

# J | A | C | S

JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

J. Am. Chem. Soc., 1996, 118(36), 8553-8565, DOI:[10.1021/ja961373w](https://doi.org/10.1021/ja961373w)

## Terms & Conditions

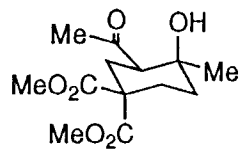
Electronic Supporting Information files are available without a subscription to ACS Web Editions. The American Chemical Society holds a copyright ownership interest in any copyrightable Supporting Information. Files available from the ACS website may be downloaded for personal use only. Users are not otherwise permitted to reproduce, republish, redistribute, or sell any Supporting Information from the ACS website, either in whole or in part, in either machine-readable form or any other form without permission from the American Chemical Society. For permission to reproduce, republish and redistribute this material, requesters must process their own requests via the RightsLink permission system. Information about how to use the RightsLink permission system can be found at <http://pubs.acs.org/page/copyright/permissions.html>



ACS Publications

MOST TRUSTED. MOST CITED. MOST READ.

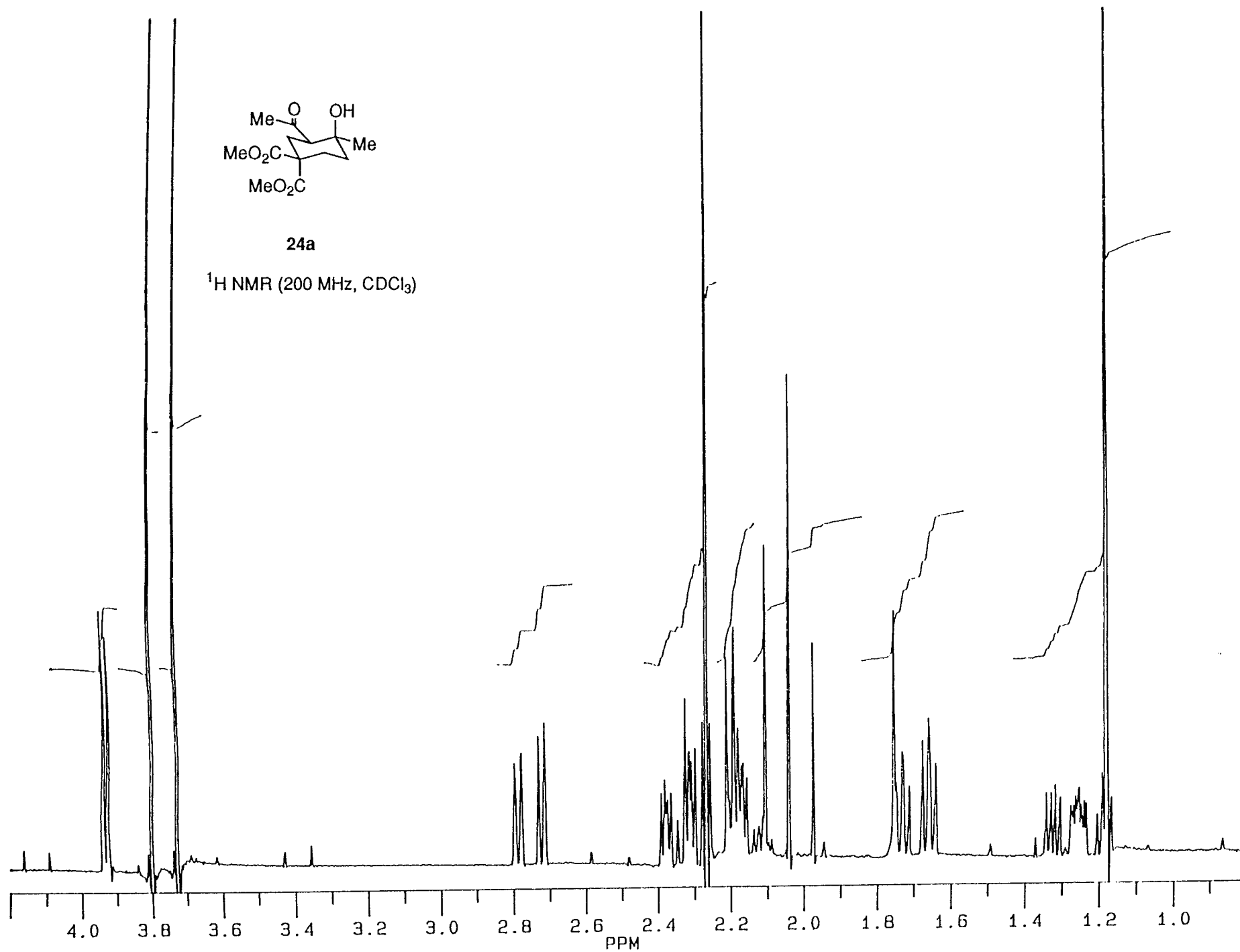
Copyright © 1996 American Chemical Society

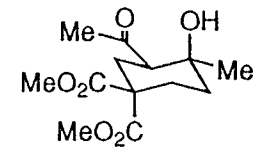
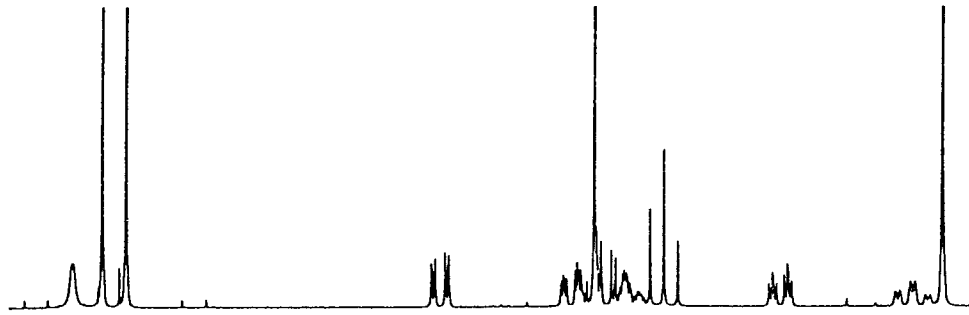


24a

<sup>1</sup>H NMR (200 MHz, CDCl<sub>3</sub>)

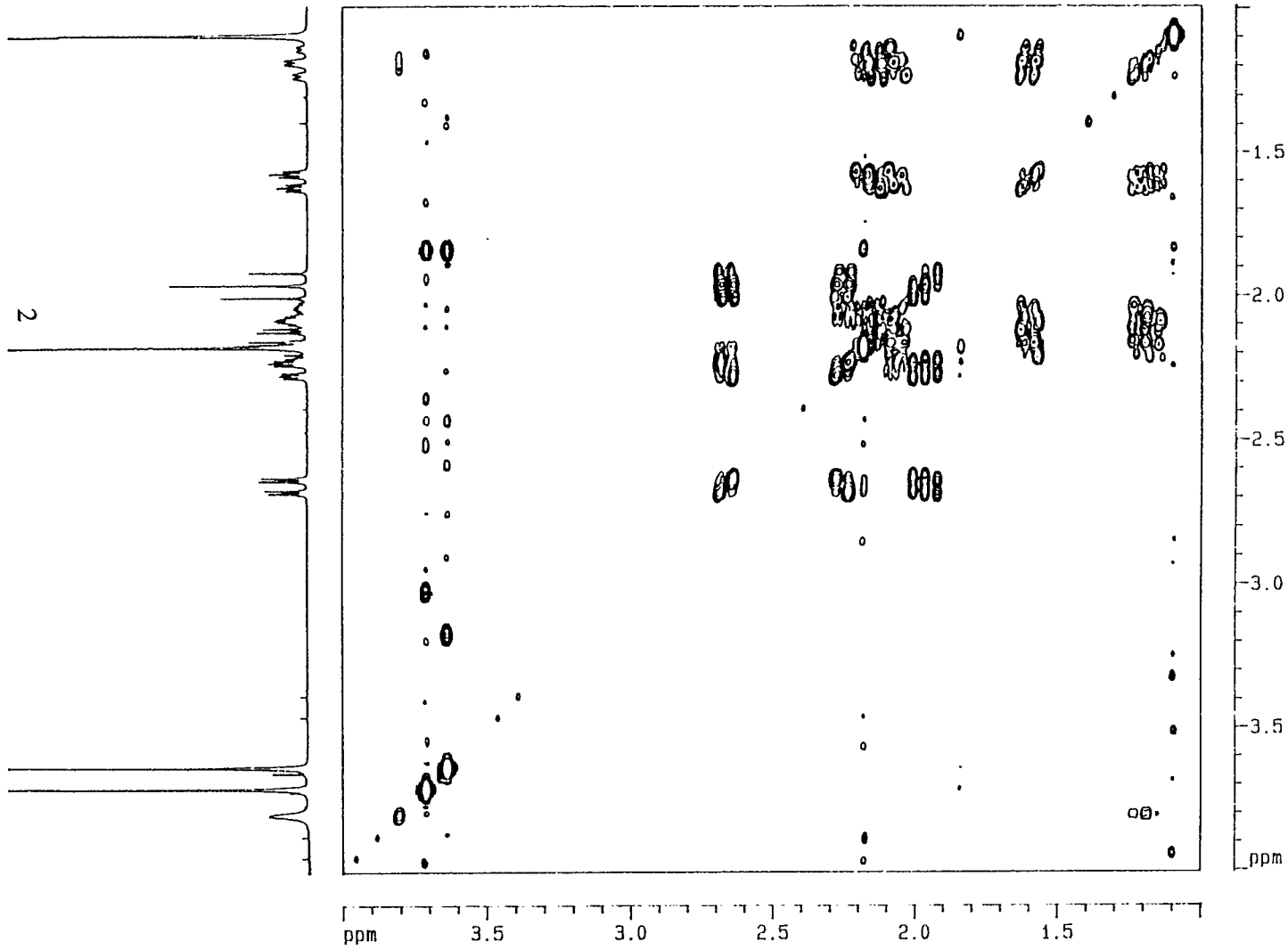
I

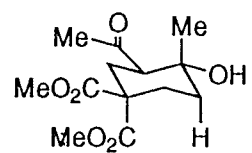




24a

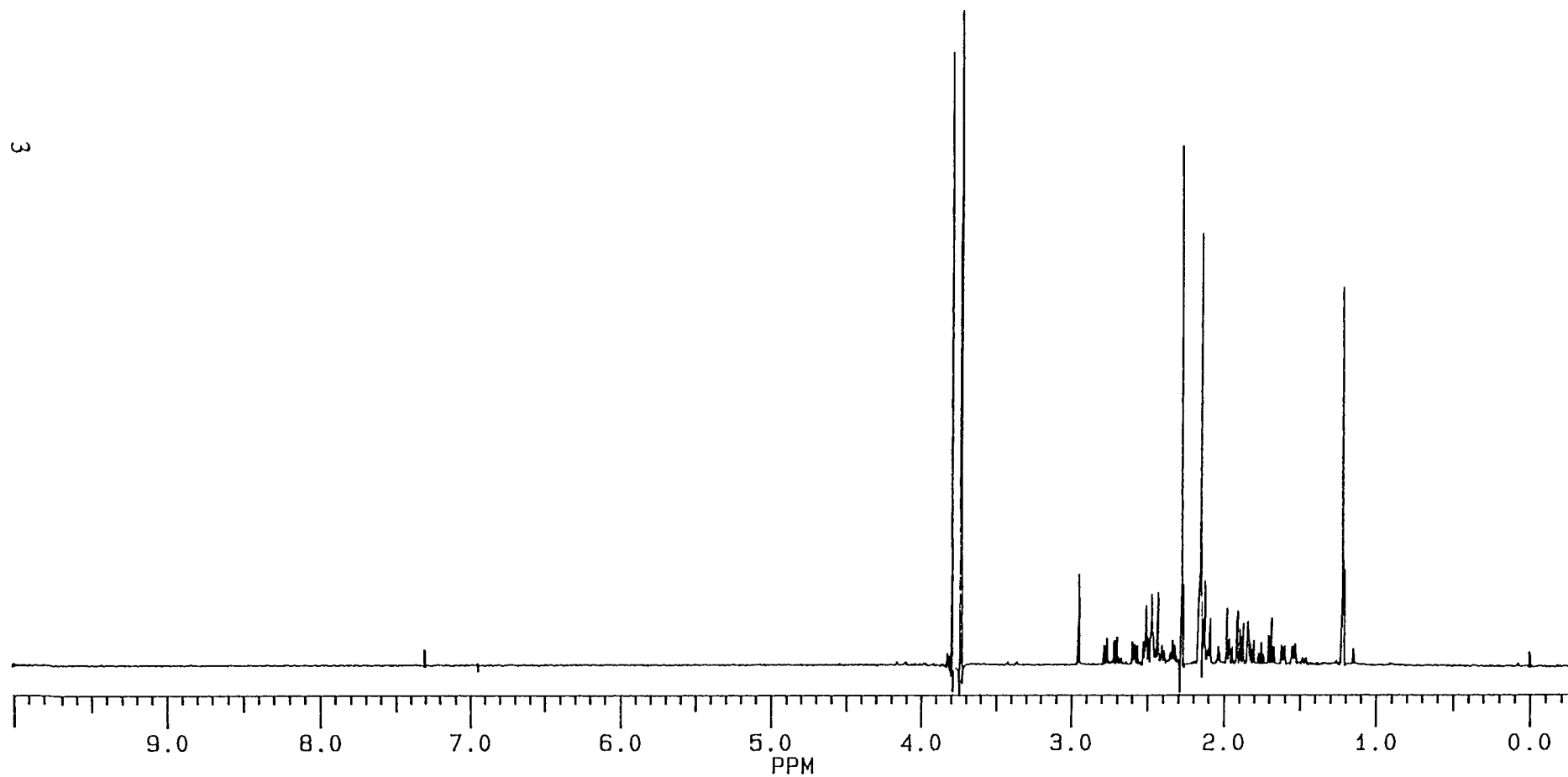
COSY (300 MHz, CDCl<sub>3</sub>)

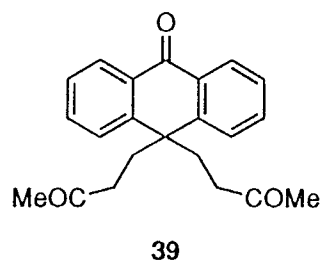




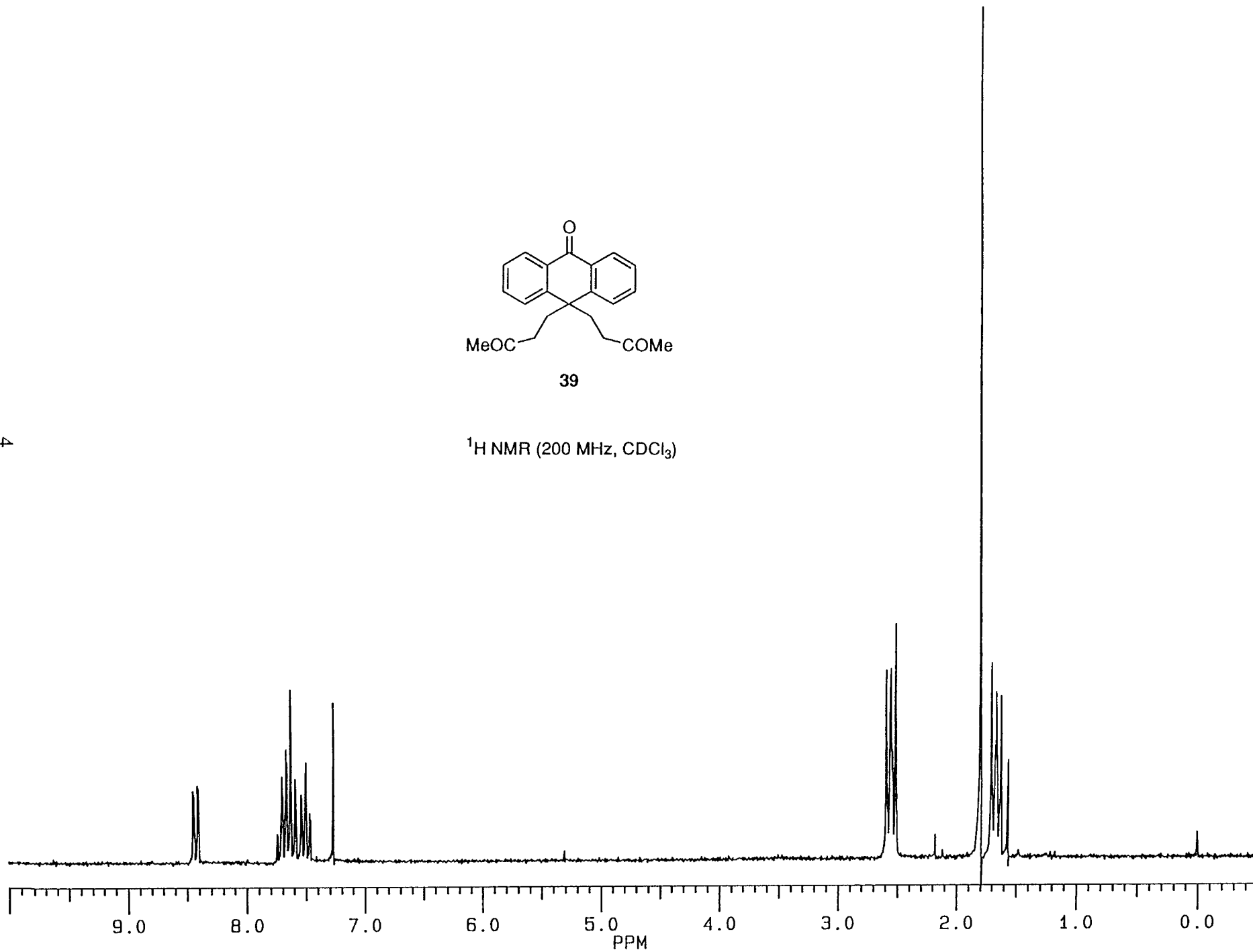
24b

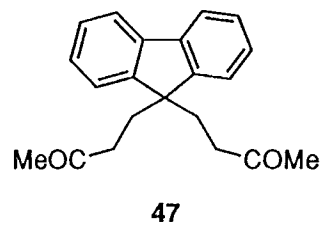
<sup>1</sup>H NMR (200 MHz, CDCl<sub>3</sub>)



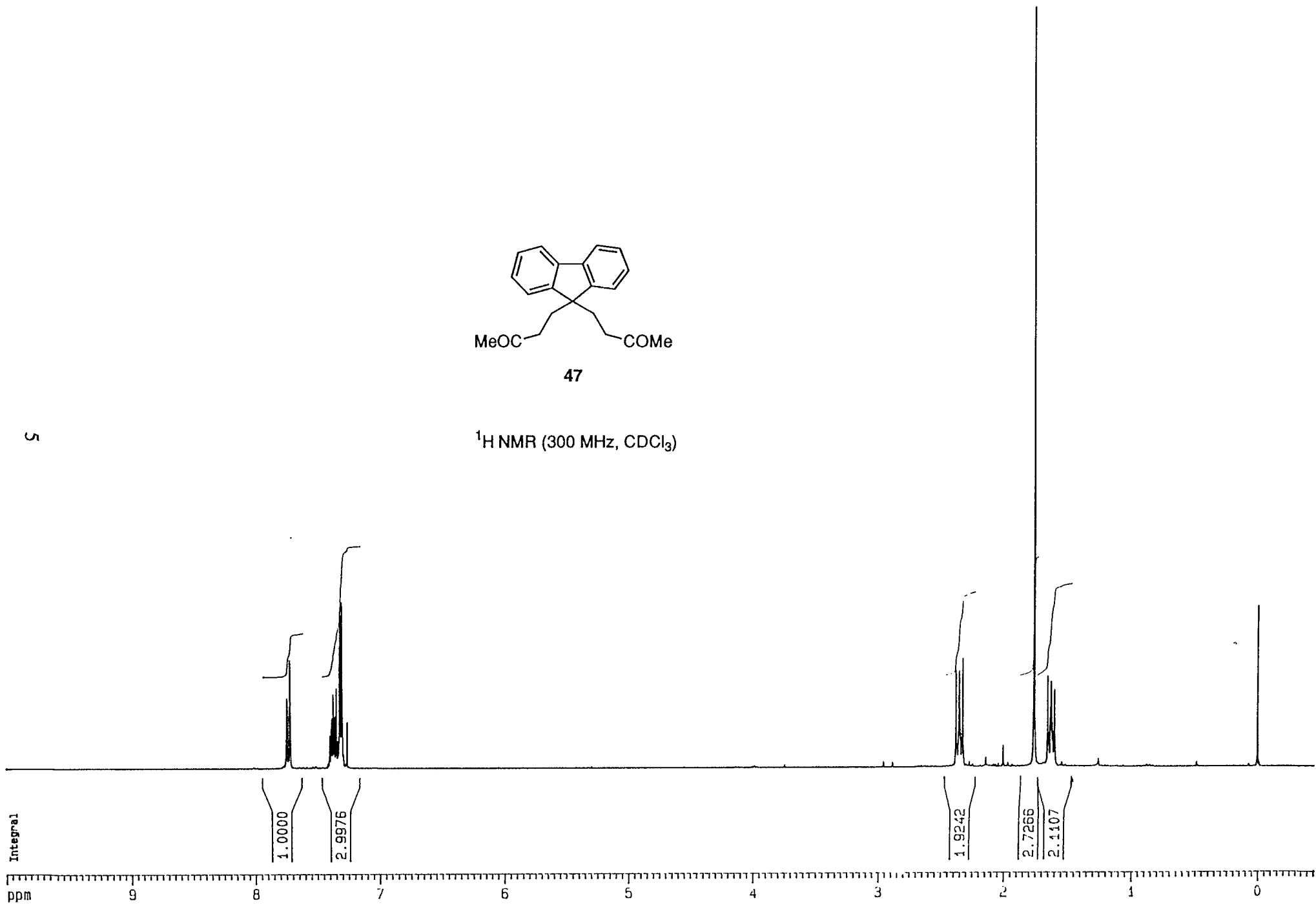


$^1\text{H NMR}$  (200 MHz,  $\text{CDCl}_3$ )





<sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>)

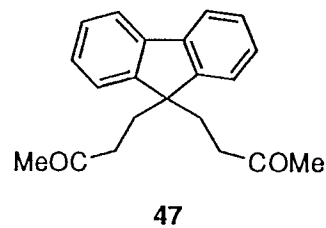


Current Data Parameters  
 NAME 4883-jmf1u  
 EXPNO 1  
 PROCNO 1

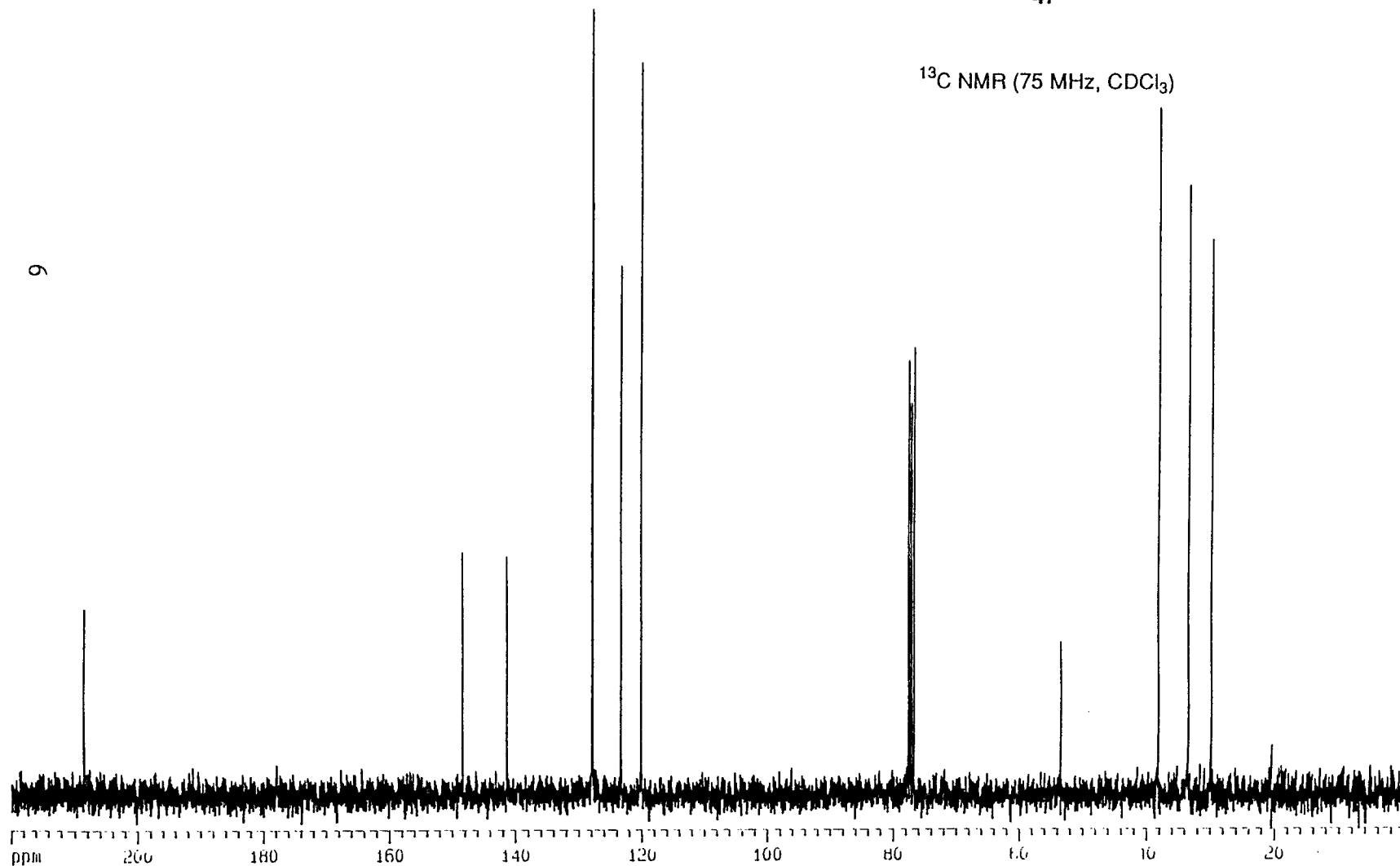
F2 - Acquisition Parameters  
 Date\_ 951618  
 Time 14.25  
 PULPROG zgpg  
 SOLVENT CDCl3  
 AQ 0.9175240 sec  
 FIDRES 0.544957 Hz  
 BW 28.0 usec  
 RG 32768  
 HURLFUS 130  
 HL1 1 dB  
 H1 1.000000 sec  
 P31 100.0 usec  
 S1 20 dB  
 S11 0.0300000 sec  
 S2 20 dB  
 P1 3.0 usec  
 PF 07.0 usec  
 SF01 75.471813 MHz  
 SSB 17857.14 Hz  
 TO 32768  
 DS 188  
 OS 0

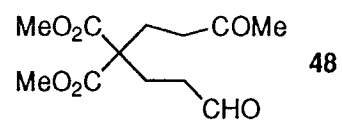
F2 - Processing parameters  
 SI 16384  
 SF 75.4685986 MHz  
 WDW EM  
 SSB 0  
 FB 1.00 Hz  
 GB 0  
 PC 1.30

1D 1H NMR plot parameters  
 GC 23.00 cm  
 FID 250.000 ppm  
 F1 16603.09 Hz  
 F2 0.000 ppm  
 F2 0.00 Hz  
 FWHM 9.56522 ppm  
 HZ0 721.87354 Hz

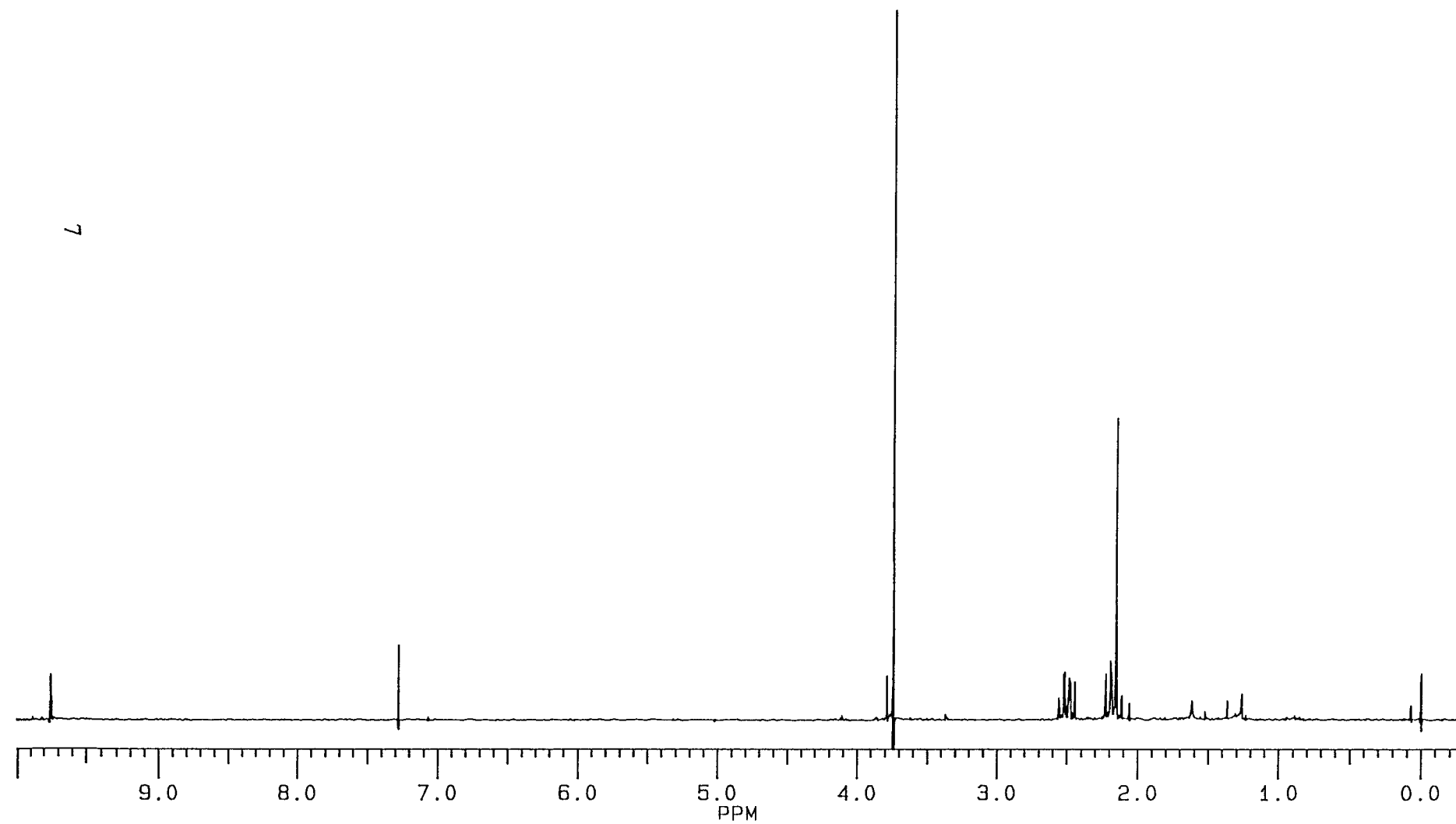


<sup>13</sup>C NMR (75 MHz, CDCl<sub>3</sub>)

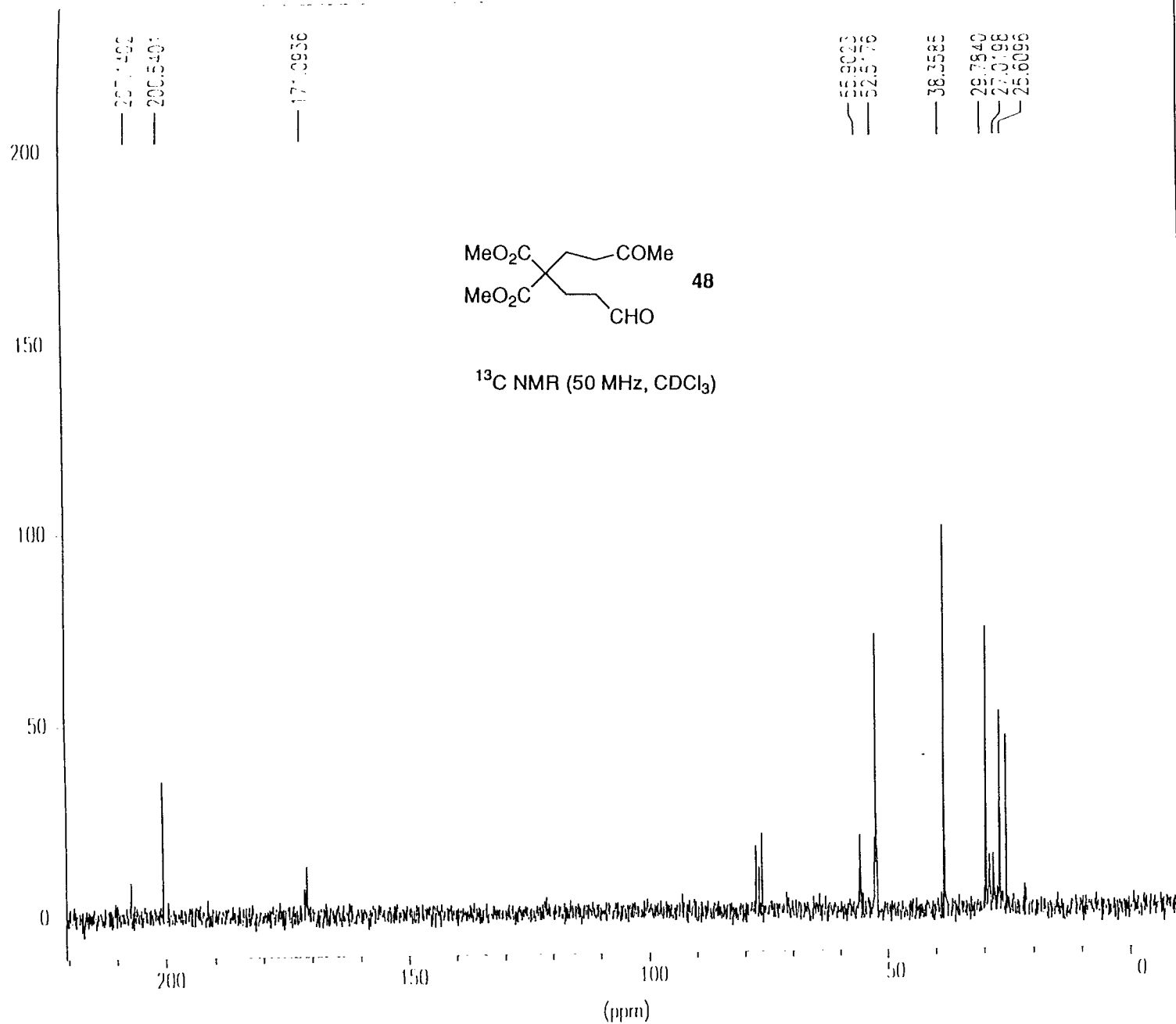




<sup>1</sup>H NMR (200 MHz, CDCl<sub>3</sub>)







\*\*\* Current Data Parameters \*\*\*

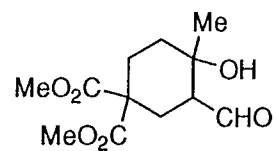
NAME : 1101JMCC  
 EXPNO : 111  
 PROCNO : 1

\*\*\* 1D NMR Plot Parameters \*\*\*

νby : -18123.02  
 ppmcm : 12.03  
 Hzcm : 605.62  
 Baseline : 100

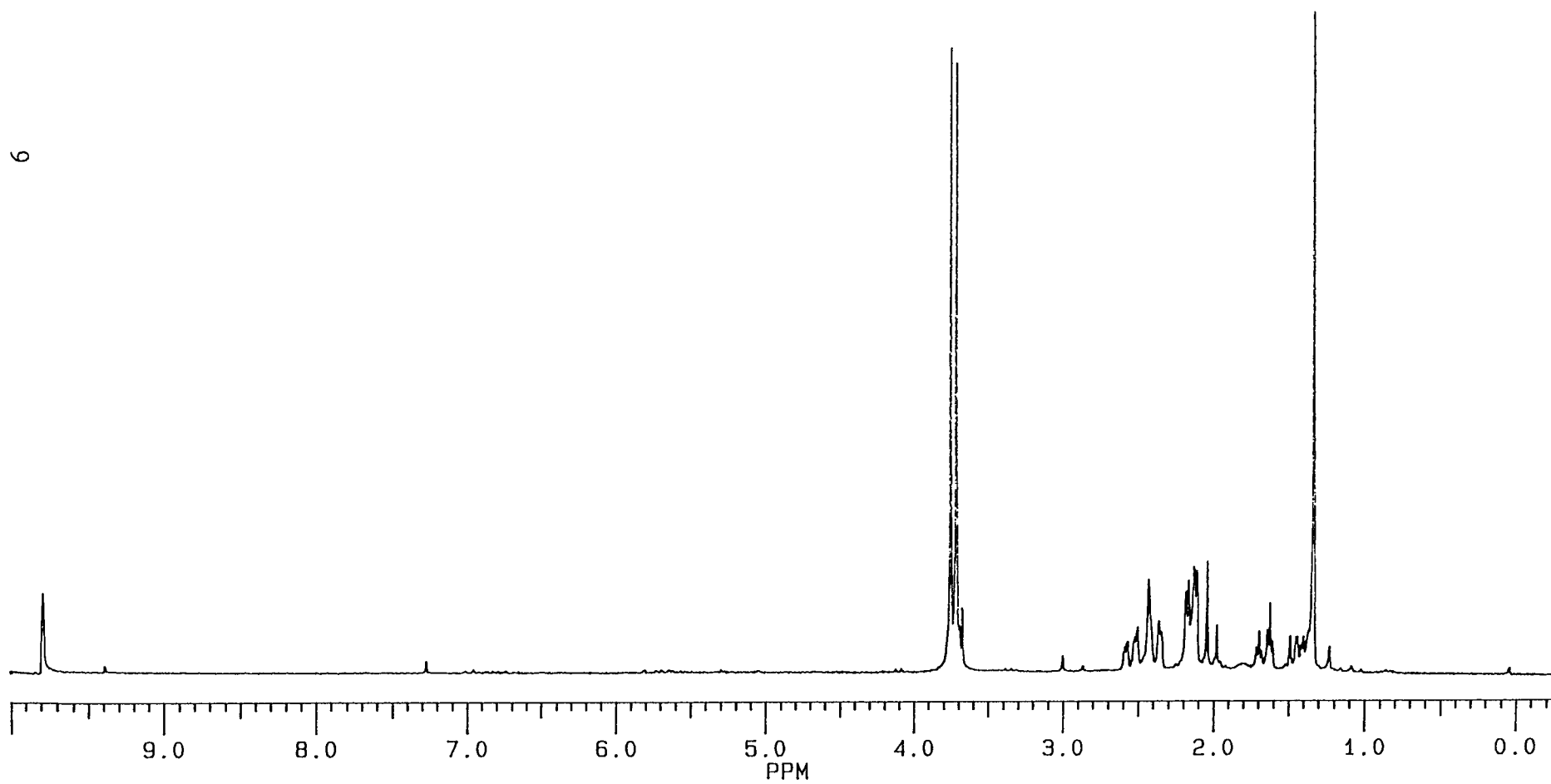
\*\*\* Aspect 3000 Parameters \*\*\*

PARSET : 0x500002  
 PROGRAM : DisNMR  
 NM : 1101JMCC.111  
 OPERATOR :  
 ASIZE : 8192  
 GLOBEX : 0  
 SWPCOM : 521  
 TDSIZE : 8192  
 DWELLT : 4.00 usec  
 FWIDTH : 14600 Hz  
 VDELAY : 0  
 DSCANS : 0  
 SPWIDTH : 11627.91 Hz  
 AQMODE : 0  
 TELXP : 32  
 Q1 : 8604.09 Hz  
 Q2 : -4000.00 Hz  
 PHOC : 0  
 PHFC : 0  
 TOIB : 0.000 Hz  
 NHPI : 0.000000  
 CRDI : 0  
 CPULSI : 4.000 usec  
 CDLLAY : 56.300 usec  
 NS : 1  
 DRSTR : 12  
 DREND : 6  
 DRSET : 12  
 CSPDEL : 15  
 PHZFTG : 0



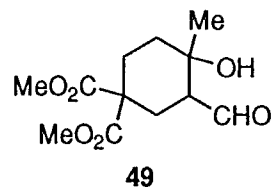
49

$^1\text{H}$  NMR (200 MHz,  $\text{CDCl}_3$ )



PPM  
204.489

171.039



77.669  
77.009  
76.381

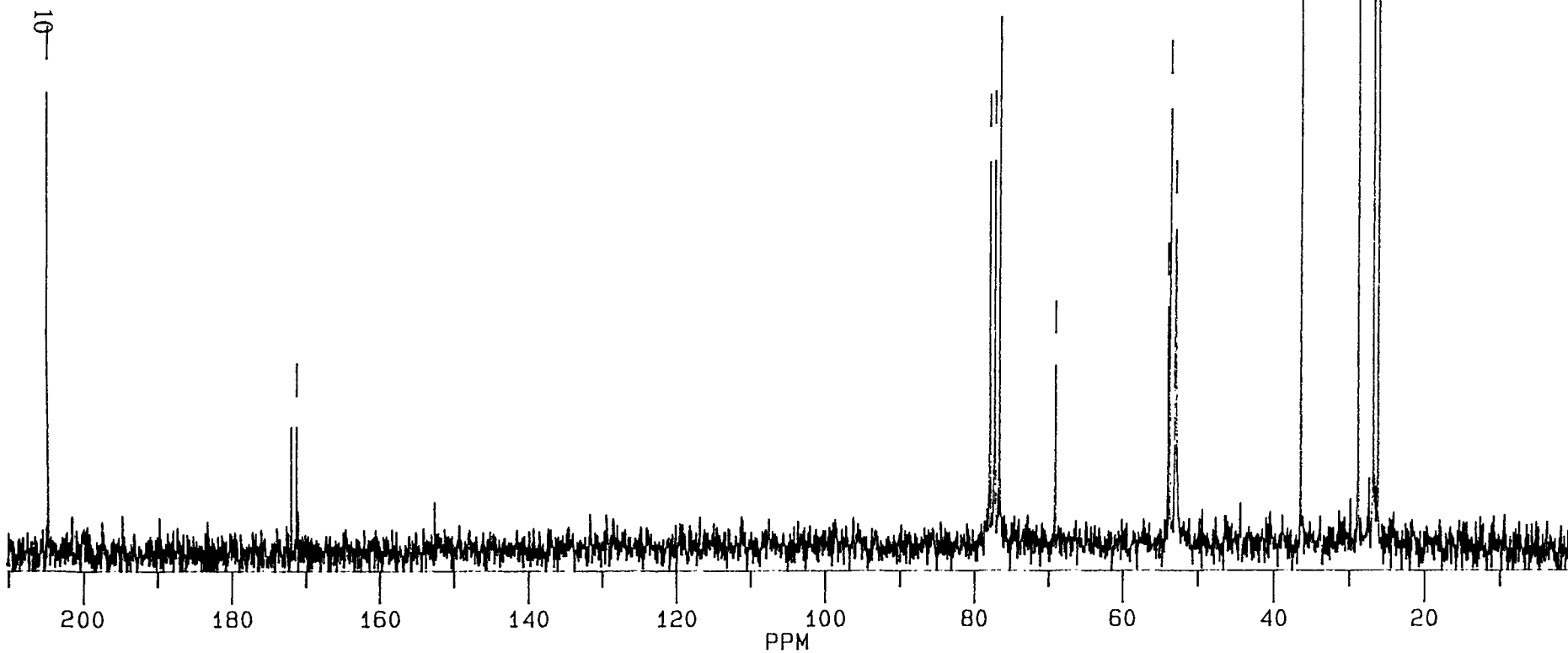
68.882

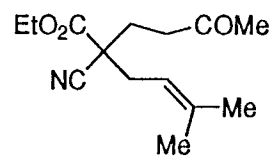
53.816  
53.539  
52.841

36.214

28.711  
26.681  
26.059

<sup>13</sup>C NMR (50 MHz, CDCl<sub>3</sub>)





76

<sup>1</sup>H NMR (200 MHz, CDCl<sub>3</sub>)

