

SUPPORTING INFORMATIONS

Trithienylphenylamine – extended dithiafulvene hybrids as bifunctional electroactive species

Emilie Ripaud, Philippe Leriche,^{*a} Nicolas Cocherel, Thomas Cauchy, Pierre Frère and Jean Roncali

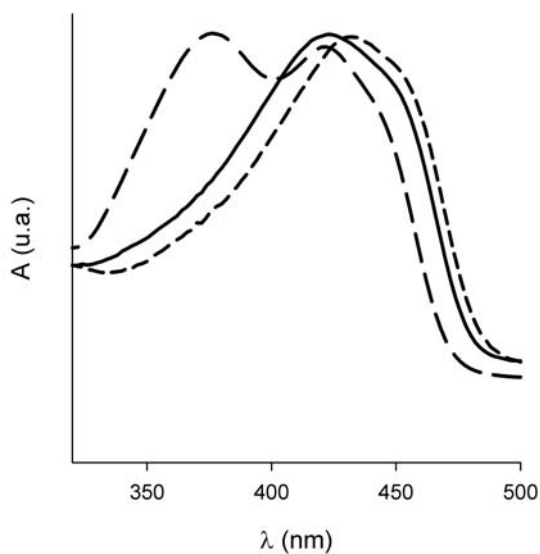


Figure S1. UV Vis. spectra of compounds **1** (dotted line), **2** (line) and **3** (short dashes), 10^{-5} M in CH_2Cl_2 .

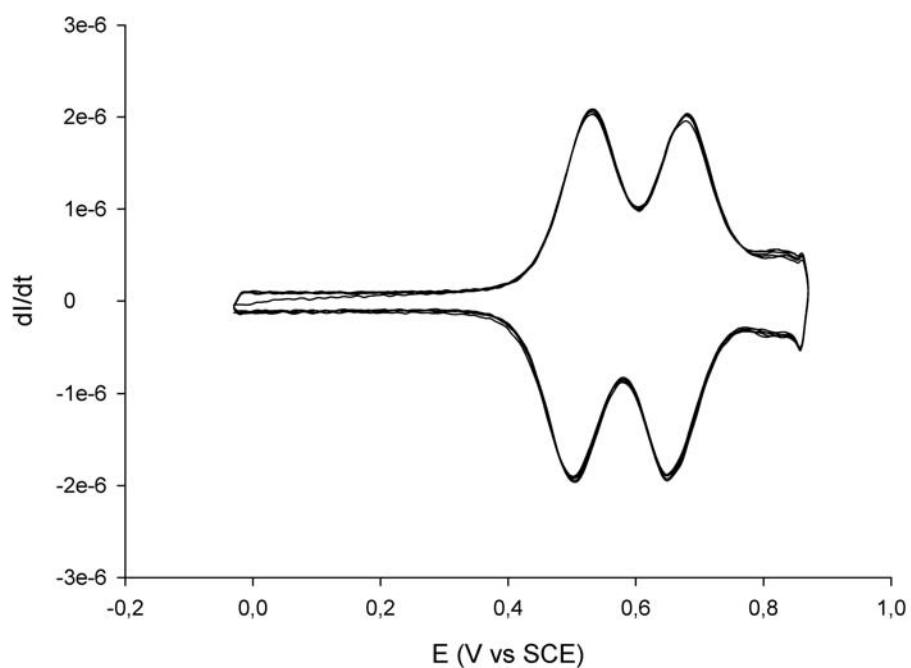


Figure S2. Deconvoluted CV of **1**, CH_2Cl_2 TBAPF₆ 0.1M 100mV/s

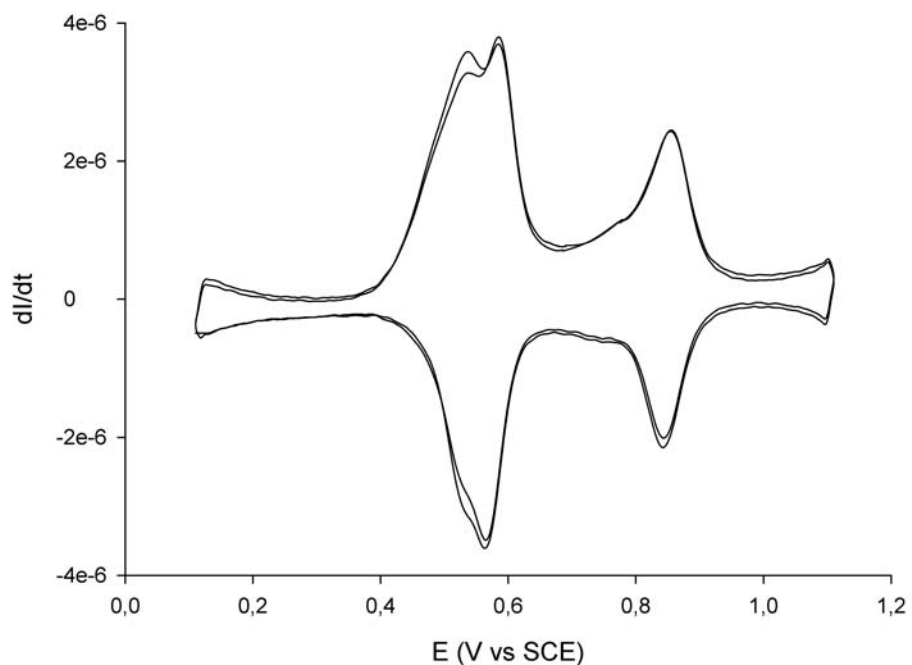


Figure S3. Deconvoluted CV of **2**, CH_2Cl_2 TBAPF₆ 0.1M 100mV/s

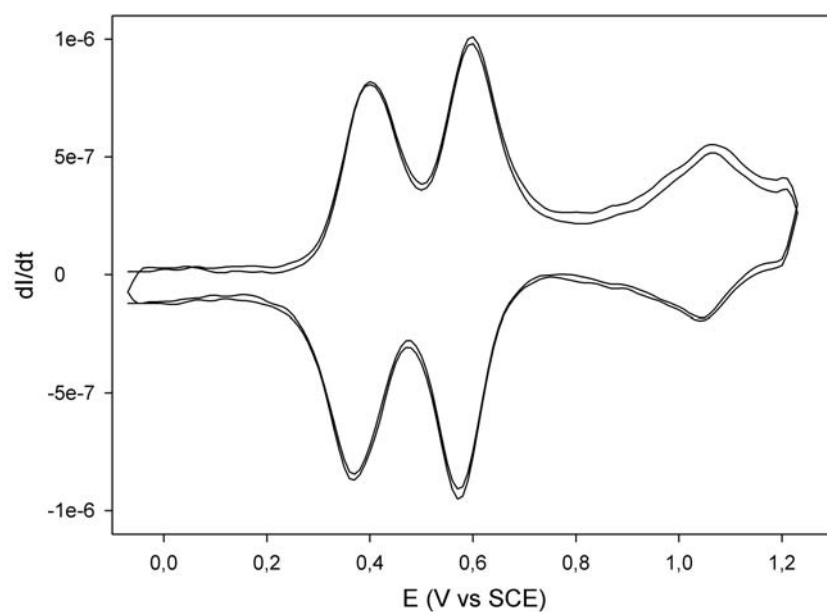


Figure S4. Deconvoluted CV of **8**, CH_2Cl_2 TBAPF₆ 0.1M 100mV/s

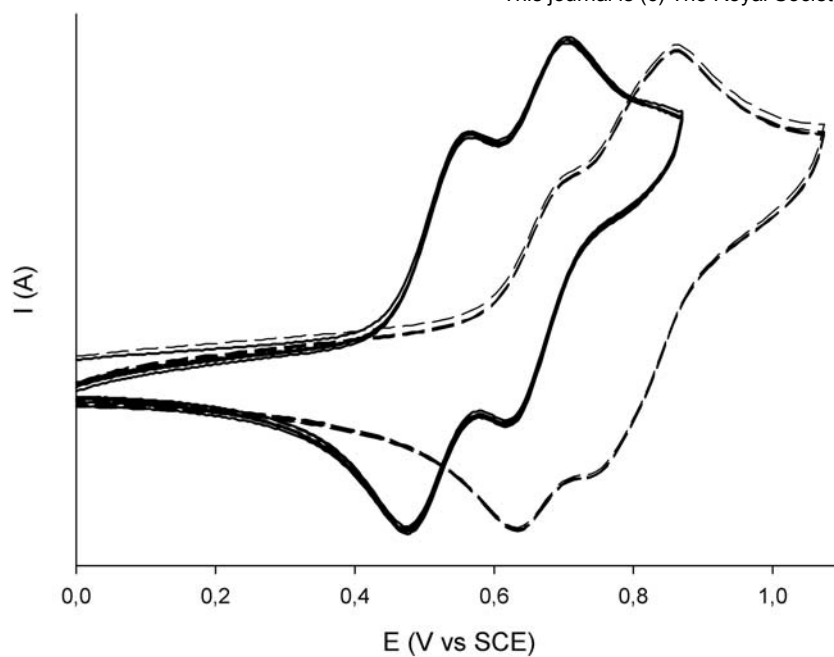


Figure S5 : normalized CV of compounds **1** (line) and **9** (dotted line)

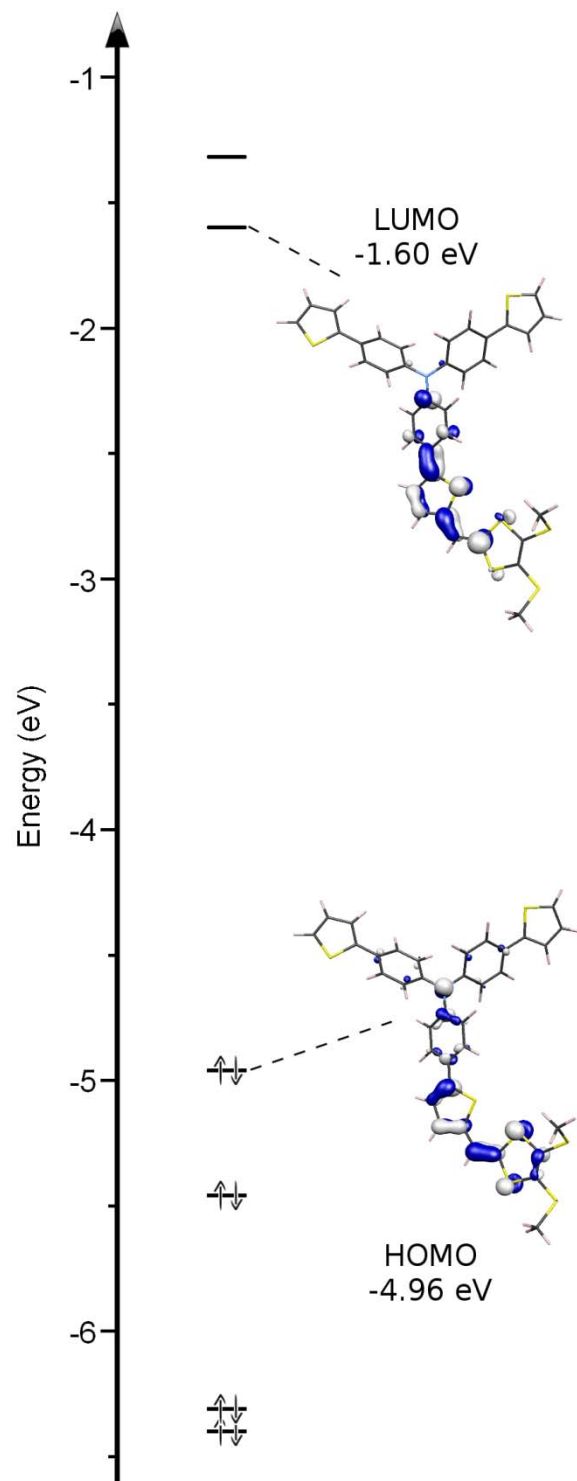


Fig S6. Molecular orbital diagram of **1**. Contour values are ± 0.05 [e/bohr^3]^{1/2}

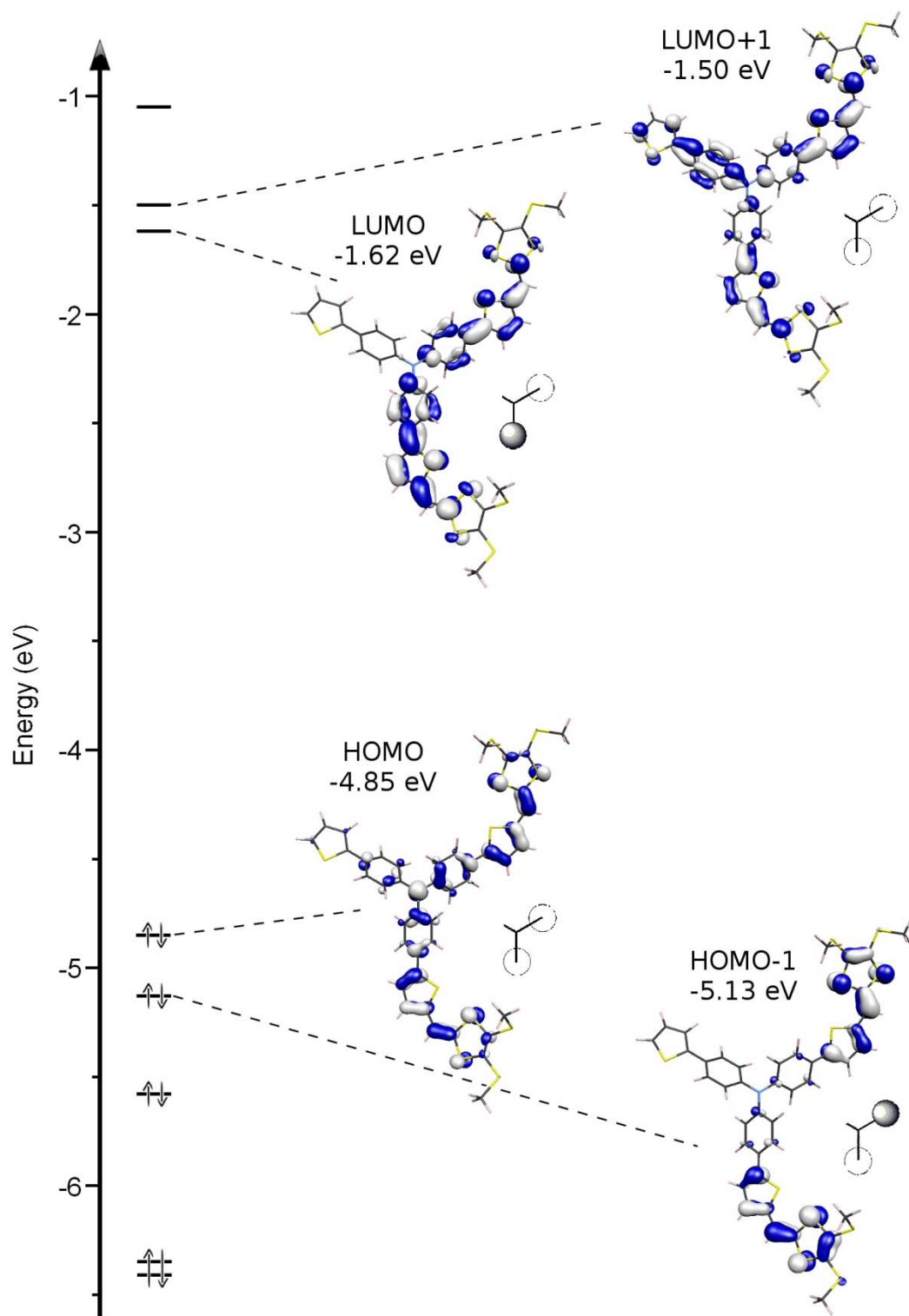


Fig S7. Molecular orbital diagram of **2**. Contour values of orbitals were chosen to match approximately the volume of those in Fig SX. The cutoff values are ± 0.035 [e/bohr³]^{1/2}

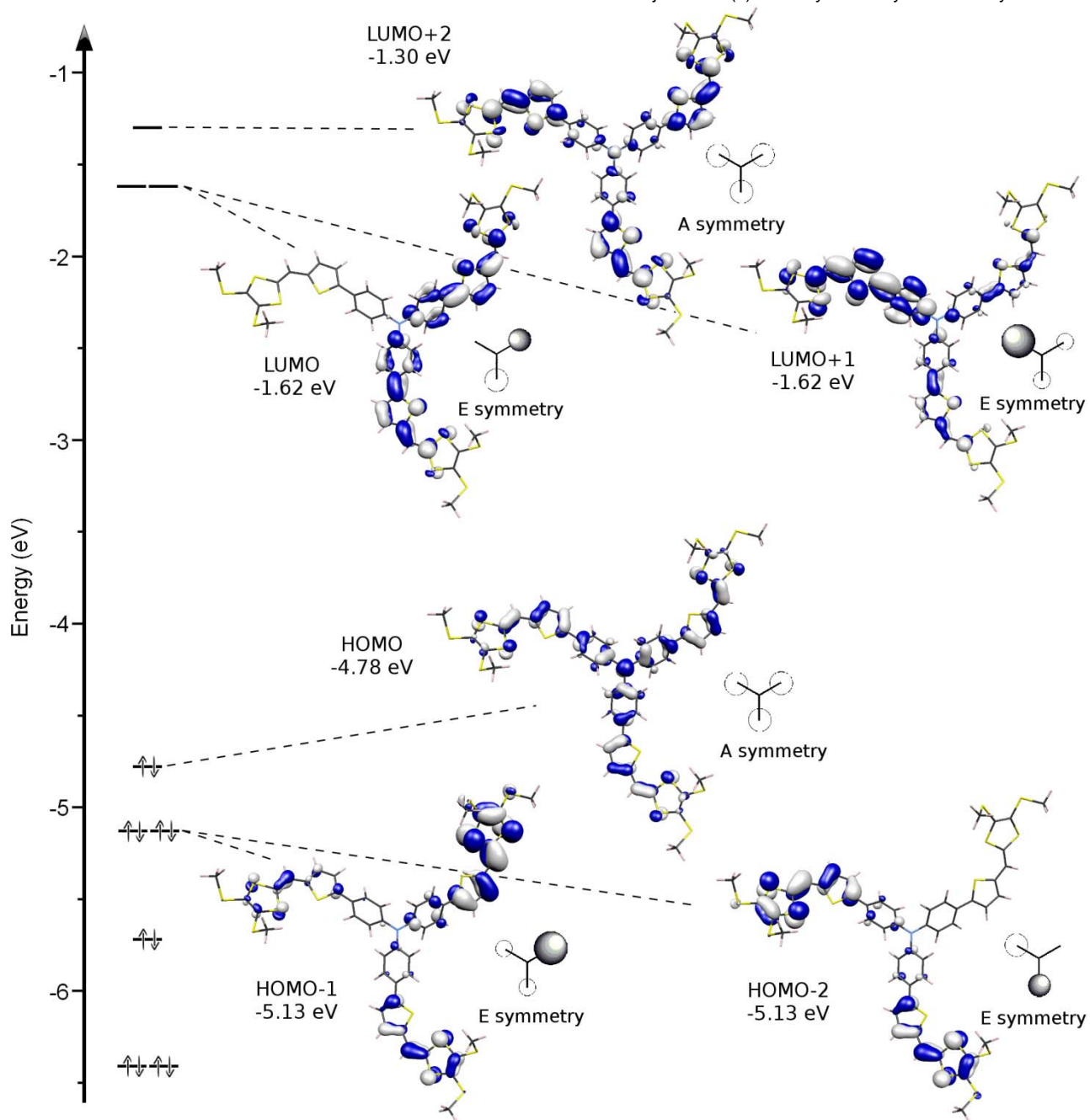


Fig S8. Molecular orbital diagram of **3**. Contour values of orbitals were chosen to match approximately the volume of those in Fig SX and SX. The cutoff values are ± 0.03 [e/bohr³]^{1/2}

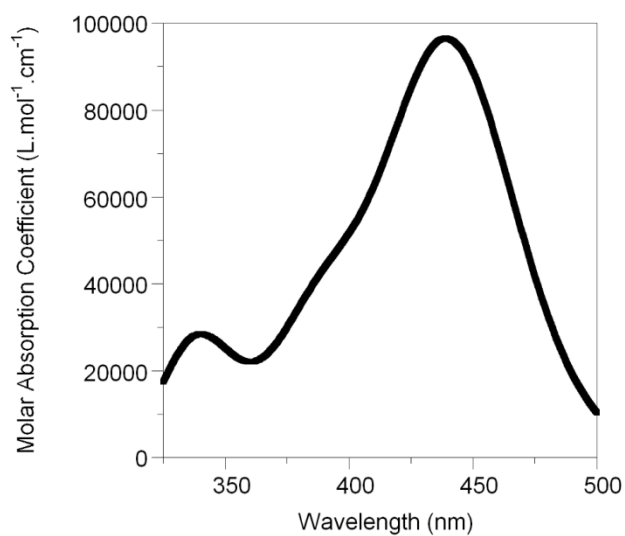


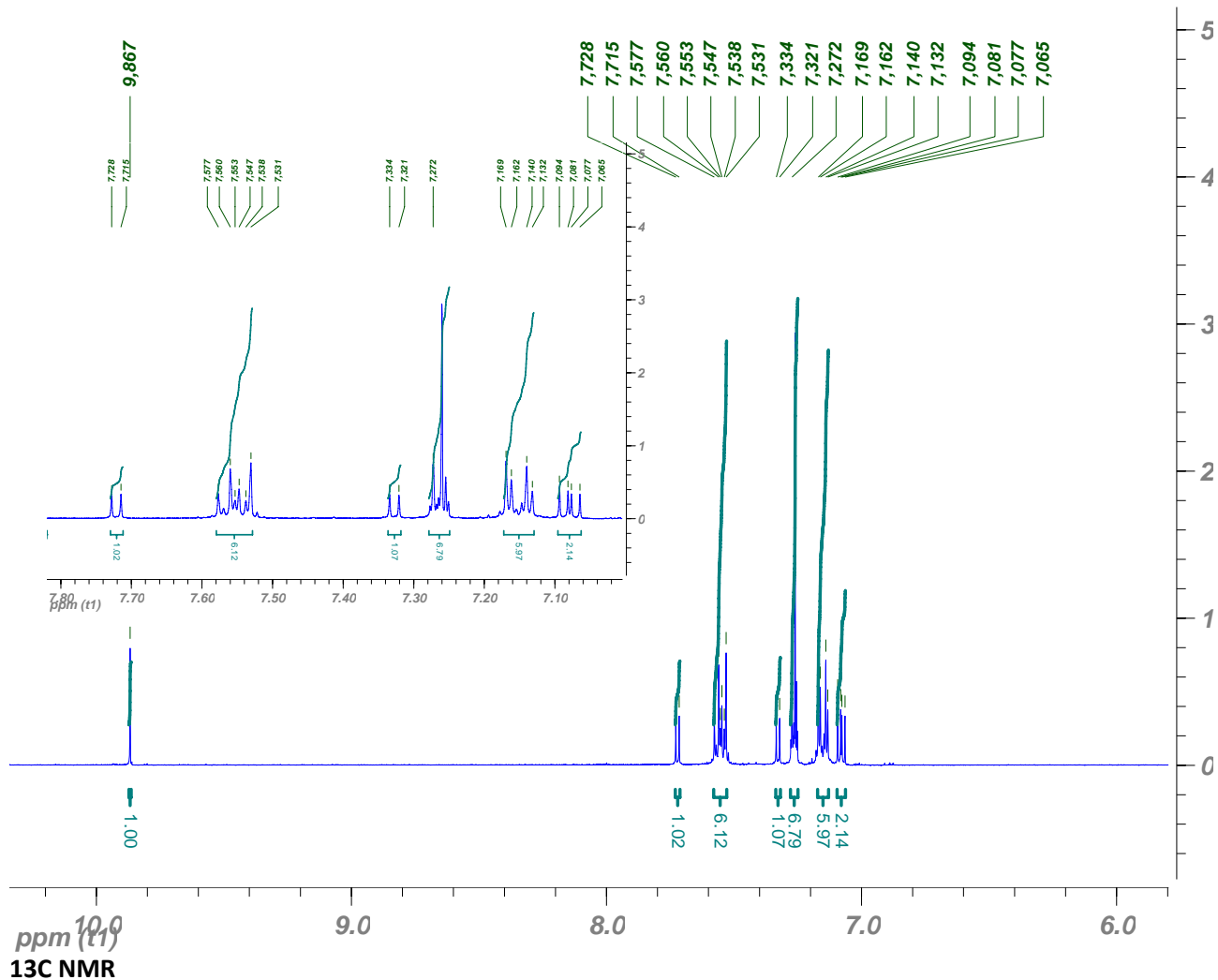
Fig S9. Theoretical absorption spectra of **1**.

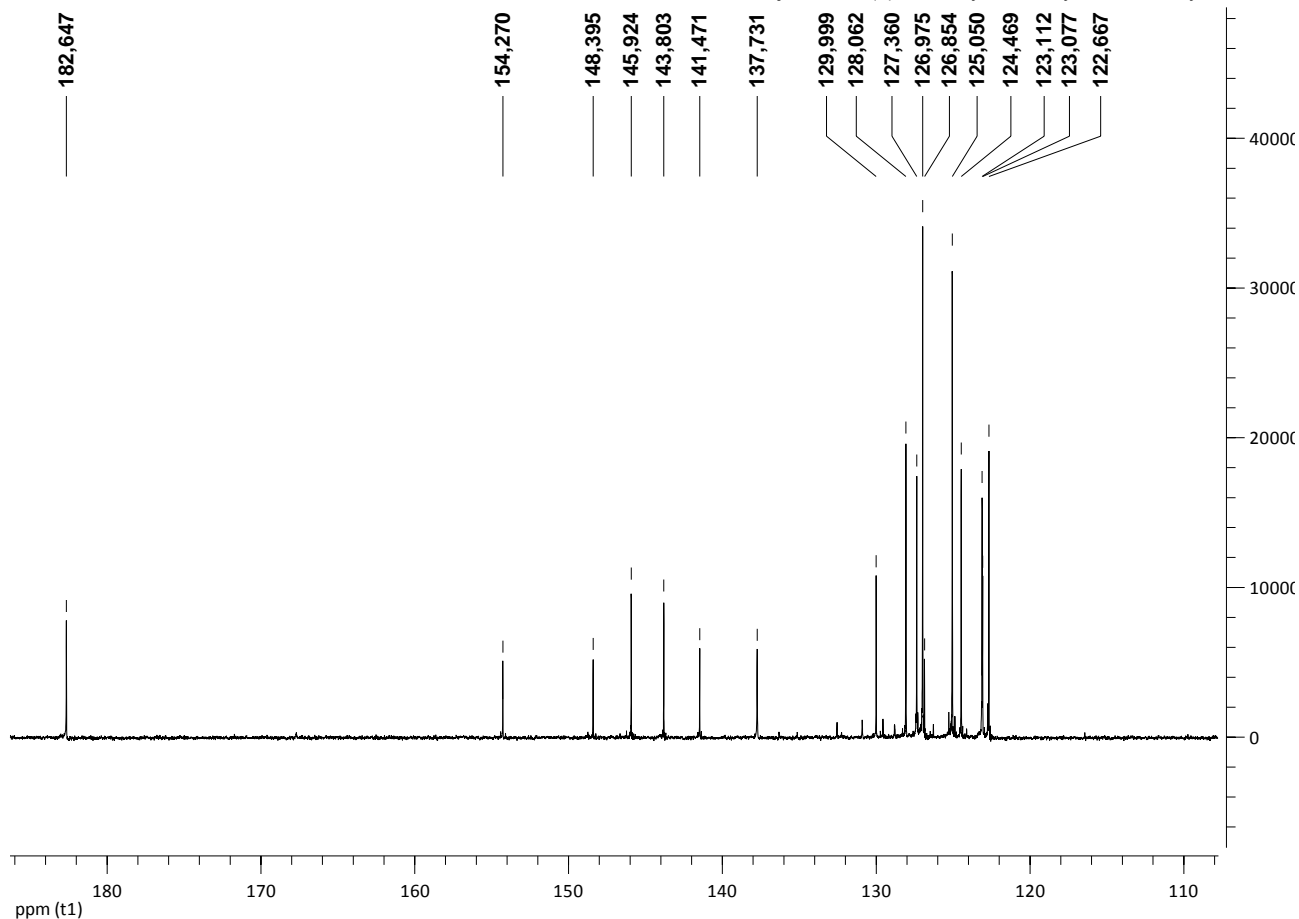
Table S1. TD-DFT calculated energies of the first low-lying electronic excitations associated with an oscillator factor $f > 0.05$ of compound **1**.

Energy (cm ⁻¹)	λ (nm)	Osc.	Transitions
22682	441	1.28	HOMO→LUMO (96%)
25444	393	0.45	HOMO→LUMO+1 (91%)
29512	339	0.17	HOMO-1→LUMO+1 (71%), HOMO→LUMO+2 (14%)
29591	338	0.19	HOMO→LUMO+2 (51%), HOMO-1→LUMO+1 (19%), HOMO→LUMO+5 (13%),

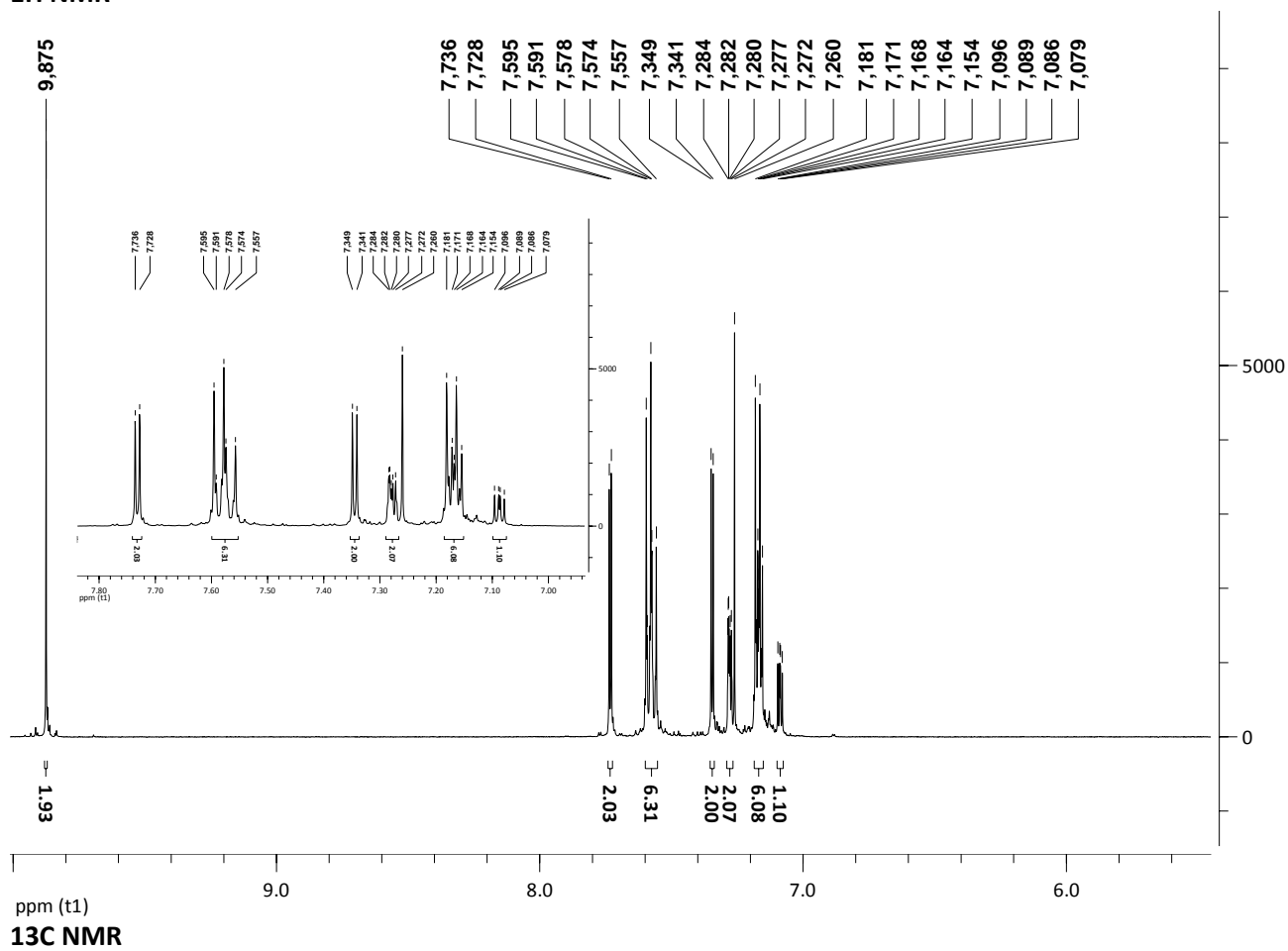
NMR data for compounds

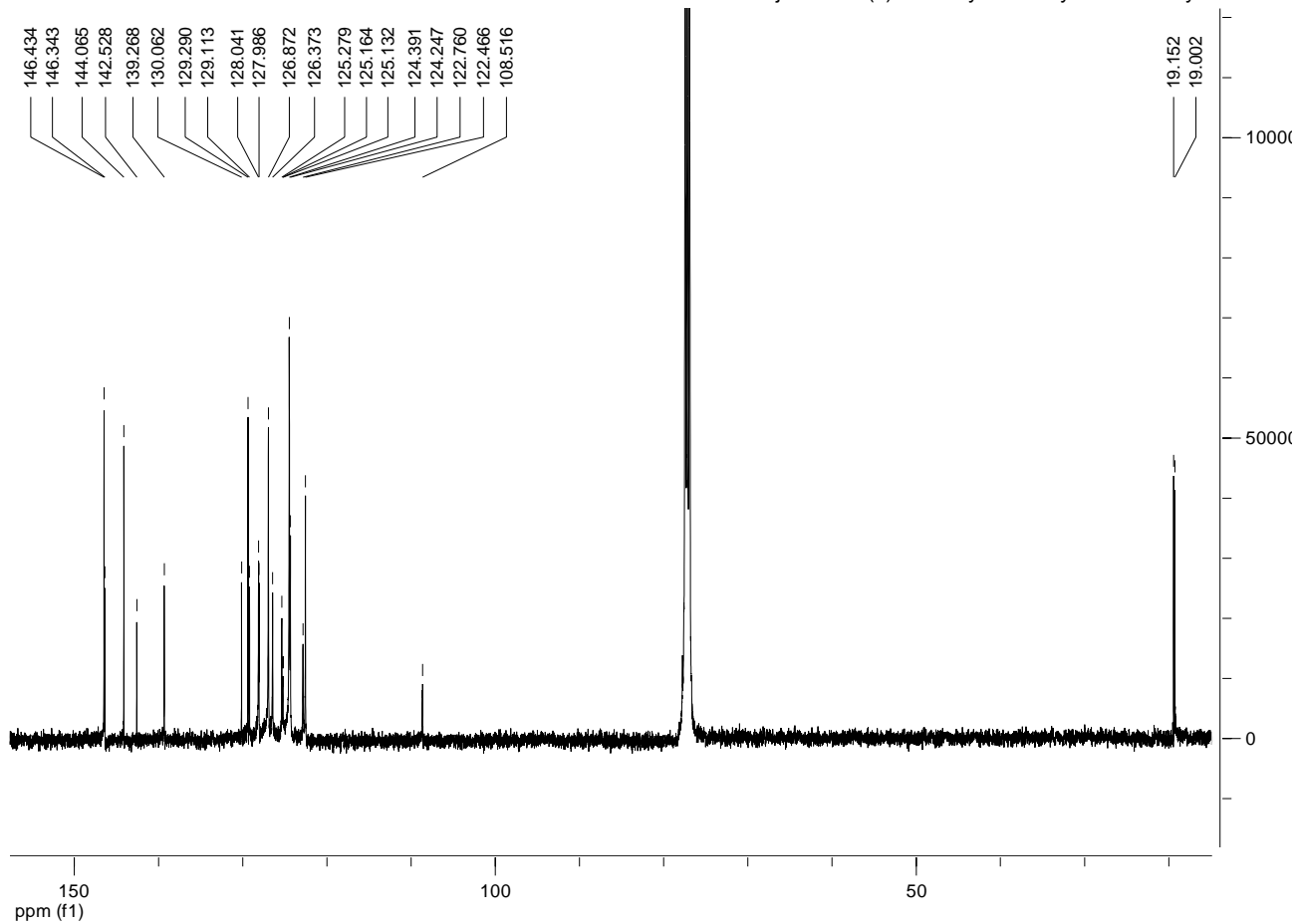
Derivative 4
1H NMR

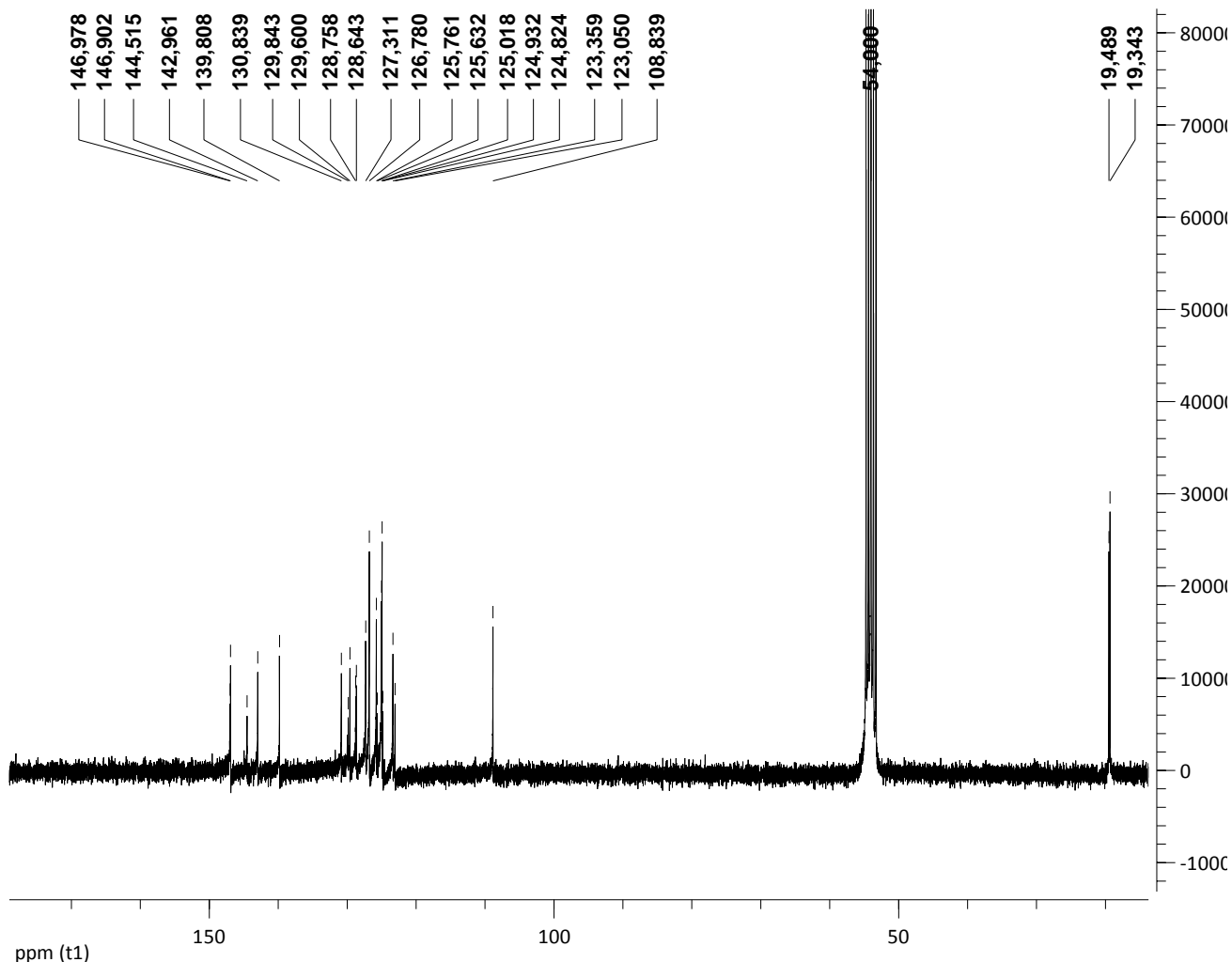




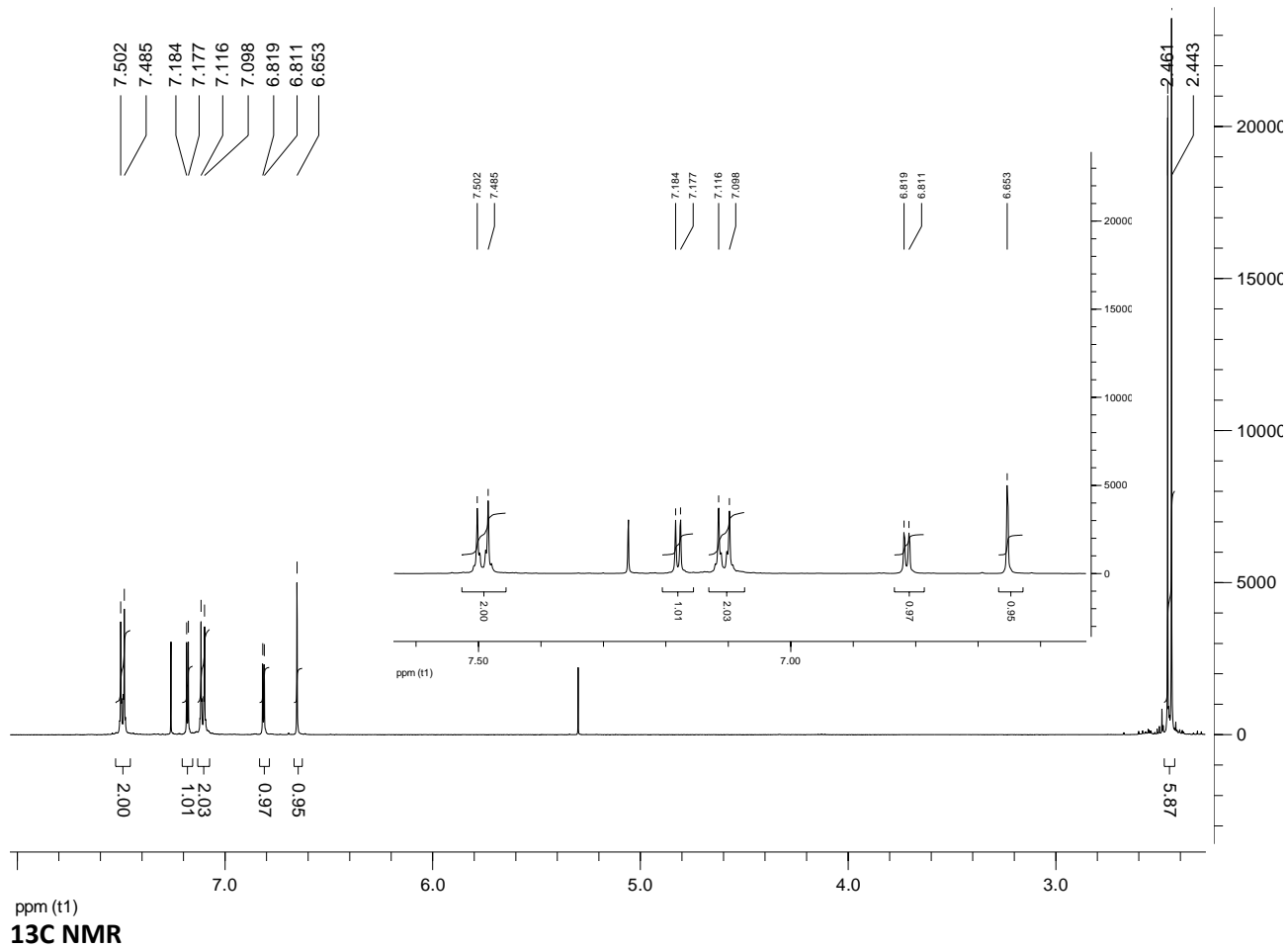
Derivative 5
1H NMR

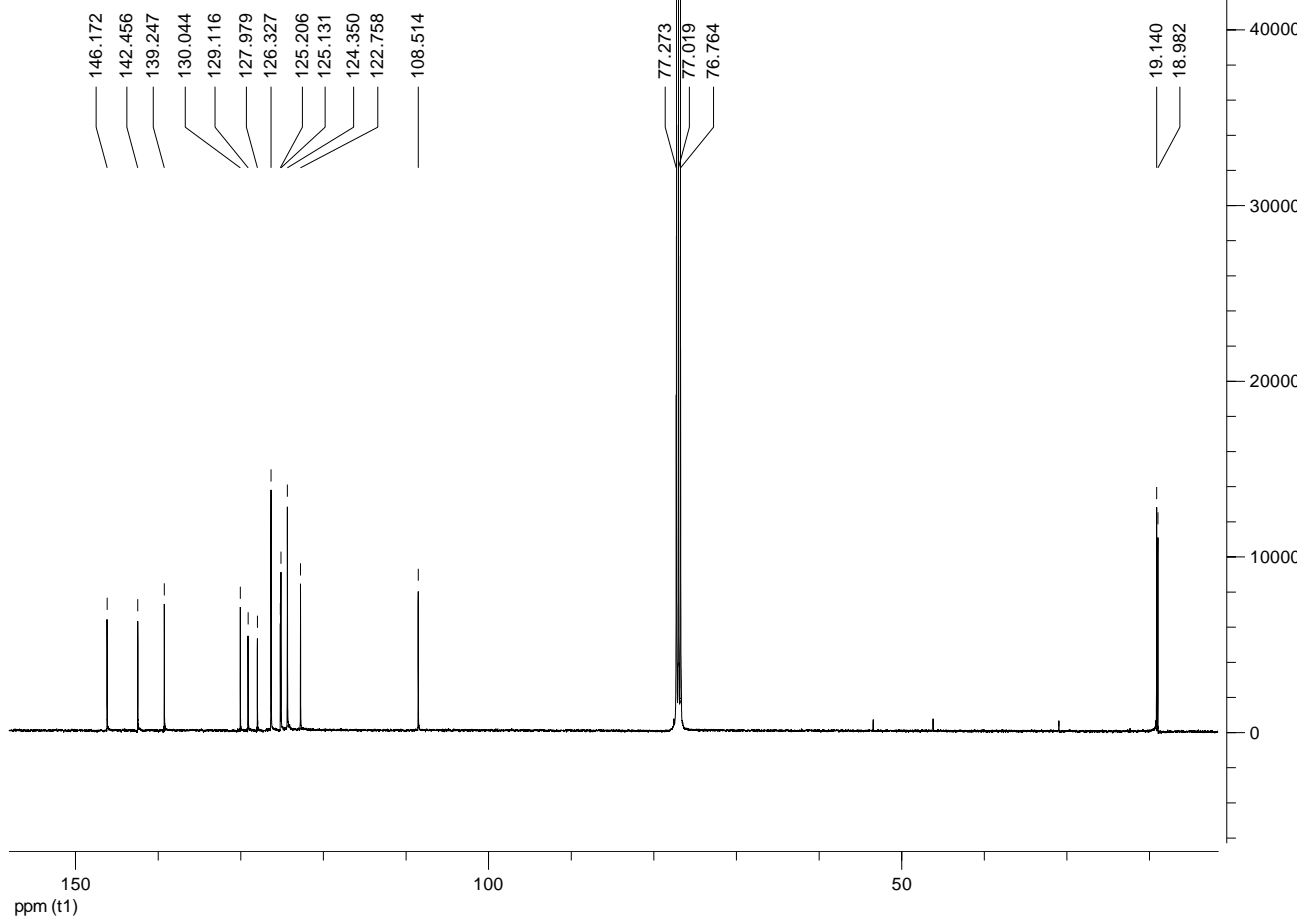




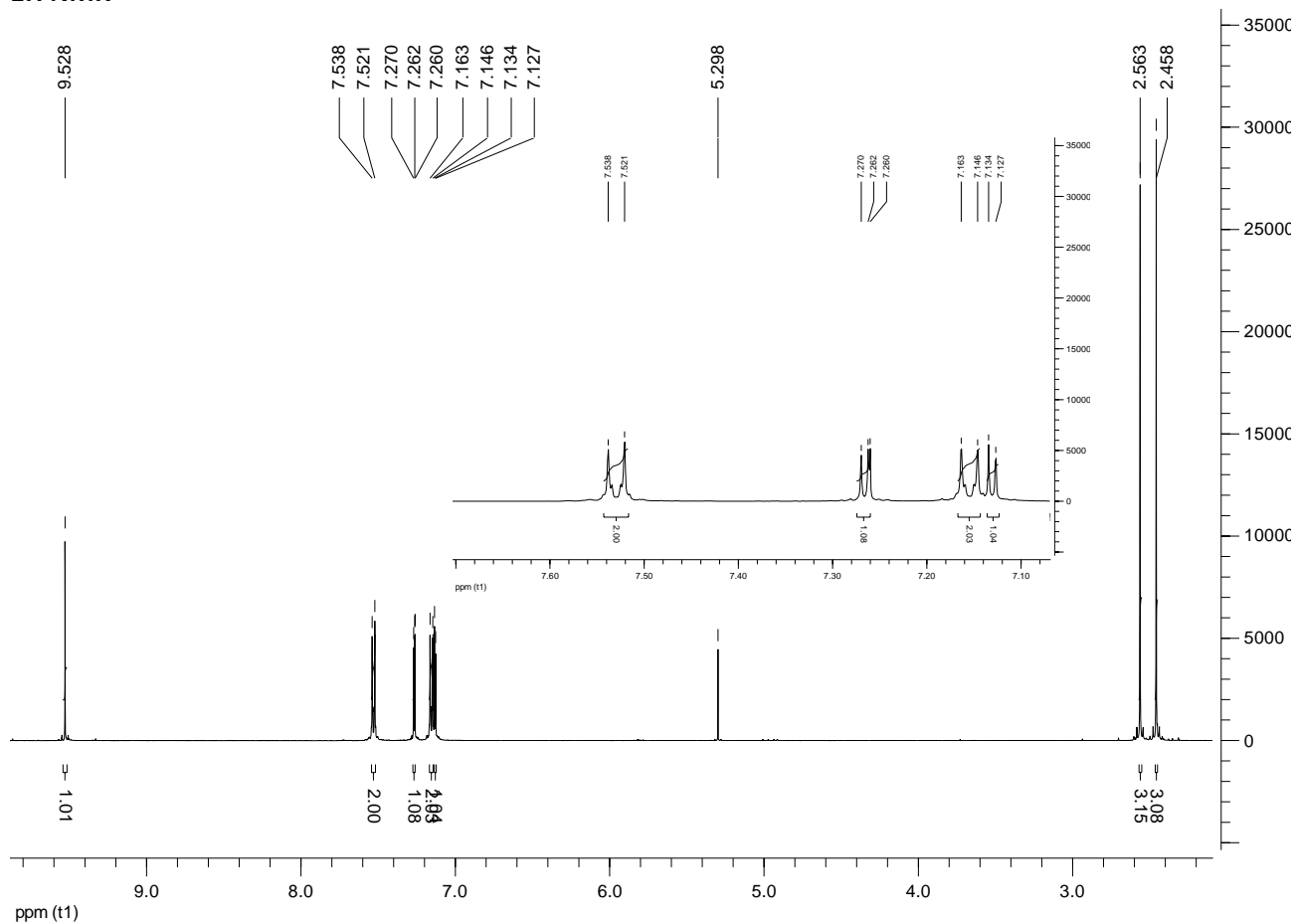


Derivative 3
¹H NMR

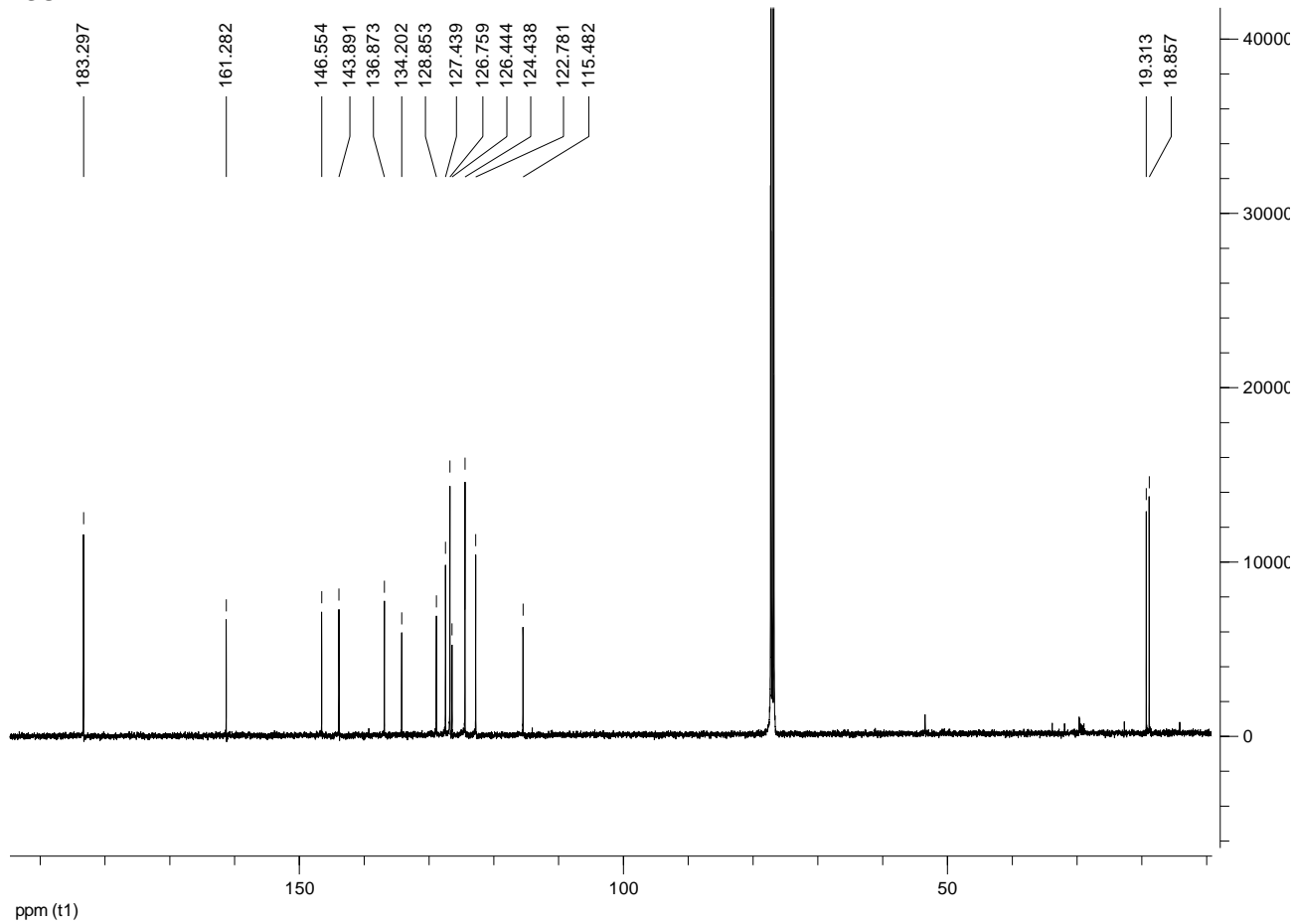




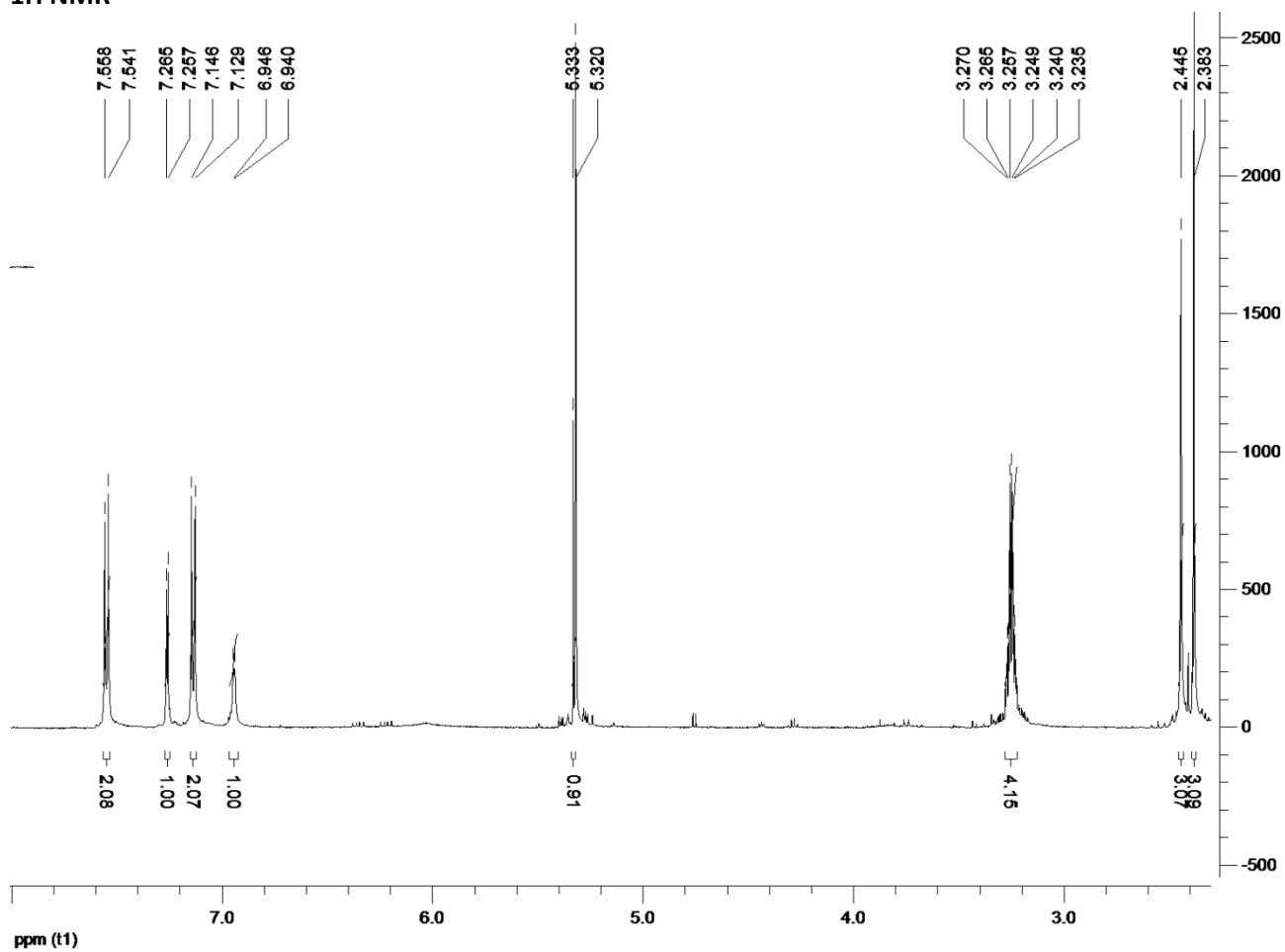
Derivative 7 1H NMR



13C NMR



Derivative 8
¹H NMR



Derivative 9
¹H NMR

