

Supporting information for:

**Strong solvent dependence of linear and non-linear optical properties of  
donor-acceptor type pyrrolo[3,2-*b*]pyrroles**

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Blanchard-Desce, Daniel T. Gryko

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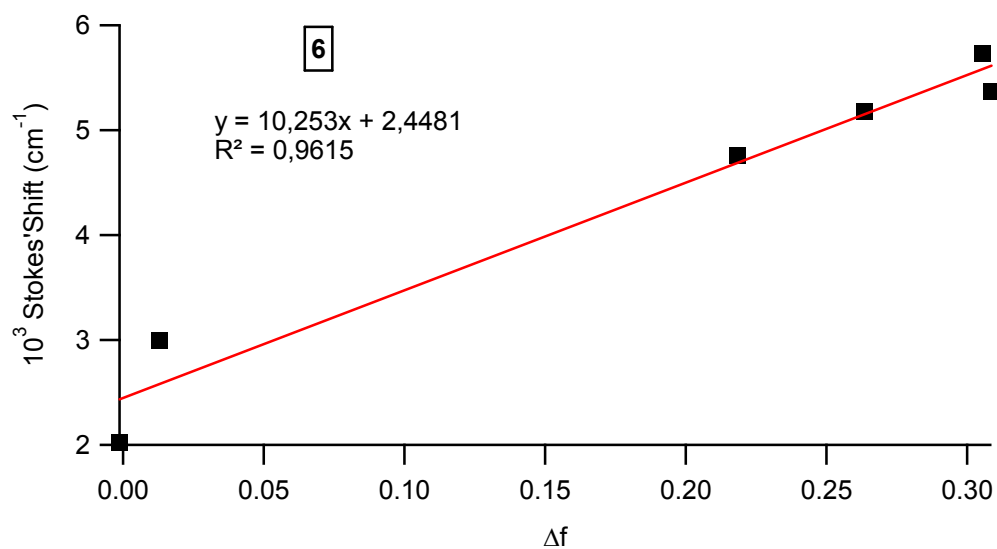


Figure S1. Lippert-Mataga plot for compound 6.

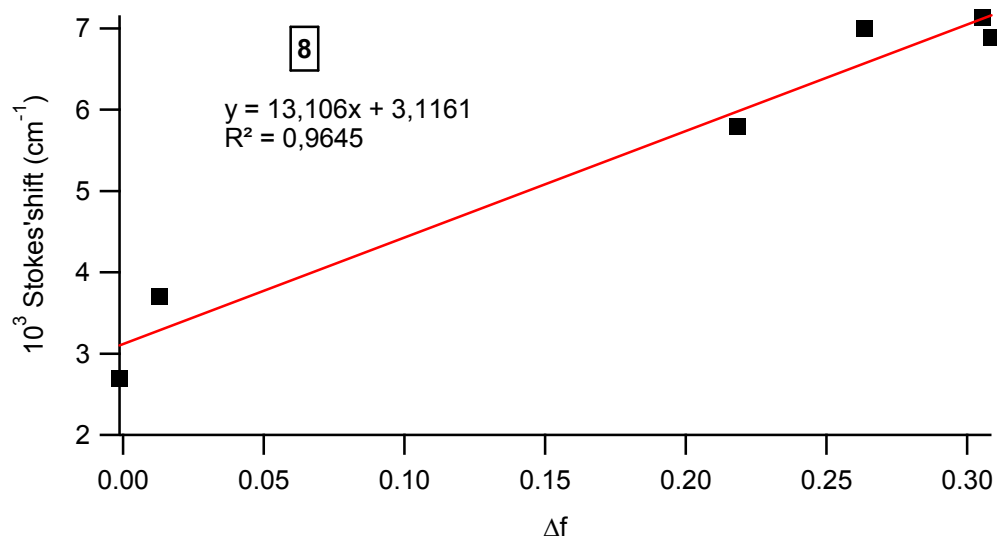
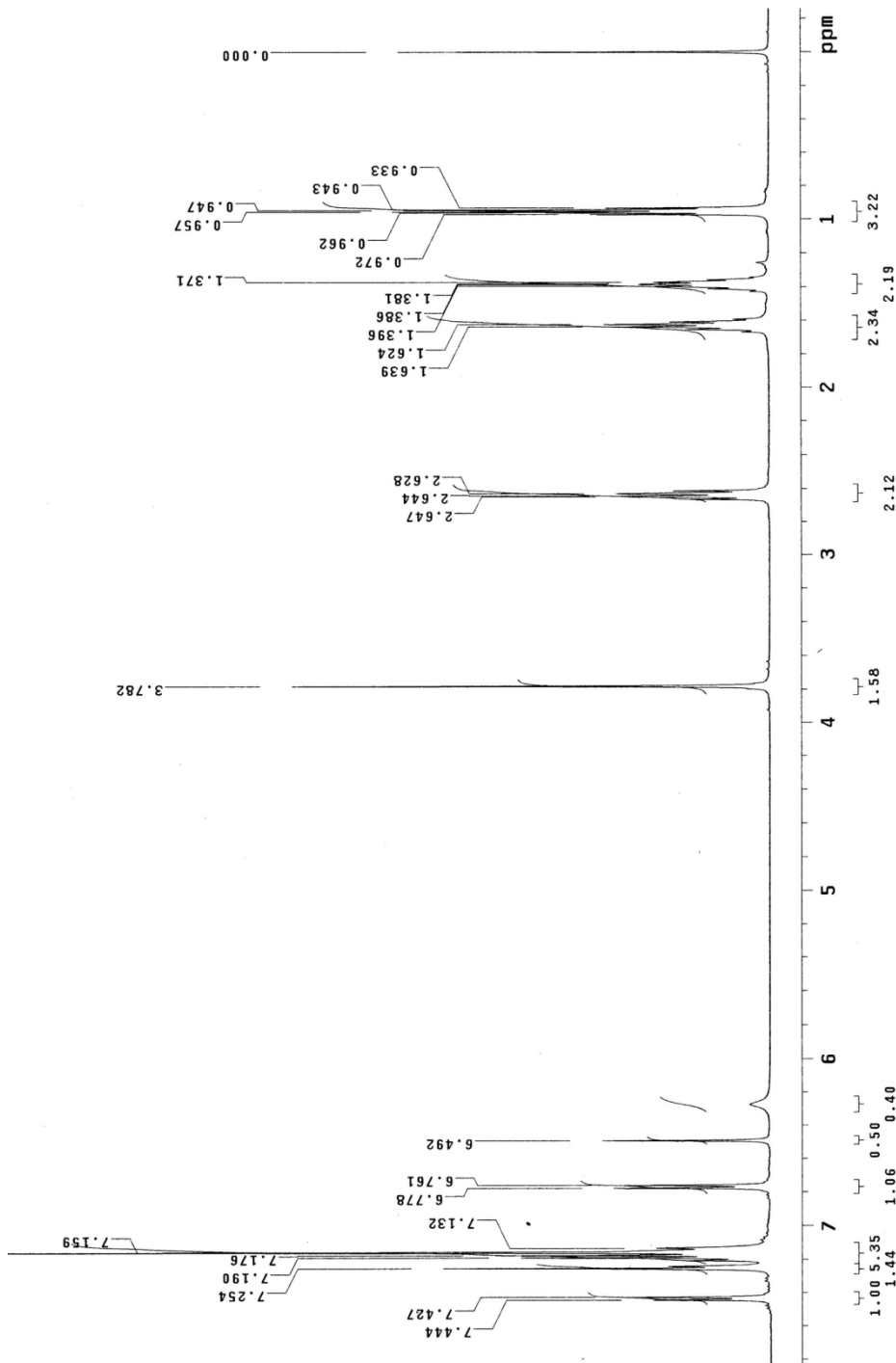
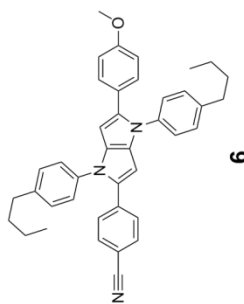
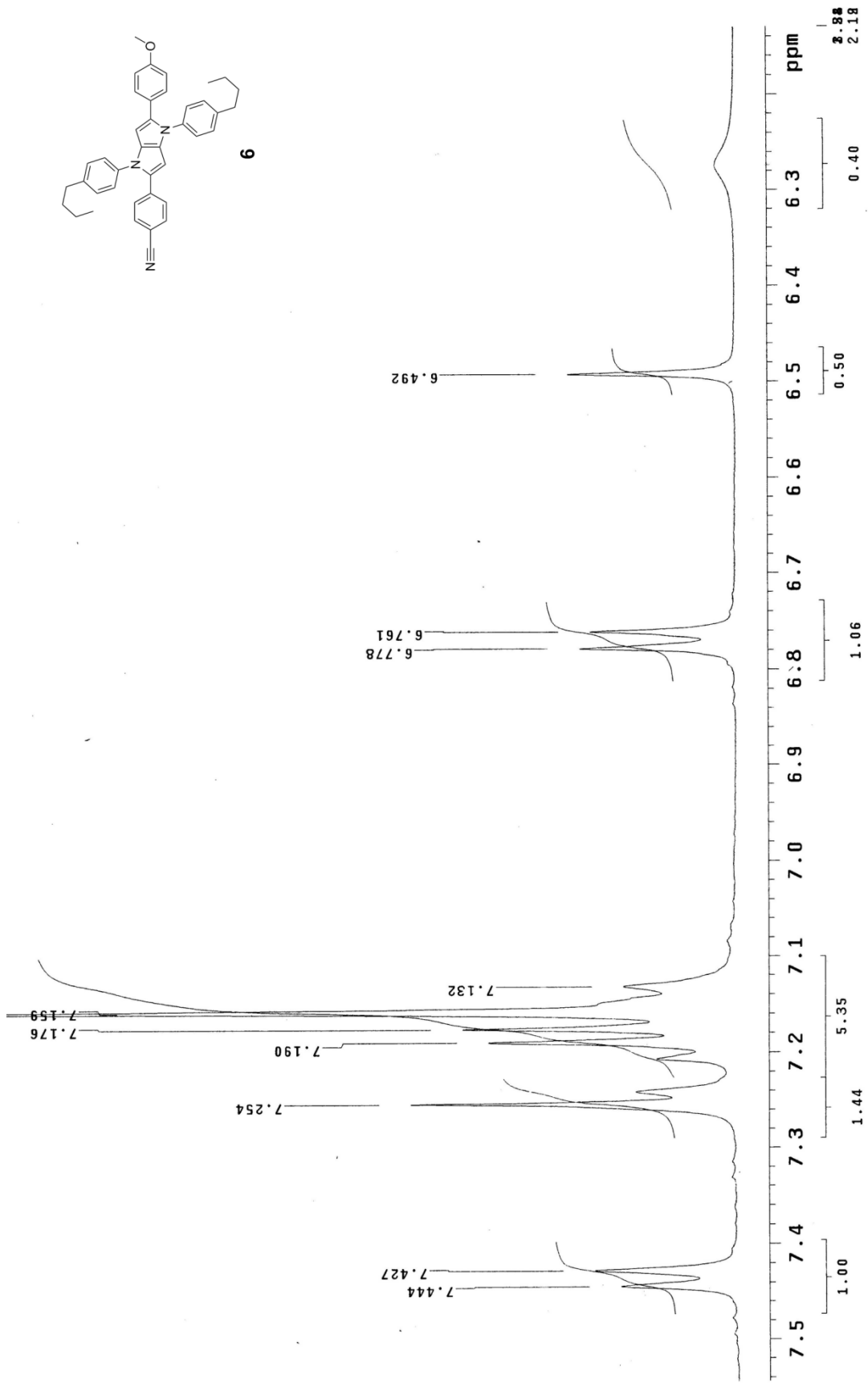
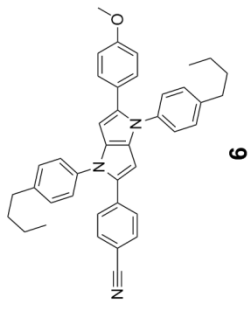


Figure S2. Lippert-Mataga plot for compound 8.

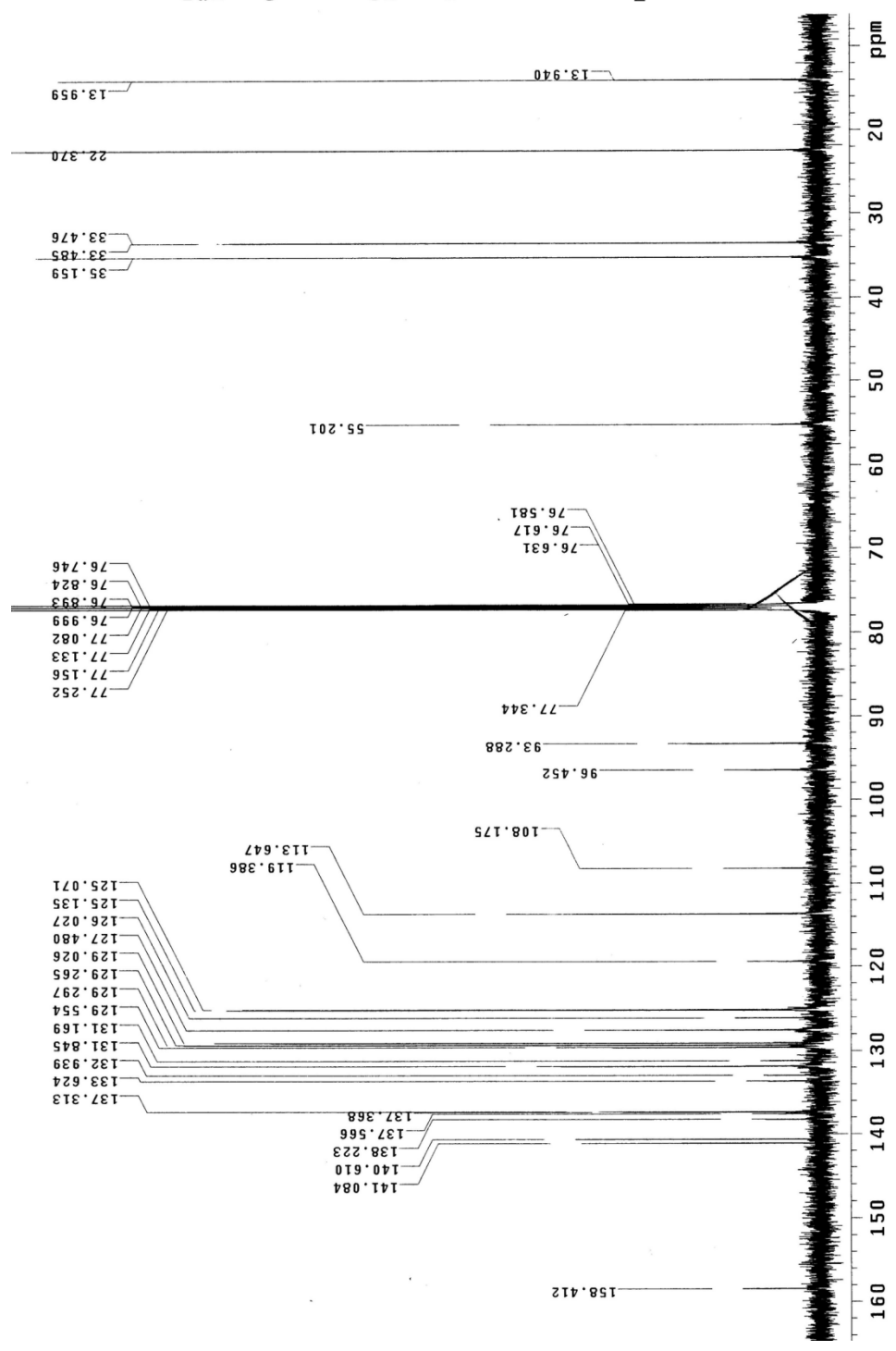
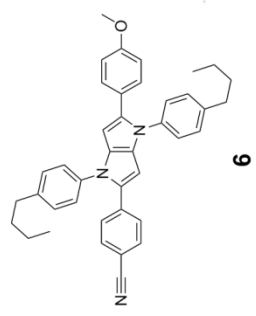
# 1. <sup>1</sup>H and <sup>13</sup>C NMR spectra of synthesized compounds

Data Collected on: Varian-NMR-vnmr500  
 Archive directory: Sample directory:  
 FIDfile: PROTON  
 Pulse Sequence: PROTON (s2pu1)  
 Solvent: CDCl3  
 Data collected on: Feb 11 2015  
 Temp. 25.0 C / 298.1 K  
 Operator: vnmr1  
 Relax. delay 1.000 sec  
 Pulse 45.0 degrees  
 Acq. time 6.239 sec  
 Width 10504.2 Hz  
 32 repetitions  
 OBSERVE H1, 499.8247803 MHz  
 DATA PROCESSING  
 FT size 131072





Data Collected on: Varian-NMR-vnmr500  
 Archive directory:  
 Sample directory:  
 FidFile: CARBON  
 Pulse Sequence: CARBON (s2pul)  
 Solvent: cdc13  
 Data collected on: Feb 11 2015  
 Temp. 25.0 C / 298.1 K  
 Operator: vnmr1  
 Relax. delay 0.500 sec  
 Pulse 30.0 degrees  
 Acq. time 1.200 sec  
 Width 37876.8 Hz  
 3136 repetitions  
 OBSERVE C13, 125.6810405 MHz  
 DECOUPLE H1, 499.8272777 MHz  
 Power 38 dB  
 Continuously on  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Line broadening 0.5 Hz  
 FT size 131072



Data Collected on:  
Varian-NMR-vnmr500  
Archive directory:

Sample directory:

Fidfile: PROTON

Pulse Sequence: PROTON (s2pul)

Solvent: cdcl3

Data collected on: Feb 11 2015

Temp. 25.0 C / 298.1 K

Operator: vnmr1

Relax. delay 1.000 sec

Pulse 45.0 degrees

Acq. time 6.239 sec

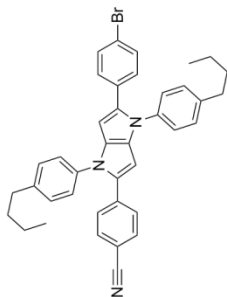
Width 10504.2 Hz

32 repetitions

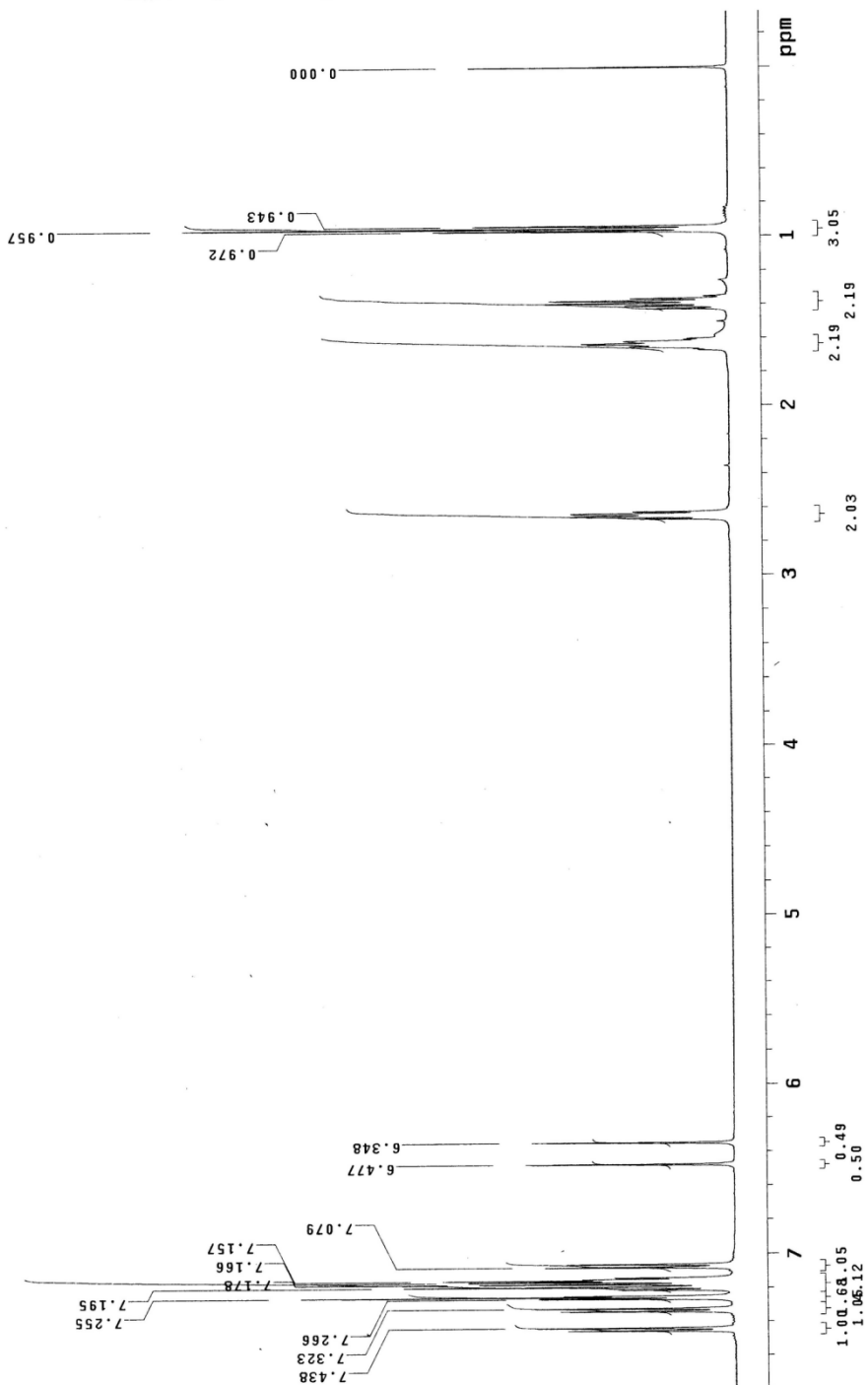
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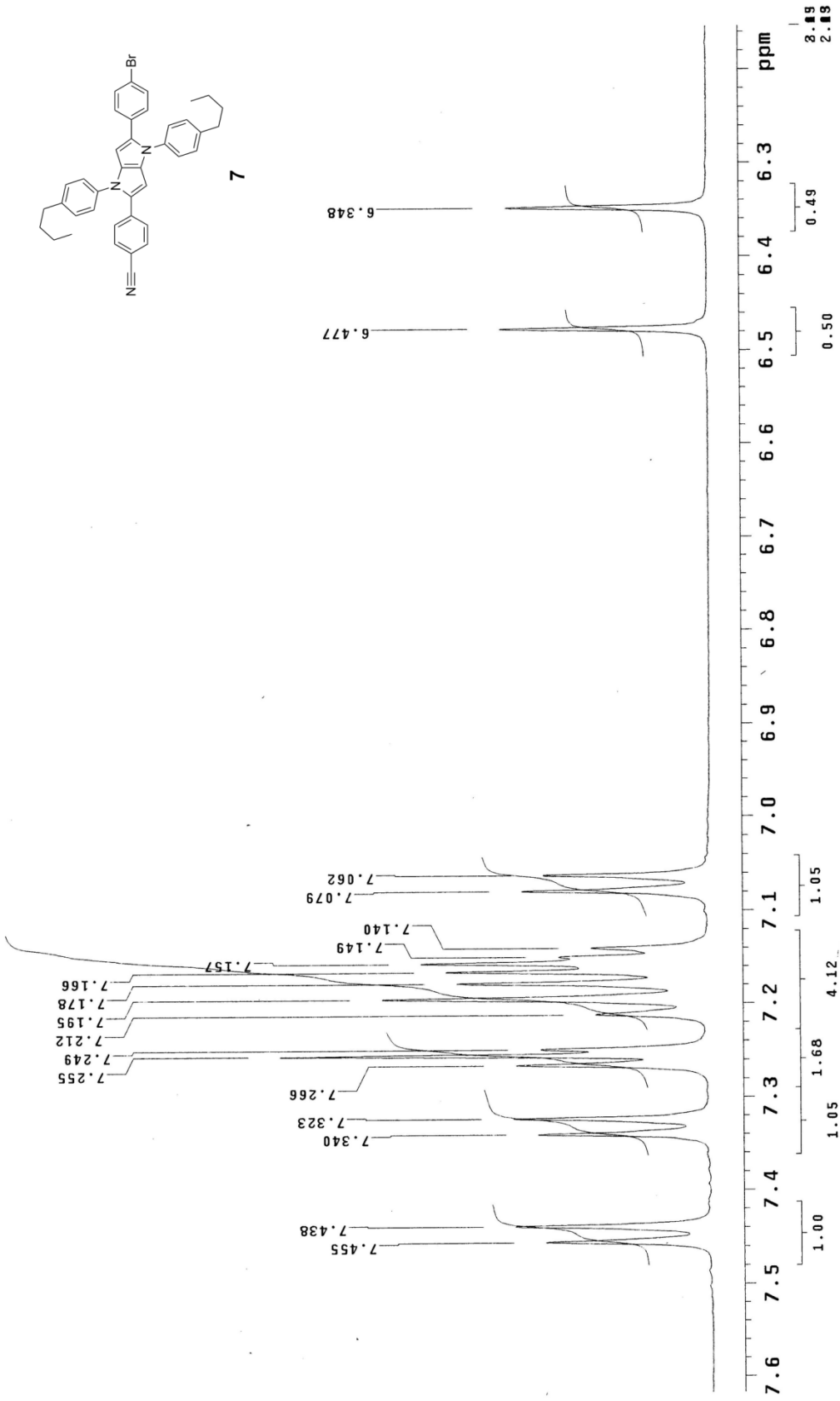
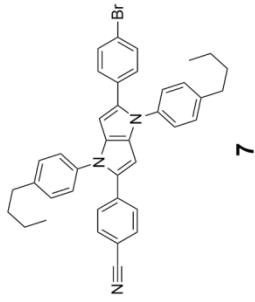
DATA PROCESSING

FT size 131072

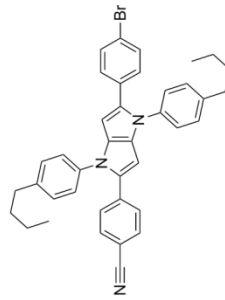


7

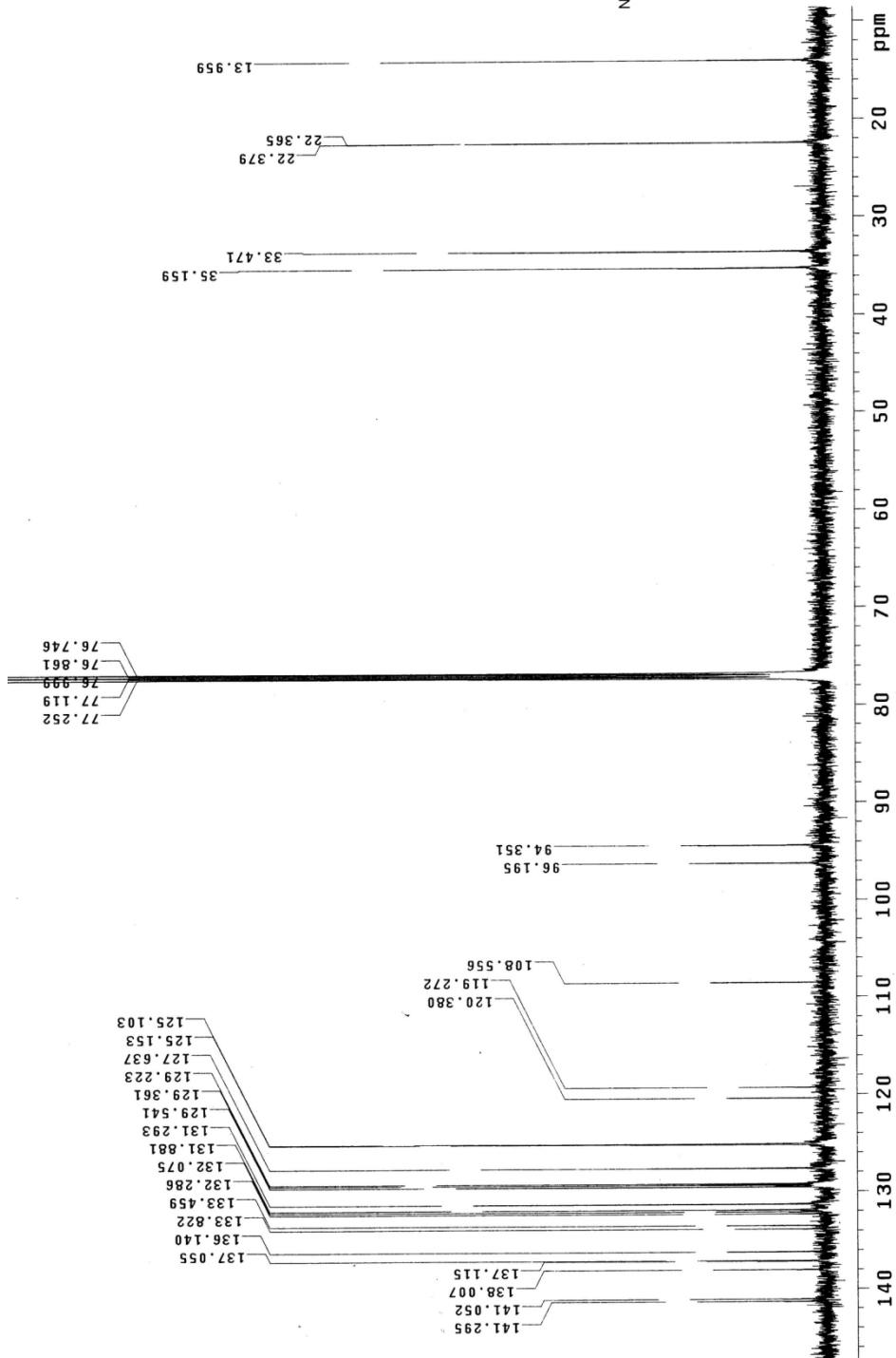




Data Collected on:  
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 Archive directory:  
 Sample directory:  
 Fidfile: CARBON  
 Pulse Sequence: CARBON (s2pul)  
 Solvent: cdcl3  
 Data collected on: Feb 11 2015  
 Temp. 25.0 C / 298.1 K  
 Operator: vnmr1  
 Relax. delay 0.500 sec  
 Pulse 30.0 degrees  
 Acq. time 1.200 sec  
 Width 37878.8 Hz  
 1600 repetitions  
 OBSERVE C13, 125.6810405 MHz  
 DECOUPLE H1, 499.8272777 MHz  
 Power 38 dB  
 continuously on  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 FT size 131072



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Data Collected on:  
 Varian-NMR-vnmr500  
 Archive directory:

Sample directory:

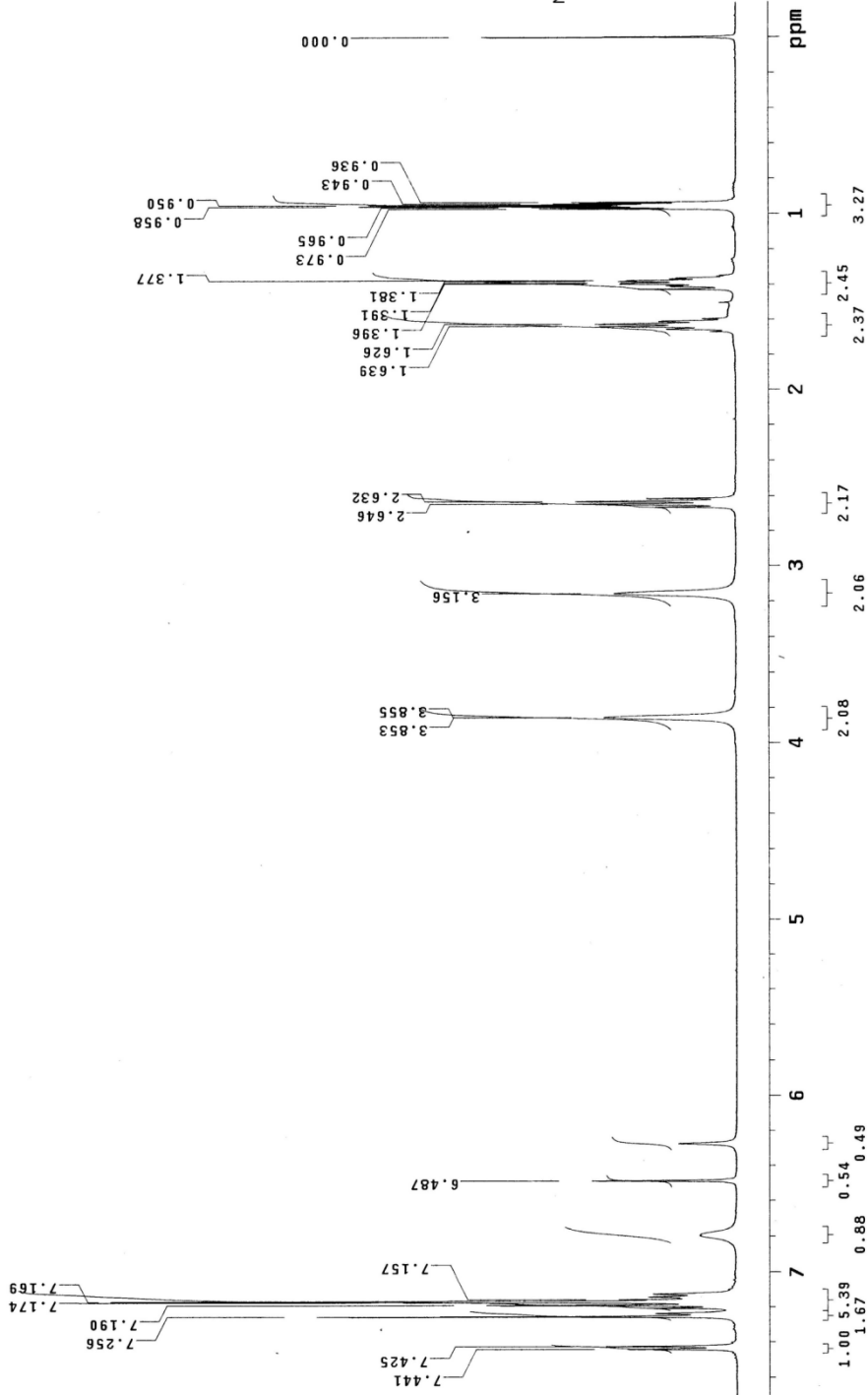
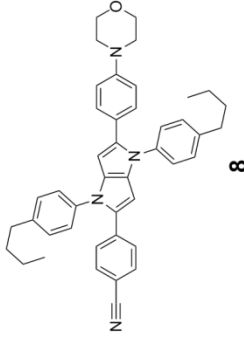
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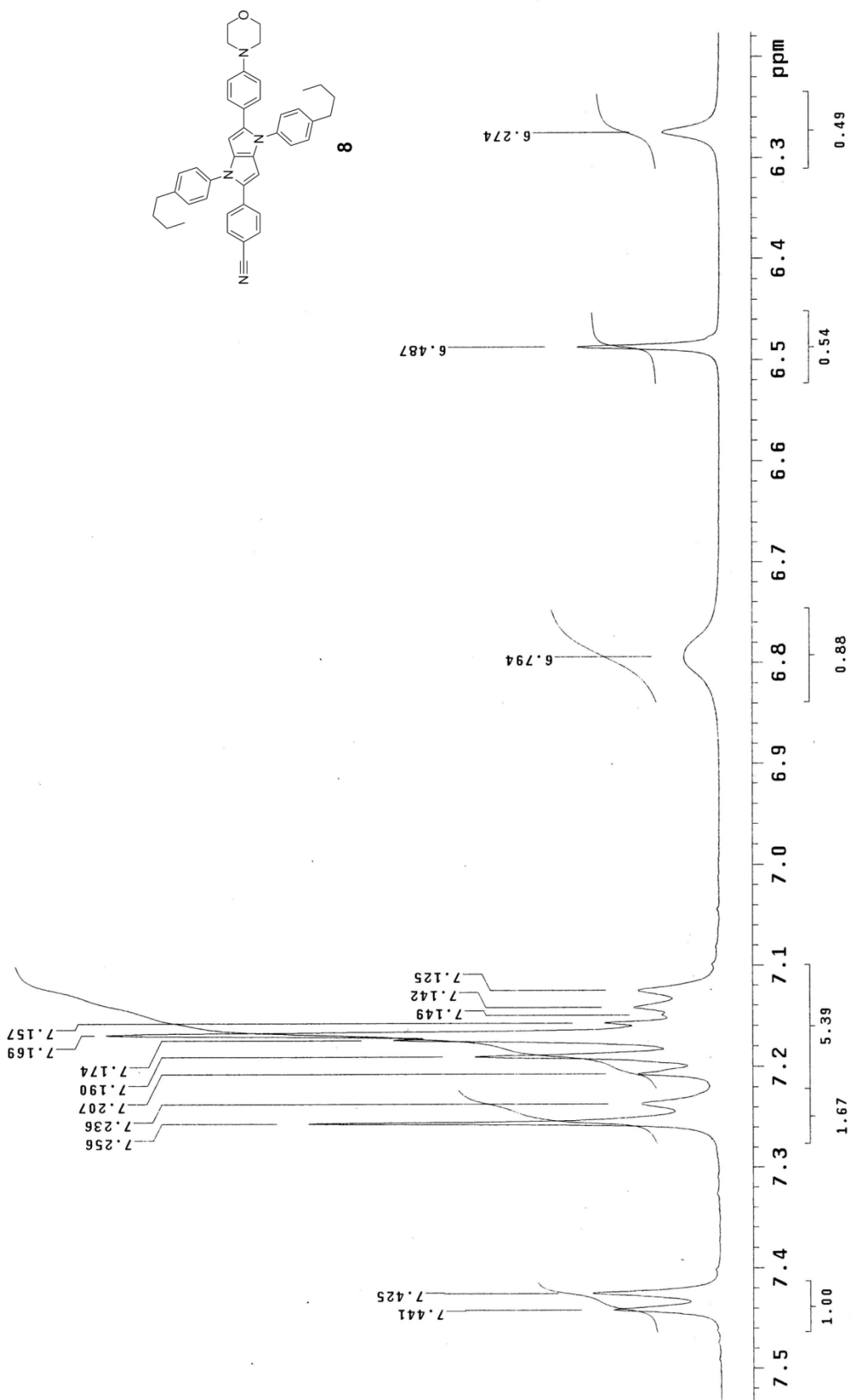
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 Solvent: cdCl3  
 Data collected on: Feb 11 2015

Temp. 25.0 C / 298.1 K  
 Operator: vnmr1

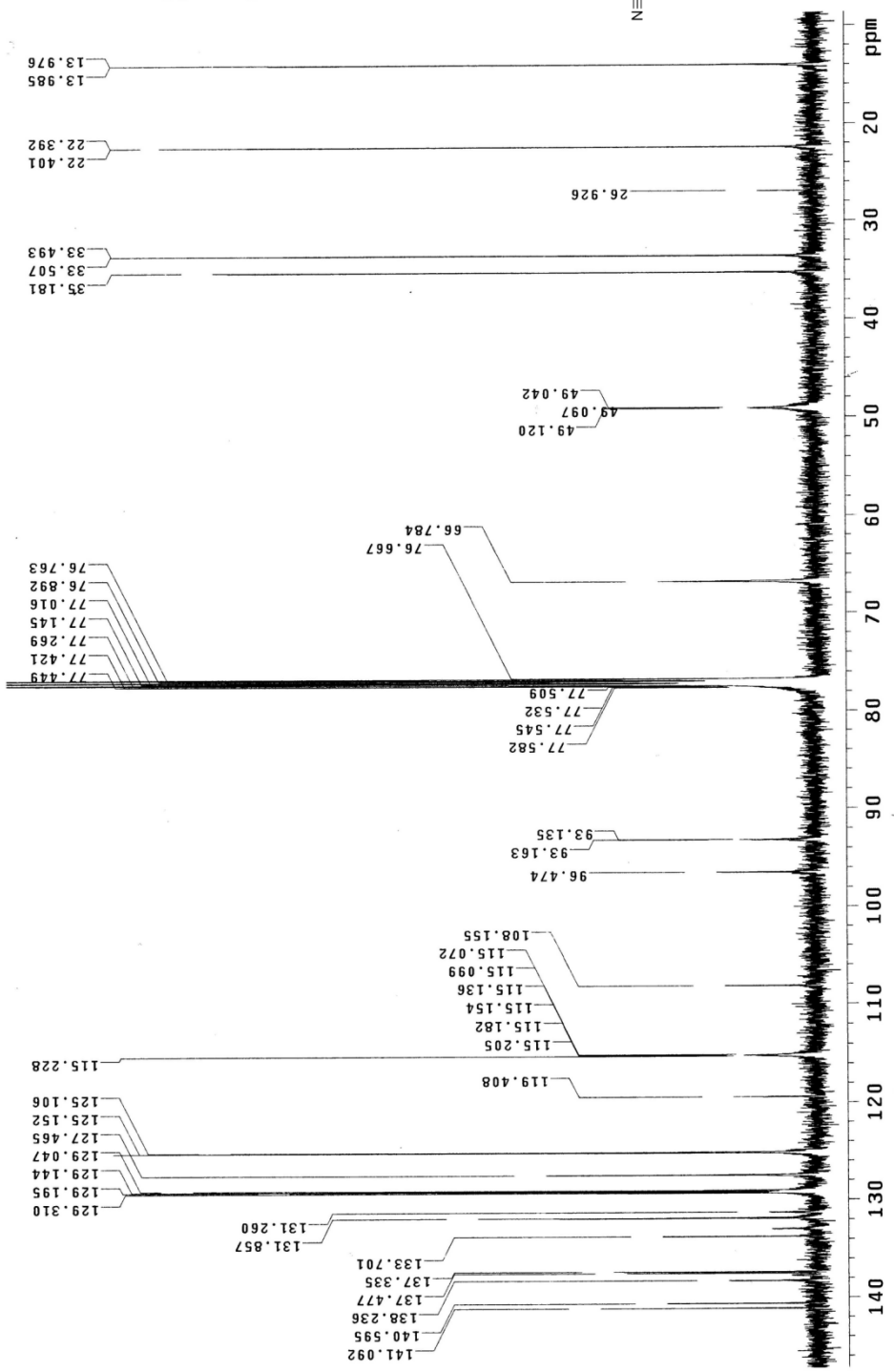
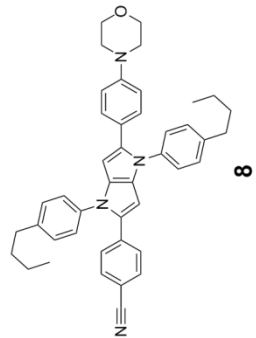
Relax. delay 1.000 sec  
 Pulse 45.0 degrees  
 Acq. time 6.239 sec  
 Width 10504.2 Hz  
 32 repetitions

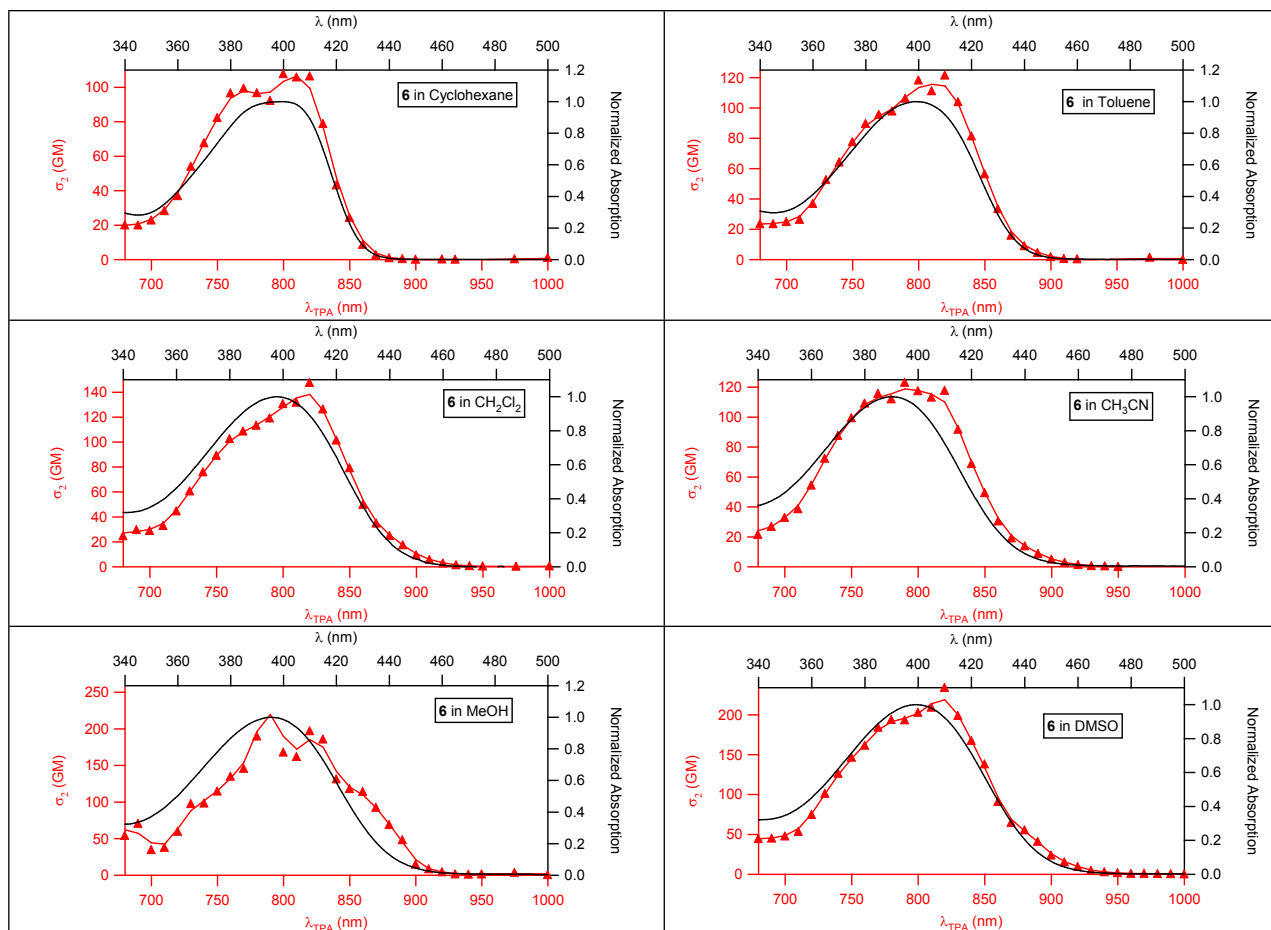
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 DATA PROCESSING  
 FT size 131072



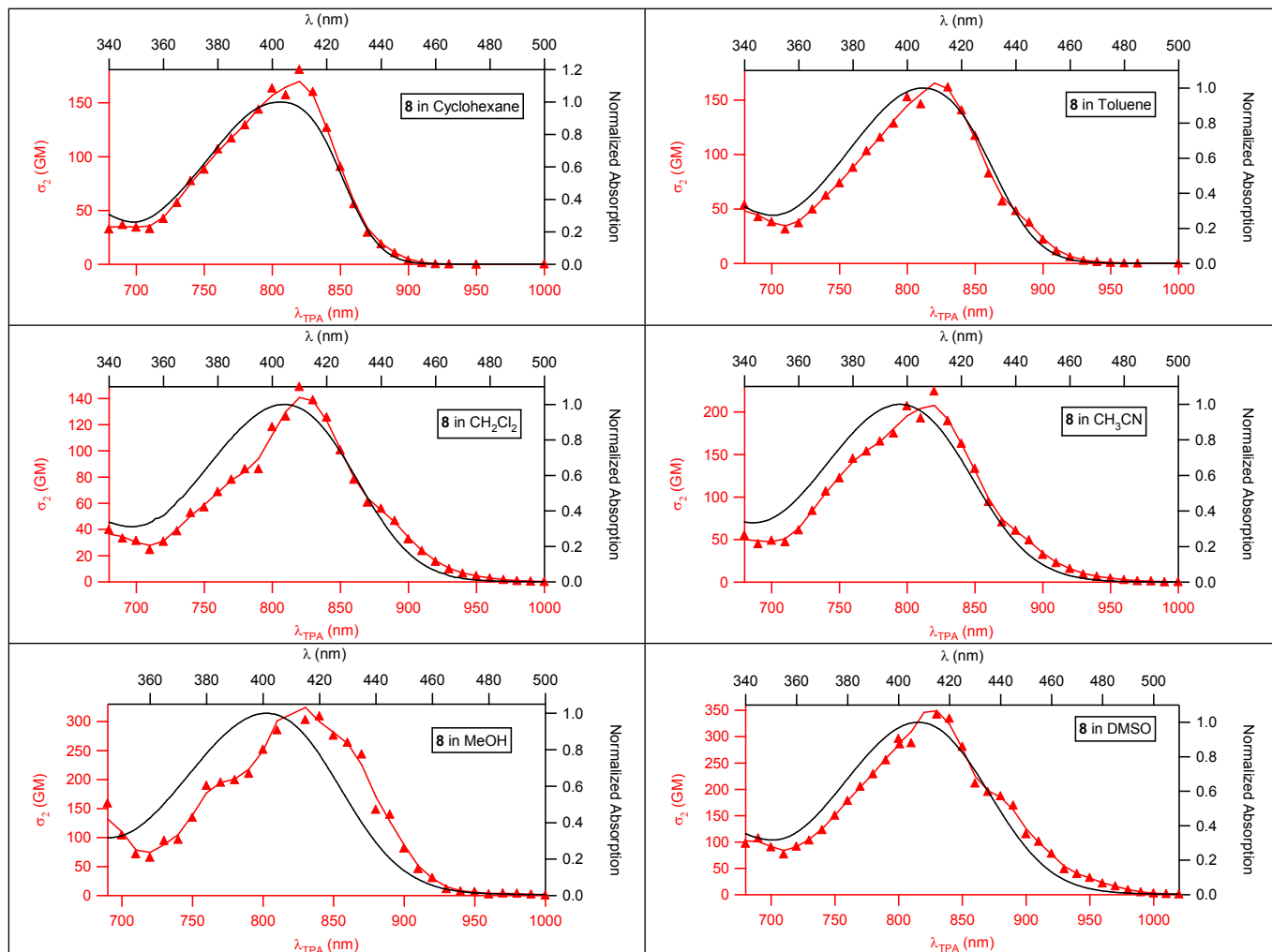


Data Collected on:  
 Varian-NMR-vnmr500  
 Archive directory:  
 Sample directory:  
 Fidfile: CARBON  
 Pulse Sequence: CARBON (szpu1)  
 Solvent: cdc13  
 Data collected on: Feb 11 2015  
 Temp. 25.0 C / 298.1 K  
 Operator: vnmr1  
 Relax. delay 0.500 sec  
 Pulse 30.0 degrees  
 Acq. time 1.200 sec  
 Width 37878.8 Hz  
 5984 Repetitions  
 OBSERVE C13, 125.6810384 MHZ  
 DECOUPLE H1, 499.8272777 MHZ  
 Power 38 db  
 continuously on  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 FT size 131072





**Figure S3.** Two-photon absorption versus rescaled one-photon absorption spectra of compound **6** in various solvents



**Figure S4.** Two-photon absorption versus rescaled one-photon absorption spectra of compound **8** in various solvents