

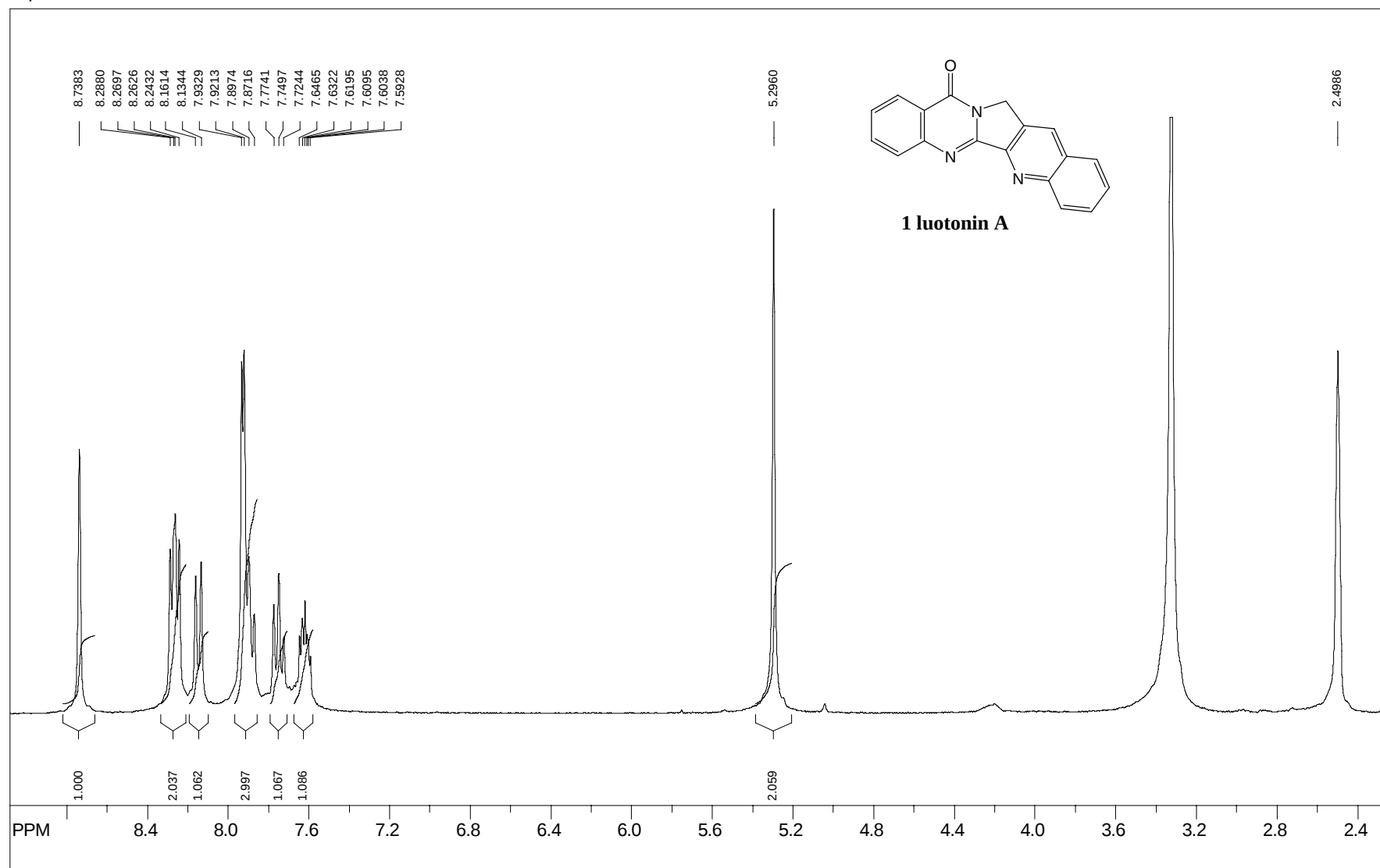
Electronic Supporting Information

“Total synthesis of luotonin A and 14-substituted analogues”

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SpinWorks 2.5:

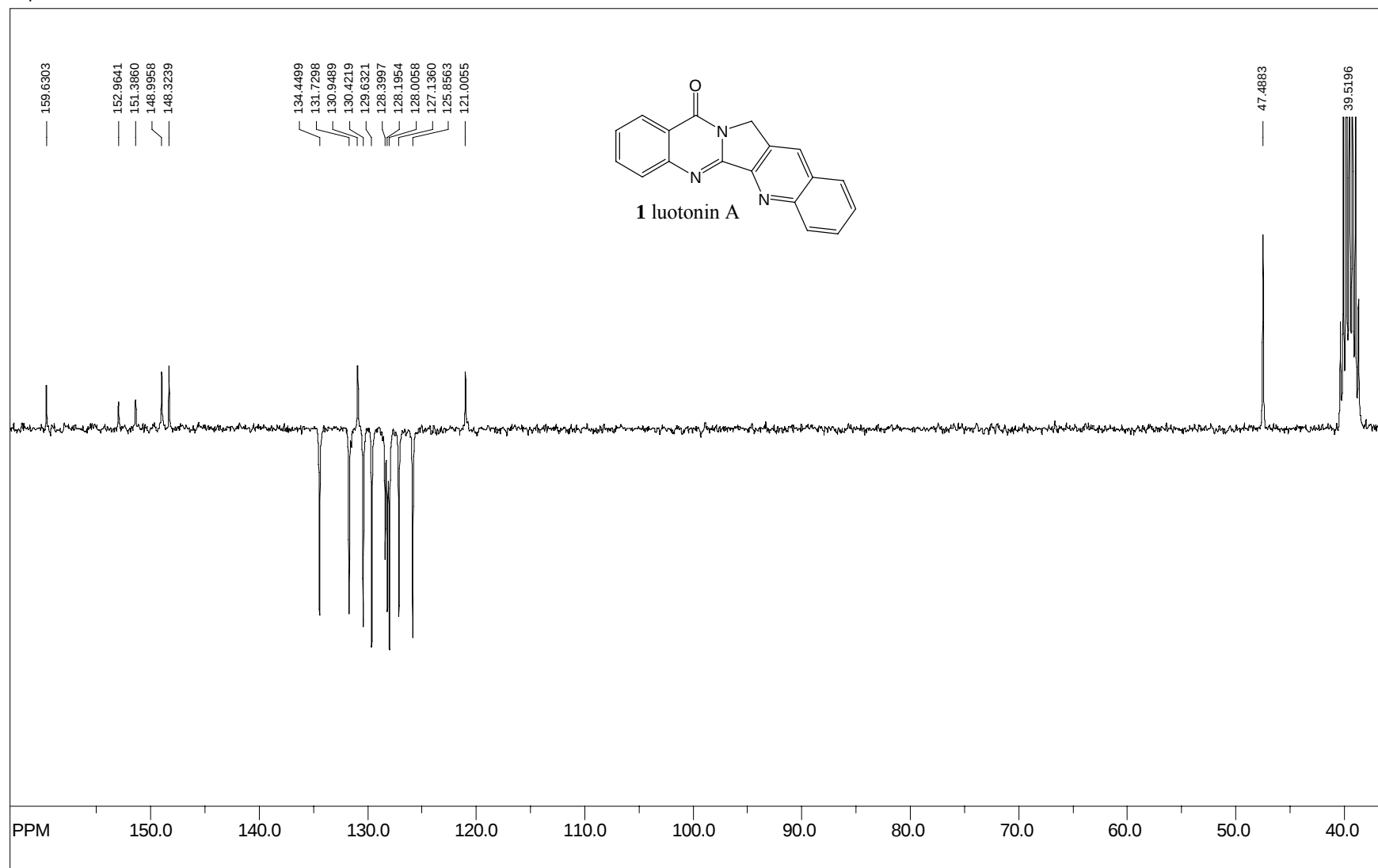


file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\001 luotonin A\3\fid exp: <zg30>
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32

001 luotonin A\1H\DMSO_{d6}

freq. of 0 ppm: 300.130001 MHz
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

SpinWorks 2.5:



file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\001 luotonin A\fid exp: <jmod>

transmitter freq.: 75.475295 MHz

time domain size: 65536 points

width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt

number of scans: 5000

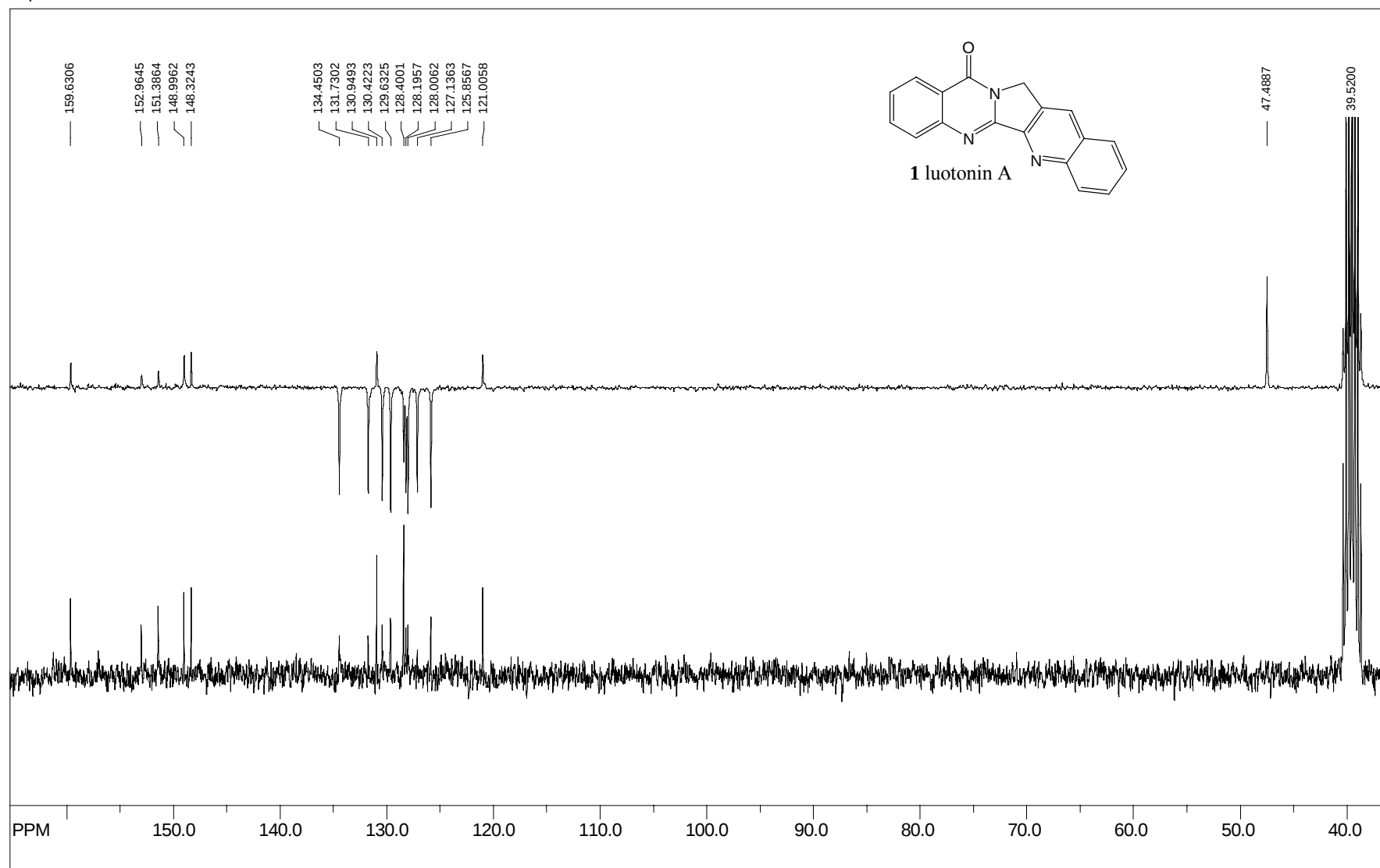
001 luotonin A\13C_APT\DMSO_{d6}

freq. of 0 ppm: 75.467784 MHz

processed size: 32768 complex points

LB: 3.000 GB: 0.0000

SpinWorks 2.5:

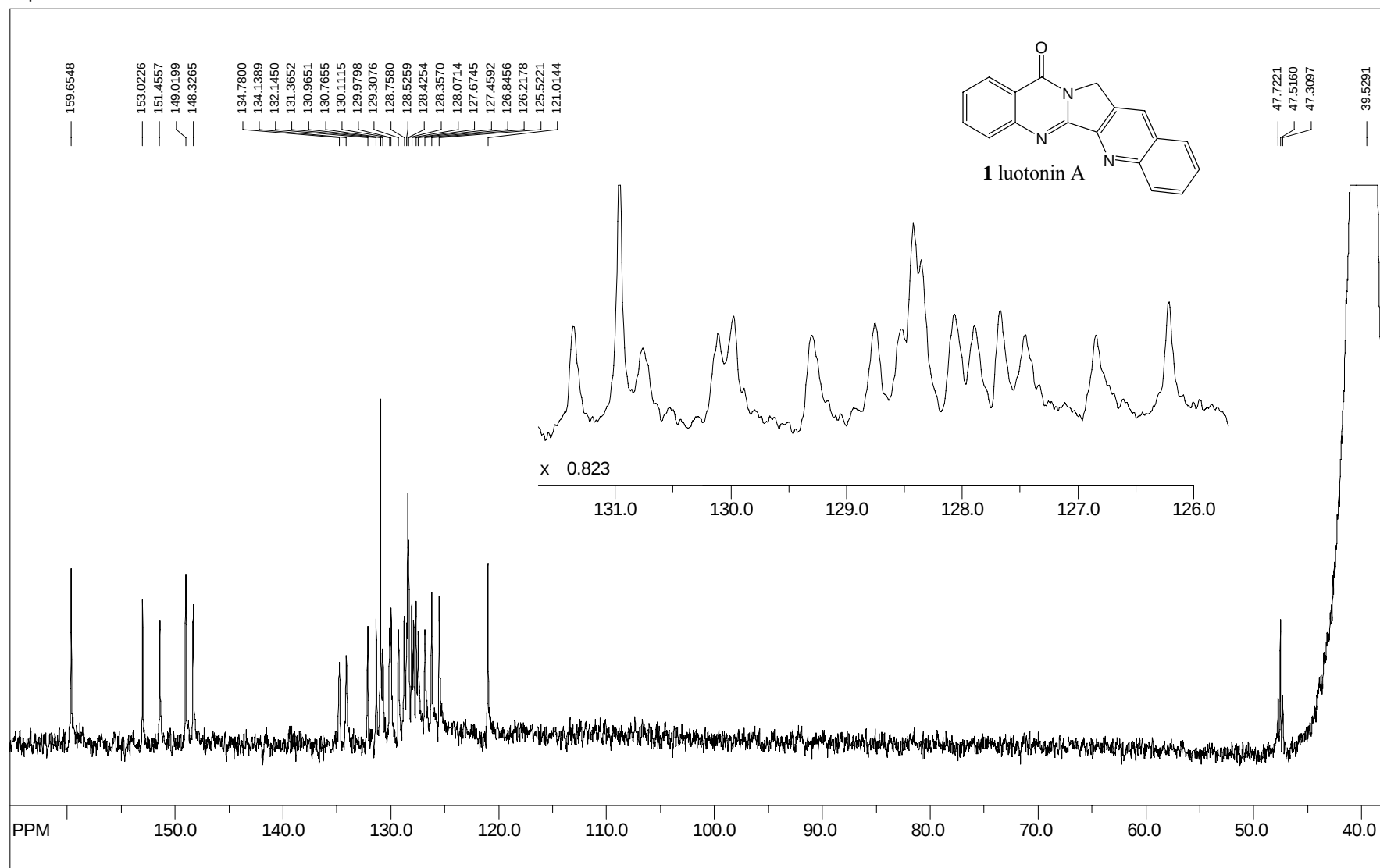


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transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 5000

freq. of 0 ppm: 75.467784 MHz
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

001 luotonin A\13C_APT\DMSO_{d6} top with 01 luotonin A\13C_ACUAT\DMSO_{d6} Showing carbon overlap at 128.4ppm.

SpinWorks 2.5:

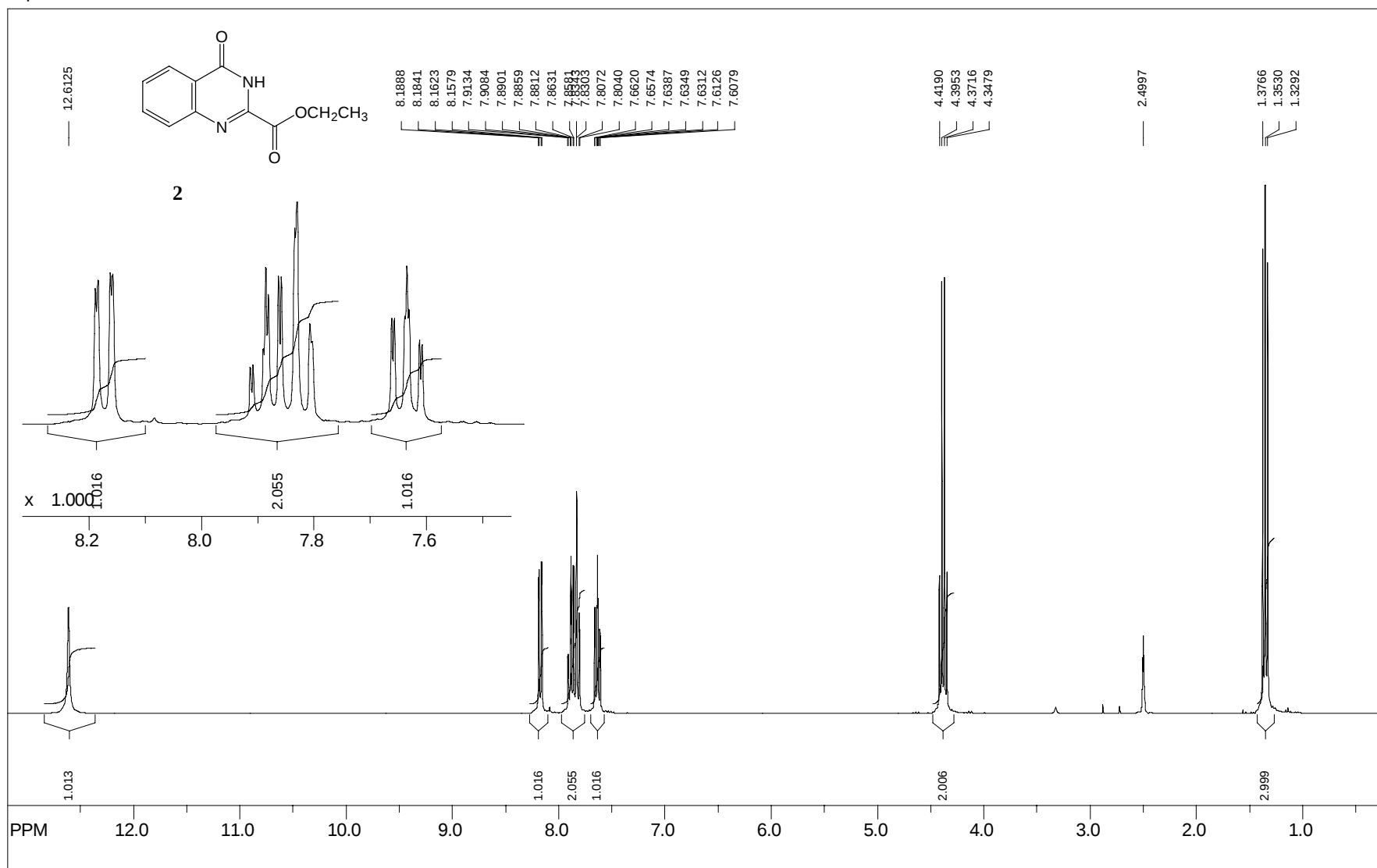


file: F:\NMR\luotonin A 20070510\4 A-HPDEC\fid exp: <hpdec>
transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 12288

001 luotonin A\13C_HPDEC\DMSO_{d6}

freq. of 0 ppm: 75.467784 MHz
processed size: 32768 complex points
LB: 2.000 GB: 0.0000

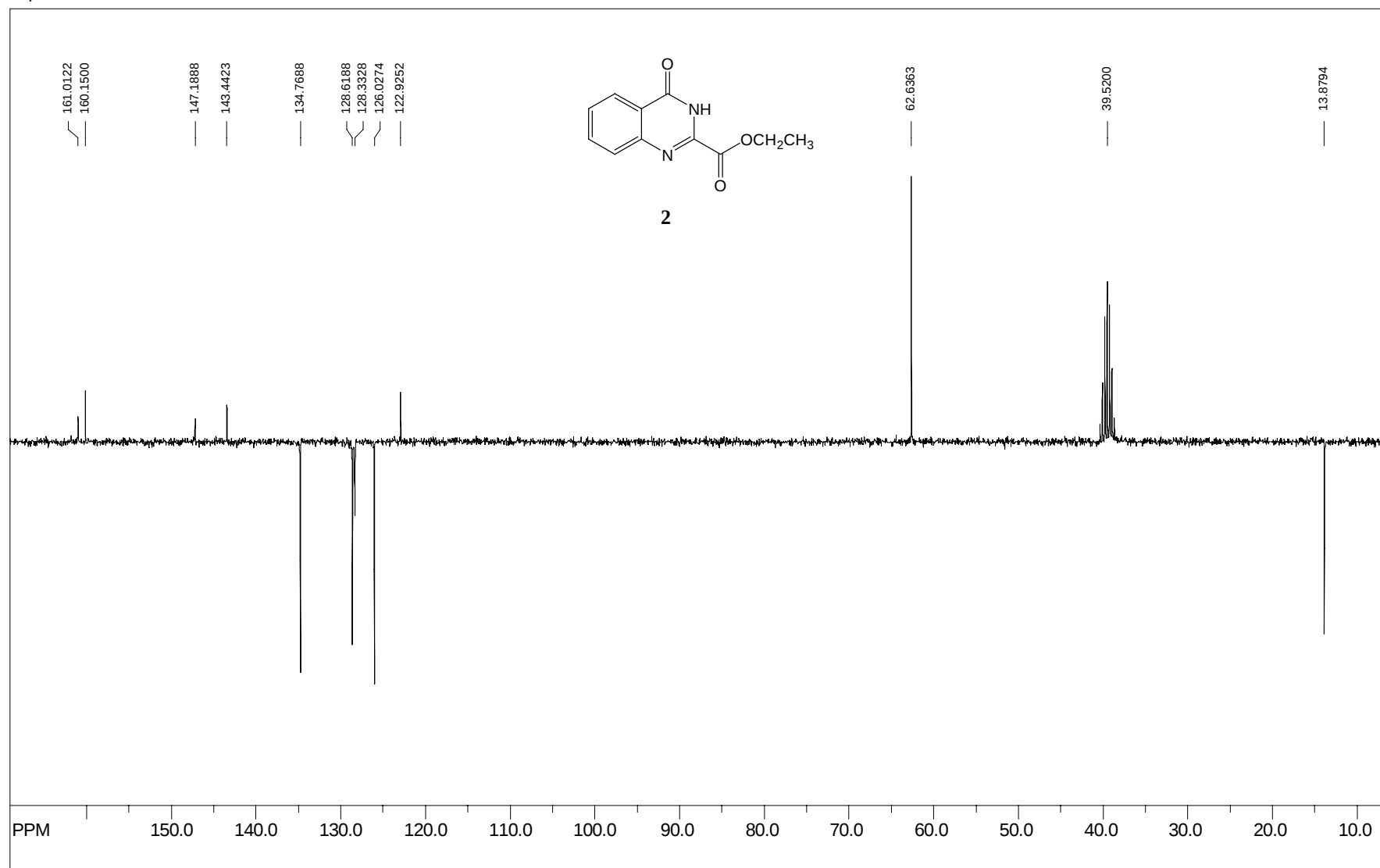
SpinWorks 2.5:



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transmitter freq.: 300.132401 MHz processed size: 32768 complex points
time domain size: 65536 points LB: 0.000 GB: 0.0000
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32

002 quinazolinone-2-carboxylic acid ethyl ester\1H\DMSO_{d6}

SpinWorks 2.5:

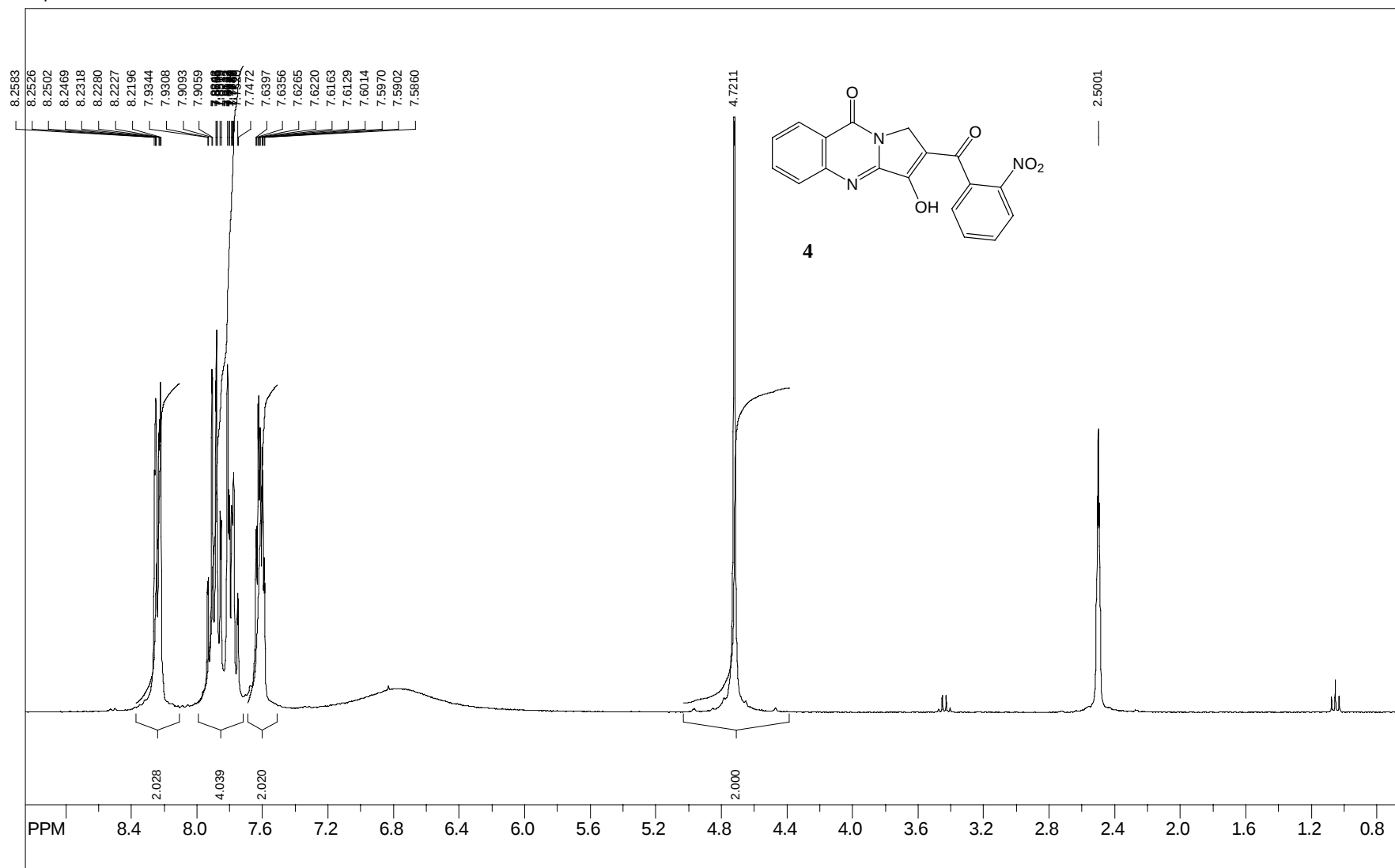


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transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 254

freq. of 0 ppm: 75.467784 MHz
processed size: 32768 complex points
LB: 1.000 GB: 0.0000

002 quinazolinone-2-carboxylic acid ethyl ester\13C_APT\DMSO_{d6}

SpinWorks 2.5:

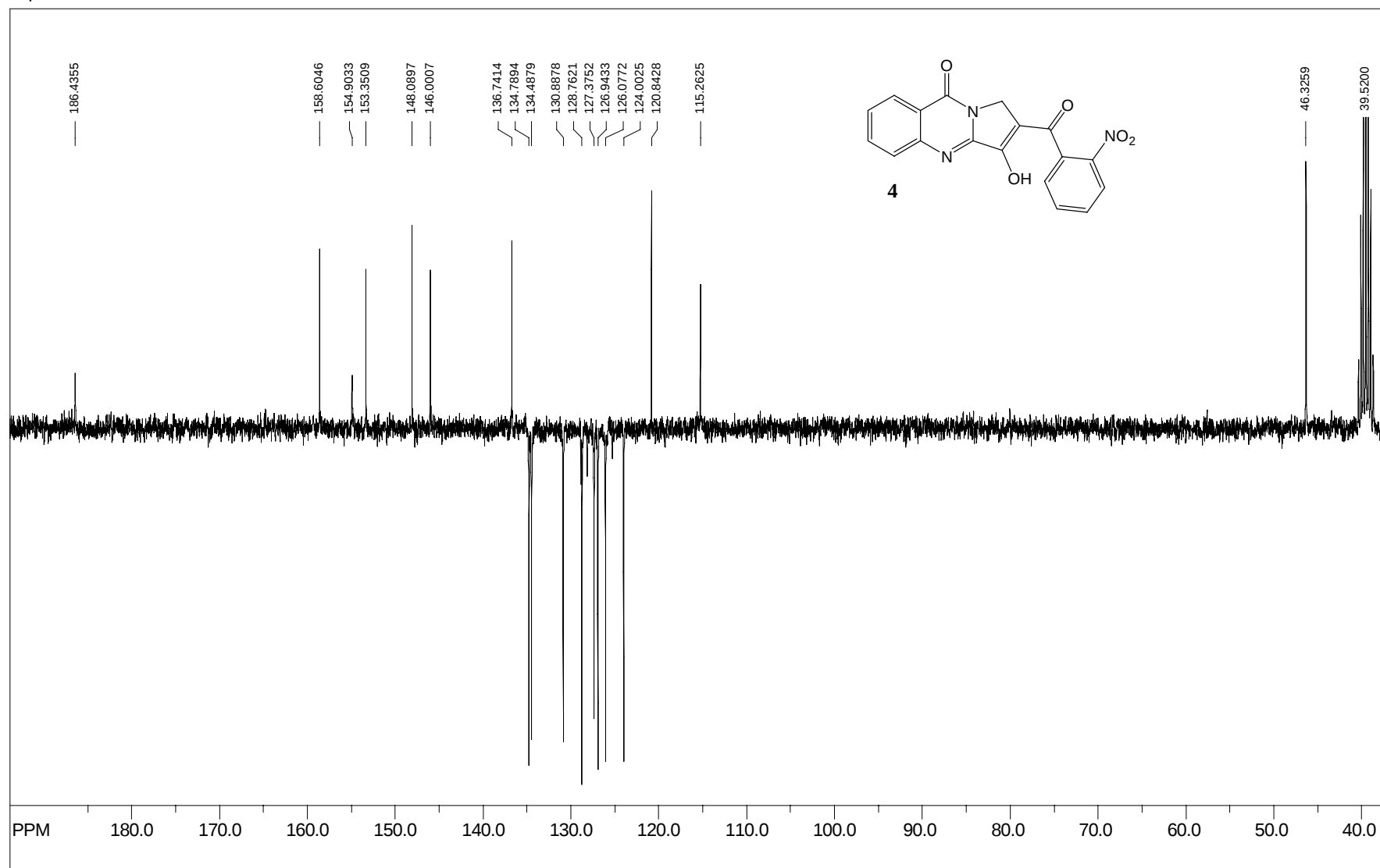


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transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32

freq. of 0 ppm: 300.130001 MHz
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

004 Compound 4\1H\DMSO_{d6}

SpinWorks 2.5:

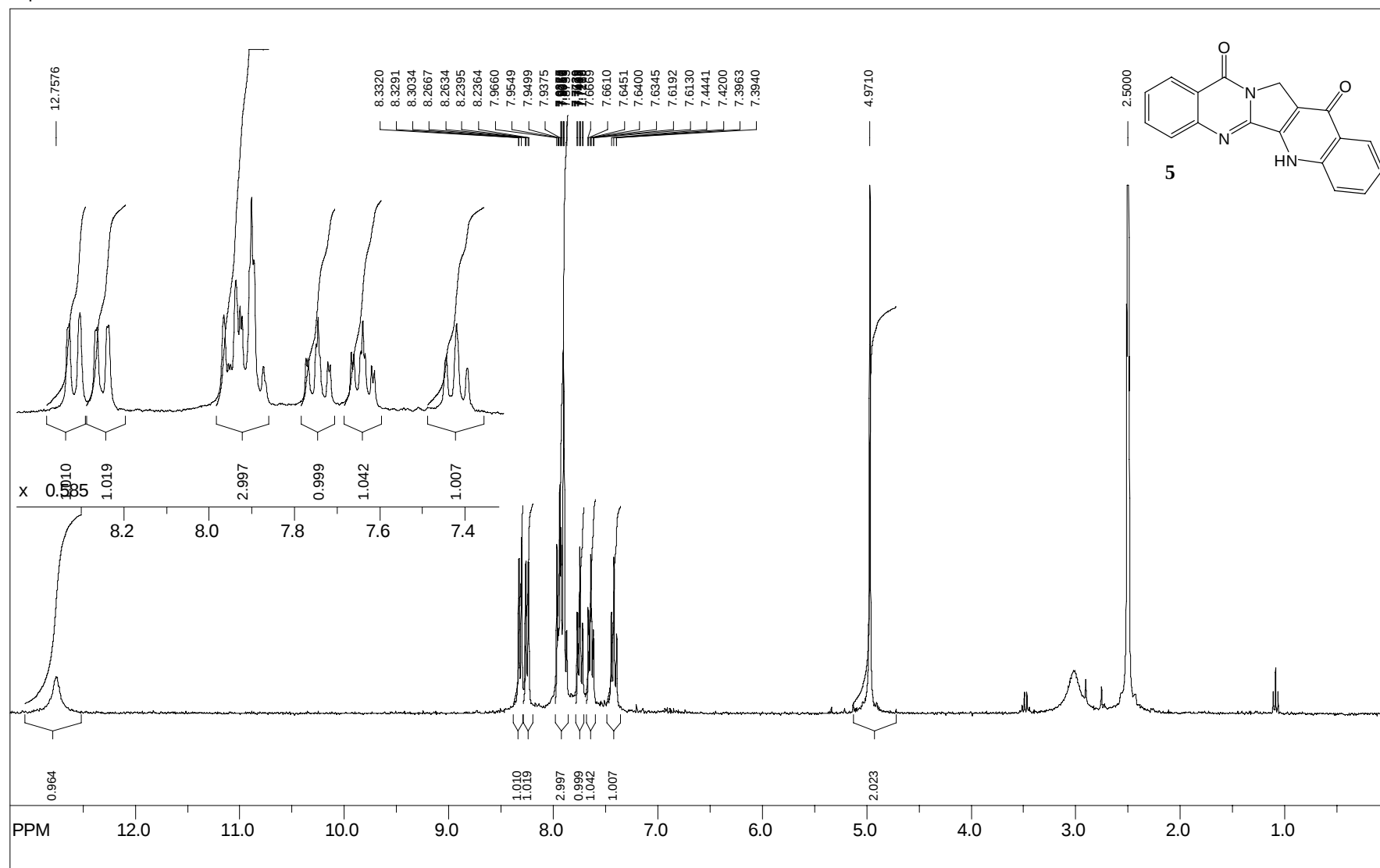


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transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 316

freq. of 0 ppm: 75.467783 MHz
processed size: 32768 complex points
LB: 1.000 GB: 0.0000

004 Compound 4\13C_APT\DMSO_{d6}

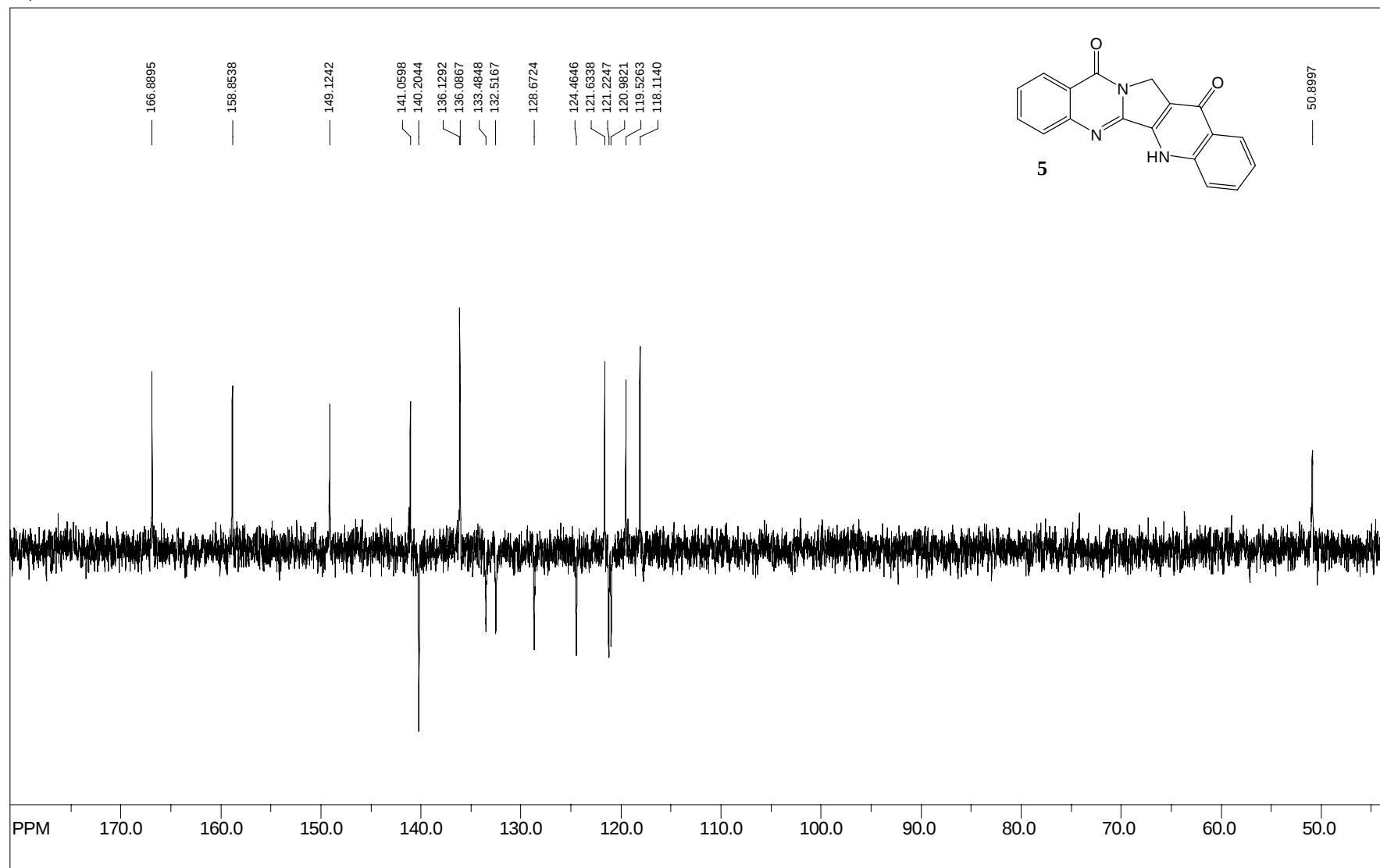
SpinWorks 2.5:



file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\006 pyrroloquinazolinonequinolone\20060403_Redn\1.fid expfreq: 300.130001 MHz
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32
processed size: 32768 complex points
LB: 0.300 GB: 0.0000

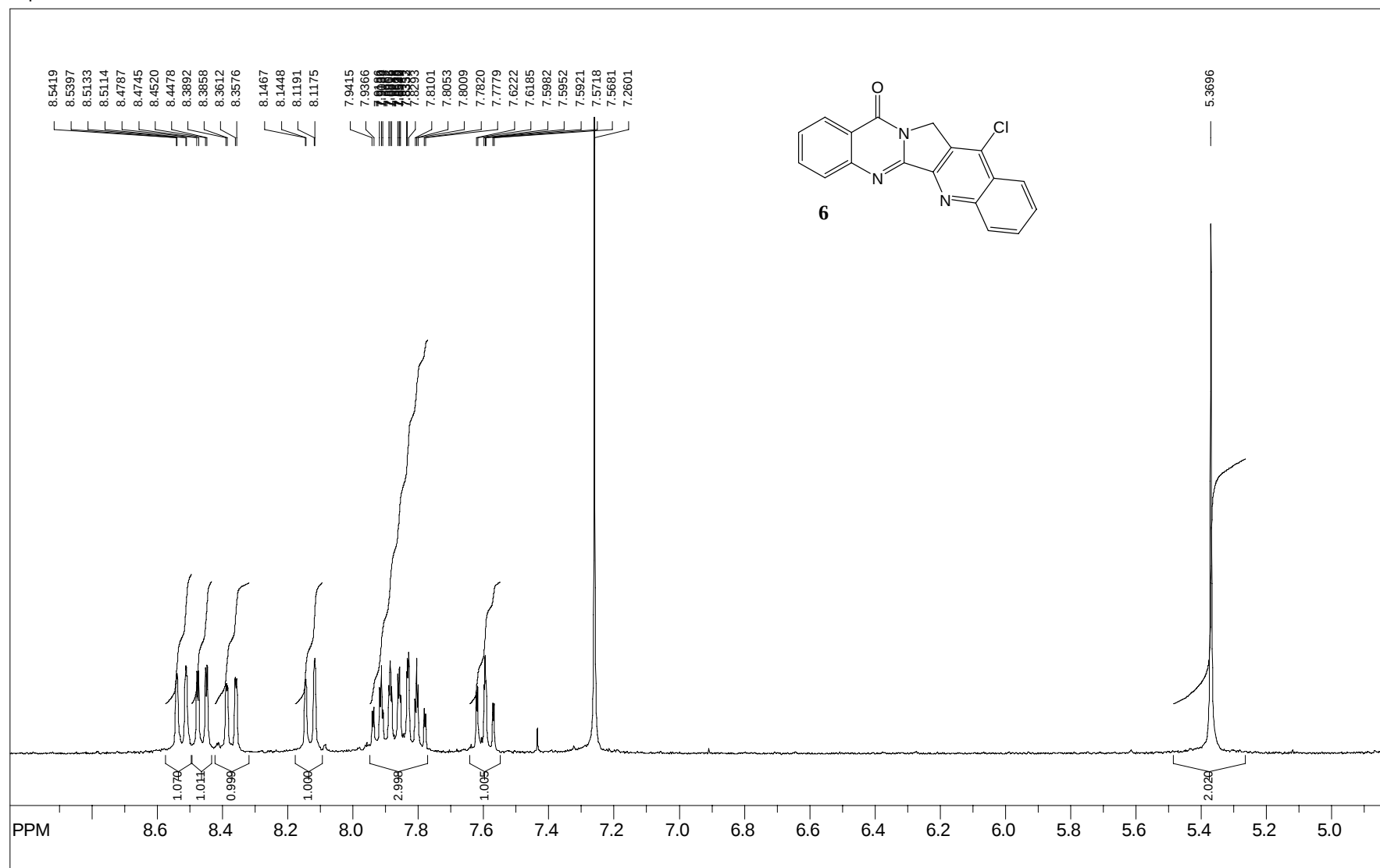
005 5H,12H-5,6,11a-triaza-dibenzo[b,h]fluoren-11,14-dione\1H\DMSO_{d6}

SpinWorks 2.5:

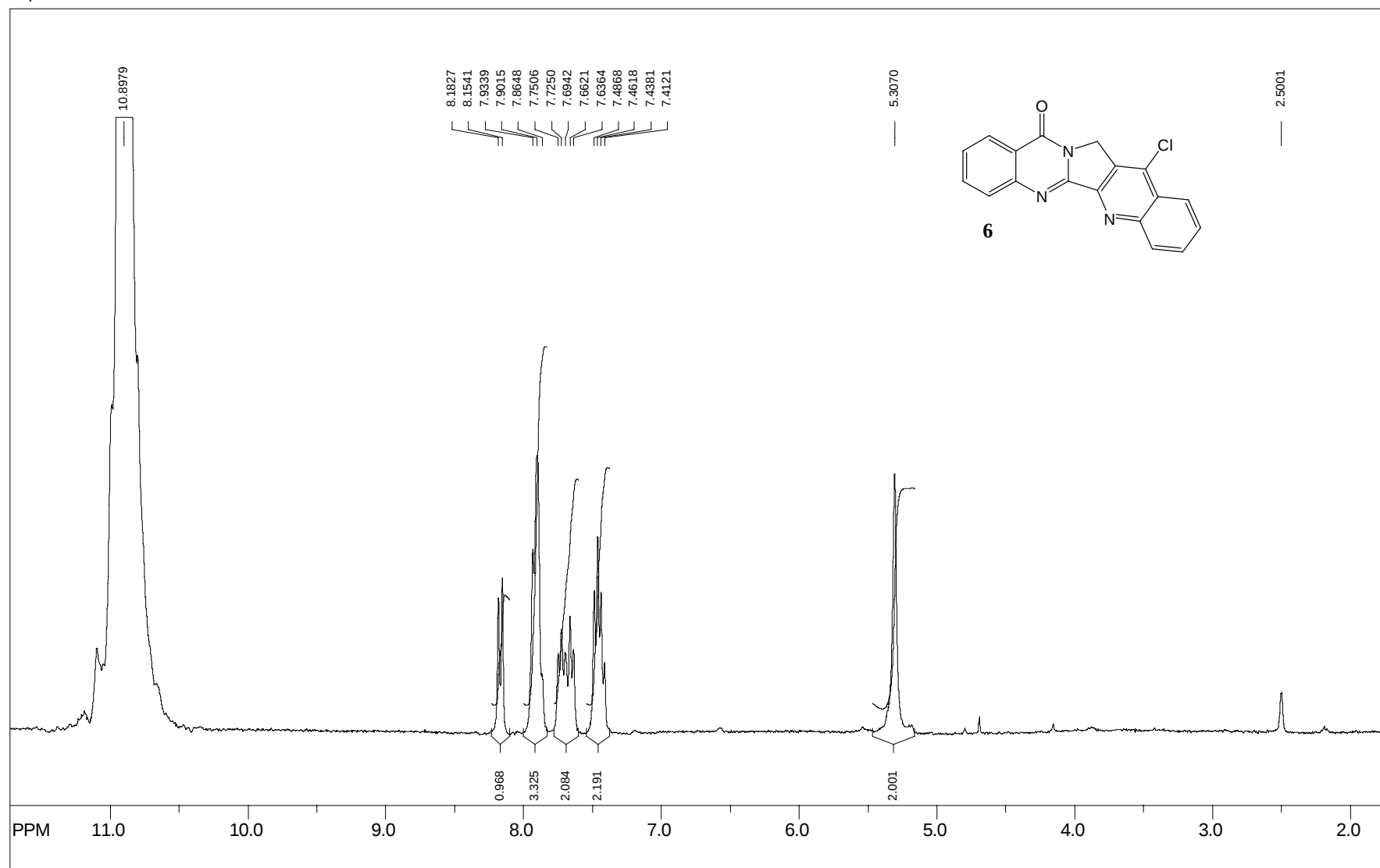


file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\005 pyrroloquinazolinonequinolone\20060227_RednJMD2SO4.d
transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 578
processed size: 32768 complex points
LB: 0.300 GB: 0.0000
005 5H,12H-5,6,11a-triaza-dibenzo[b,h]fluoren-11,14-dione\13C_APT\D₂SO₄

SpinWorks 2.5:



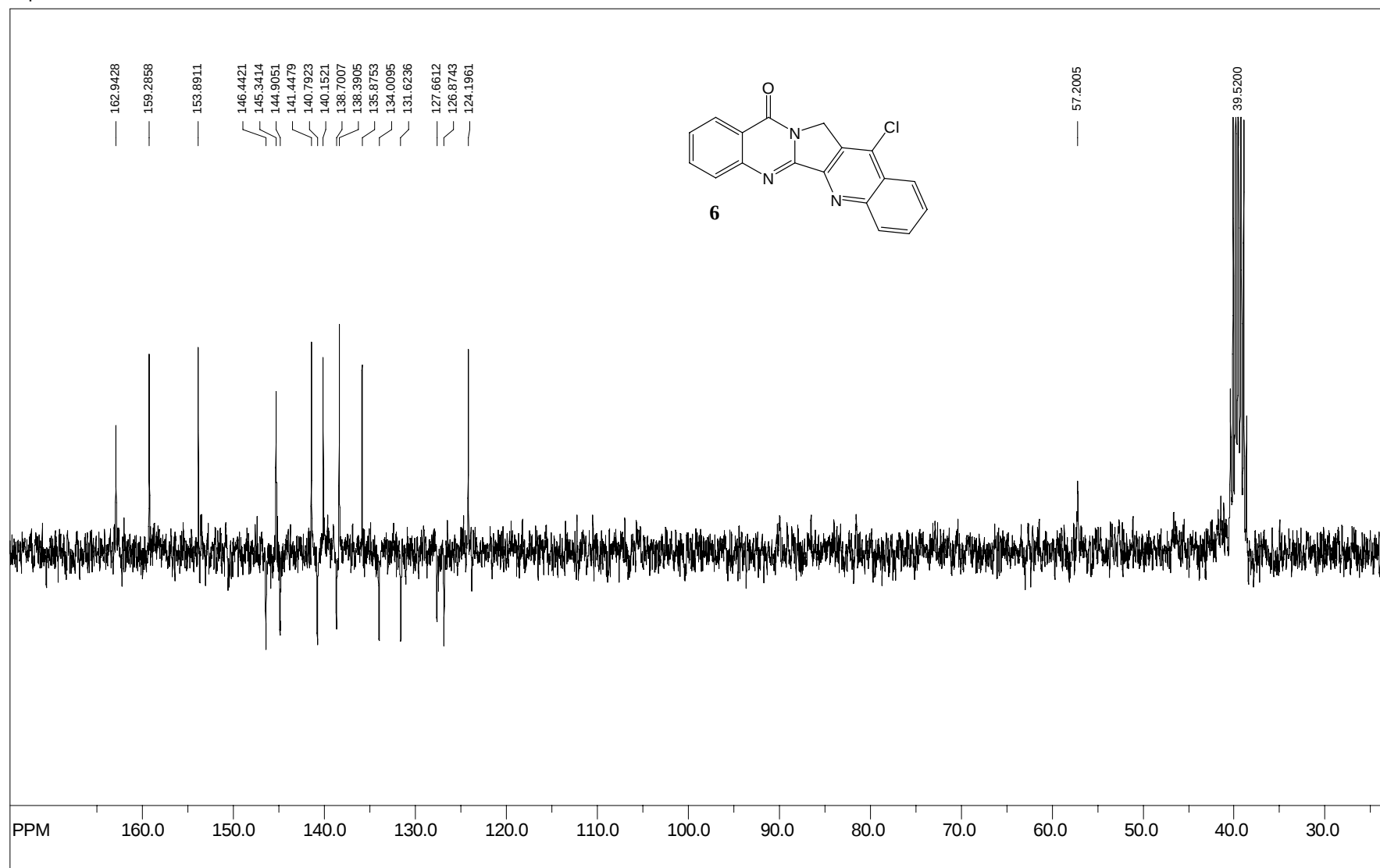
SpinWorks 2.5:



file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\007 14-chloro luotonin A\1H D2SO4 DMSO ref\fid exp: <zg30>req. of 0 ppm: 300.130004 MHz
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

006 14-chloroluotonin A\1H\D₂SO₄-DMSO_d₆

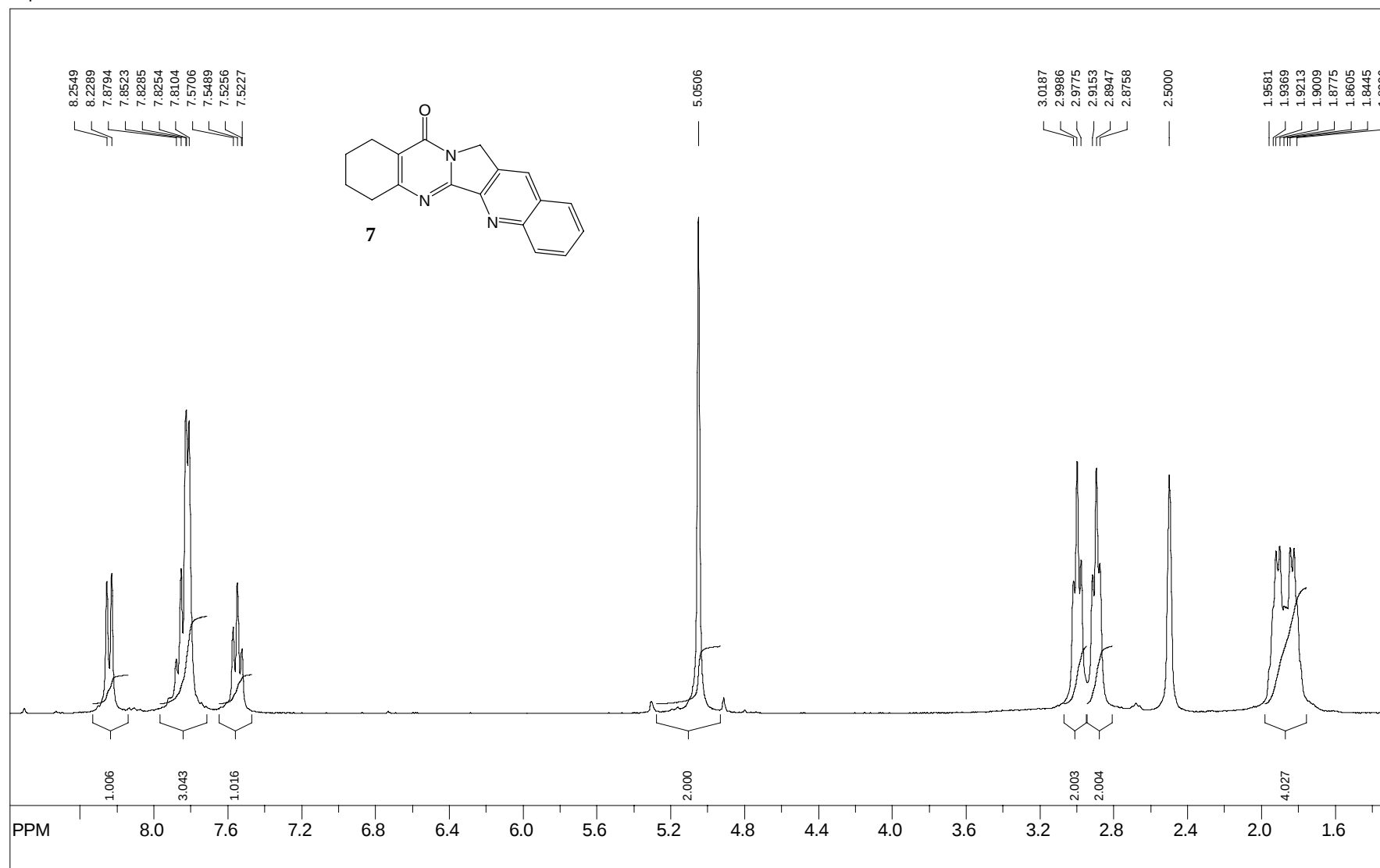
SpinWorks 2.5:



file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\007 14-chloro luotonin A\13C D2SO4 DMSO ref\fid exp: <jmddq, of 0 ppm: 75.467296 MHz
transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 391
processed size: 32768 complex points
LB: 2.000 GB: 0.0000

006 14-chloroluotonin A\13C_APT\D₂SO₄-DMSO_{d6}

SpinWorks 2.5:

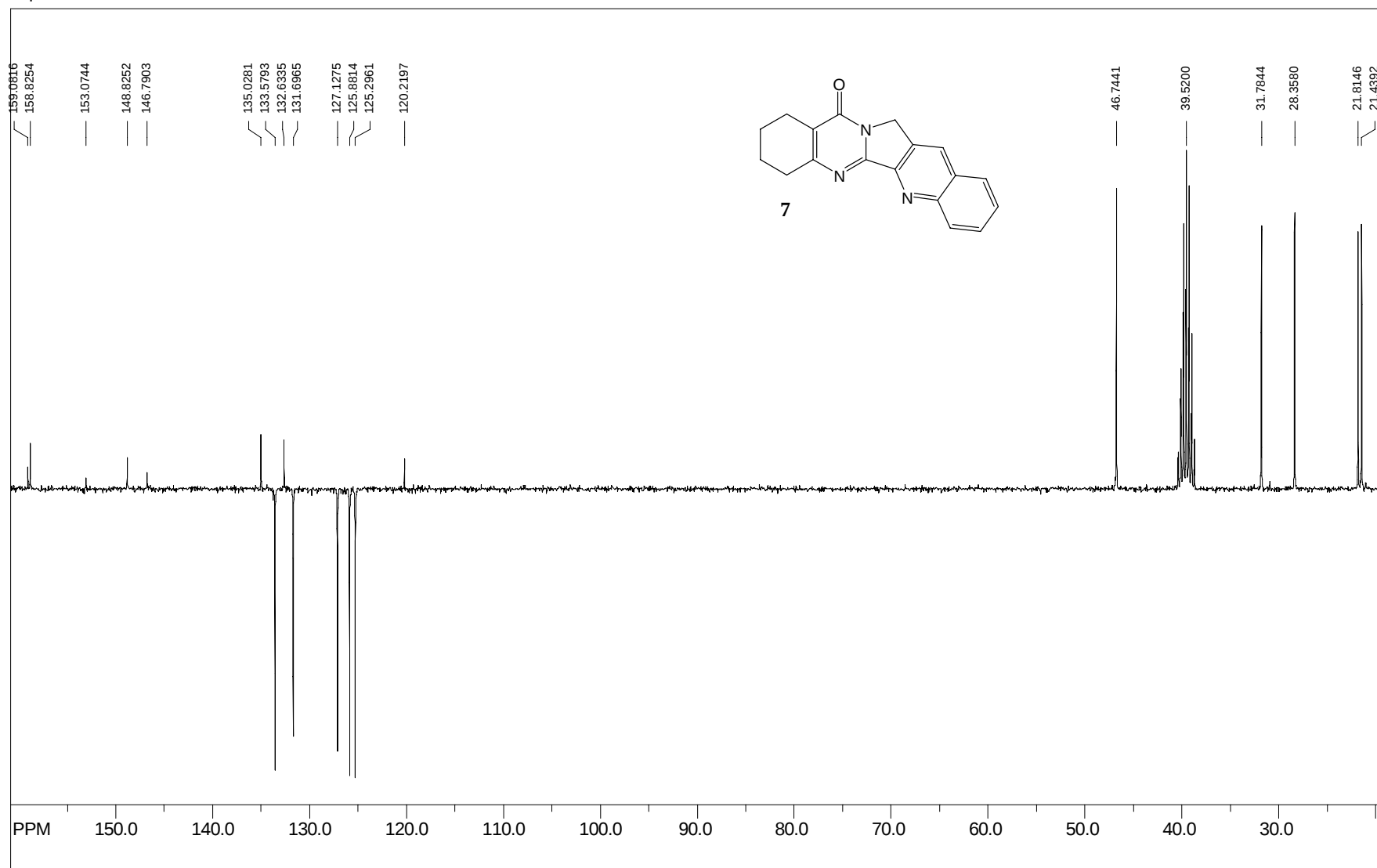


file: F:\NMR\tetrahydro 20070512\1\fid exp: <zg30>
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32

freq. of 0 ppm: 300.130002 MHz
processed size: 32768 complex points
LB: 0.300 GB: 0.0000

007 7,8,9,10-tetrahydroluotoninn A\1H\DMSO_{d6}

SpinWorks 2.5:

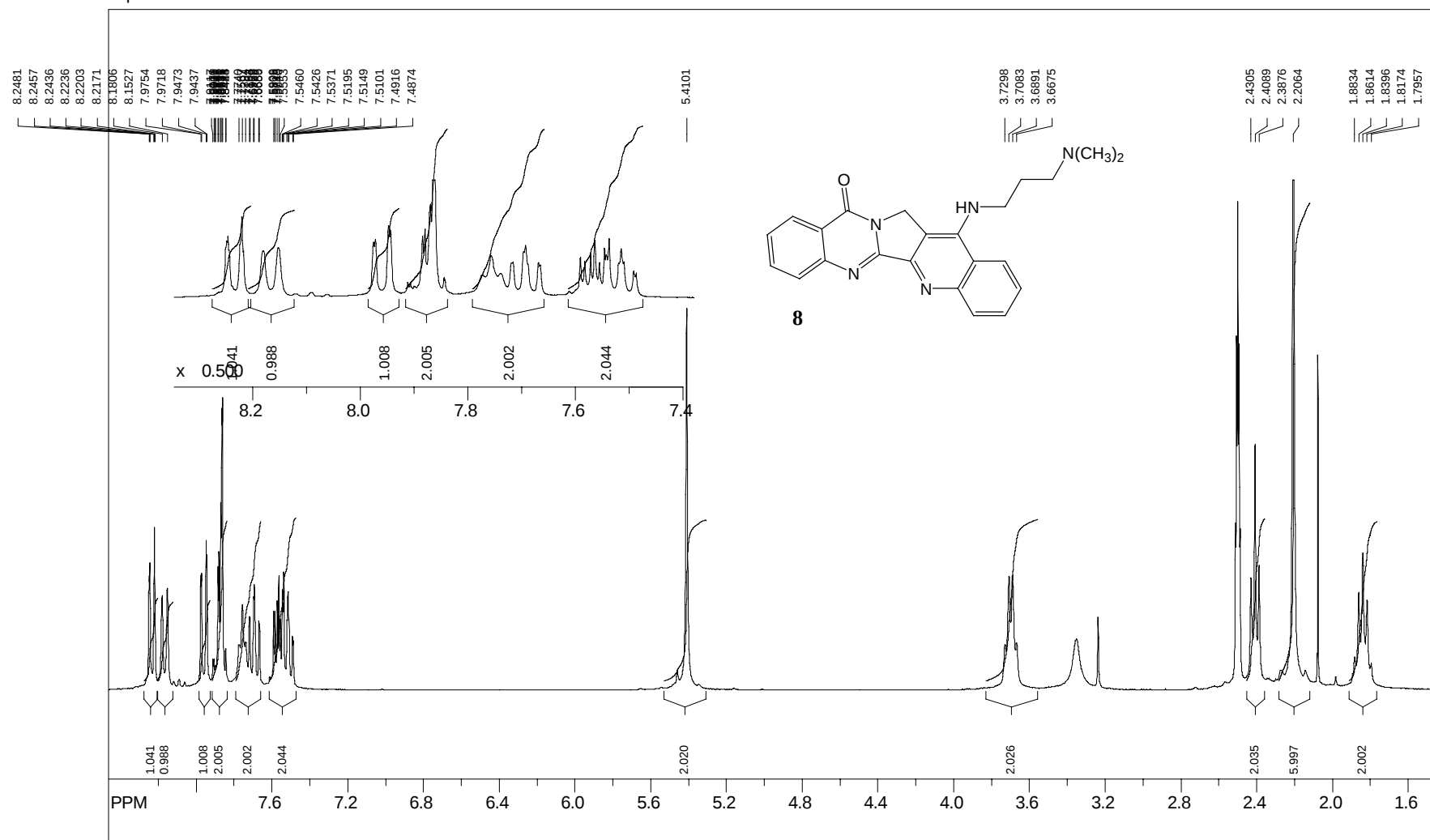


file: F:\NMR\tetrahydro 20070512\2fid exp: <jmod>
transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 12288

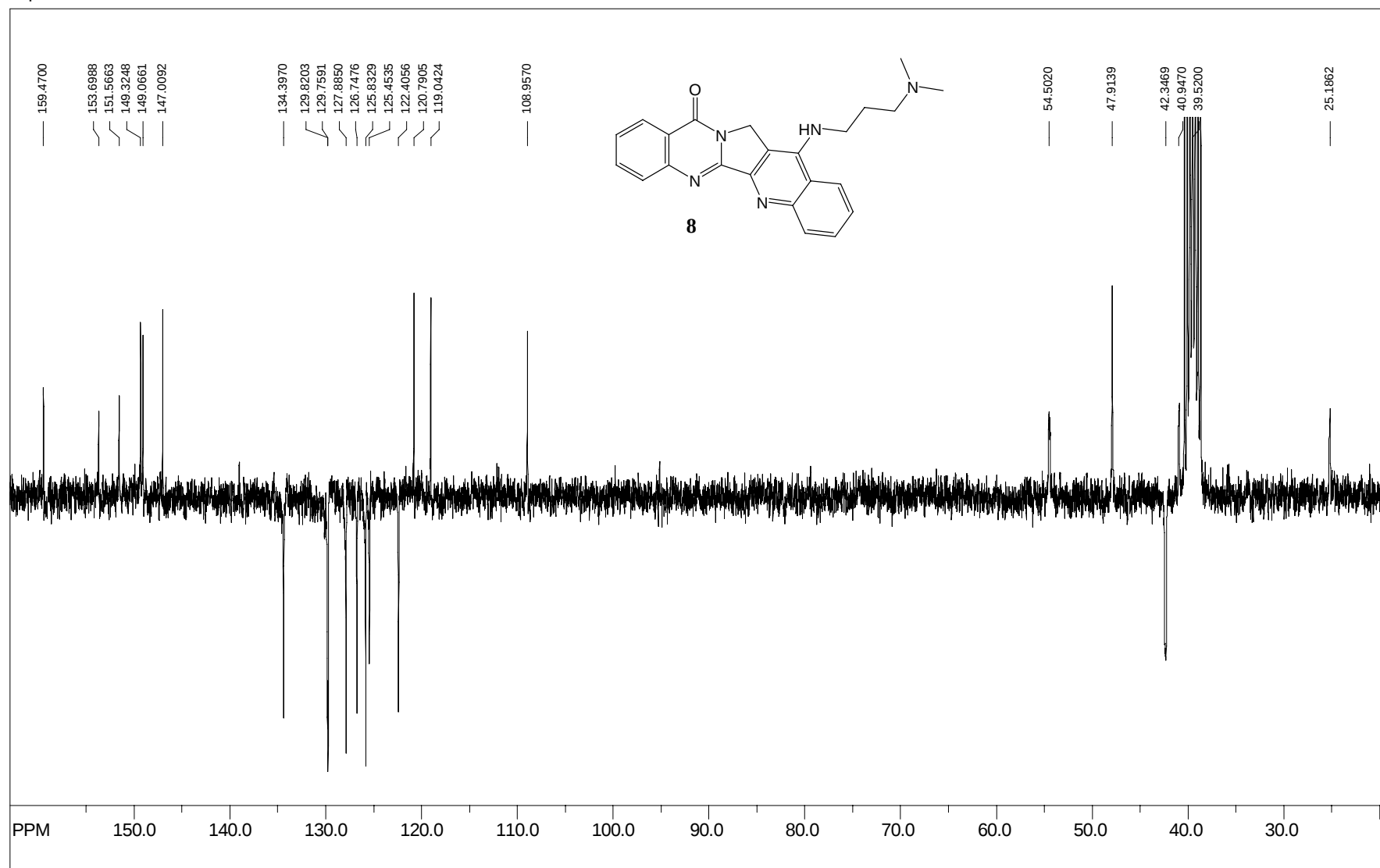
freq. of 0 ppm: 75.467822 MHz
processed size: 32768 complex points
LB: 1.000 GB: 0.0000

007 7,8,9,10-tetrahydroluotoninn A\13C_APT\DMSO_{d6}

SpinWorks 2.5:



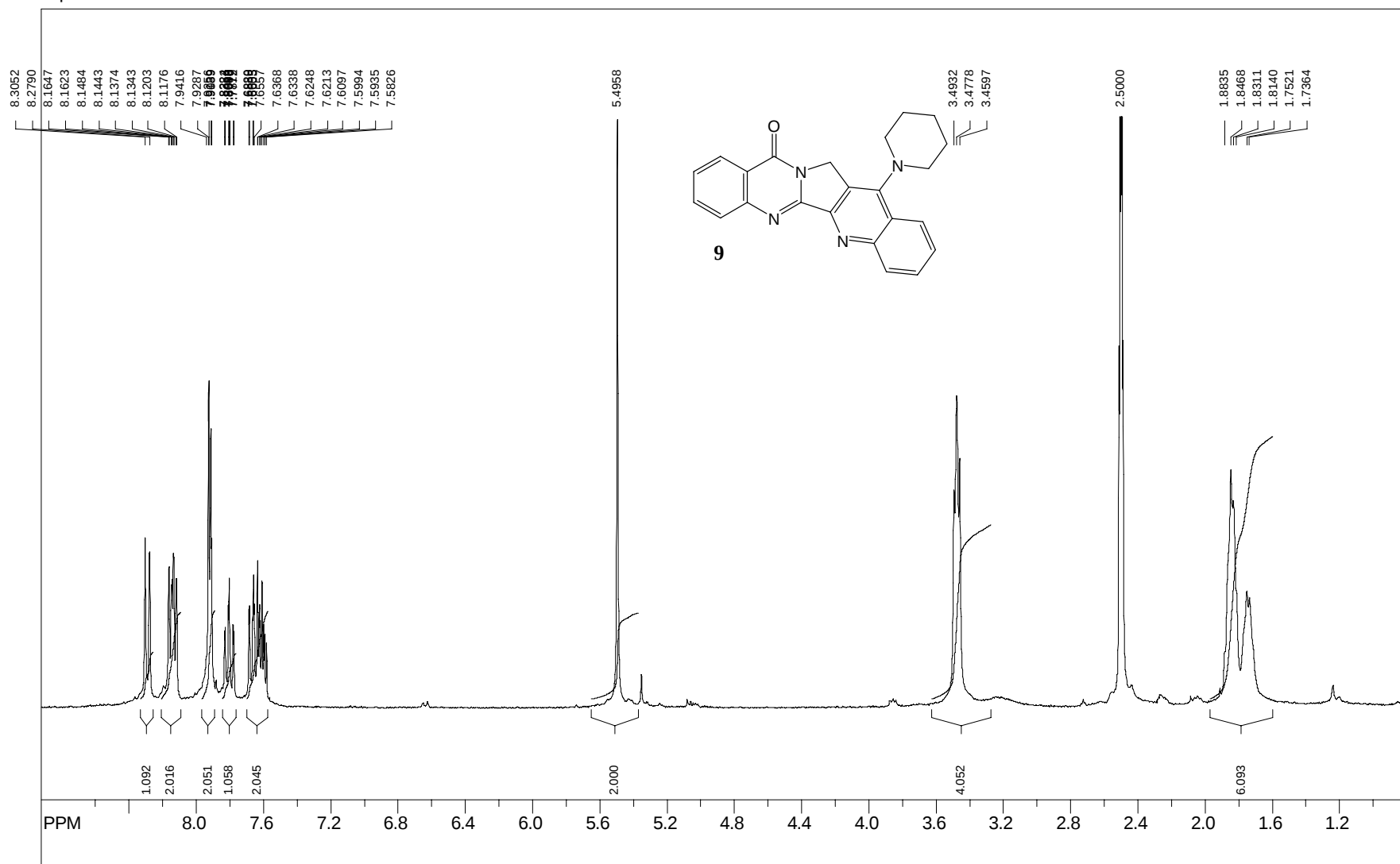
SpinWorks 2.5:



file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\009 N-dimethylpropylamino luotonin A\Ndimethylpropylaminolutonin-3d.appt
transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 6000
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

008 Compound 8\13C_APT\DMSO_{d6}

SpinWorks 2.5:

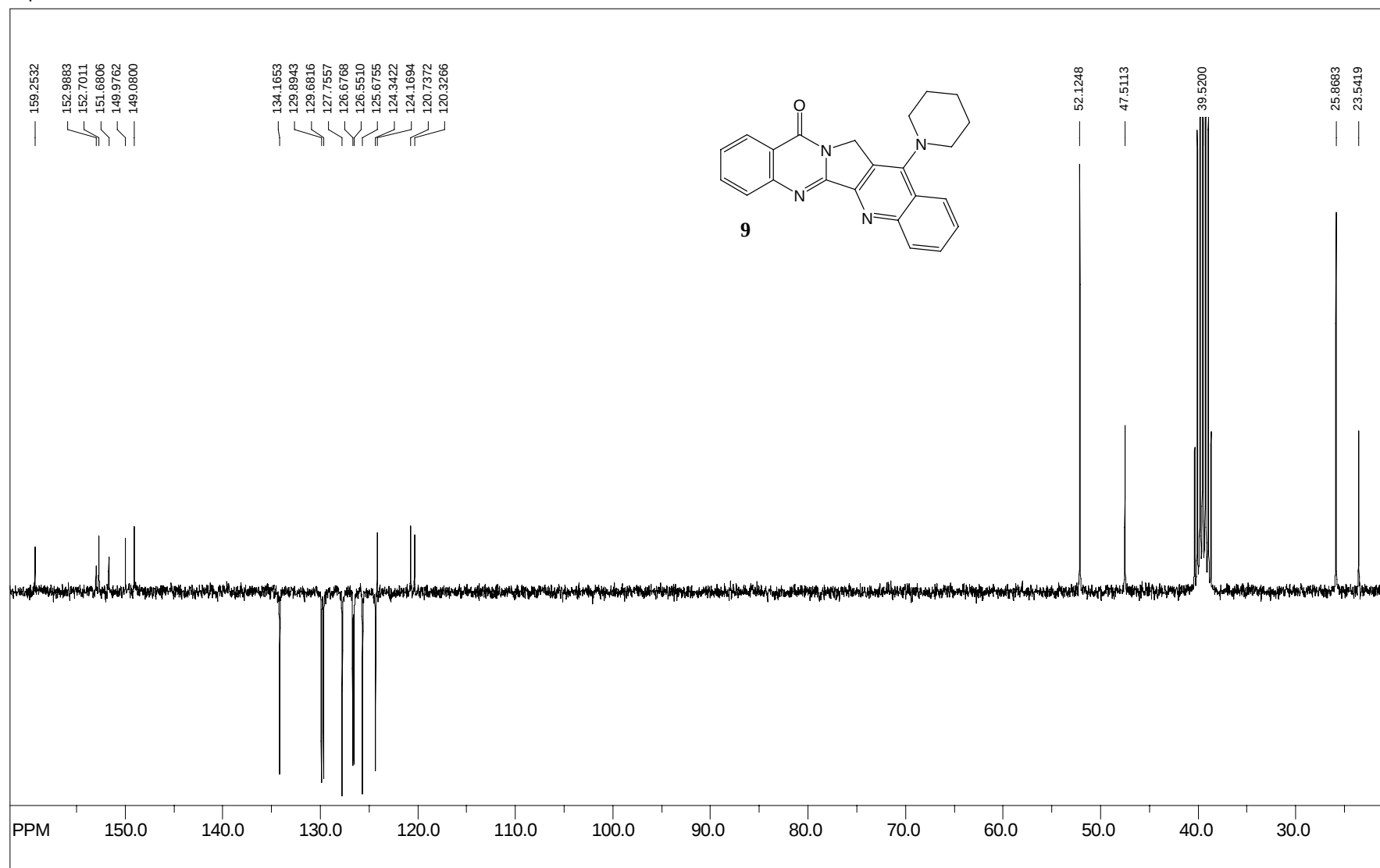


file: F:\NMR\pip-luot A may\4 Hfid exp: <zg30>
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32

freq. of 0 ppm: 300.130001 MHz
processed size: 32768 complex points
LB: 0.300 GB: 0.0000

009 Compound 9\1H\DMSO_{d6}

SpinWorks 2.5:

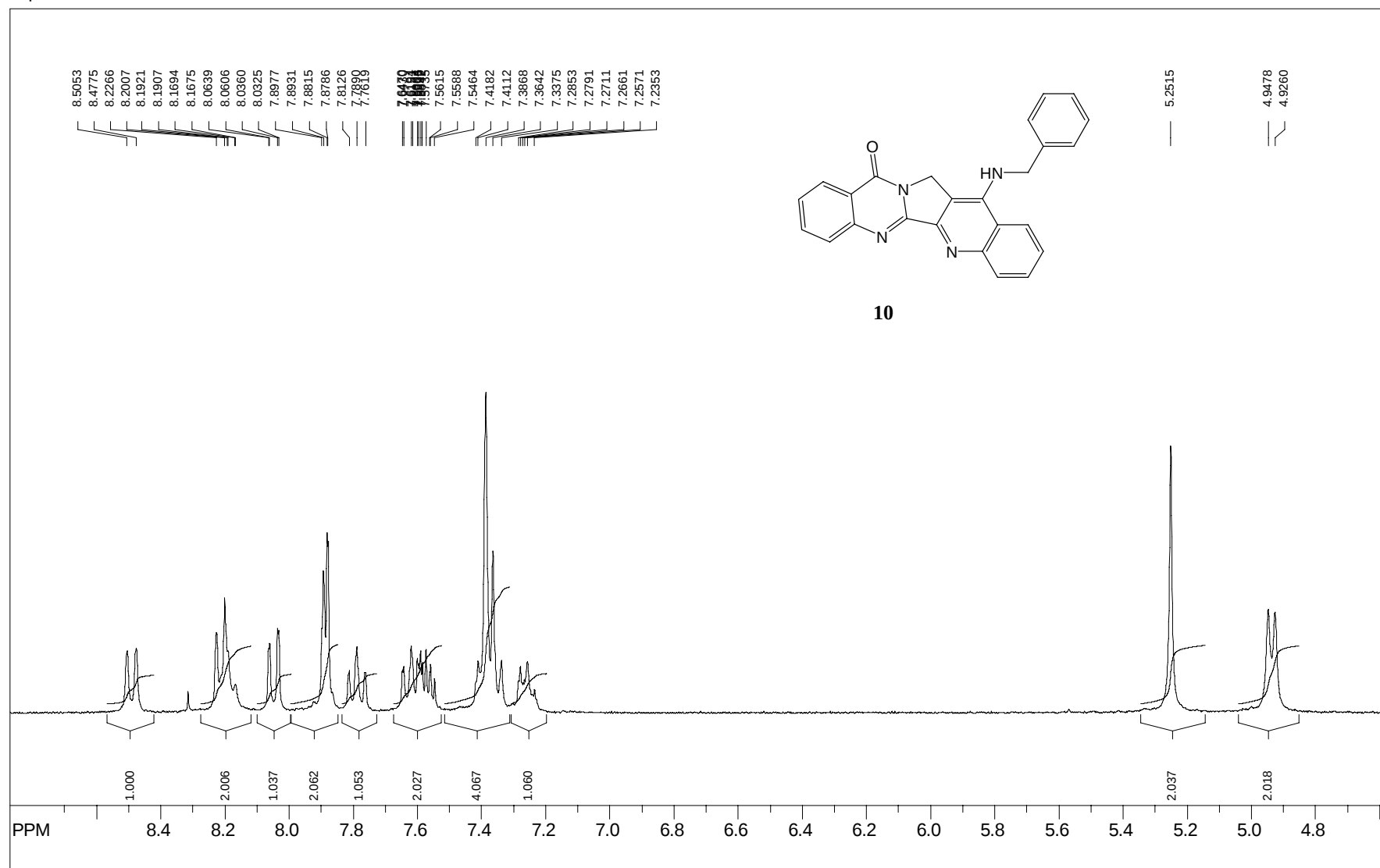


file: F:\NMR\pip-luot A may15 APT good\fid exp: <jmod>
transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 12288

freq. of 0 ppm: 75.467801 MHz
processed size: 32768 complex points
LB: 1.000 GB: 0.0000

009 Compound 9\13C-APT\DMSO_{d6}

SpinWorks 2.5:

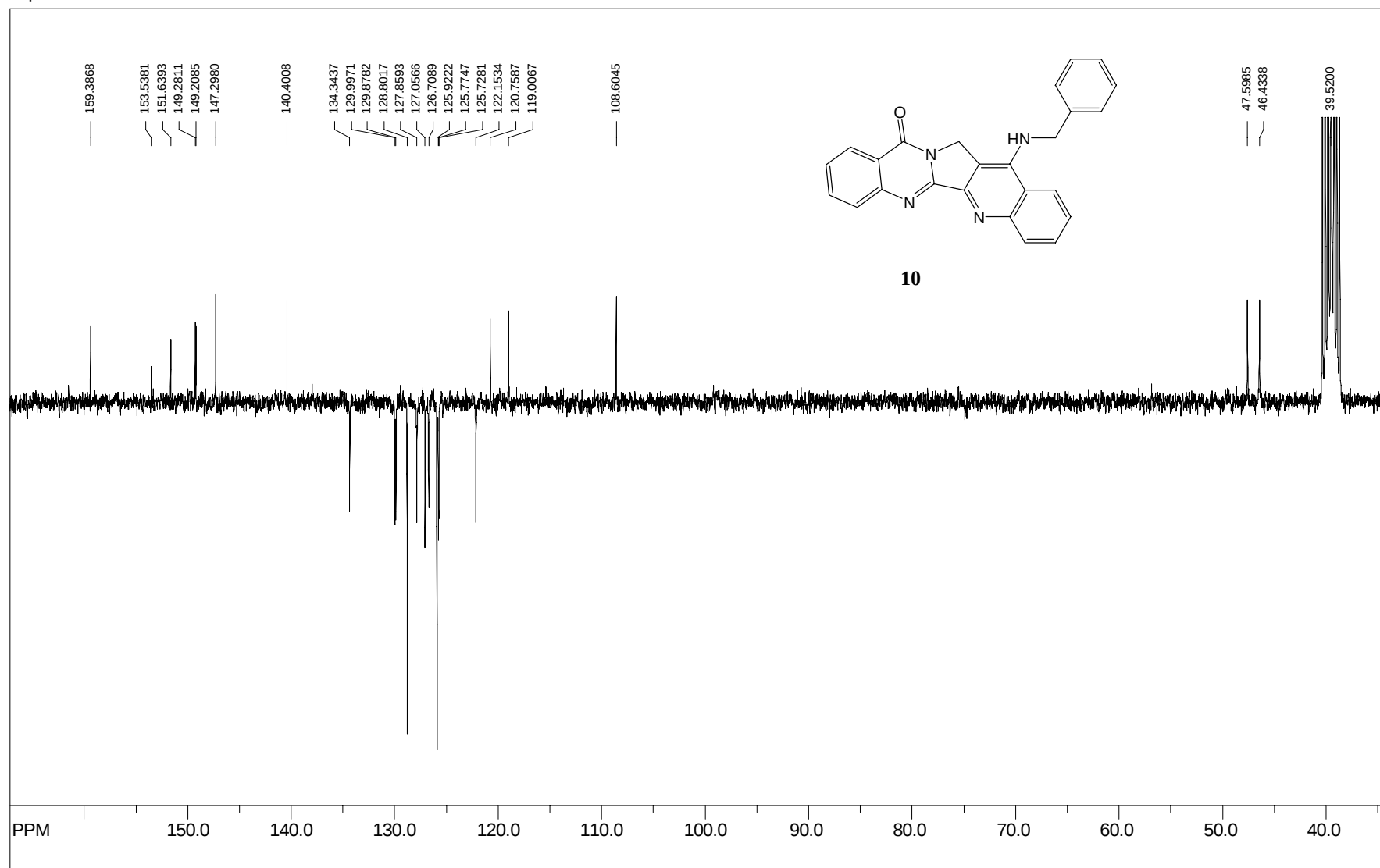


file: F:\NMR\benzylamino luot A\3\fid exp: <zg30>
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 32

010 Compound 10\1H\DMSO_{d6}

freq. of 0 ppm: 300.130001 MHz
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

SpinWorks 2.5:

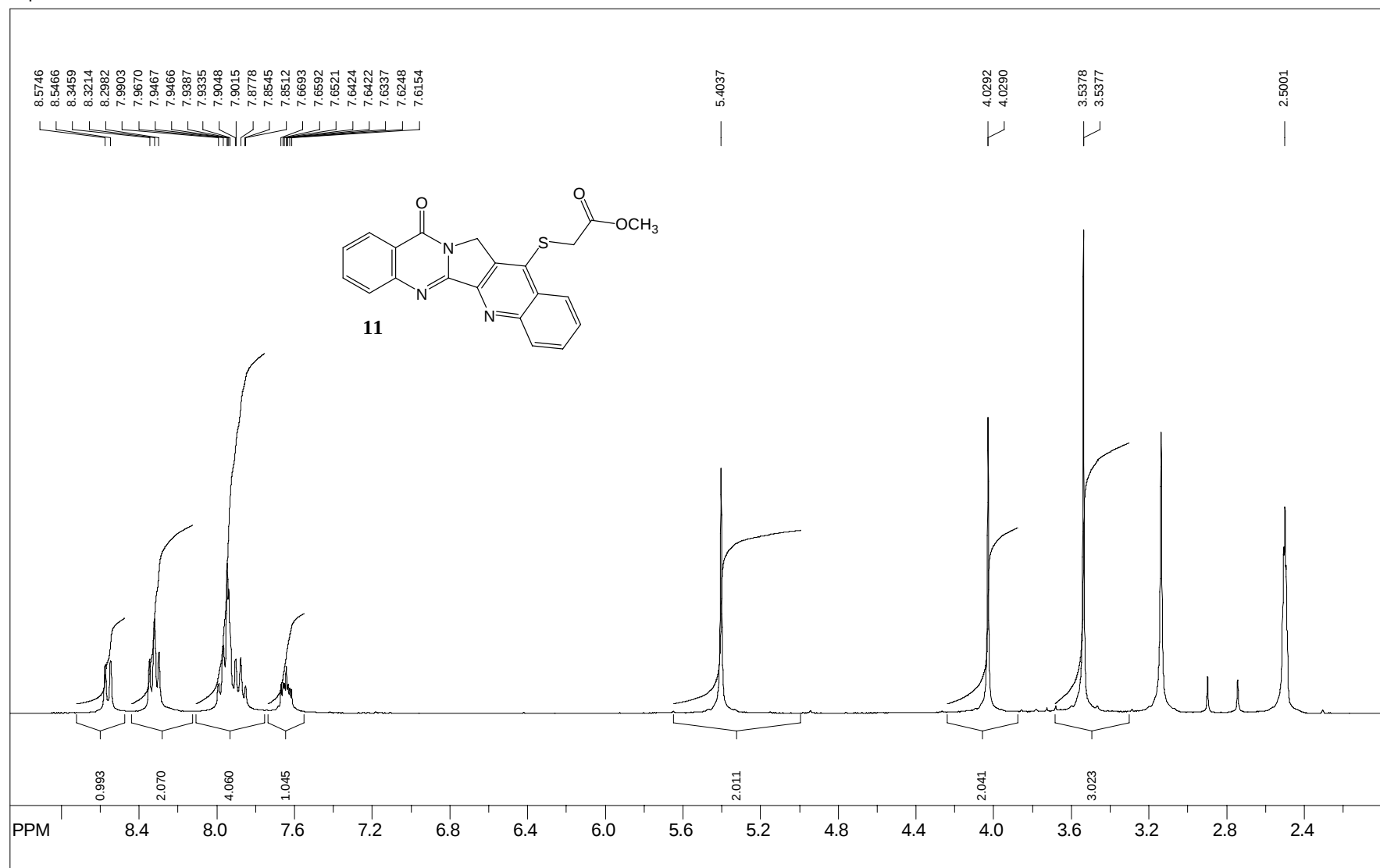


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time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 14591

freq. of 0 ppm: 75.467785 MHz
processed size: 32768 complex points
LB: 1.000 GB: 0.0000

010 Compound 10\13C_APT\DMSO_{d6}

SpinWorks 2.5:

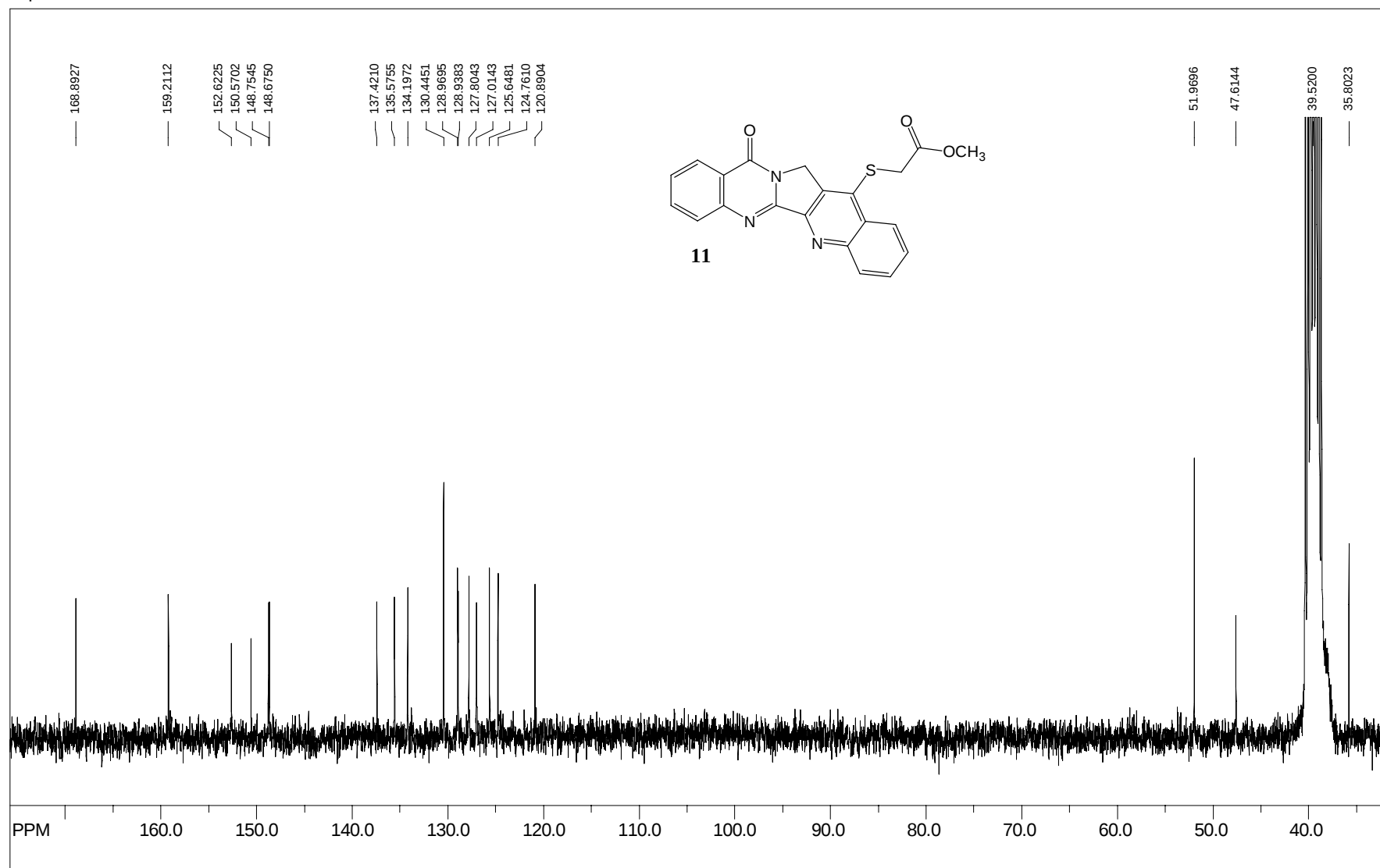


file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\011 methyl mercapto luotonin A\3\fid exp: <zg30>
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
width: 5411.26 Hz = 18.029561 ppm = 0.082569 Hz/pt
number of scans: 128

011 Compound 11\1H\DMSO_{d6}

freq. of 0 ppm: 300.130001 MHz
processed size: 32768 complex points
LB: 1.000 GB: 0.0000

SpinWorks 2.5:

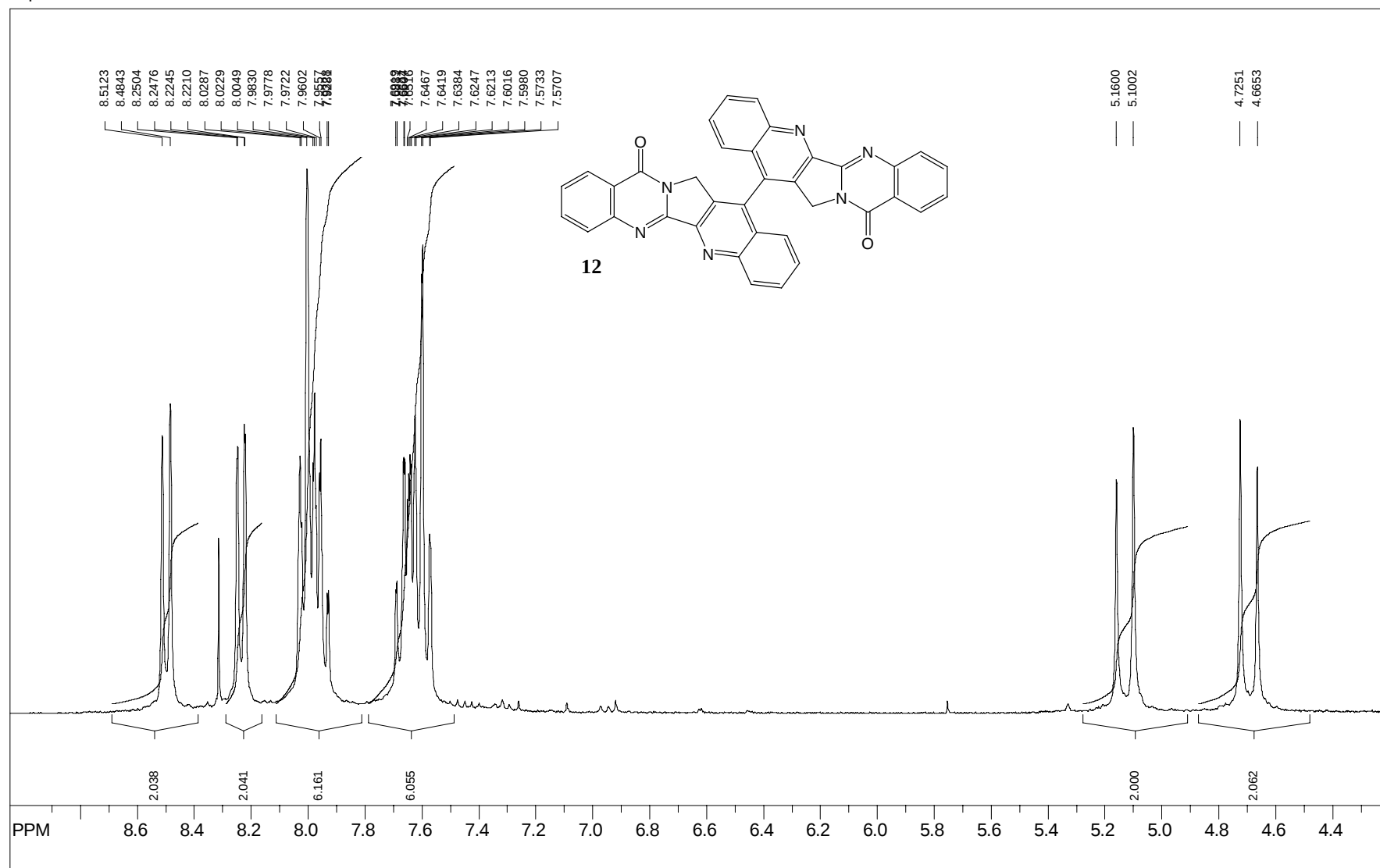


file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\012 methyl mercapto luotonin A\2\fid exp: <zpgp30>
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time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 7000

freq. of 0 ppm: 75.467806 MHz
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

011 Compound 11\13C_CPD\DMSO_{d6}

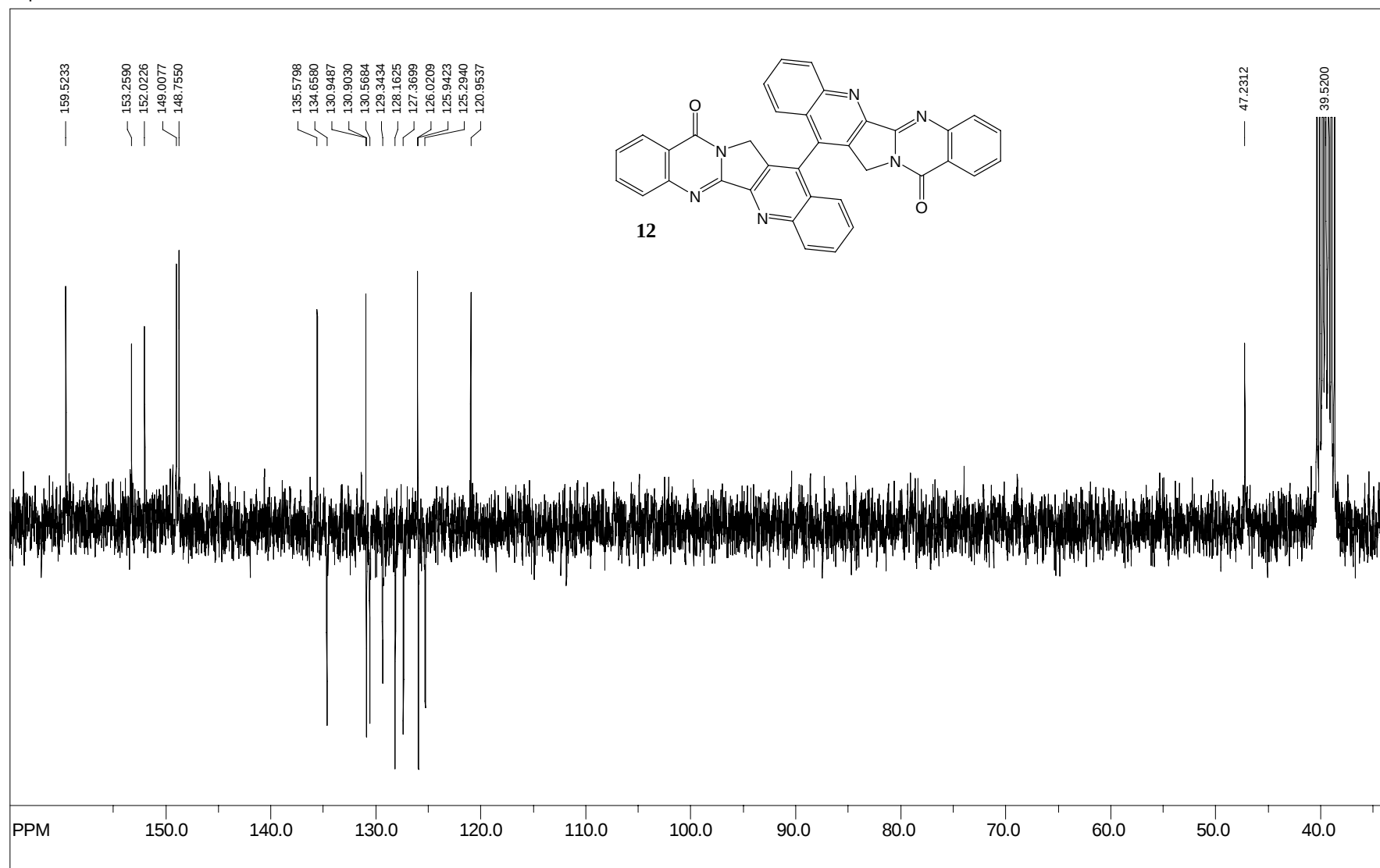
SpinWorks 2.5:



file: C:\Documents and Settings\Jeff\My Documents\Chemistry\NMR Spectra\012 14,14-bis-luotonin A\20060510 LuotoninA\1\fid exp: <zg30> of 0 ppm: 300.130001 MHz
transmitter freq.: 300.132401 MHz
time domain size: 65536 points
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number of scans: 32
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

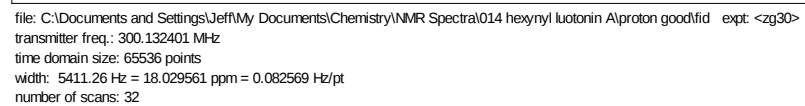
012 14,14'-bis-luotonin A\1H\DMSO_{d6}

SpinWorks 2.5:



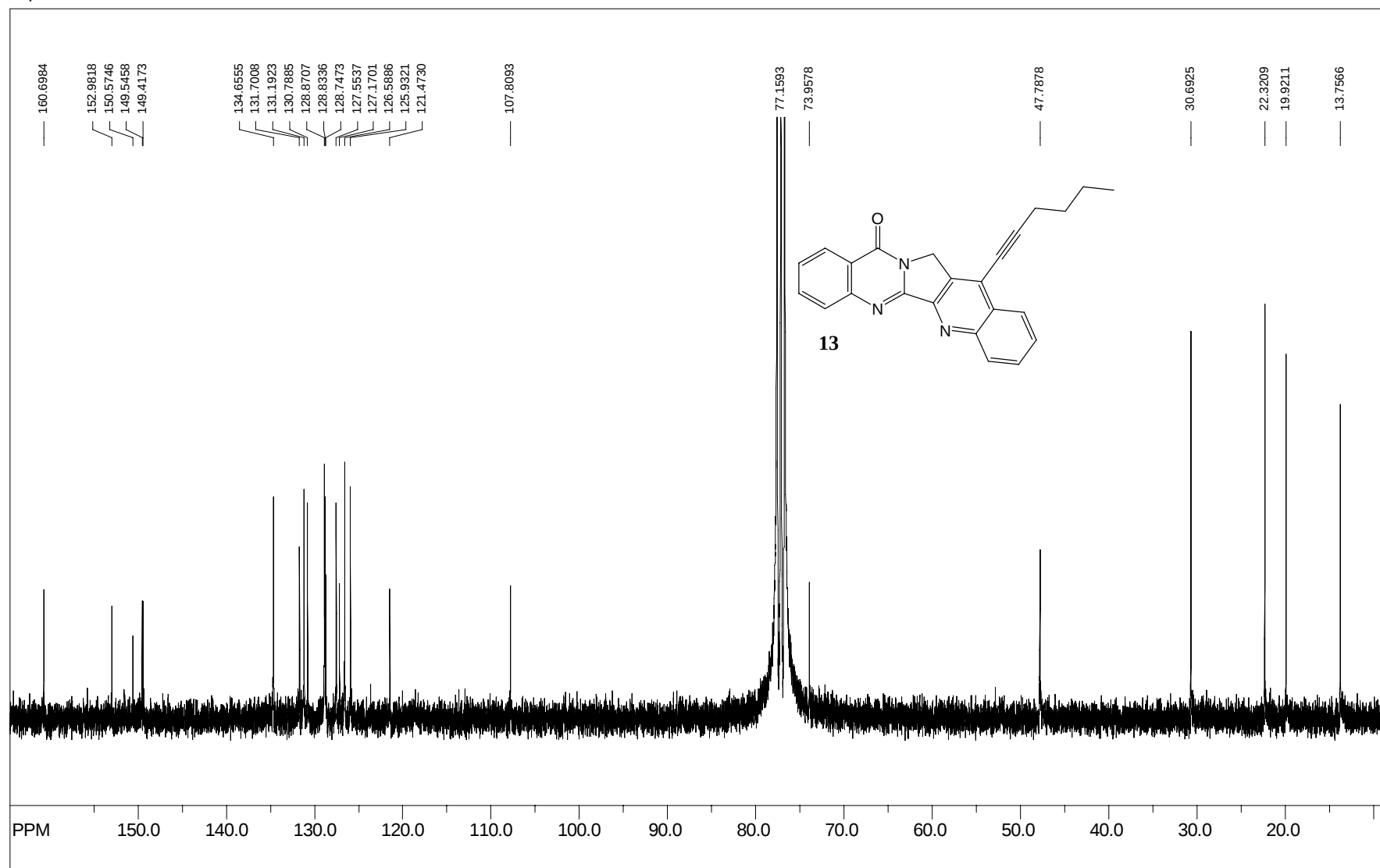
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transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 1024
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

012 14,14'-bis-luotonin A\13C_APT\DMSO_{d6}



```
freq. of 0 ppm: 300.130006 MHz
processed size: 32768 complex points
LB: 0.000 GB: 0.0000
```

SpinWorks 2.5:



file: F:\NMR\hex\luot A may\2\fid exp: <zpgp30>
transmitter freq.: 75.475295 MHz
time domain size: 65536 points
width: 17985.61 Hz = 238.297995 ppm = 0.274439 Hz/pt
number of scans: 1024

freq. of 0 ppm: 75.467739 MHz
processed size: 32768 complex points
LB: 0.000 GB: 0.0000

013 14-(hex-15-ynyl)luotonin A\13C_CPD\CDCl₃