

## Supplementary Information

# Aggregation-induced emission of triphenylamine substituted cyanostyrene derivatives

Xin Zhao,<sup>a</sup> Pengchong Xue,<sup>a</sup> Kai Wang,<sup>a</sup> Peng Chen,<sup>b</sup> Peng Zhang,<sup>a</sup> Ran Lu<sup>\*a</sup>

<sup>a</sup> State Key Laboratory of Supramolecular Structure and Materials, College of Chemistry, Jilin University, Changchun 130012, PR China.

Fax: +86-431-88499179; Tel: +86-431-88499179;

E-mail: [luran@mail.jlu.edu.cn](mailto:luran@mail.jlu.edu.cn)

<sup>b</sup> Key Laboratory of Functional Inorganic Material Chemistry (MOE), School of Chemistry and Materials Science, Heilongjiang University, Harbin 150080, PR China.

**Table S1** Electrochemical properties of **G1**, **G1-N** and **G2**.

**Figure S1** <sup>1</sup>H NMR (400 MHz) spectrum of **G1**.

**Figure S2** <sup>13</sup>C NMR (100 MHz) spectrum of **G1**.

**Figure S3** MALDI/TOF MS spectrum of **G1**.

**Figure S4** <sup>1</sup>H NMR (400 MHz) spectrum of **G1-N**.

**Figure S5** <sup>13</sup>C NMR (100 MHz) spectrum of **G1-N**.

**Figure S6** MALDI/TOF MS spectrum of **G1-N**.

**Figure S7** <sup>1</sup>H NMR (400 MHz) spectrum of **G2**.

**Figure S8** <sup>13</sup>C NMR (100 MHz) spectrum of **G2**.

**Figure S9** MALDI/TOF MS spectrum of **G2**.

Electronic Supplementary Material (ESI) for New Journal of Chemistry

---

**Table S1** Electrochemical properties of **G1**, **G1-N** and **G2**.

---

Molecule	$E_{\text{HOMO}}^{\text{[a]}}$ [eV]	$E_{0-0}^{\text{[b]}}$ [eV]	$E_{\text{LUMO}}^{\text{[c]}}$ [eV]
<b>G1</b>	-5.52	2.74	-2.78
<b>G1-N</b>	-5.52	2.42	-3.10
<b>G2</b>	-4.91	2.56	-2.35

---

<sup>a</sup>  $E_{\text{HOMO}}$  values were measured in  $\text{CH}_2\text{Cl}_2$  with 0.1M tetrabutylammonium tetrafluoroborate ( $\text{TBABF}_4$ ) as the electrolyte (working electrode: Pt; reference electrode: SCE, calibrated with ferrocene/ferrocenium ( $\text{Fc}/\text{Fc}^+$ ) as an external reference; counter electrode: Pt wire).

<sup>b</sup>  $E_{0-0}$  values were estimated from the edge of the absorption spectra in THF.

<sup>c</sup>  $E_{\text{LUMO}}$  values were estimated by subtracting  $E_{0-0}$  from the HOMO.

Electronic Supplementary Material (ESI) for New Journal of Chemistry

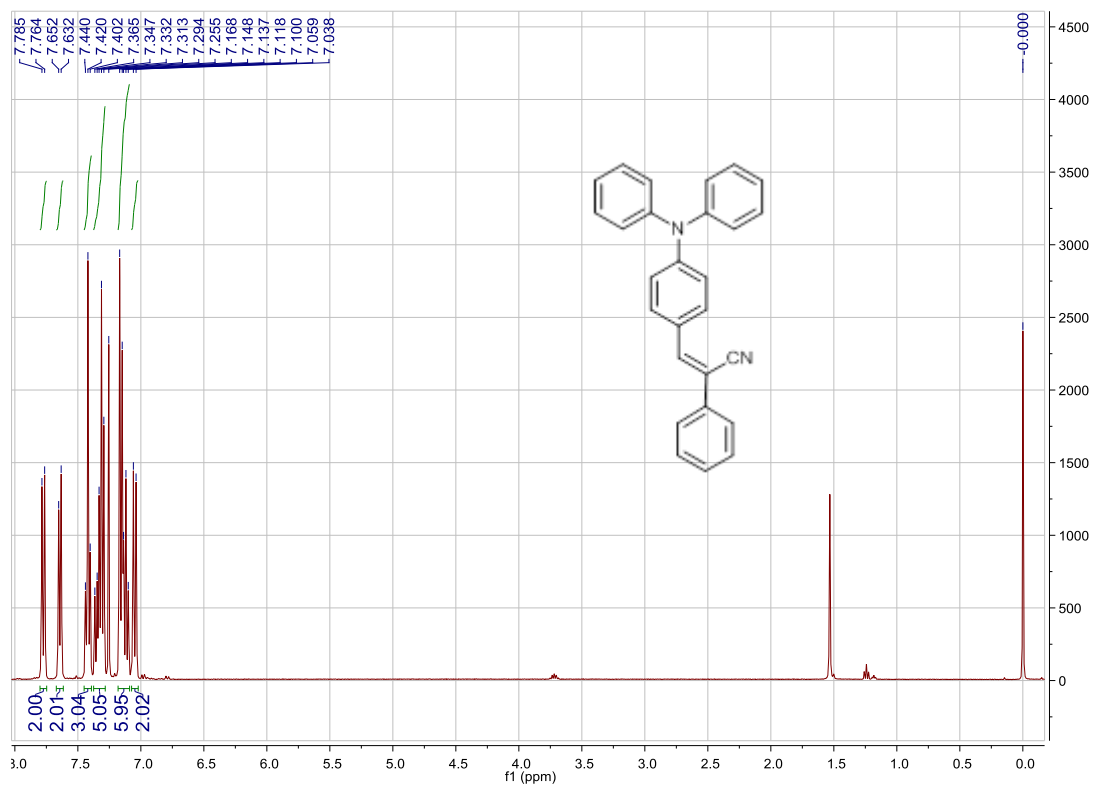


Figure S1 <sup>1</sup>H NMR (400 MHz) spectrum of G1.

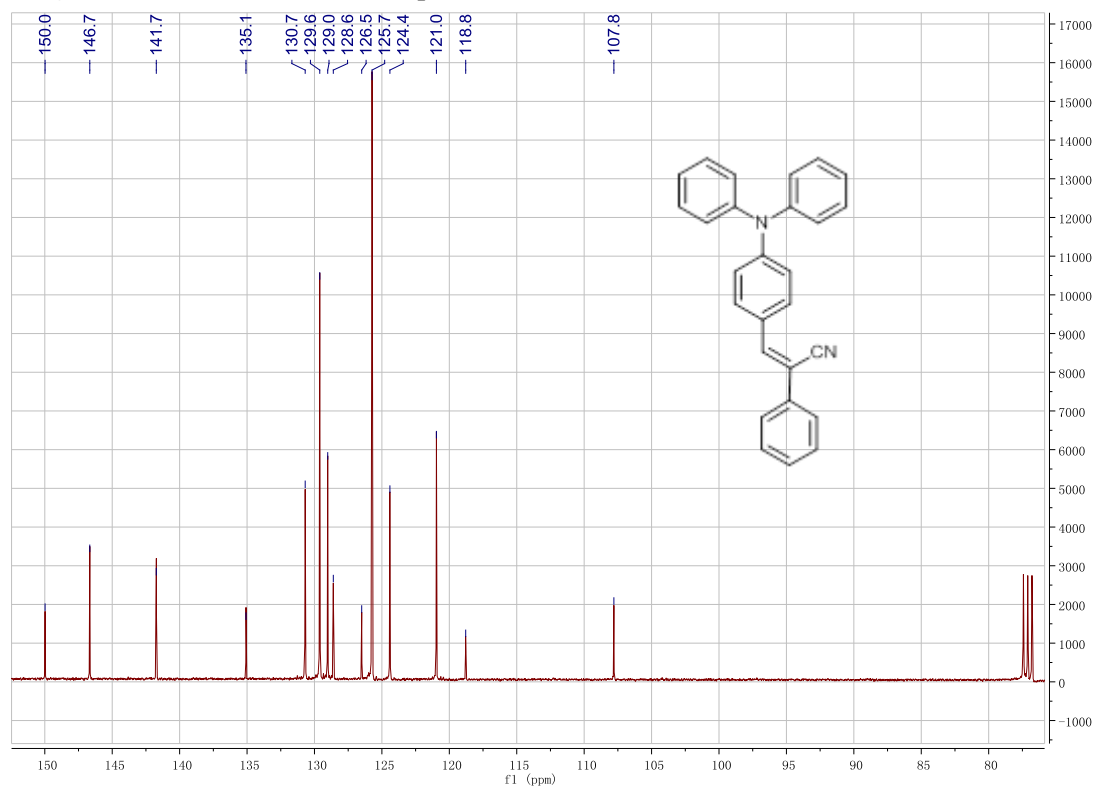


Figure S2 <sup>13</sup>C NMR (100 MHz) spectrum of G1.

Electronic Supplementary Material (ESI) for New Journal of Chemistry

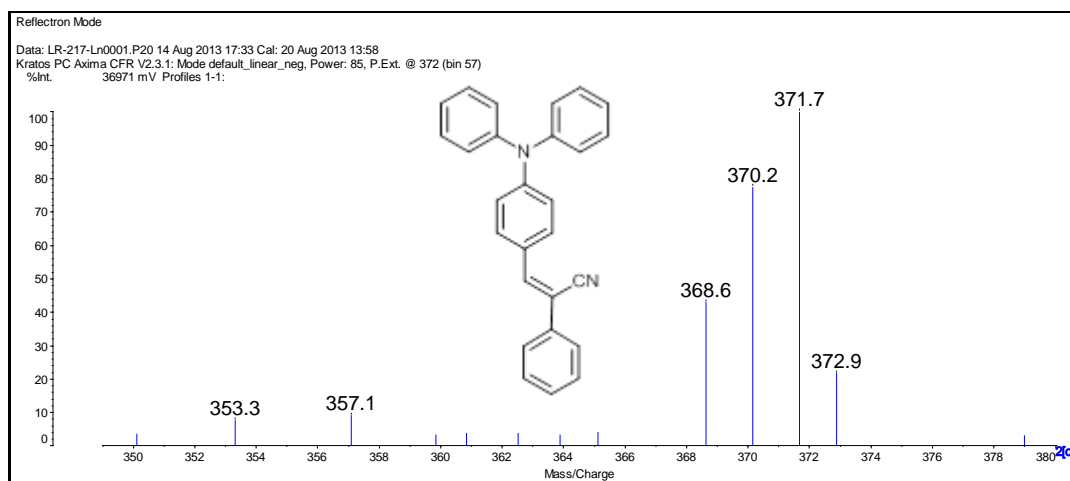


Figure S3 MALDI/TOF MS spectrum of G1.

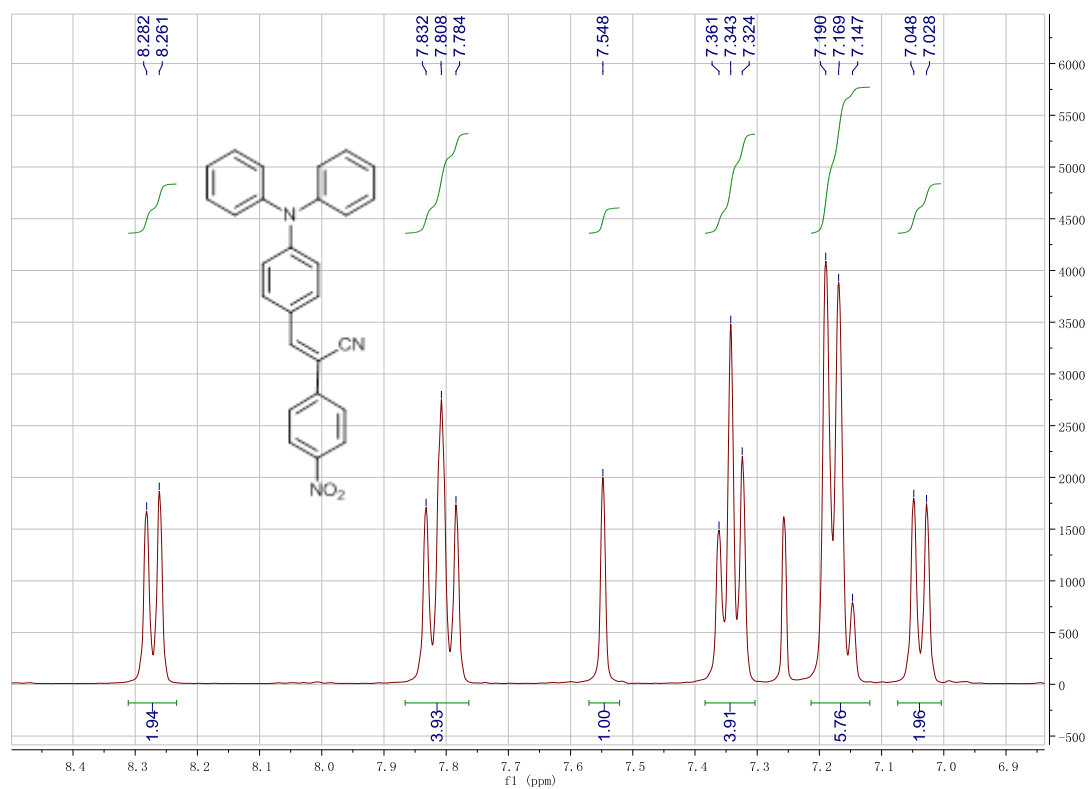


Figure S4  $^1\text{H}$  NMR (400 MHz) spectrum of G1-N.

Electronic Supplementary Material (ESI) for New Journal of Chemistry

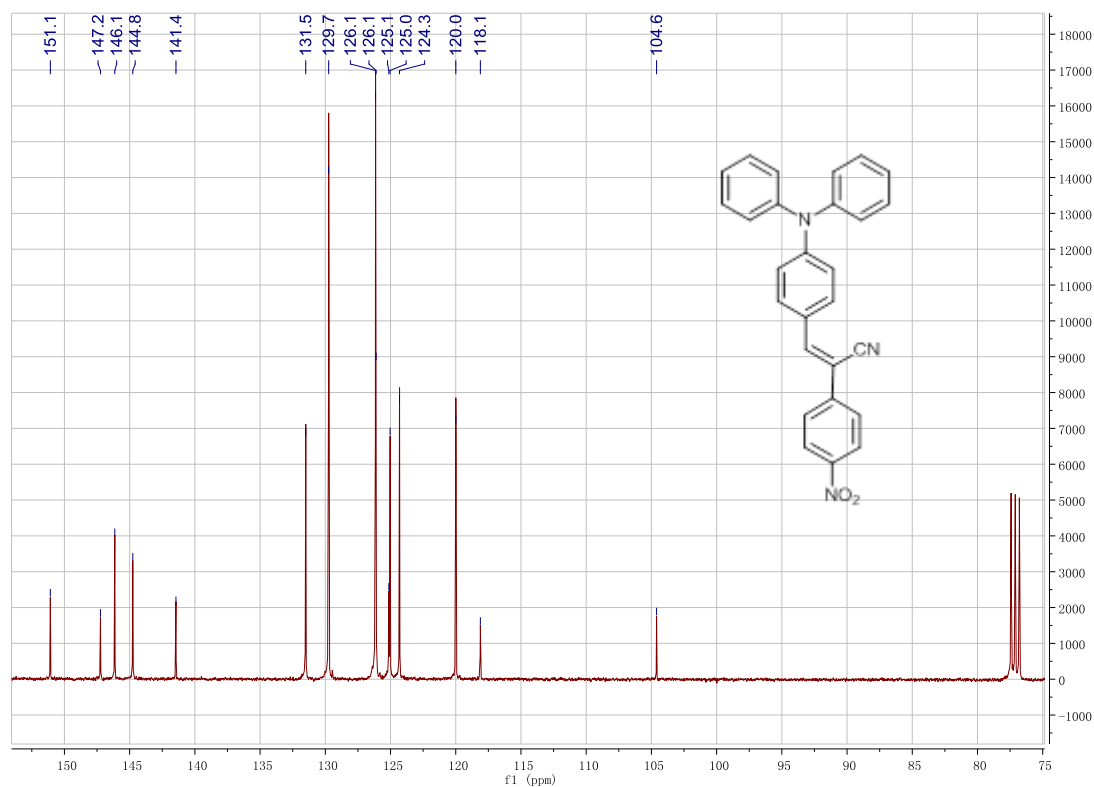


Figure S5 <sup>13</sup>C NMR (100 MHz) spectrum of G1-N.

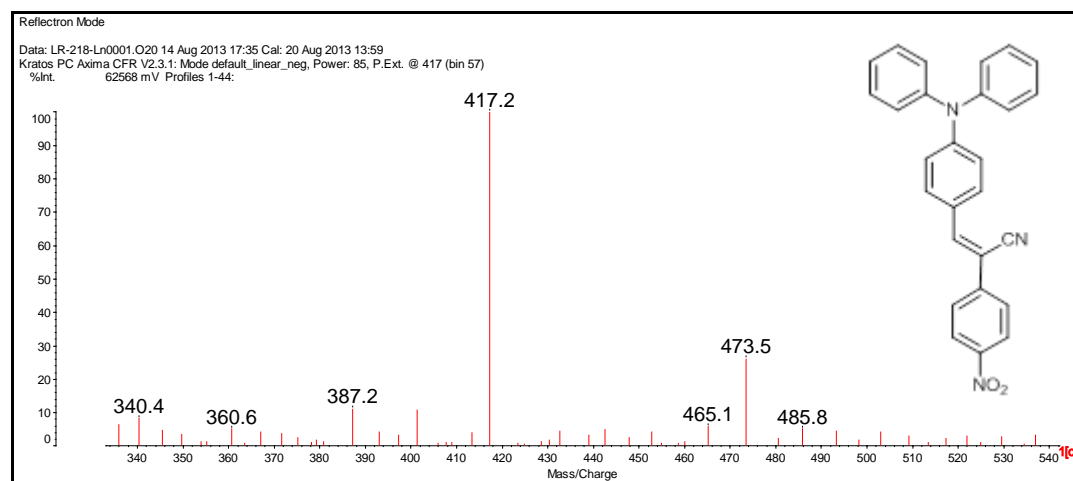


Figure S6 MALDI/TOF MS spectrum of G1-N.

Electronic Supplementary Material (ESI) for New Journal of Chemistry

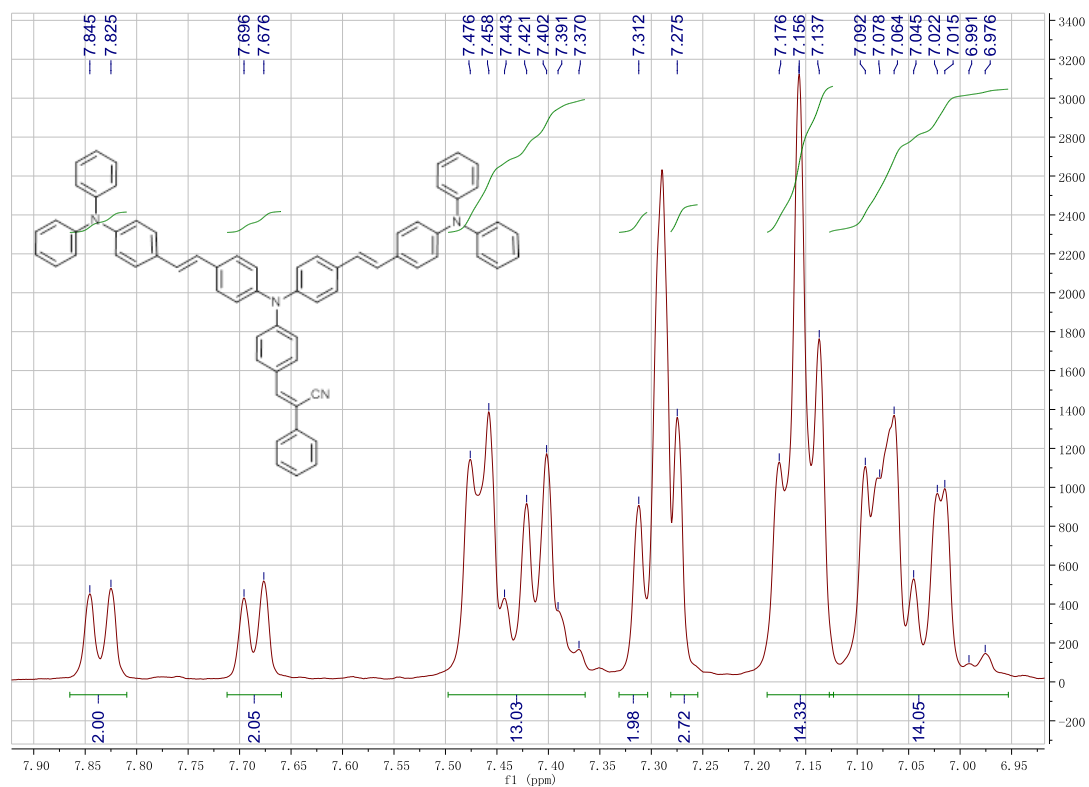


Figure S7 <sup>1</sup>H NMR (400 MHz) spectrum of G2.

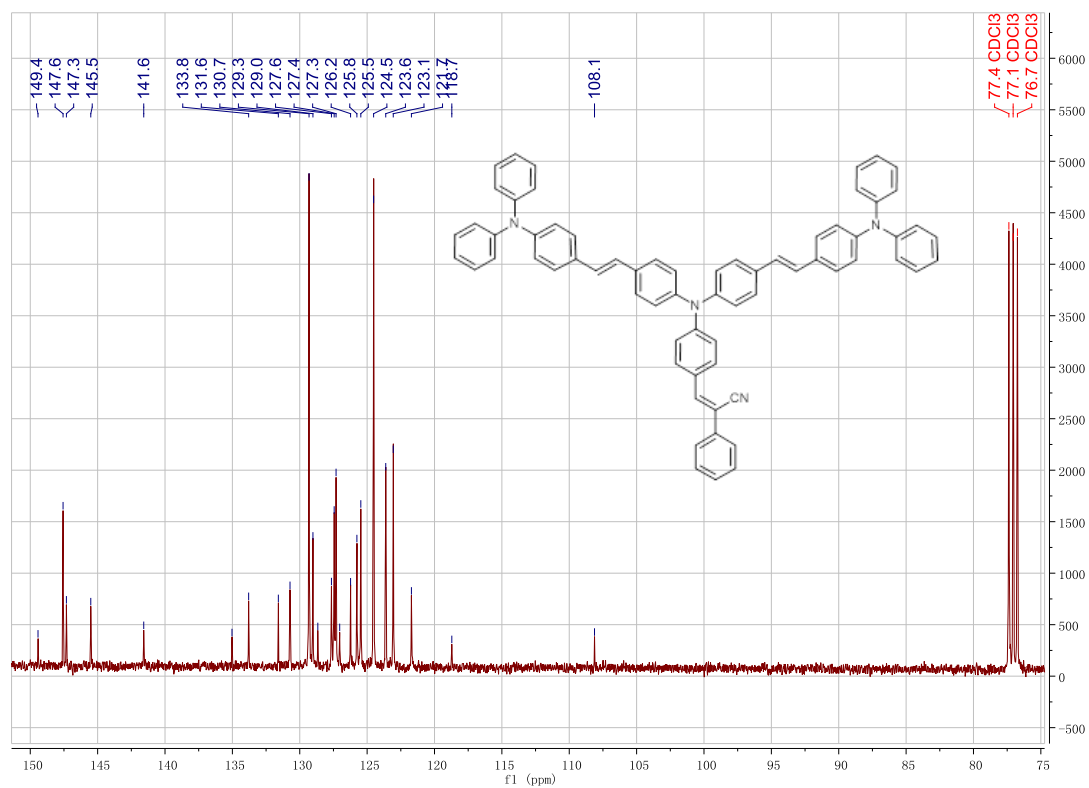
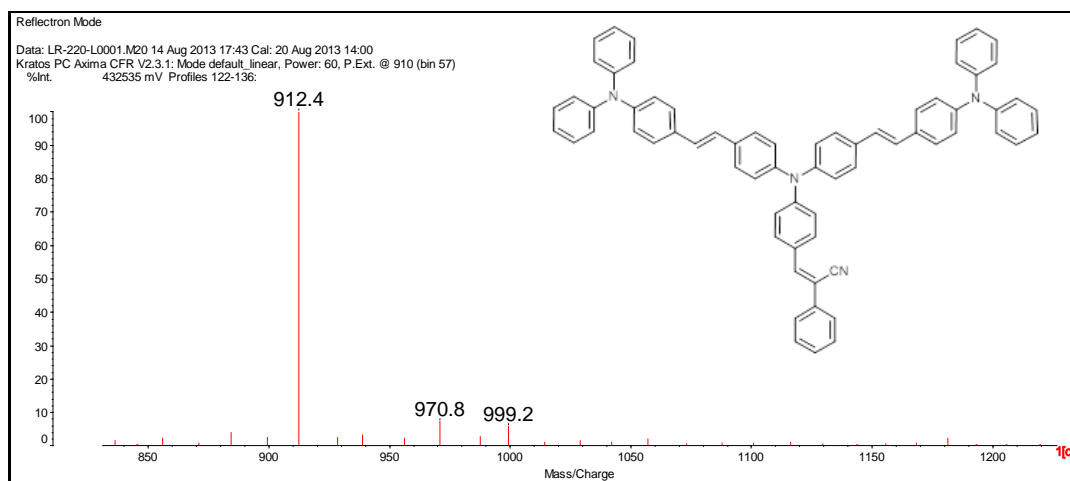


Figure S8 <sup>13</sup>C NMR (100 MHz) spectrum of G2.

Electronic Supplementary Material (ESI) for New Journal of Chemistry



**Figure S9** MALDI/TOF MS spectrum of **G2**.