

Supporting information

Efficient Non-Doped Near Infrared Organic Light-Emitting Devices Based on Fluorophores with Aggregation-Induced Emission Enhancement

Xiaobo Du,^{†,§} Ji Qi,^{†,§} Zhiqiang Zhang,[†] Dongge Ma[†] and Zhi Y. Wang^{*,†,‡}

[†]State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, P.R. China

[‡]Department of Chemistry, Carleton University, 1125 Colonel By Drive, Ottawa, Ontario K1S 5B6, Canada

[§]Graduate School of Chinese Academy of Sciences, Beijing 100039, P.R. China

*Corresponding author: wwjoy@ciac.jl.cn

Contents

Figure S1. TGA traces of compounds **1a,b** and **2a,b**.

Figure S2. Absorption and PL spectra of films with the measured intensity.

Figure S3. VJR characteristics of the doped devices

Figure S4-S10. ¹H NMR and ¹³C NMR spectra of **1a,b** and **2a,b**.

Figure S11-S14. HRMS spectra of **1a,b** and **2a,b**.

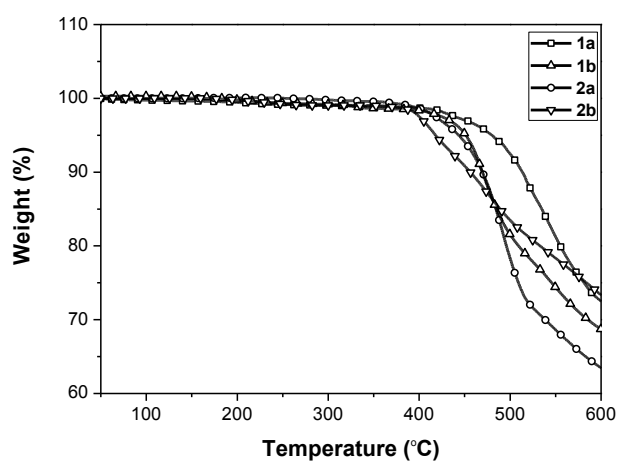


Figure S1. TGA traces of compounds **1a,b** and **2a,b** in nitrogen

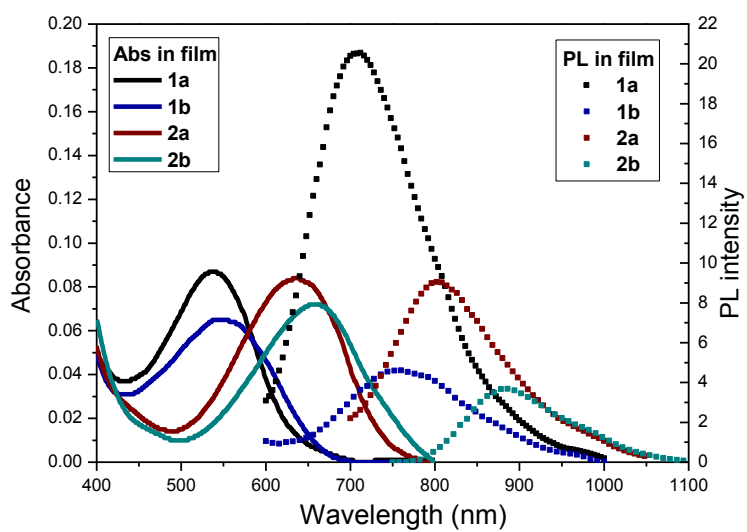


Figure S2. Absorption and PL spectra of films with the measured intensity. The excitation wavelengths for the emission measurements are equal to their maximum absorption wavelengths and corrected by the PTI fluorescence spectrophotometer for intensity fluctuation of the lamp.

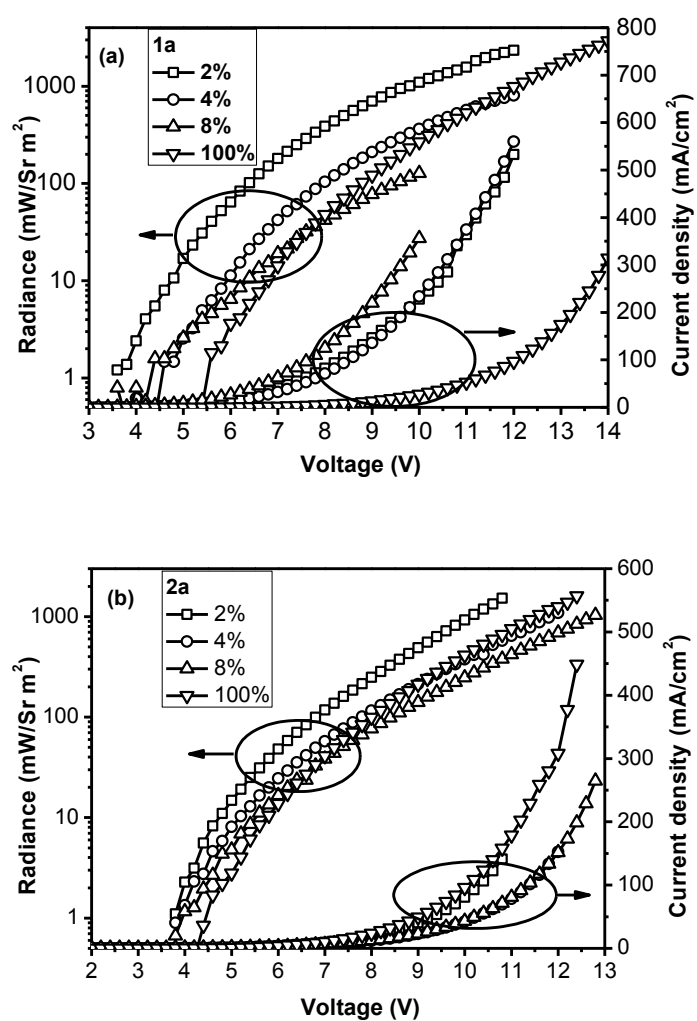


Figure S3. Voltage (V) – current density (J) – radiance (R) characteristics of the doped devices in comparison with the non-doped devices based on compounds **1a** (a) and **2a** (b).

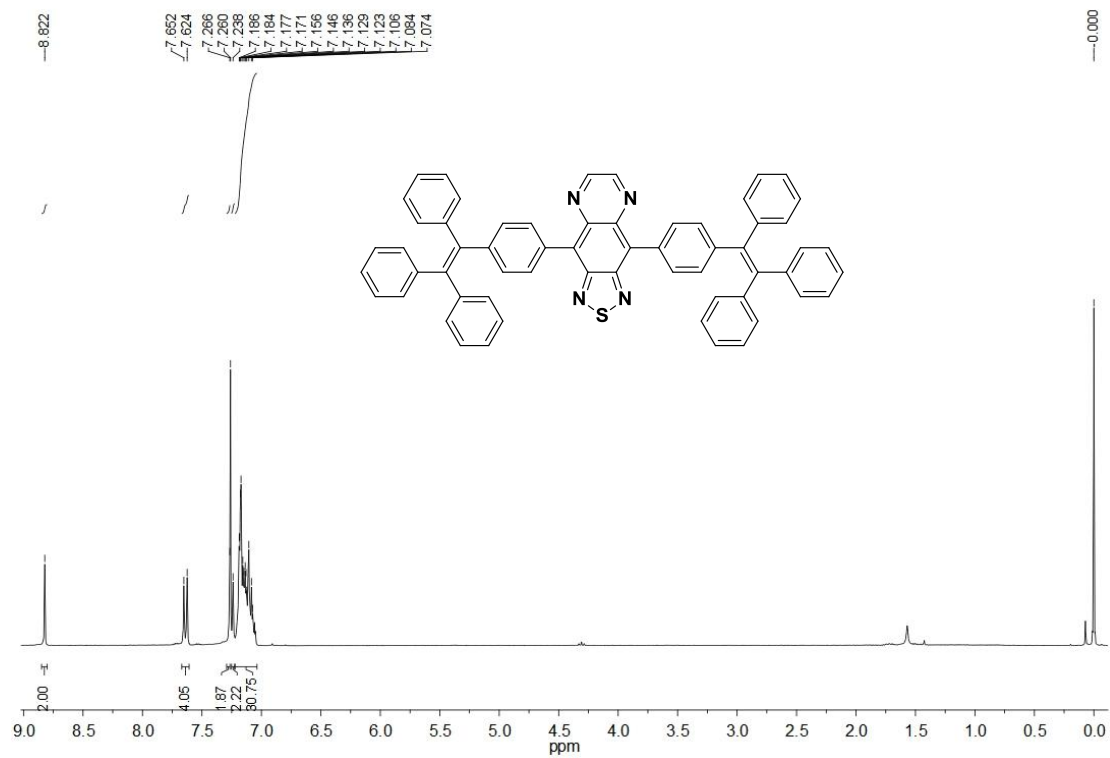


Figure S4. ¹H NMR (300 MHz, CDCl₃) of compound **1a**

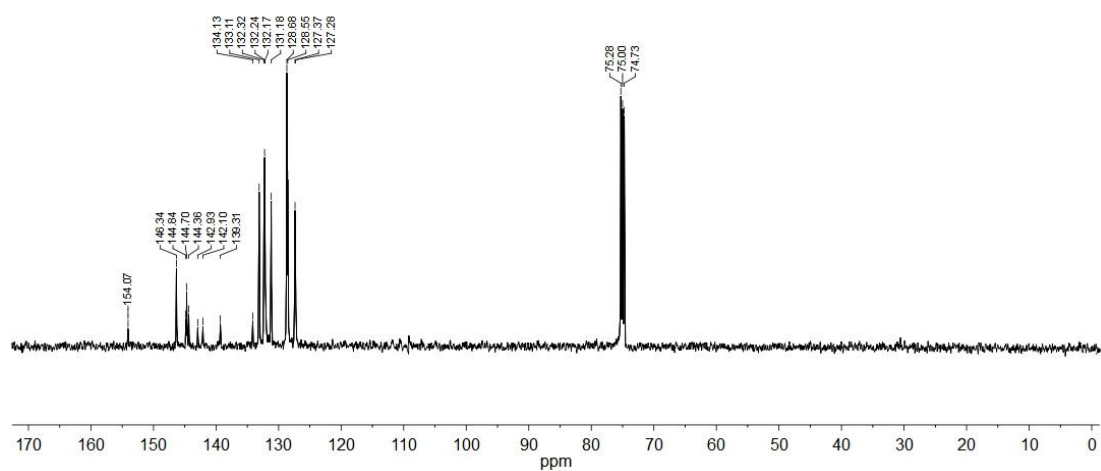


Figure S5. ¹³C NMR (100 MHz, C₂D₂Cl₄, 393K) of compound **1a**

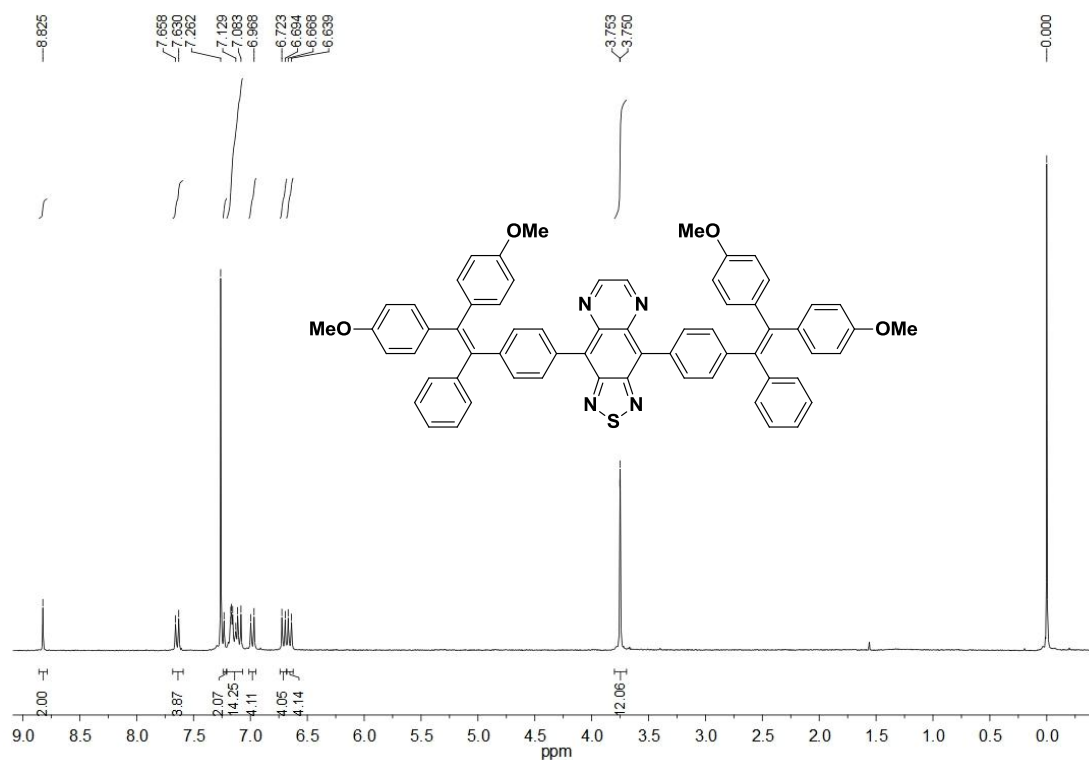


Figure S6. ¹H NMR (300 MHz, CDCl₃) of compound **1b**

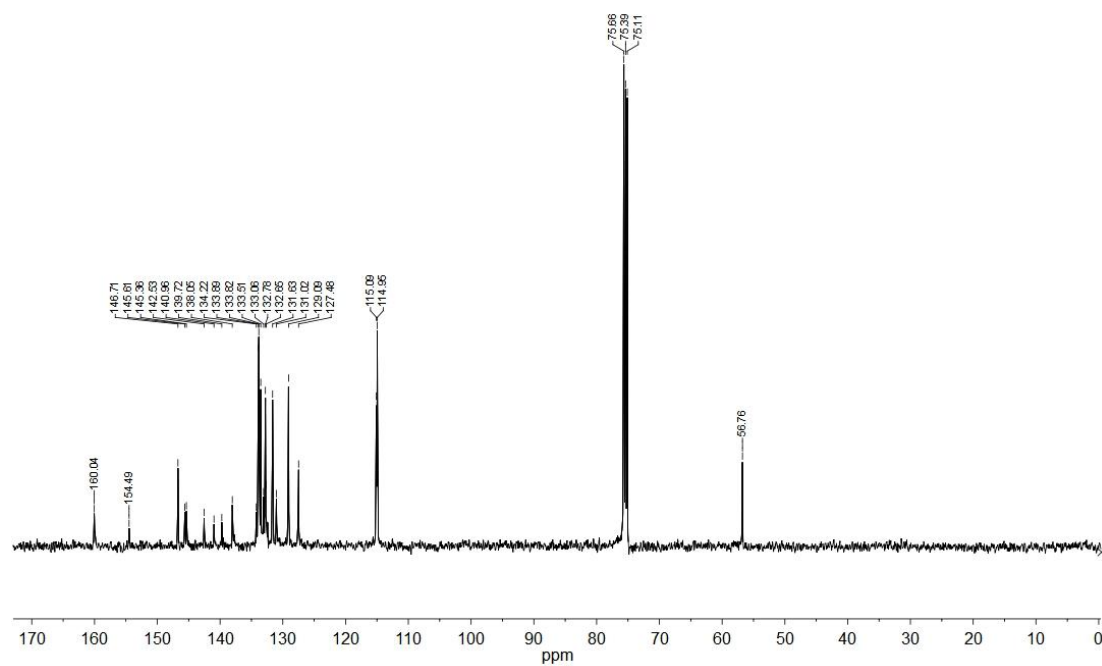


Figure S7. ¹³C NMR (100 MHz, C₂D₂Cl₄, 393K) of compound **1b**

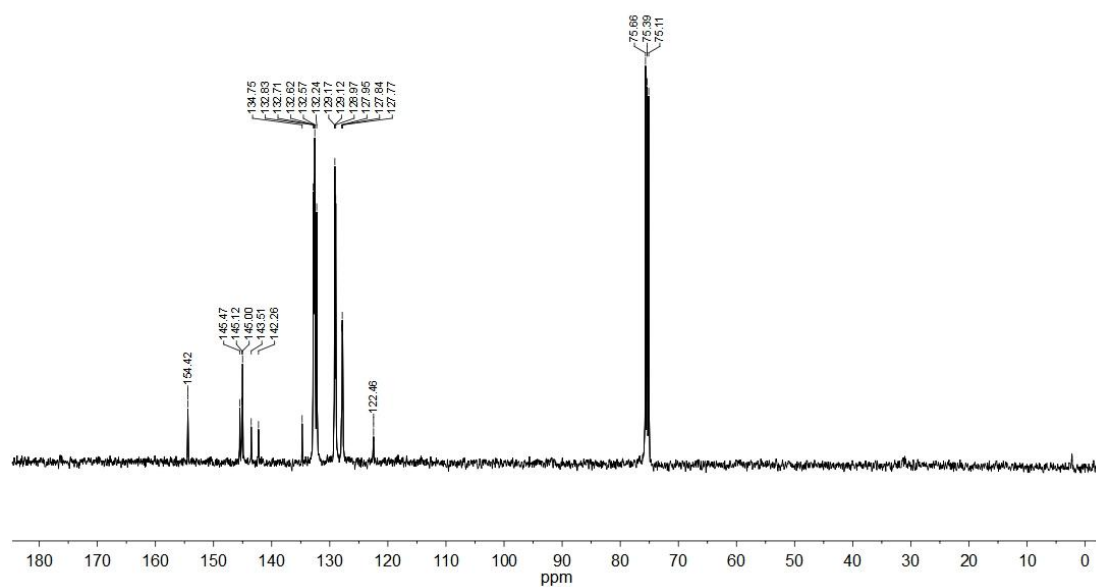
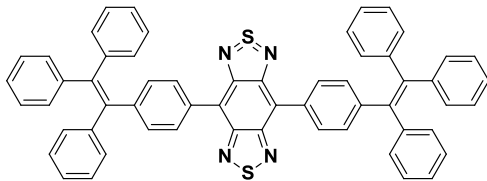


Figure S9. ^{13}C NMR (100 MHz, $\text{C}_2\text{D}_2\text{Cl}_4$, 393K) of compound **2a**

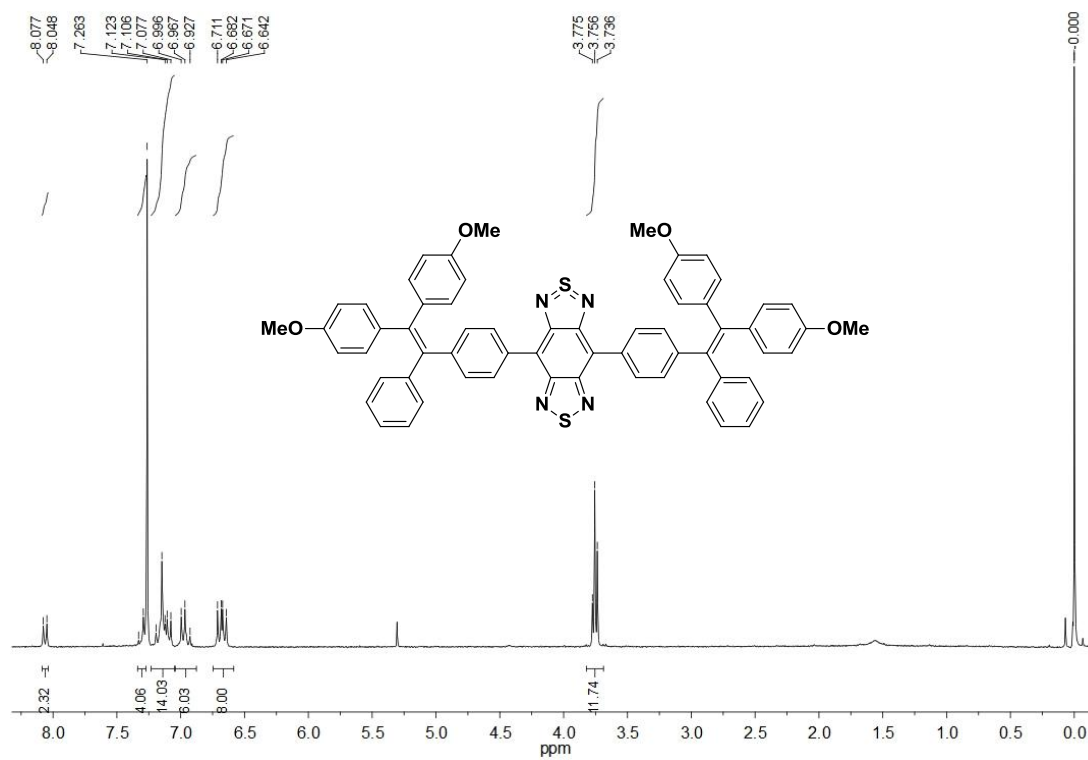


Figure S10. ¹H NMR (300 MHz, CDCl₃) of compound **2b**

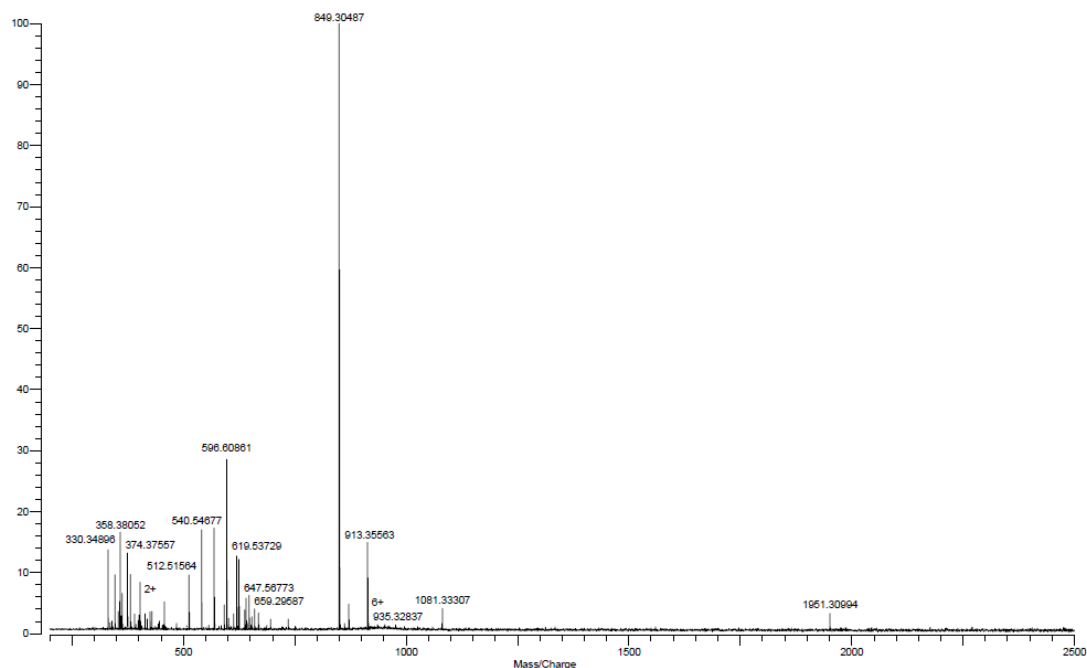


Figure S11. HRMS (ESI) of 1a

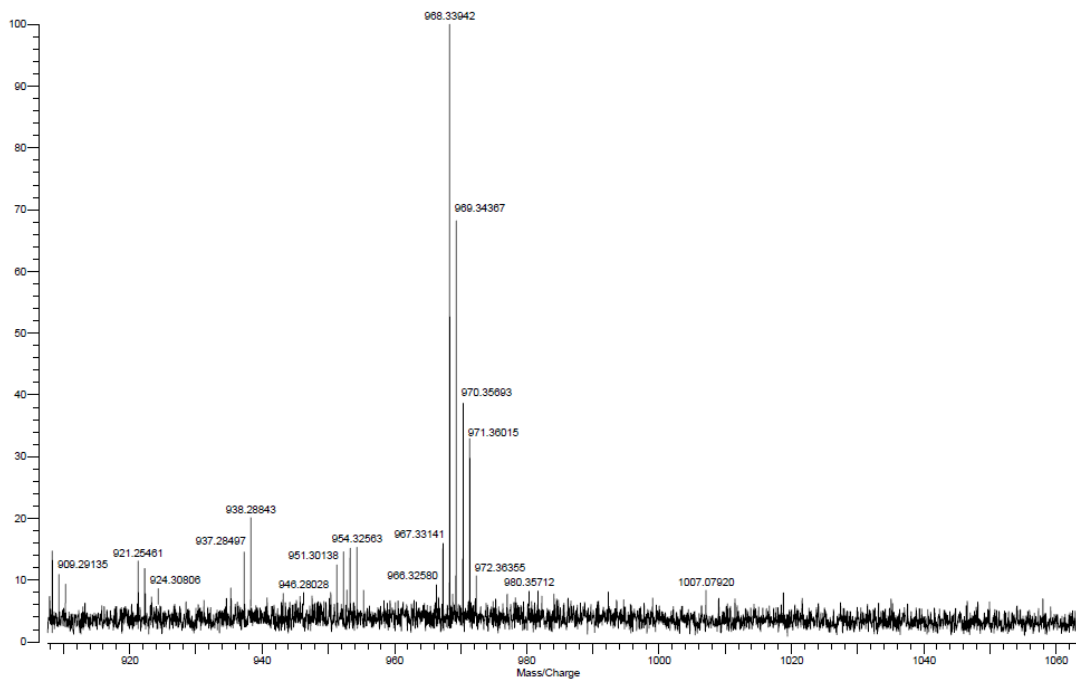


Figure S12. HRMS (MALDI) of 1b

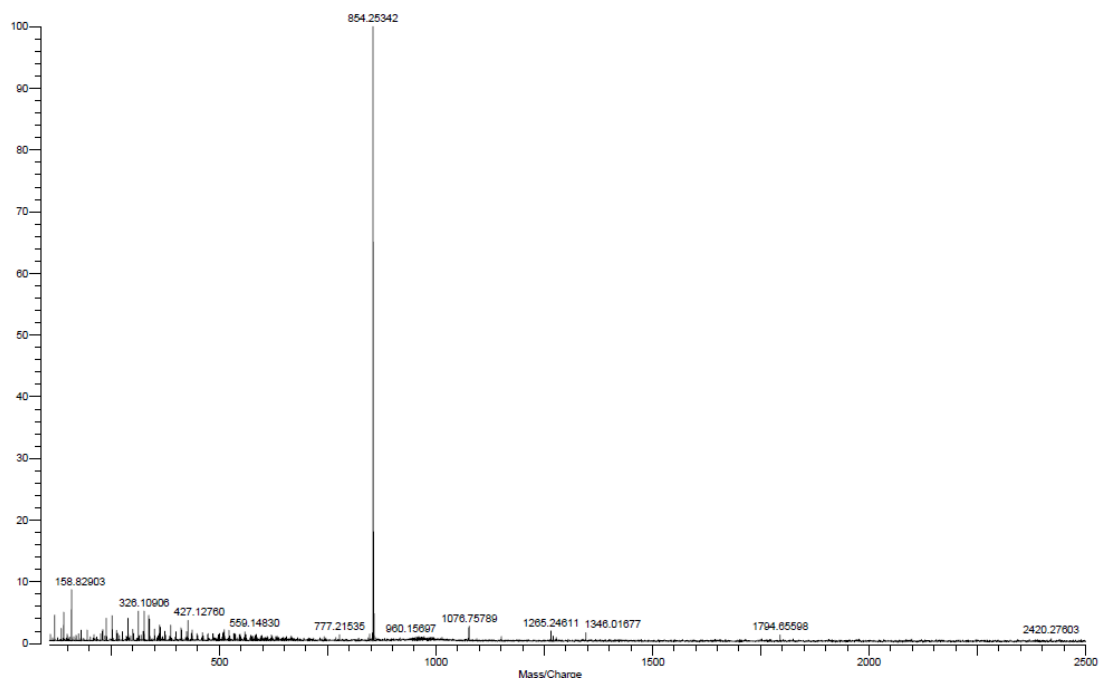


Figure S13. HRMS (MALDI) of 2a

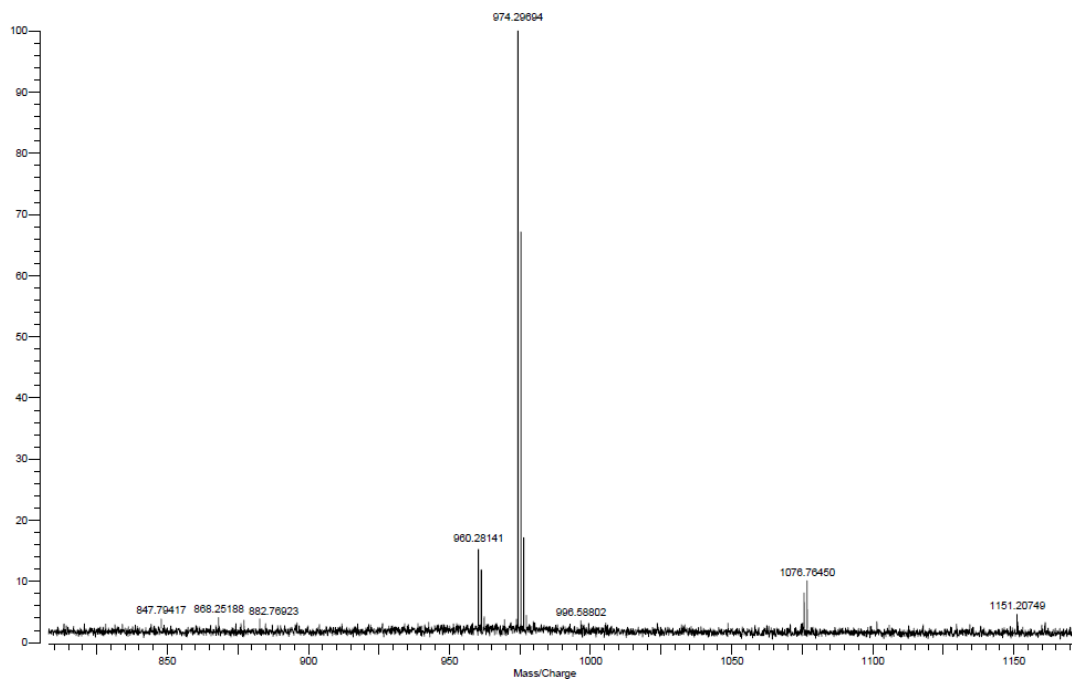


Figure S14. HRMS (MALDI) of 2b