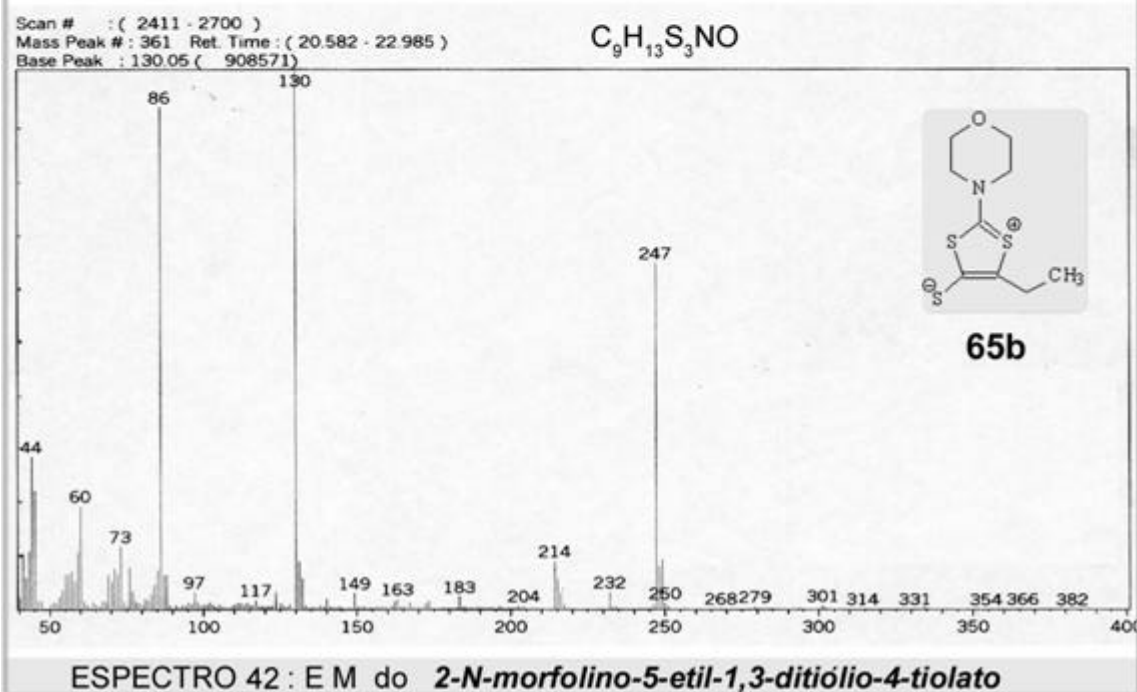
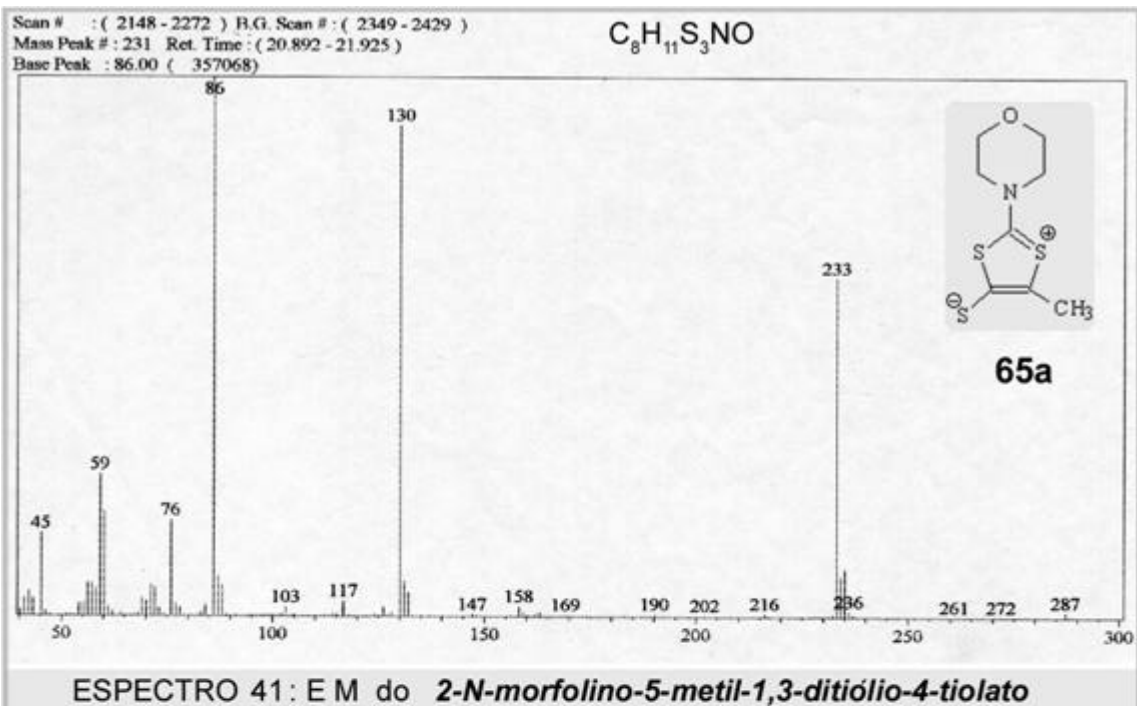
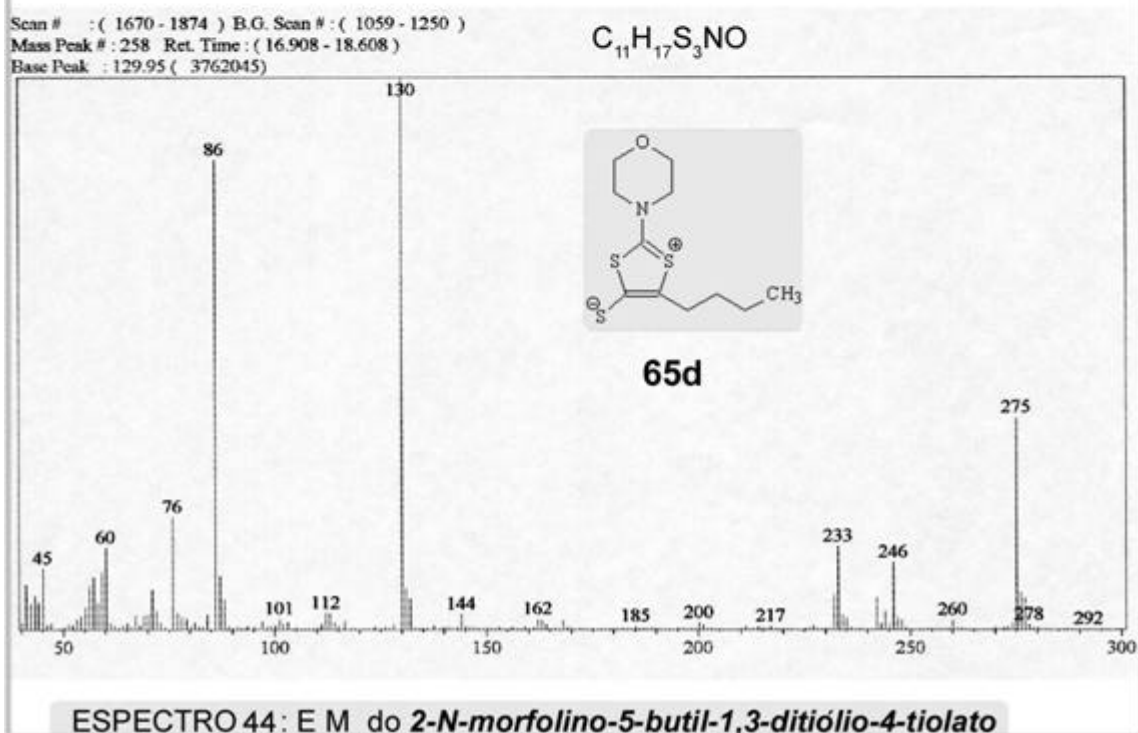
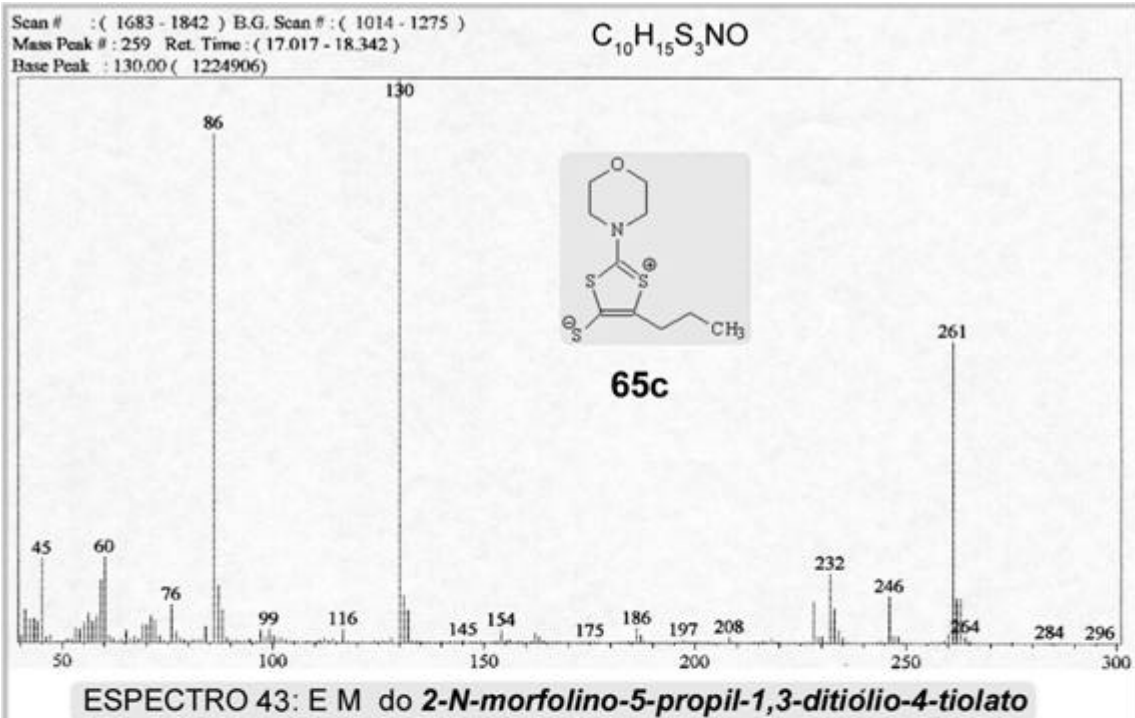
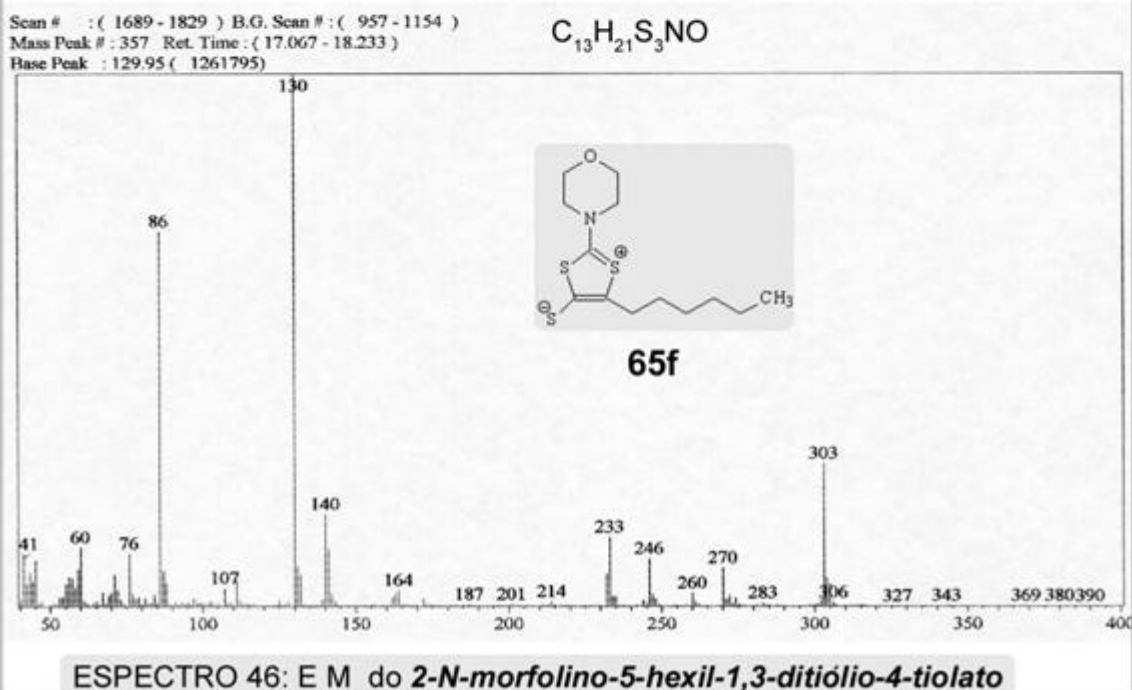
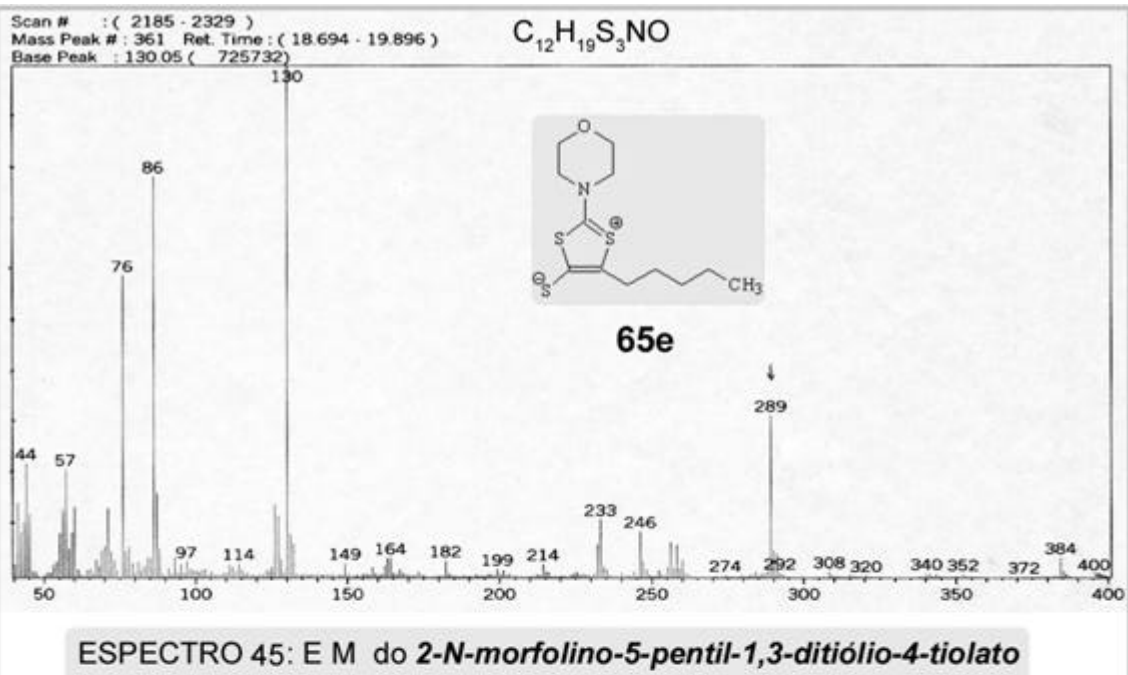


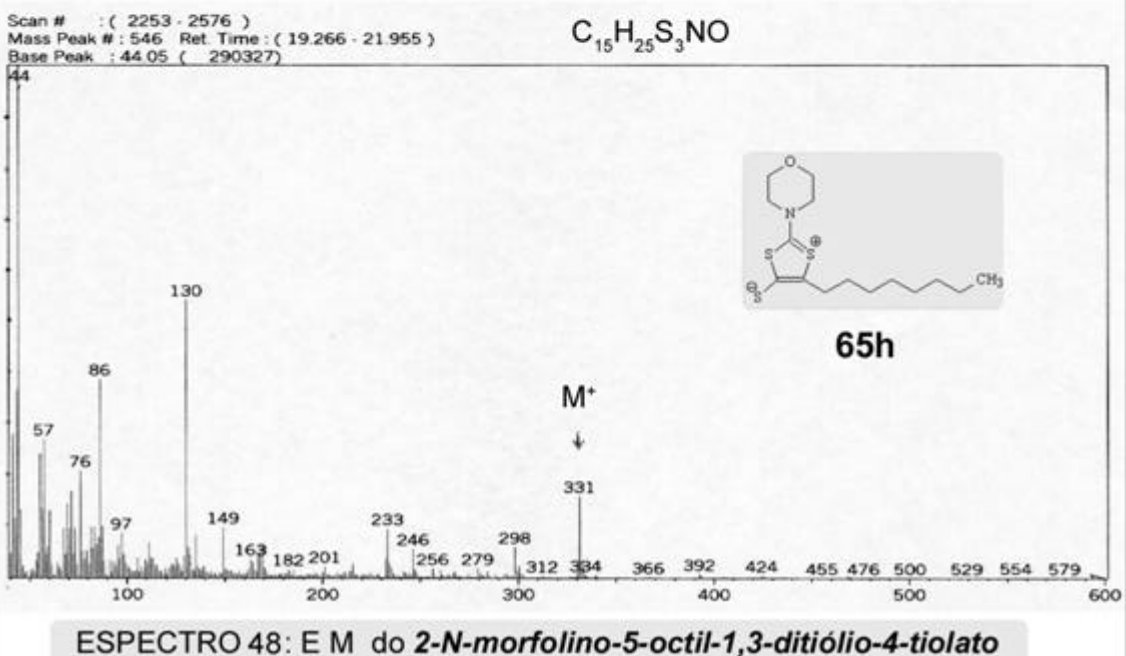
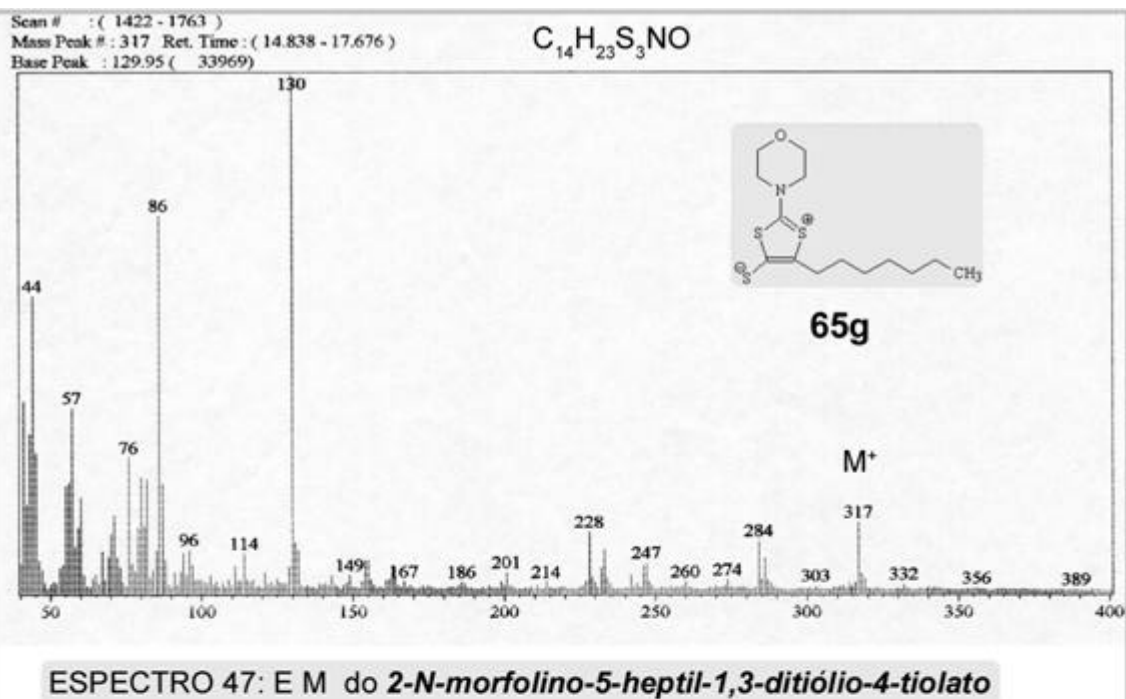
7.2 ESPECTROS DE MASSAS

7.1.3 Compostos mesoiônicos 2-*N-amino-5-alkyl-1,3-ditiólio-4-tiolatos*



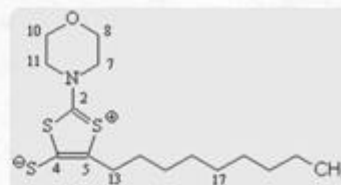
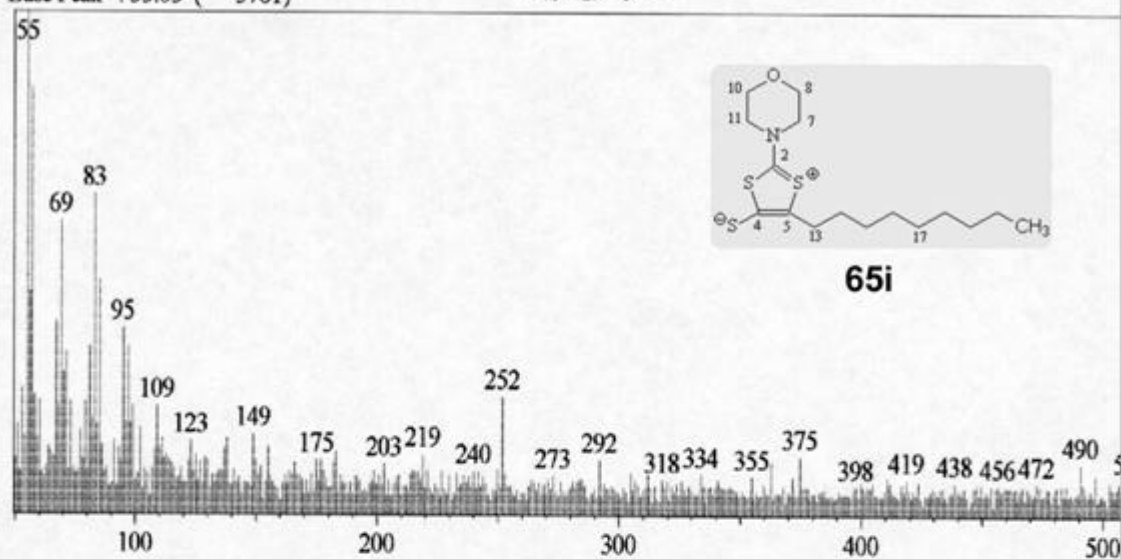






Mass Peak #: 552 Ret. Time: 19.667

Base Peak: 55.05 (5761)

 $C_{16}H_{27}S_3NO$ 

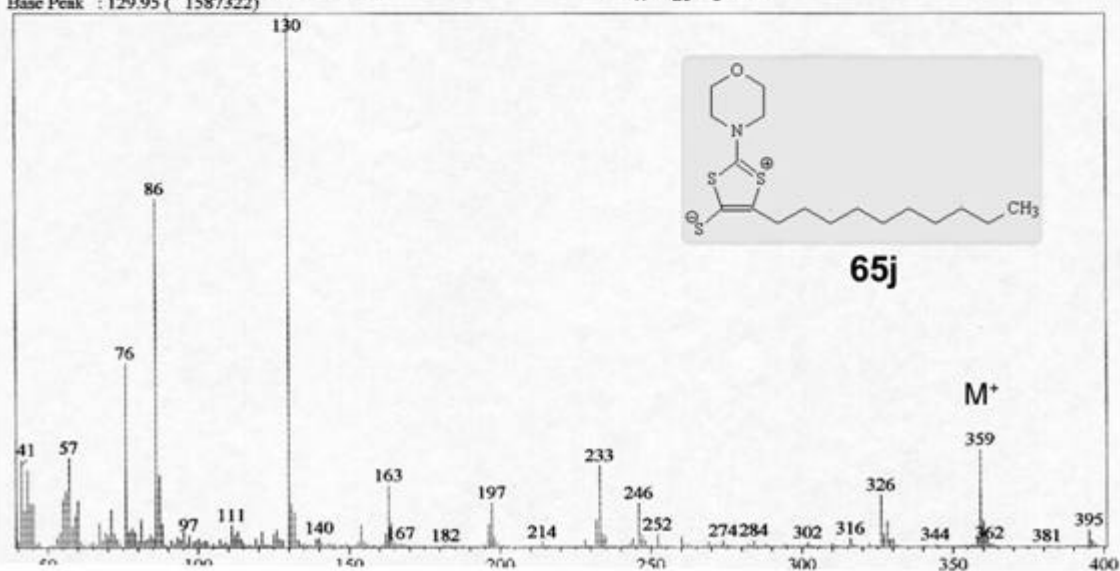
65i

ESPECTRO 49: E M do 2-N-morfolino-5-nonil-1,3-ditiólio-4-tiolato

Scan #: (1797 - 1931) B.G. Scan #: (1160 - 1307)

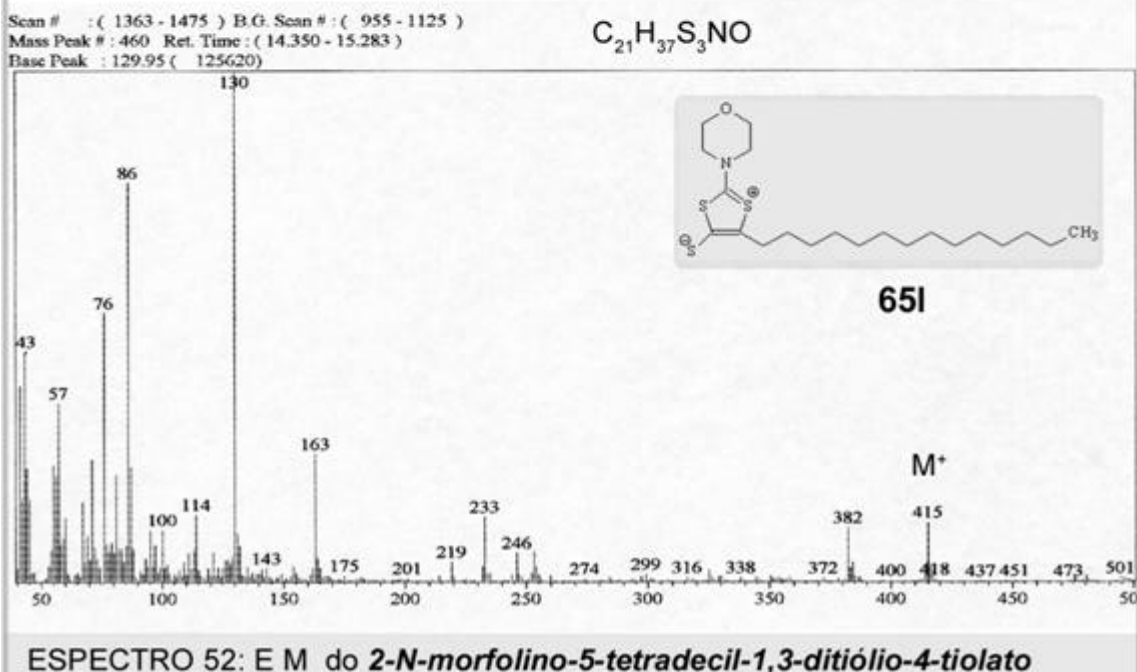
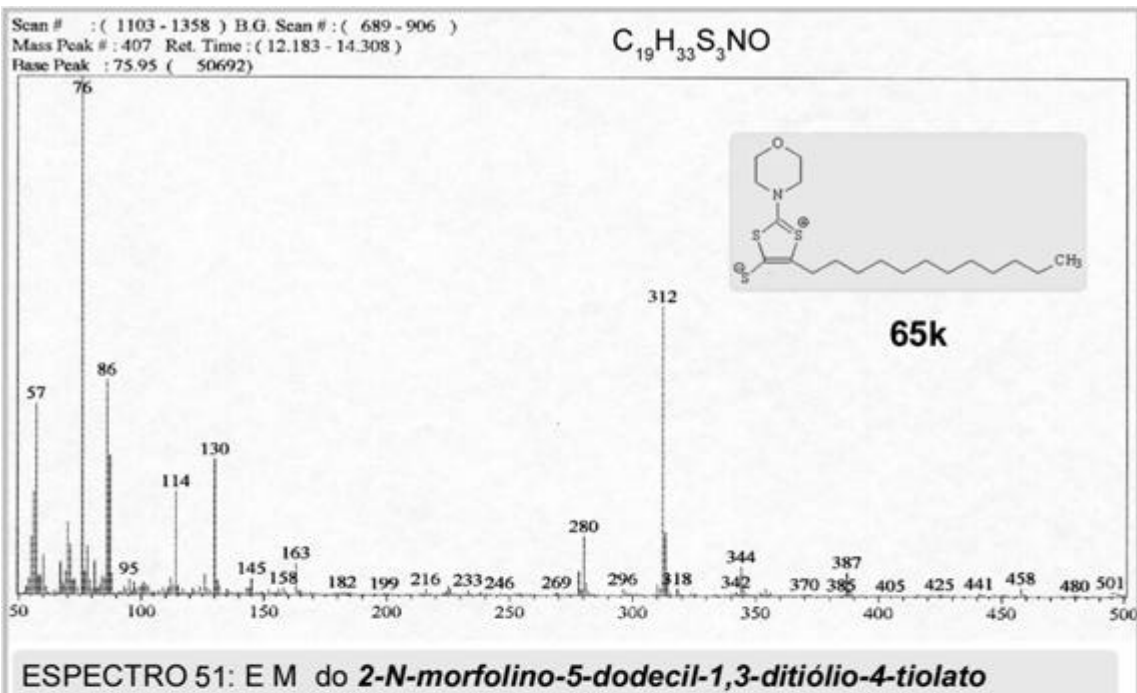
Mass Peak #: 359 Ret. Time: (17.967 - 19.083)

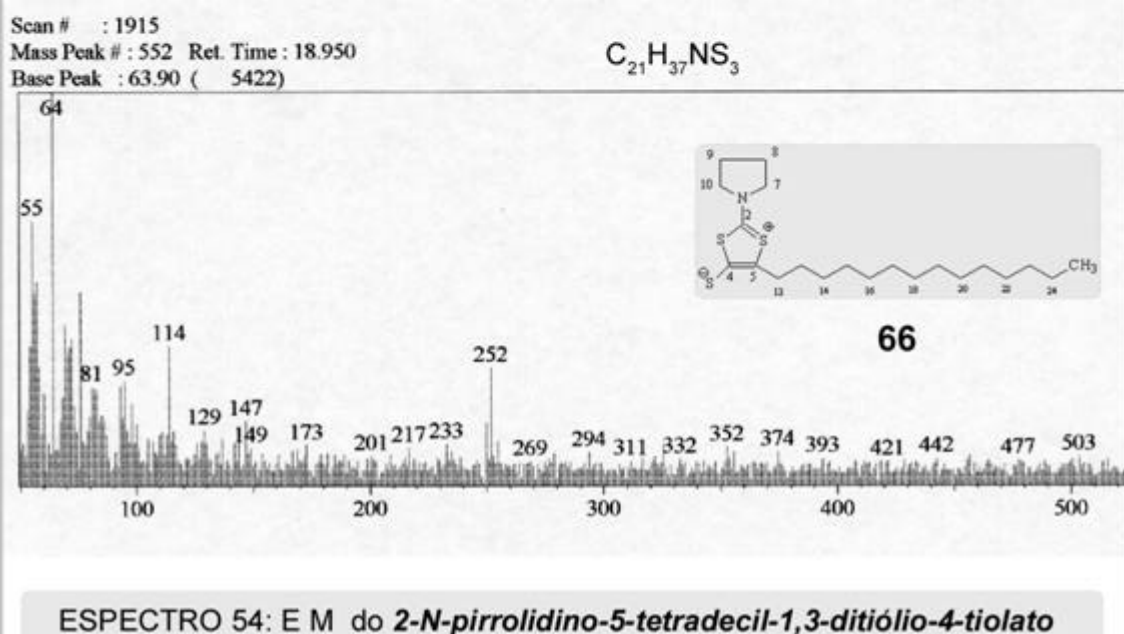
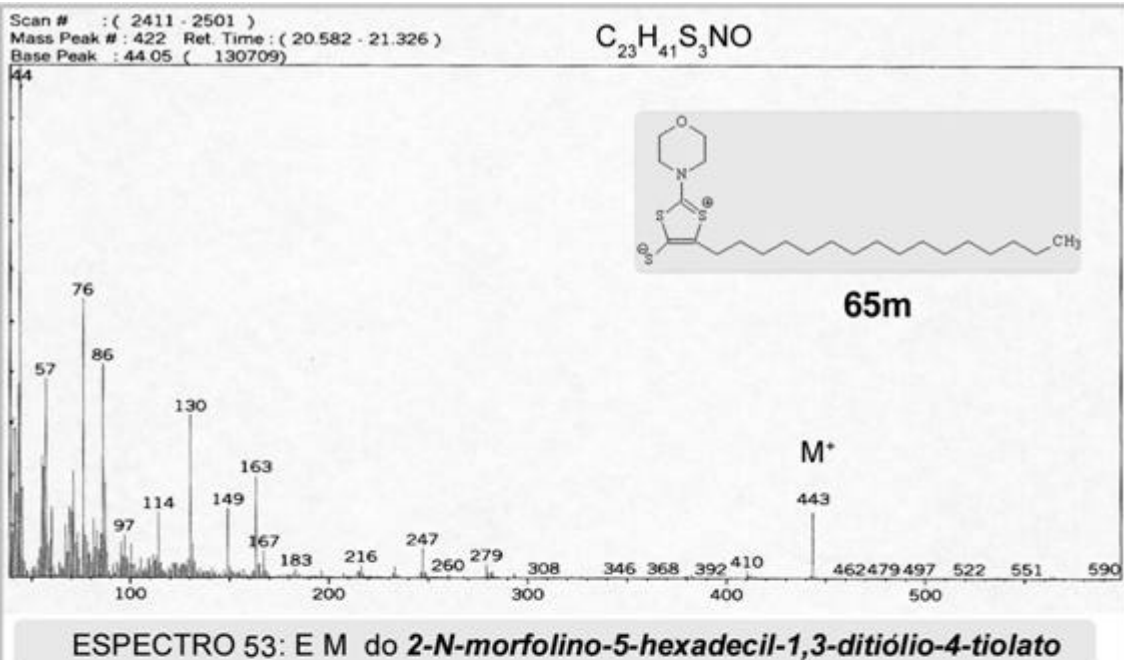
Base Peak: 129.95 (1587322)

 $C_{17}H_{29}S_3NO$ 

65j

ESPECTRO 50: E M do 2-N-morfolino-5-decil-1,3-ditiólio-4-tiolato

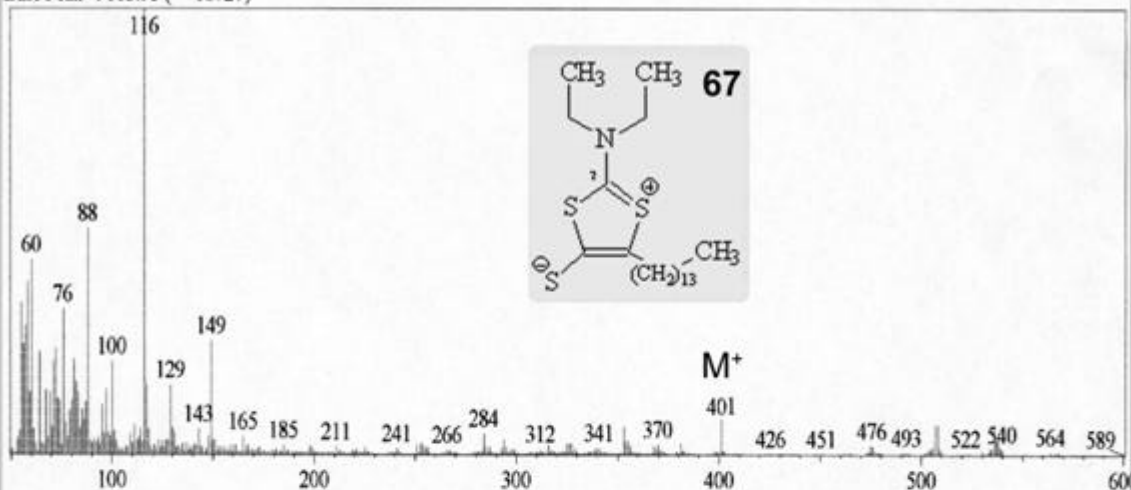




Scan # : (2230 - 2651) B.G. Scan # : (3389 - 3759)

Mass Peak # : 535 Ret. Time : (21.575 - 25.083)

Base Peak : 115.95 (16727)

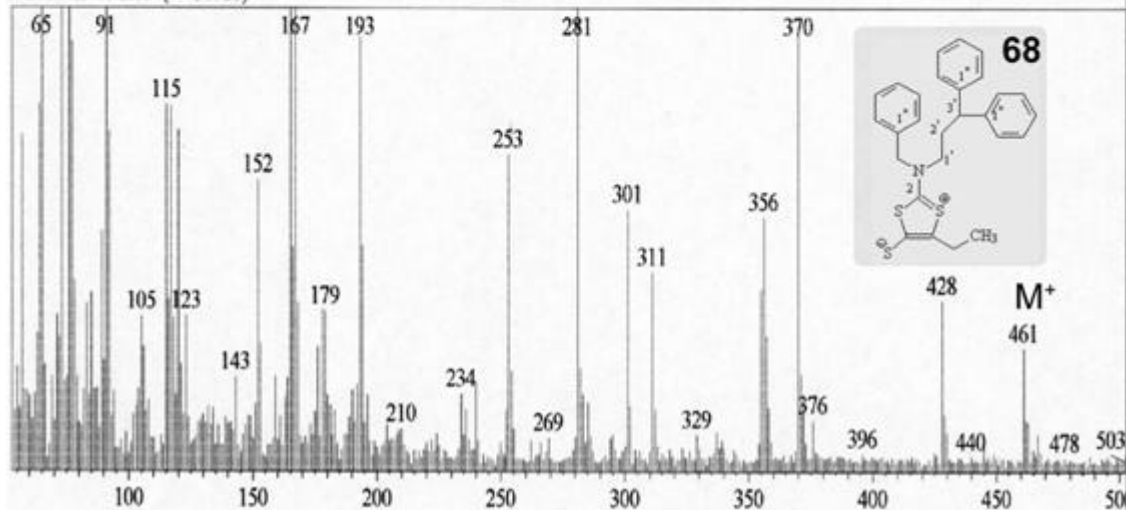
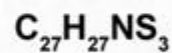


ESPECTRO 55: E M do 2-N-diethylamino-5-tetradecil-1,3-ditiólio-4-tiolato

Scan # : 1492

Mass Peak # : 461 Ret. Time : 15.425

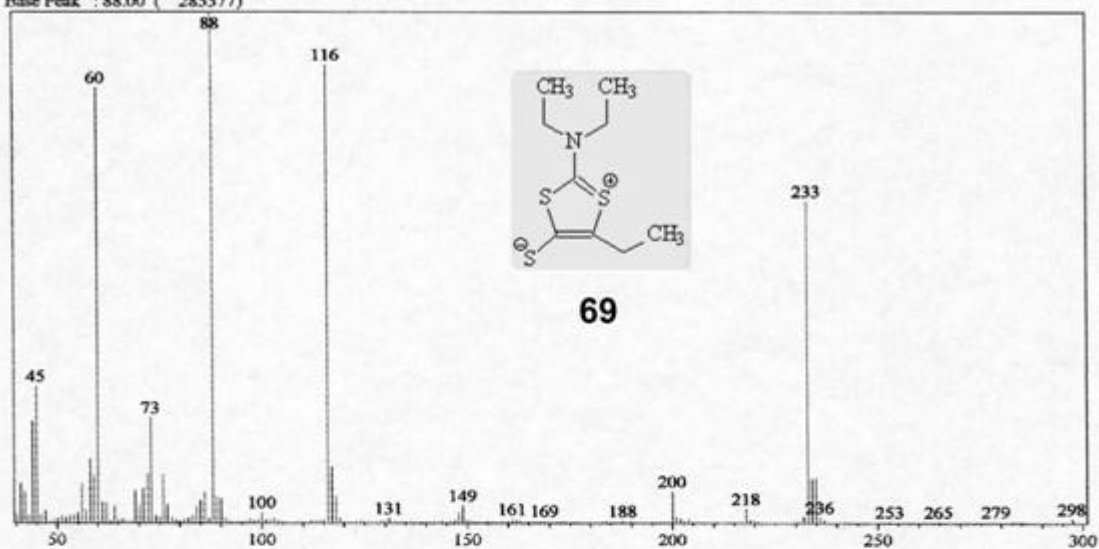
Base Peak : 91.00 (84780)



ESPECTRO 56: E M do 2-(N-benzil-3,3-difenilpropilamino)-5-etil-1,3-ditiólio-4-tiolato

Scan # : (1078 - 1286)
Mass Peak # : 262 Ret. Time : (11.973 - 13.704)
Base Peak : 88.00 (285577)

$C_9H_{15}S_3NO$

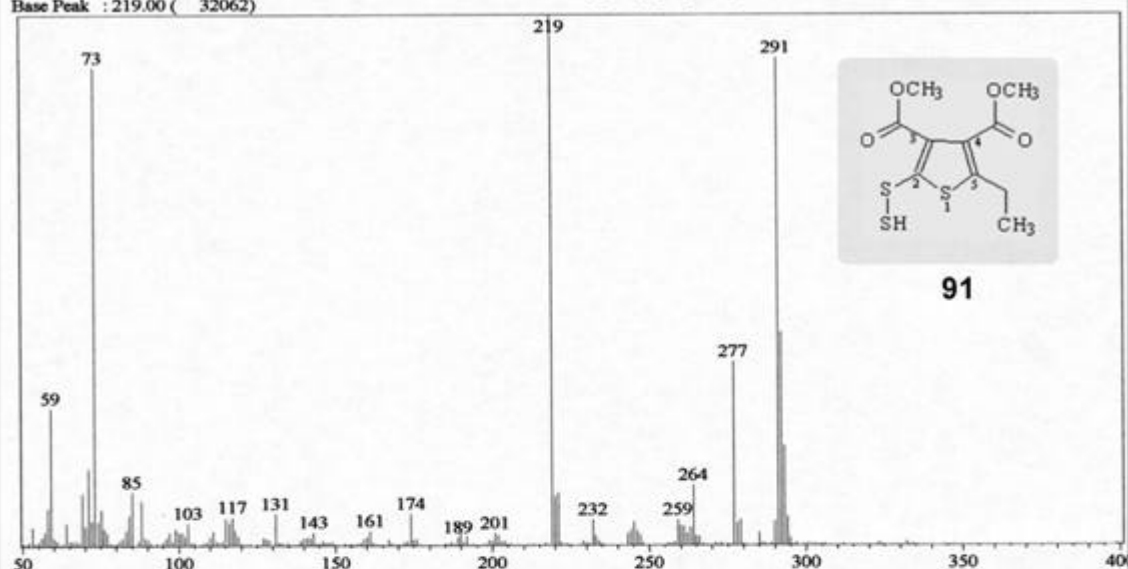
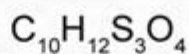


ESPECTRO 57:E.M.do **2-N-diethylamino-5-etil-1,3-ditiólio-4-tiolato**

7.2 ESPECTROS DE RMN DE ^1H

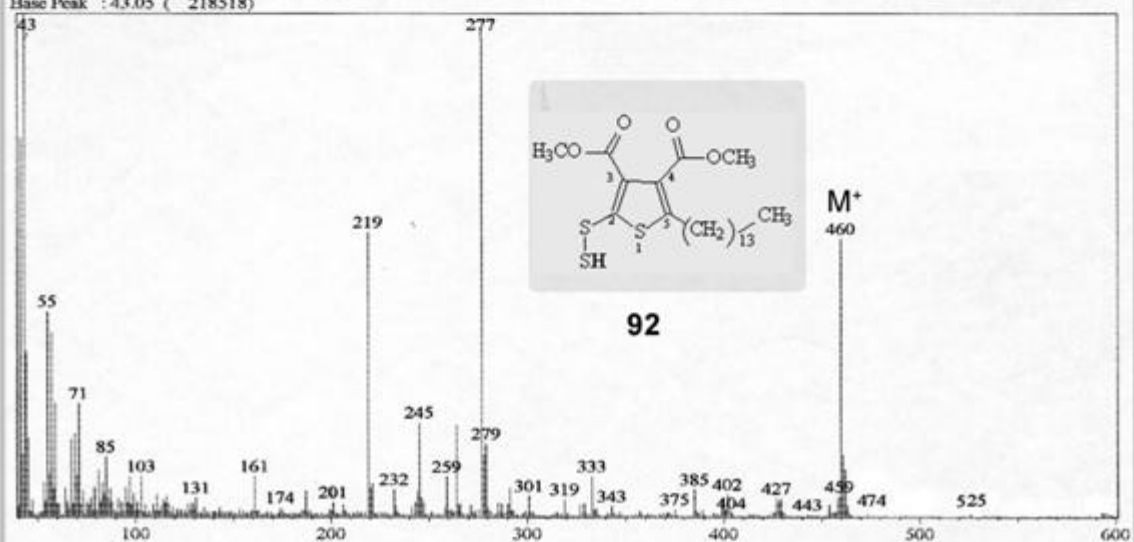
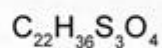
7.2.2 Produtos das reações de cicloadição 1,3-dipolar

Scan # : (671 - 793) B.G. Scan # : (131 - 247)
 Mass Peak # : 291 Ret. Time : (8.583 - 9.600)
 Base Peak : 219.00 (32062)

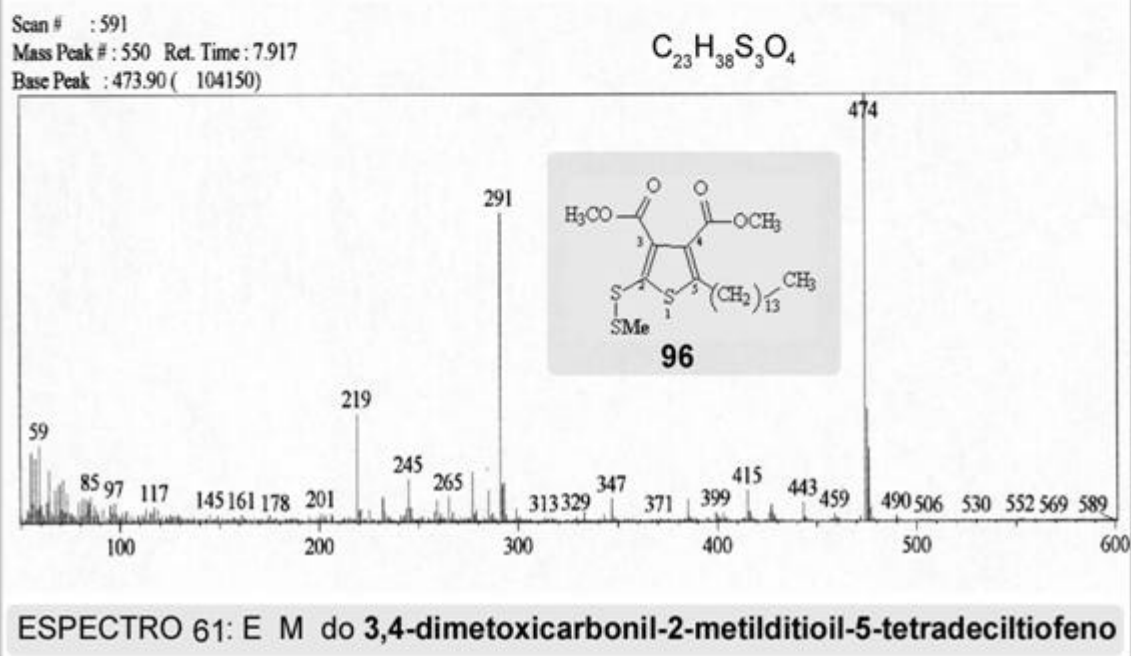
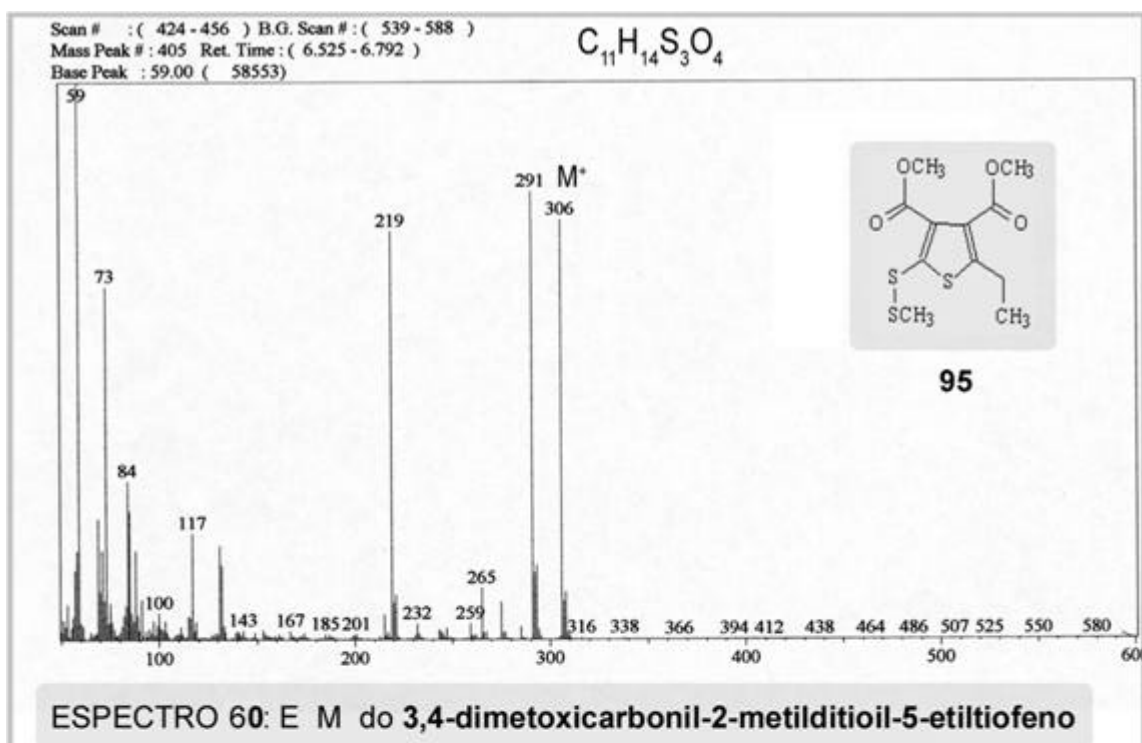


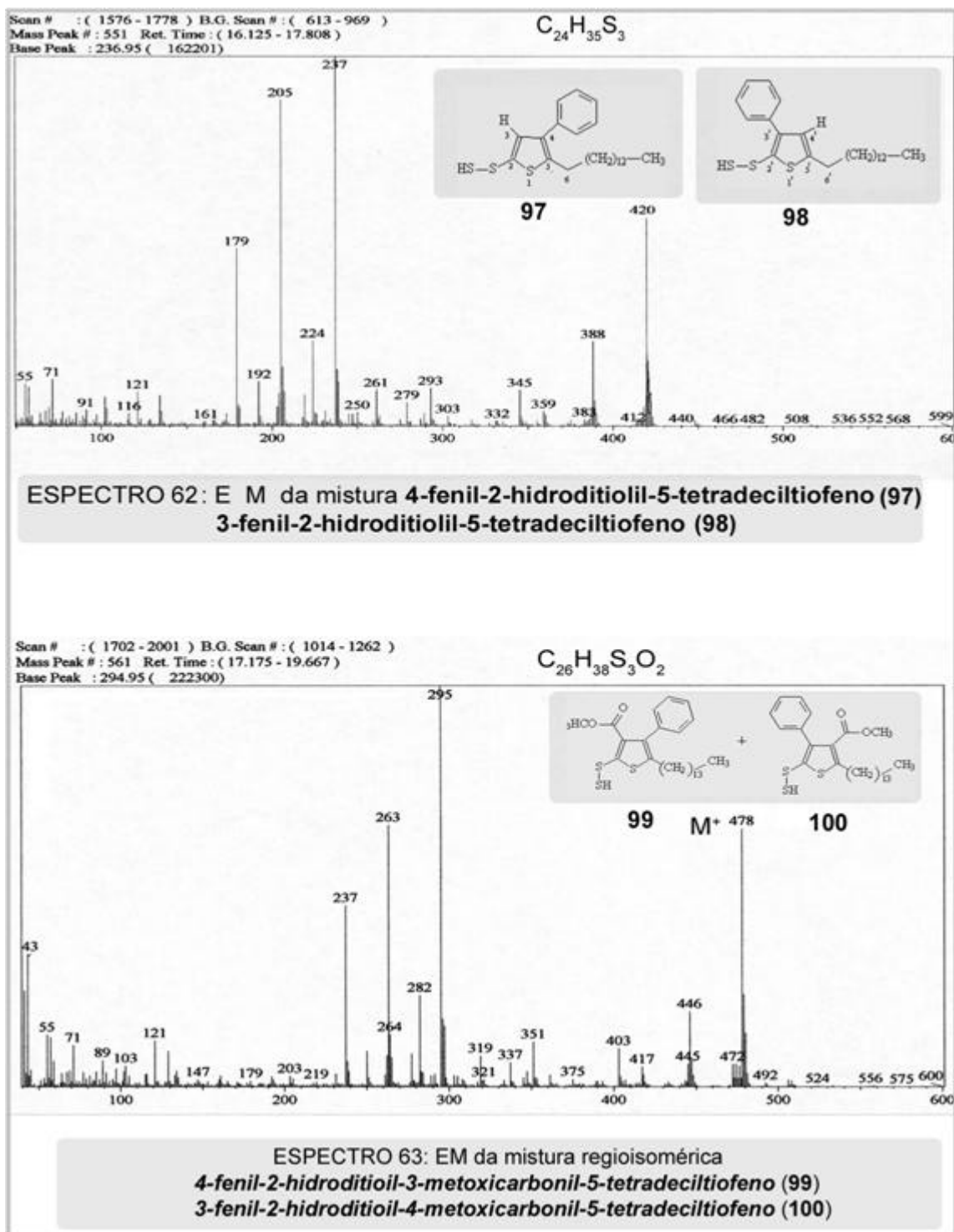
ESPECTRO 58: E M do 3,4-dimetoxycarbonil-2-hidroditioil-5-etiltiofeno

Scan # : (1995 - 2154)
 Mass Peak # : 460 Ret. Time : (19.610 - 20.937)
 Base Peak : 43.05 (218518)



ESPECTRO 59: E M do 3,4-dimetoxycarbonil-2-hidroditioil-5-tetradeciltiofeno



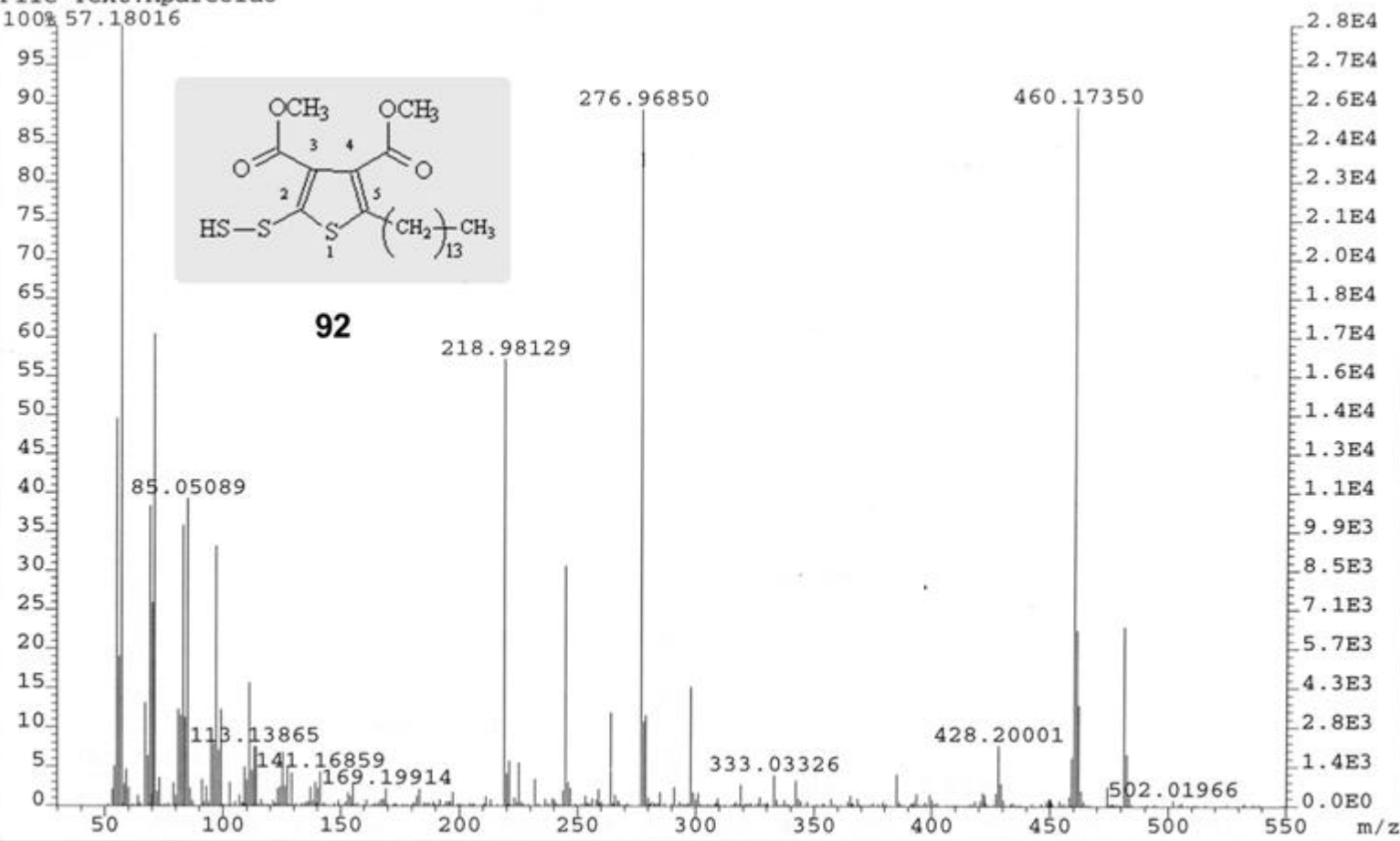


7.2 ESPECTROS DE MASSAS

7.2.3 Espectro de massas de alta resolução do

3,4-dimetoxicarbonil-2-hidroditioil-5-tetradeciltiofeno

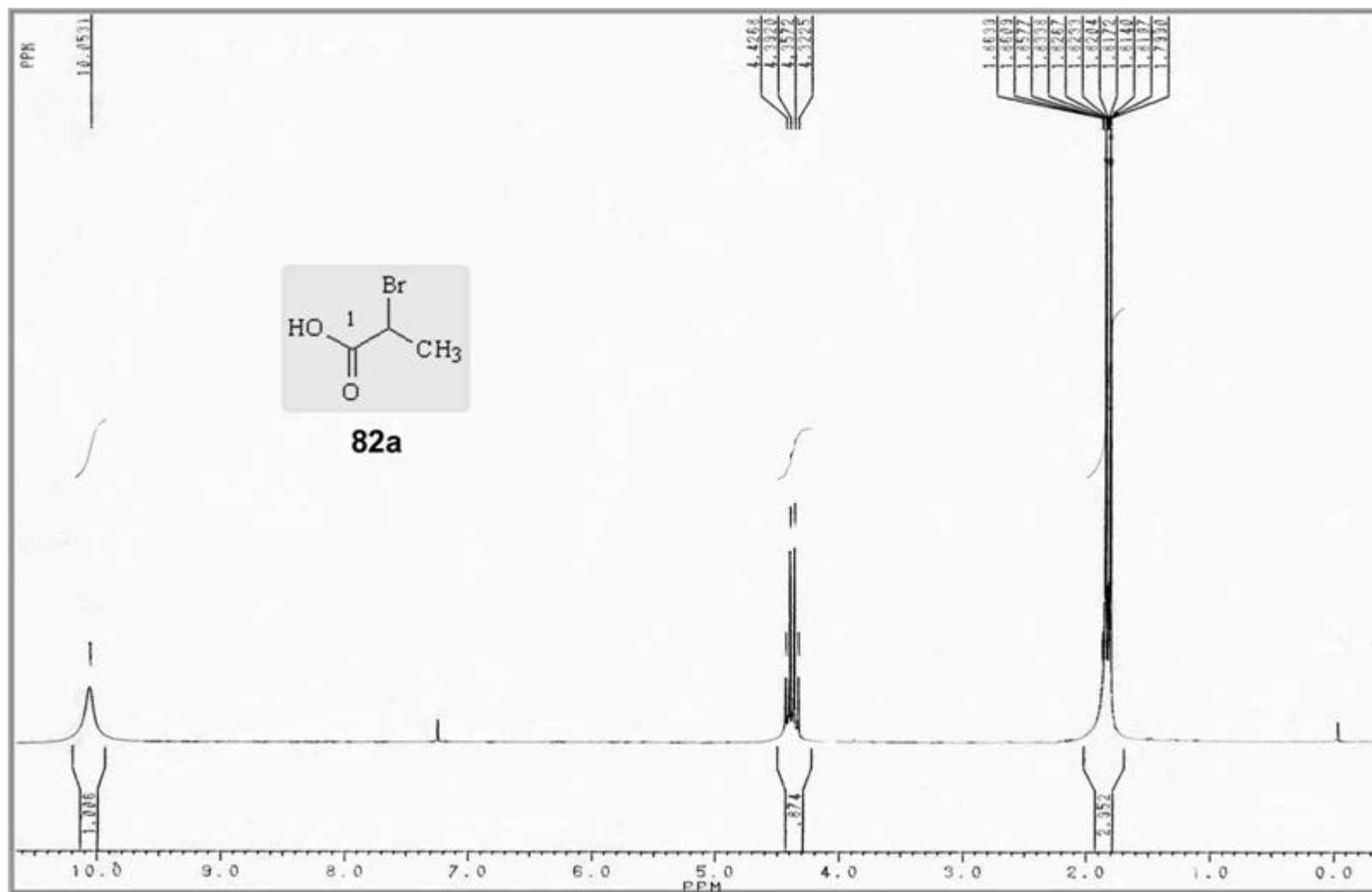
File:JAN1602A Ident:286_293 Win 1000PPM Acq:16-JAN-2002 07:23:56 +40:13 Cal:JAN1602A
 AutoSpecE EI+ Magnet BpM:57 BpI:28414 TIC:340414 Flags:NORM
 File Text:Aparecido
 100% 57.18016



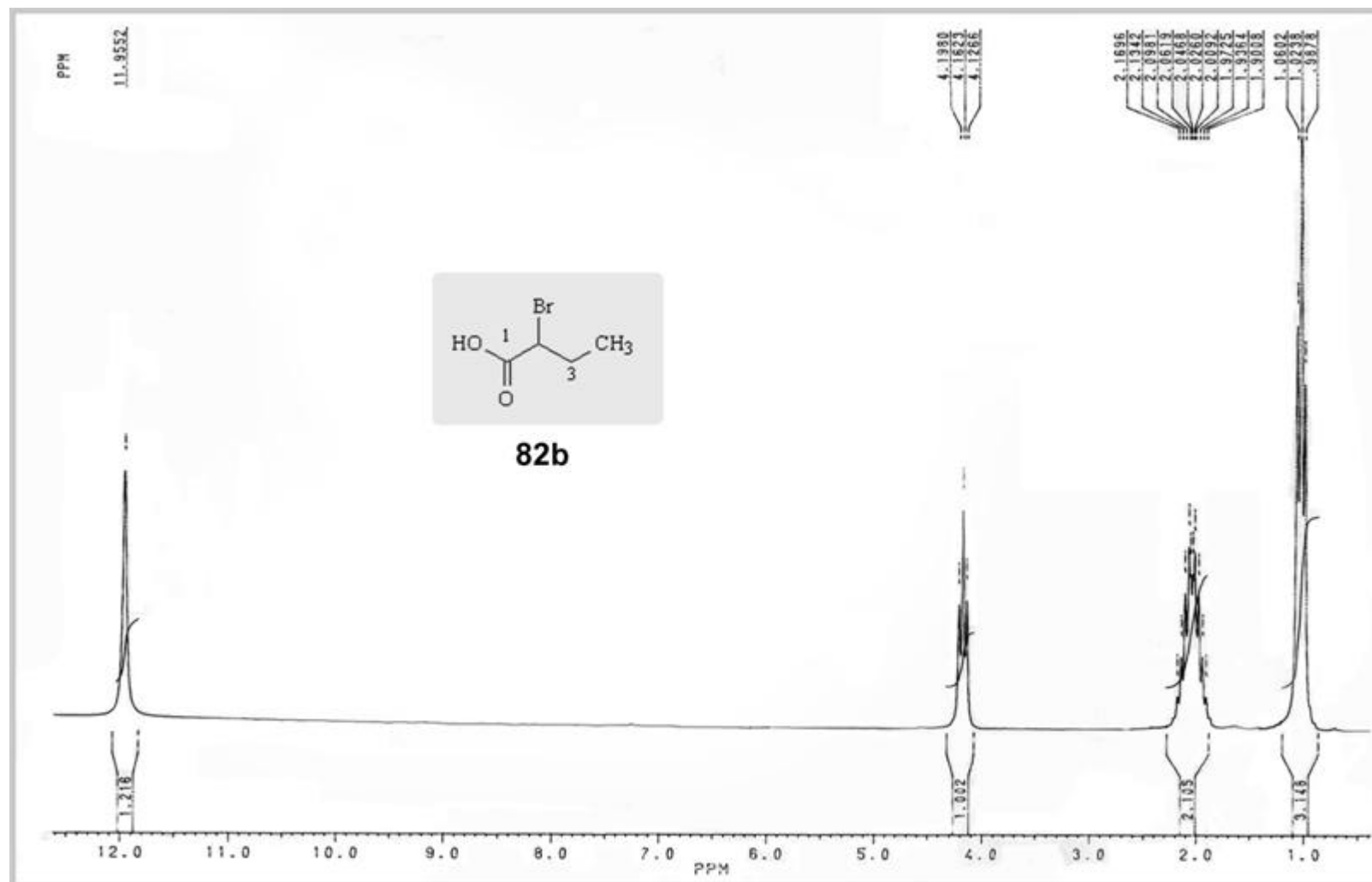
ESPECTRO 64: E M (alta resolução) do **3,4-dimetoxicarbonil-2-hidroditioil-5-tetradeciltiofeno**

7.3 ESPECTROS DE RMN DE ^1H

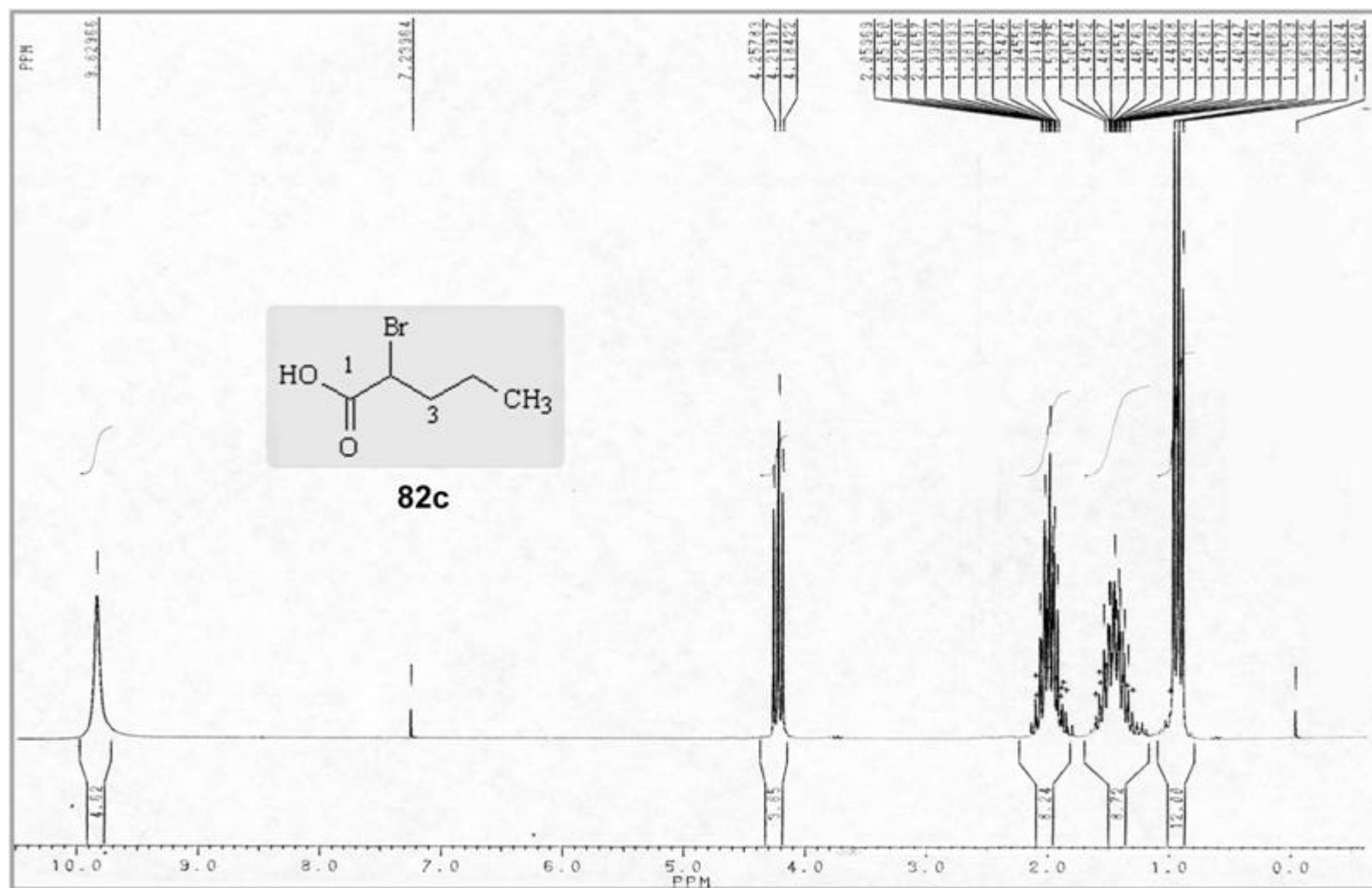
7.3.1 Ácidos *2-bromoalcanóicos*



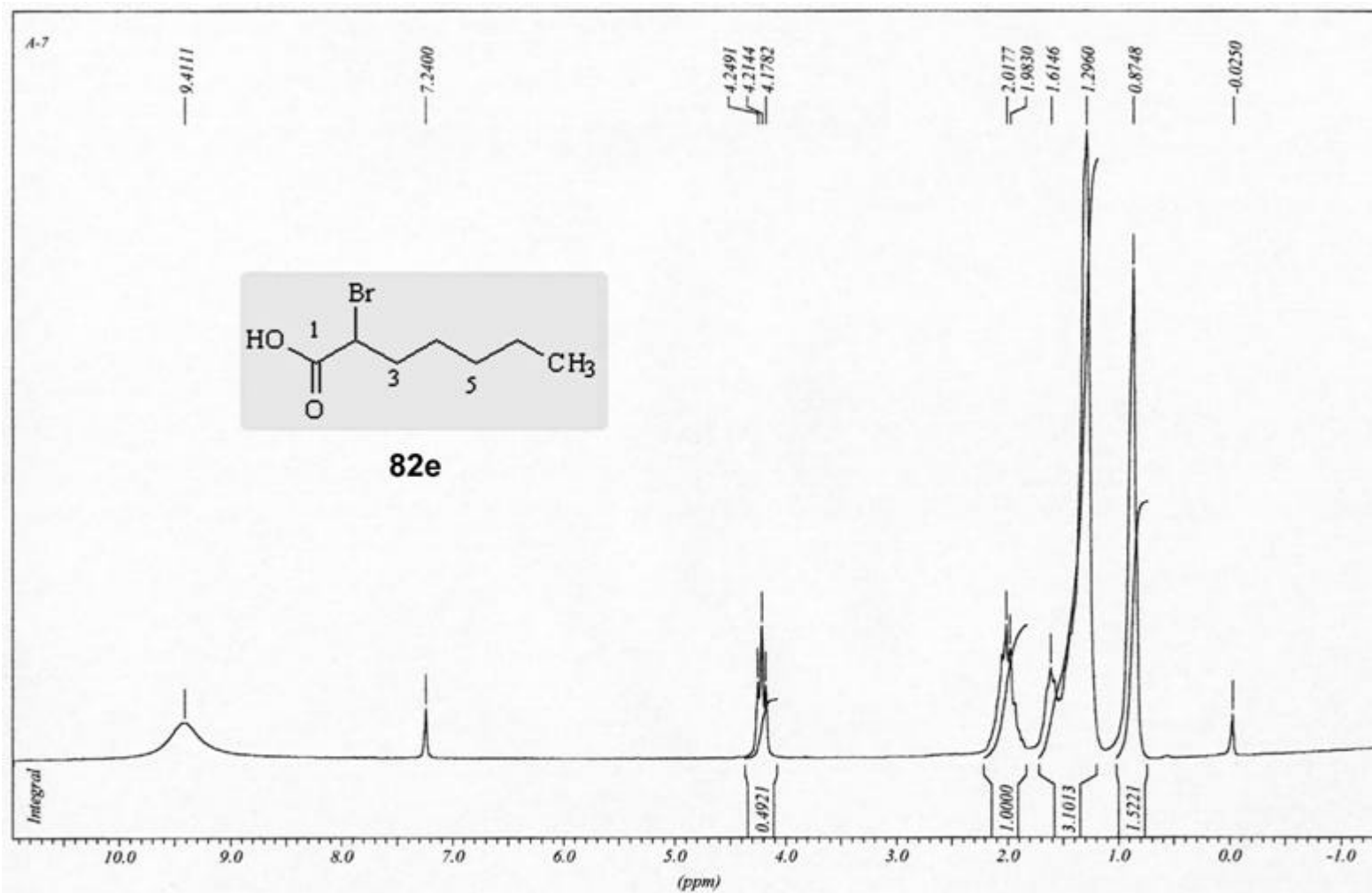
ESPECTRO 65: RMN ¹H (CDCl₃, 200 MHz) do **Ácido 2-bromo-propanóico**



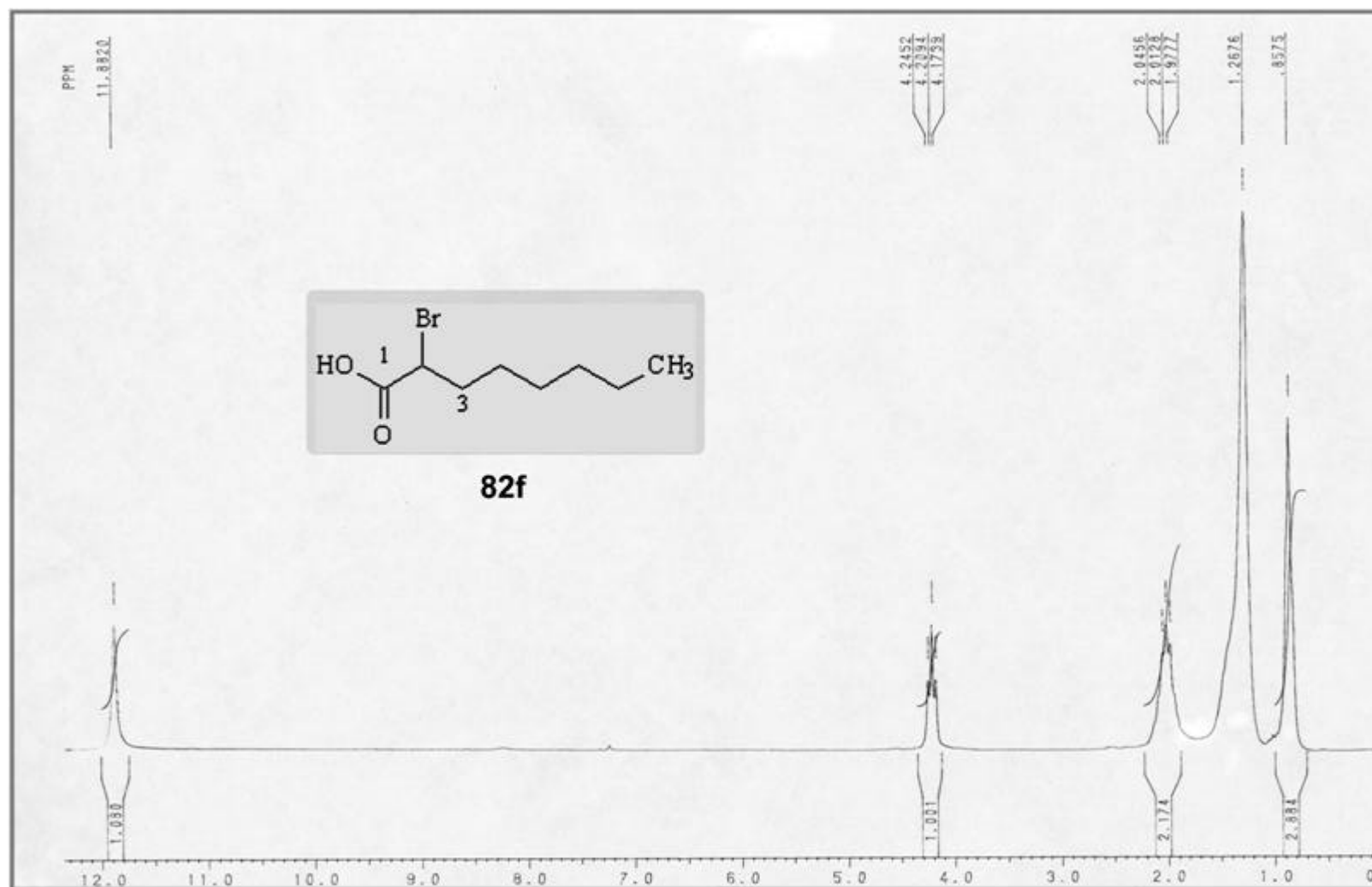
ESPECTRO 66: RMN ¹H (CDCl₃, 200 MHz) do **Ácido 2-bromobutanóico**



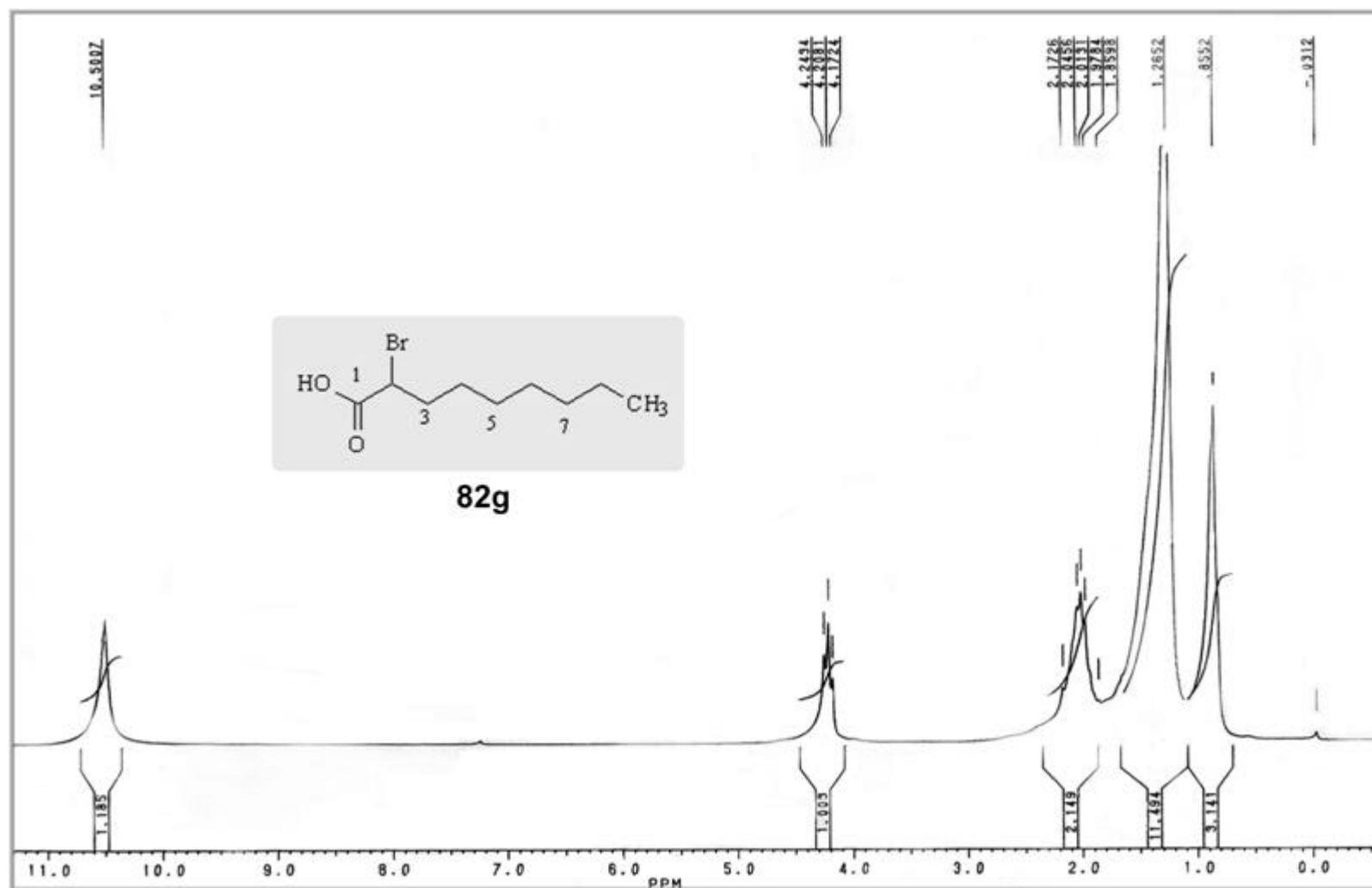
ESPECTRO 67: RMN ^1H (CDCl_3 , 200 MHz) do **Ácido 2-bromopentanoico**



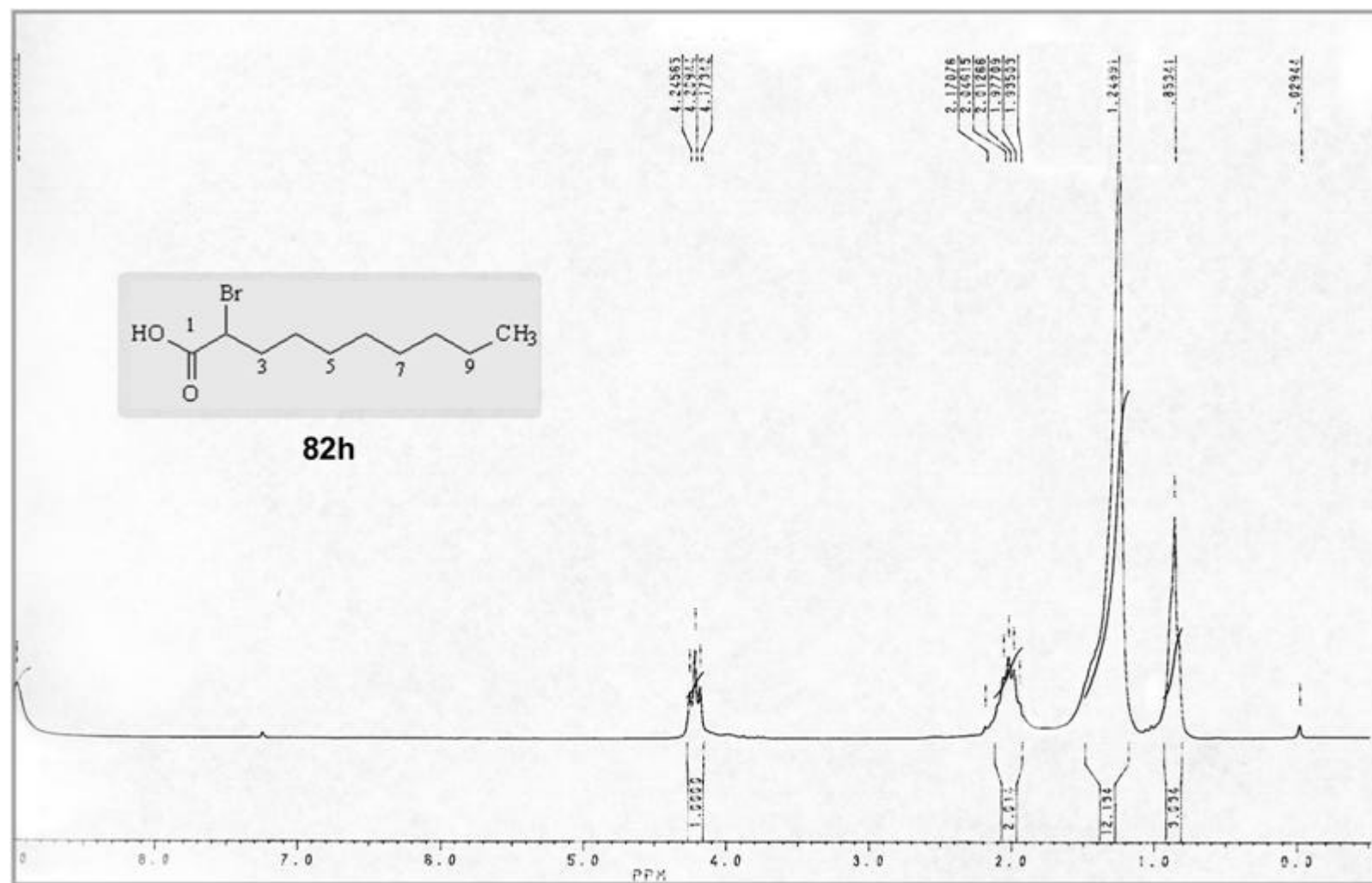
ESPECTRO 69: RMN (CDCl_3 , 200 MHz) do **Ácido 2-bromoheptanóico**



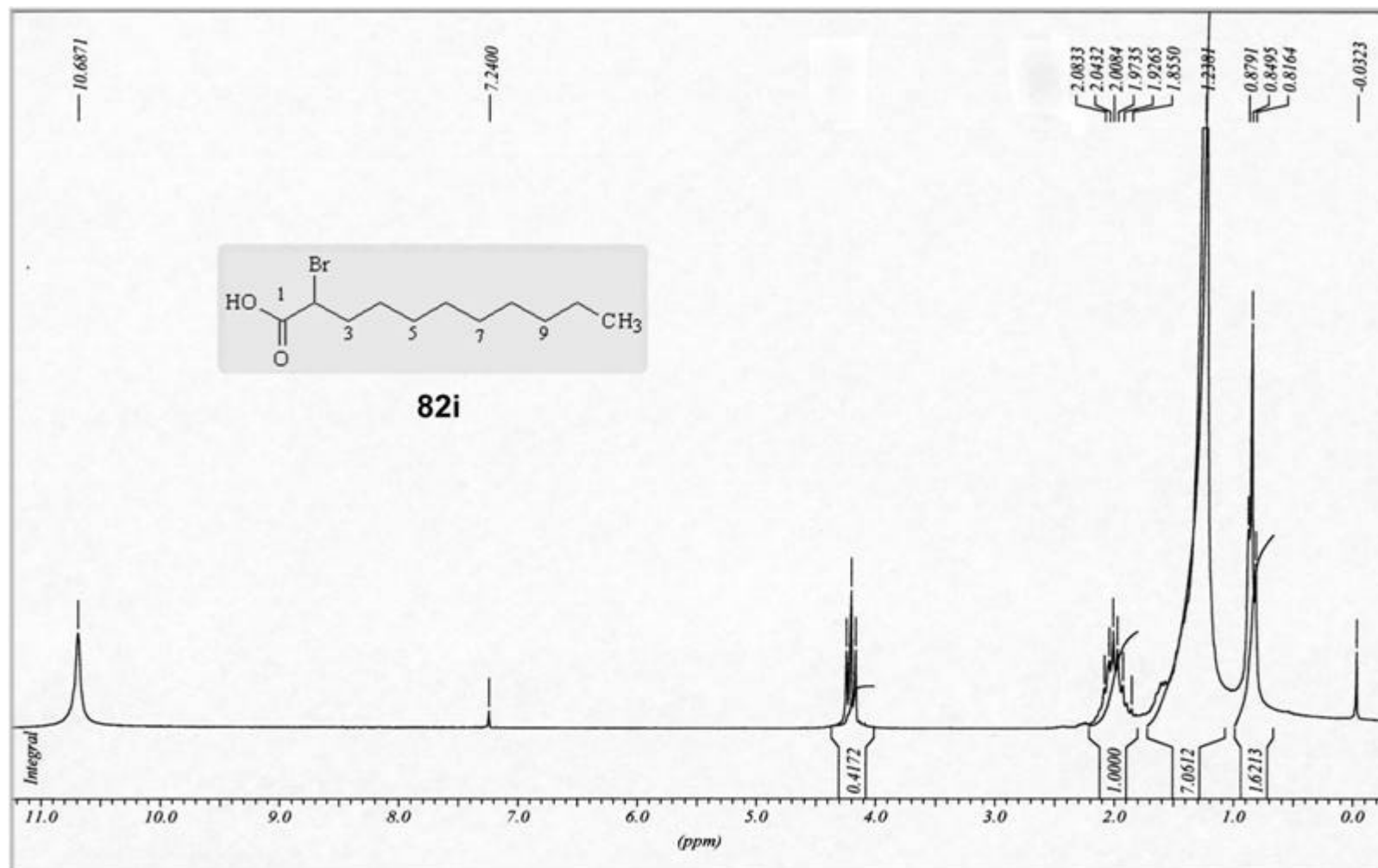
ESPECTRO 70: RMN ¹H (CDCl₃, 200 MHz) do **Ácido 2-bromooctanóico**



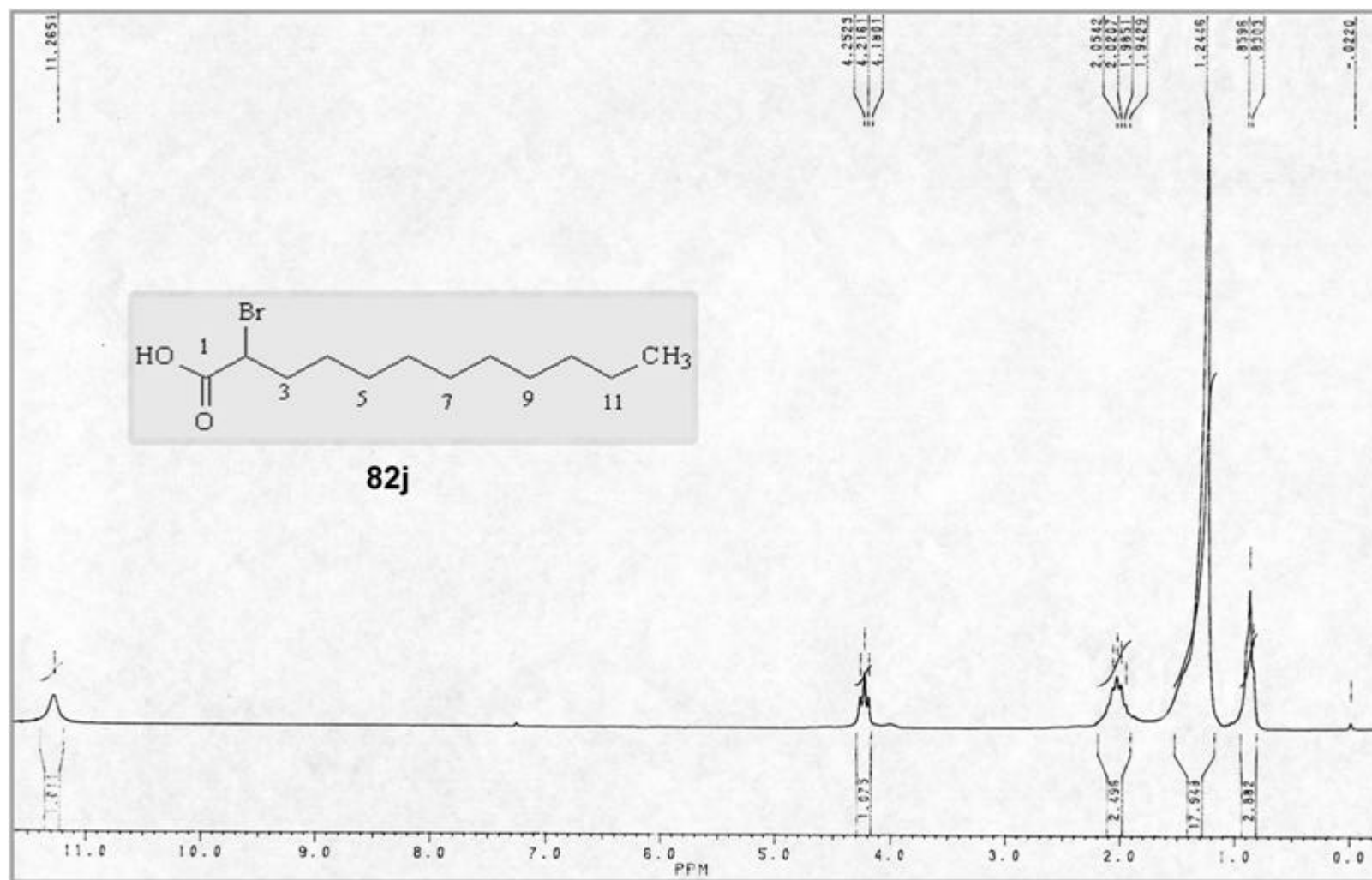
ESPECTRO 71: RMN ^1H (CDCl_3 , 200 MHz) do **Ácido 2-bromononanóico**

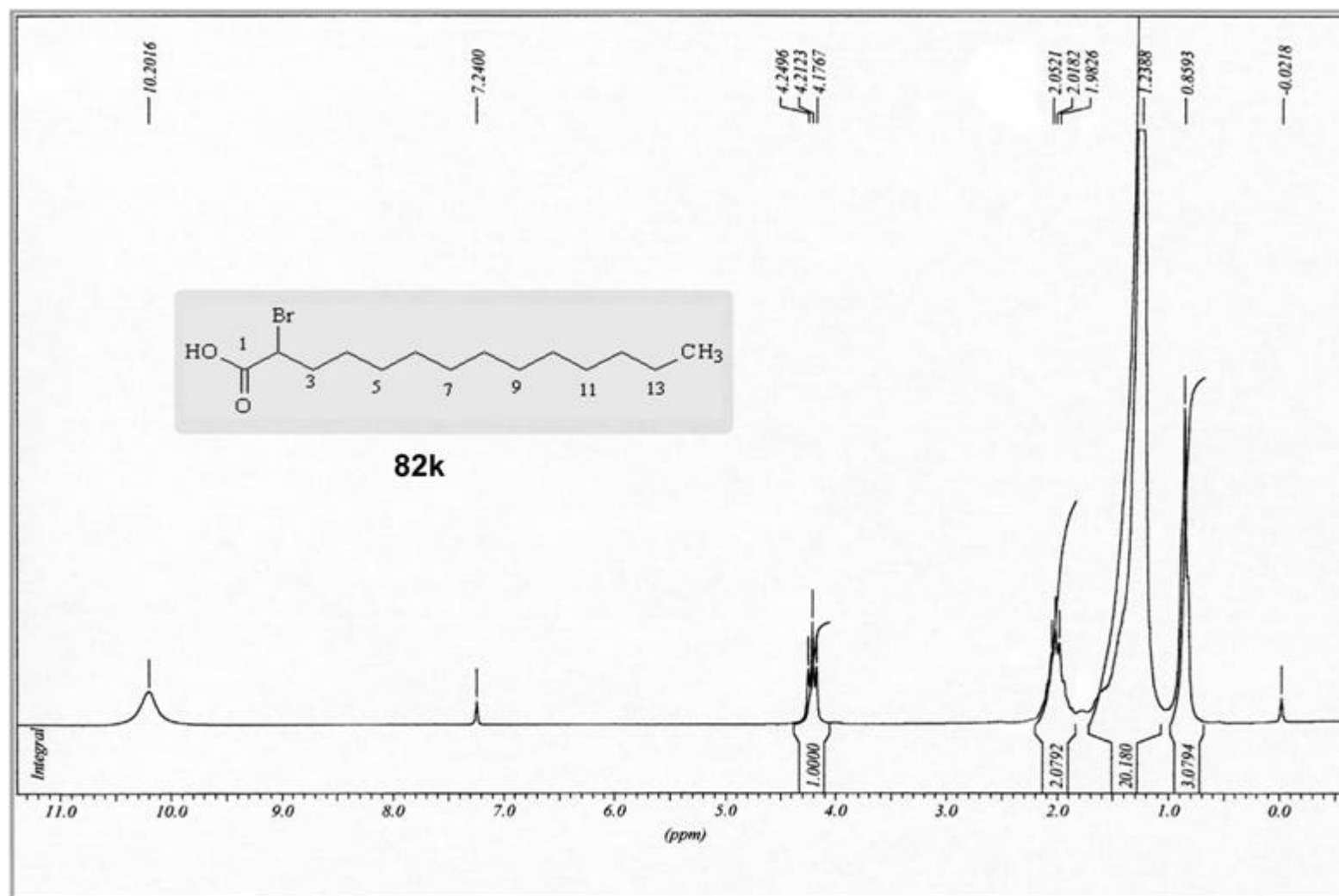


ESPECTRO 72: RMN ^1H (CDCl_3 , 200 MHz) do **Ácido 2-bromodecanoico**

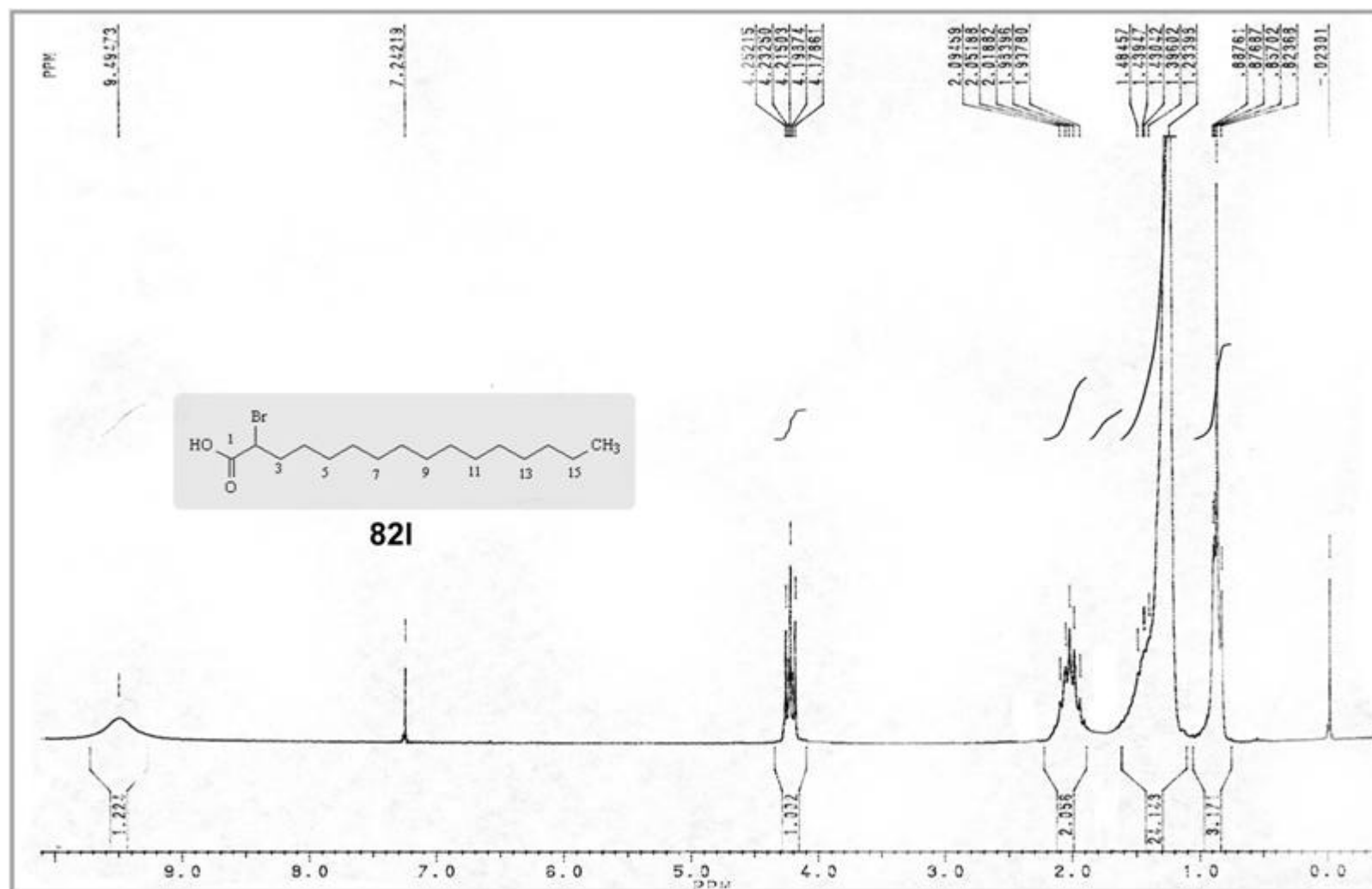


ESPECTRO 73: RMN ^1H (CDCl_3 , 200 MHz) do **Ácido 2-bromoundecanóico**

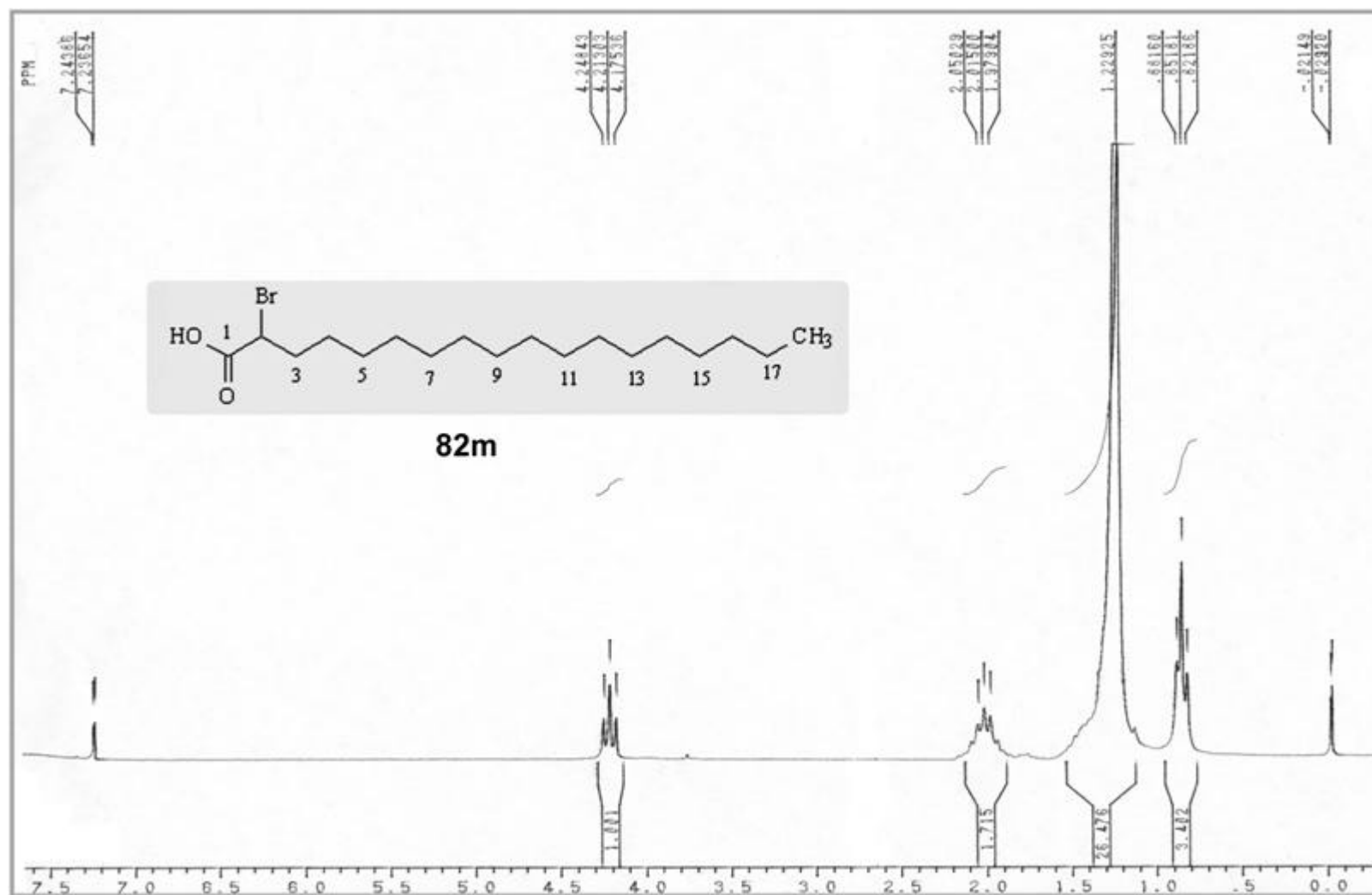




ESPECTRO 75: RMN ^1H (CDCl_3 , 200 MHz) do *Ácido 2-bromotetradecanóico*



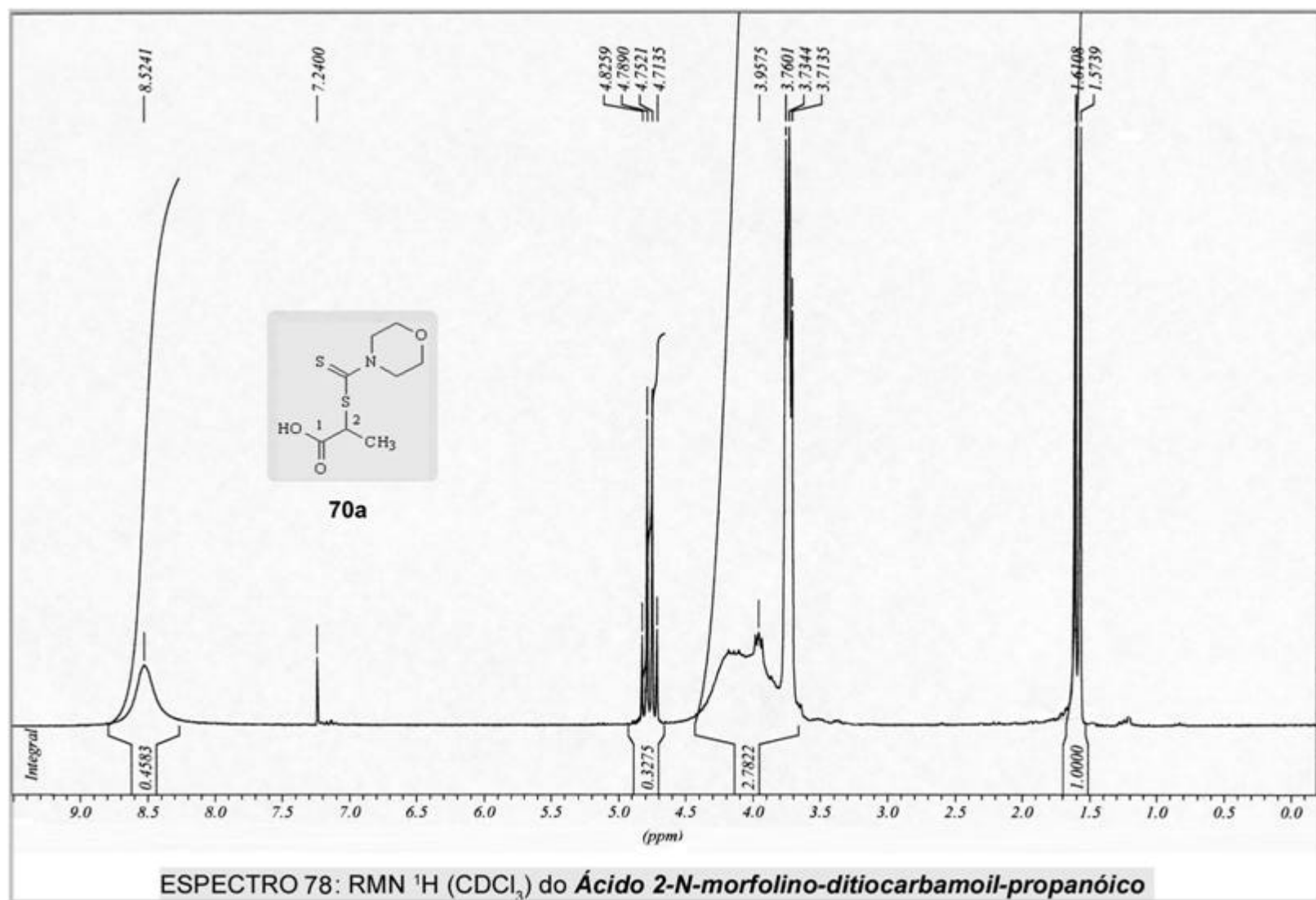
ESPECTRO 76: RMN ¹H (CDCl₃, 200 MHz) do **Ácido 2-bromohexadecanóico**

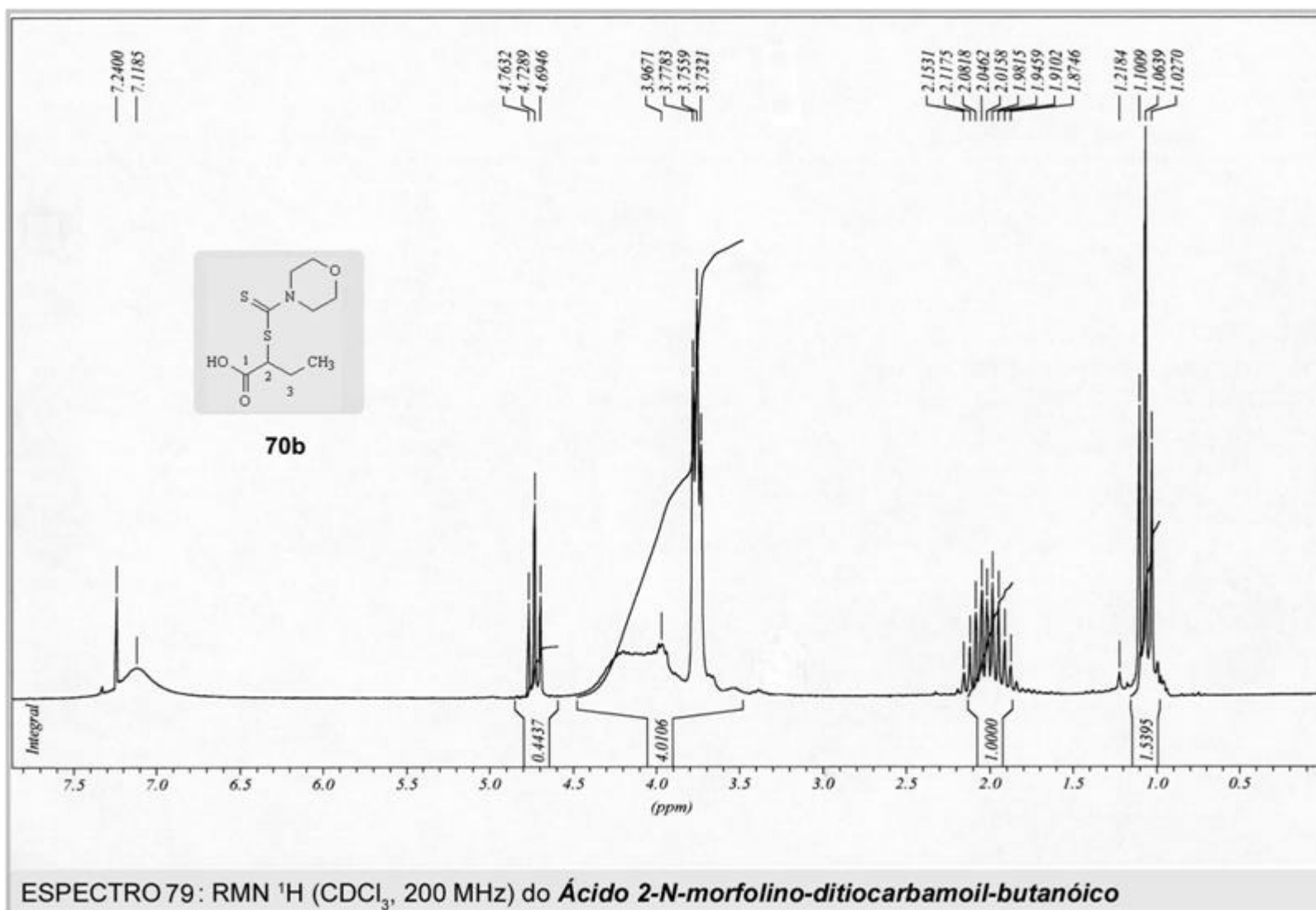


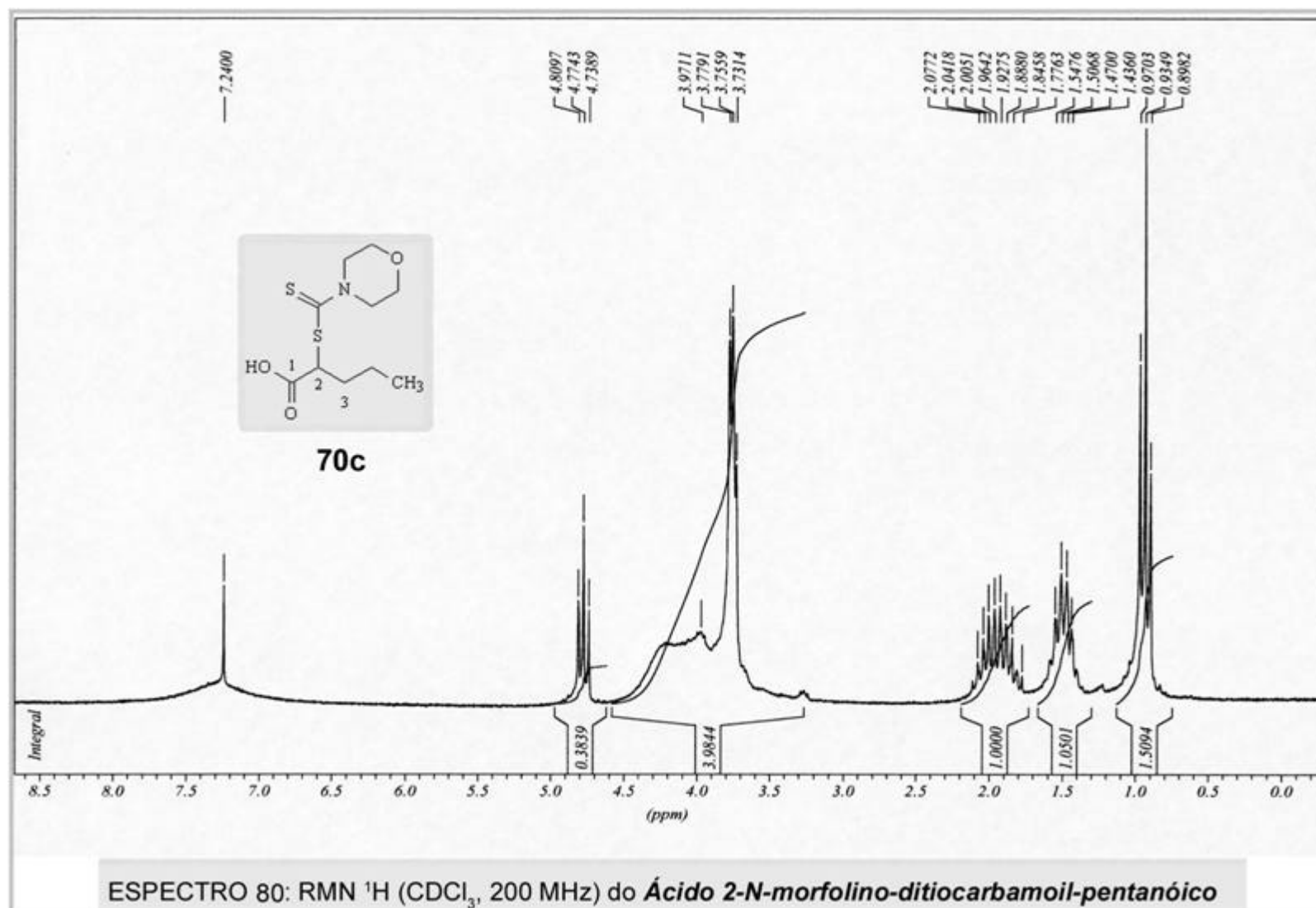
ESPECTRO 77: RMN ¹H (CDCl₃, 200 MHz) do **Ácido 2-bromooctadecanóico**

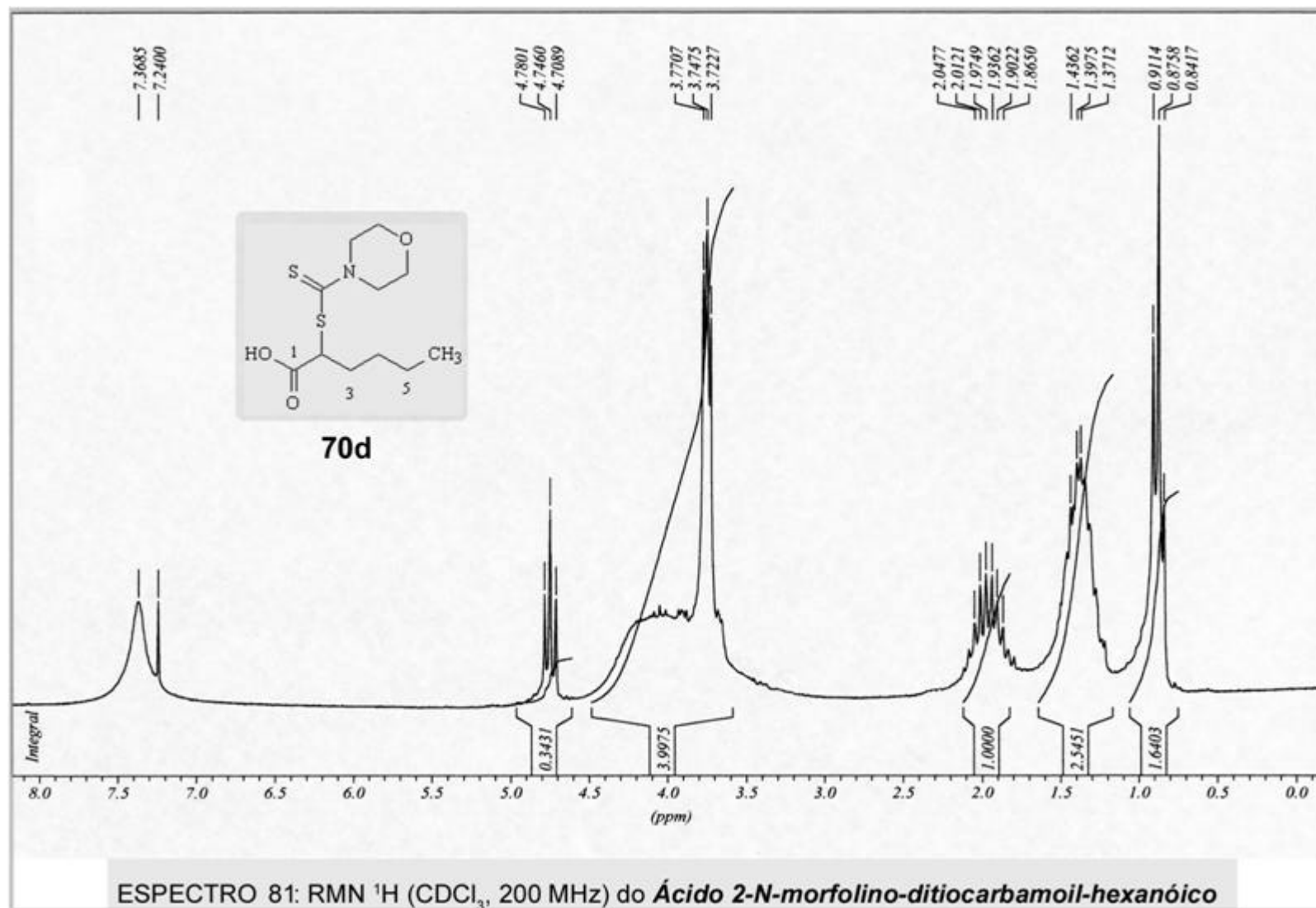
7.3 ESPECTROS DE RMN DE ^1H

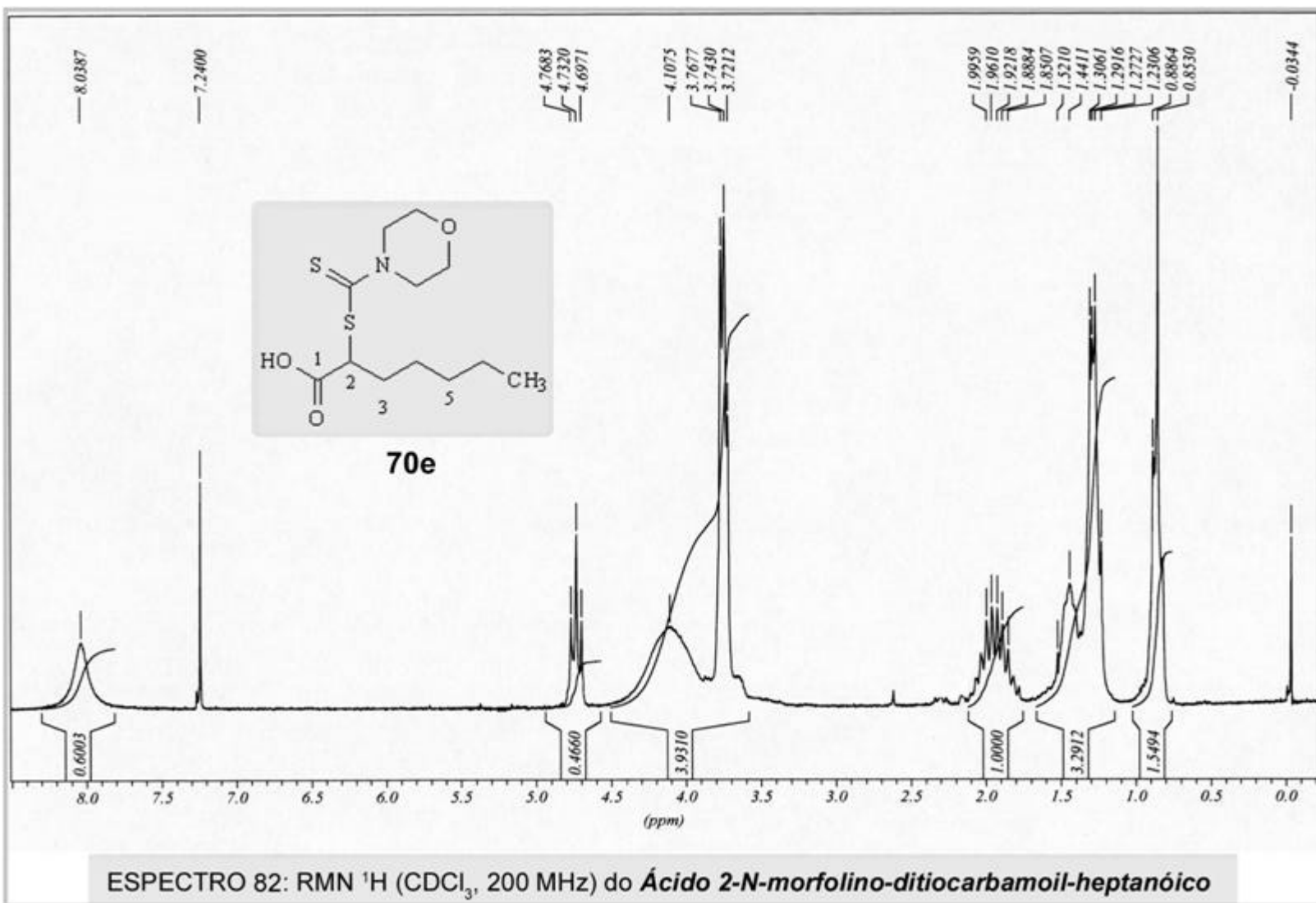
7.3.2 Ácidos 2-*N*-amino-ditiocarbamoil-alcanóicos

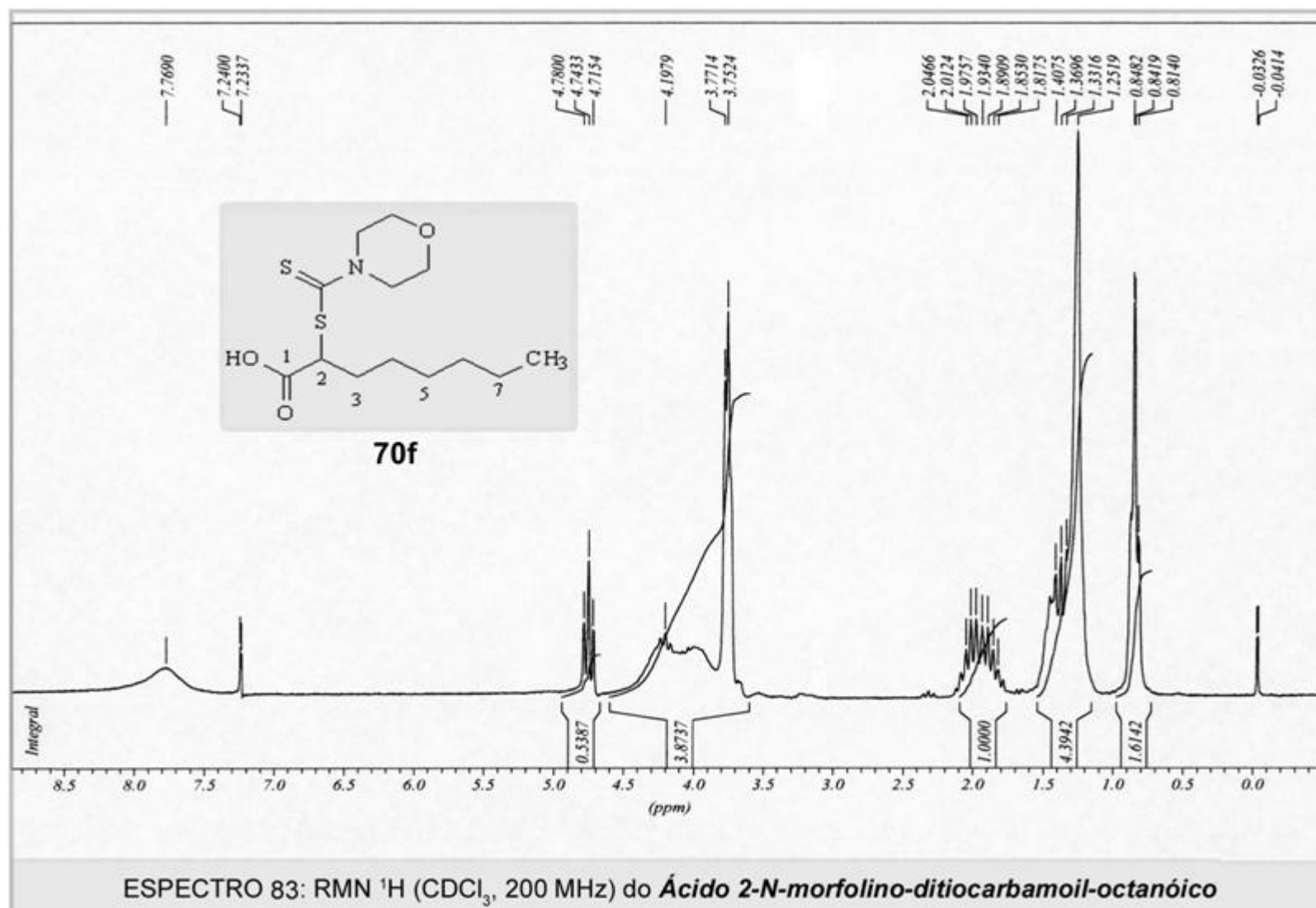


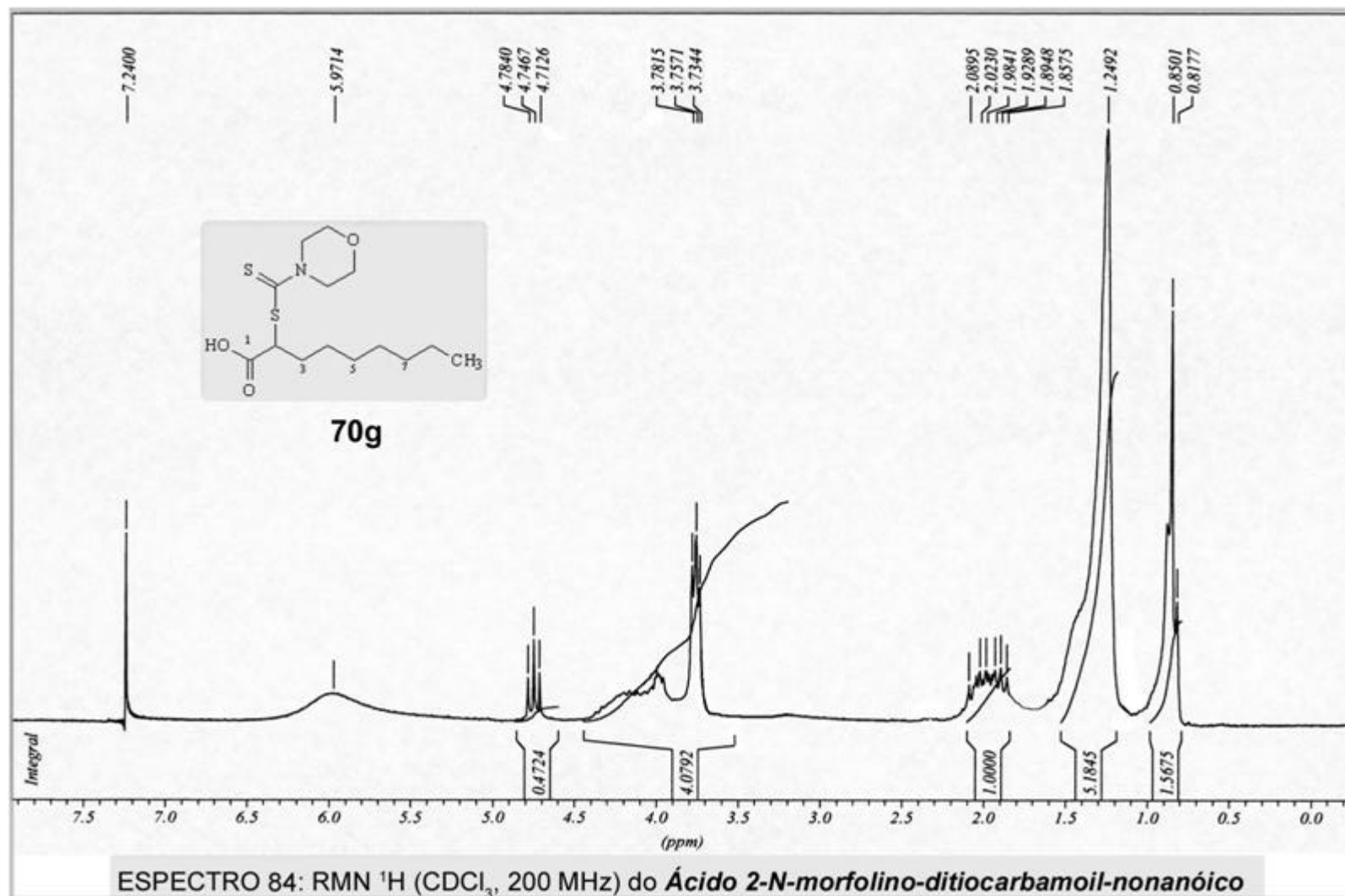


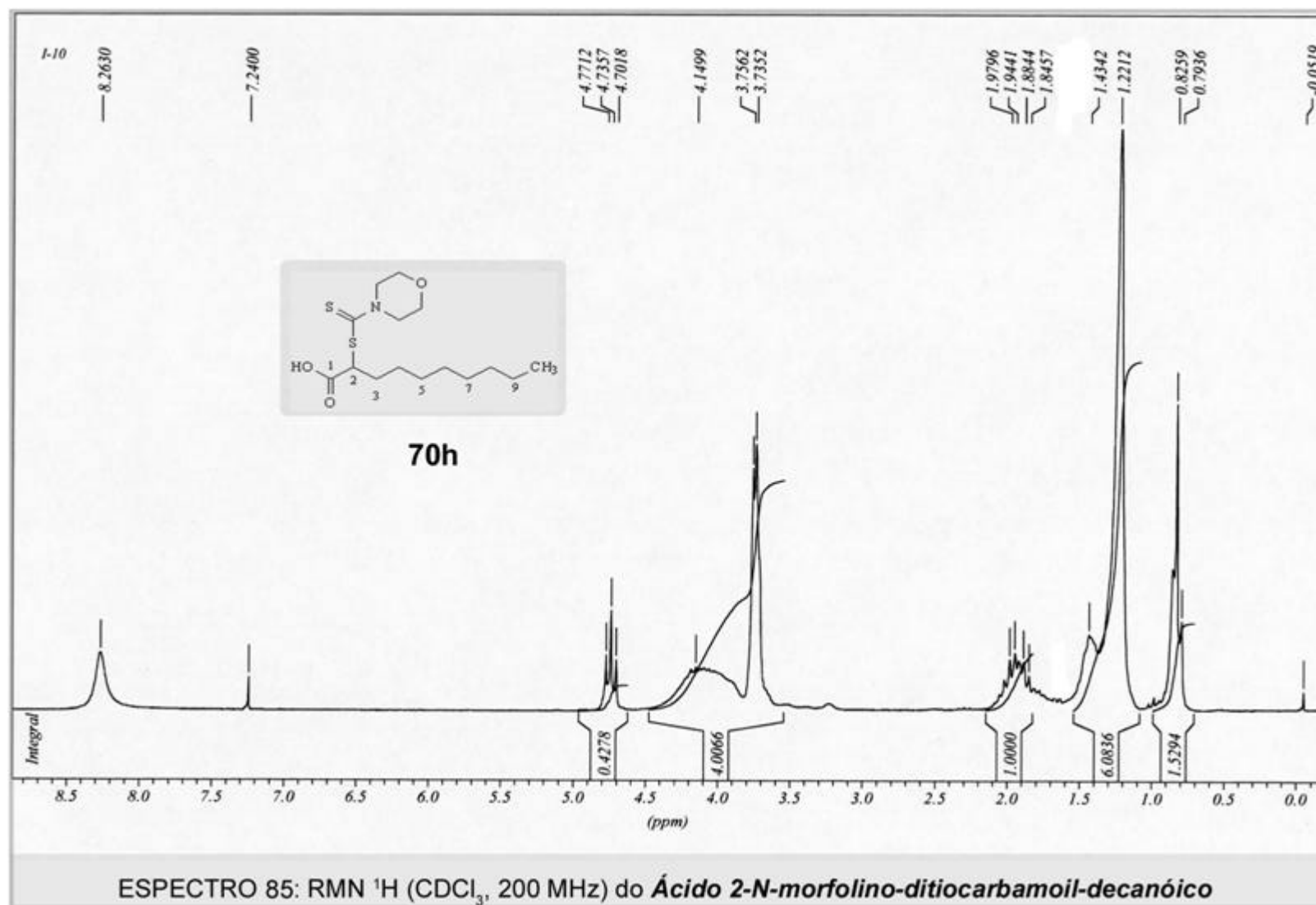


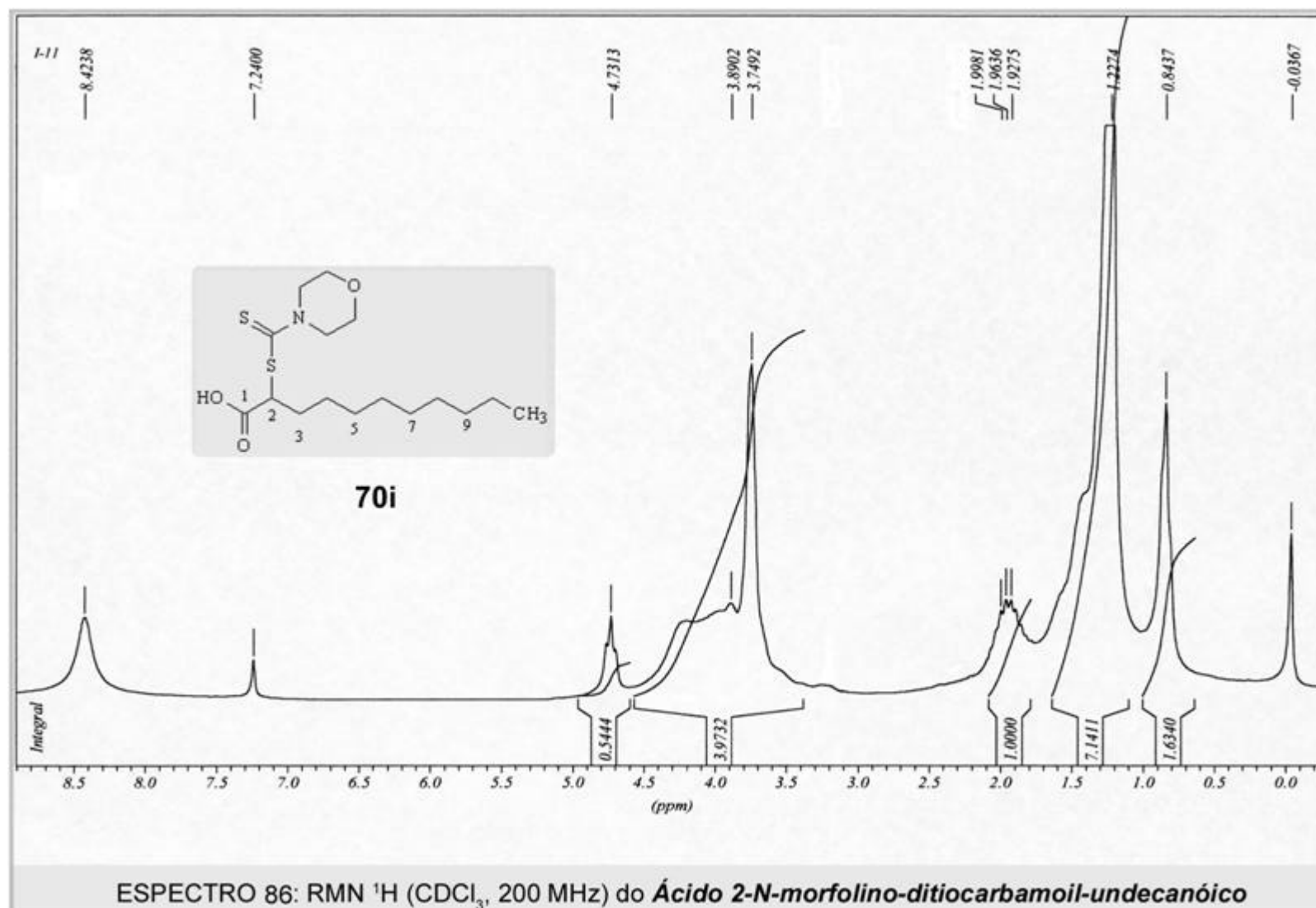


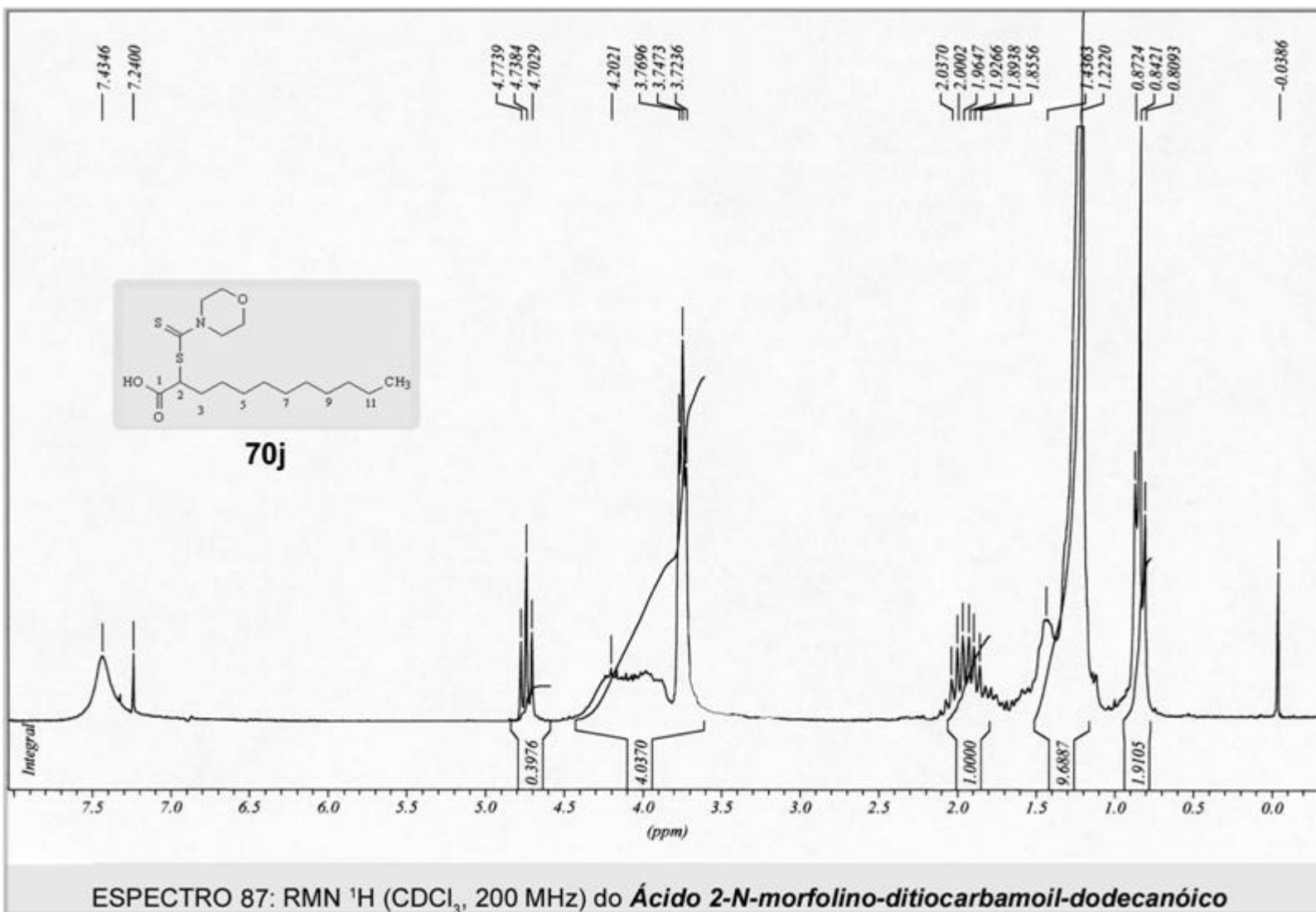


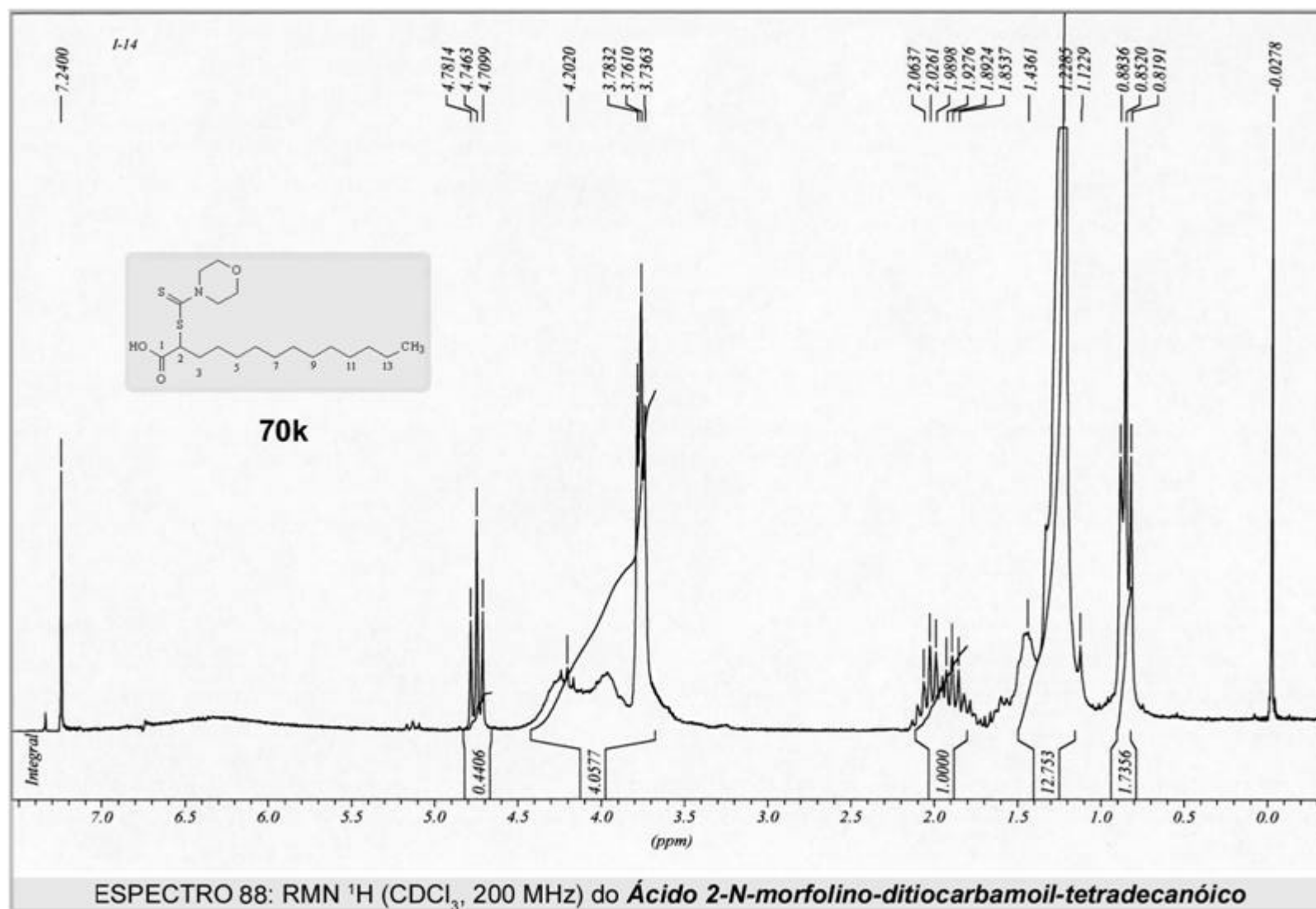


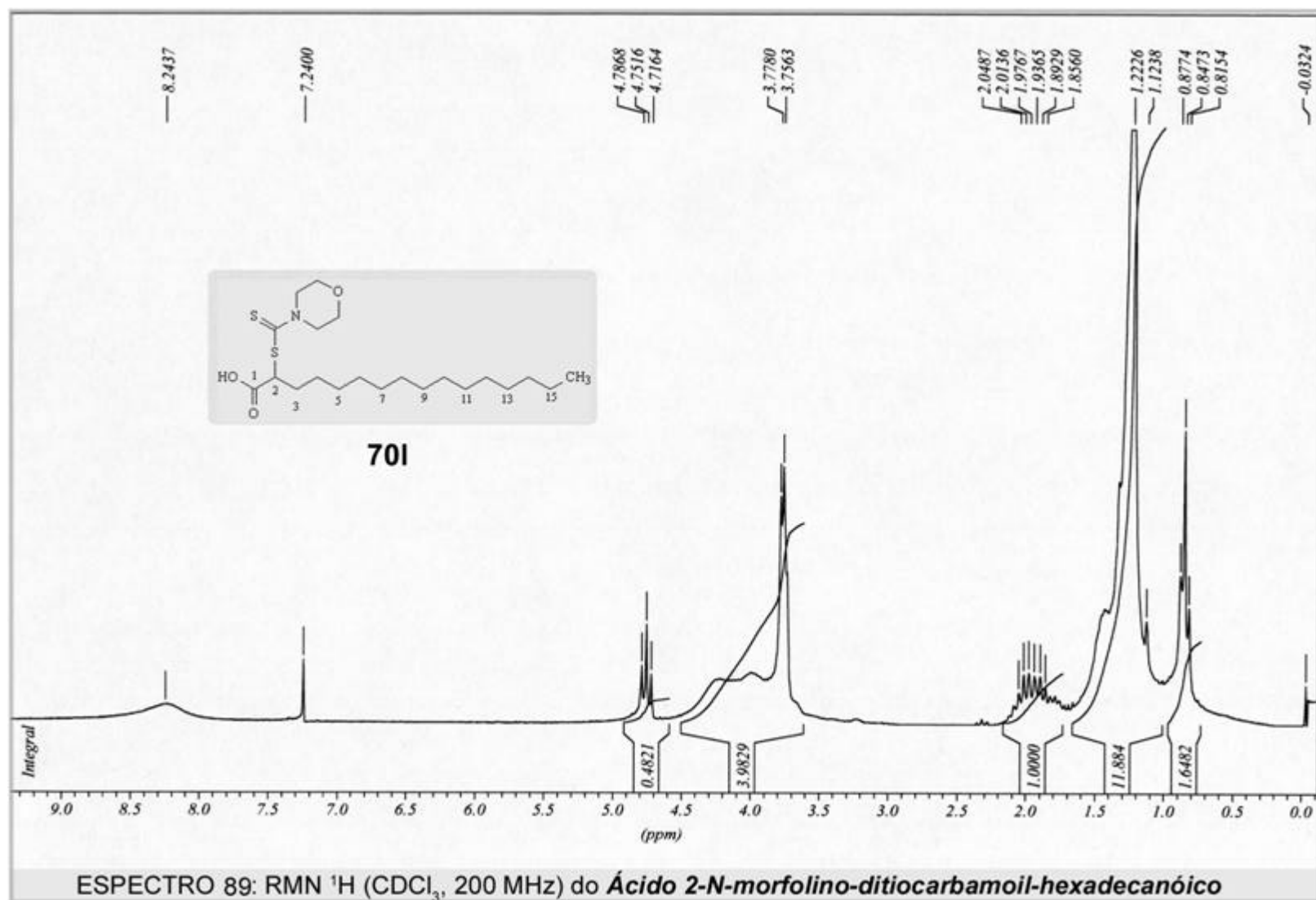


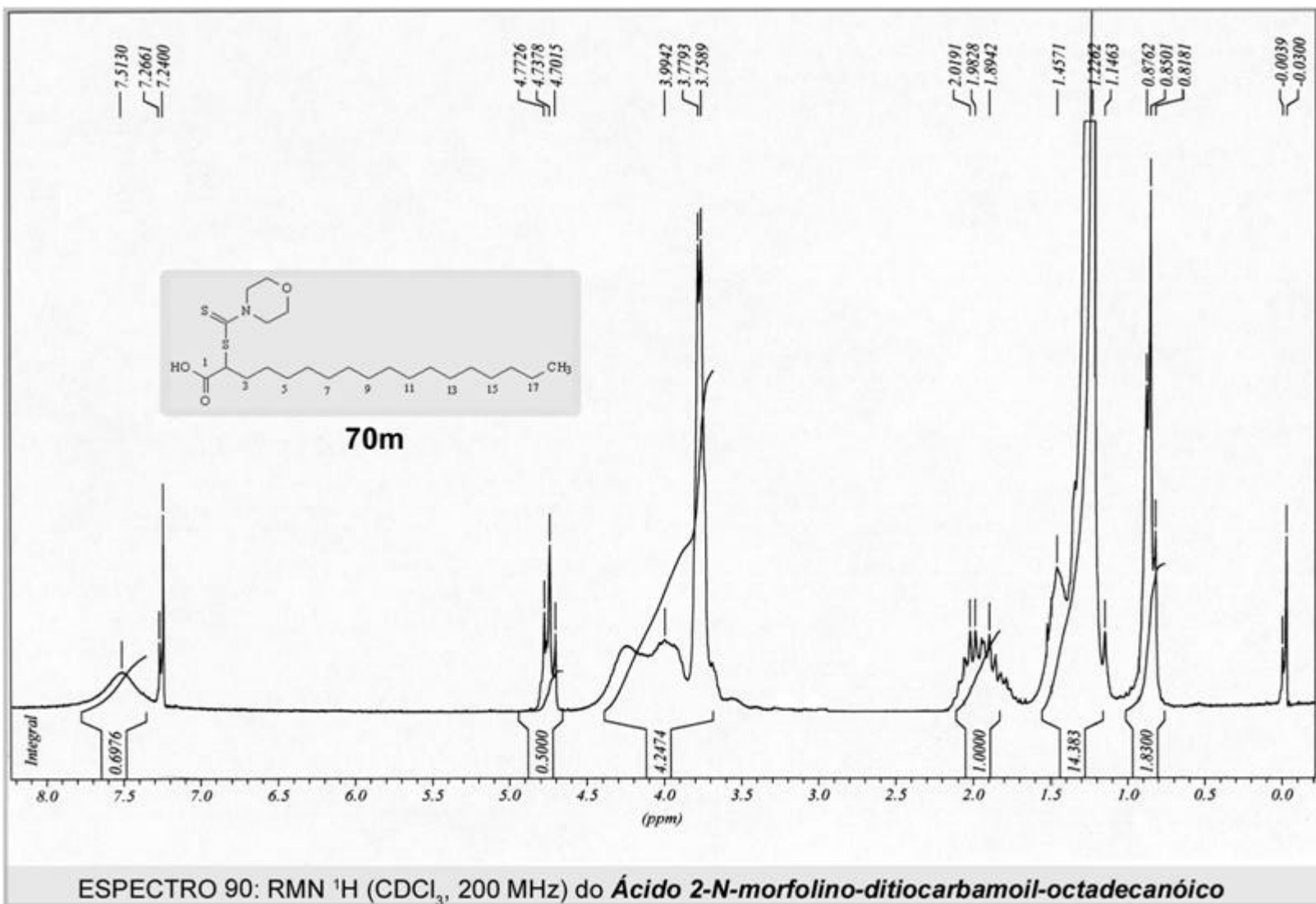


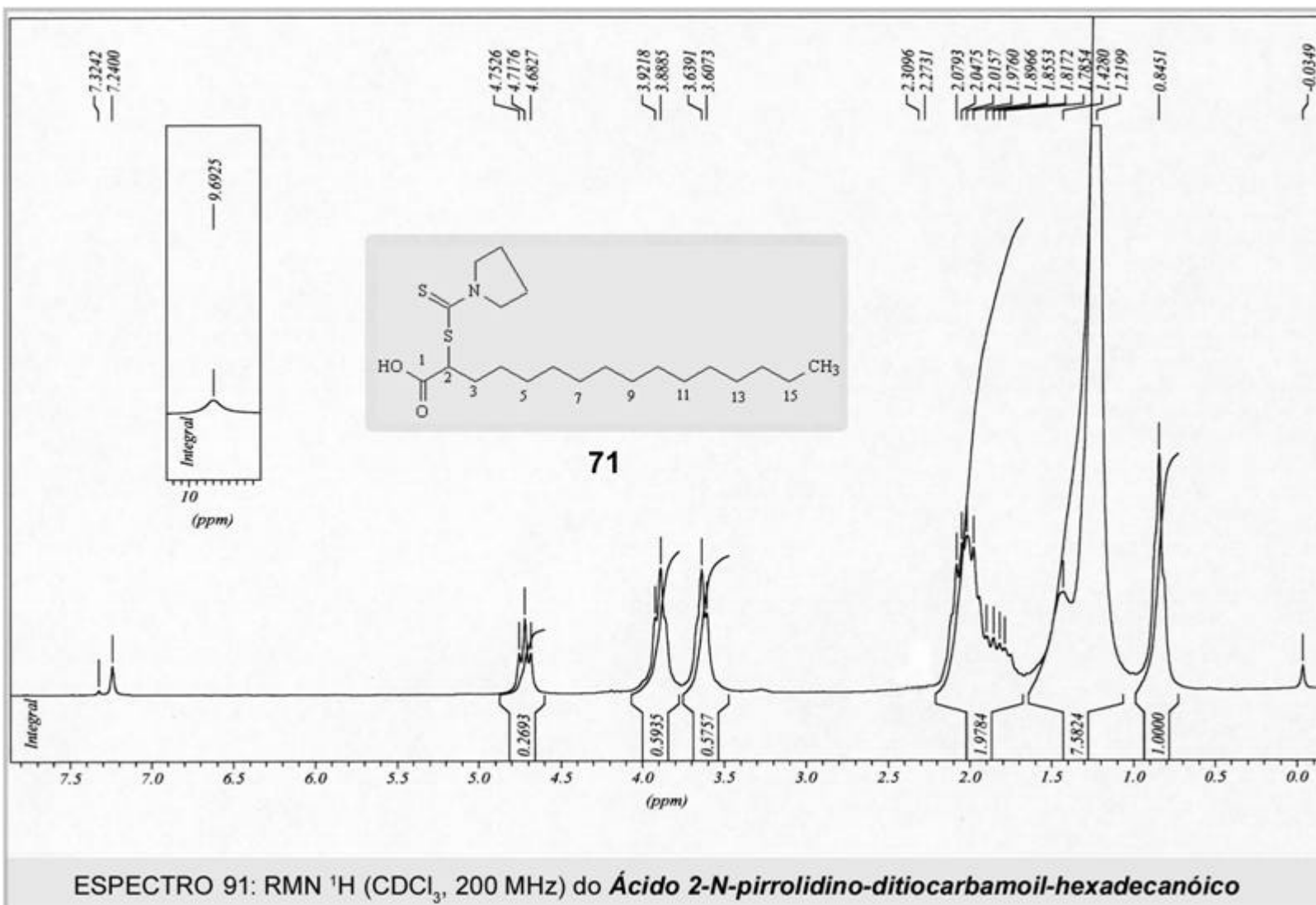


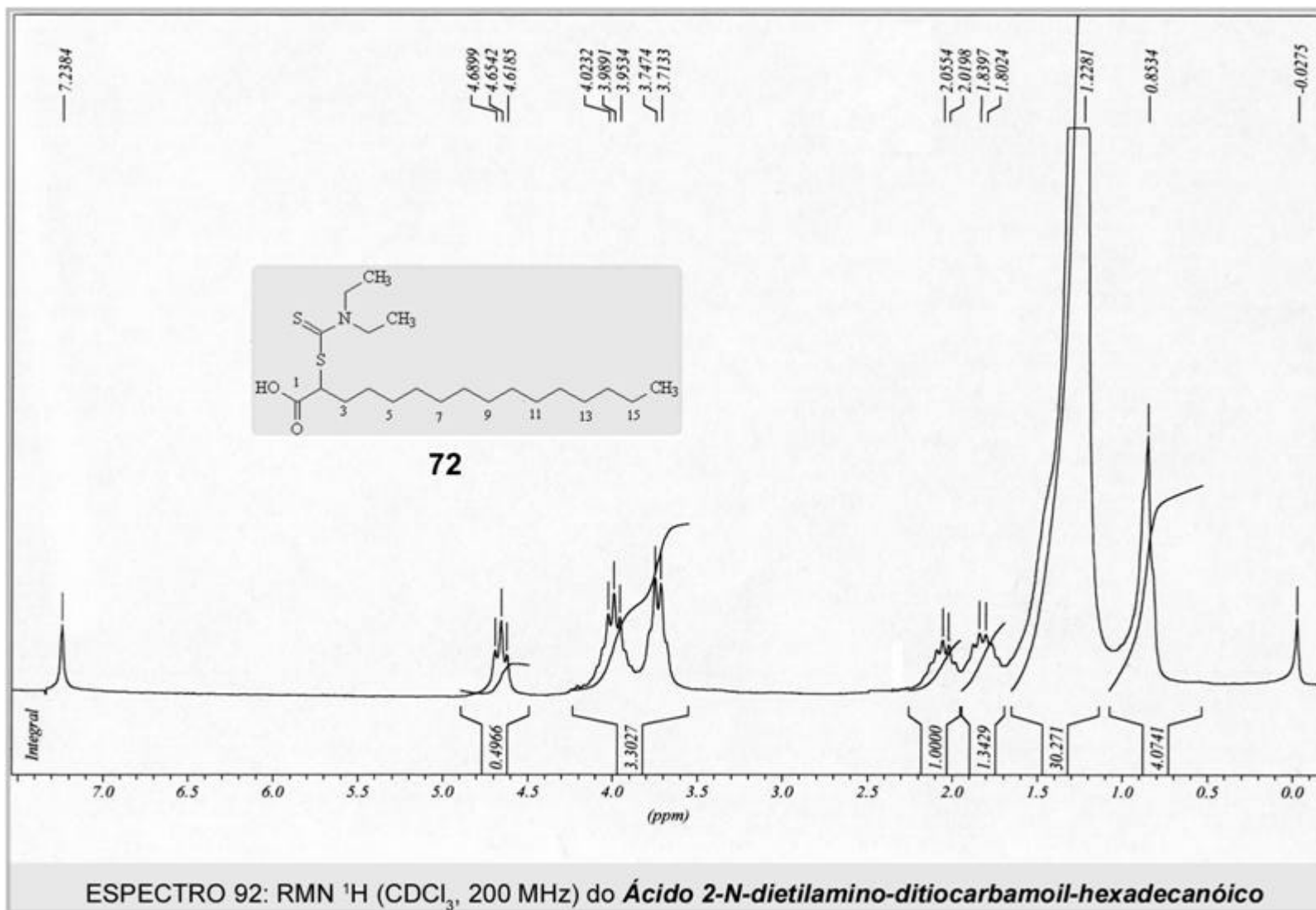


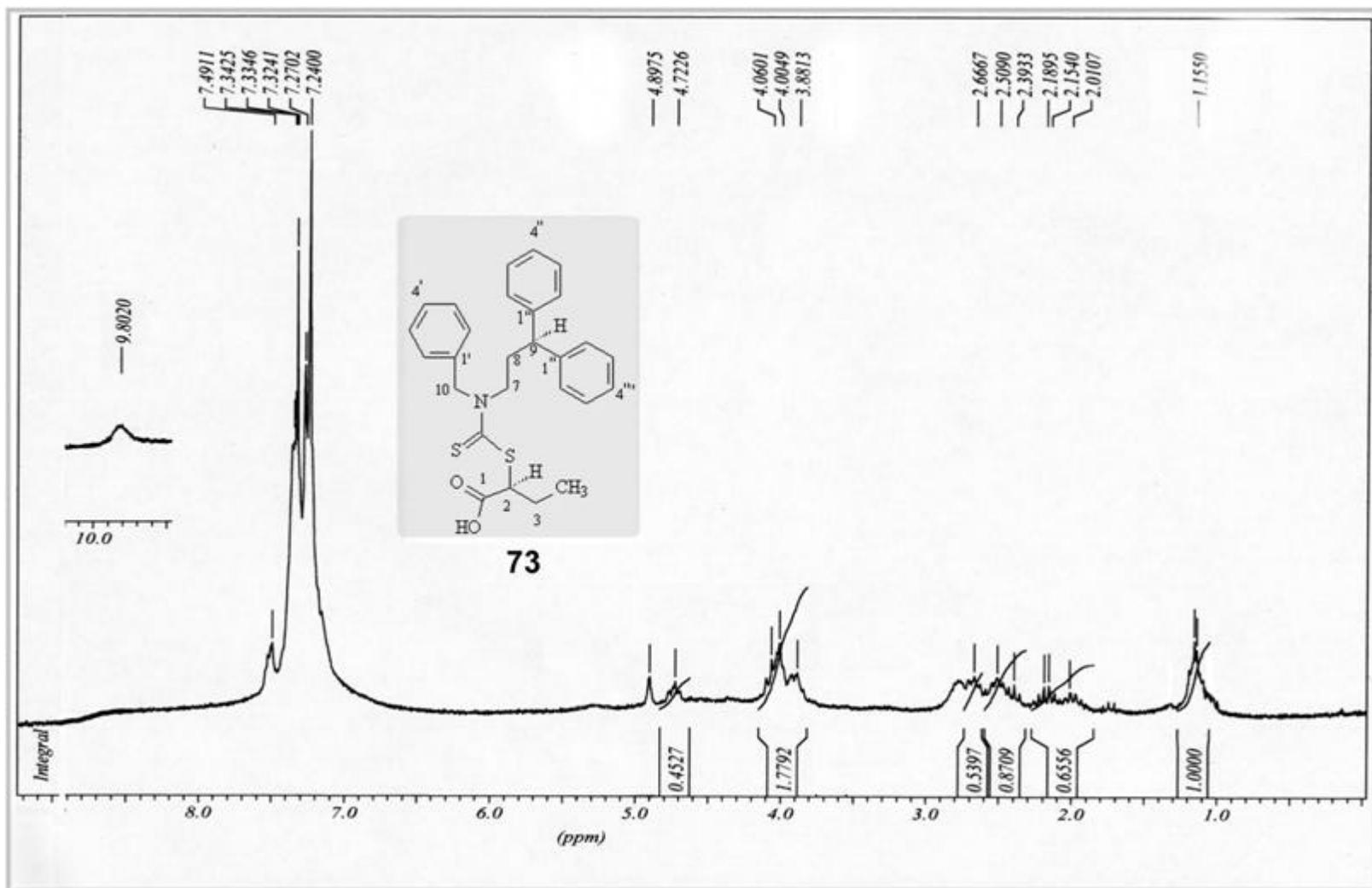












ESPECTRO 93: RMN ^1H (CDCl_3 , 200 MHz) do **Ácido 2-N-(benzil-3,3-difenilpropilamino)-ditiocarbamoil-butanóico**

