

Supporting Information

Effect of the triptycene scaffold on the photophysical, electrochemical and electroluminescence properties of iridium(III) complex

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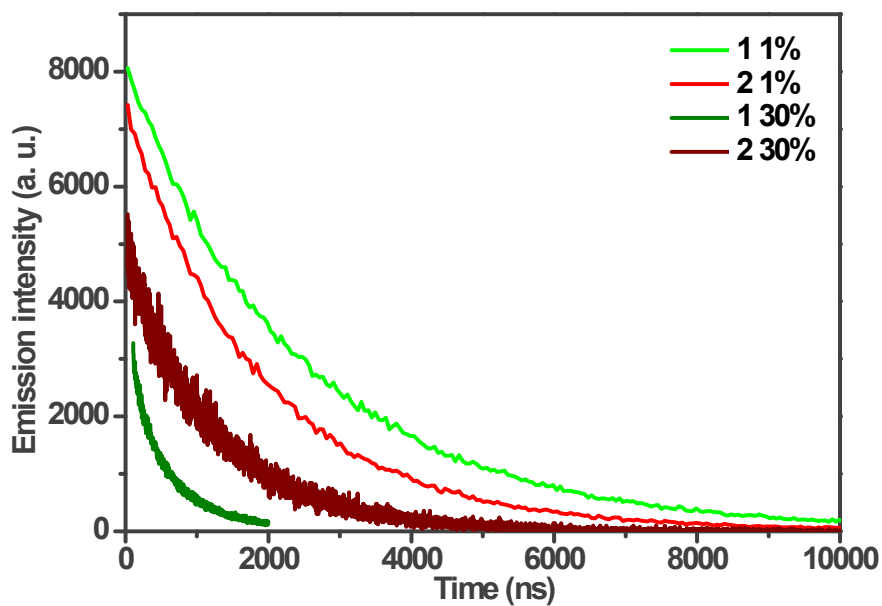
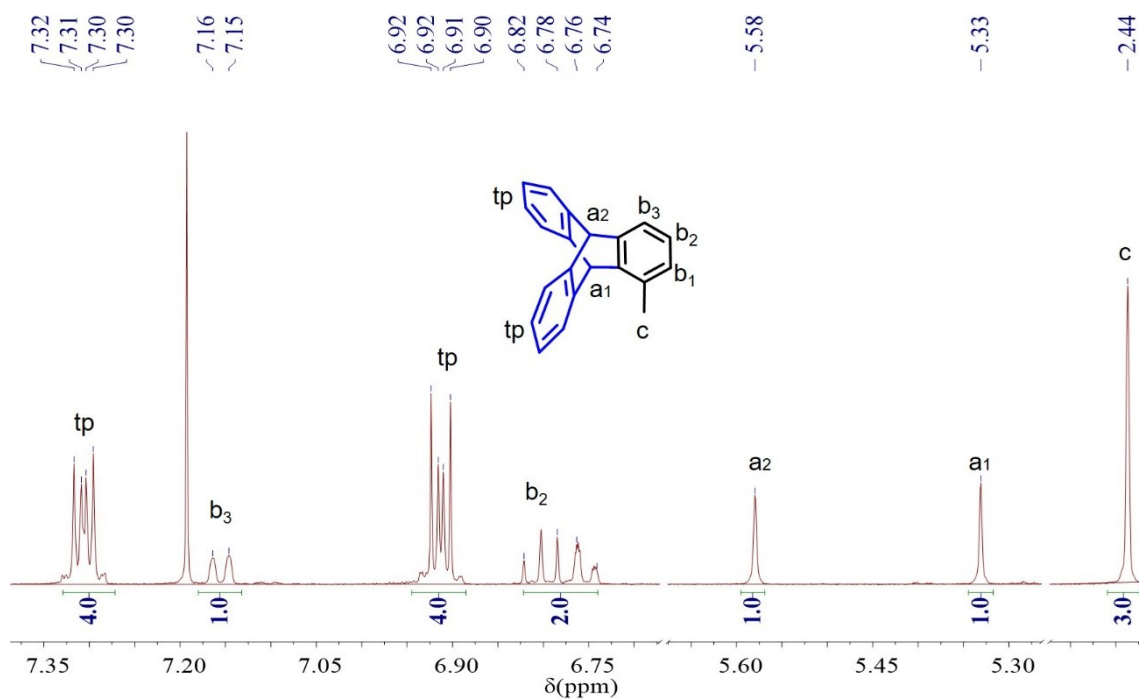


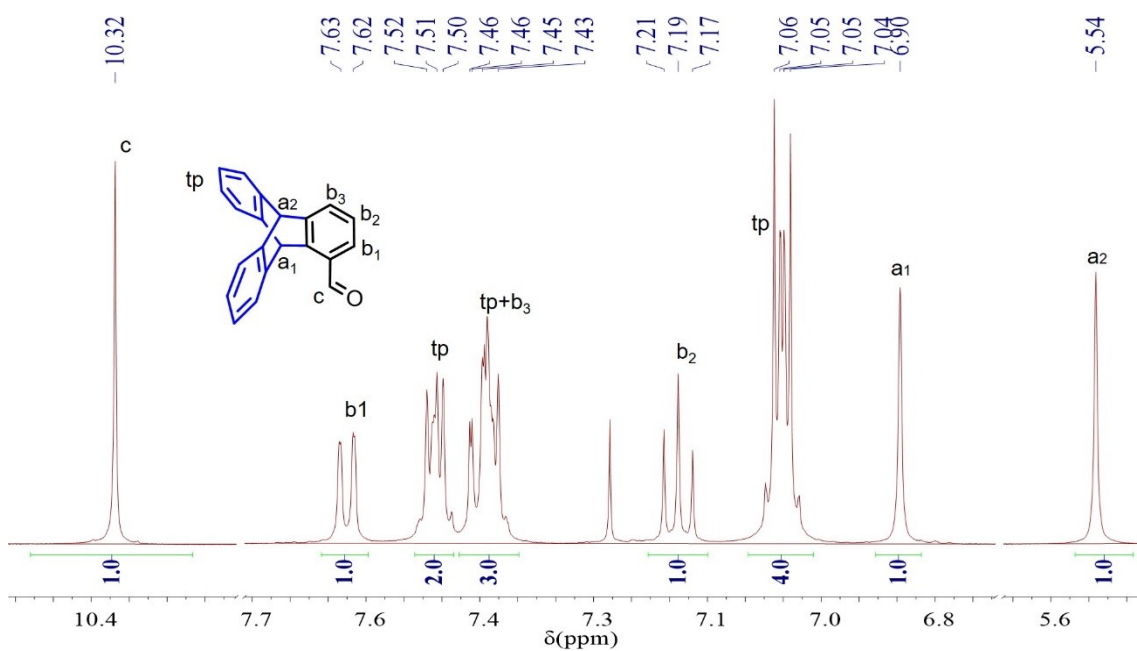
Fig. S1 The room temperature emission decay curves of as-prepared complexes in PMMA films at a conc. of 1 wt% and 30 wt%.

2. ^1H - and ^{19}F -NMR spectra of all new compounds.

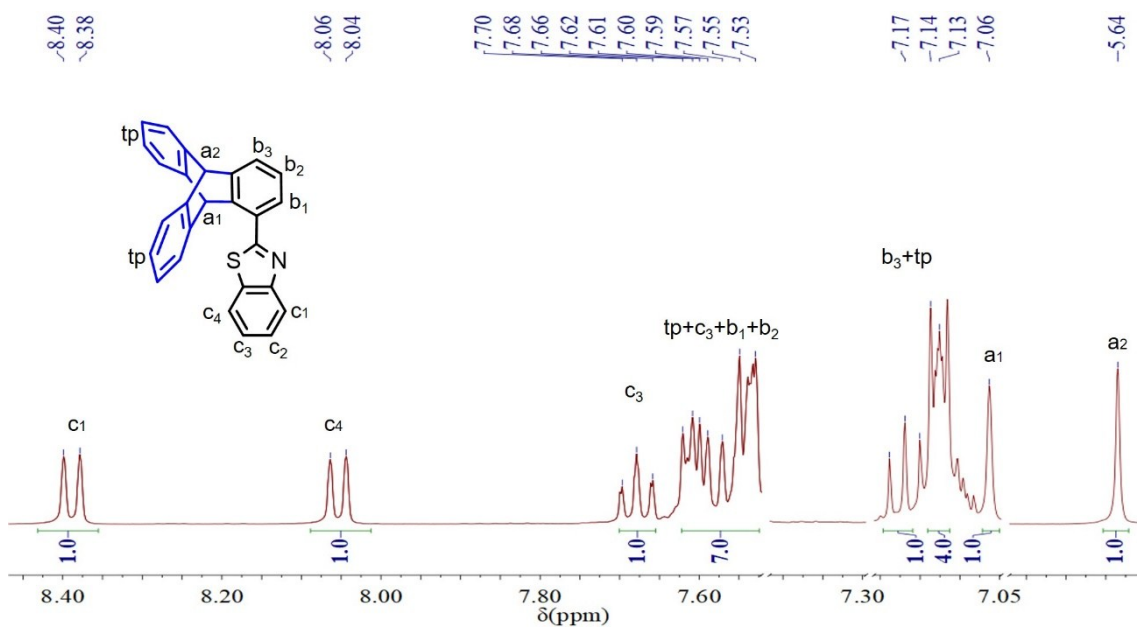
^1H -NMR spectrum of **1-methyltriptycene** in CDCl_3 (400 MHz):



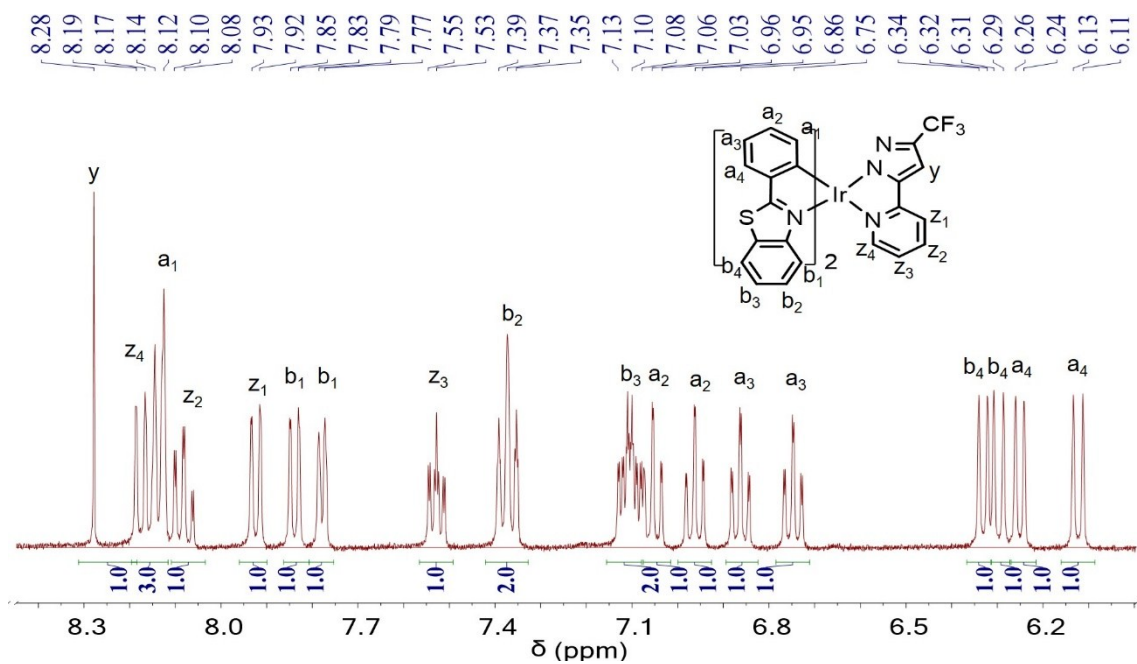
$^1\text{H-NMR}$ spectrum of **1-formyltritycene** in CDCl_3 (400 MHz):



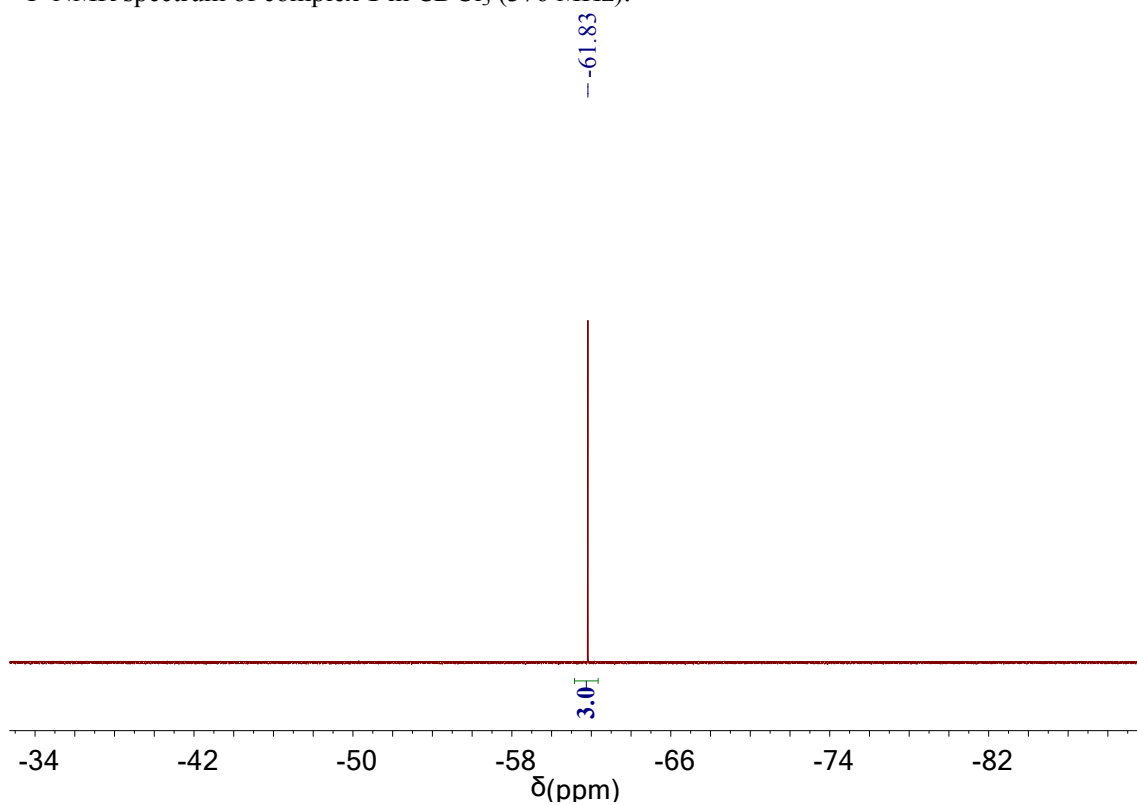
$^1\text{H-NMR}$ spectrum of **tbth** in CDCl_3 (400 MHz):



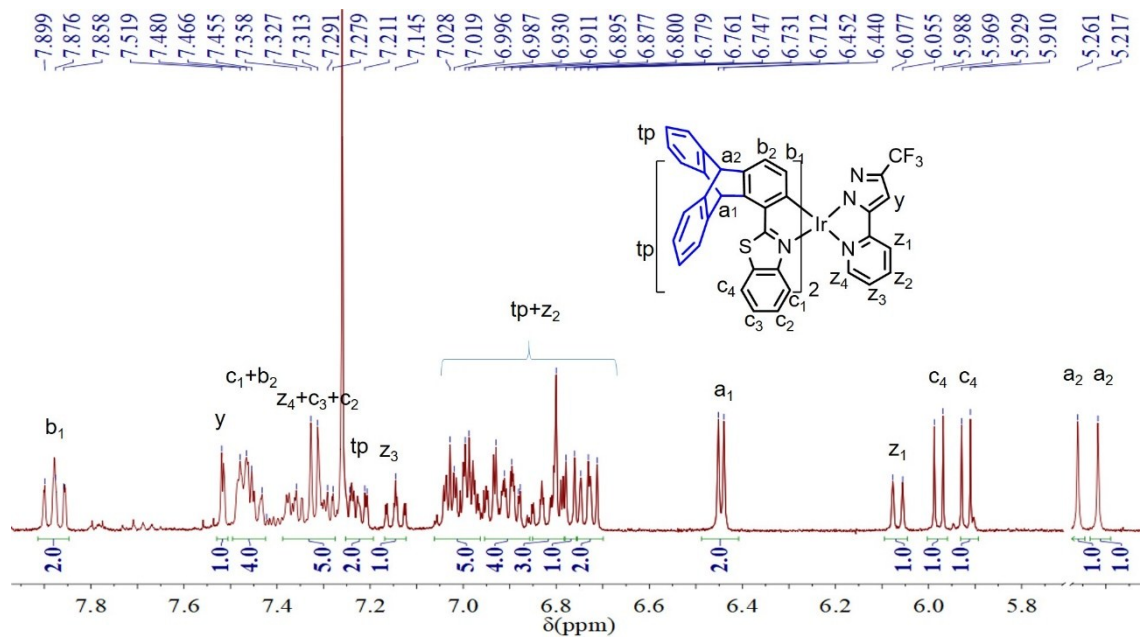
$^1\text{H-NMR}$ spectrum of complex **1** in CDCl_3 (400 MHz):



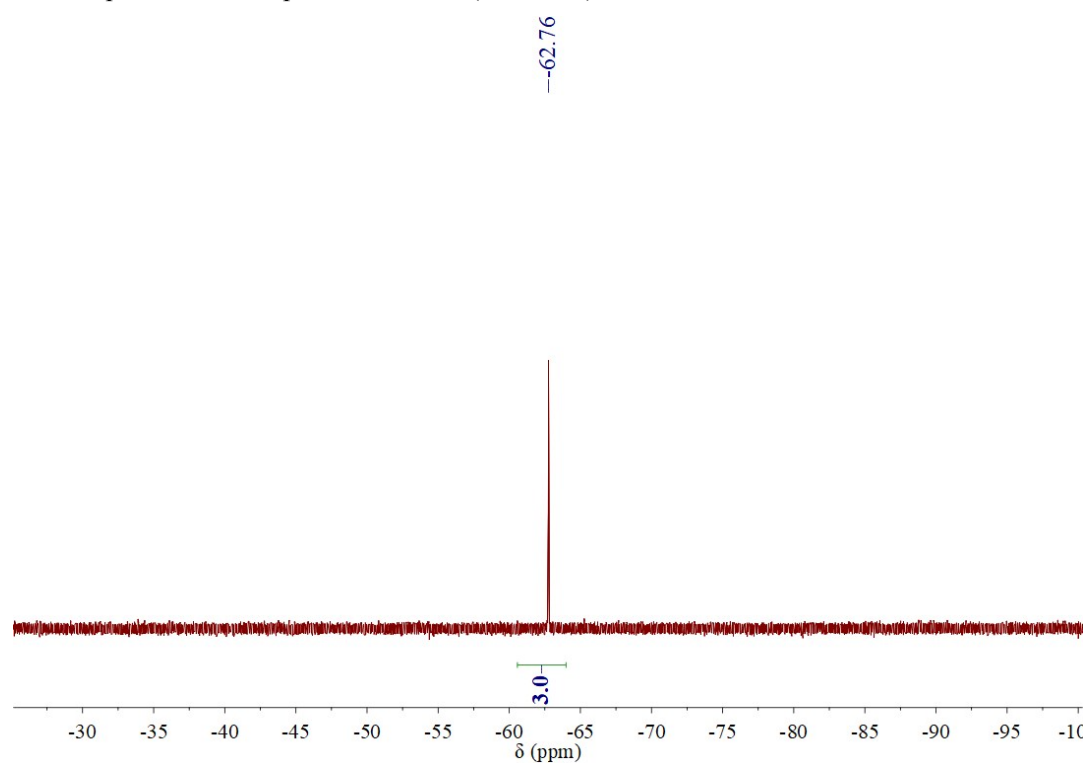
¹⁹F-NMR spectrum of complex 1 in CDCl₃ (376 MHz):



¹H-NMR spectrum of complex 2 in CDCl₃ (400 MHz):

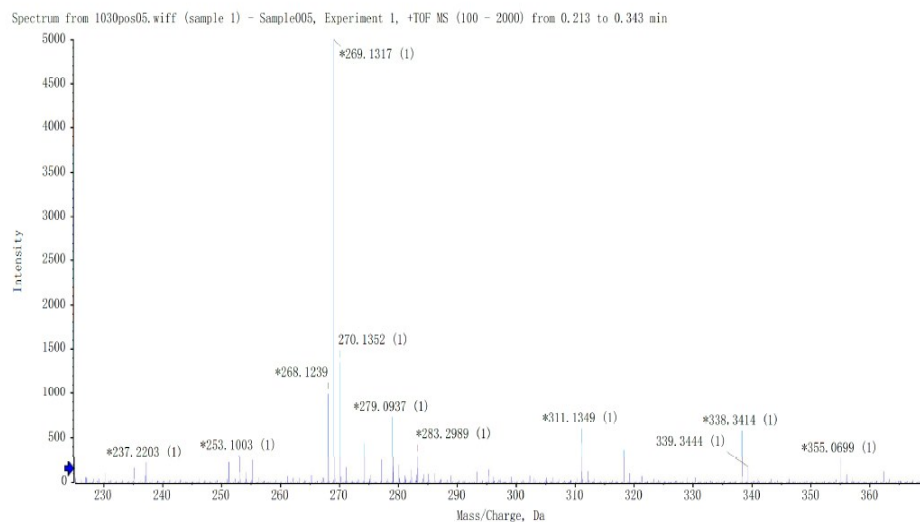


¹⁹F-NMR spectrum of complex 2 in CDCl₃ (376 MHz):

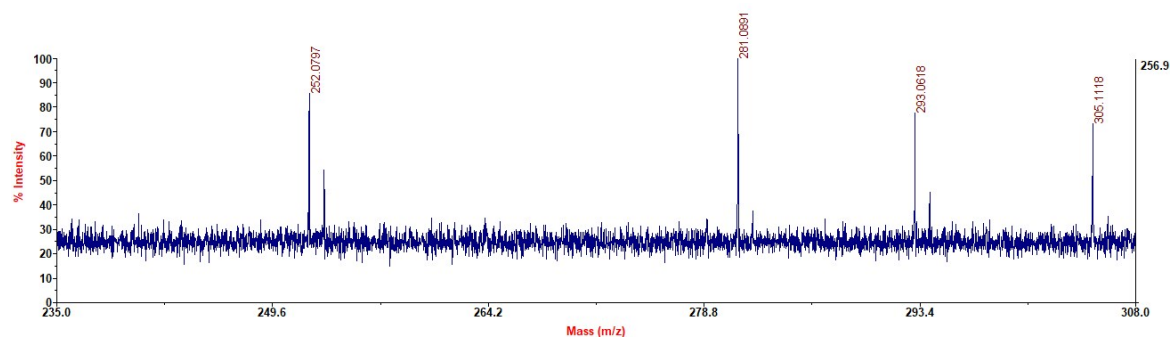


3. Mass spectra of all new compounds.

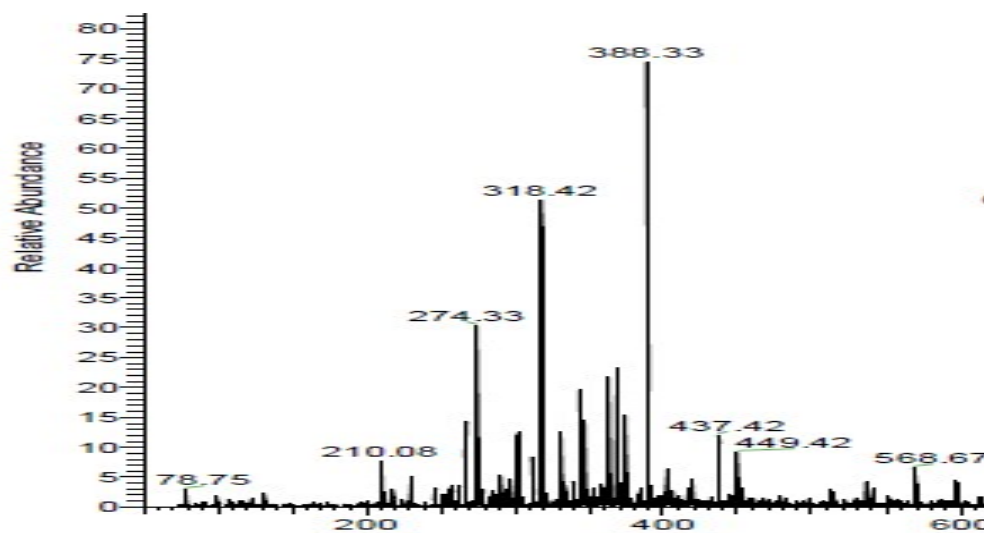
HRMS spectrum of 1-methyltriptycene:



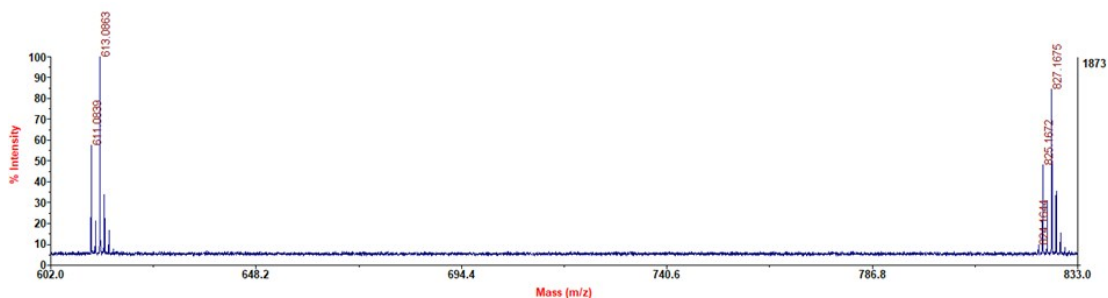
HRMS spectrum of 1-formyltryptene:



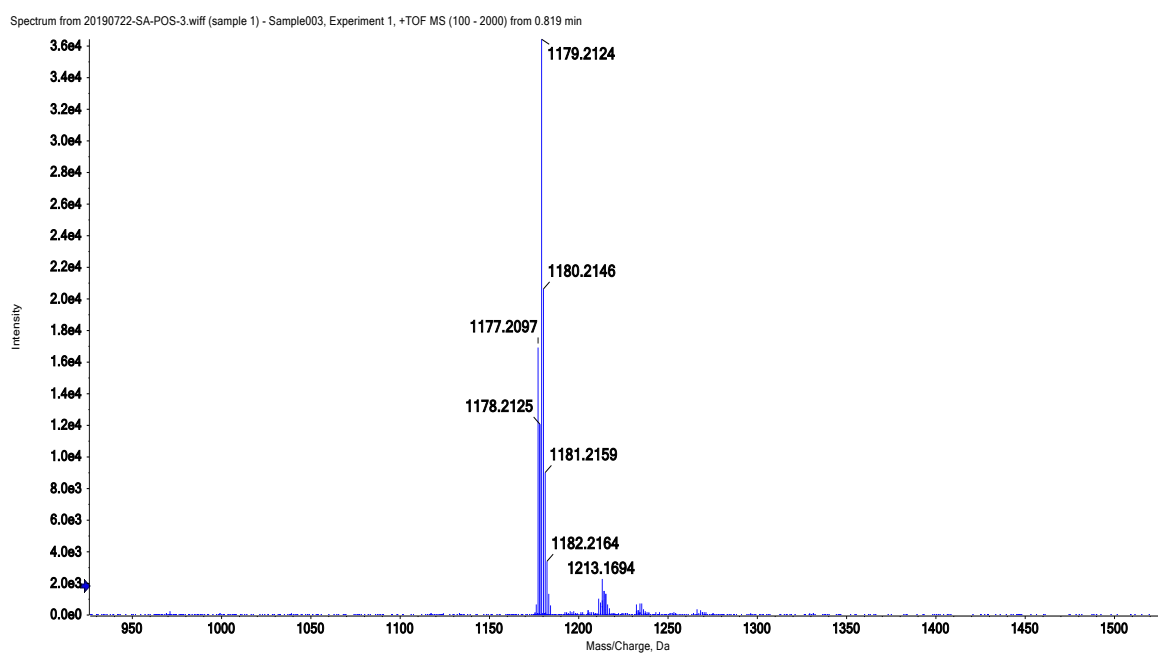
MS spectrum of **tbH**:



HRMS spectrum of complex 1:



HRMS spectrum of complex 2:



4. CHN analysis of new complexes.

Sample	C (%)	H (%)	N (%)
Complex 1	50.68	2.61	8.43
Complex 2	64.01	3.22	5.89