Electronic Supplementary Material (ESI) for RSC Advances.

Supporting information

Experiment details of synthesis:

N-Methyl (1) /hydroxyethyl (2) -2-methylbenzothiazole iodine:

(1) and (2): 0.05 mol of 2-Methylbenzothiazole (7.46 g) and 0.055mol of 2-iodomethane (7.81 g) or 2-iodoethanol (9.50 g) were dissolved in toluene and stirred for 4 hours, thereafter refluxed 30 min. After cooling and filtrating, the resulting solid were washed with ether. White powder was obtained. For *N*-methyl/hydroxyethyl-2-methylbenzothiazole iodine.

Spectrum spectrogram

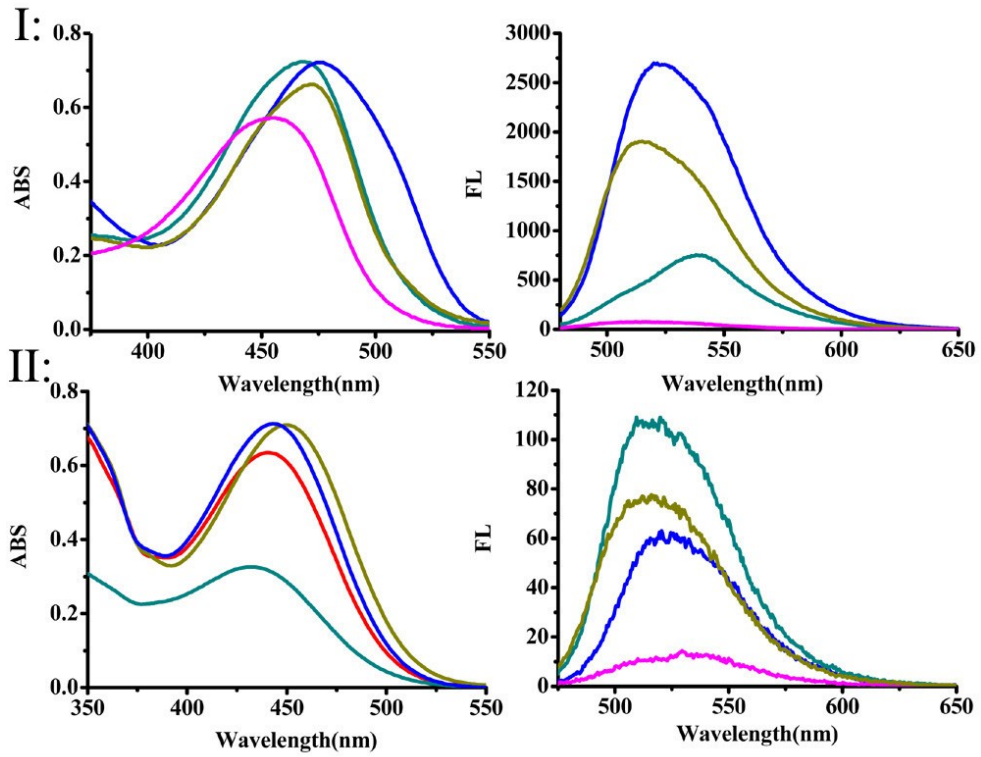

Fig. S1 The UV-vis absorption (a) and one-photon excited fluorescence (b) spectra of IMT-E (I) and IMT-M (II) in DMSO (green), EtOAc (blue), EtOH (brown) and PBS (pink). Compound concentration: 1×10^{-5} mol/L.

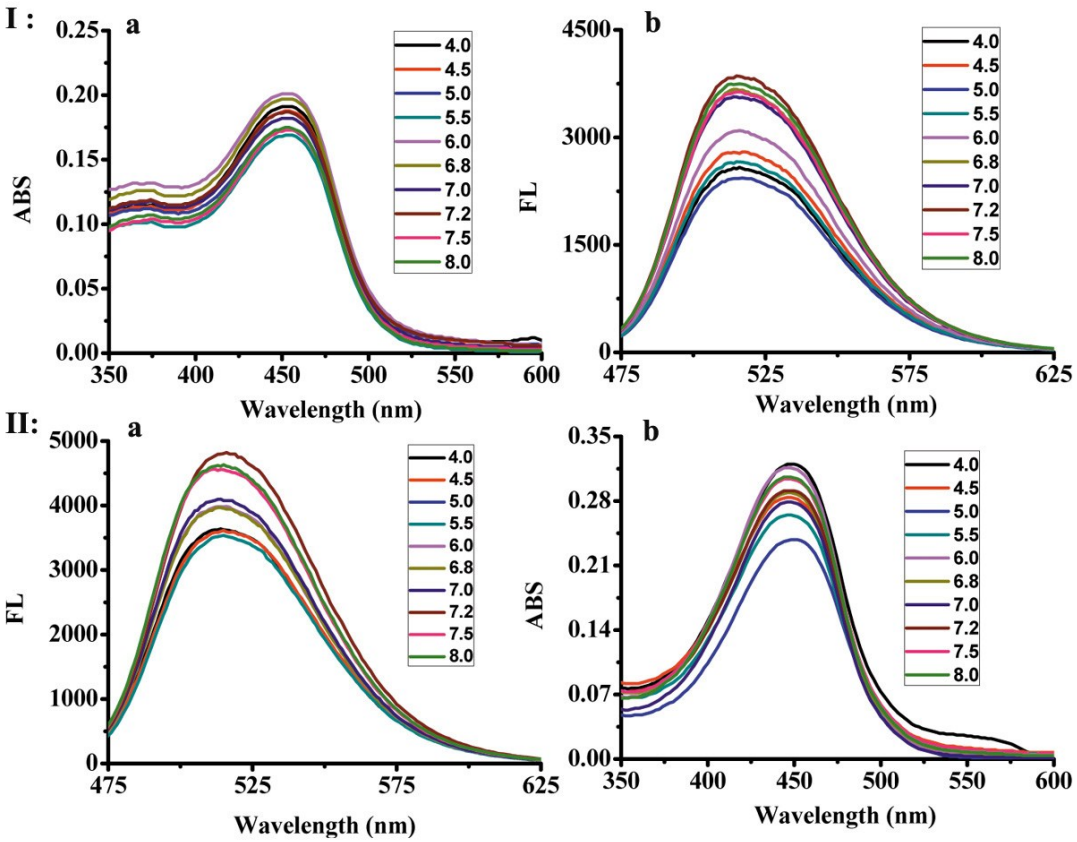

Fig. S2 The absorption (a) and fluorescence spectra (b) of IMT-E (I)/IMT-M (II) in different pH values. Concentration of samples: 5×10^{-6} mol/L.

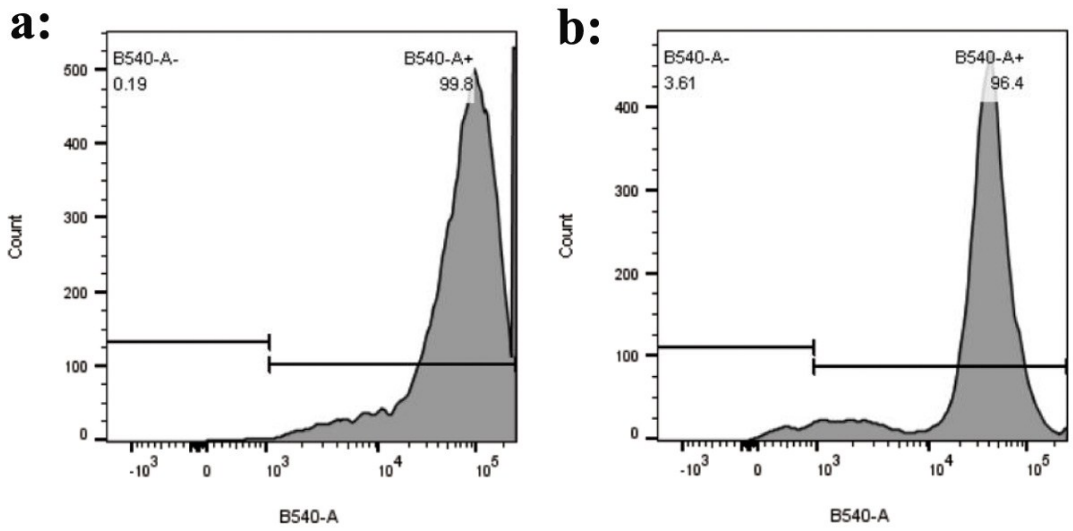

Fig. S3 Flow cytometry analysis for HeLa cells. The cells were incubated with PBS buffer solutio and IMT-E (a)/IMT-M (b) (5 μM, 30 min). Ex: IMT-E/IMT-M, 405 nm . Em: IMT-E/IMT-M, 500-600 nm.

The characterization of (1), (2) IMT-E and IMT-M, including their ^{1}H NMR, ^{13}C NMR and HRMS spectra.

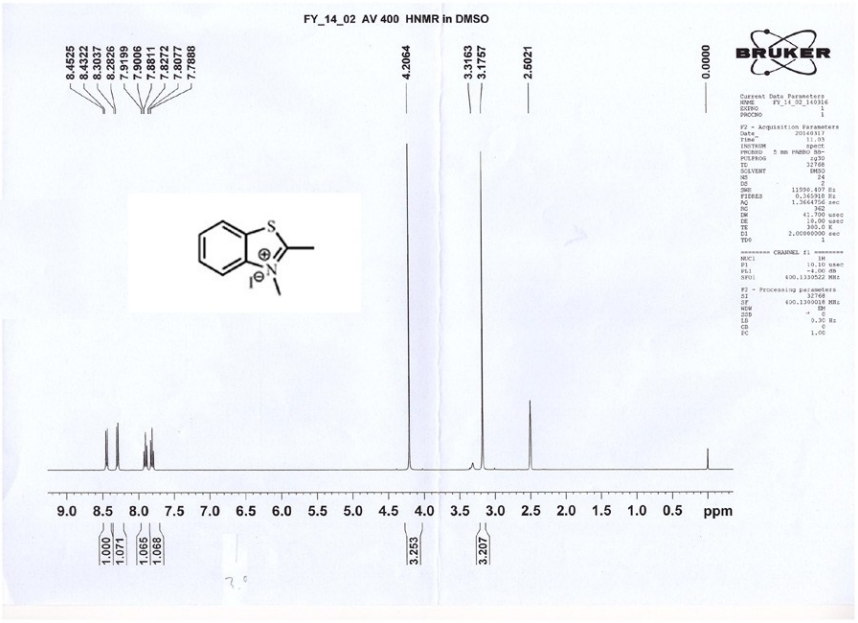

Fig. S4 ^{1}H NMR spectrum of (1) in DMSO.

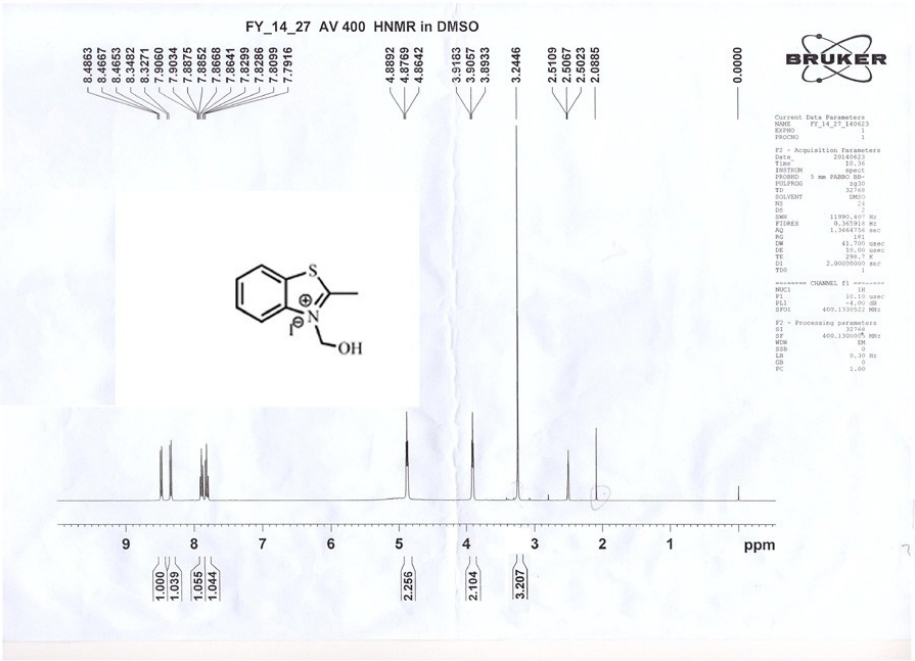

Fig. S5 ^{1}H NMR spectrum of (2) in DMSO.

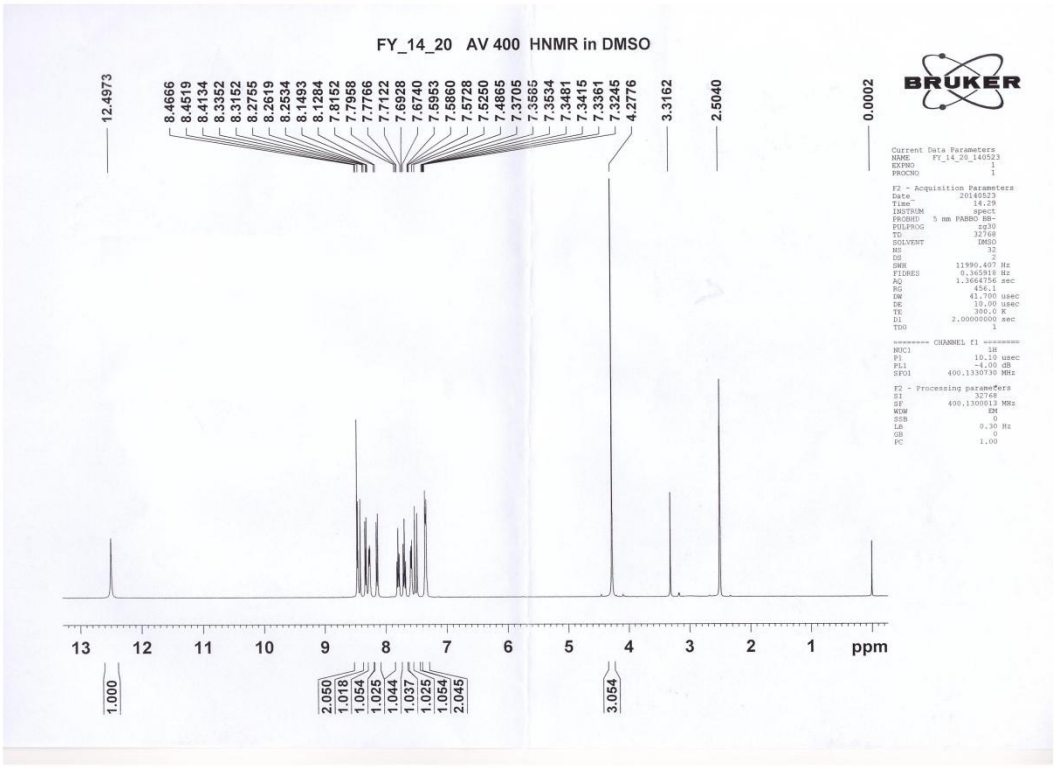

Fig. S6 ^{1}H NMR spectrum of IMT-M in DMSO.

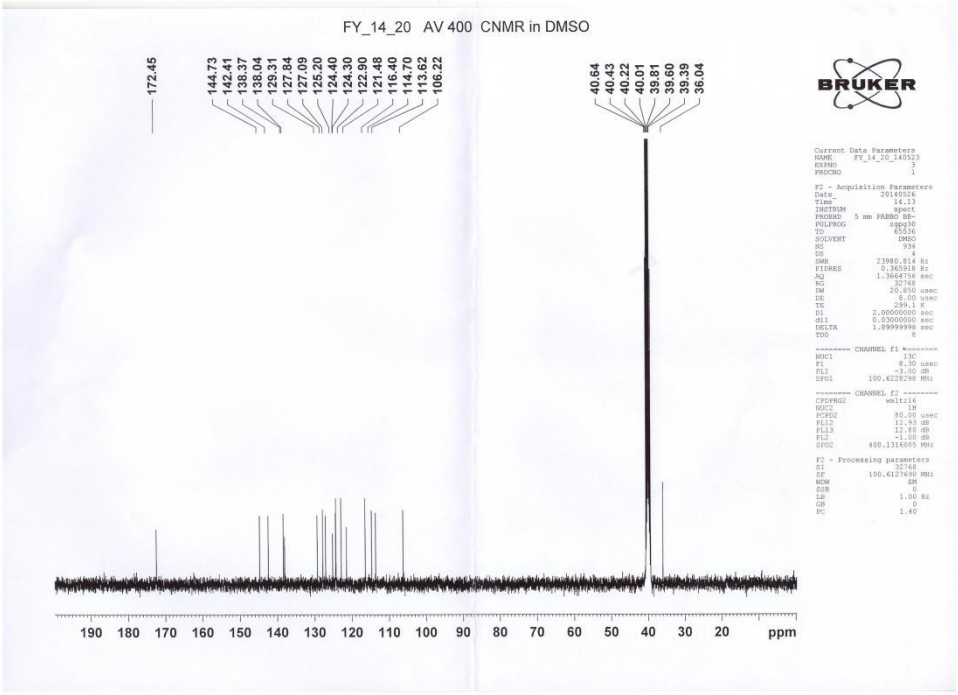

Fig. S7 ^{13}C NMR spectrum of IMT-M in DMSO.

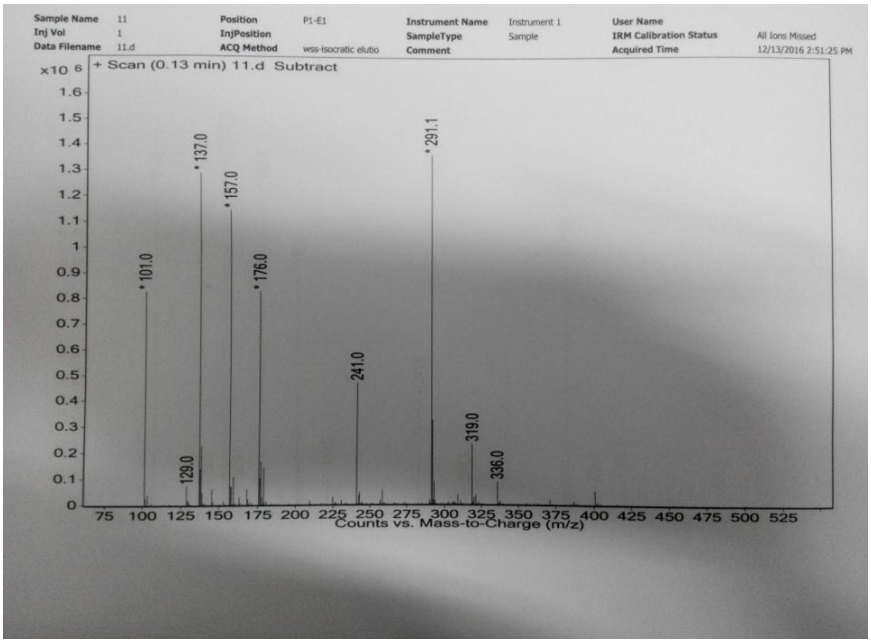

Fig. S8 HRMS spectra of IMT-M.

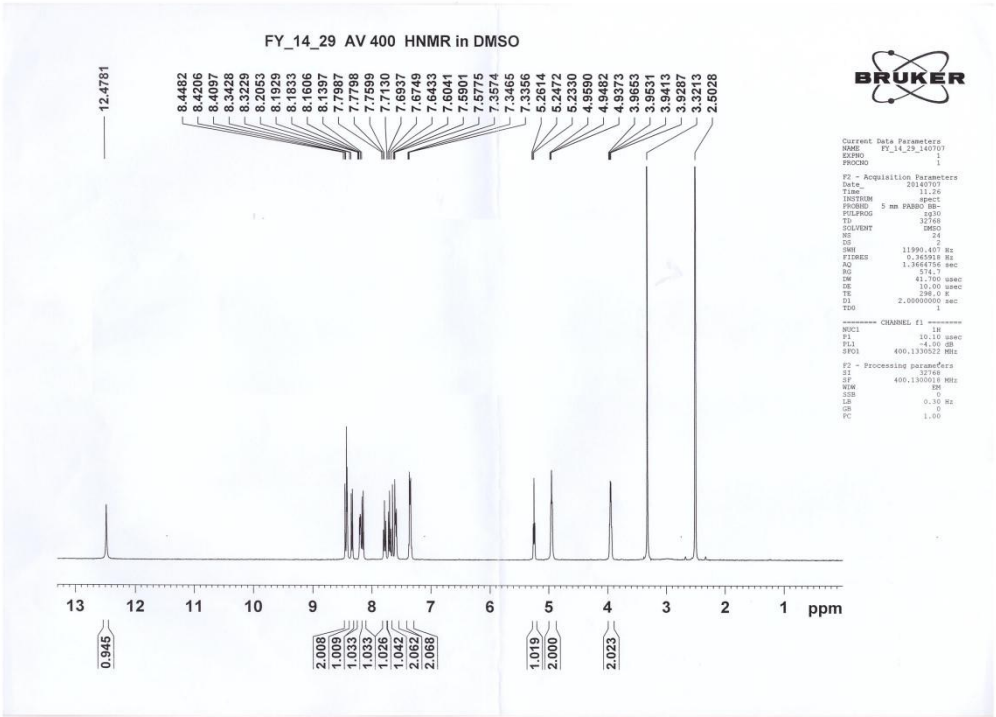

Fig. S9 ^{1}H NMR spectrum of IMT-E in DMSO.

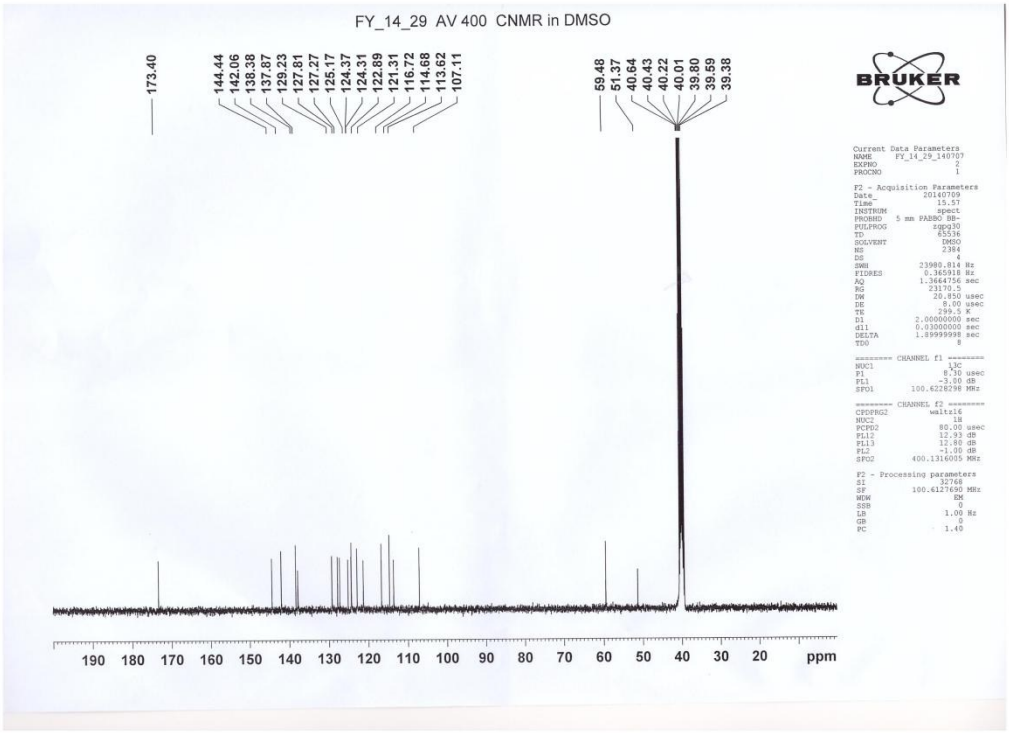

Fig. S10 ^{13}C NMR spectrum of IMT-E in DMSO.

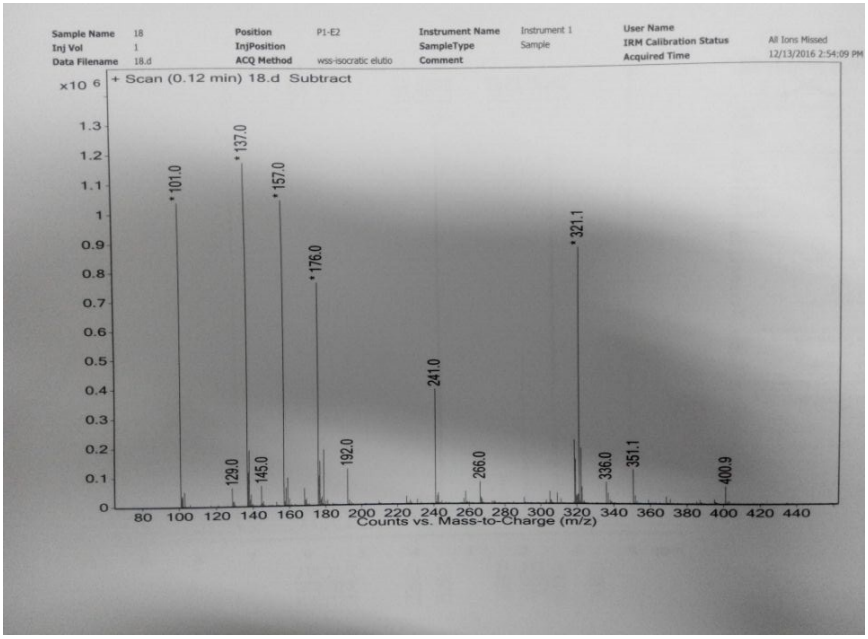

Fig. S11 HRMS spectra of IMT-E.