

Supporting Information for

Synthesis and Photovoltaic Properties of Novel Solution-processable Triphenylamine-based Dendrimers with Sulfonyldibenzene Cores

Kunpeng Li, Jiali Qu, Yinhua Zhou, Lili Xue, Leijing Liu, Ping Peng, Wenjing
Tian*

State Key Laboratory of Supramolecular Structure and Materials, Jilin
University, Changchun 130012, China

Fax: + 86-431-85166368 E-mail: wjtian@mail.jlu.edu.cn

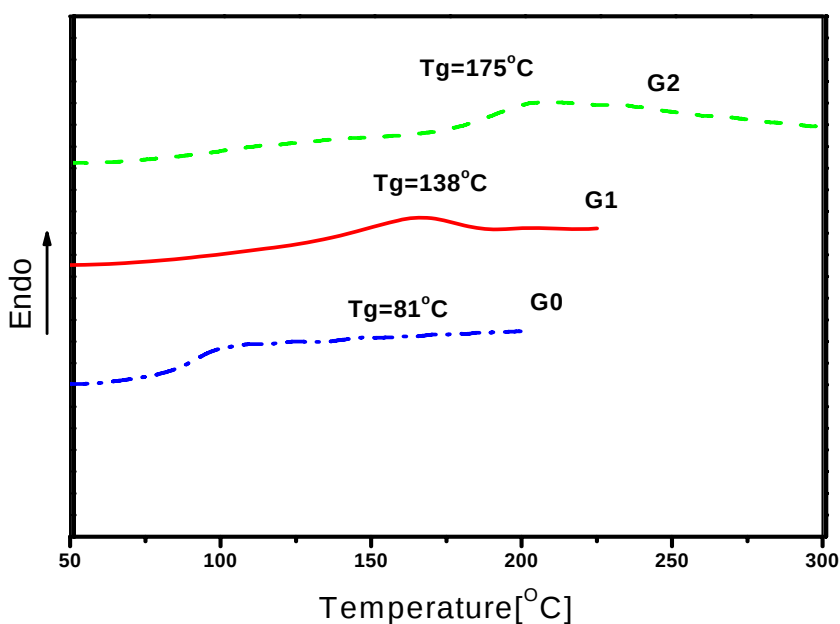


Figure S1. DSC curves (second run) of G0, G1 and G2.

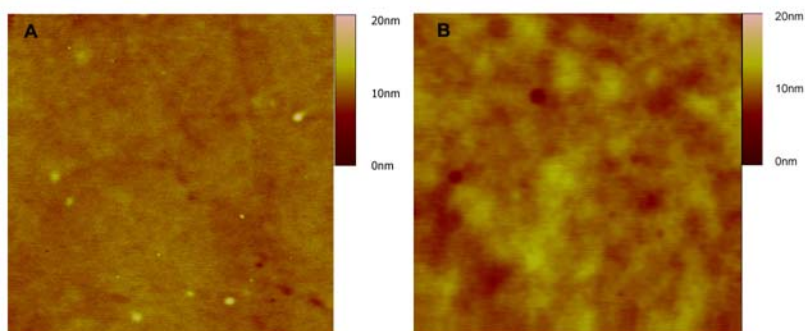


Figure S2. AFM images($5 \times 5 \mu$) showing the surface morphology of the blend films of (A)G0/PCBM (w/w, 1:3); (B) G2/PCBM(w/w, 1:3)

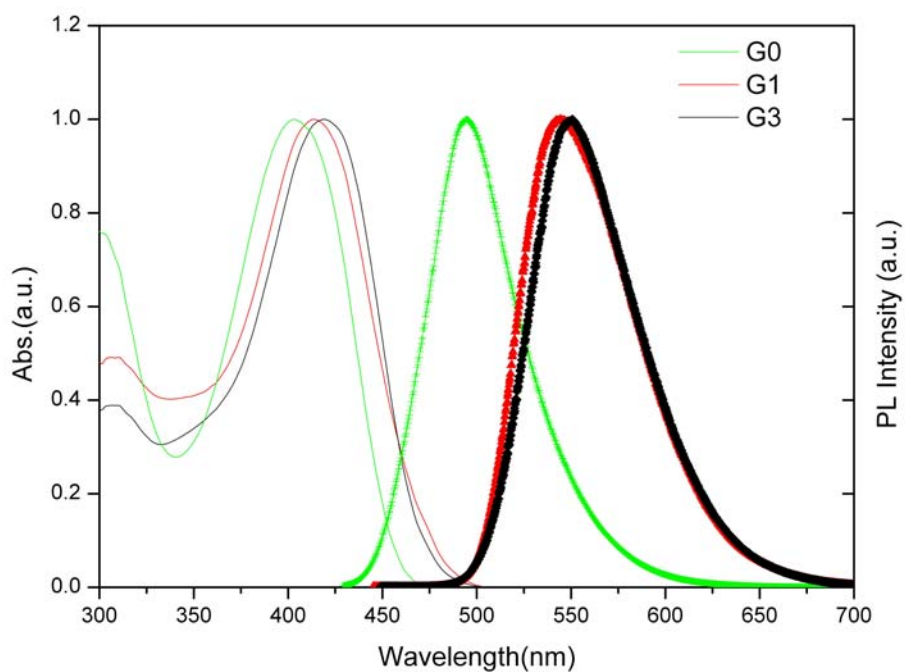


Figure S3. The UV and PL spectrum of G0,G1 and G2 at 10-5M in CHCl₃

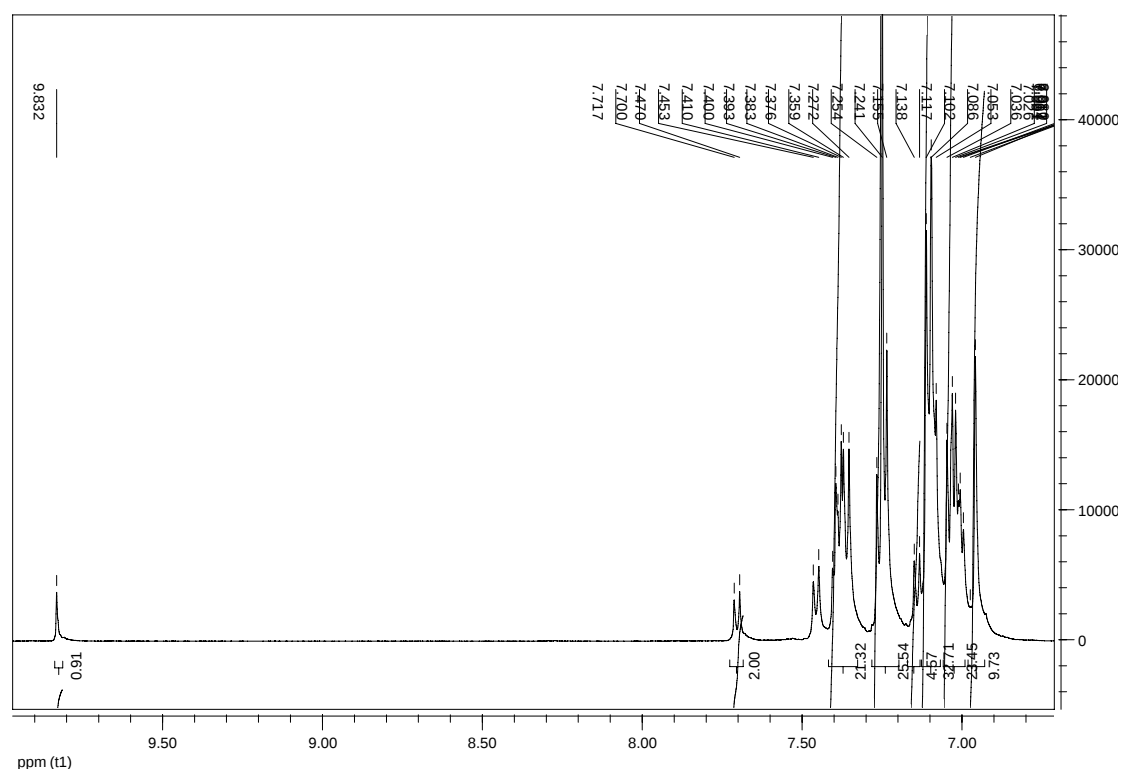
Table S1 Detailed information for the three cells of G0 G1 and G2

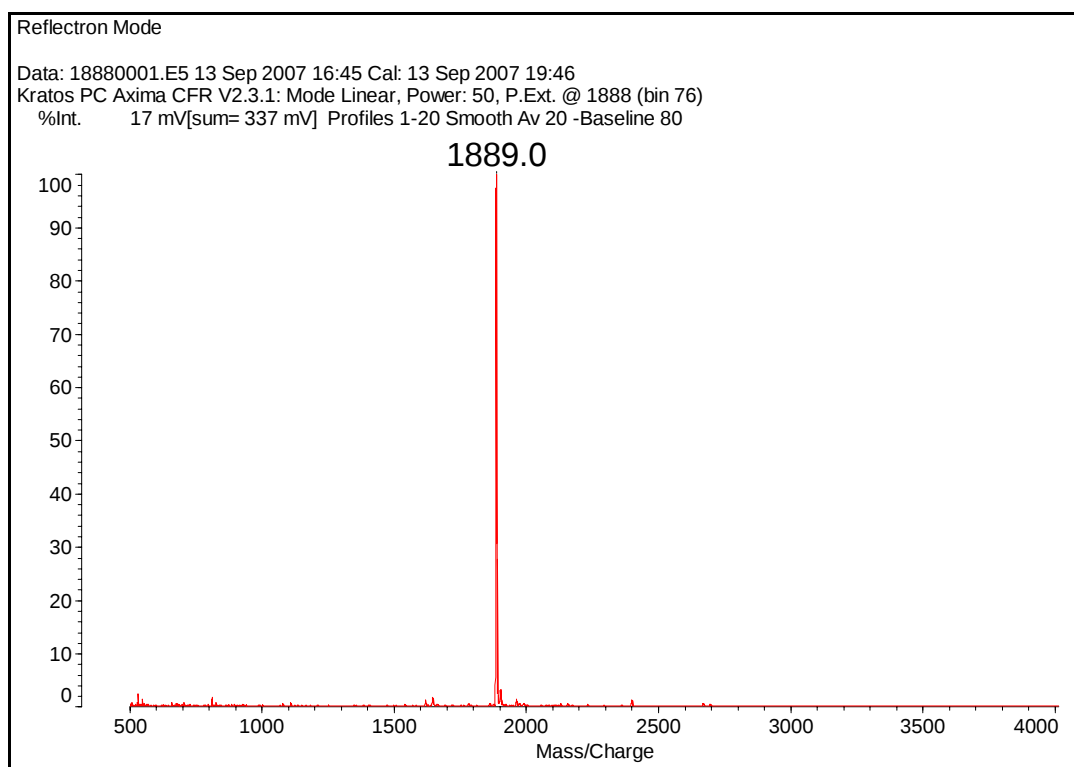
	G0				G1				G2			
	Voc	Isc	FF	η	Voc	Isc	FF	η	Voc	Isc	FF	η
2:1	0.79	0.54	0.28	0.12	0.78	0.12	0.30	0.03	0.74	0.21	0.28	0.04
1:1	0.78	0.89	0.27	0.18	0.77	0.45	0.32	0.11	0.75	0.23	0.28	0.05
1:2	0.79	1.60	0.28	0.34	0.79	0.74	0.32	0.19	0.77	0.28	0.28	0.06
1:3	0.80	1.20	0.27	0.26	0.79	0.13	0.31	0.03	0.77	0.19	0.28	0.04
1:4	0.80	0.32	0.28	0.07	0.76	0.08	0.30	0.01	0.65	0.01	0.20	0.01

^aThe units of V_{oc} , I_{sc} and η are V, mA/cm² and % ,repectively

G2-CHO

¹H NMR (500MHz, CDCl₃) and MALDI/TOF mass spectrum

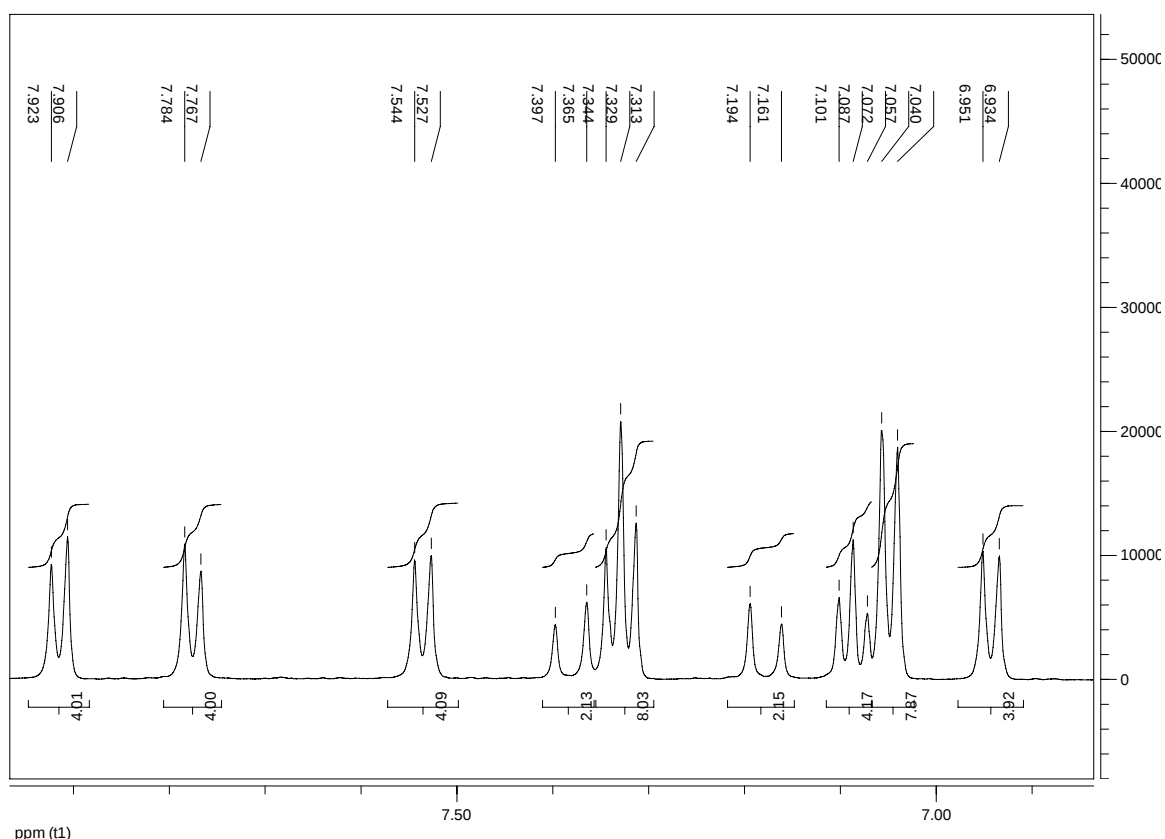


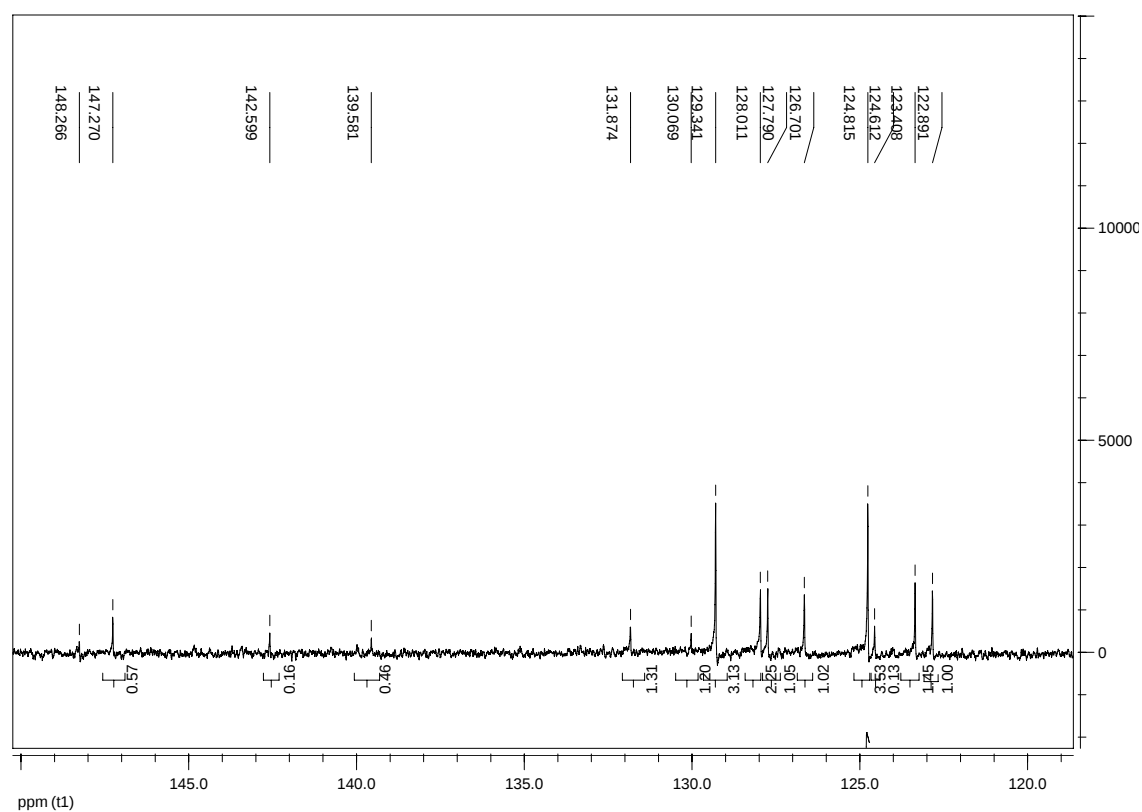


Compound G0

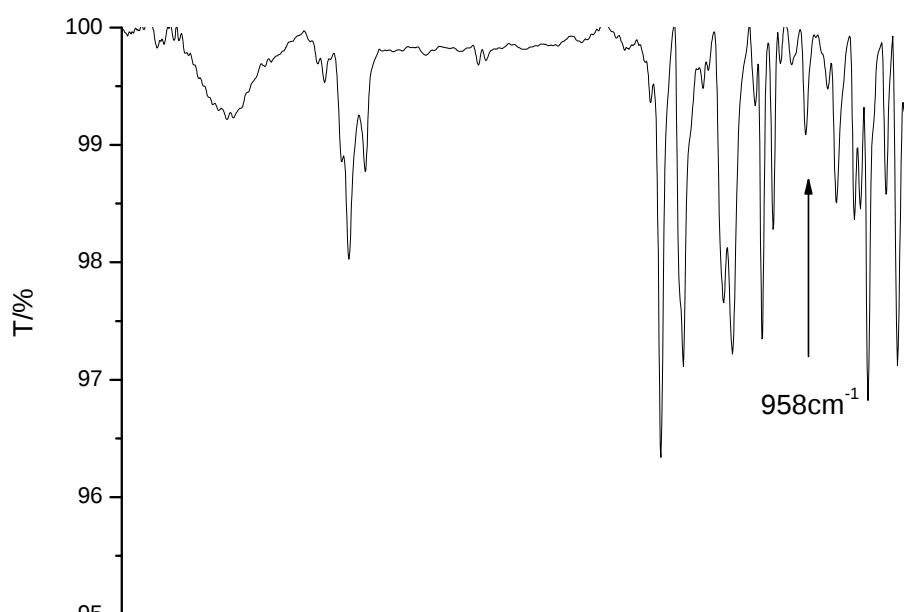
^1H NMR (500MHz, CDCl_3), FT-IR and ^{13}C NMR (75MHz CDCl_3)

^1H NMR





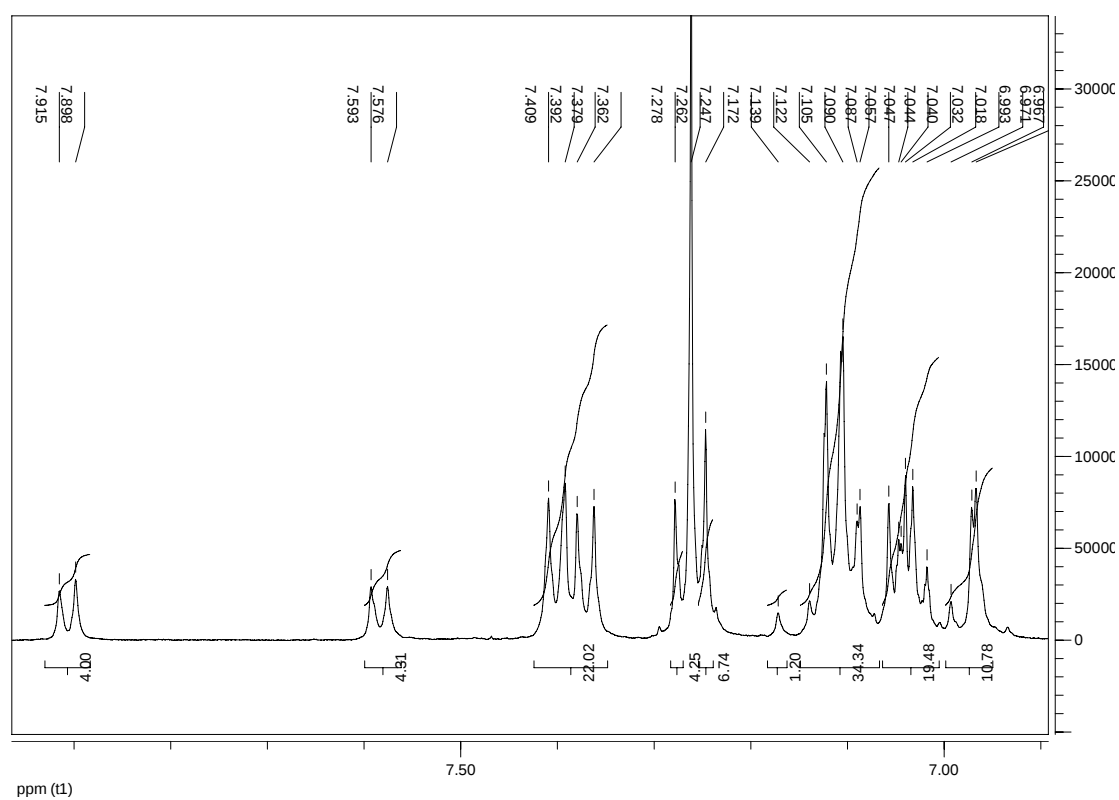
FT-IR

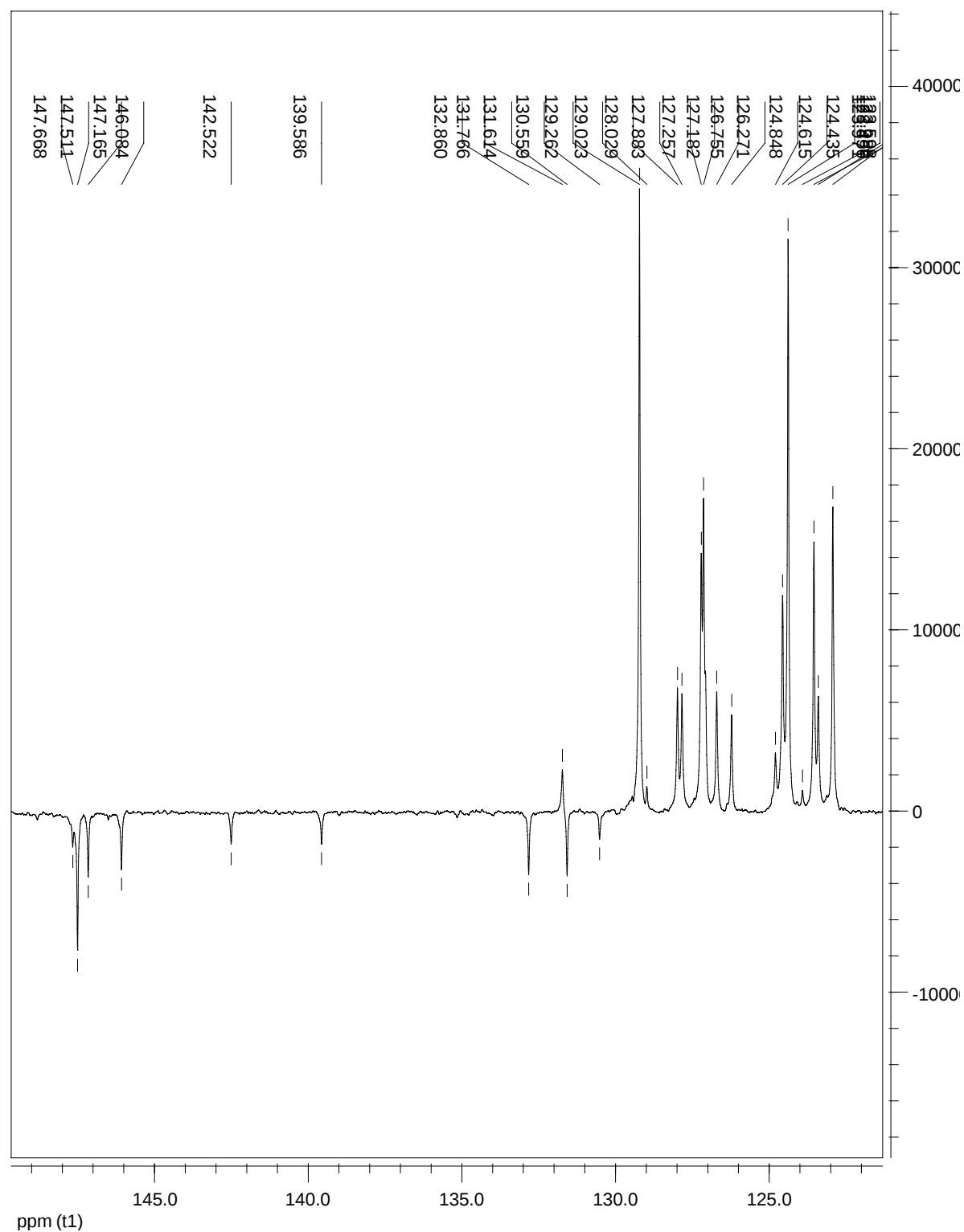


Compound G1

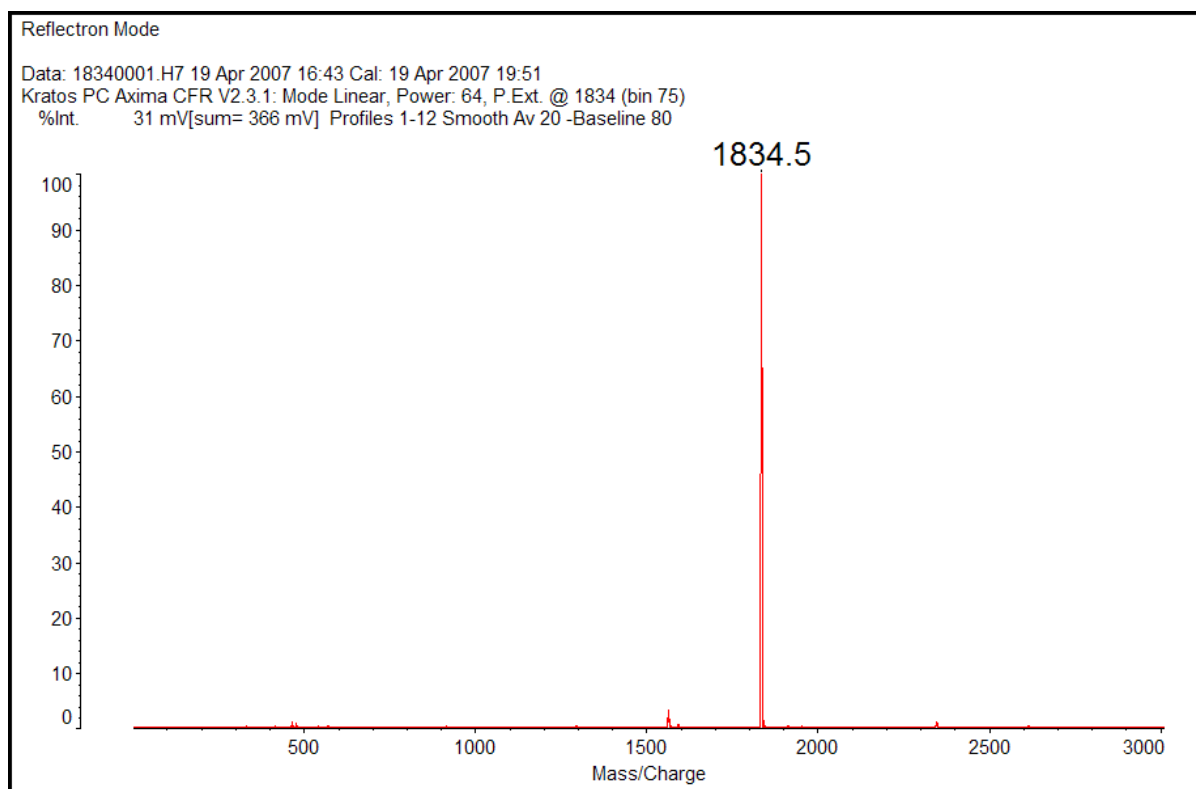
^1H NMR (500MHz, CDCl_3), ^{13}C NMR (125MHz CDCl_3), FT-IR and
 MALDI/TOF mass spectrum

^1H NMR





MALDI/TOF mass spectrum

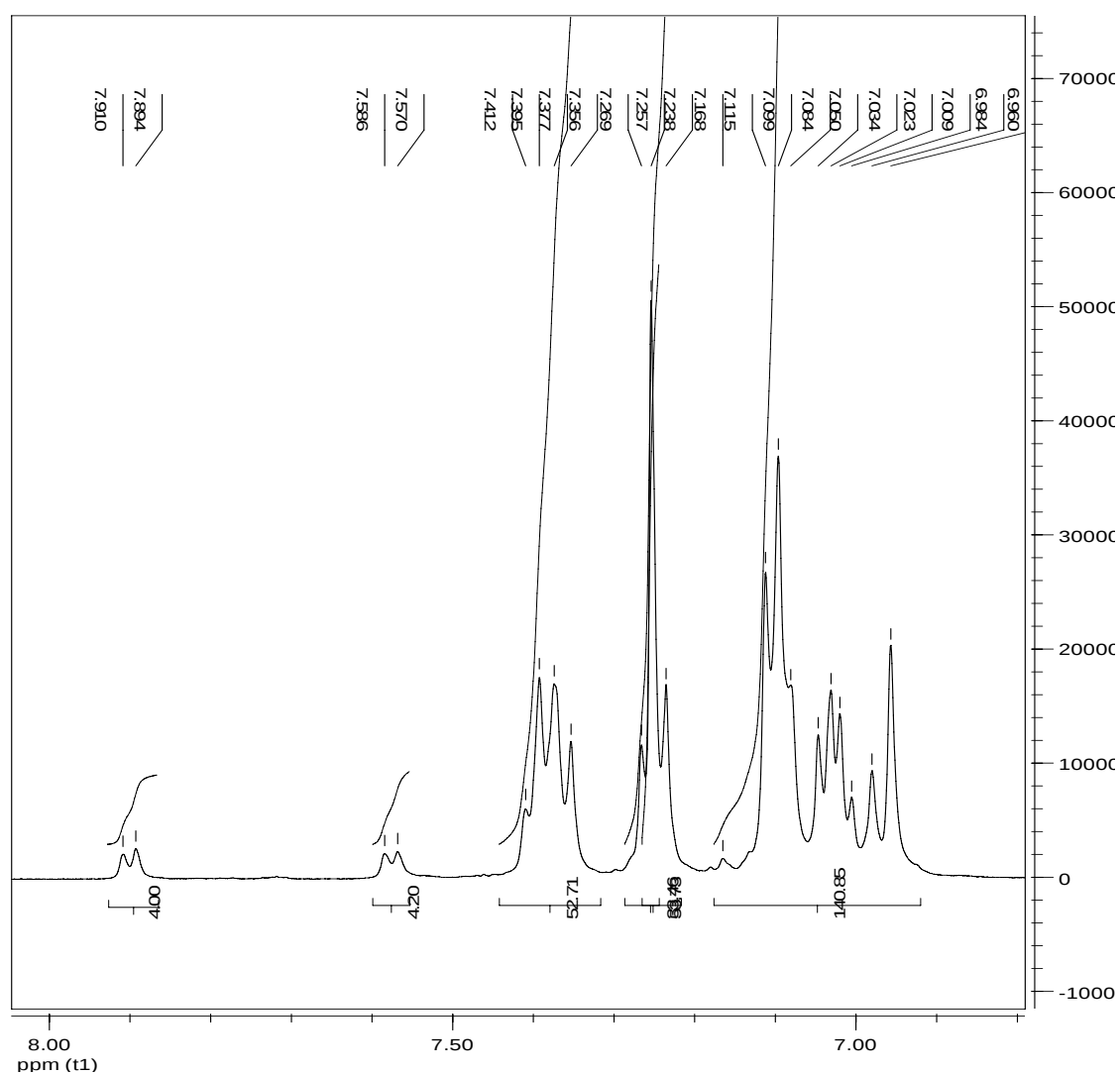


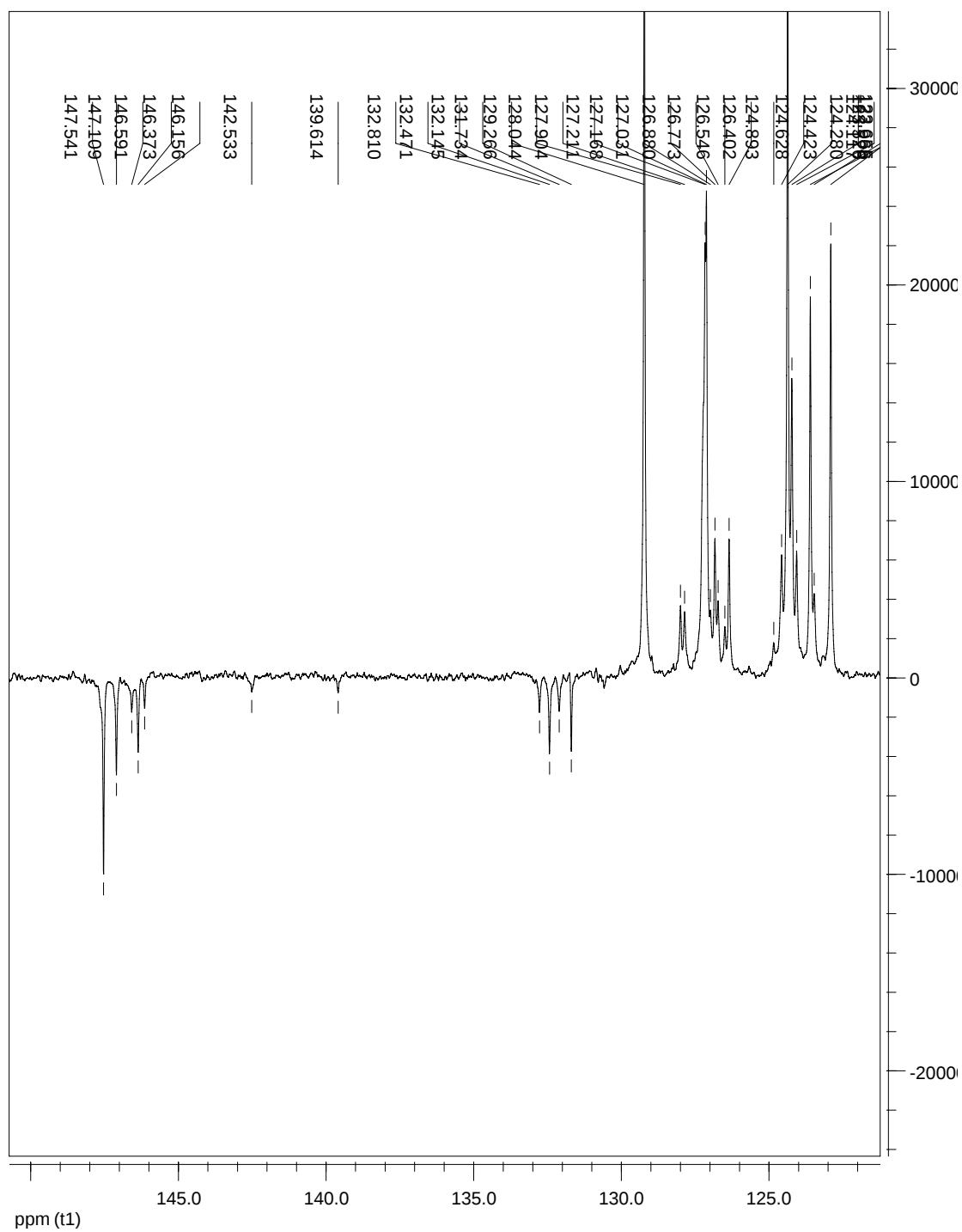
Compound G2

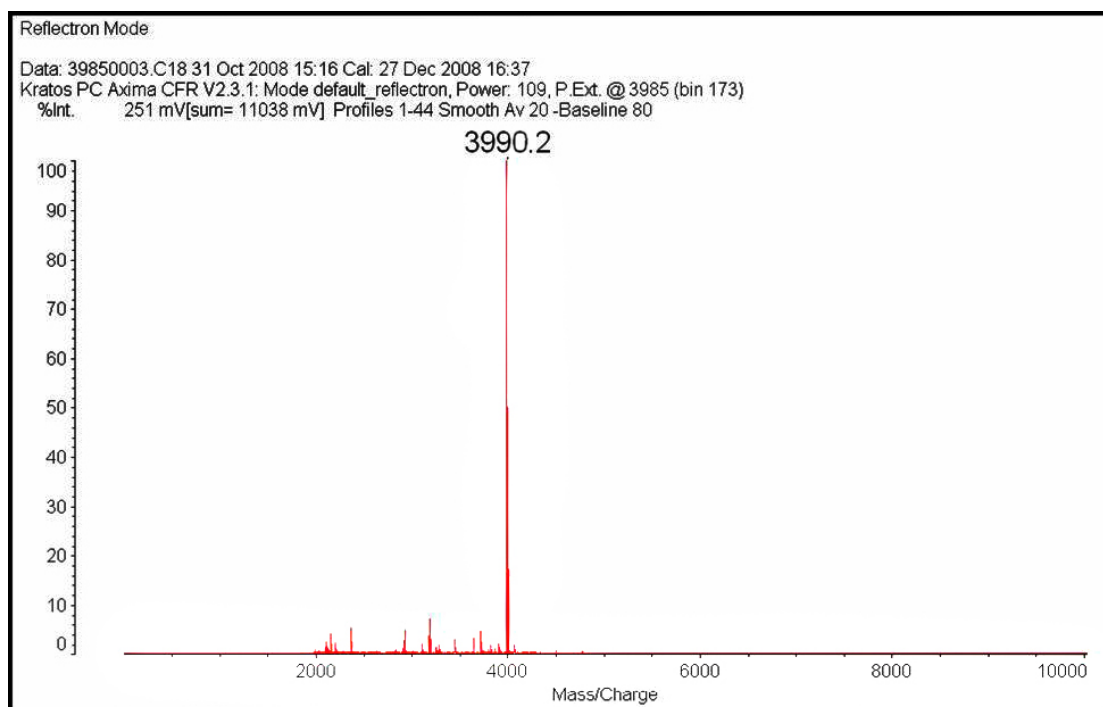
^1H NMR (500MHz, CDCl_3), ^{13}C NMR (125MHz, CDCl_3), FT-IR and

MALDI/TOF mass spectrum

^1H NMR







FT-IR

