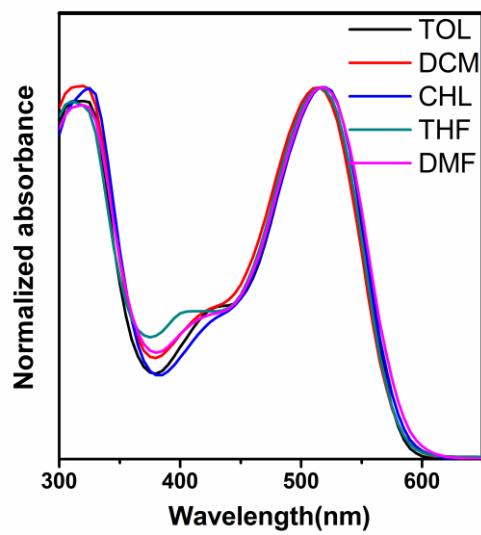


Fig. S1 one-photon absorption spectra of **YJ-1** in toluene (TOL), dichloromethane (DCM), chloroform (CHL), tetrahydrofuran (THF), dimethyl formamide (DMF) at the concentration of 1×10^{-5} M.

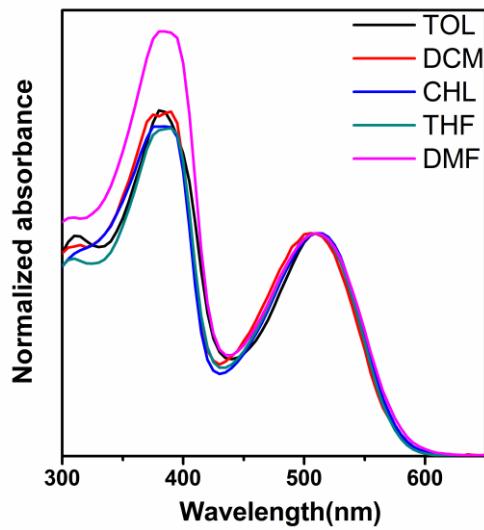


Fig. S2 one-photon absorption spectra of **YJ-2** in TOL, DCM, CHL, THF, DMF at the concentration of 1×10^{-5} M.

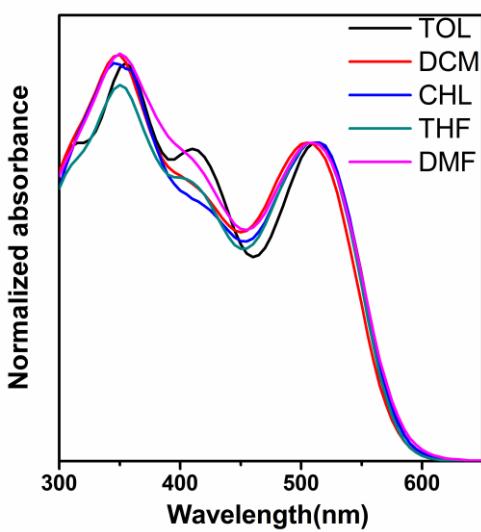


Fig. S3 one-photon absorption spectra of **YJ-3** in TOL, DCM, CHL, THF, DMF at the concentration of 1×10^{-5} M.

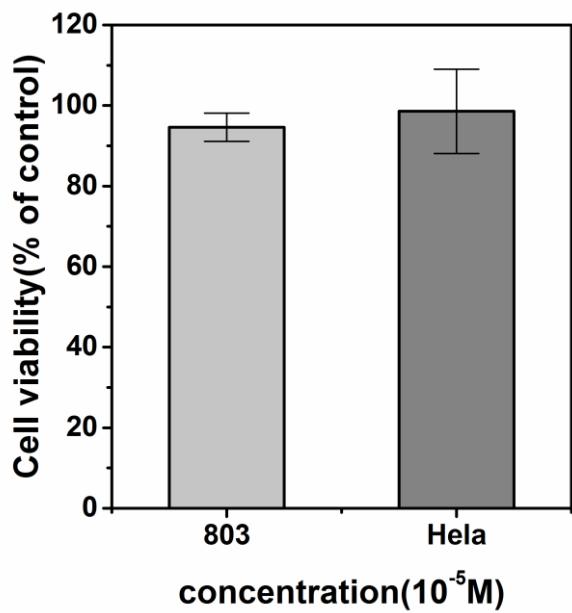


Fig. S4 Viability of 803 and HeLa cells after incubation with **YJ-1** (1×10^{-5} M) for 24h.

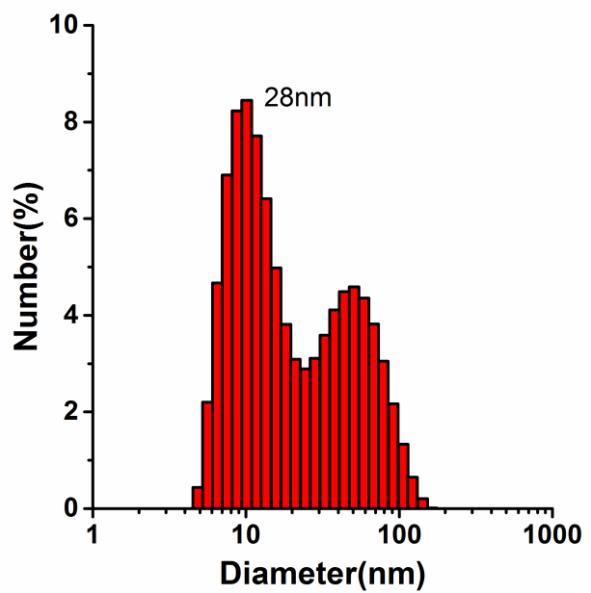


Fig. S5 Dulbecco's modified Eagle's medium (DMEM) studied by dynamic light scattering (DLS).

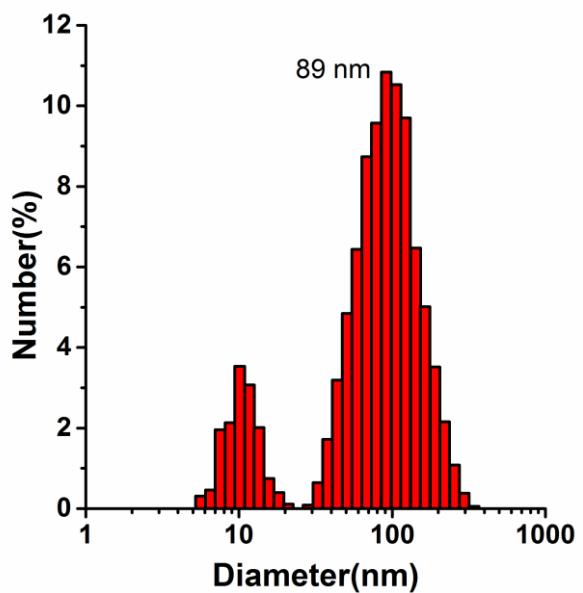


Fig. S6 YJ-1 in DMSO/DMEM (1: 99 v/v) mixtures studied by DLS at concentration of $1 \times 10^{-5} M$

Characterization:

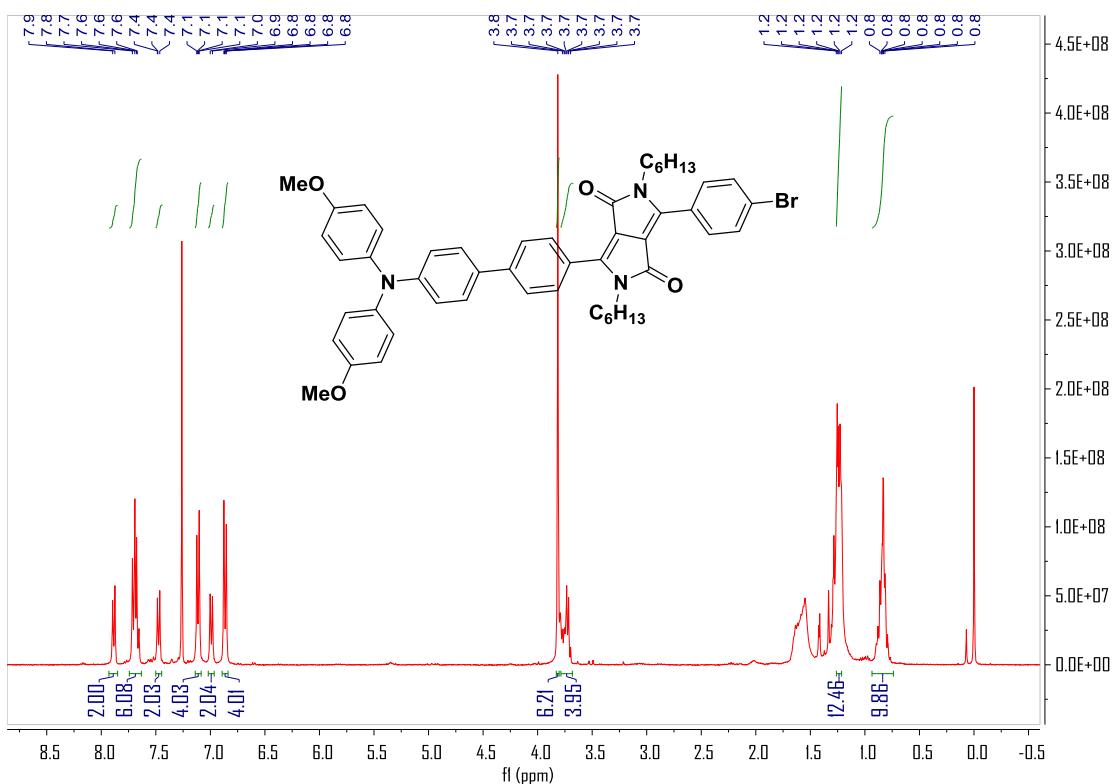


Fig. S7 ^1H NMR of compound 4

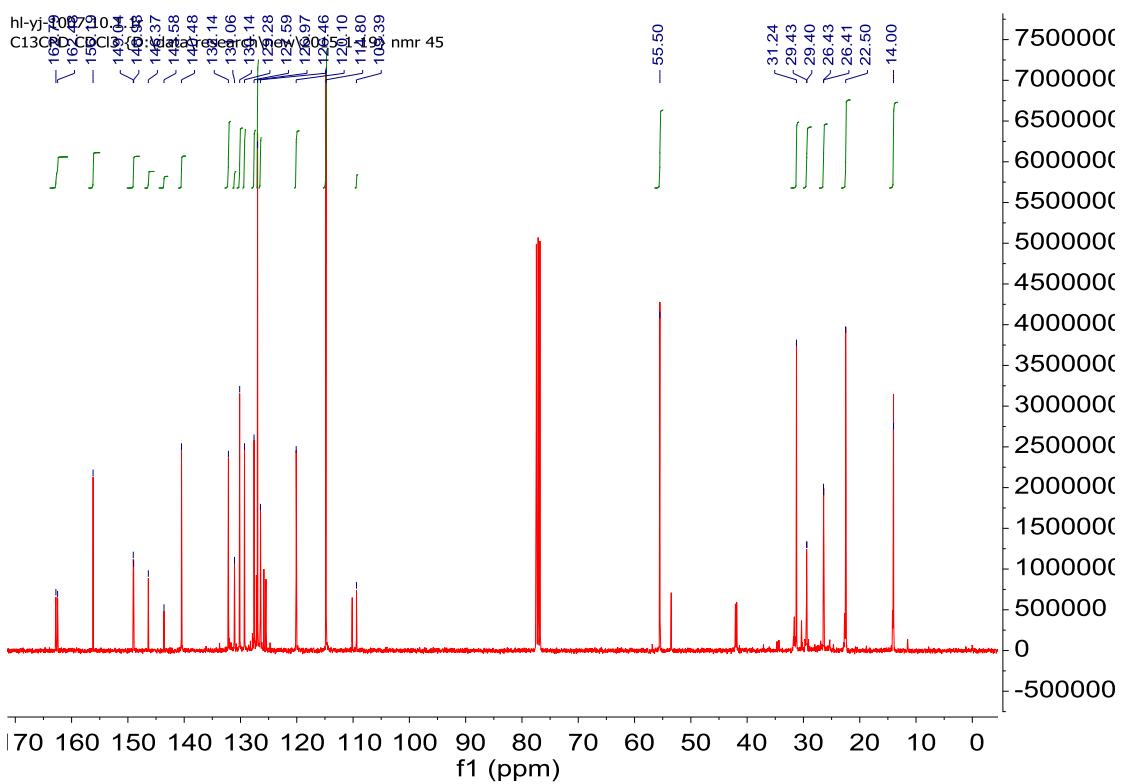


Fig. S8 ^{13}C NMR of compound 4

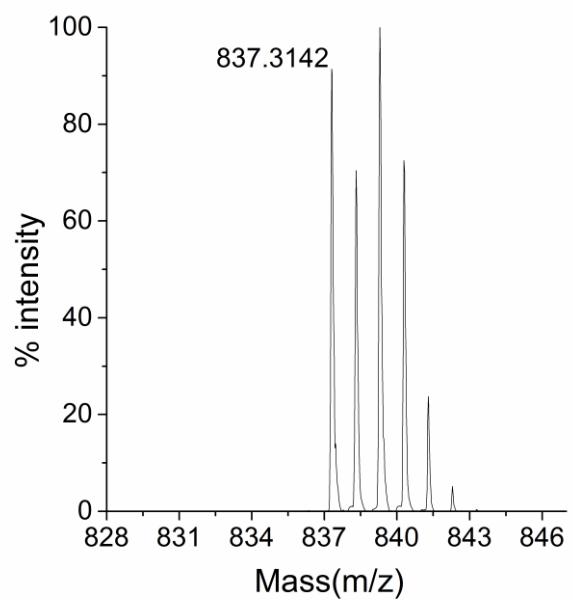


Fig. S9 MALDI-TOF spectrum of compound 4

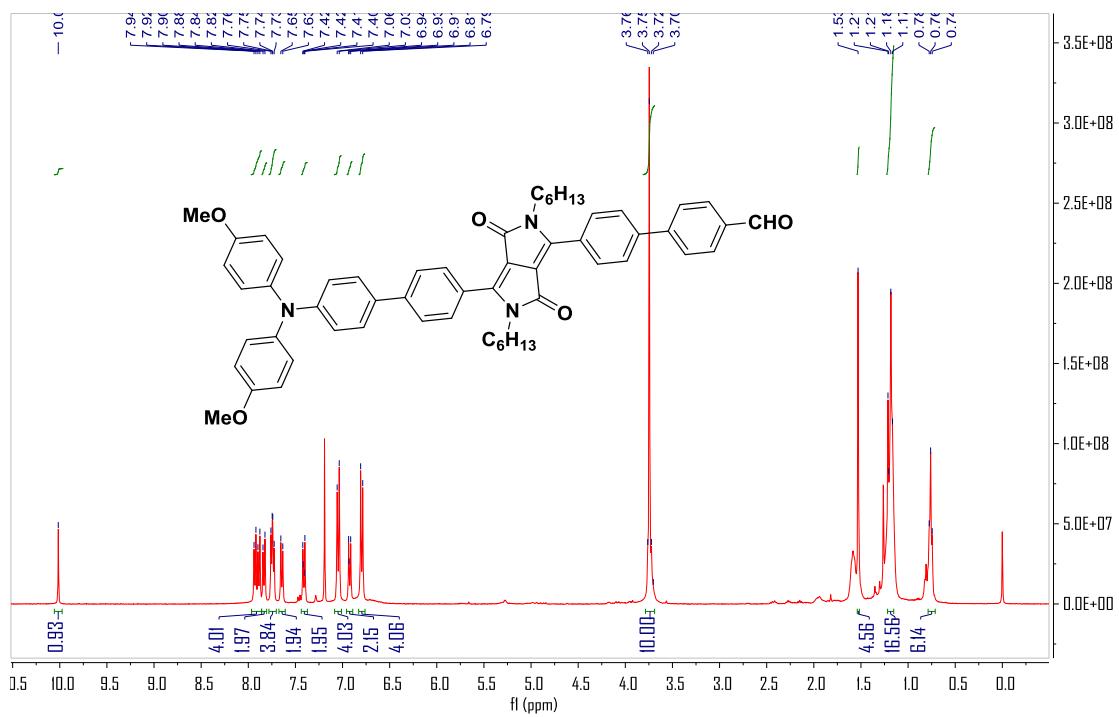


Fig. S10 ^1H NMR of compound 5

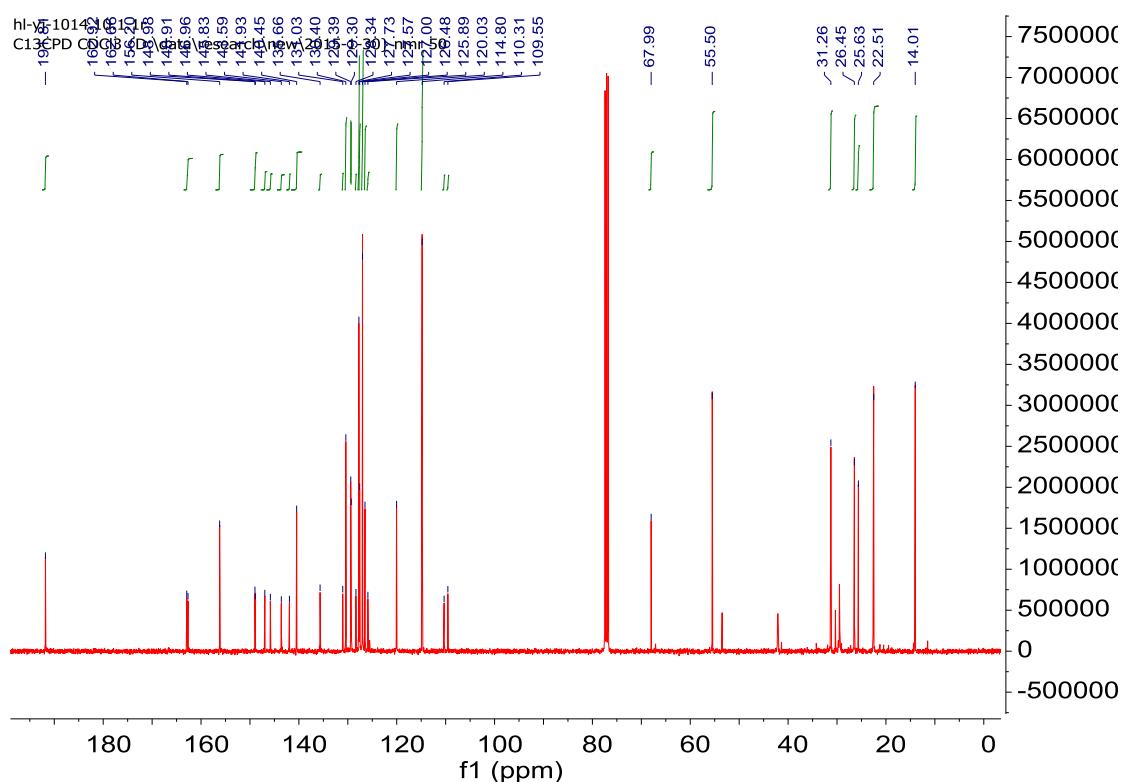


Fig. S11 ^{13}C NMR of compound 5

Elemental Composition Report

Page 1

Single Mass Analysis

Single-Isotope Analysis / Tolerance = 30.0 mDa / DBE: min = -1.5, max = 100.0
Element prediction: Off
Number of isotope peaks used for i-FIT = 2

Monoisotopic Mass, Even Electron Ions
8 formula(e) evaluated with 1 results within limits (up to 1 best isotopic matches for each mass)

Elements Used:

Elements used:

ECUST institute of Fine Chem

29-Jan-2015
19:25:25
TOF MS ES+
8.16e+003

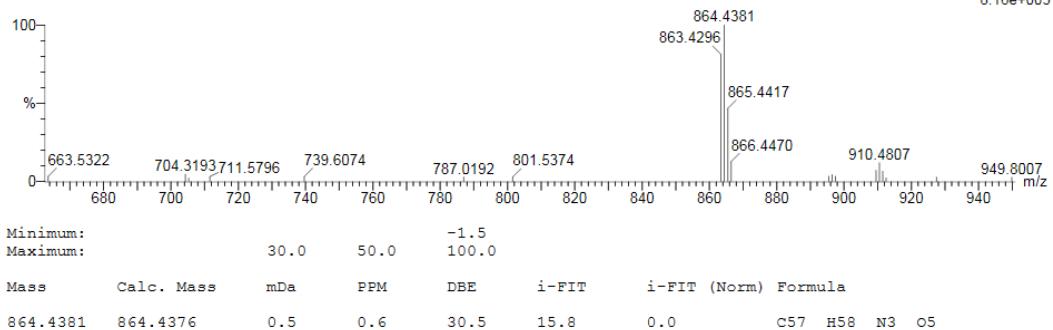


Fig. S12 High-Res ESI-TOF mass spectrum of compound 5

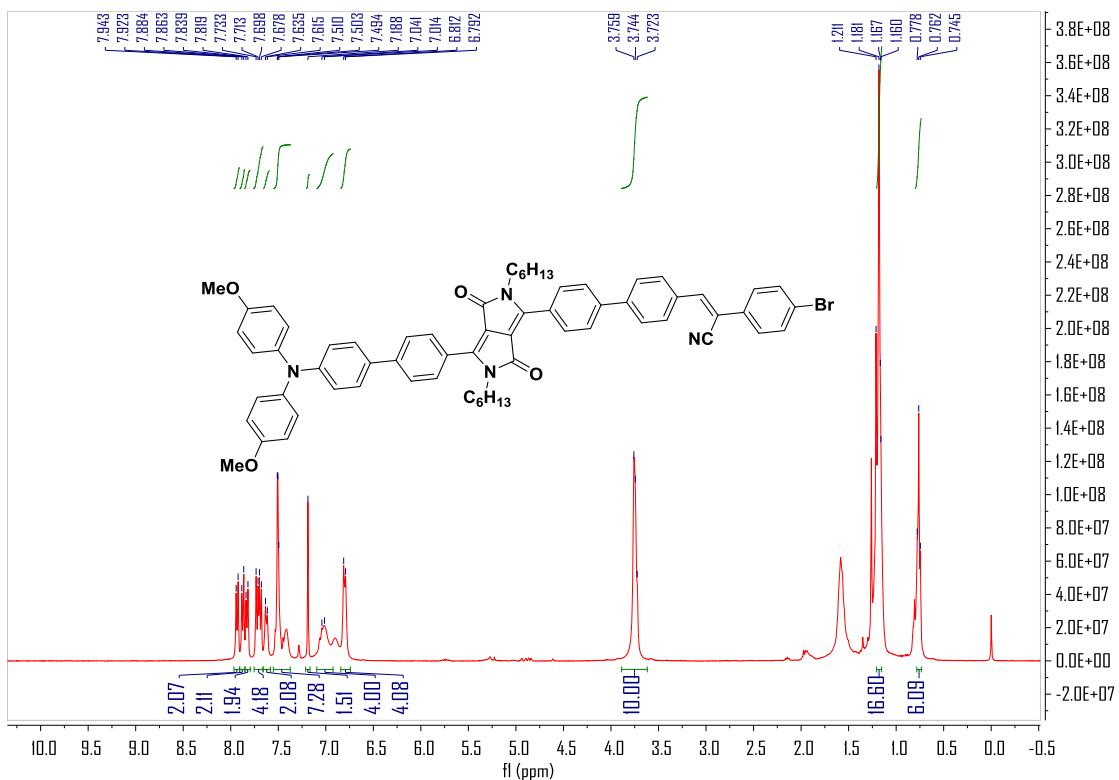


Fig. S13 ^1H NMR of compound 6

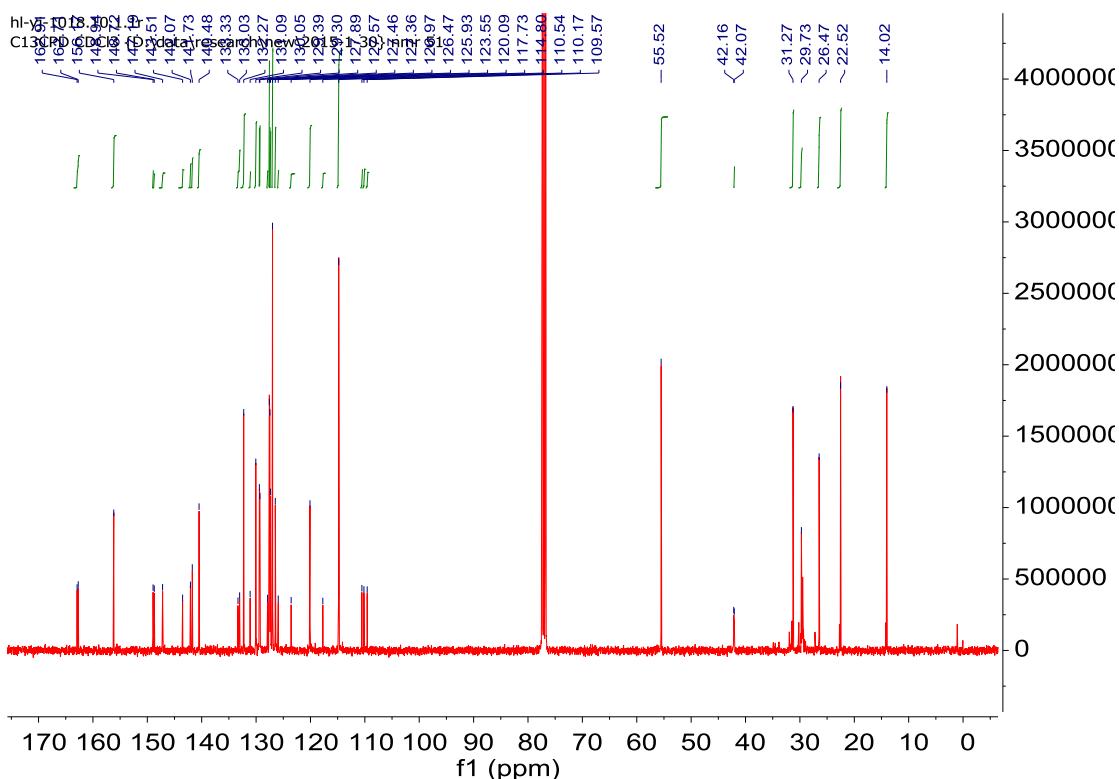


Fig. S14 ^{13}C NMR of compound 6

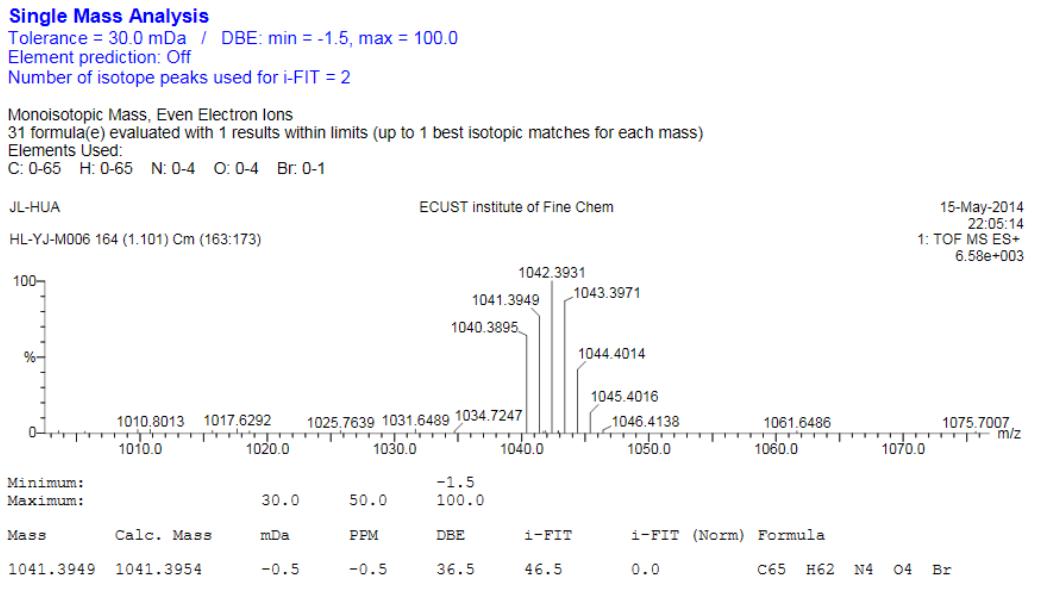


Fig. S15 High-Res ESI-TOF mass spectrum of compound **6**

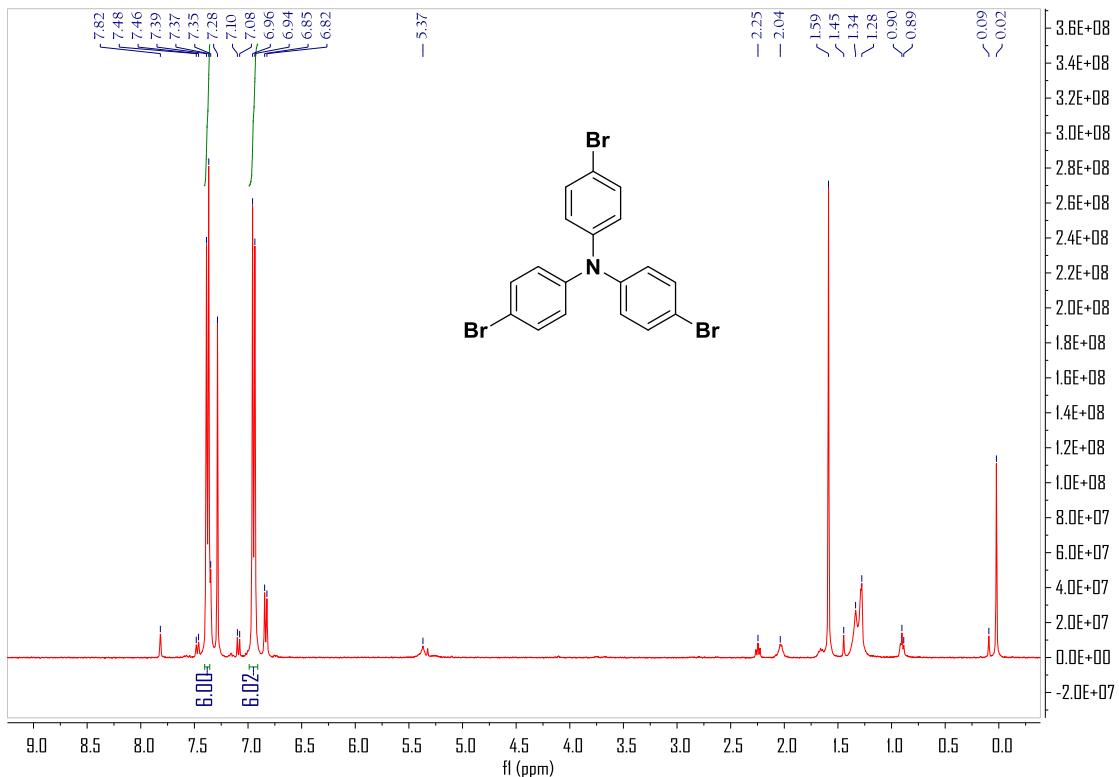


Fig. S16 ^1H NMR of compound 8

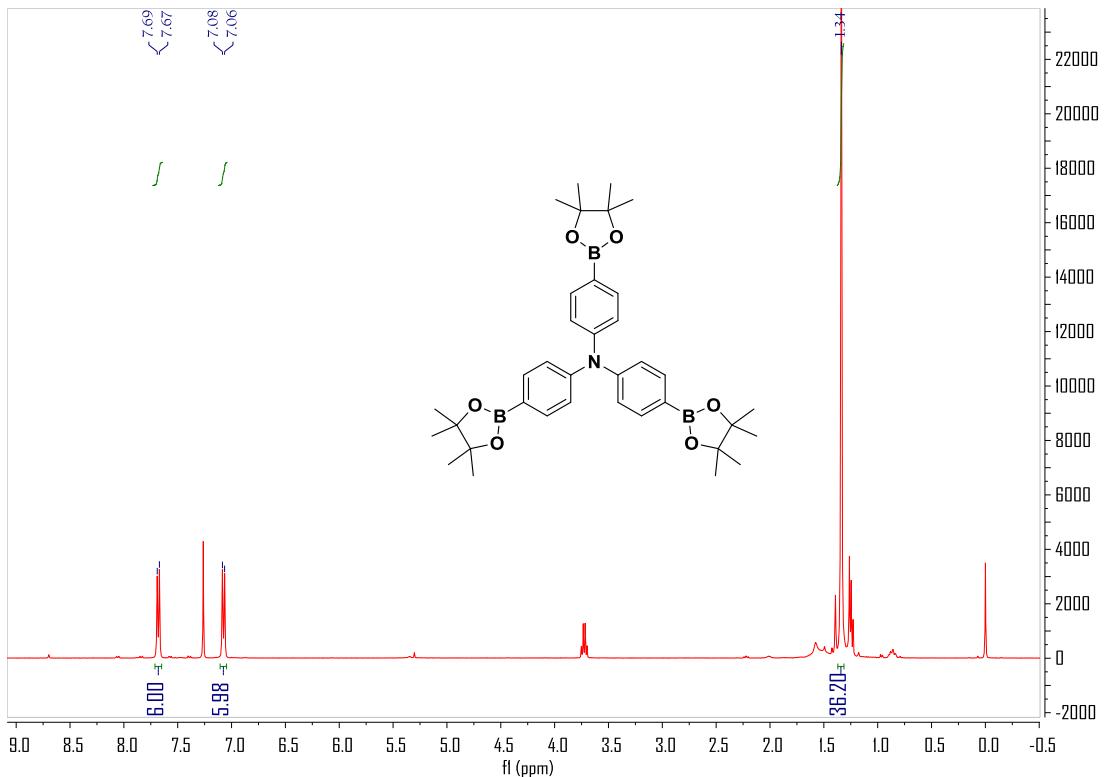


Fig. S17 ¹H NMR of compound **9**

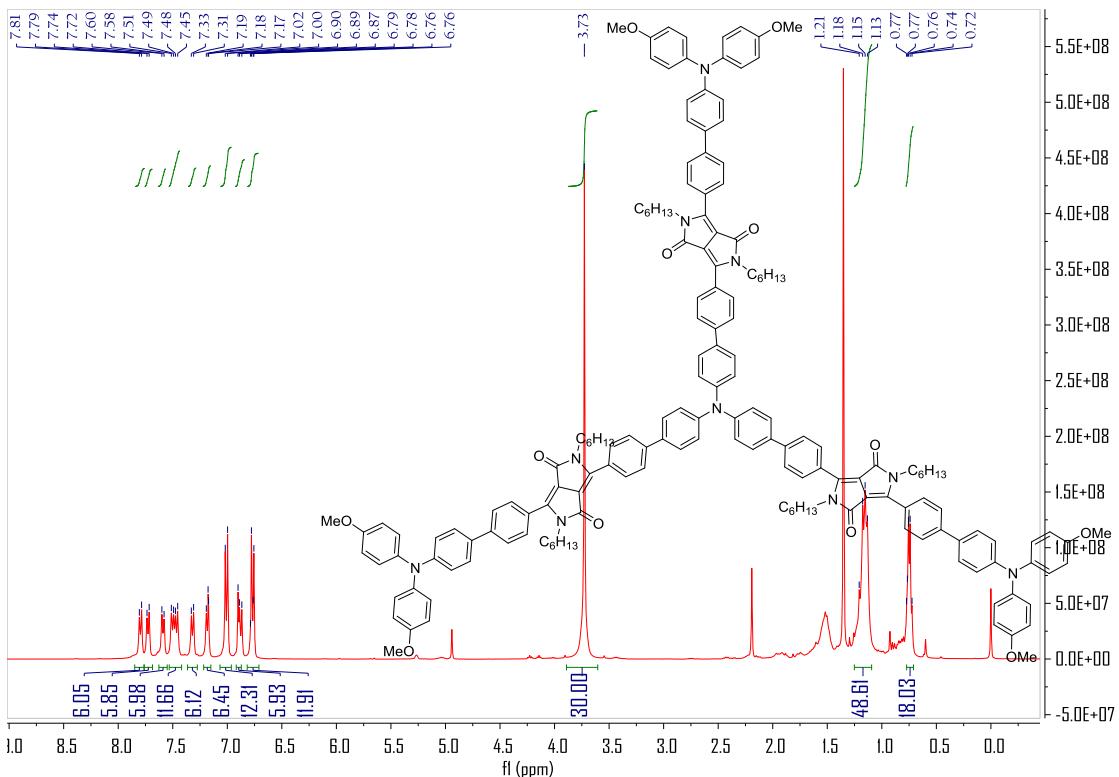


Fig. S18 ¹H NMR of compound **YJ-1**

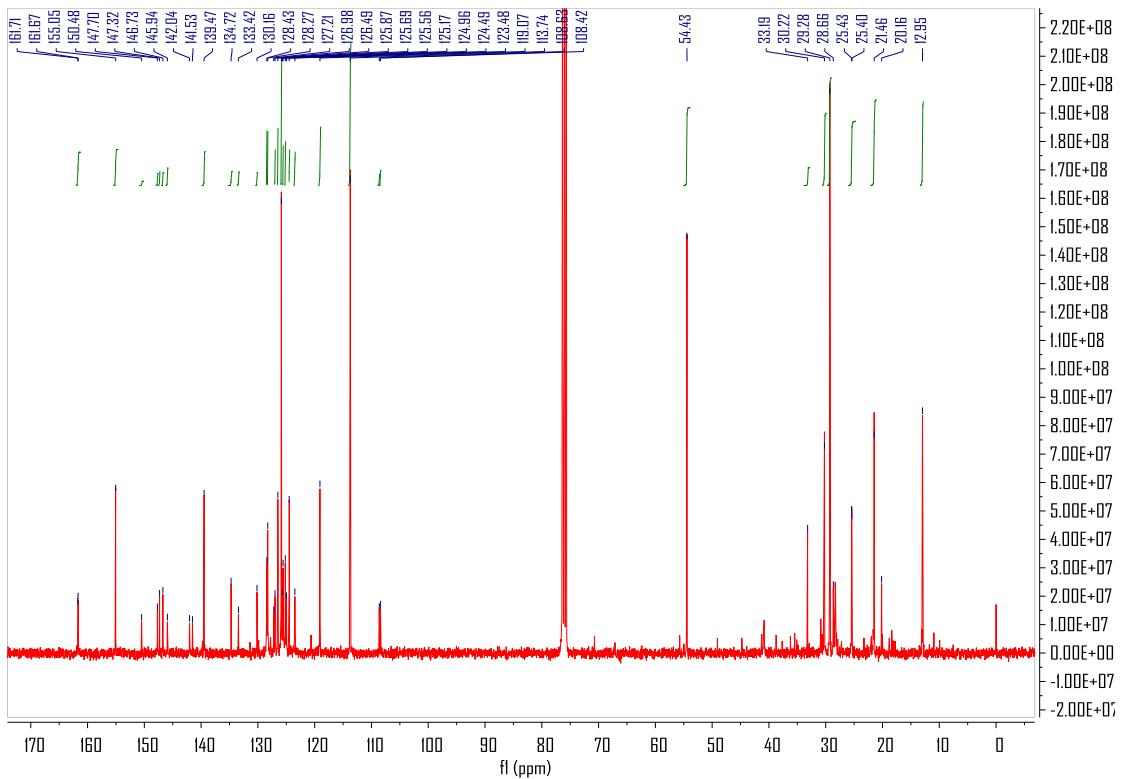


Fig. S19 ^{13}C NMR of compound **YJ-1**

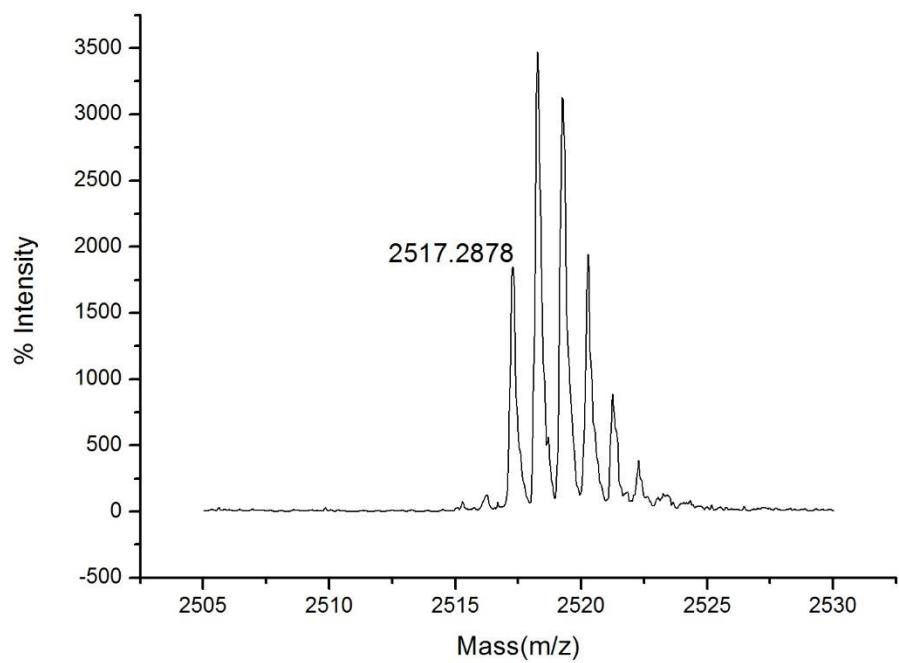


Fig. S20 MALDI-TOF spectrum of compound **YJ-1**

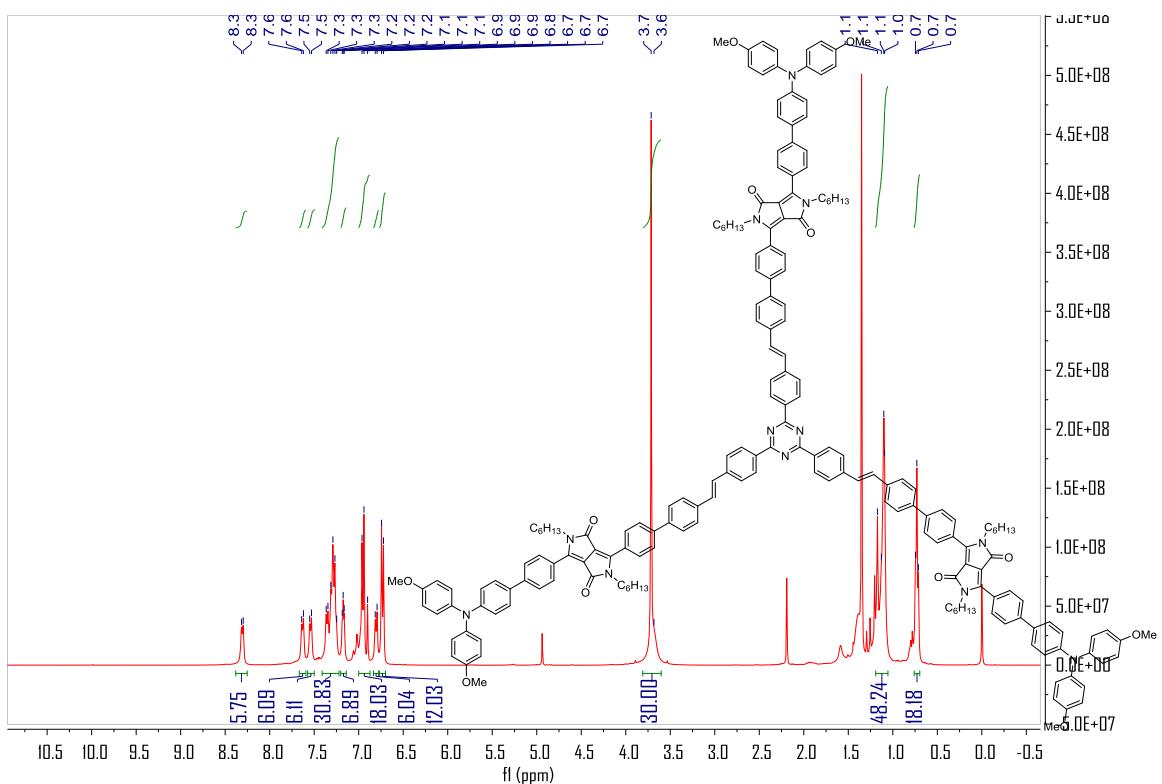


Fig. S21 ^1H NMR of compound **YJ-2**

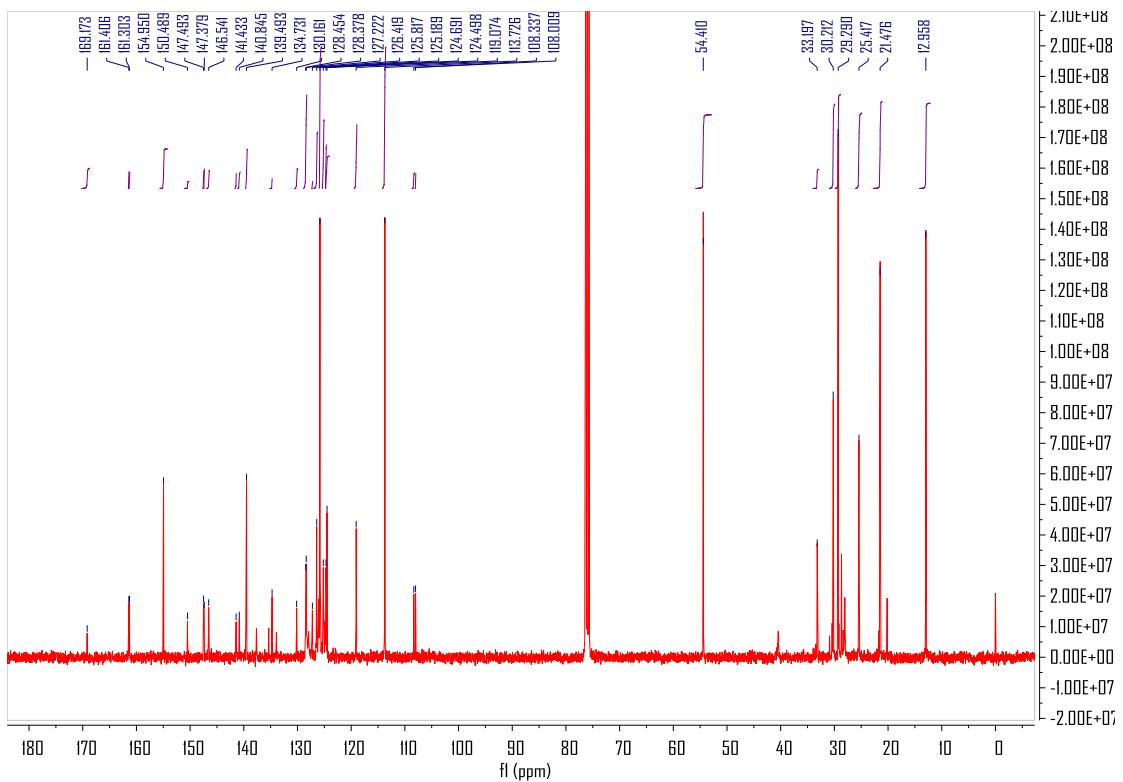


Fig. S22 ^{13}C NMR of compound **YJ-2**

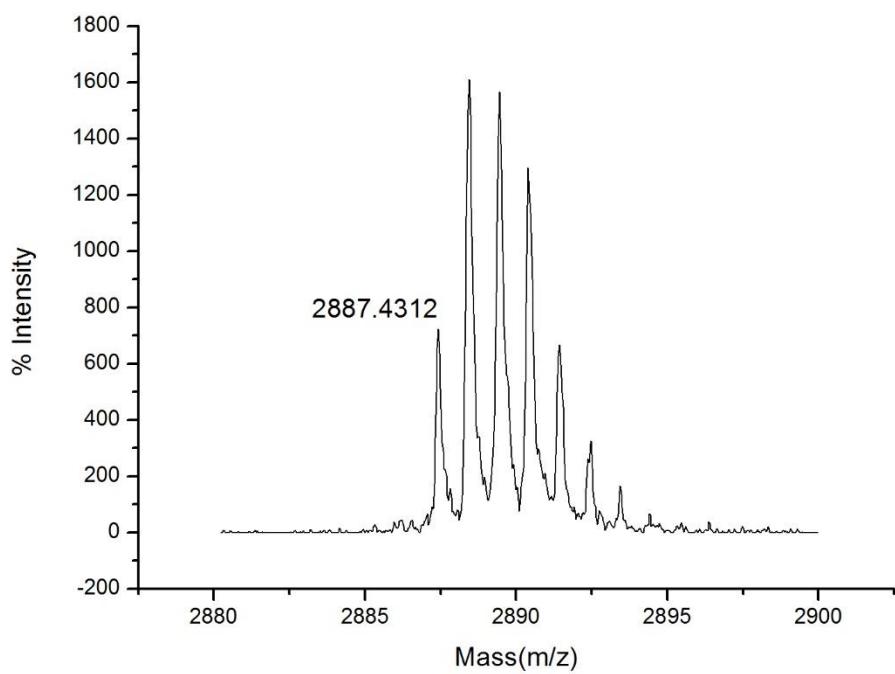


Fig. S23 MALDI-TOF spectrum of compound **YJ-2**

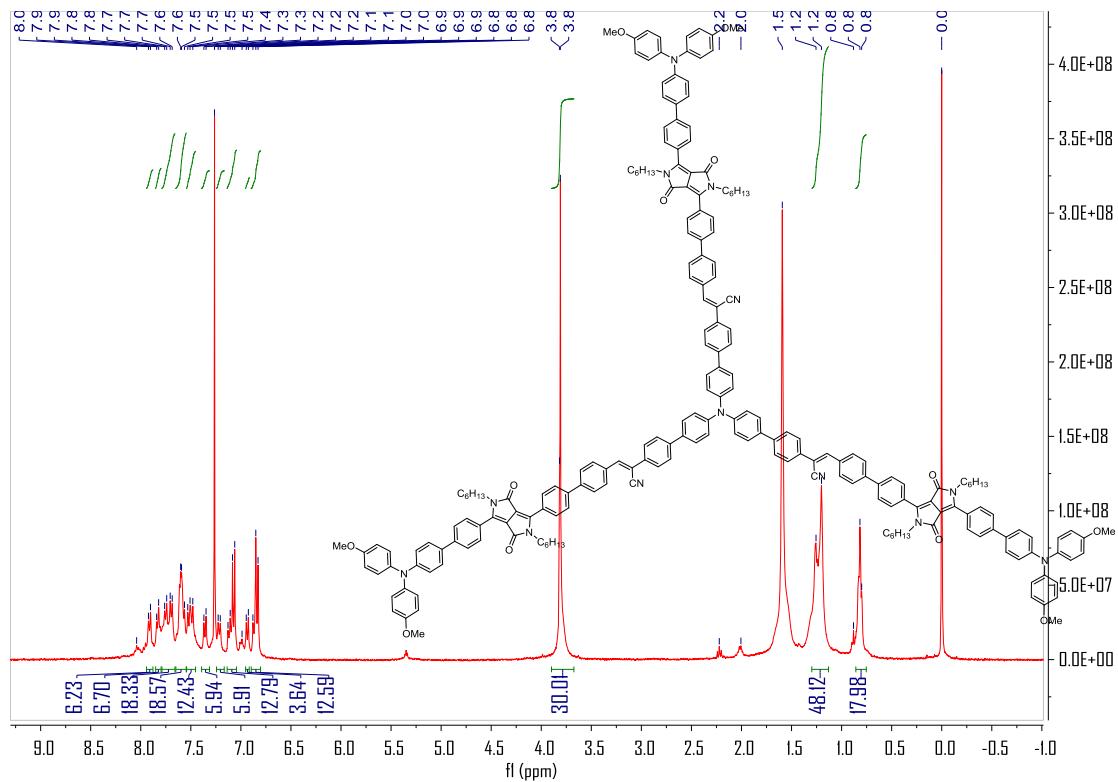


Fig. S24 ¹H NMR of compound **YJ-3**

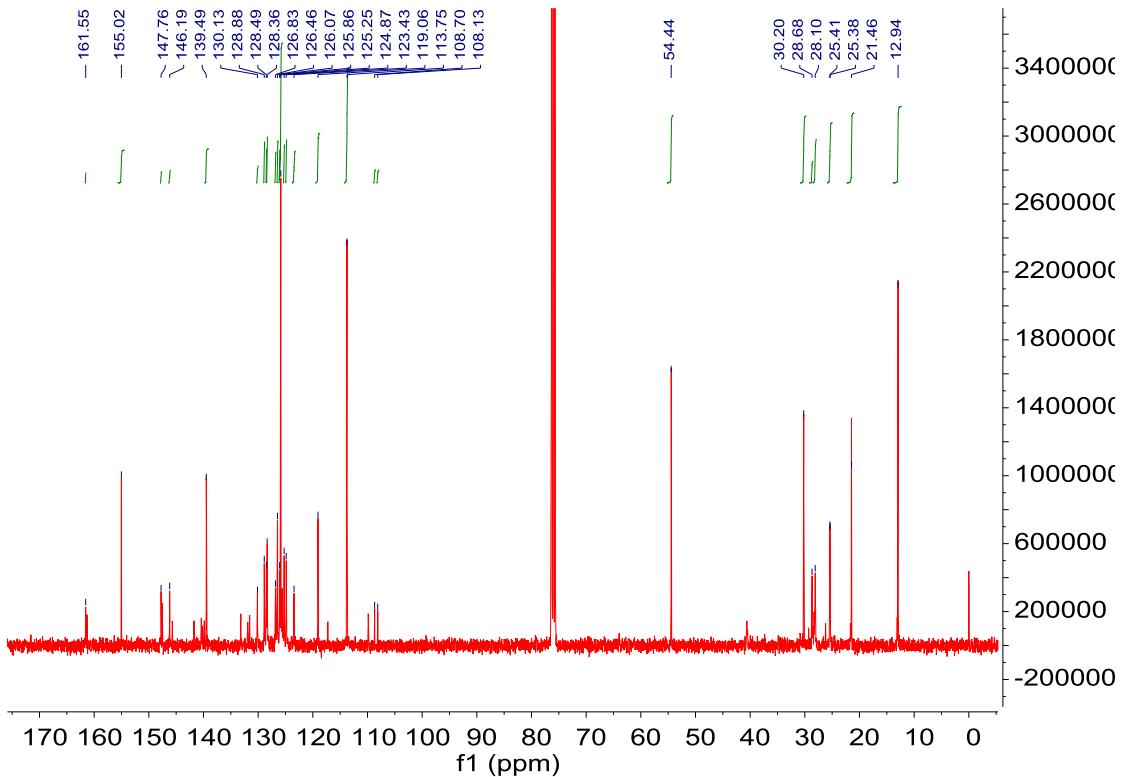


Fig. S25 ^{13}C NMR of compound **YJ-3**

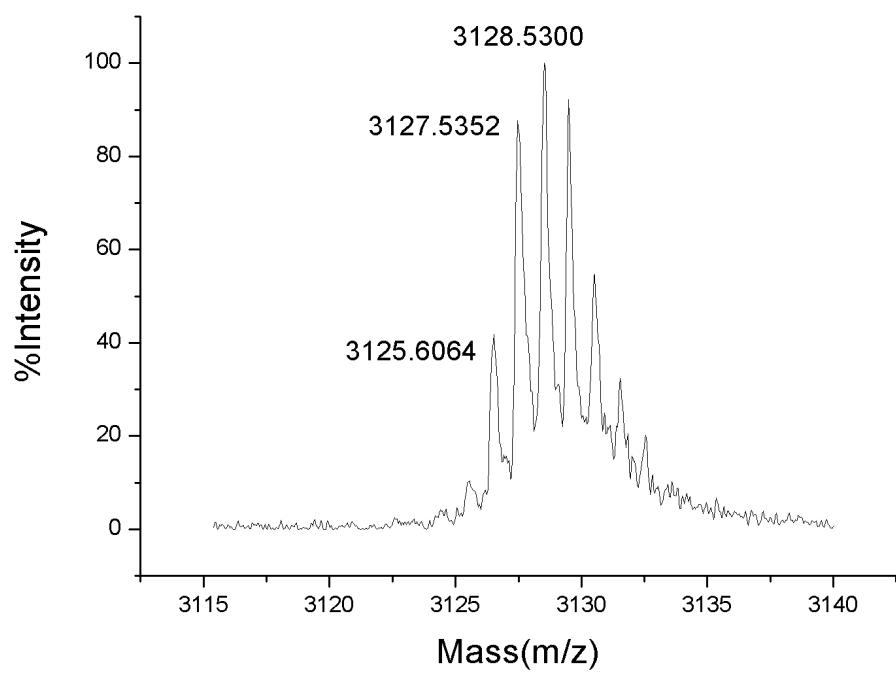


Fig. S26 MALDI-TOF spectrum of compound **YJ-3**