Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supplementary Information

The modulation of fluorescent properties of diketopyrrolopyrroles via various electron-rich substituents

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S1. Optical properties

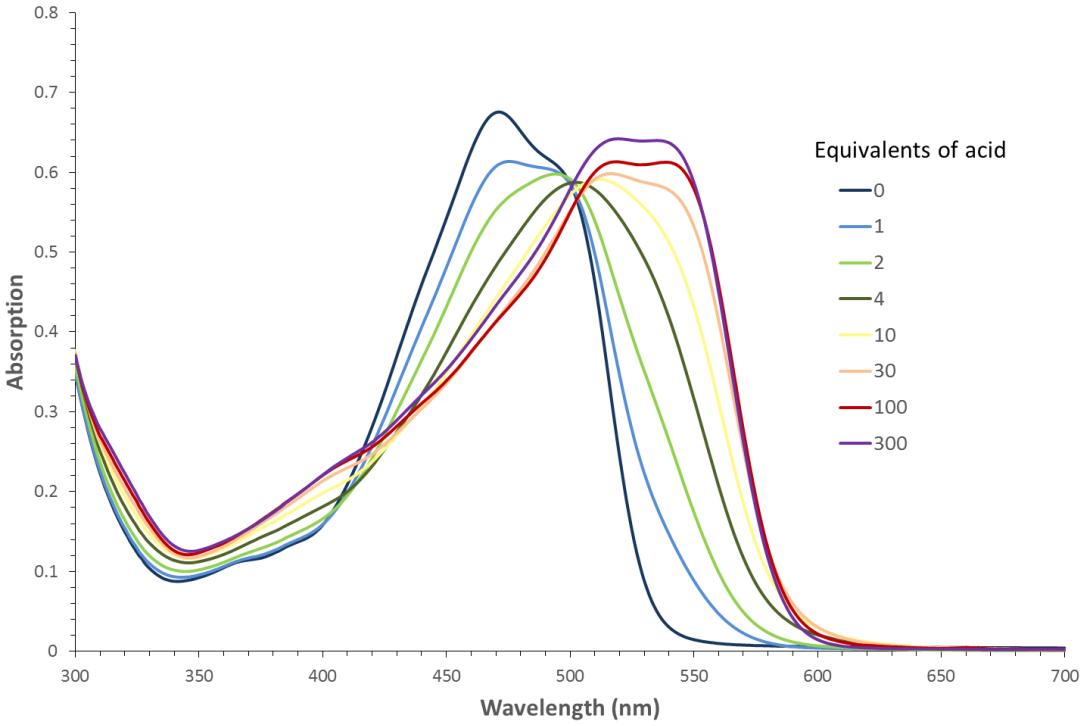


Fig. S1.1 Titration of compound **8** with TFA.

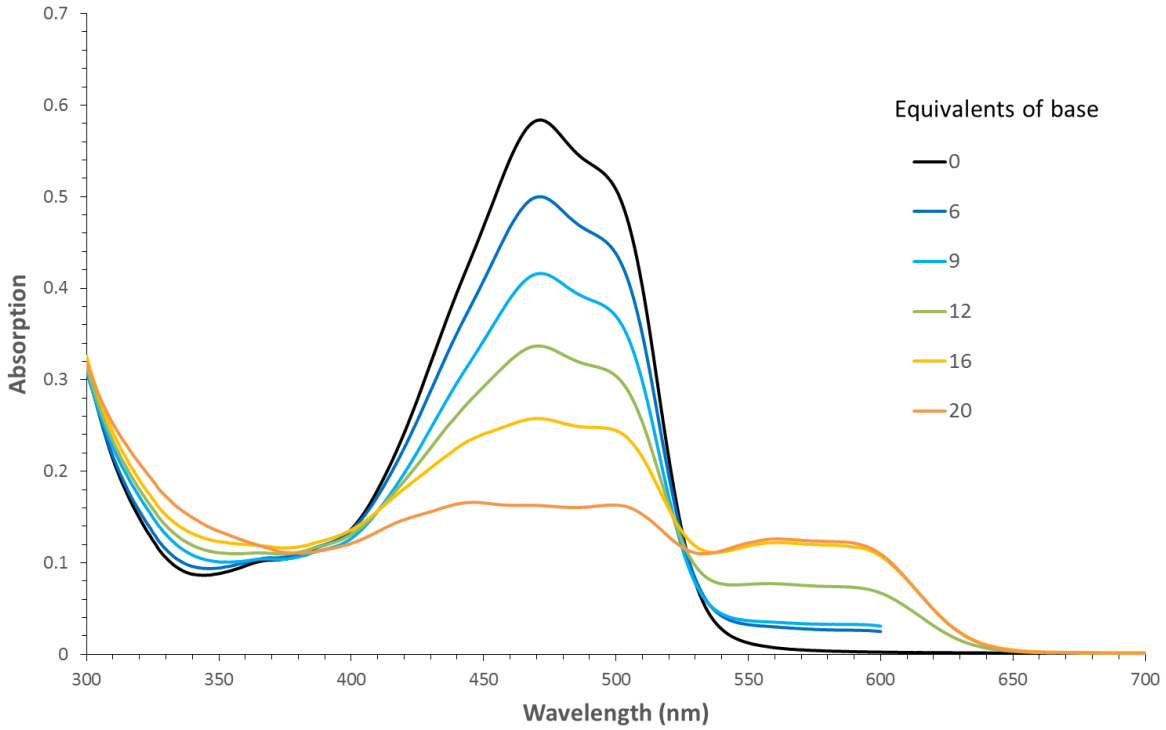


Fig. S1.2 Titration of compound **8** with benzyltrimethylammonium hydroxide.

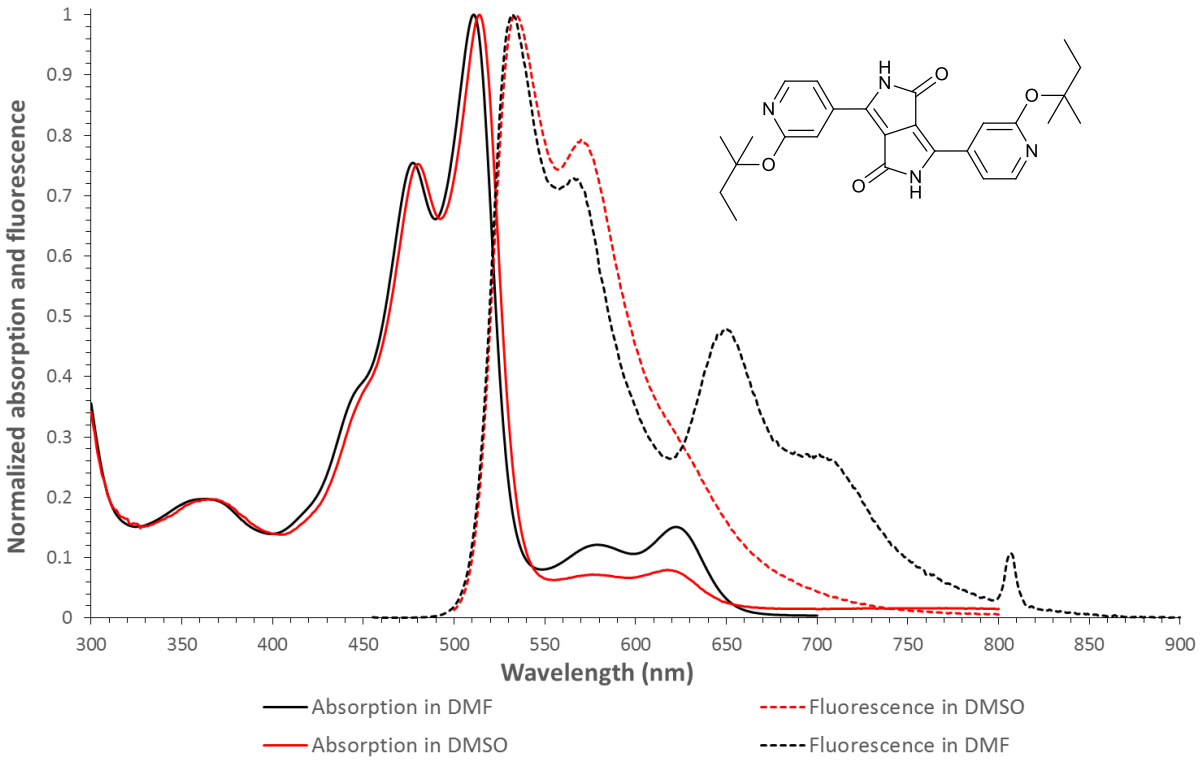


Fig. S1.3 Normalized absorption and fluorescence of compound **4** in DMF and DMSO.

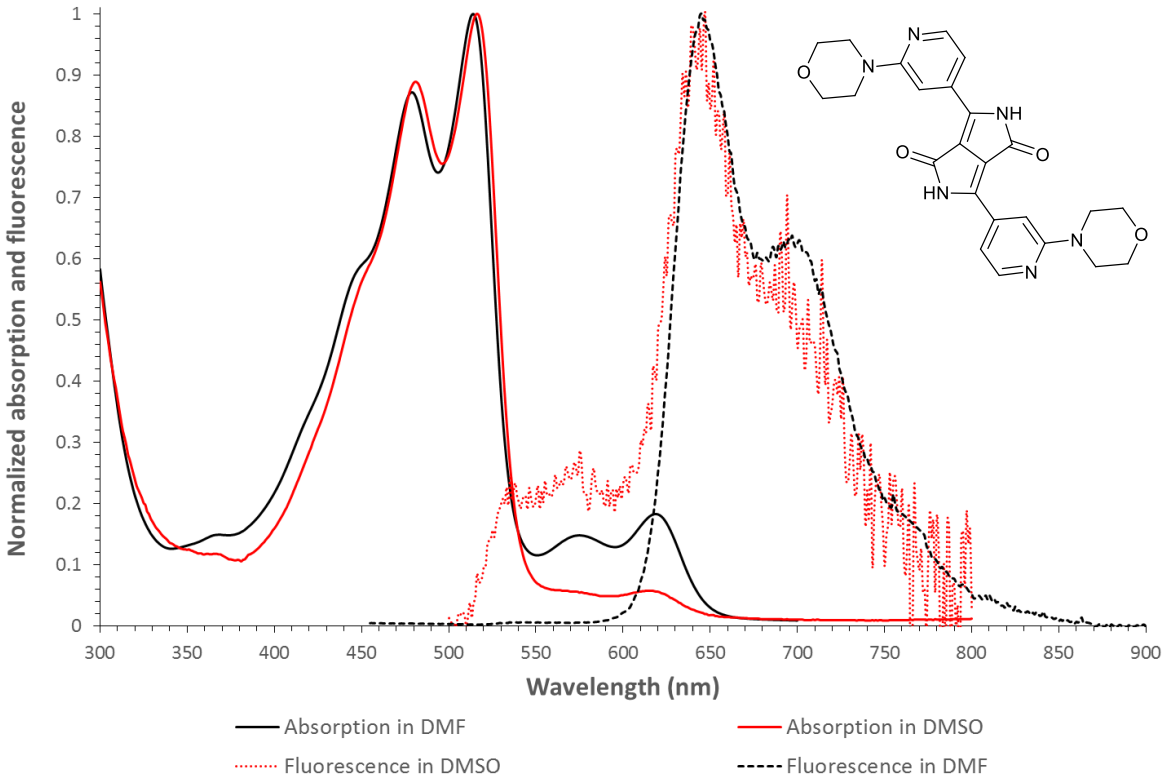


Fig. S1.4 Normalized absorption and fluorescence of compound **6** in DMF and DMSO.

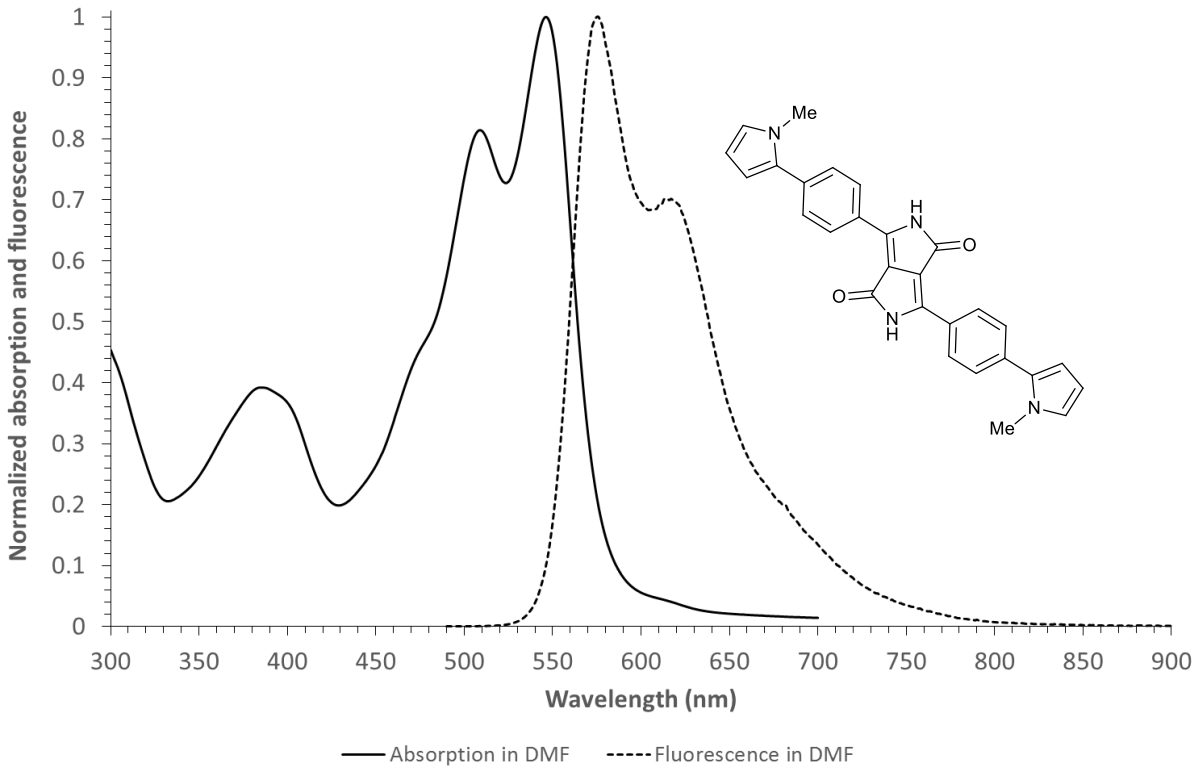


Fig. S1.5 Normalized absorption and fluorescence of compound **10** in DMF.

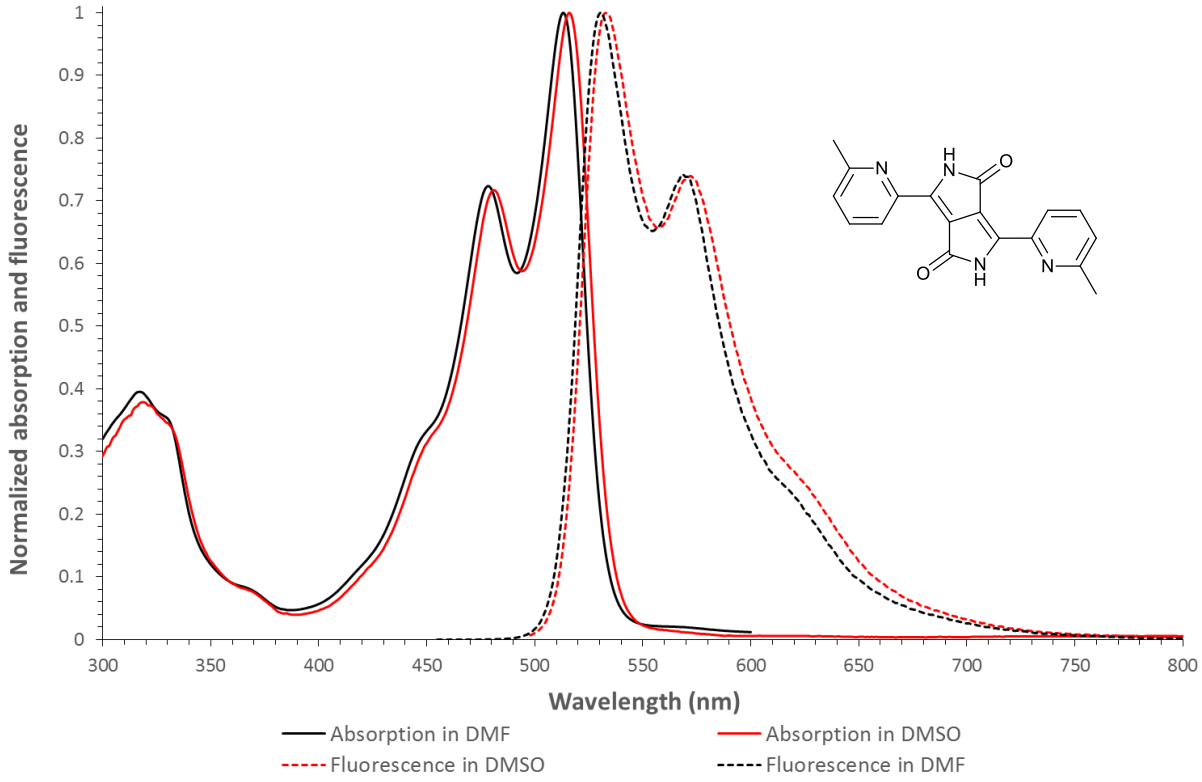


Fig. S1.6 Normalized absorption and fluorescence of compound **13** in DMF and DMSO.

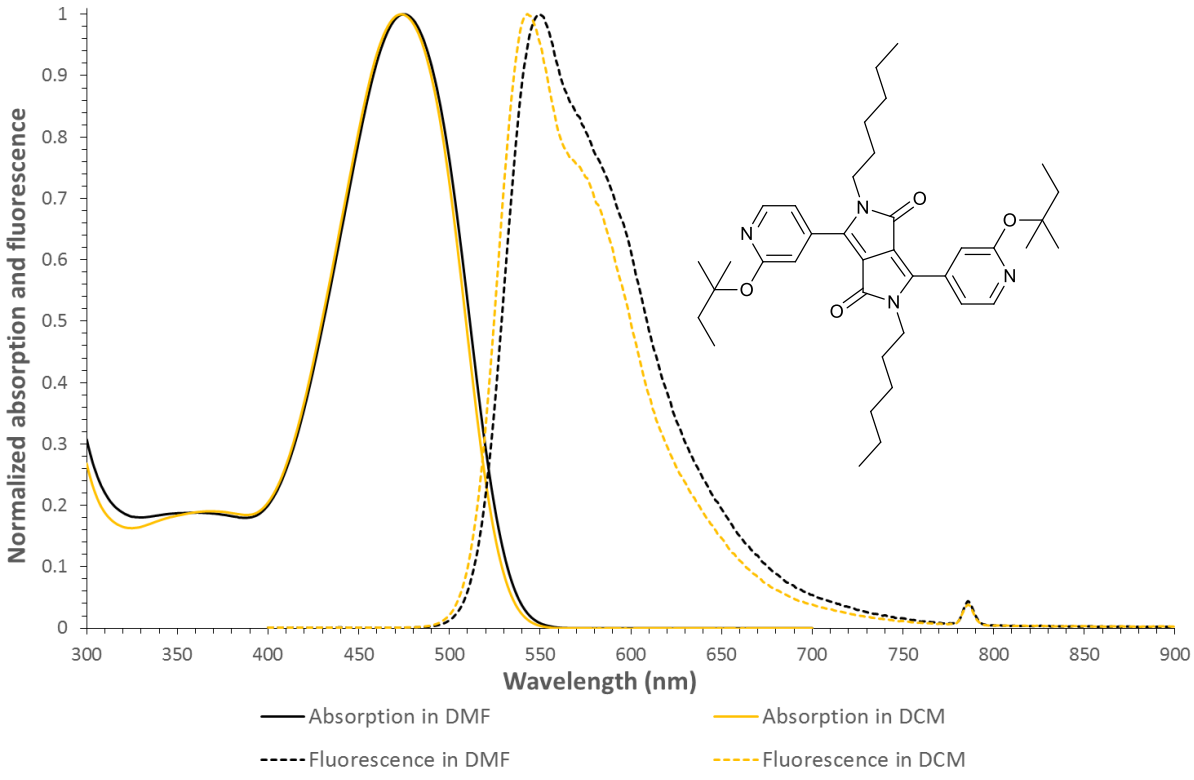


Fig. S1.7 Normalized absorption and fluorescence of compound **5** in DMF and DCM.

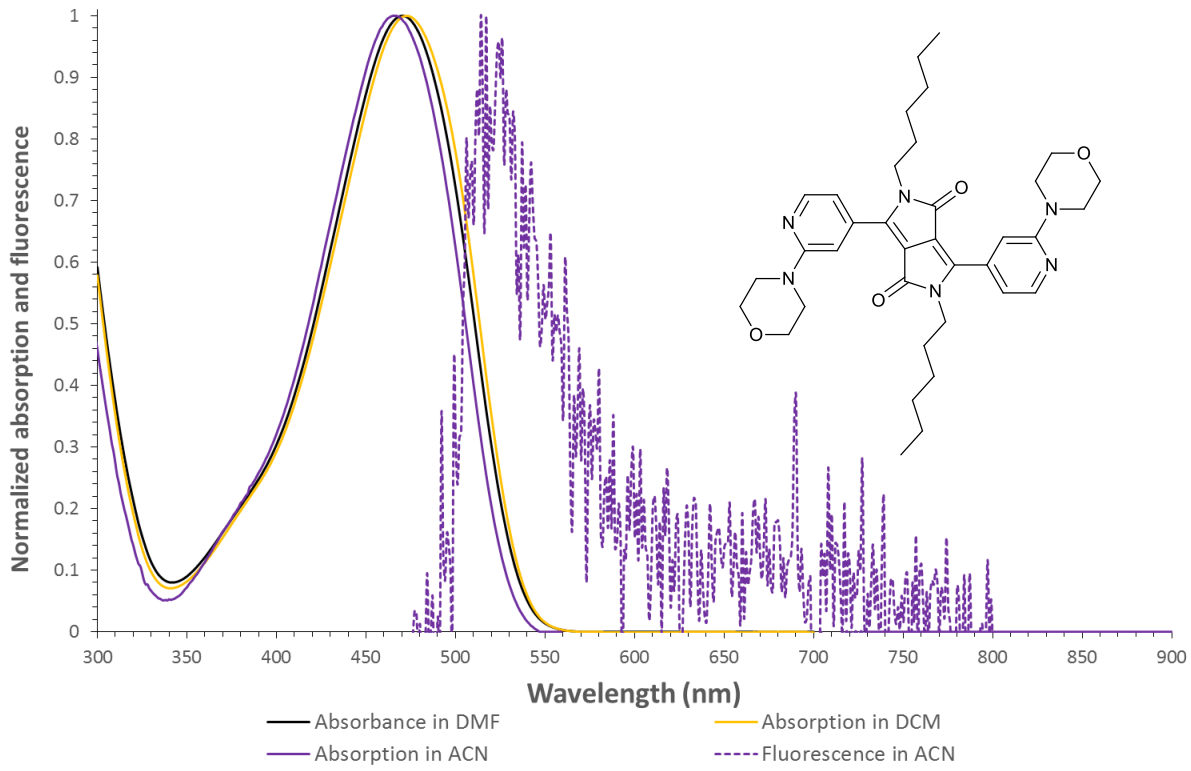


Fig. S1.8 Normalized absorption and fluorescence of compound **7** in DMF, DCM and acetonitrile.

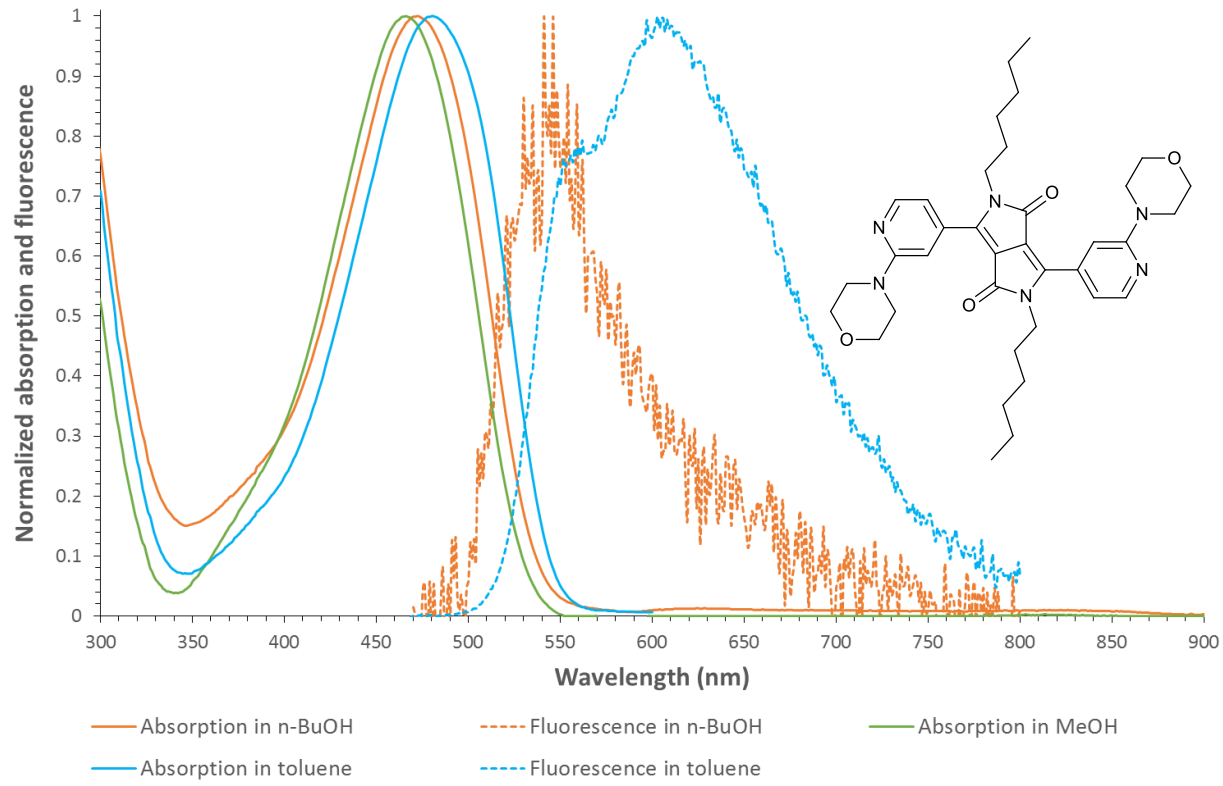


Fig. S1.9 Normalized absorption and fluorescence of compound **7** in *n*-BuOH, MeOH and toluene.

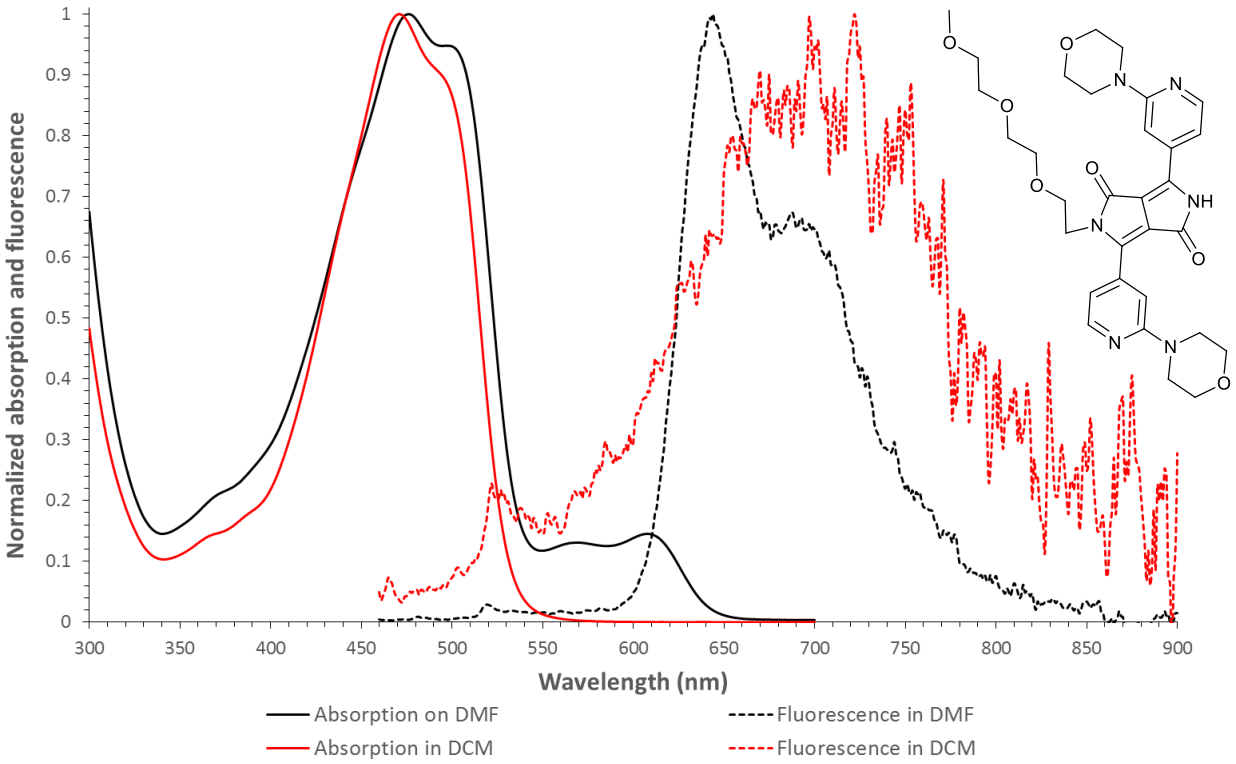


Fig. S1.10 Normalized absorption and fluorescence of compound **8** in DMF and DCM.

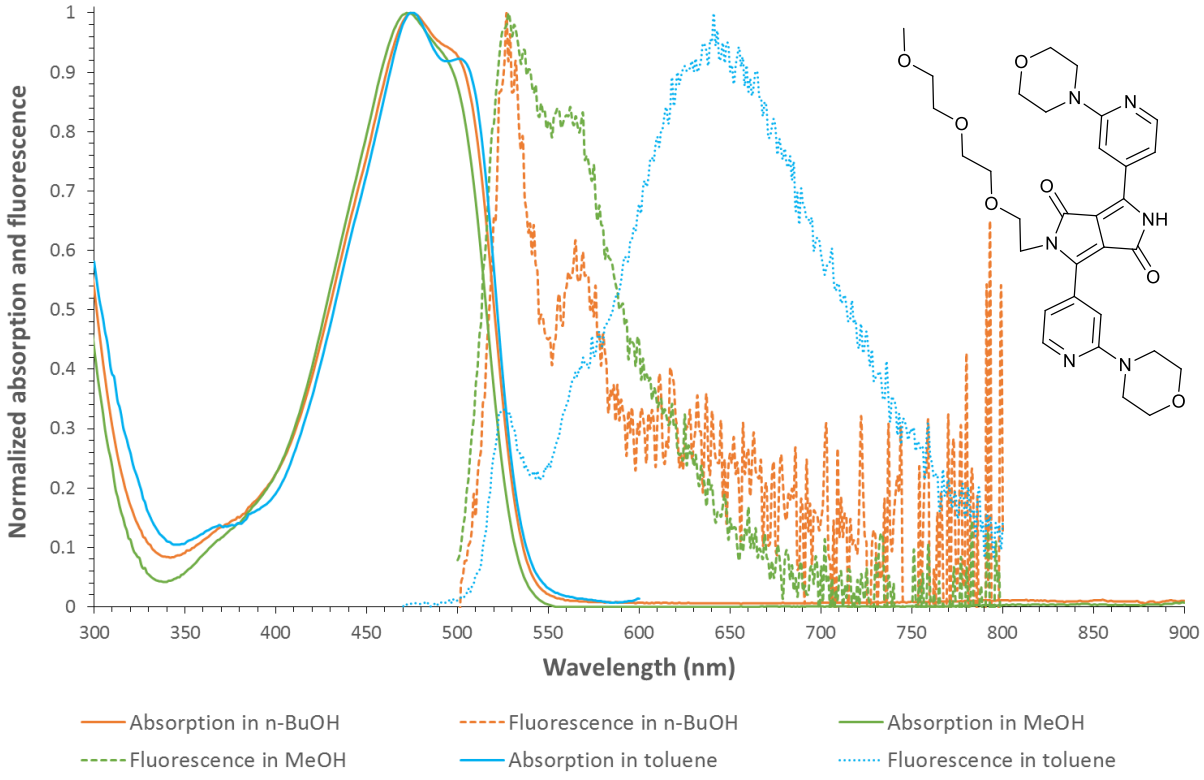


Fig. S1.11 Normalized absorption and fluorescence of compound **8** in *n*-BuOH, MeOH and toluene.

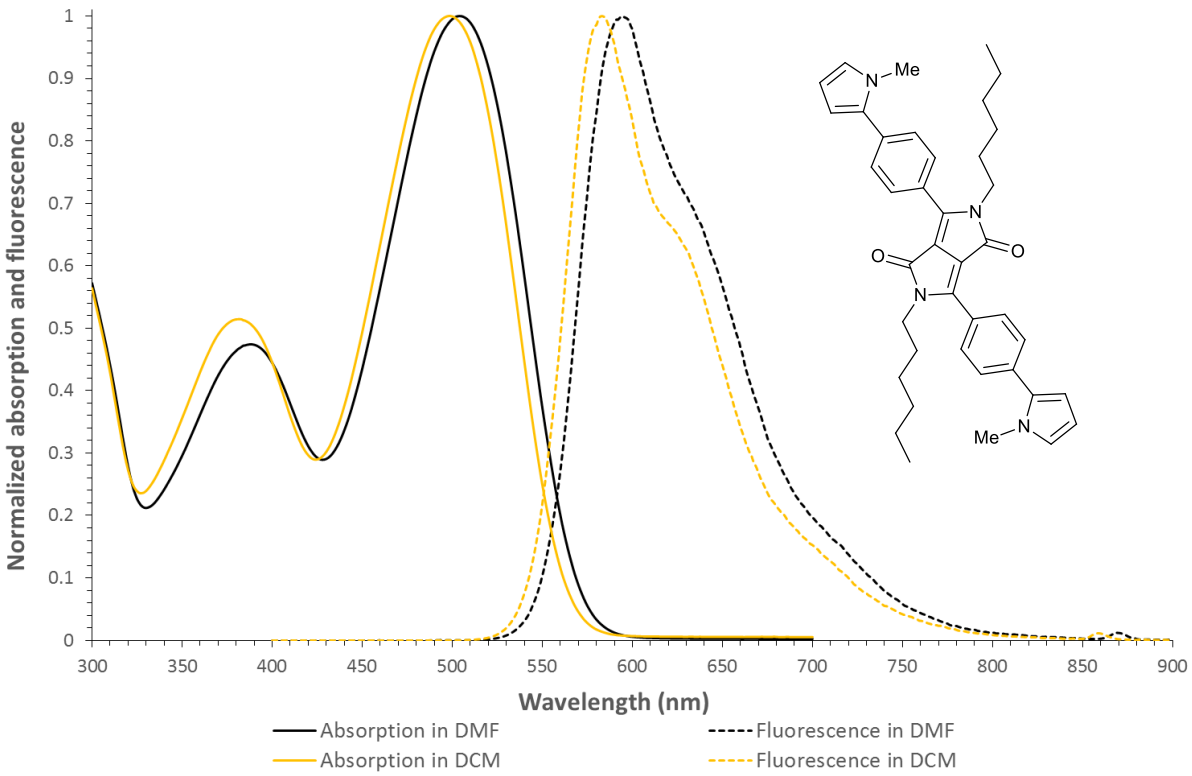


Fig. S1.12 Normalized absorption and fluorescence of compound **11** in DMF and DCM.

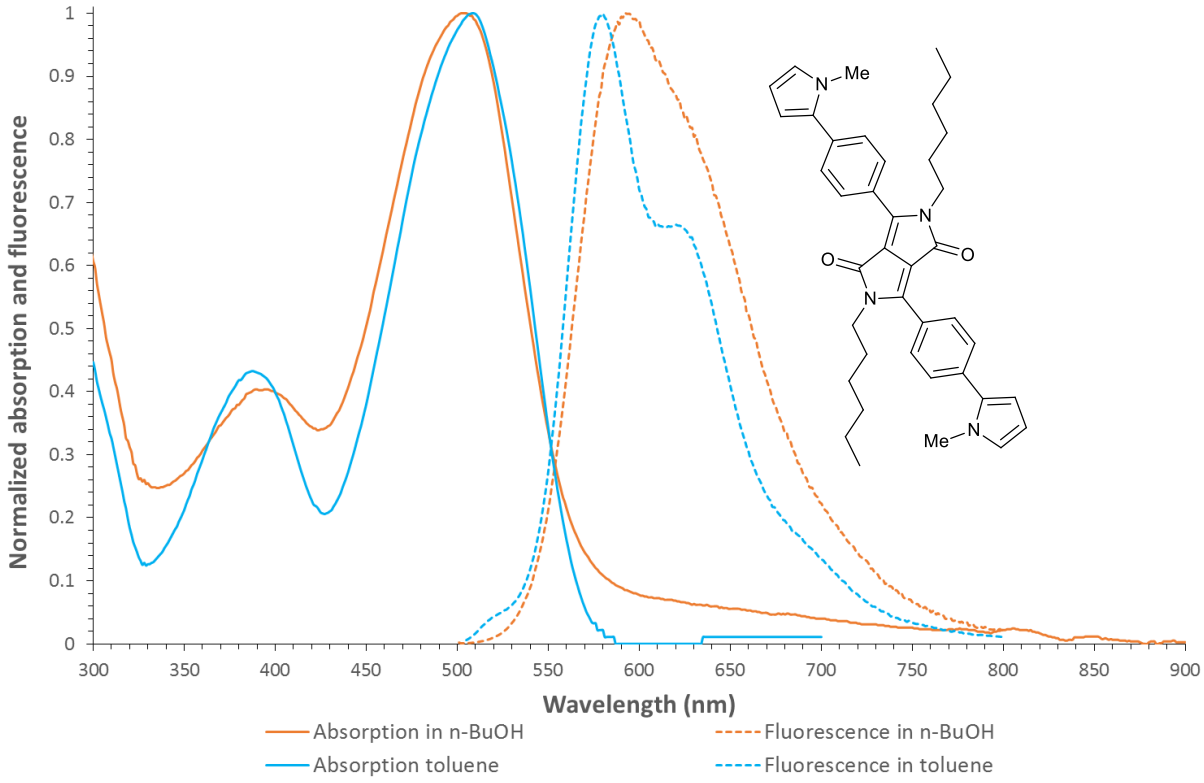


Fig. S1.13 Normalized absorption and fluorescence of compound **11** in n-BuOH and toluene.

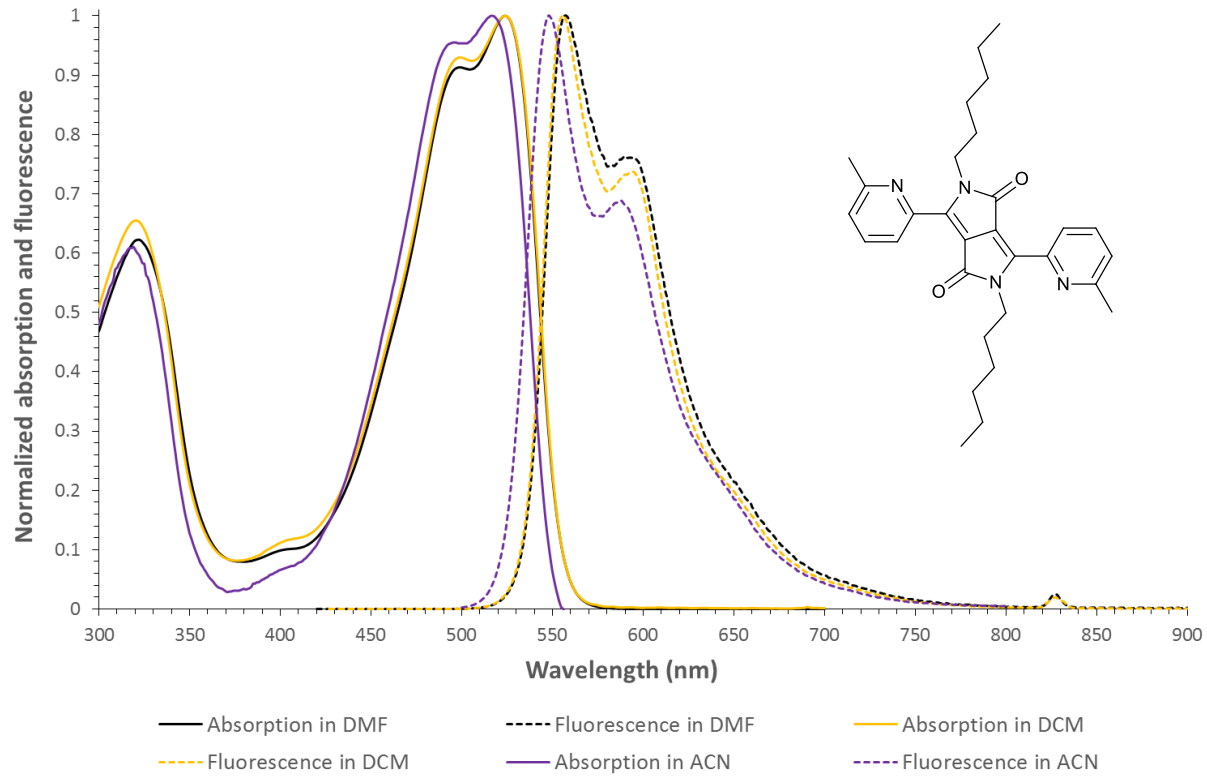


Fig. S1.14 Normalized absorption and fluorescence of compound **14** in DMF, DCM and acetonitrile.

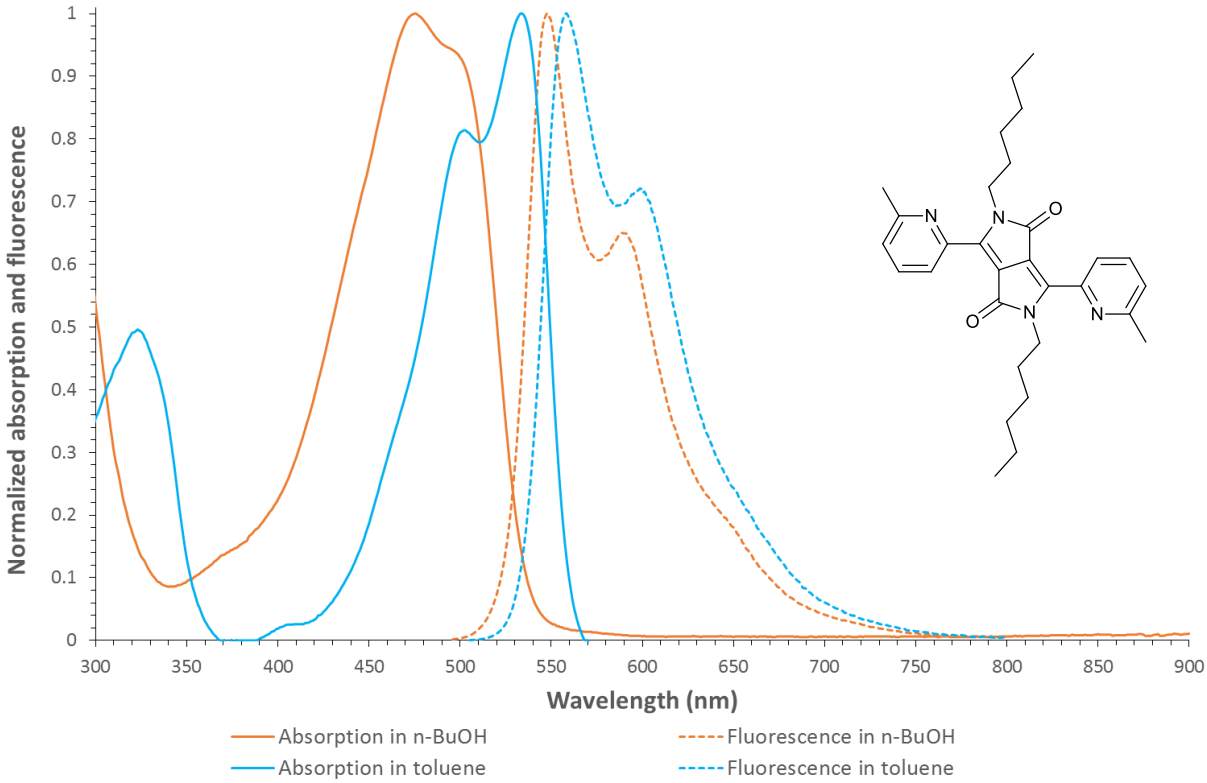


Fig. S1.15 Normalized absorption and fluorescence of compound 1**4** in DMF.

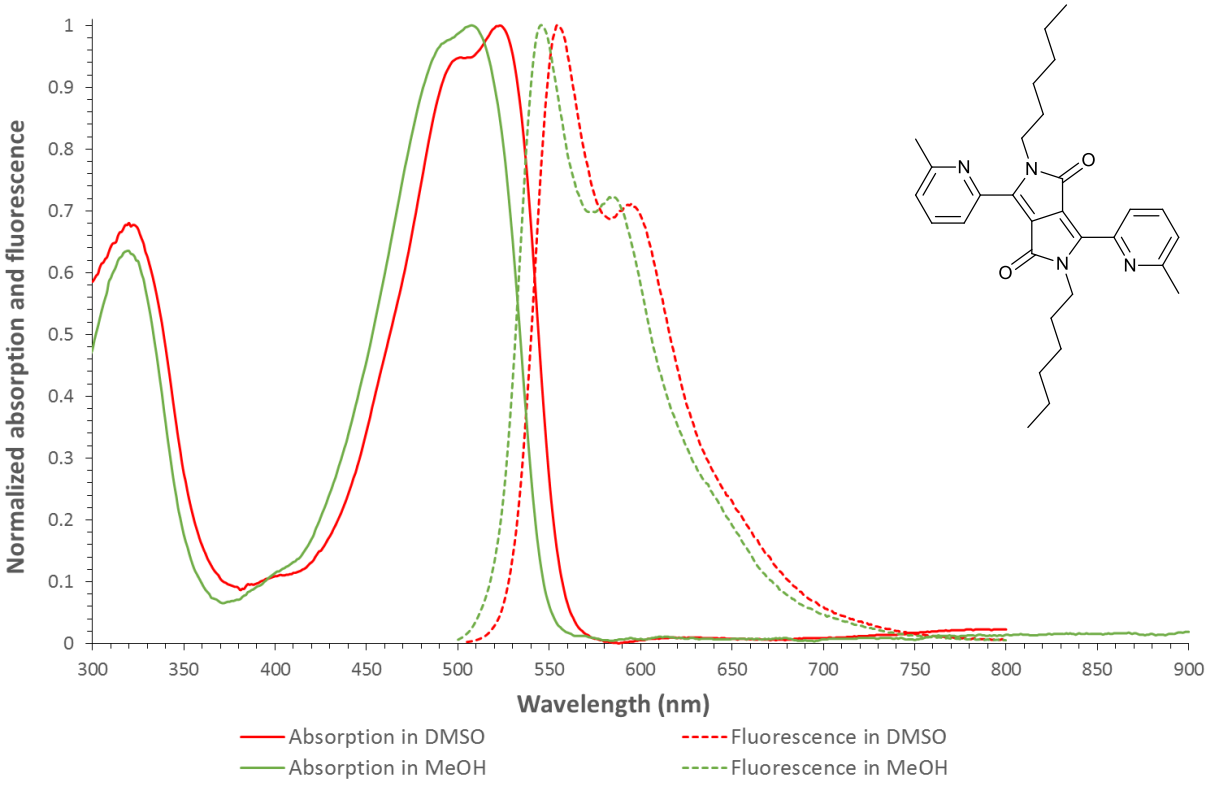
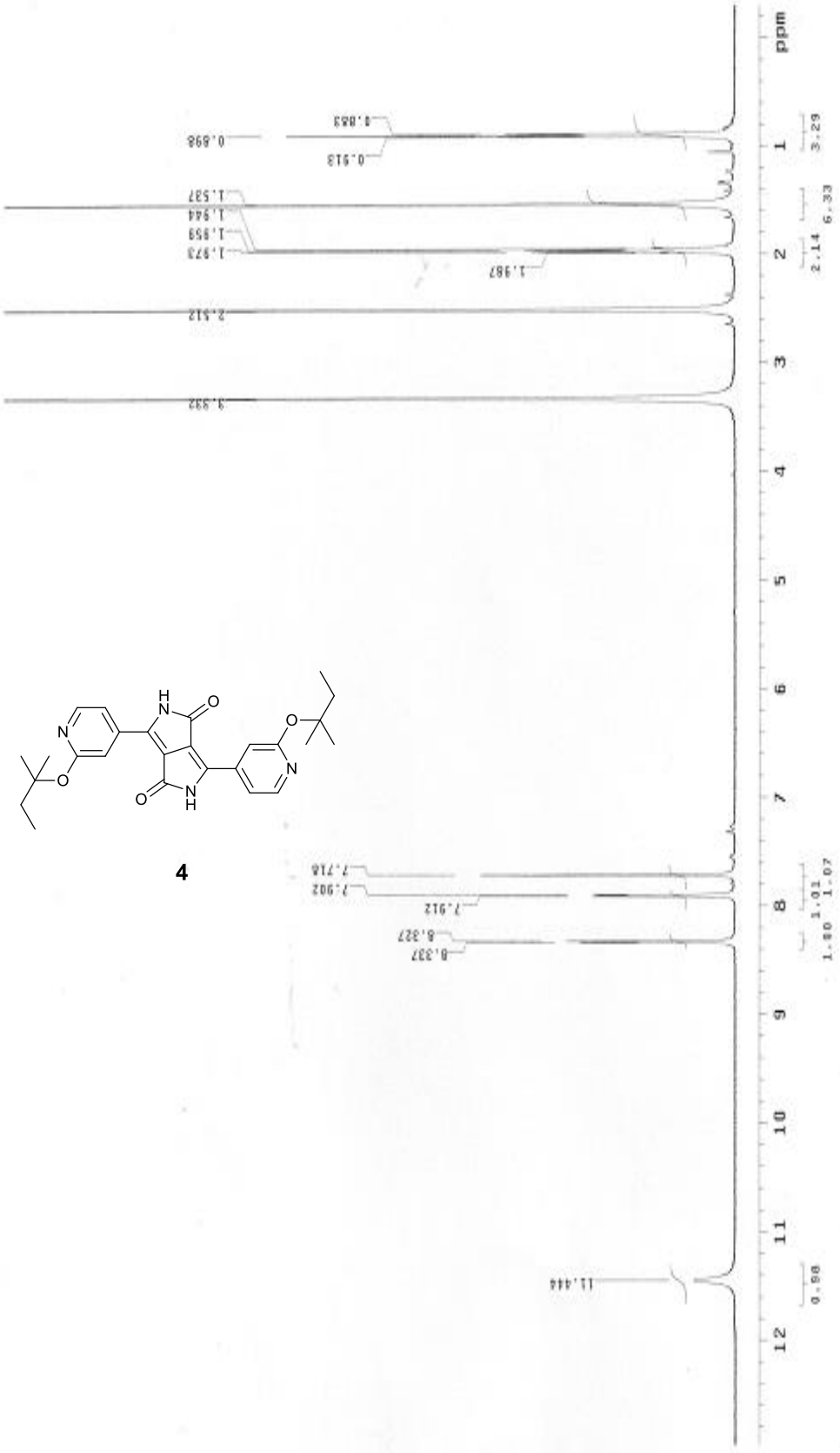


Fig. S1.16 Normalized absorption and fluorescence of compound **14** in DMSO and MeOH.

S2. Spectra 1H and 13C NMR for dyes synthesized



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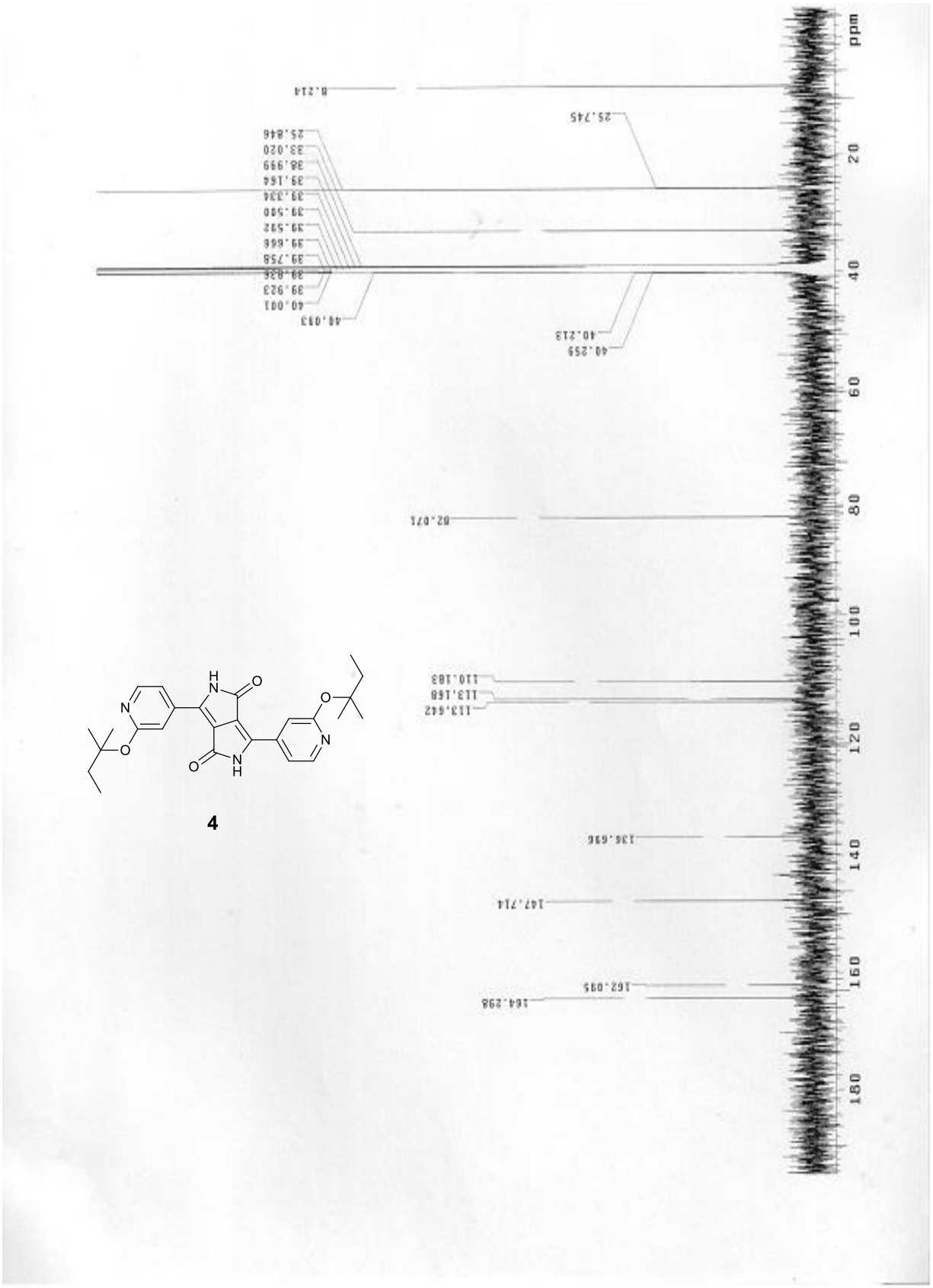
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39.500
39.592
39.666
39.758
39.826
39.923
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113.642
136.696
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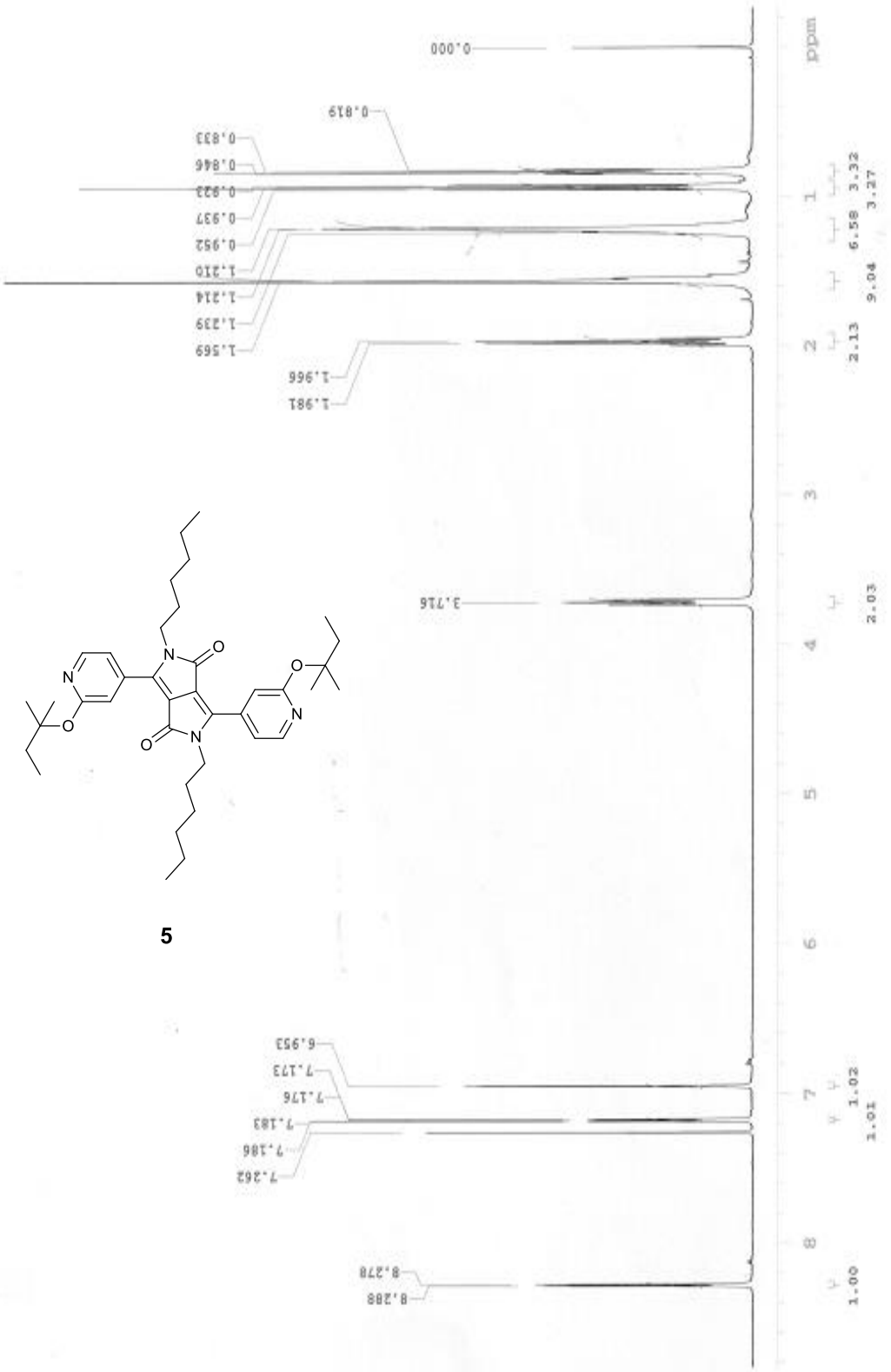
4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7.183
7.186
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3
4
5
6
7
8
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1.00
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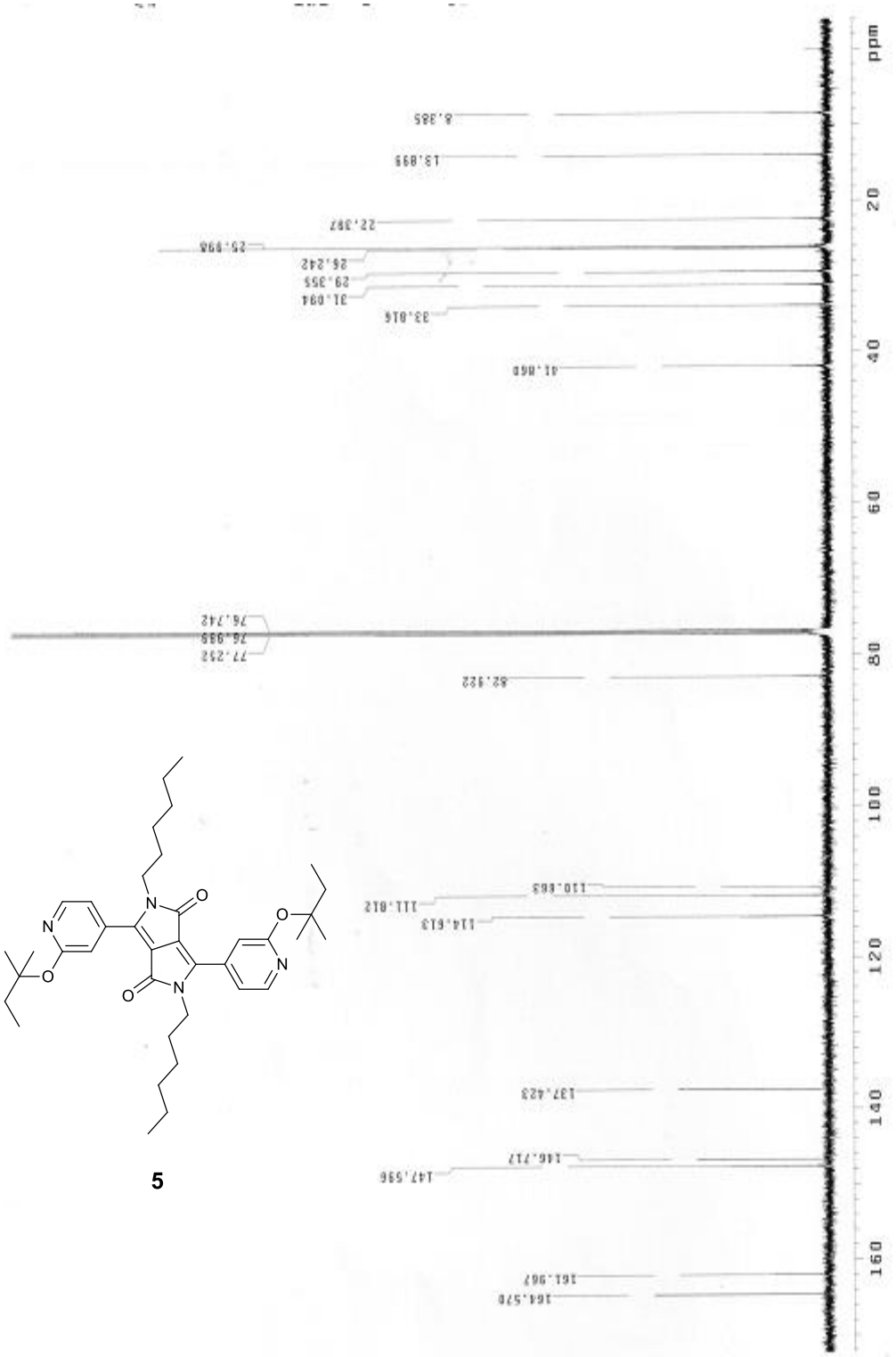
N

5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114.613
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146.717
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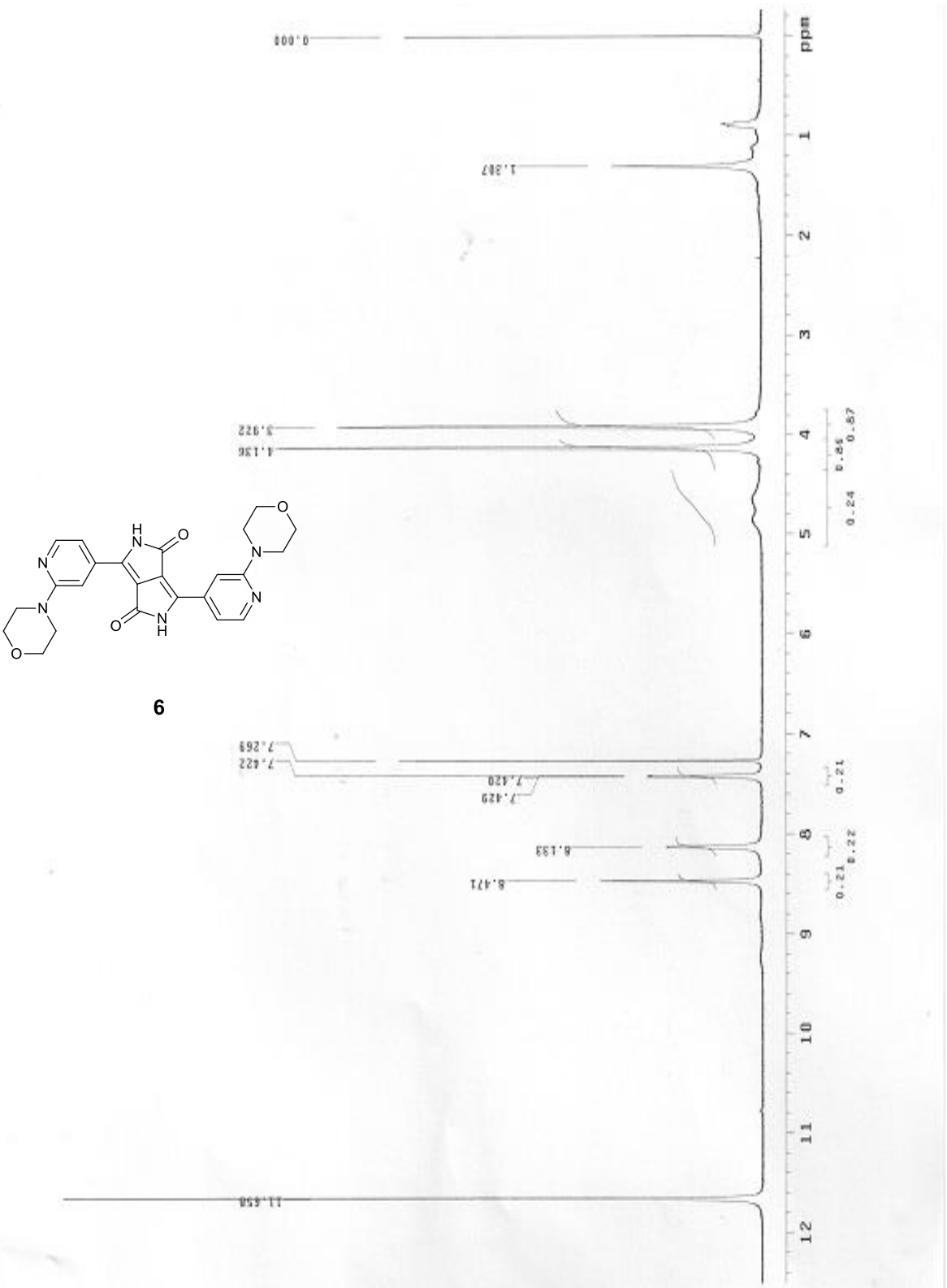
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0.22

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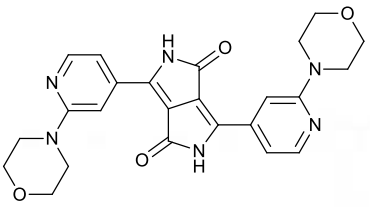

6

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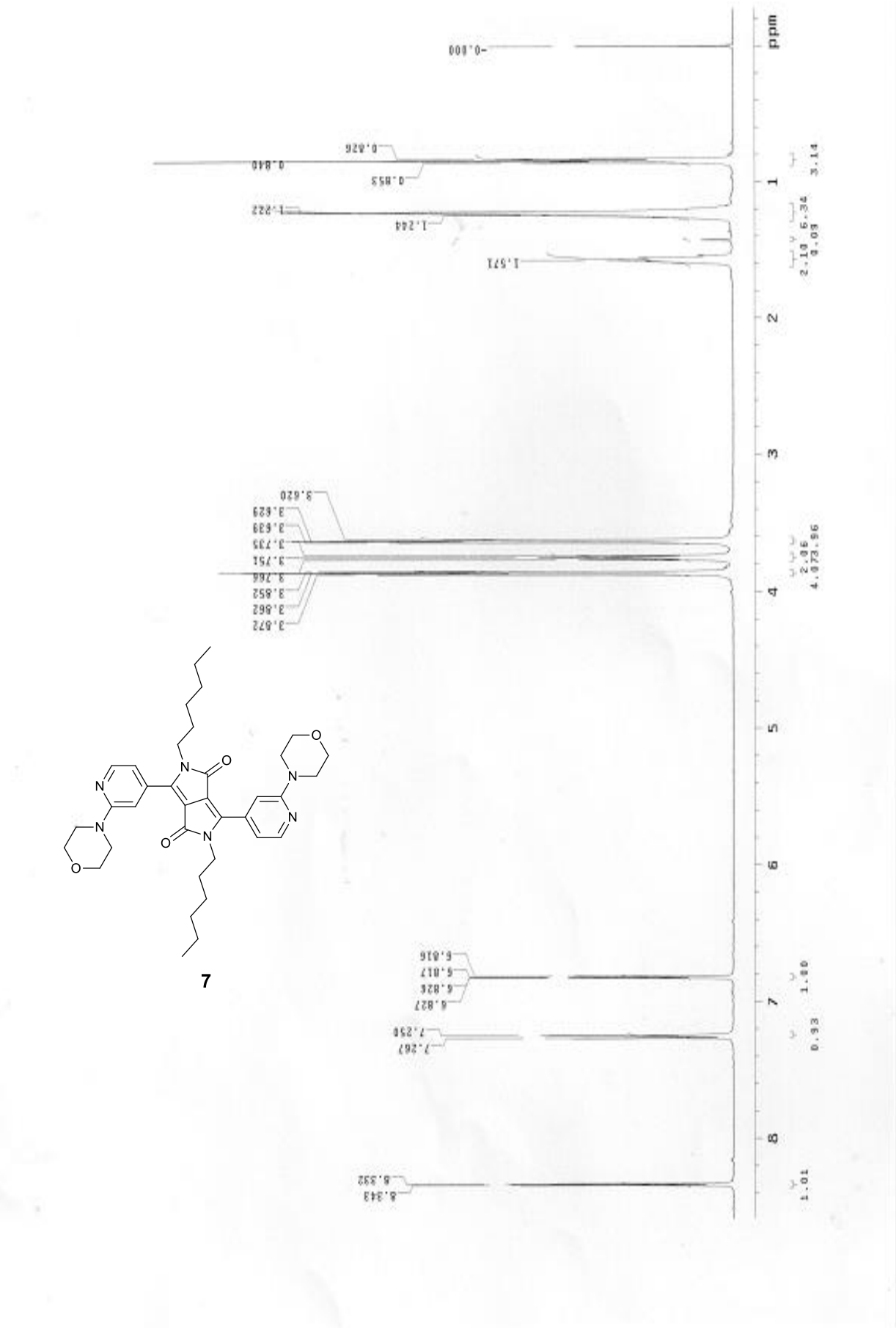
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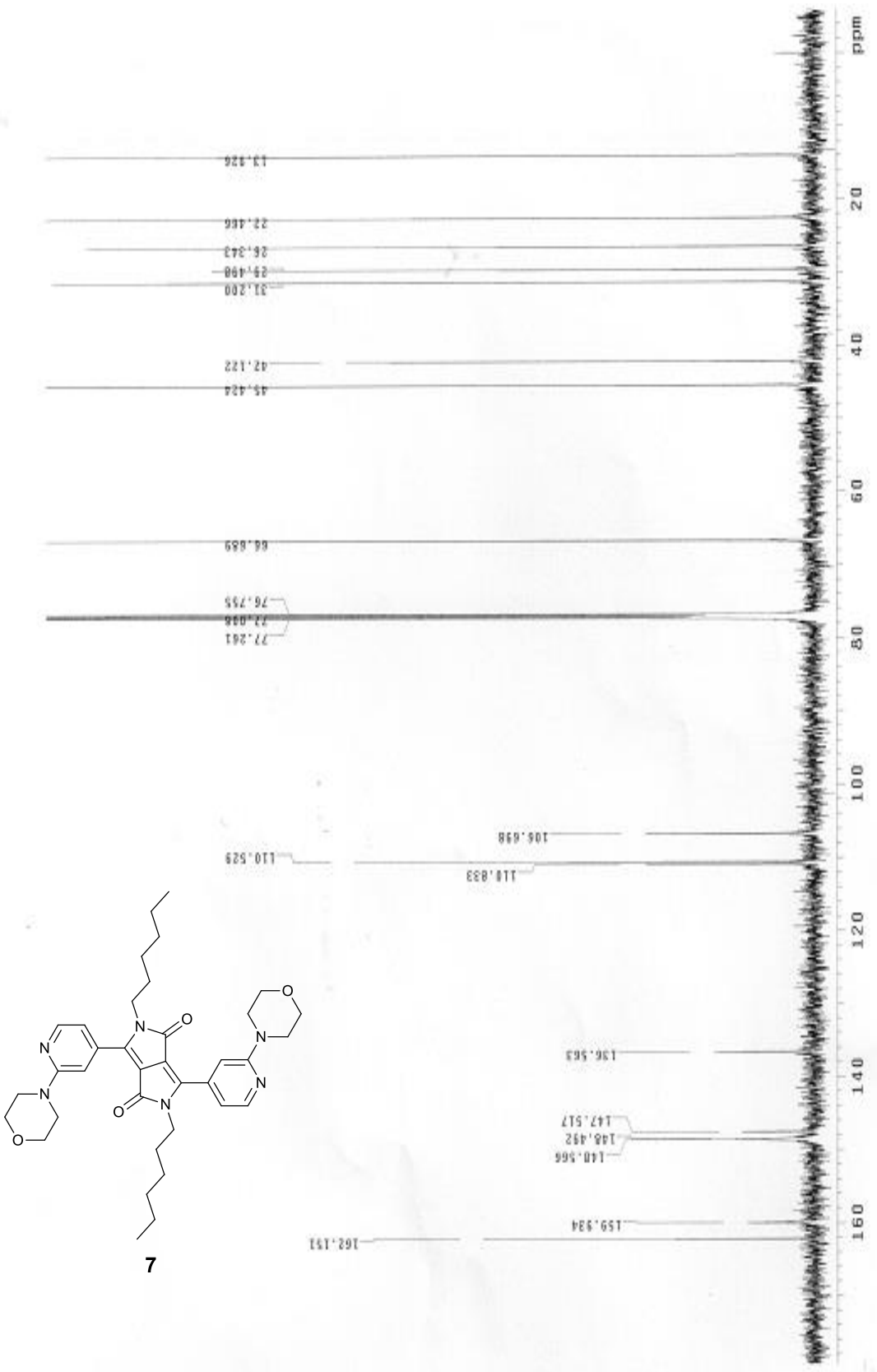
7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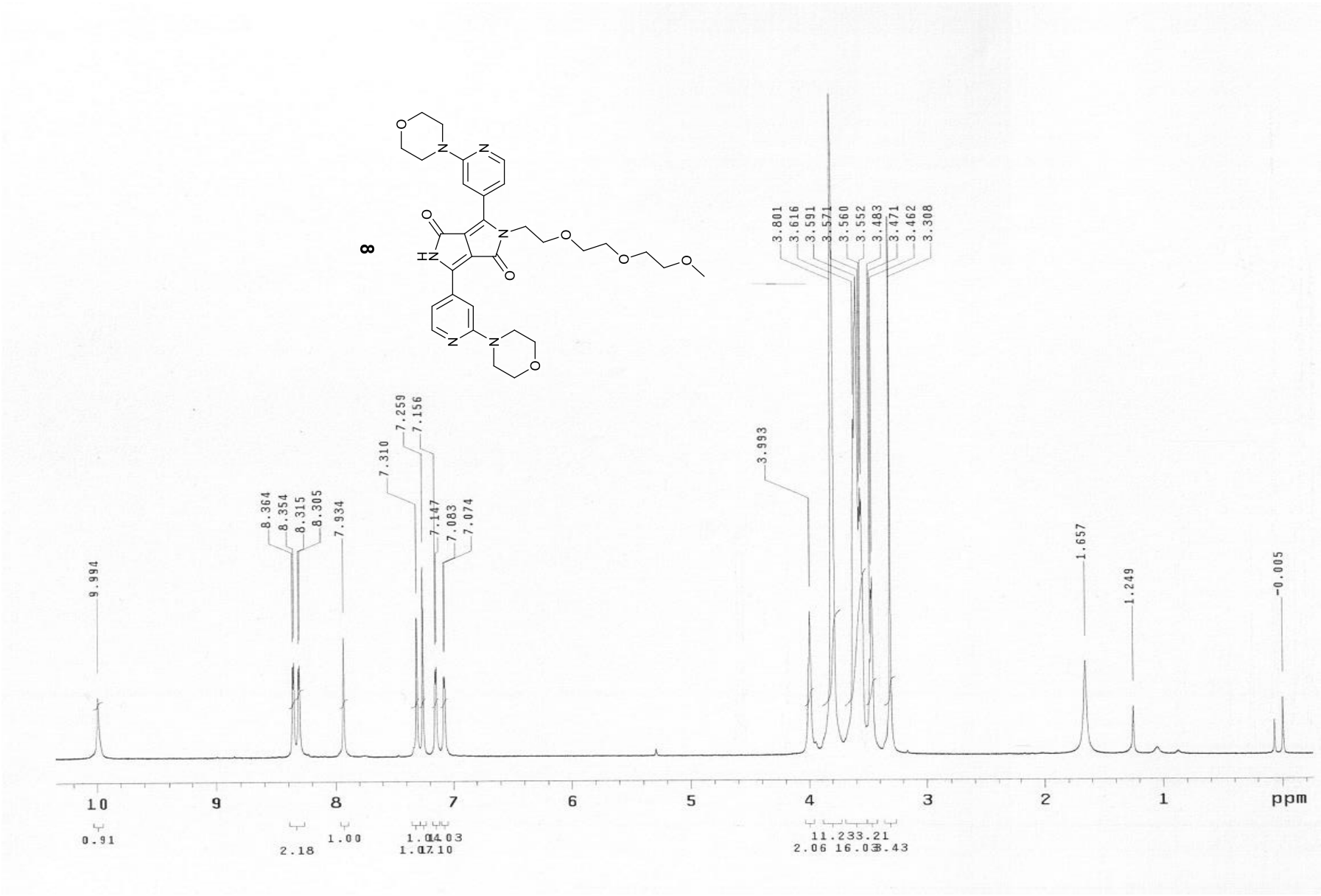
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3.801
3.616
3.591
3.571
3.560
3.552
3.483
3.471
3.462
3.308
1.657
1.249
-0.005
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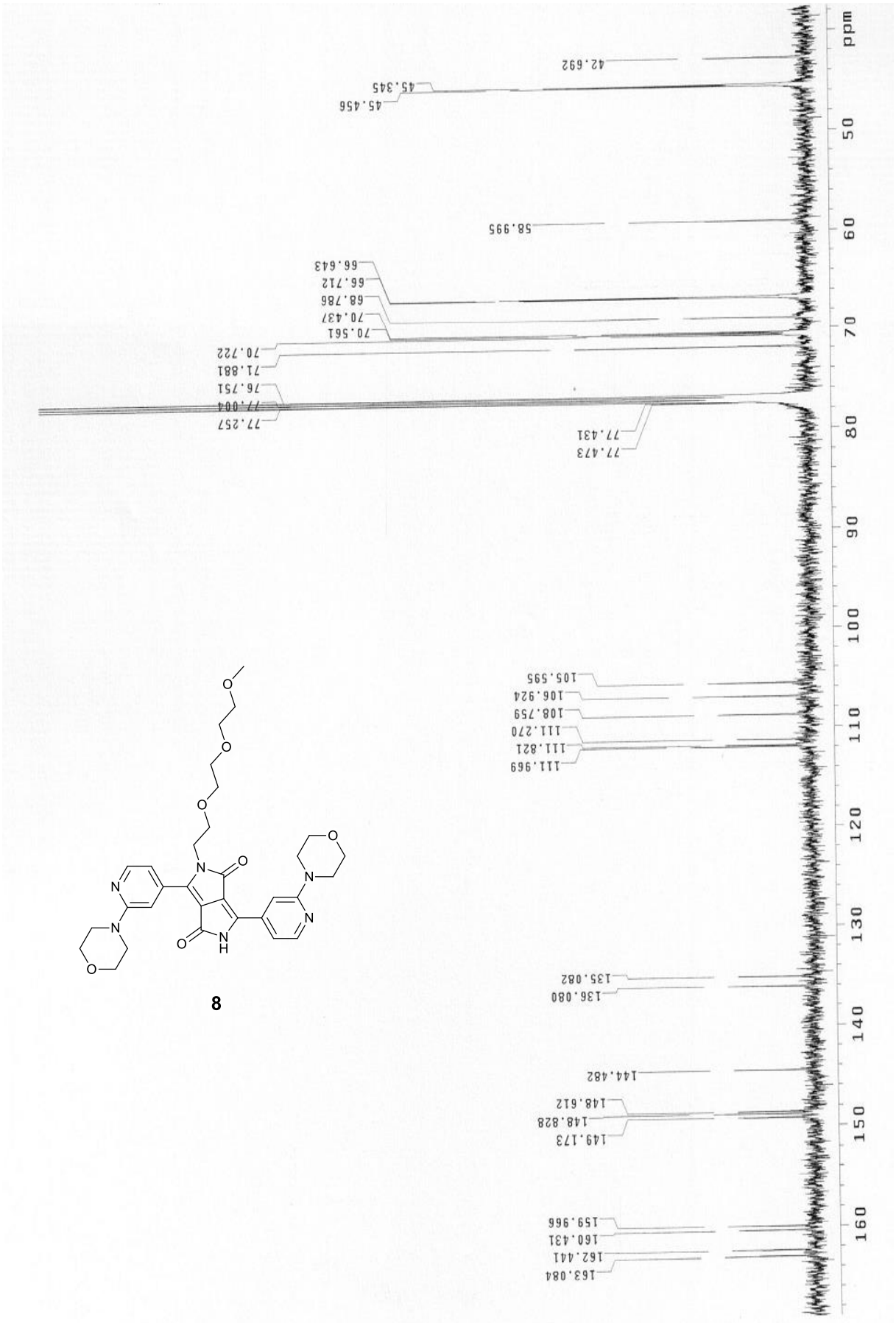
3.43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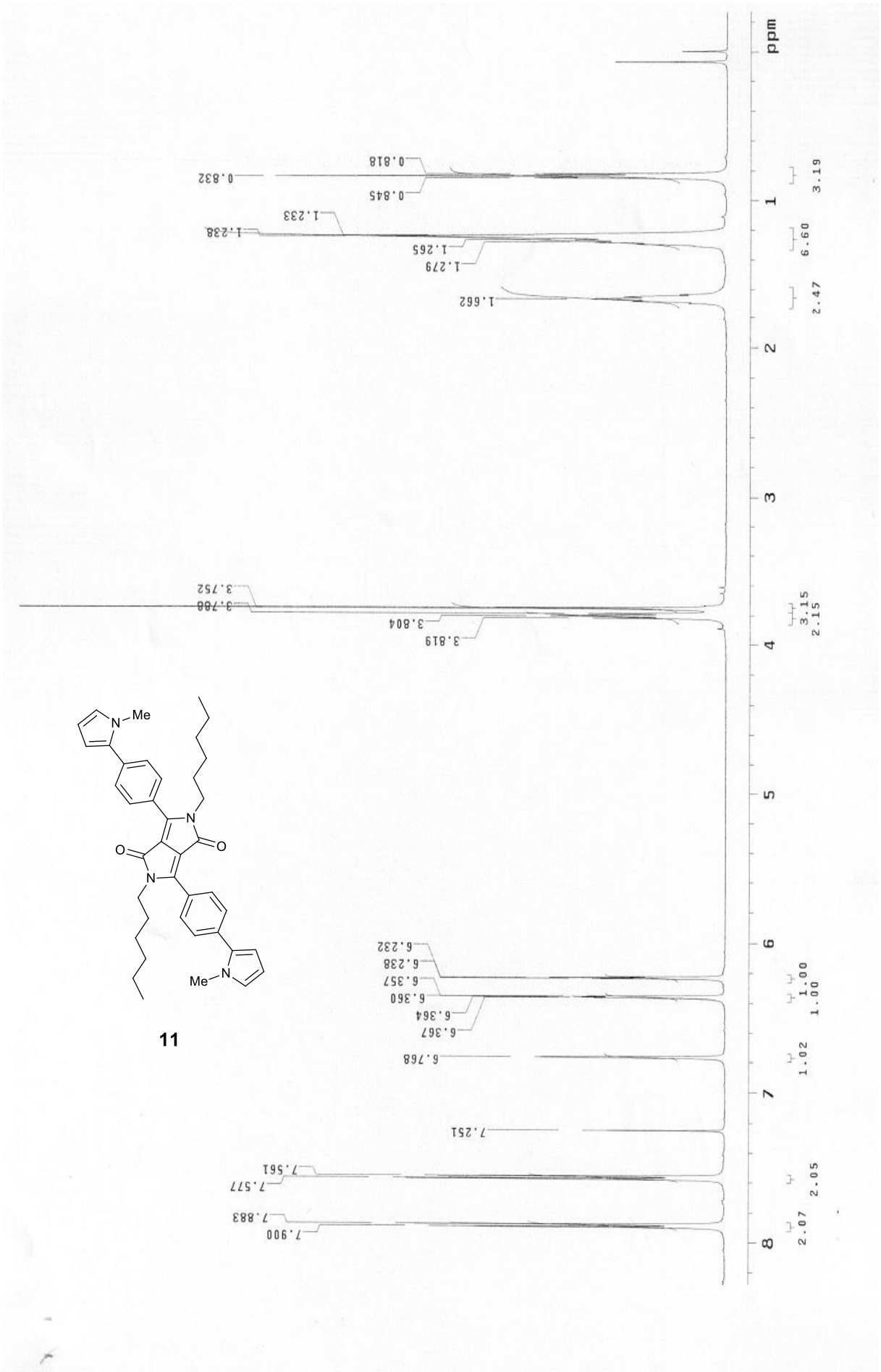
8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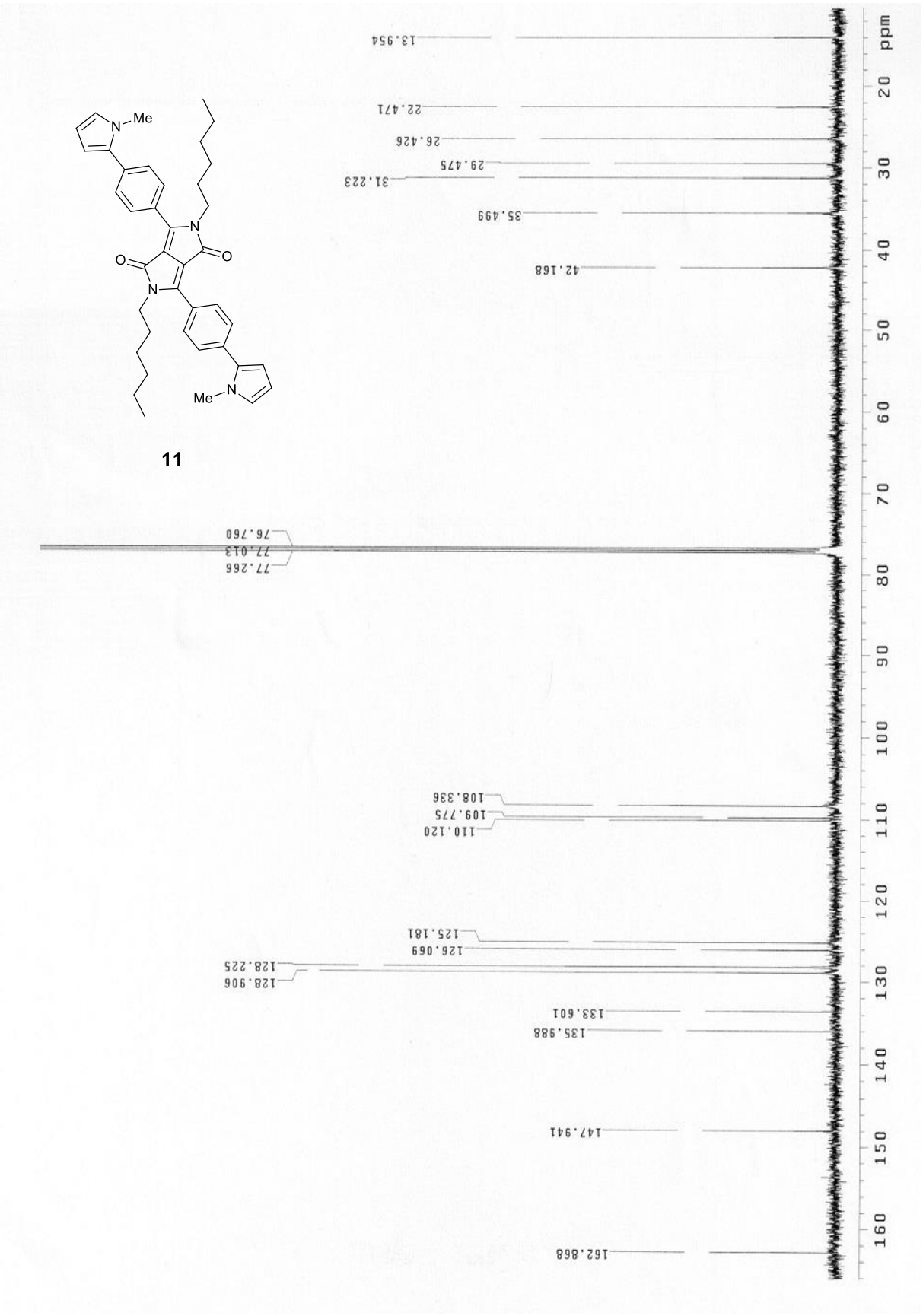
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128.906
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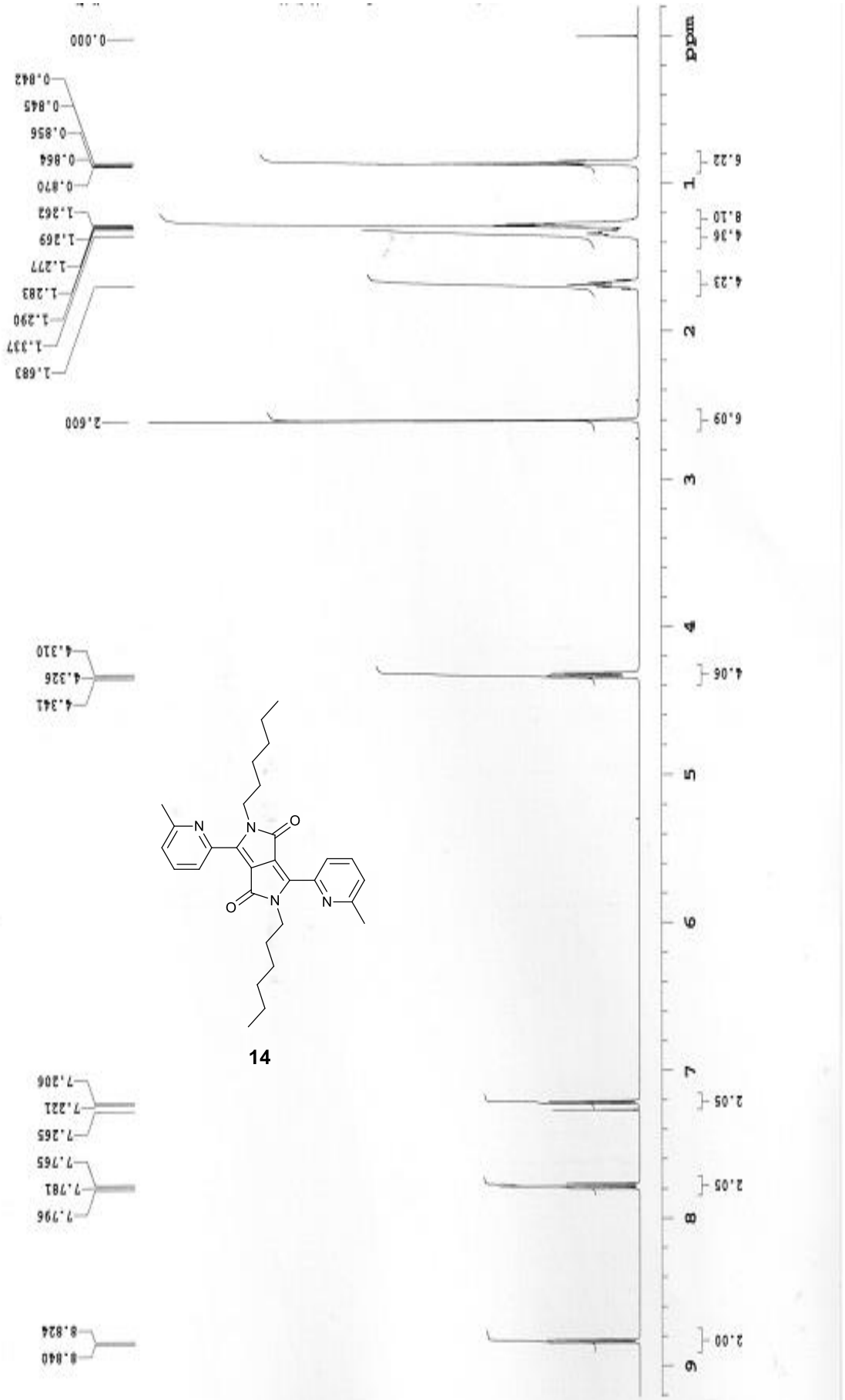
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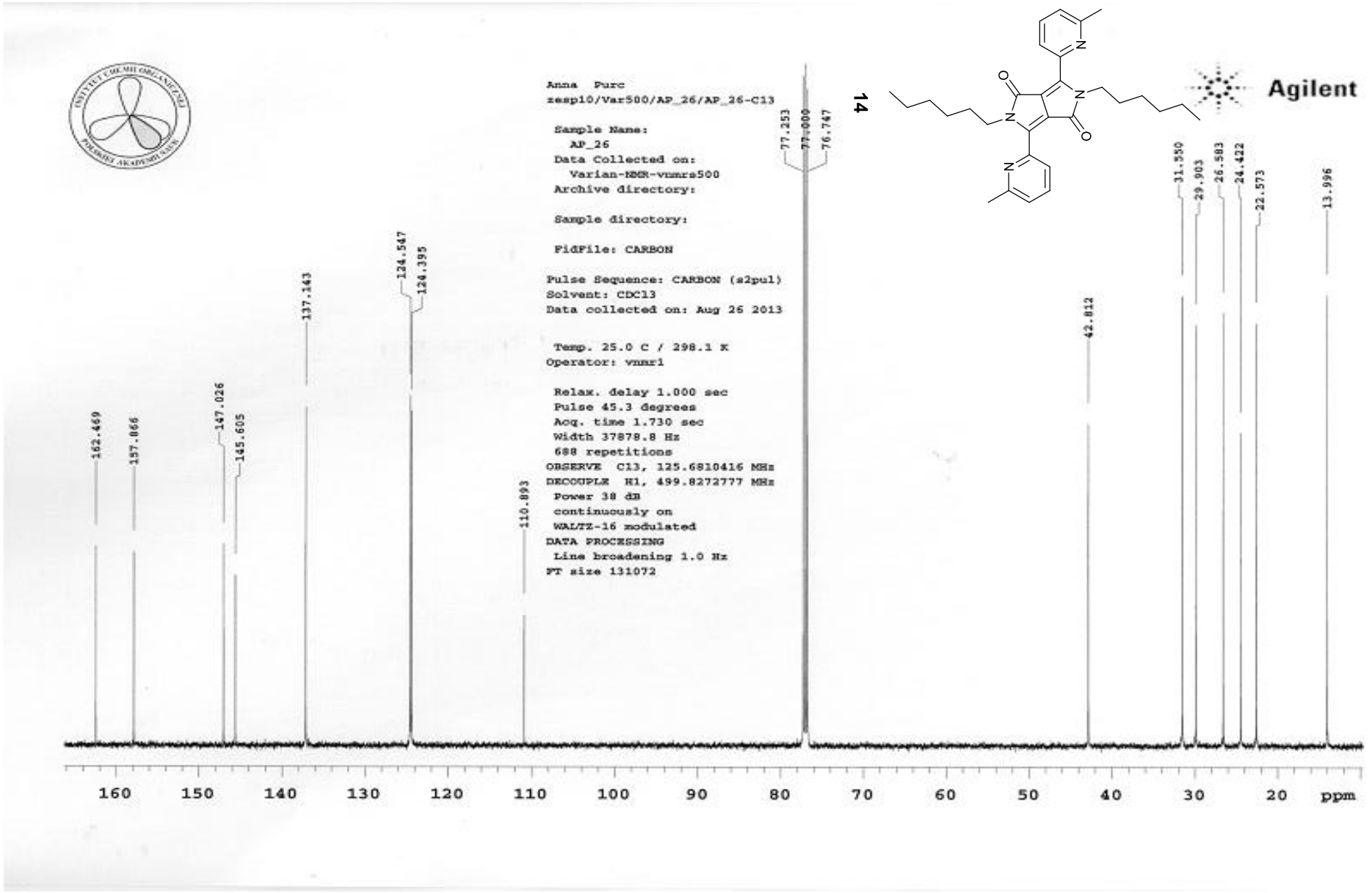
14


Anna Purc
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Data collected on: Aug 26 2013
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Operator: vnmr1
Relax. delay 1.000 sec
Pulse 45.3 degrees
Acq. time 1.730 sec
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DECOUPLE H1, 499.8272777 MHz
Power 38 dB
continuously on
WALTZ-16 modulated
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Line broadening 1.0 Hz
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