ANEXO I

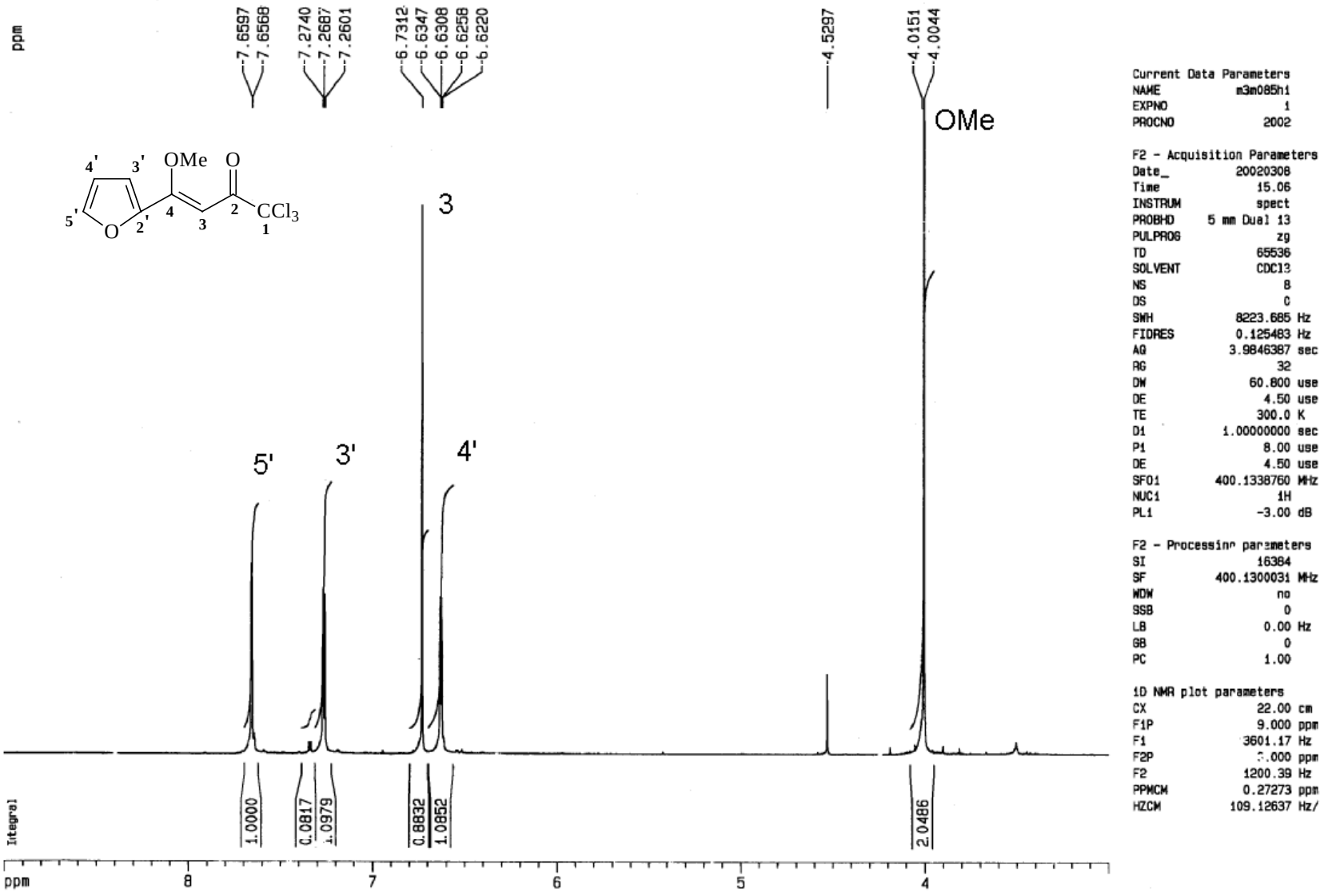


Figura 5. Espectro de RMN (a) ^{1}H da 1,1,1-Tricloro-4-[2-furil]-4-metoxi-3-buten-2-ona (**2a**) em $CDCl_3$.

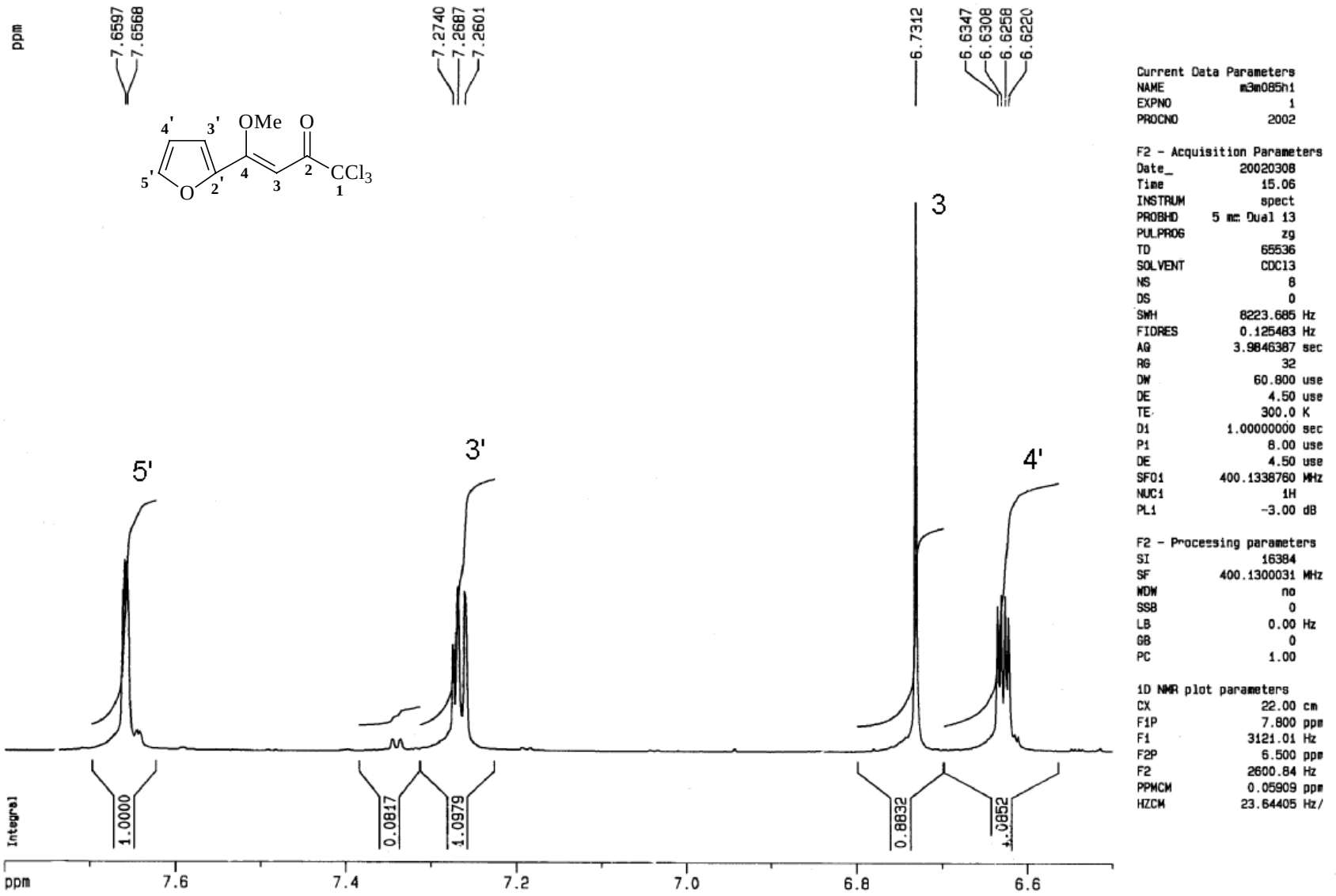


Figura 6. Espectro de ^{1}H, da 1,1,1-Tricloro-4-[2-furil]-4-metoxi-3-buten-2-ona (**2a**) em $CDCl_3$.

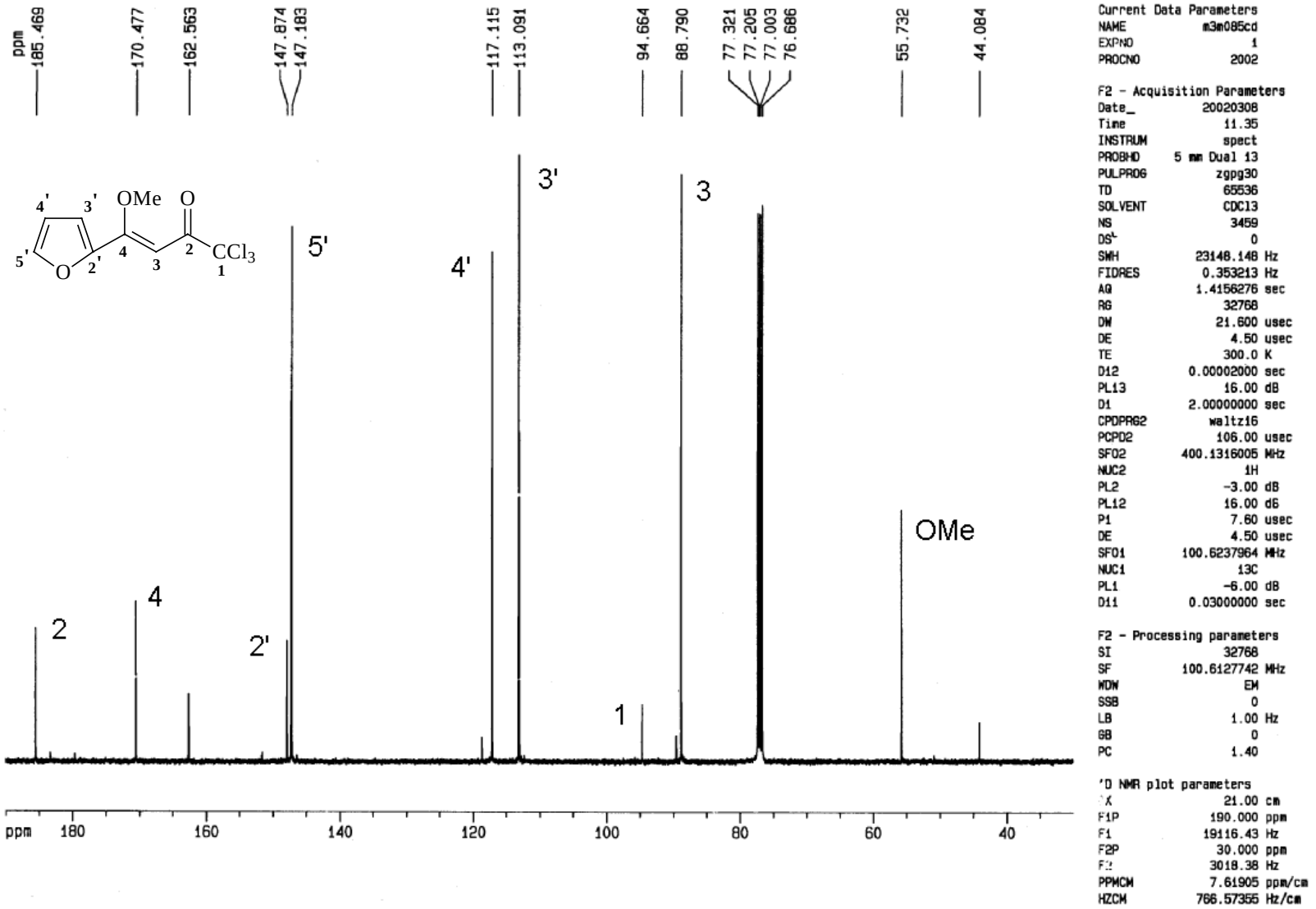


Figura 7. Espectros de RMN ^{13}C do 1,1,1-tricloro-4-[2-furil]-4-metoxi-3-buten-2-ona (**2a**) em $CDCl_3$.

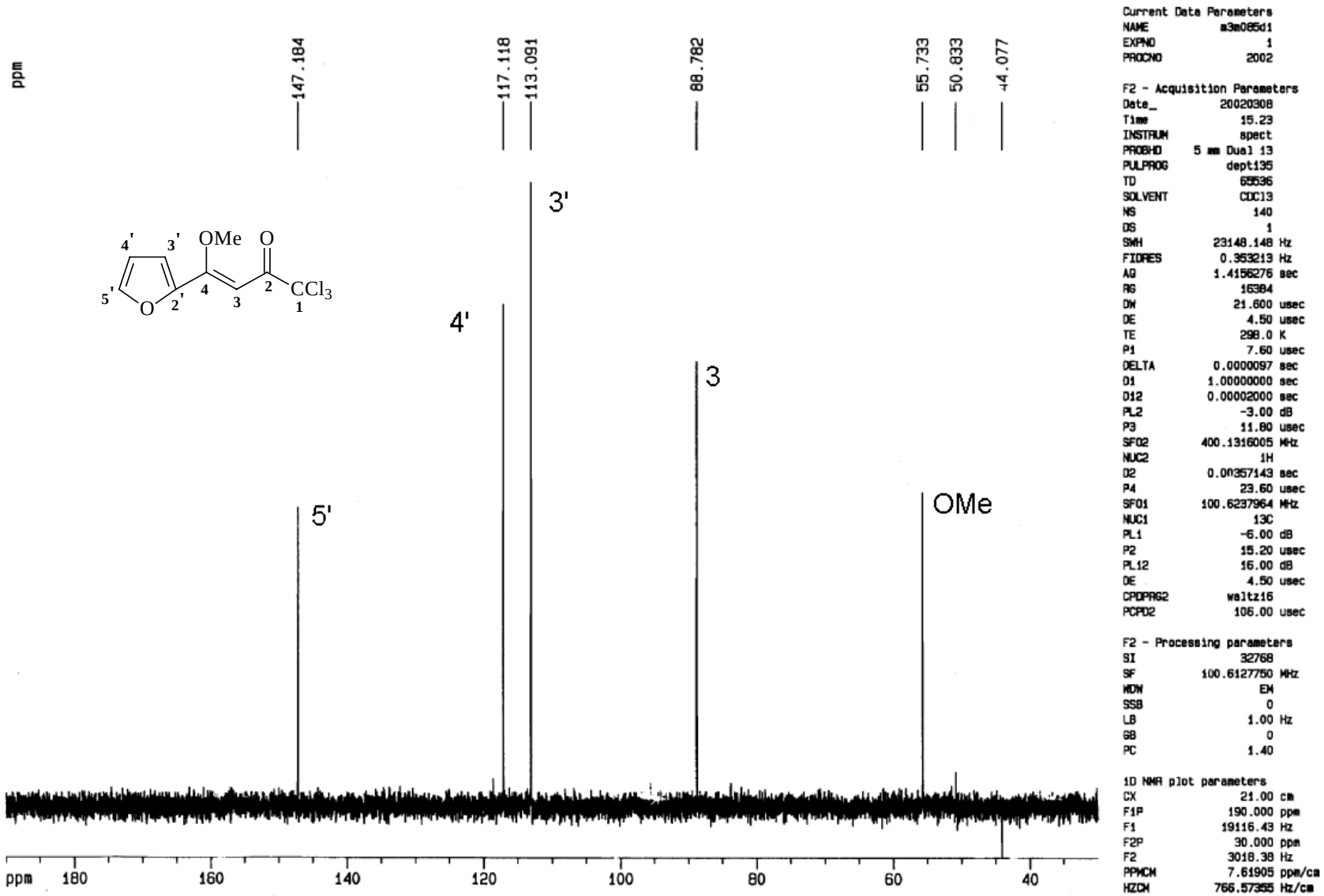


Figura 8. Espectros de RMN DEPT 135 do 1,1,1-tricloro-4-[2-furil]-4-metoxi-3-buten-2-ona (**2a**) em $CDCl_3$.

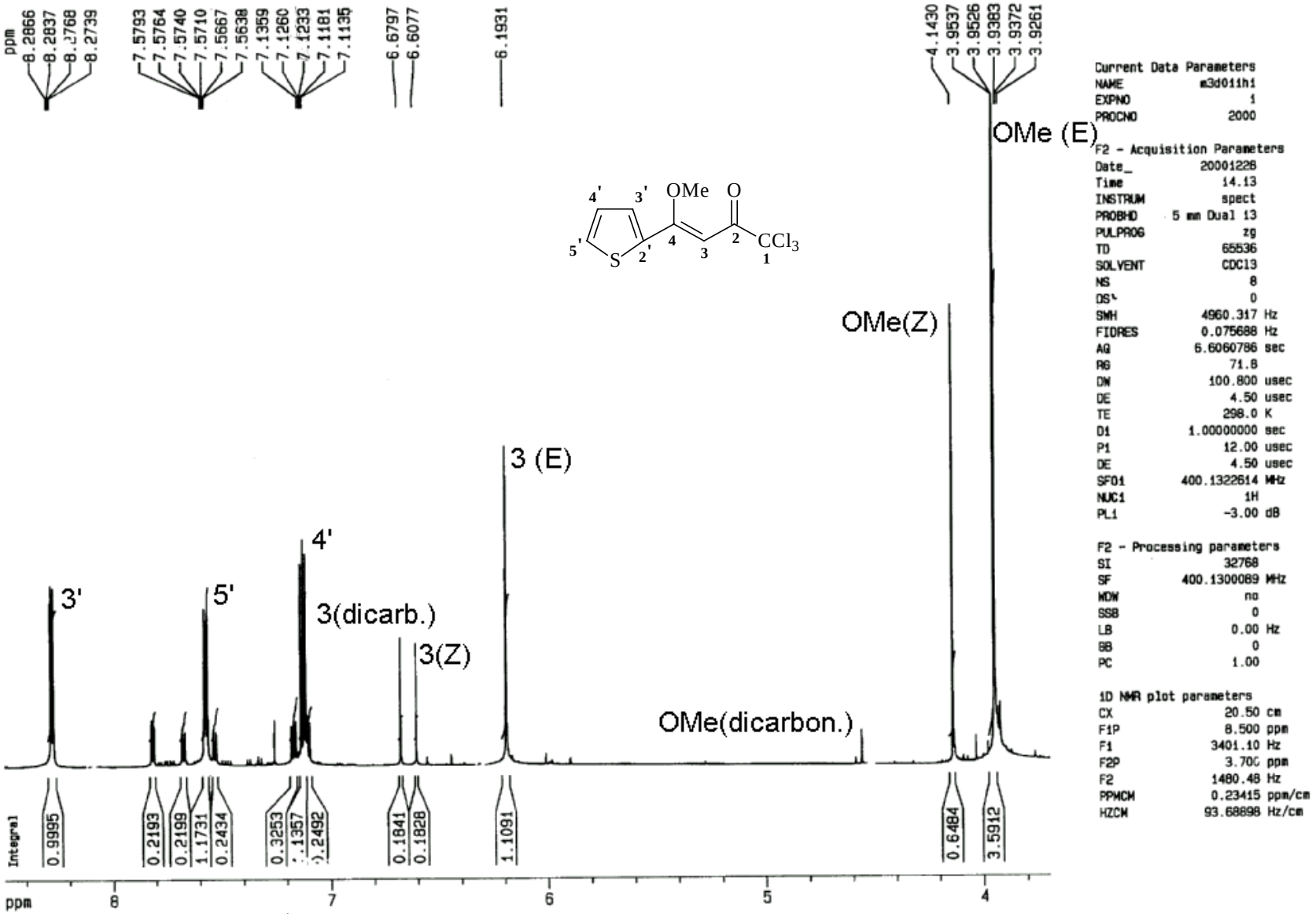


Figura 9. Espectros de RMN ^{1}H do 1,1,1-tricloro-4-metoxi-4-[2-tienil]-3-buten-2-ona (**2b**) em $CDCl_3$.

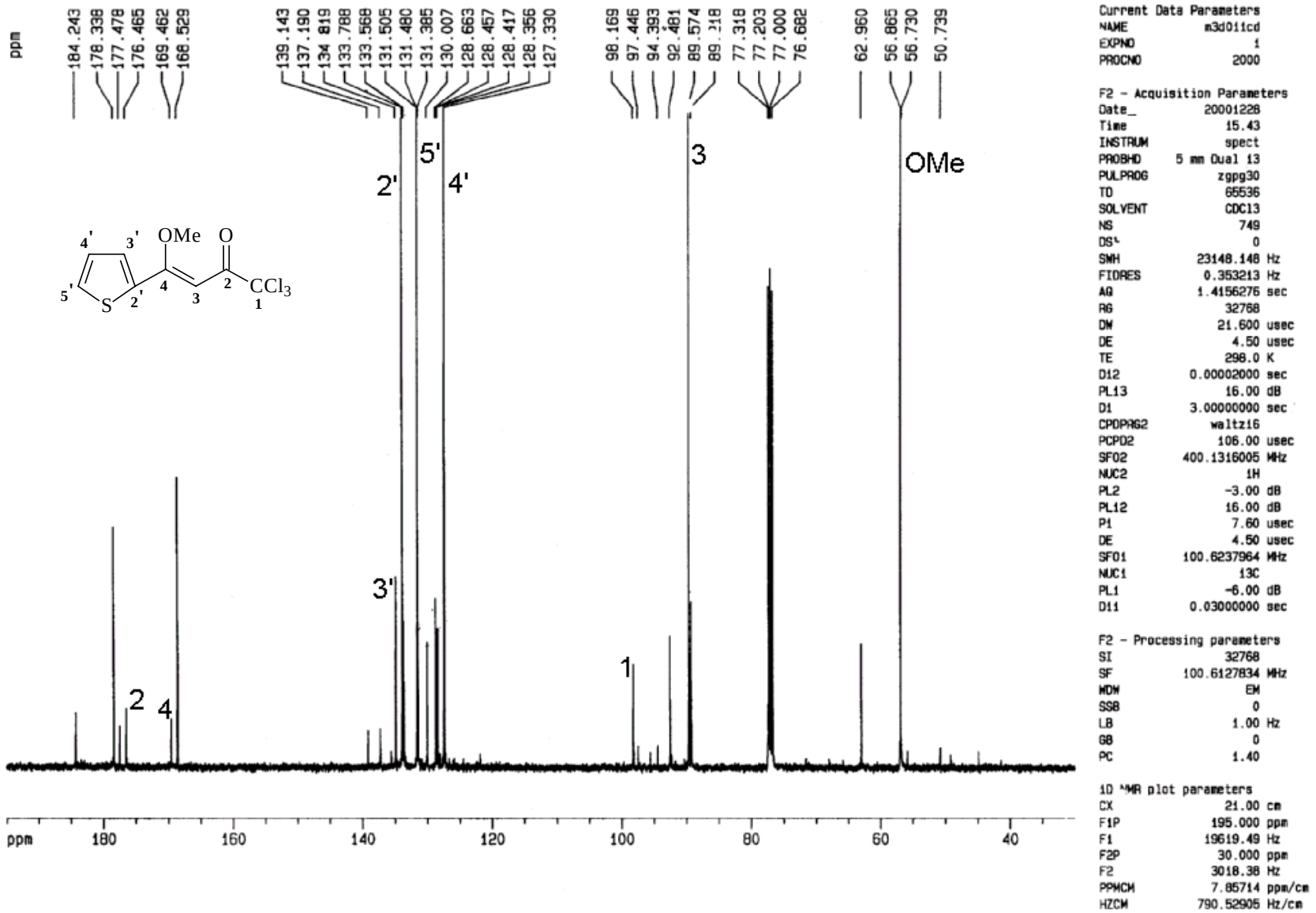


Figura 10. Espectros de RMN $^{13}C\{^{1}H\}$ do 1,1,1-tricloro-4-metoxi-4-[2-tienil]-3-buten-2-ona (**2b**) em $CDCl_3$.

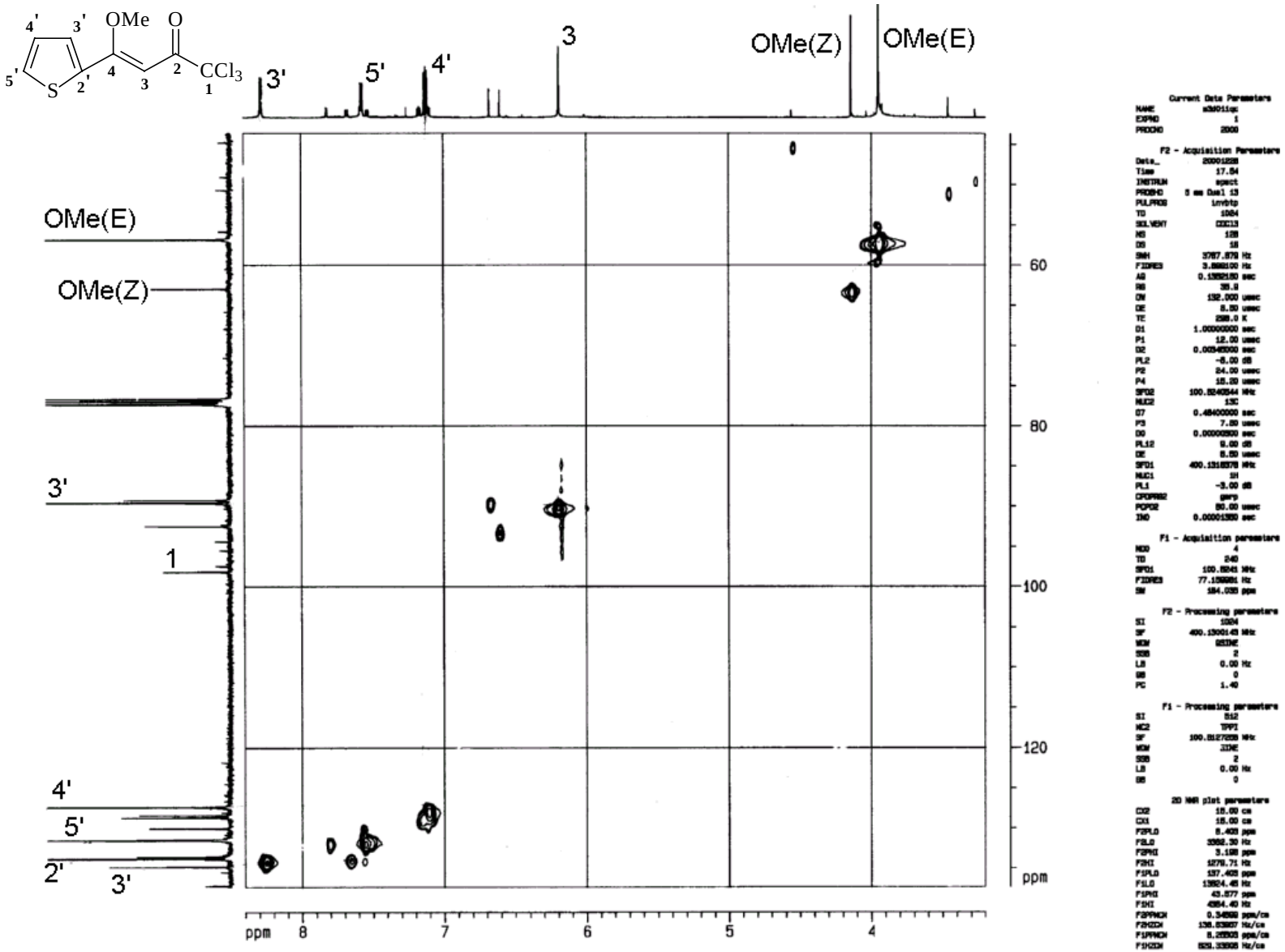


Figura 11. Espectros de RMN correlção C-H (HMQC) do 1,1,1-tricloro-4-metoxi-4-[2-tienil]-3-buten-2-ona (**2b**) em $CDCl_3$.

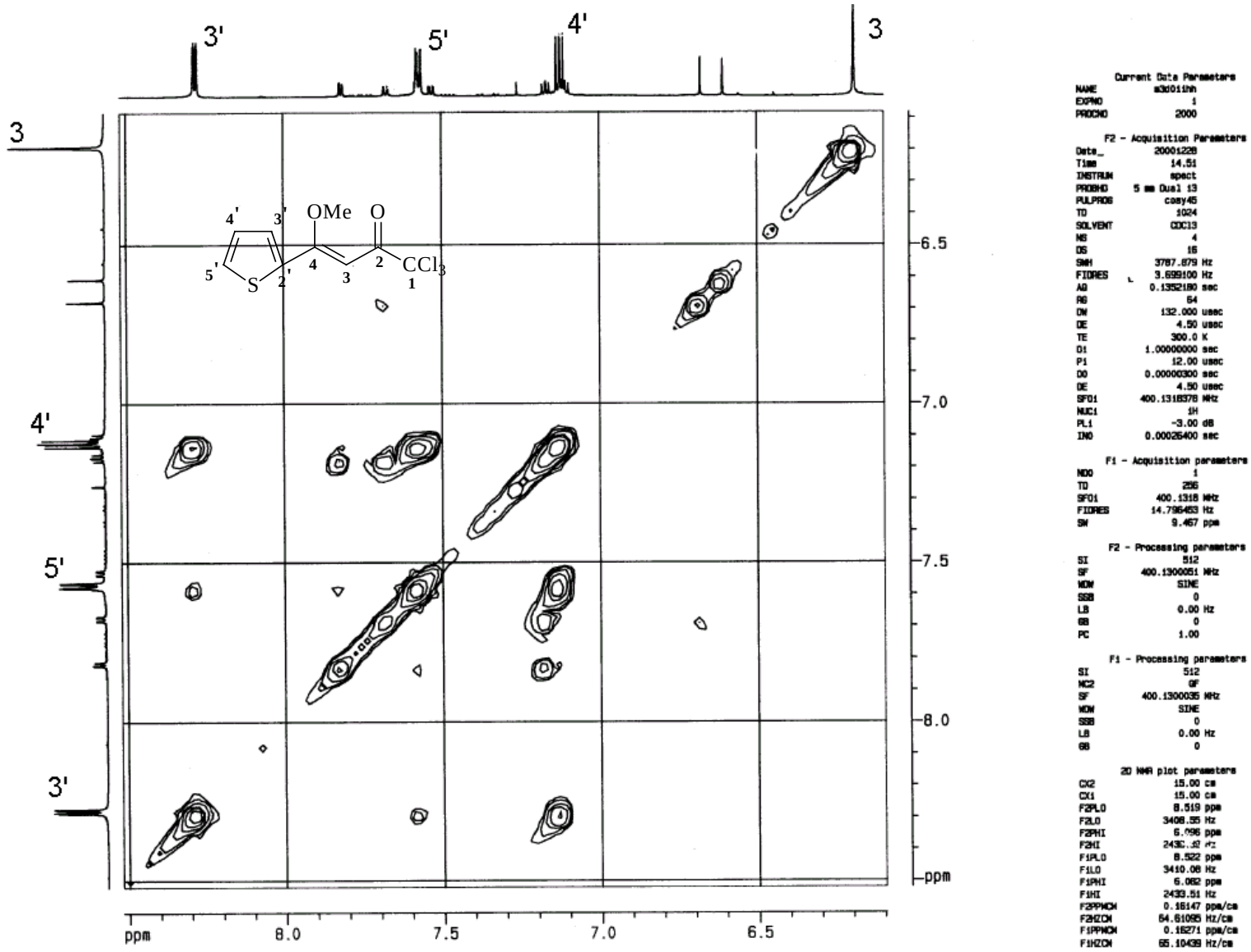


Figura 12. Espectro de RMN correlção H-H (COSY 45) do 1,1,1-tricloro-4-metoxi-4-[2-tienil]-3-buten-2-ona (**2b**) em $CDCl_3$.

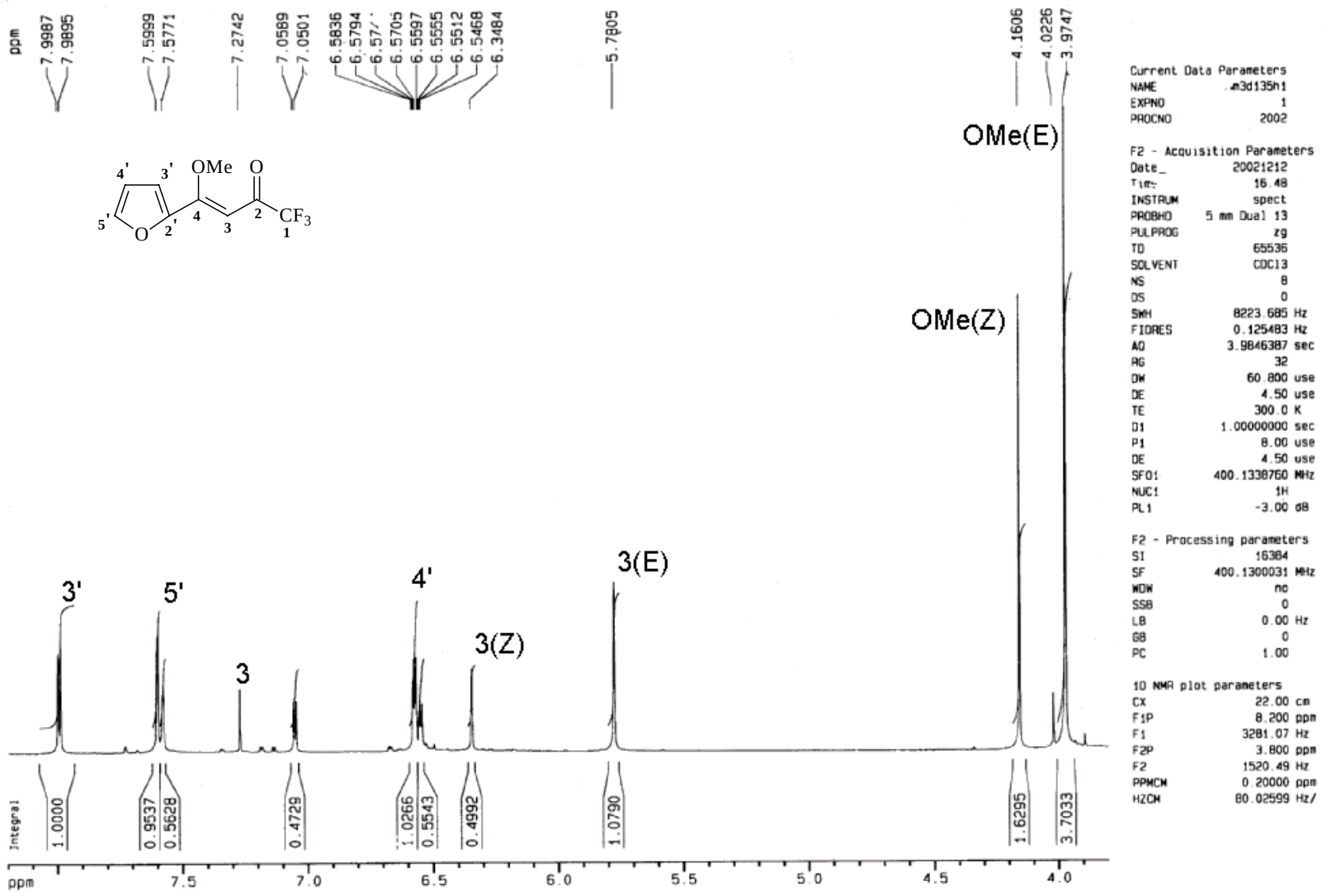


Figura 13. Espectro de RMN ^{1}H do 1,1,1-trifluor-4-[2-furil]-4-metoxi-3-buten-2-ona (**3a**) em $CDCl_3$.

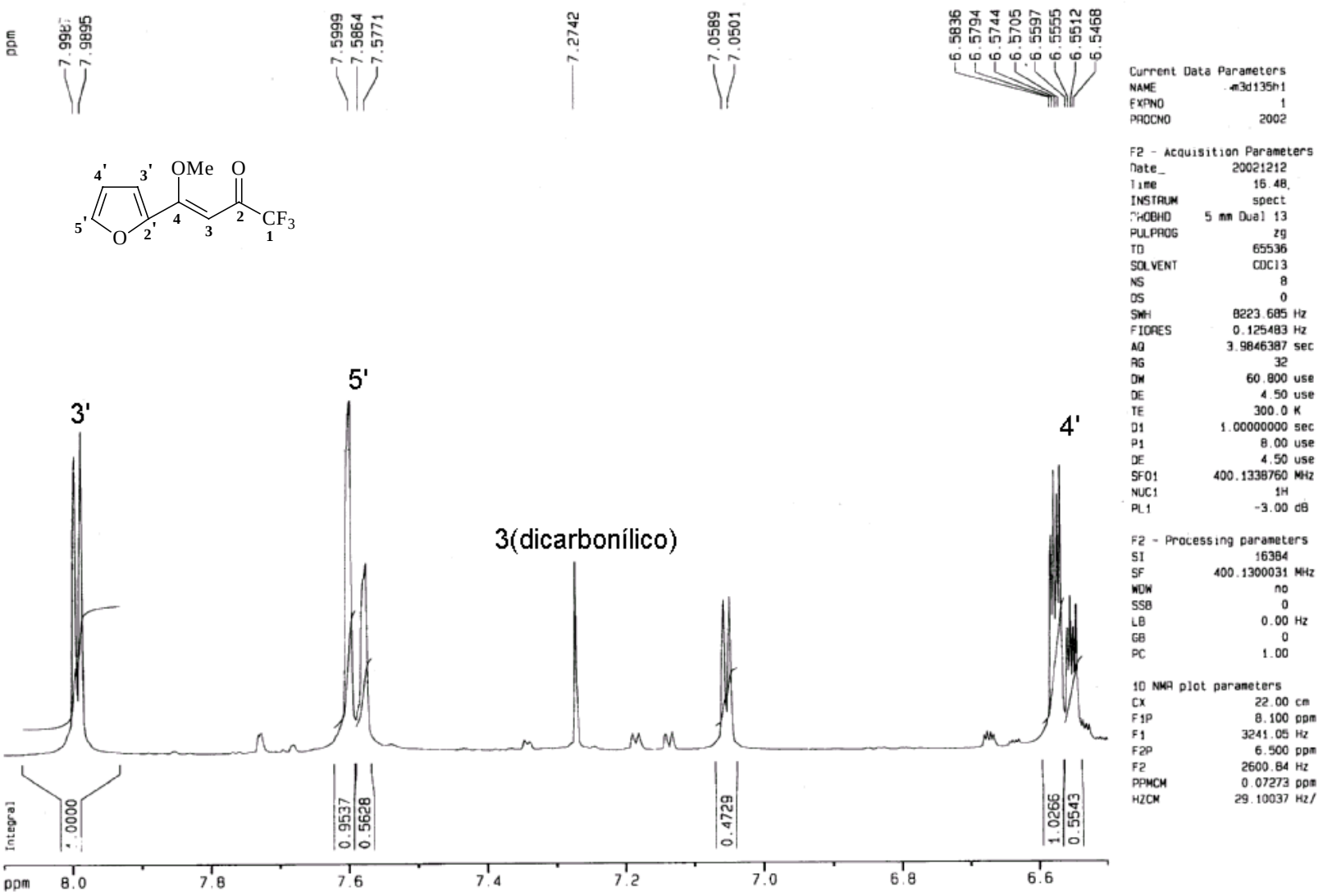


Figura 14. Espectro de RMN ^{1}H, expansão entre 6,6-8,0 ppm da 1,1,1-trifluor-4-[2-furil]-4-metoxi-3-buten-2-ona (**3a**) em $CDCl_3$.

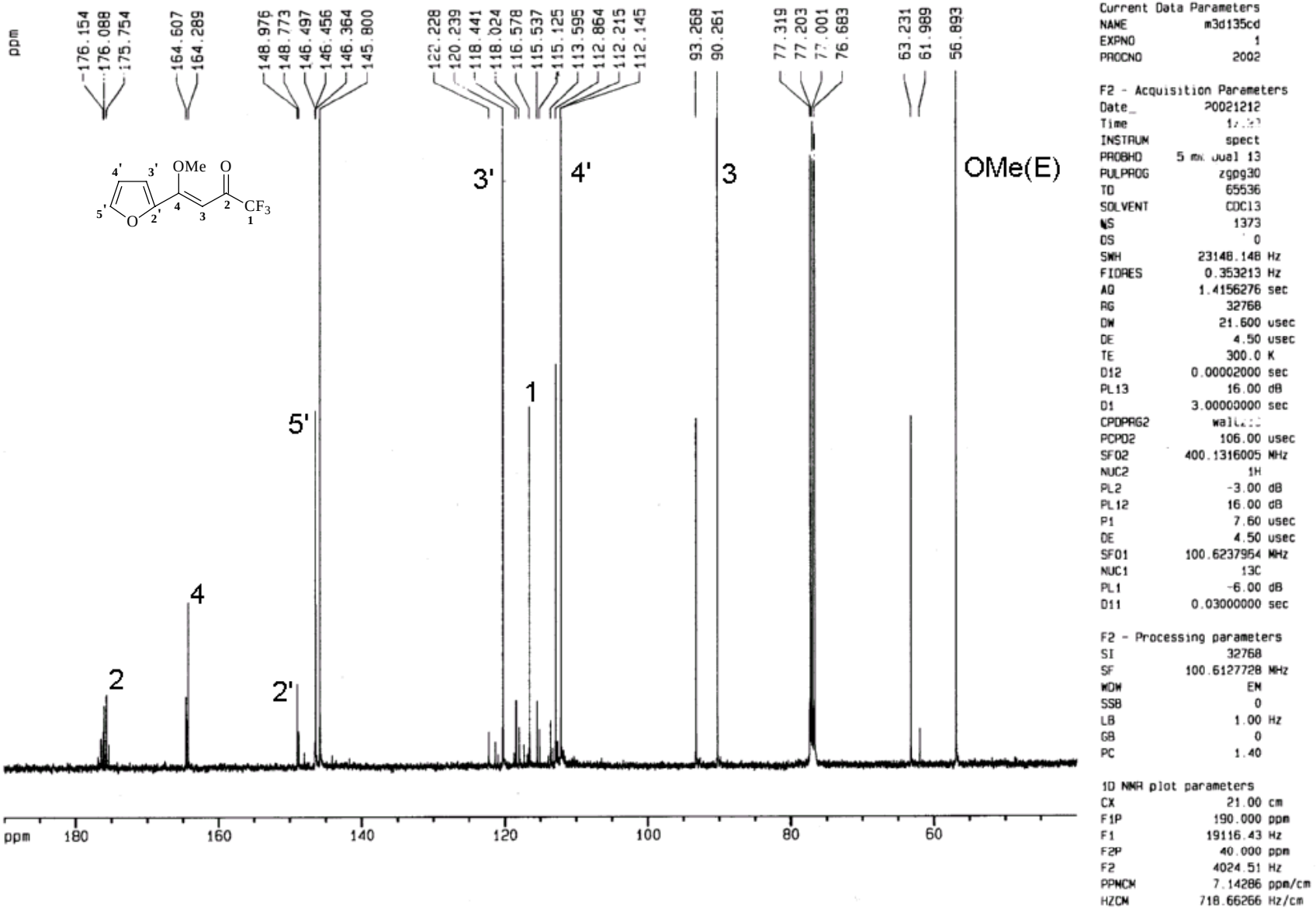


Figura 15. Espectro de RMN ^{13}C {^{1}H}do 1,1,1-trifluor-4-[2-furil]-4-metoxi-3-buten-2-ona (**3a**) em $CDCl_3$.

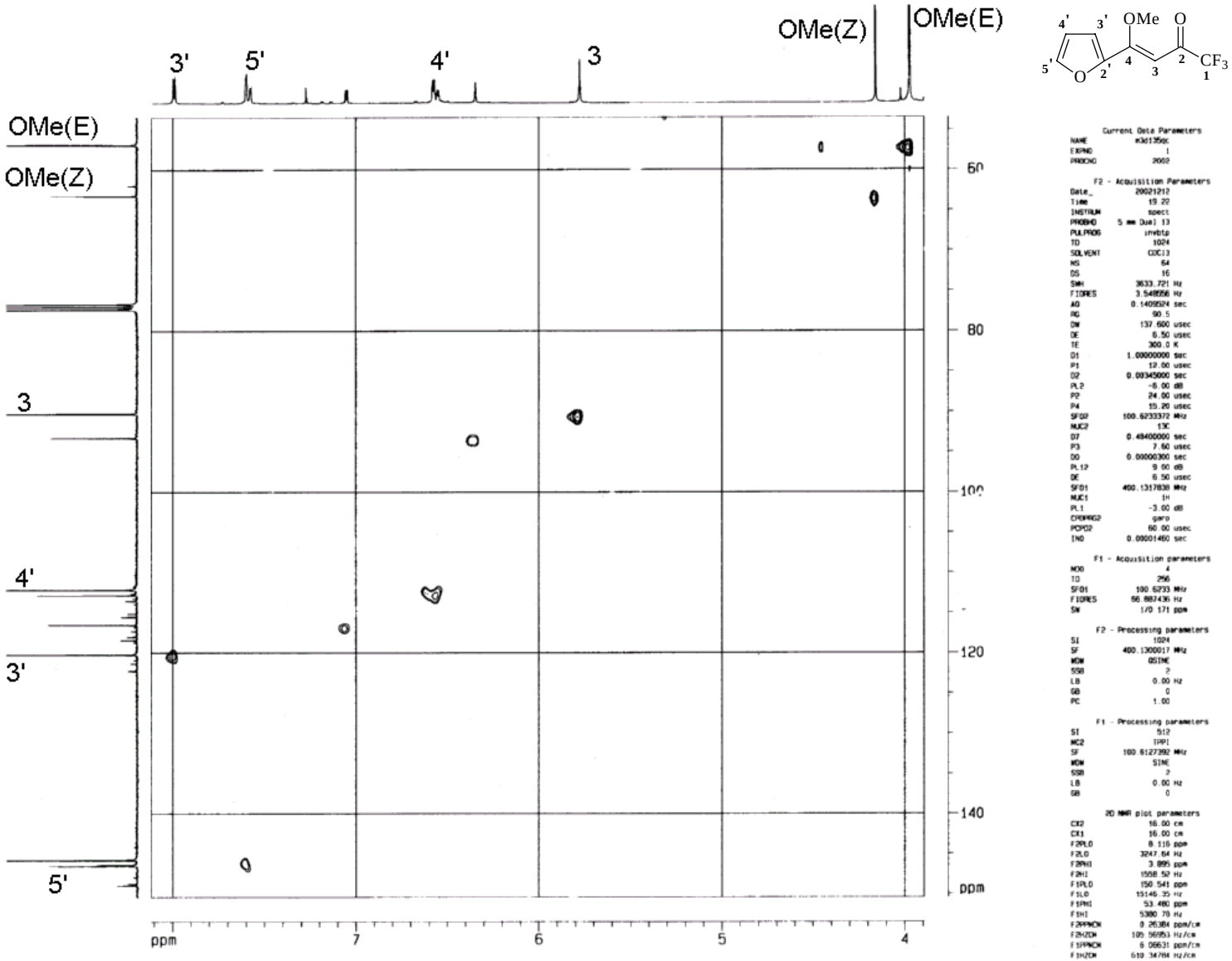


Figura 16. Espectro de RMN ^{13}C correlação C-H (HMQC) do 1,1,1-trifluor-4-metoxi-4-[2-furil]-3-buten-2-ona (**3a**) em $CDCl_3$.

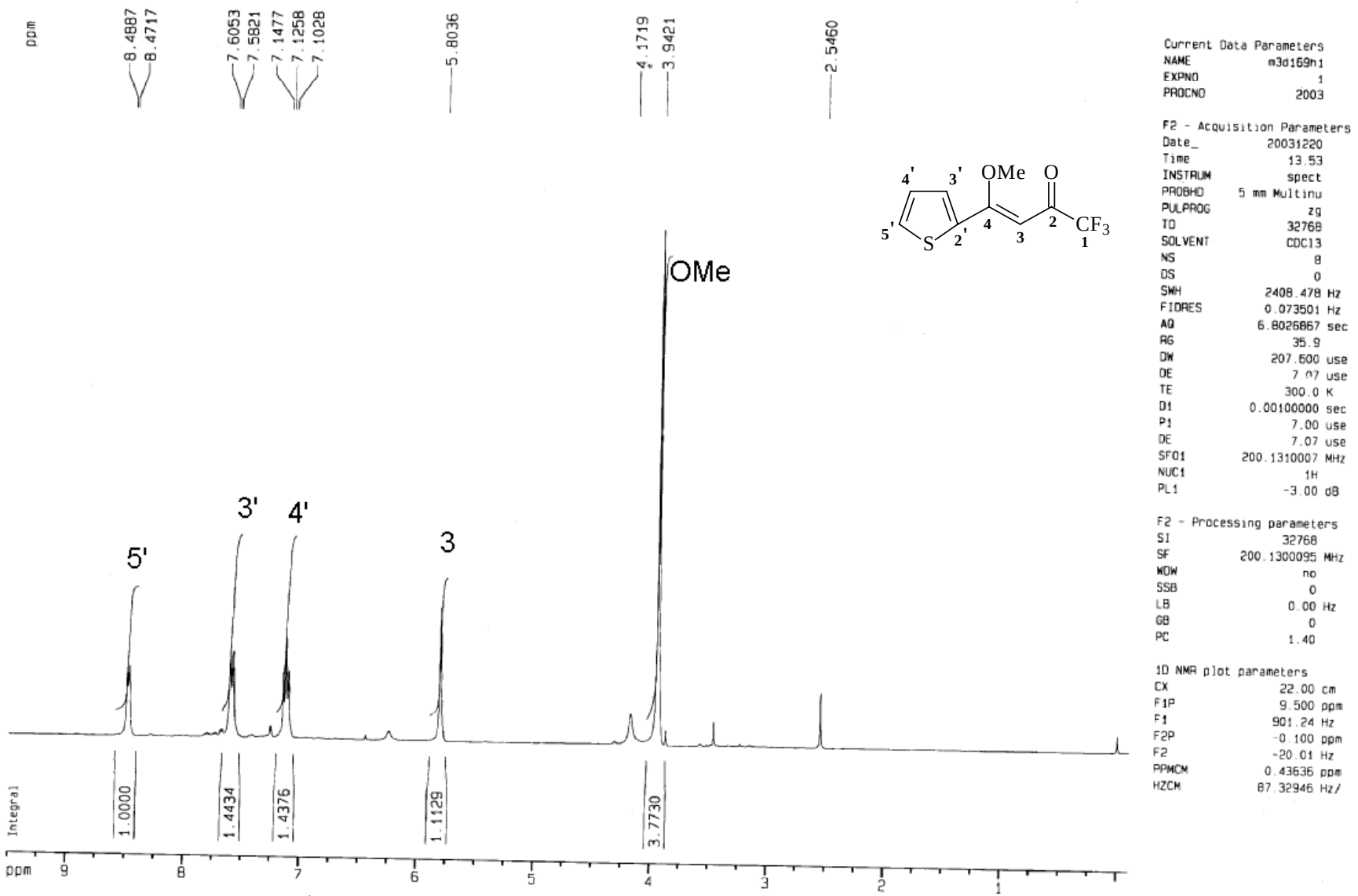


Figura 17. Espectro de RMN ^{1}H do 1,1,1-trifluor-4-metoxi-4-[2-tienil]-3-buten-2-ona (**3b**) em $CDCl_3$.

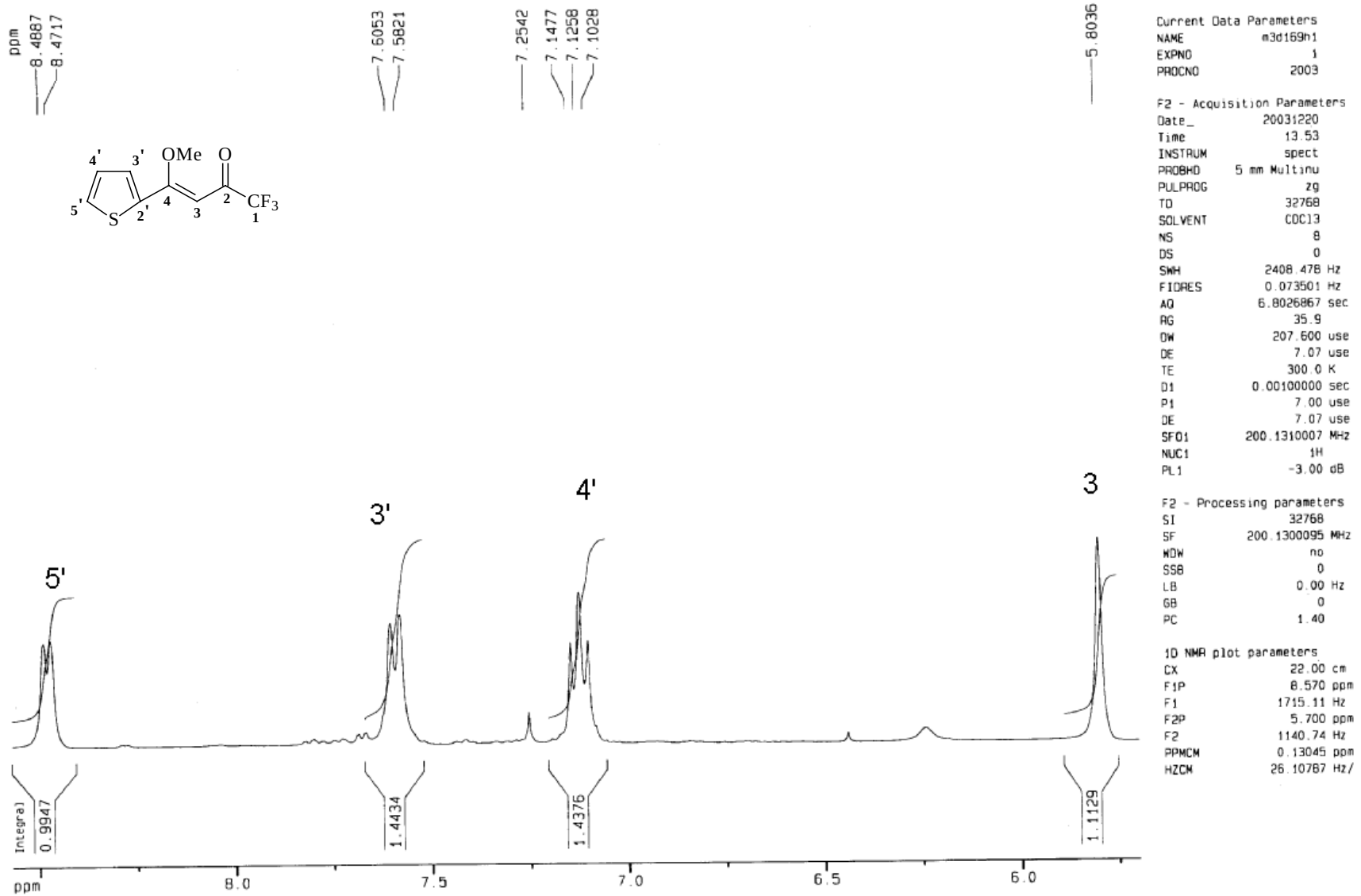


Figura 18. Espectro de RMN ^{1}H, expansão entre 6,0-8,5 ppm do 1,1,1-trifluor-4-metoxi-4-[2-tienil]-3-buten-2-ona (**3b**) em $CDCl_3$.

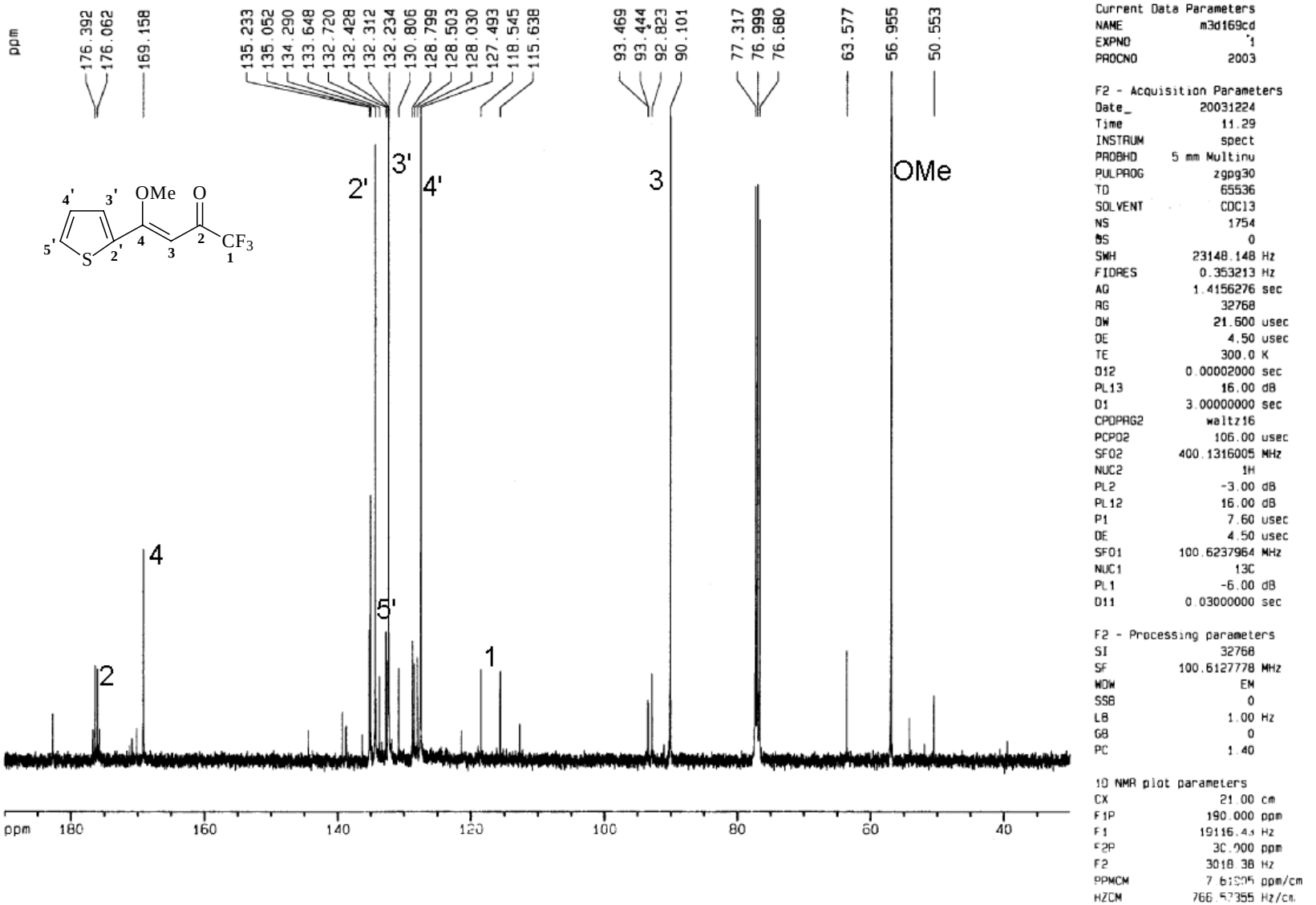


Figura 19. Espectro de RMN ^{13}C do 1,1,1-trifluor-4-metoxi-4-[2-tienil]-3-buten-2-ona (**3b**) em $CDCl_3$.

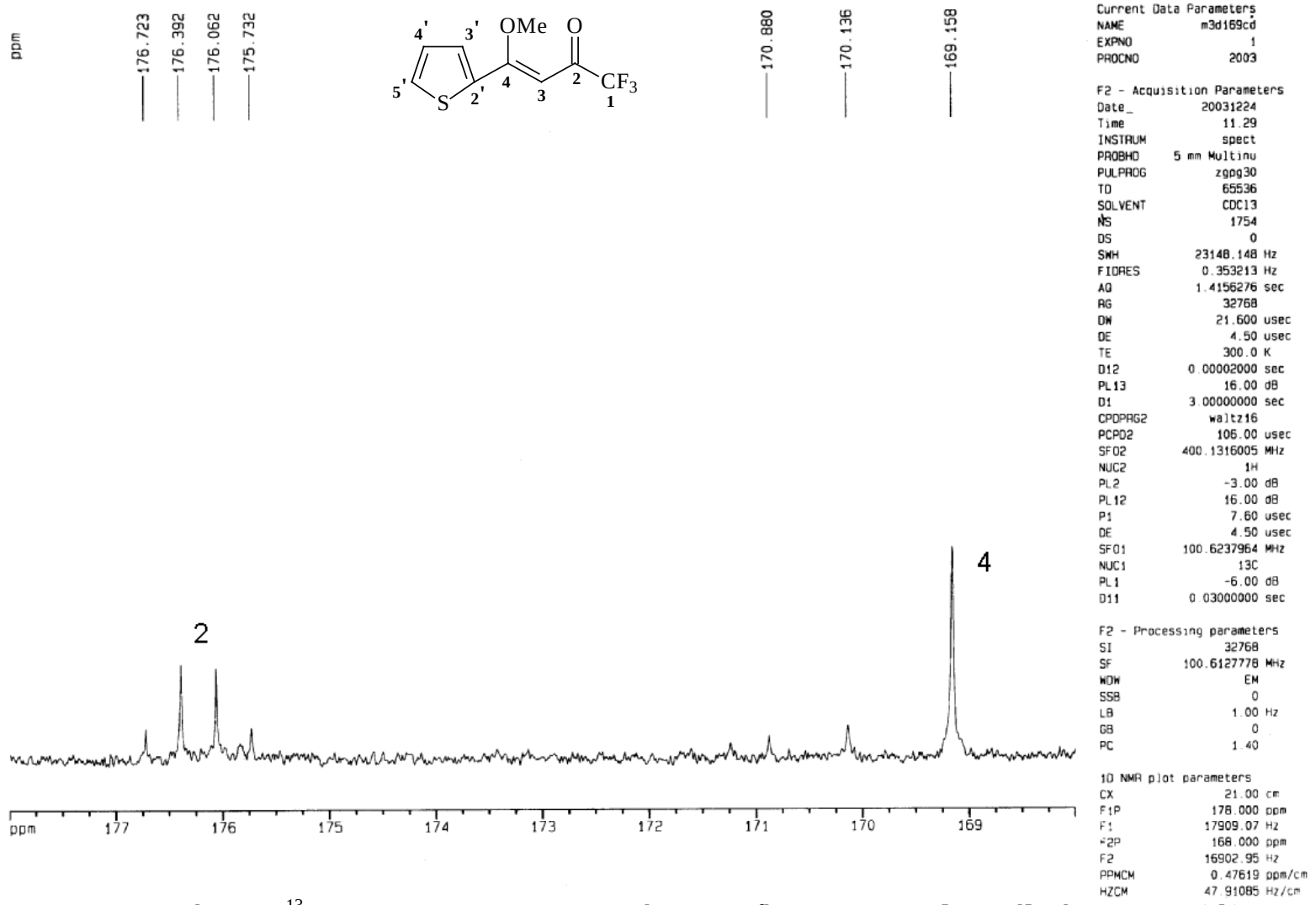


Figura 20. Espectro de RMN ^{13}C expansão entre 169-177 ppm do 1,1,1-trifluor-4-metoxi-4-[2-tienil]-3-buten-2-ona (**3b**) em $CDCl_3$.

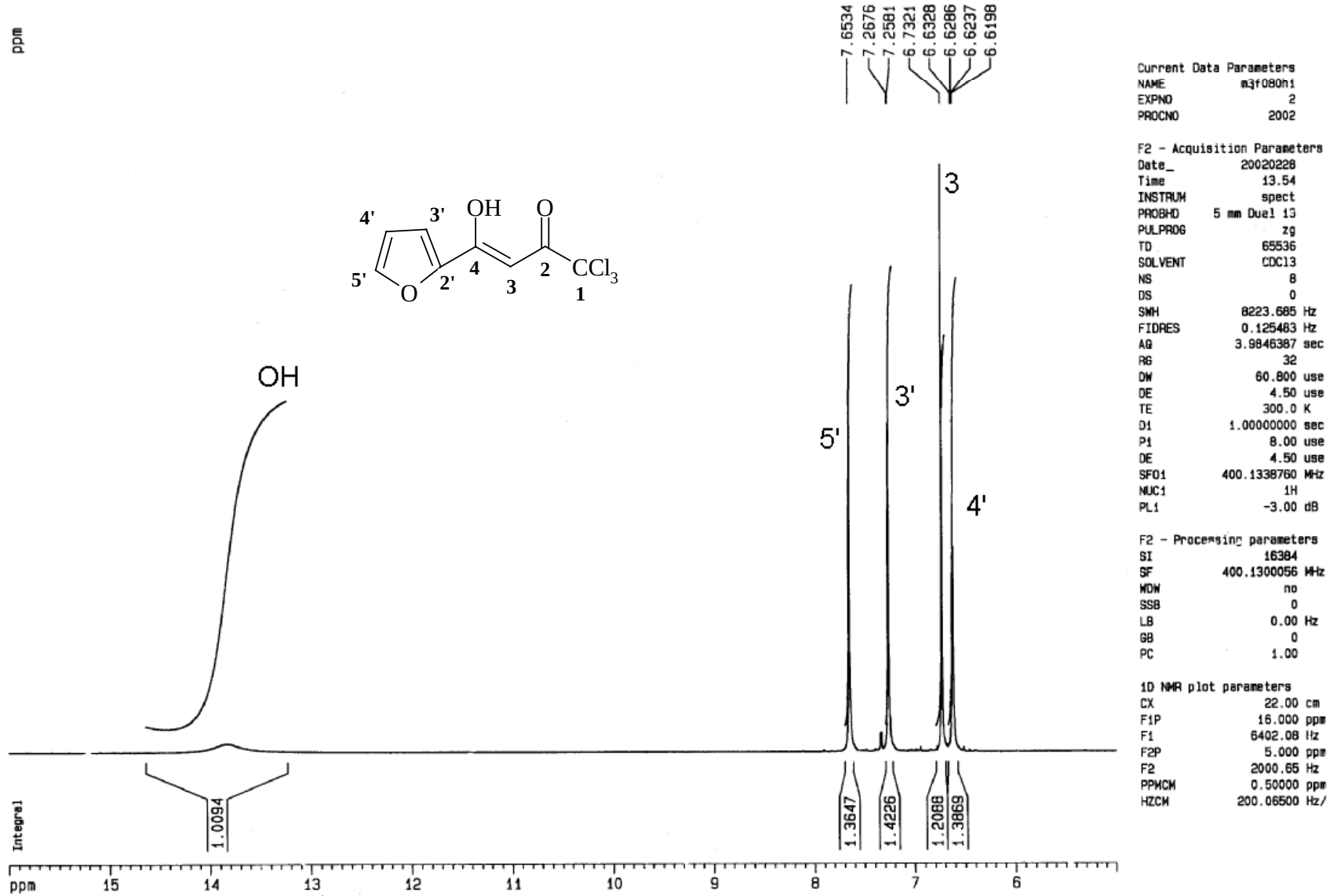


Figura 21. Espectro de RMN de ^{1}H do 1,1,1-tricloro-4-[2-furil]-buten-1,3-diona (**4a**) em $CDCl_3$.

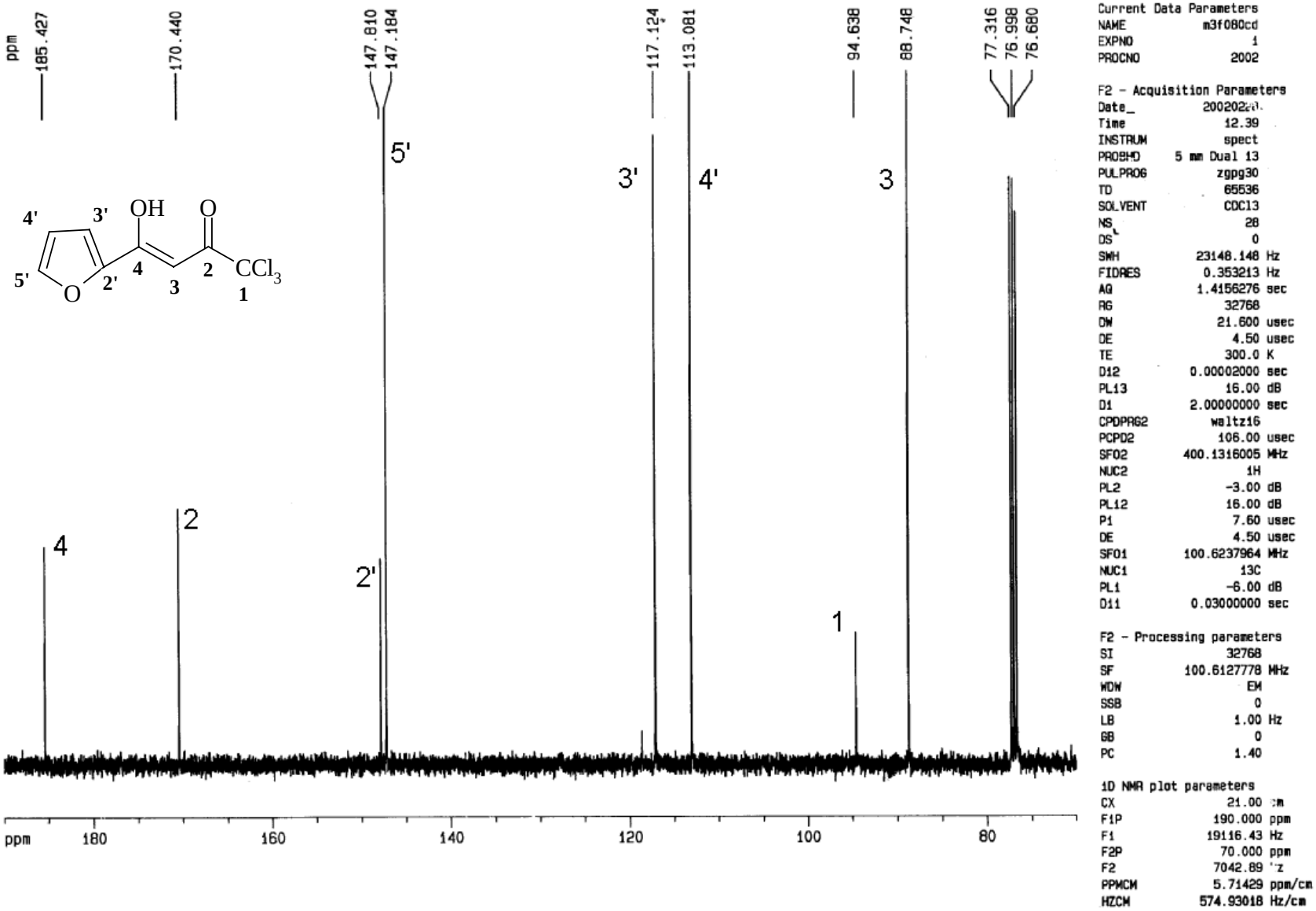


Figura 22. Espectro de RMN de ^{13}C do 1,1,1-tricloro-4-[2-furil]-buten-1,3-diona (**4a**) em $CDCl_3$.

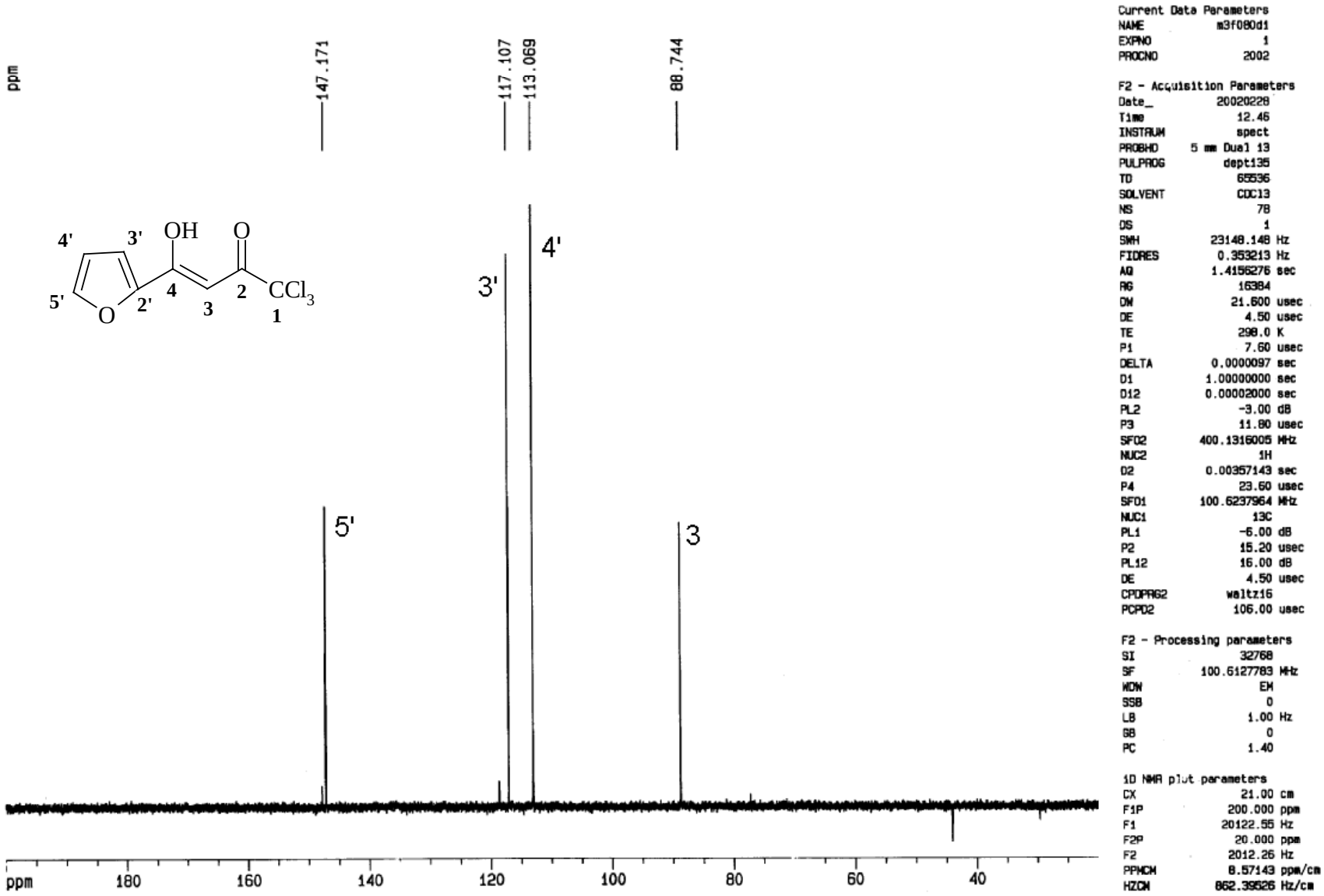
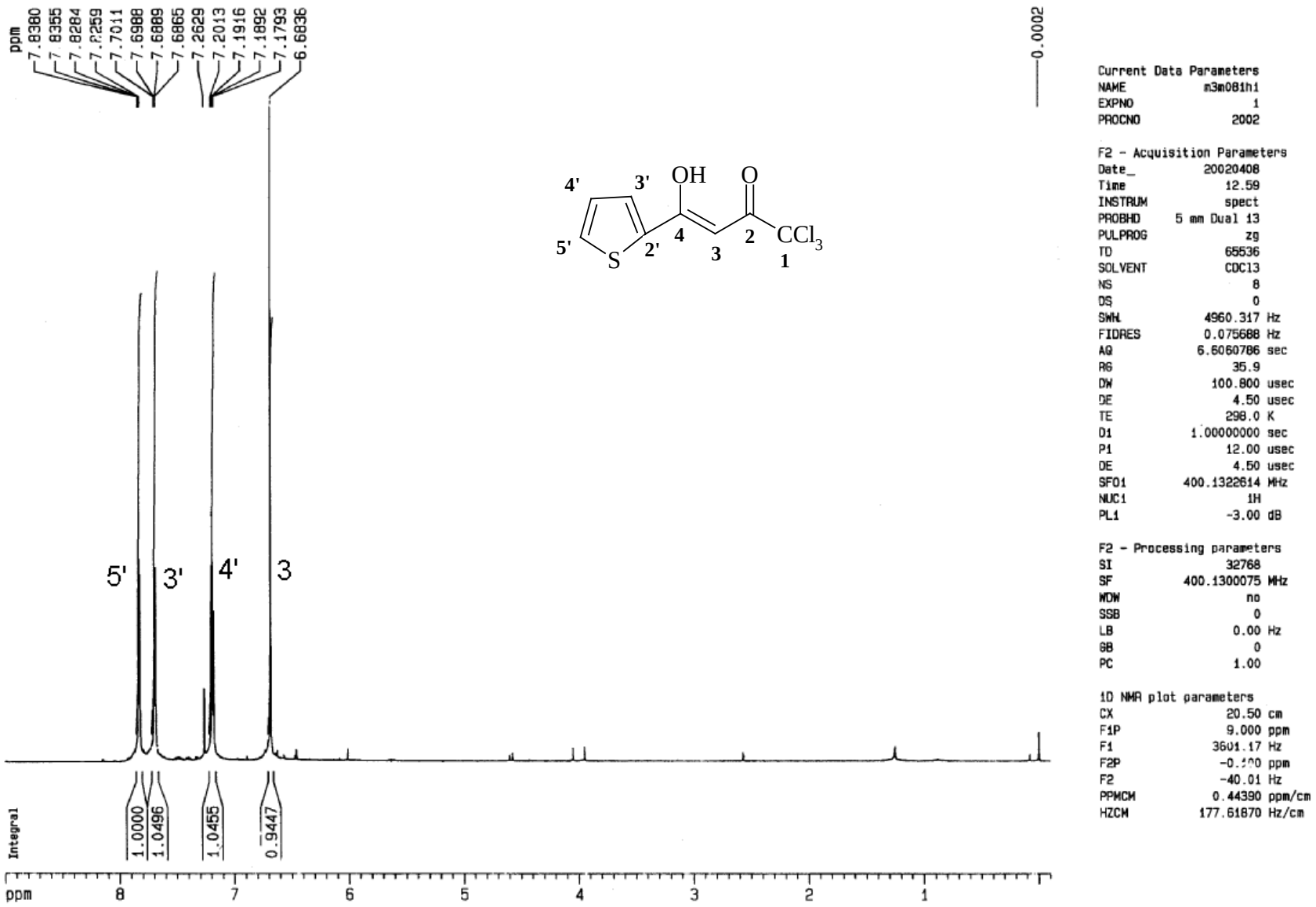


Figura 23. Espectro de RMN de ^{13}C, DEPT 135 do 1,1,1 -tricloro-4-[2-furil]-buten-1,3-diona (**4a**) em $CDCl_3$.



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PROCNO	2002

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DE	4.50 usec
TE	298.0 K
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P1	12.00 usec
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NUC1	1H
PL1	-3.00 dB

F2 - Processing parameters

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SF	400.1300075 MHz
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PC	1.00

1D NMR plot parameters

CX	20.50 cm
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F1	3601.17 Hz
F2P	-0.100 ppm
F2	-40.01 Hz
PPMCM	0.44390 ppm/cm
HZCM	177.61870 Hz/cm

Figura 24. Espectro de RMN de ^{1}H do 1,1,1-tricloro-4-[2-tienil]-buten-1,3-diona (**4a**) em $CDCl_3$.

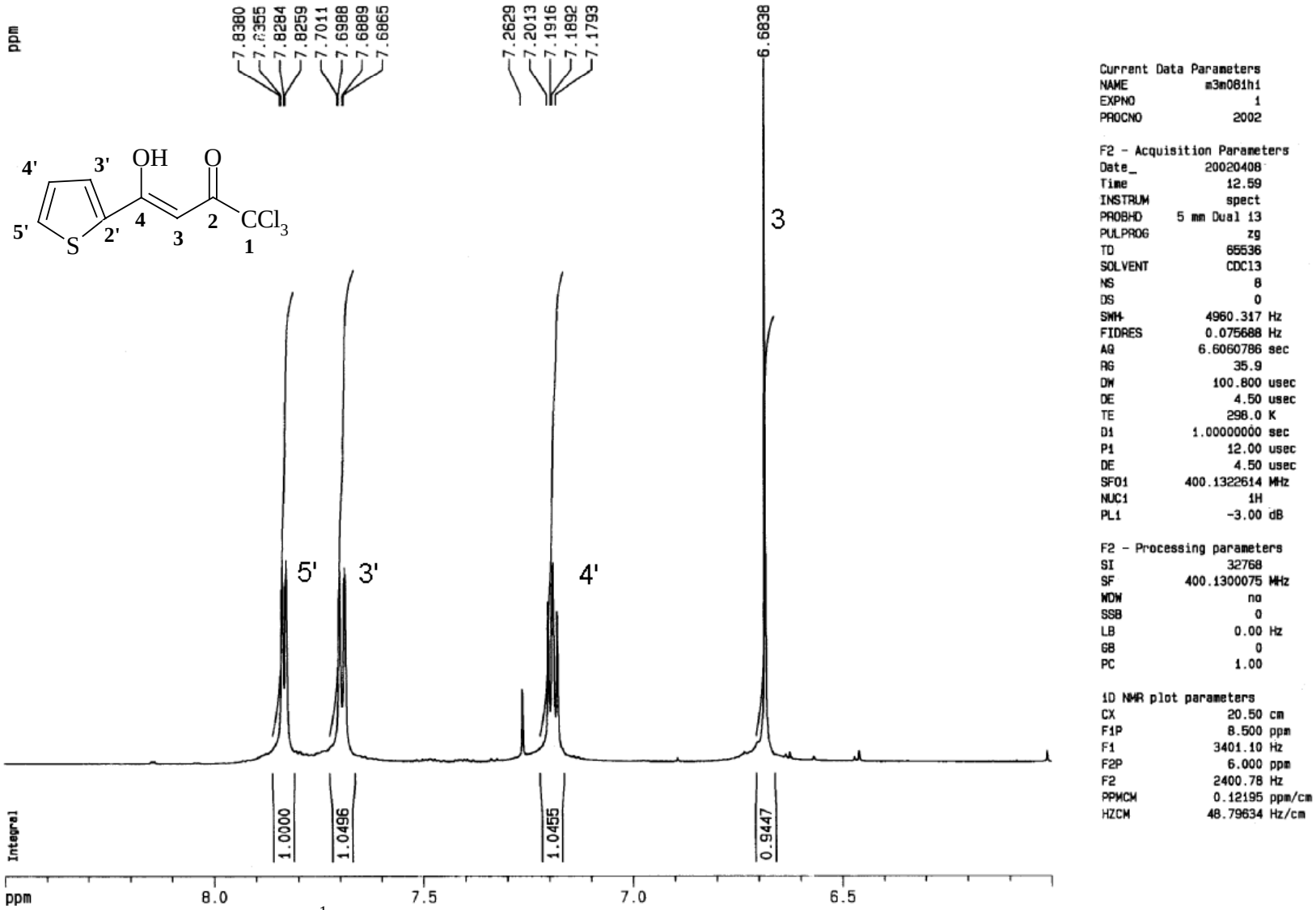
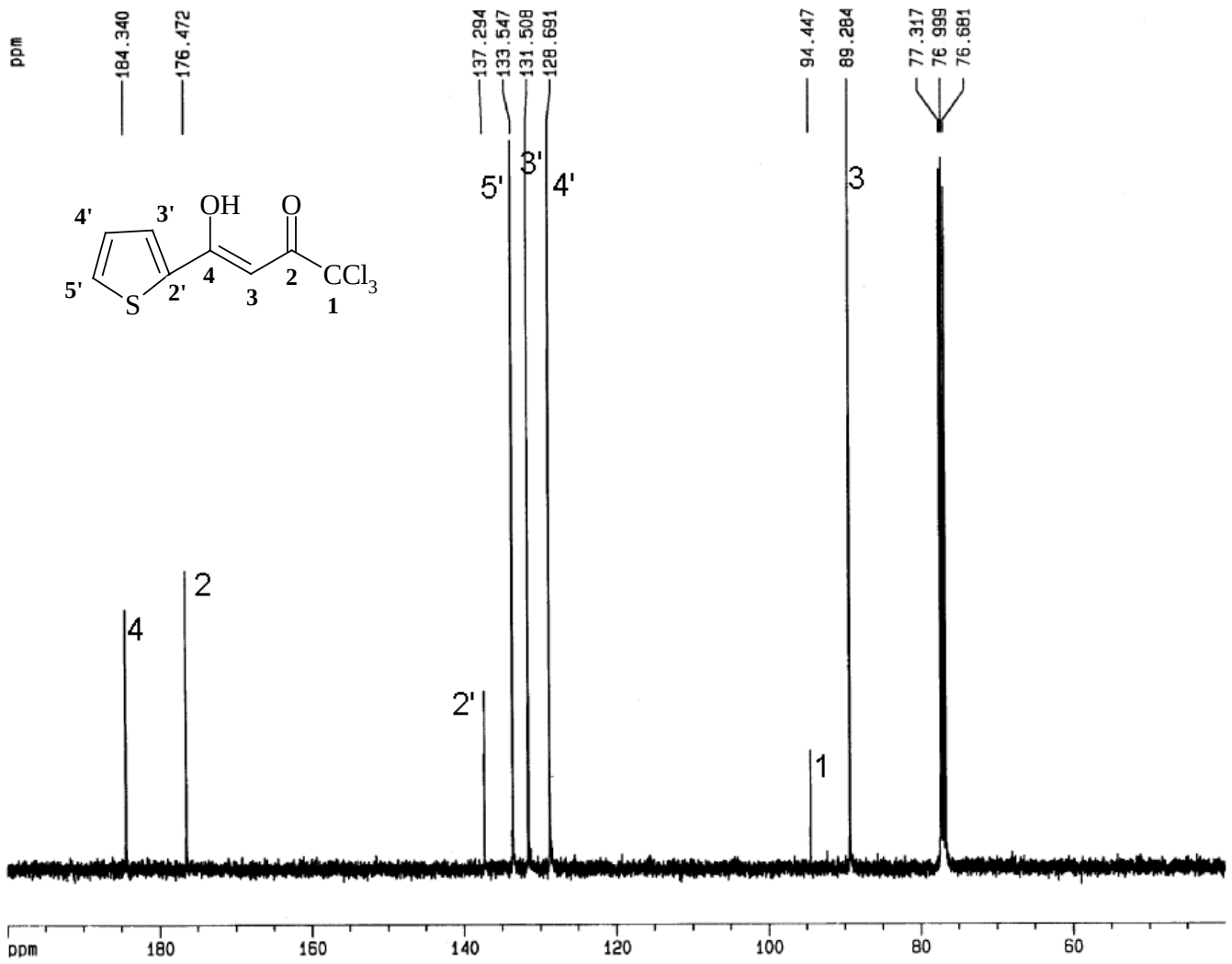


Figura 25. Espectro de RMN de ^{1}H, expansão entre 6,5-8,0 ppm do 1,1,1-tricloro-4-[2-tienil]-buten-1,3-diona (**4b**) em $CDCl_3$.



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PROCNO 2002

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FIDRES 0.353213 Hz
AQ 1.4156276 sec
RG 32768
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DE 4.50 usec
TE 300.0 K
D12 0.00002000 sec
PL13 16.00 dB
D1 2.00000000 sec
CPDPRG2 waltz16
PCPD2 106.00 usec
SFO2 400.1316005 MHz
NUC2 1H
PL2 -3.00 dB
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P1 7.60 usec
DE 4.50 usec
SFO1 100.6237964 MHz
NUC1 13C
PL1 -6.00 dB
D11 0.03000000 sec

F2 - Processing parameters
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WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
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F1 20122.56 Hz
F2P 40.000 ppm
F2 4024.51 Hz
PPMCM 7.61905 ppm/cm
HZCM 766.57355 Hz/cm

+

Figura 26. Espectro de RMN de ^{13}C do 1,1,1-tricloro-4-[2-tienil]-buten-1,3-diona (**4b**) em $CDCl_3$.

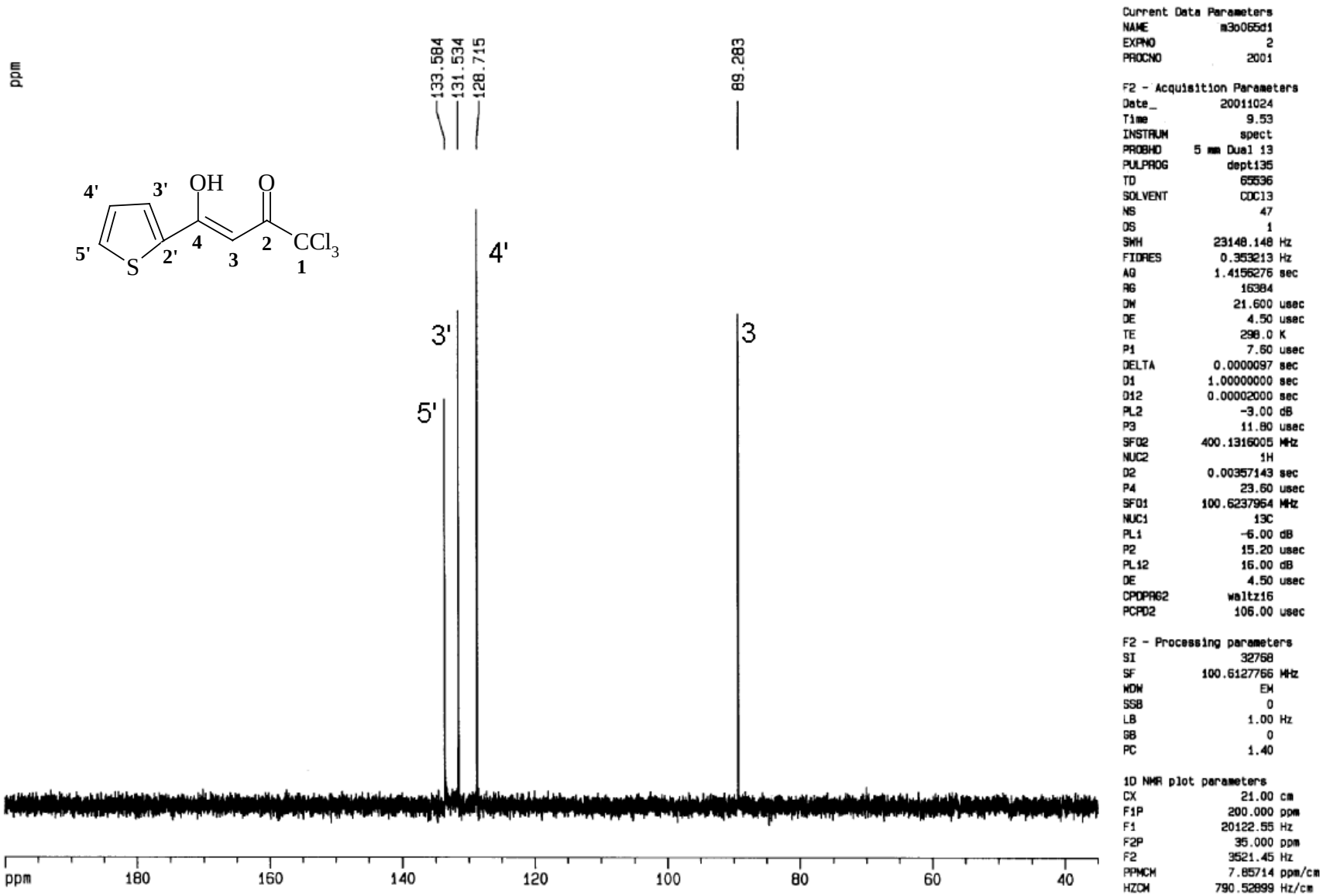


Figura 27. Espectro de RMN de ^{13}C (DEPT 135) do 1,1,1-tricloro-4-[2-tienil]-buten-1,3-diona (**4b**) em $CDCl_3$.

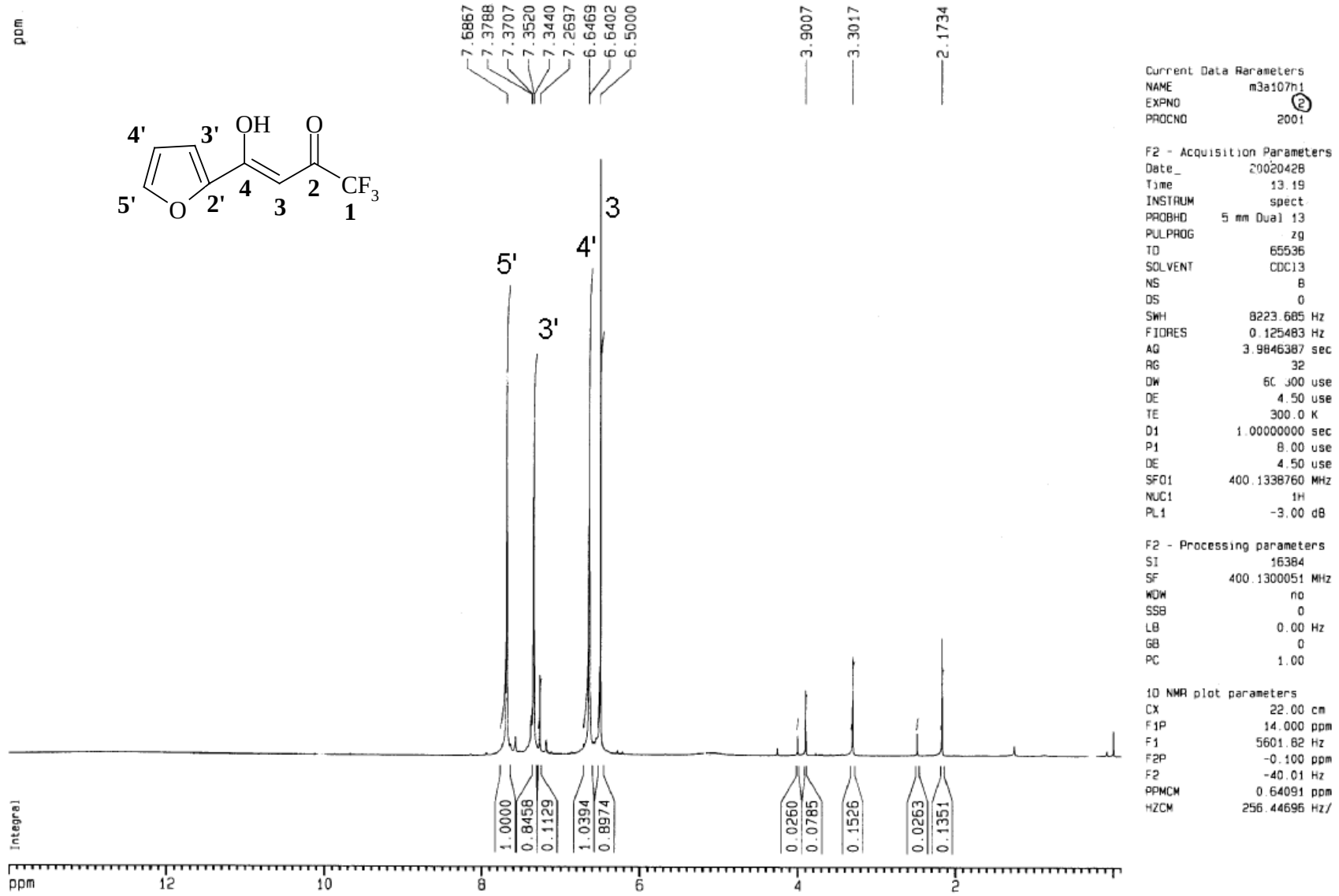


Figura 28. Espectro de RMN ^{1}H do 1,1,1-trifluor-4-[2-furil]-buten-1,3-diona (**5a**) em $CDCl_3$.

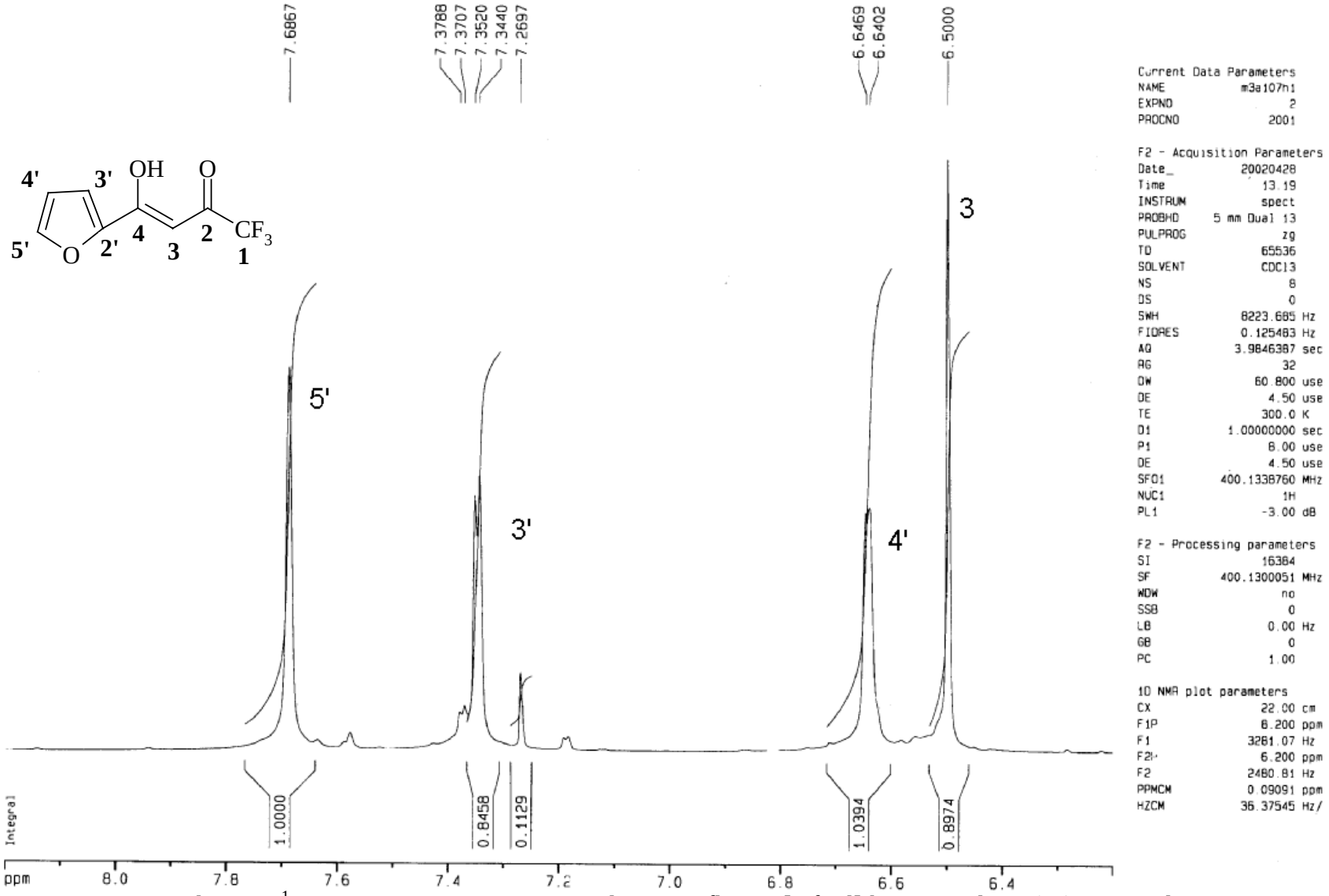


Figura 29. Espectro de RMN ^{1}H, expansão entre 6,4-8,0 ppm do1,1,1-trifluor-4-[2-furil]-buten-1,3-diona (**5a**) em $CDCl_3$.

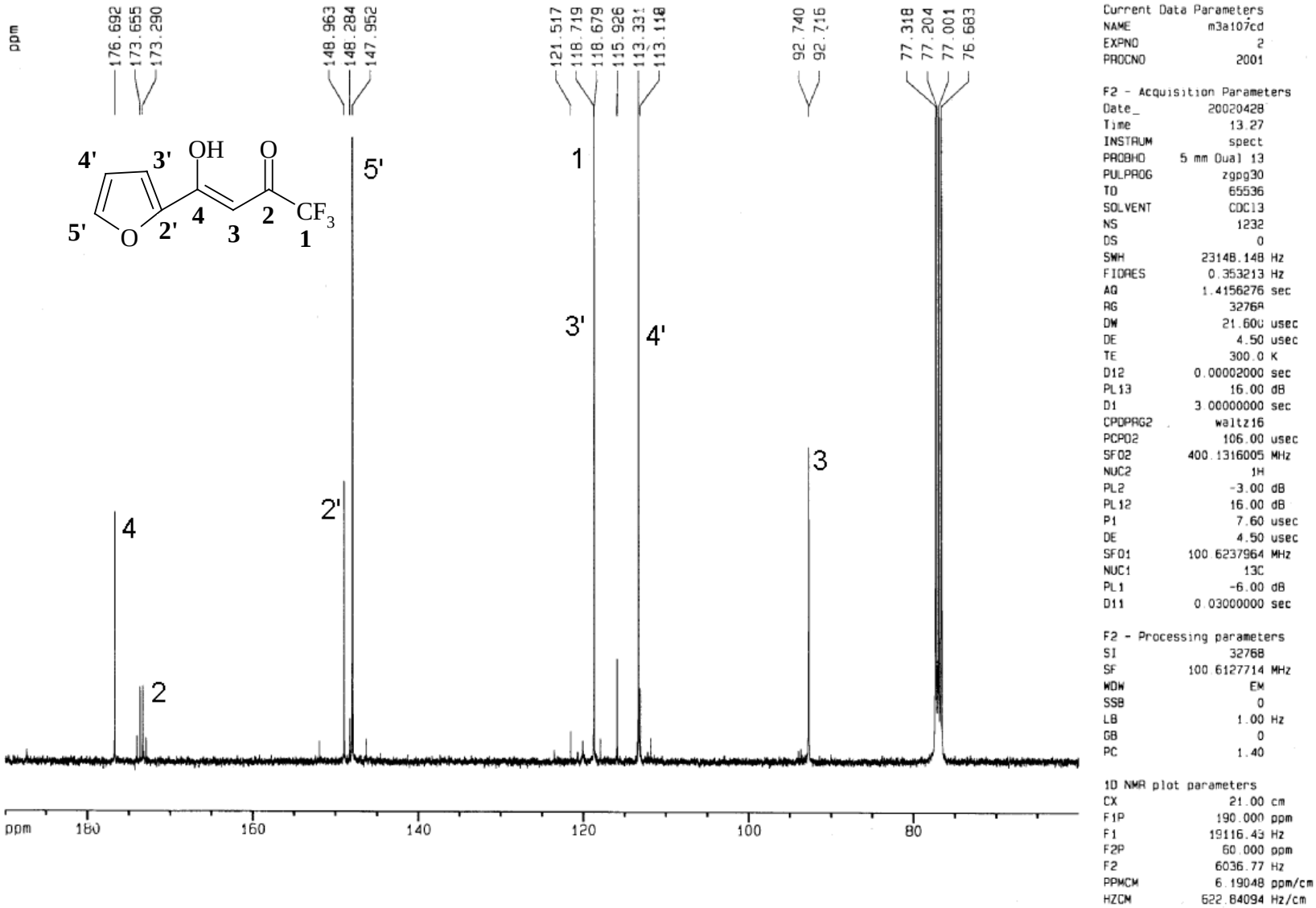


Figura 30. Espectro de ^{13}C do 1,1,1-trifluor-4-[2-furil]-buten-1,3-diona (**5a**) em $CDCl_3$.

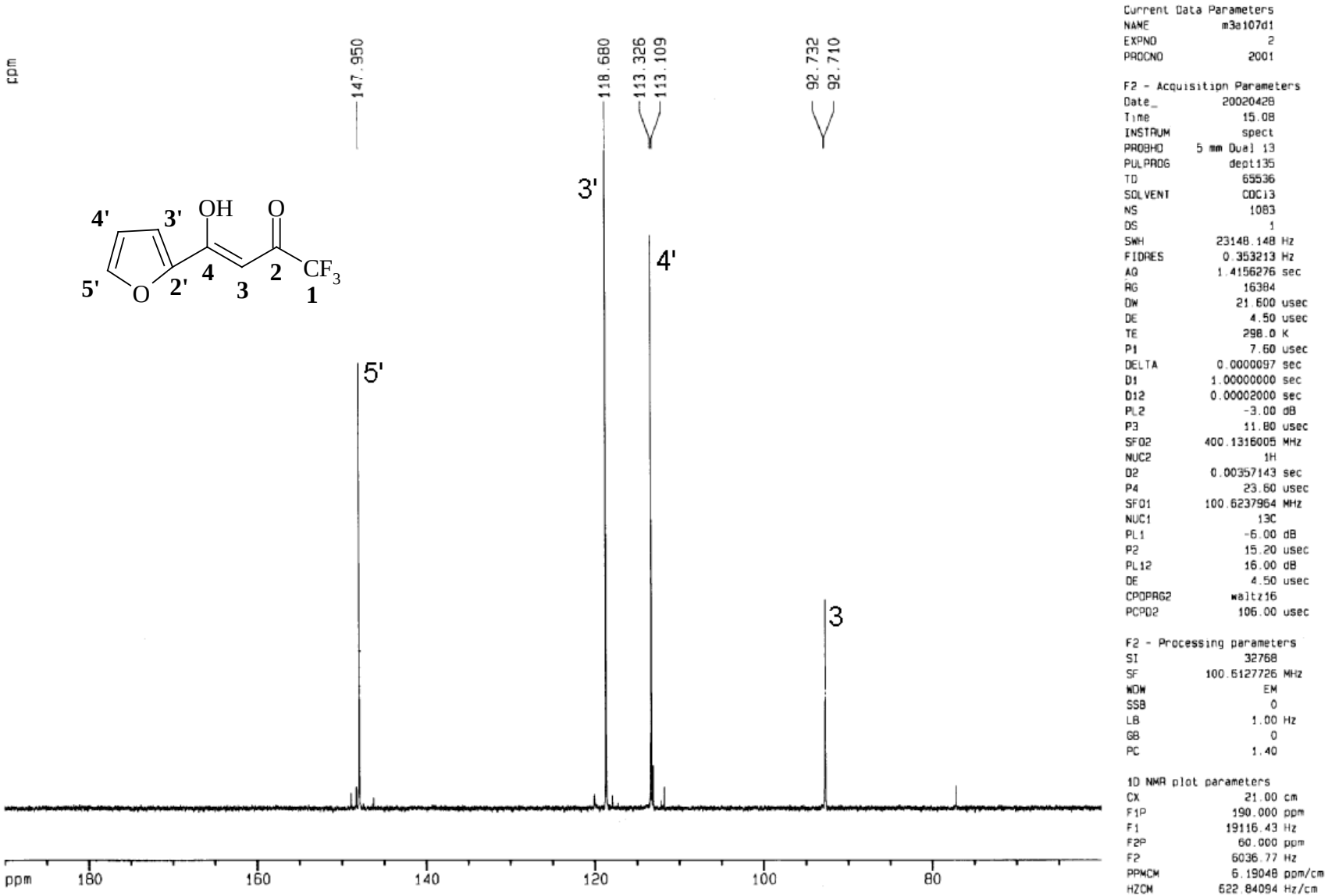


Figura 31. Espectro de ^{13}C, experimento DEPT 135 do 1,1,1-trifluor-4-[2-furil]-buten-1,3-diona (**5a**) em $CDCl_3$.

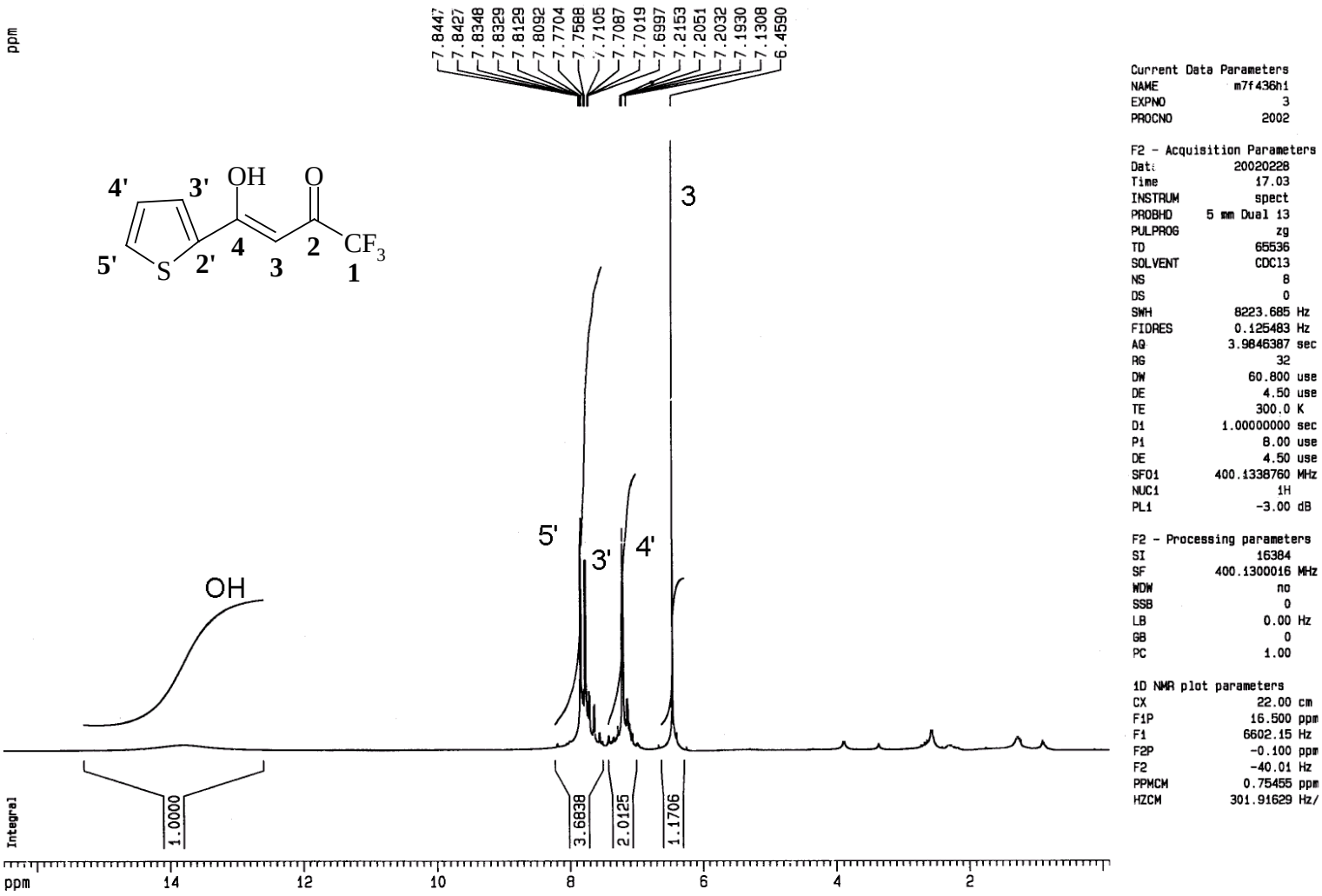


Figura 32. Espectro de ^{1}H do 1,1,1-trifluor-4-[2-tienil]-buten-1,3-diona (**5b**) em $CDCl_3$.

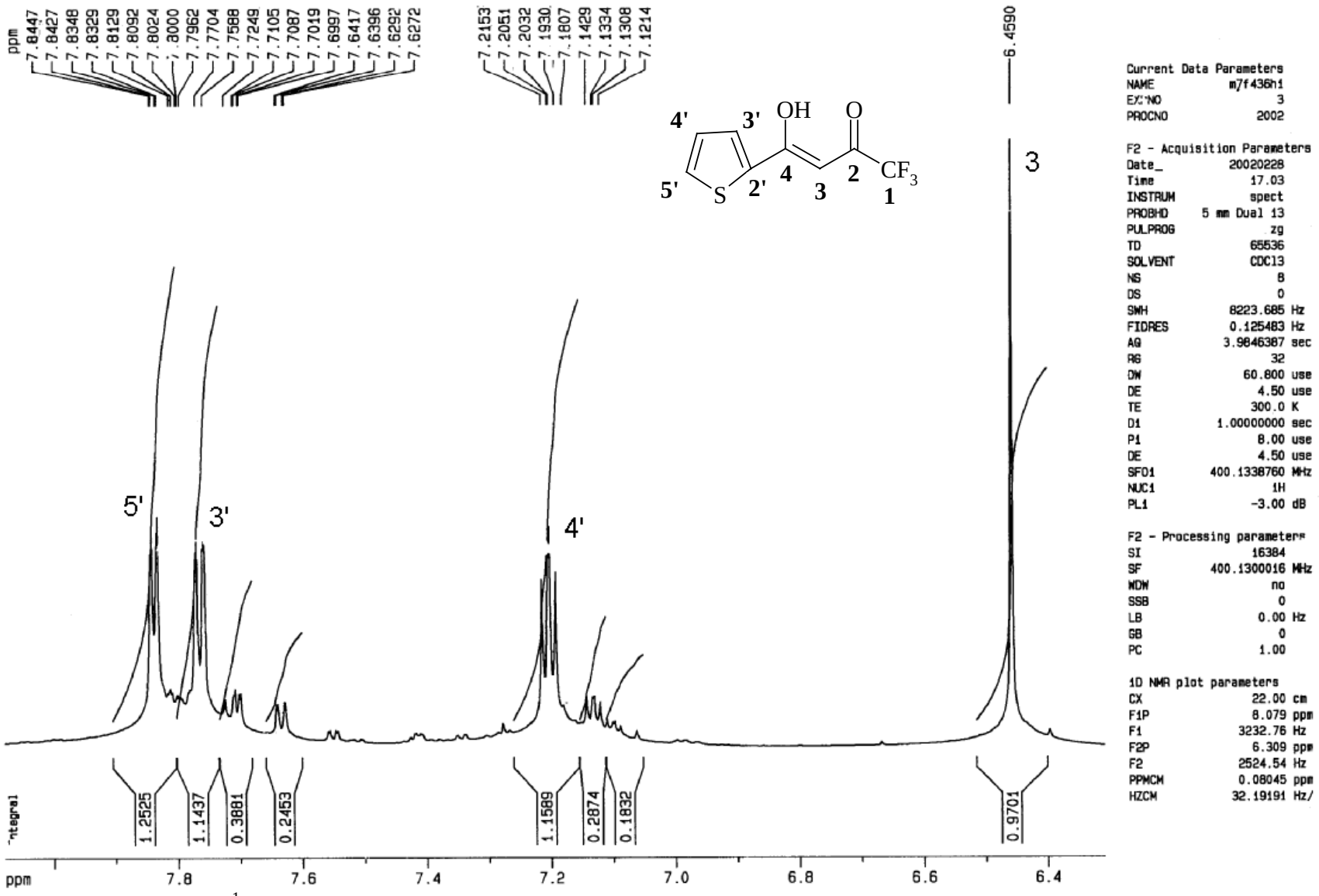


Figura 33. Espectro de ^{1}H, expansão entre 6,4-7,8 ppm do 1,1,1-trifluor-4-[2-tienil]-buten-1,3-diona (**5b**) em $CDCl_3$.

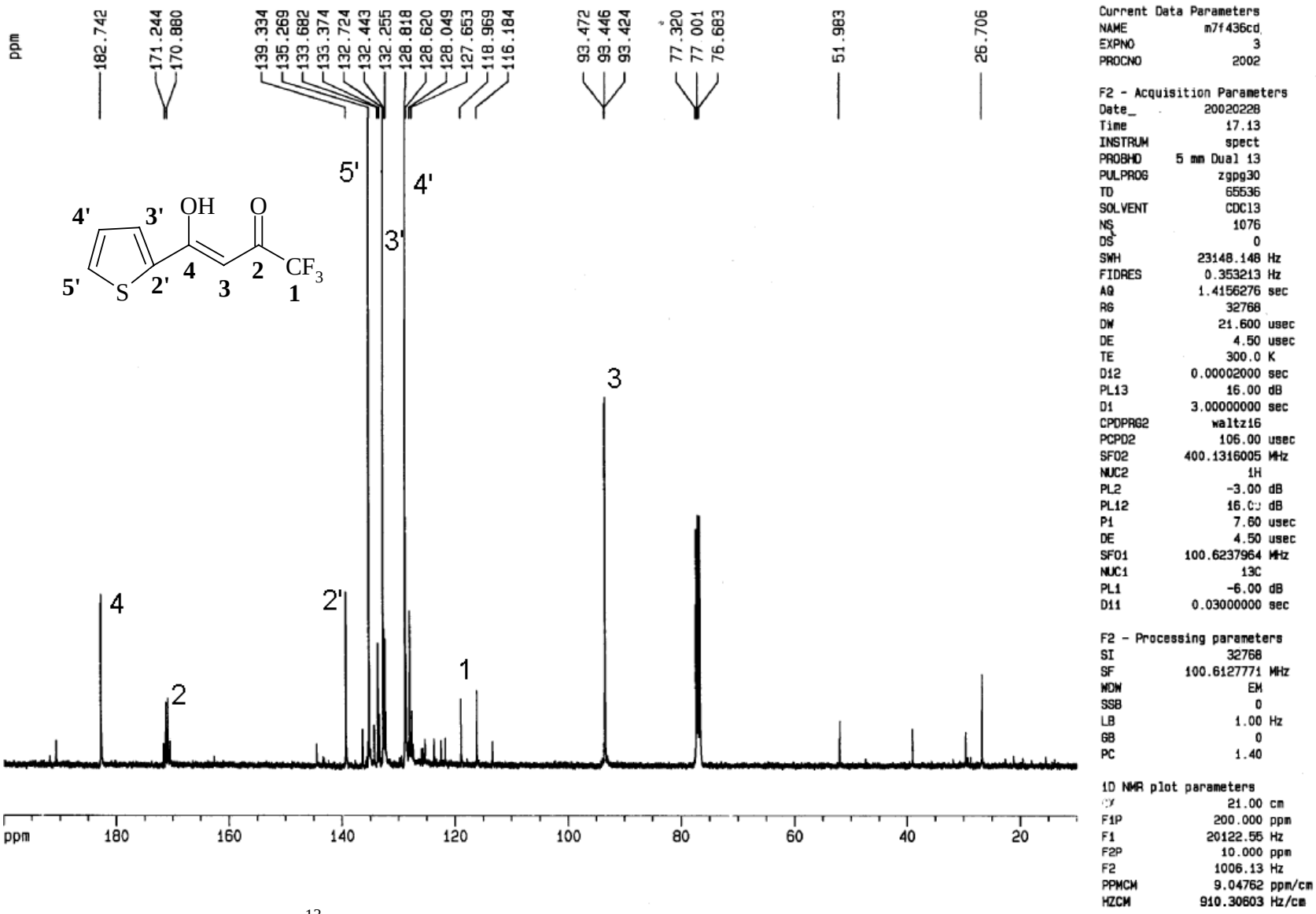


Figura 34. Espectros de RMN ^{13}C do 1,1,1-trifluor-4-[2-tienil]-buten-1,3-diona (**5b**) em $CDCl_3$.

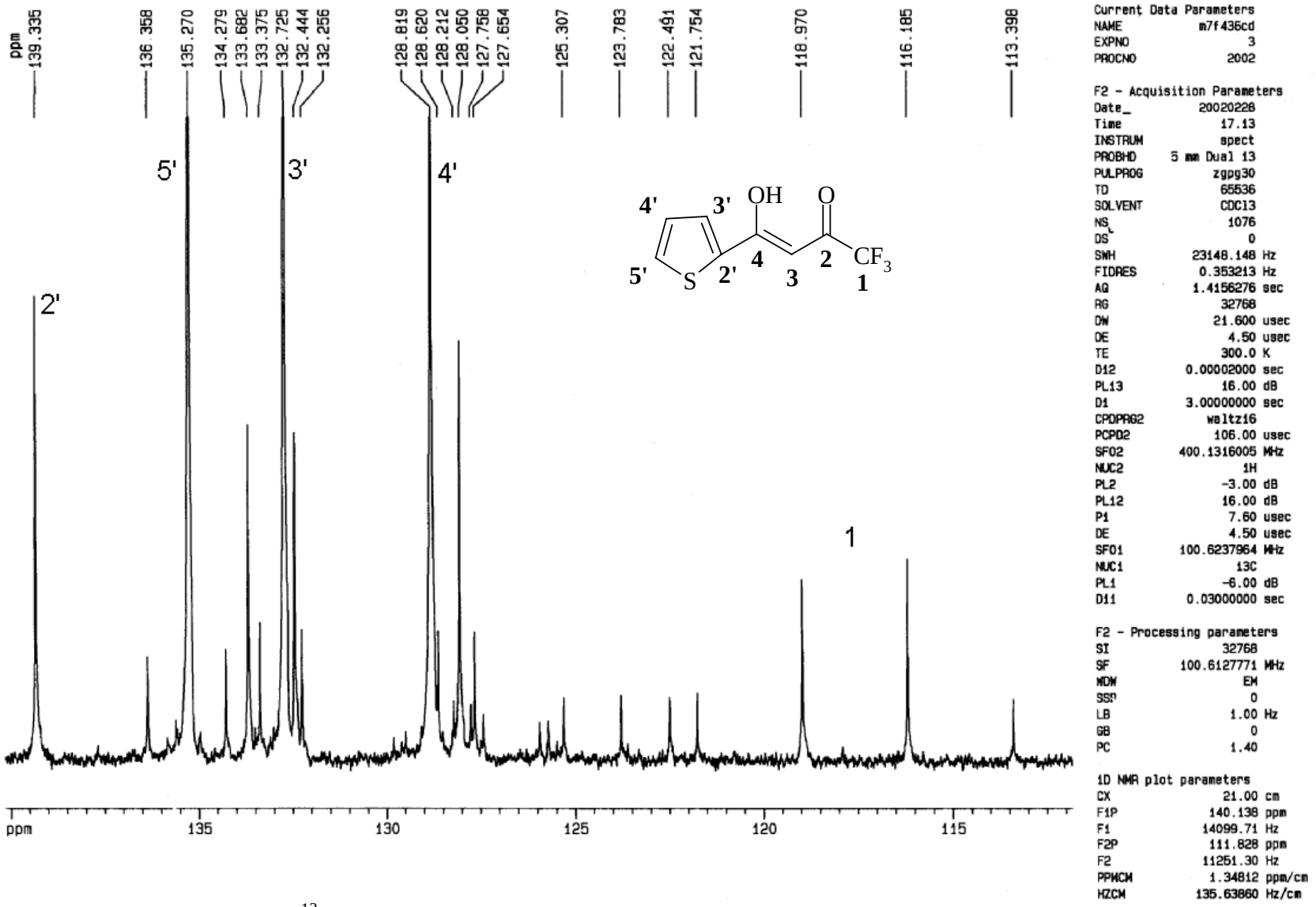


Figura 35. Espectros de RMN ^{13}C, expansão entre 115-145 ppm do 1,1,1-trifluor-4-[2-tienil]-buten-1,3-diona (**5b**) em $CDCl_3$.

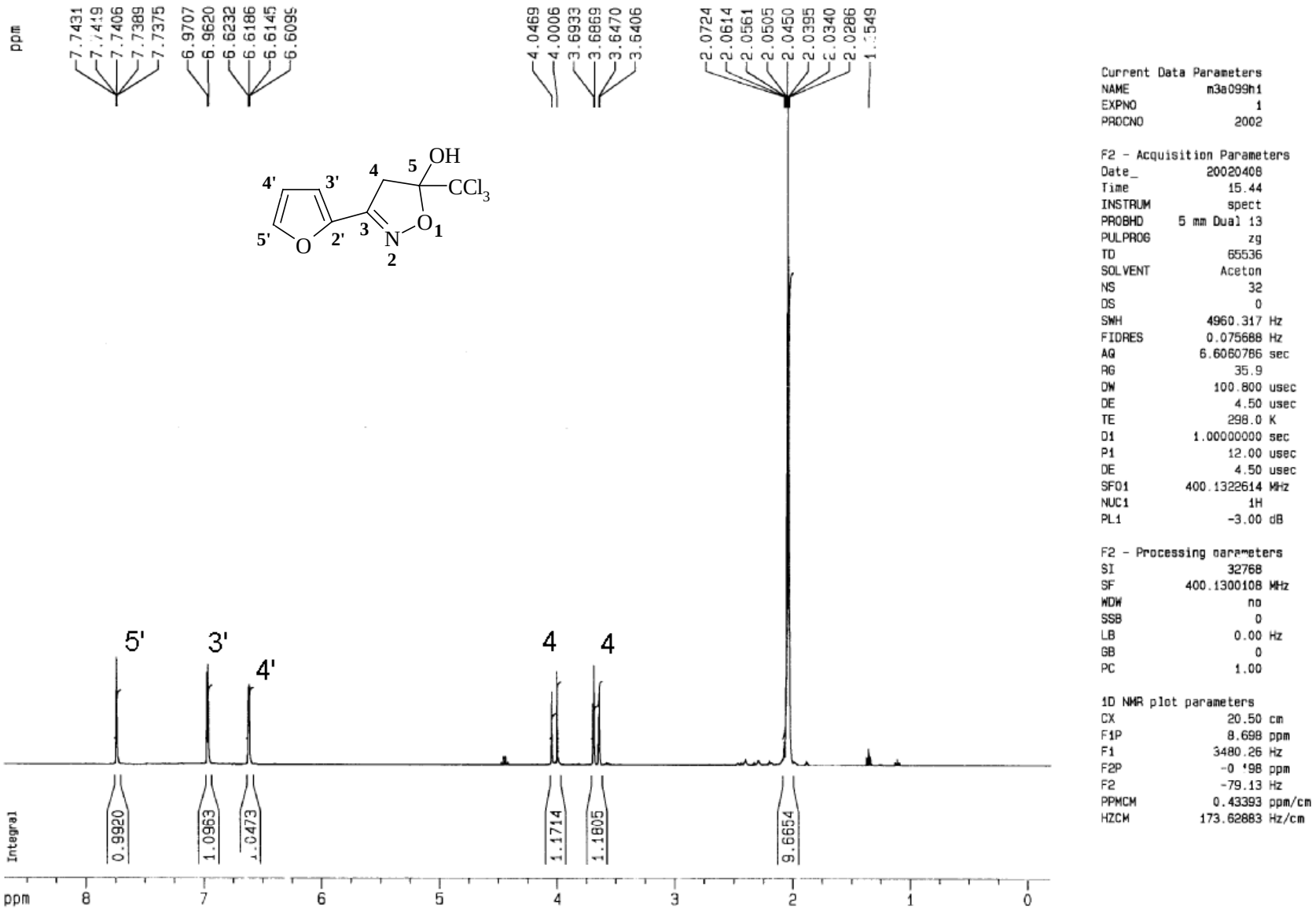


Figura 36. Espectros de RMN ^{1}H do 5-triclorometil-3-[2-furil]-5-hidroxi-4,5-diidro-isoxazol (**6a**) em acetona.

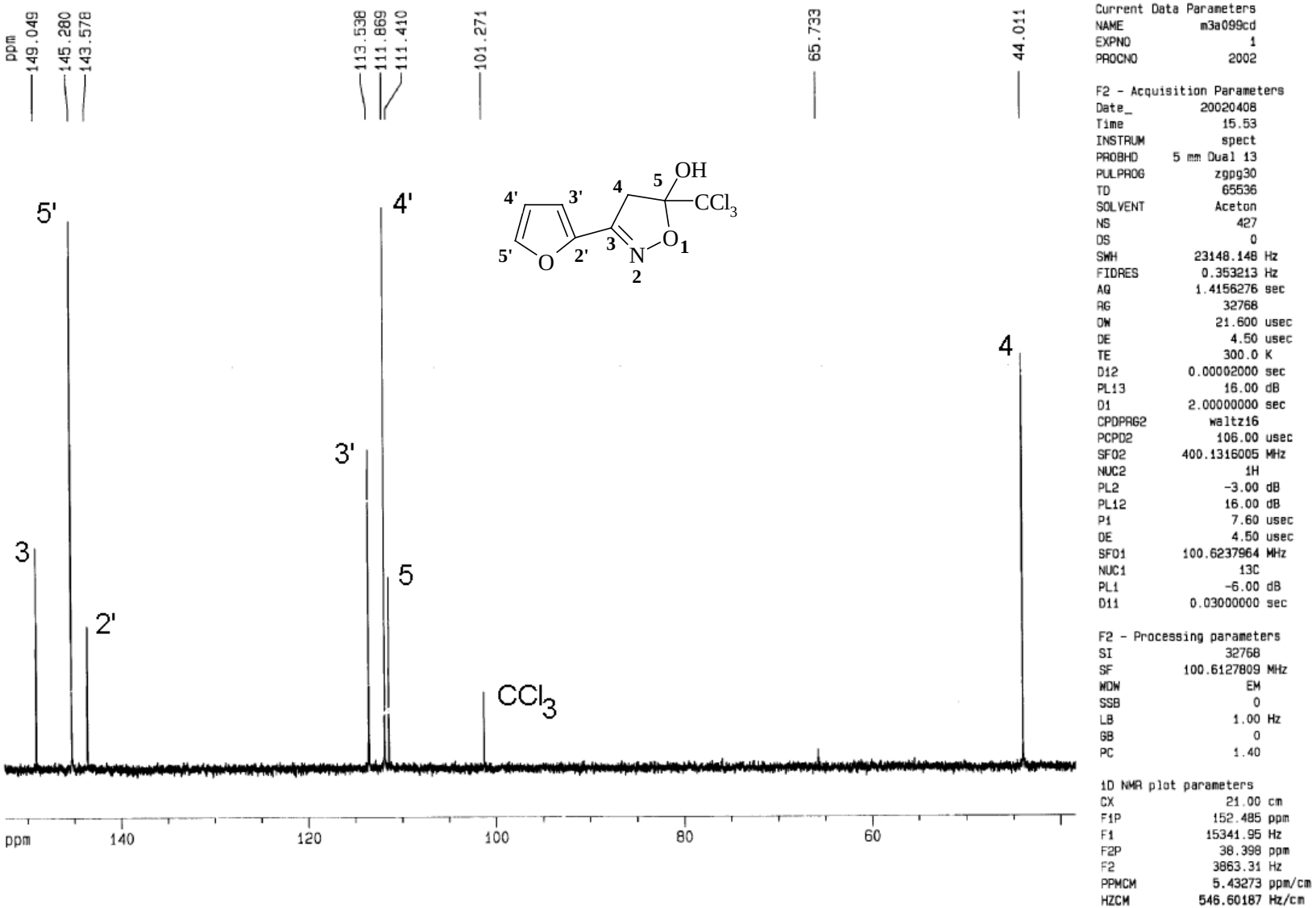


Figura 37. Espectros de RMN ^{13}C do 5-triclorometil-3-[2-furil]-5-hidroxi-4,5-diidro-isoxazol (**6a**) em acetona.

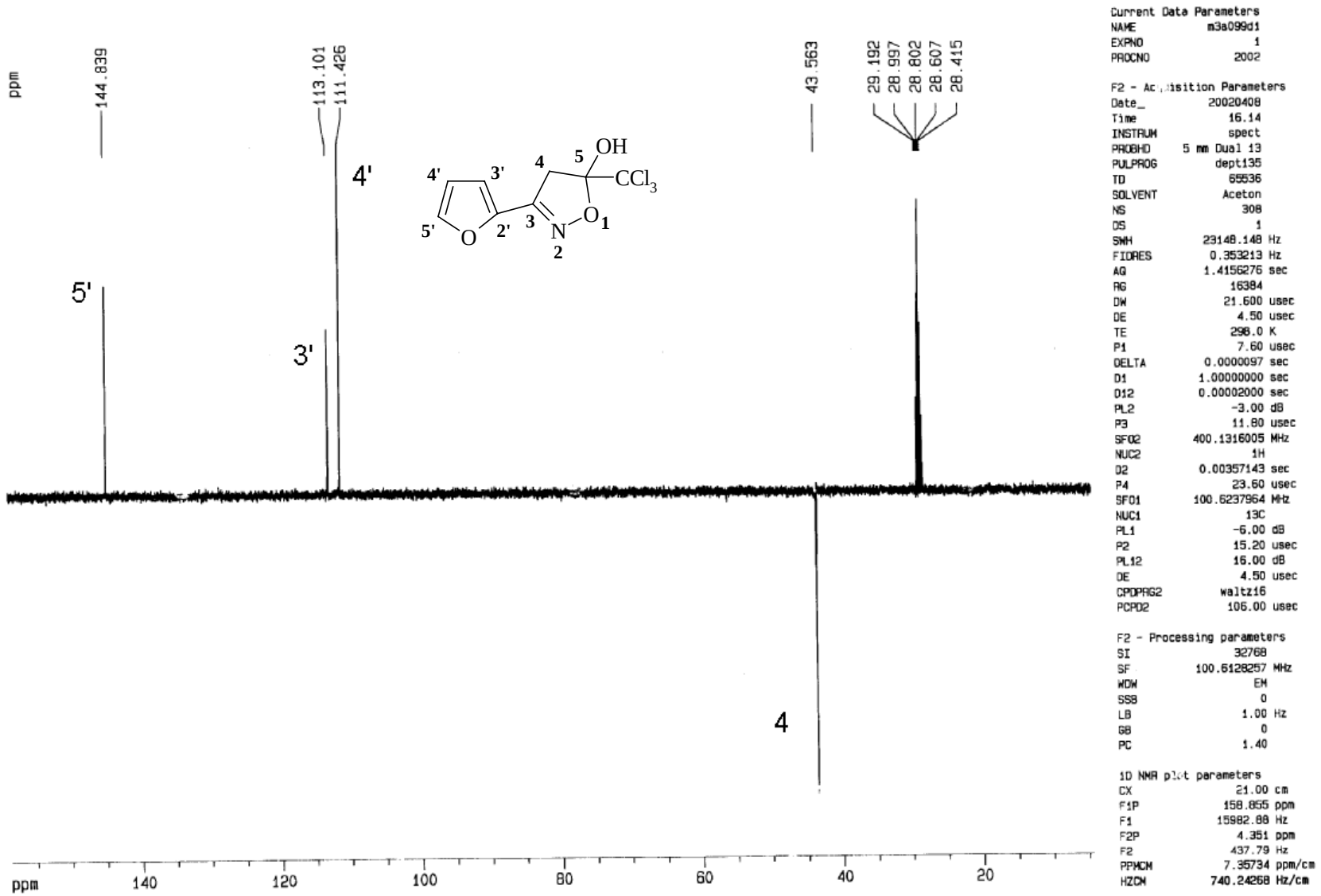
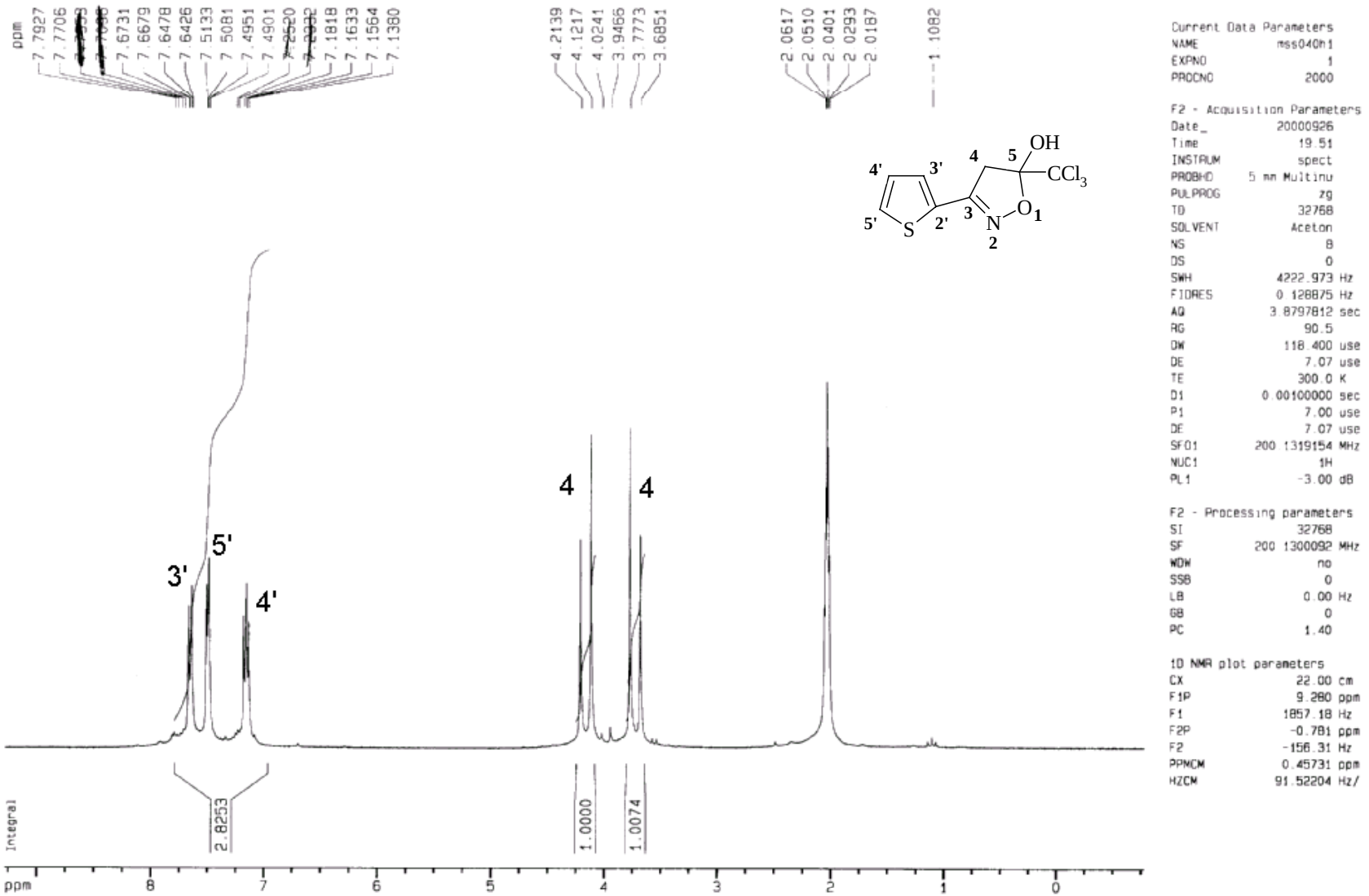


Figura 38. Espectros de RMN ^{13}C (DEPT 135) do 5-triclorometil-3-[2-furil]-5-hidroxi-4,5-diidro-isoxazol (**6a**) em acetona.

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PULPROG                    zg
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NS                            8
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FIDRES               0.128875 Hz
AQ                   3.8797812 sec
RG                         90.5
DW                      118.400 use
DE                        7.07 use
TE                       300.0 K
D1                   0.00100000 sec
P1                        7.00 use
DE                        7.07 use
SFO1          200.1319154 MHz
NUC1                         1H
PL1                      -3.00 dB

F2 - Processing parameters
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WDW                         no
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GB                           0
PC                        1.40

1D NMR plot parameters
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F1                   1857.18 Hz
F2P                   -0.781 ppm
F2                   -156.31 Hz
PPMCM                 0.45731 ppm
HZCM                 91.52204 Hz/
```

Figura 39. Espectros de RMN ^{1}H do 5-triclorometil-3-[2-tienil]-5-hidroxi-4,5-diidro-isoxazol (**6b**) em acetona.

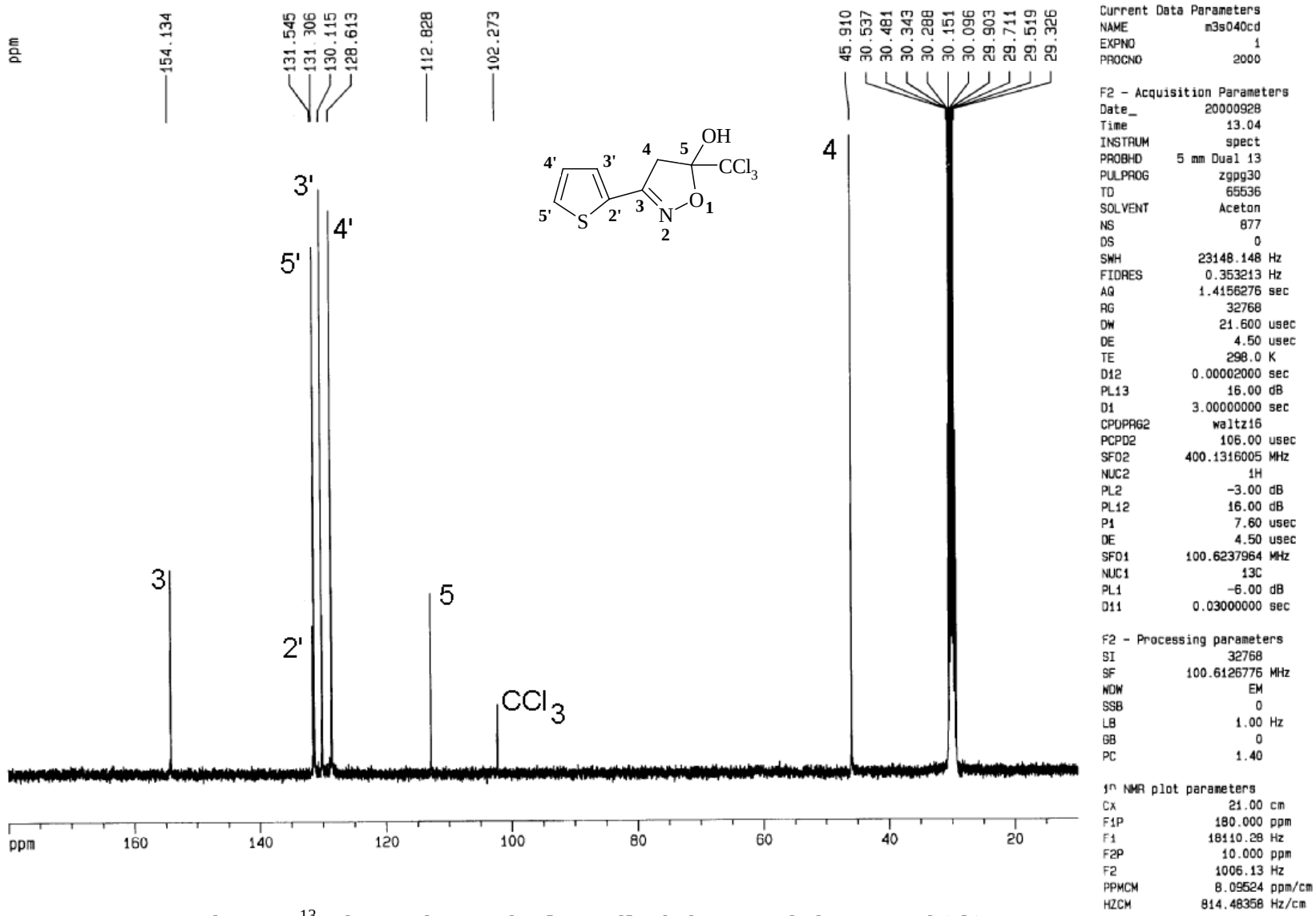

Figura 40. Espectros de RMN ^{13}C do 5-triclorometil-3-[2-tienil]-5-hidroxi-4,5-diidro-isoxazol (**6b**) em acetona.

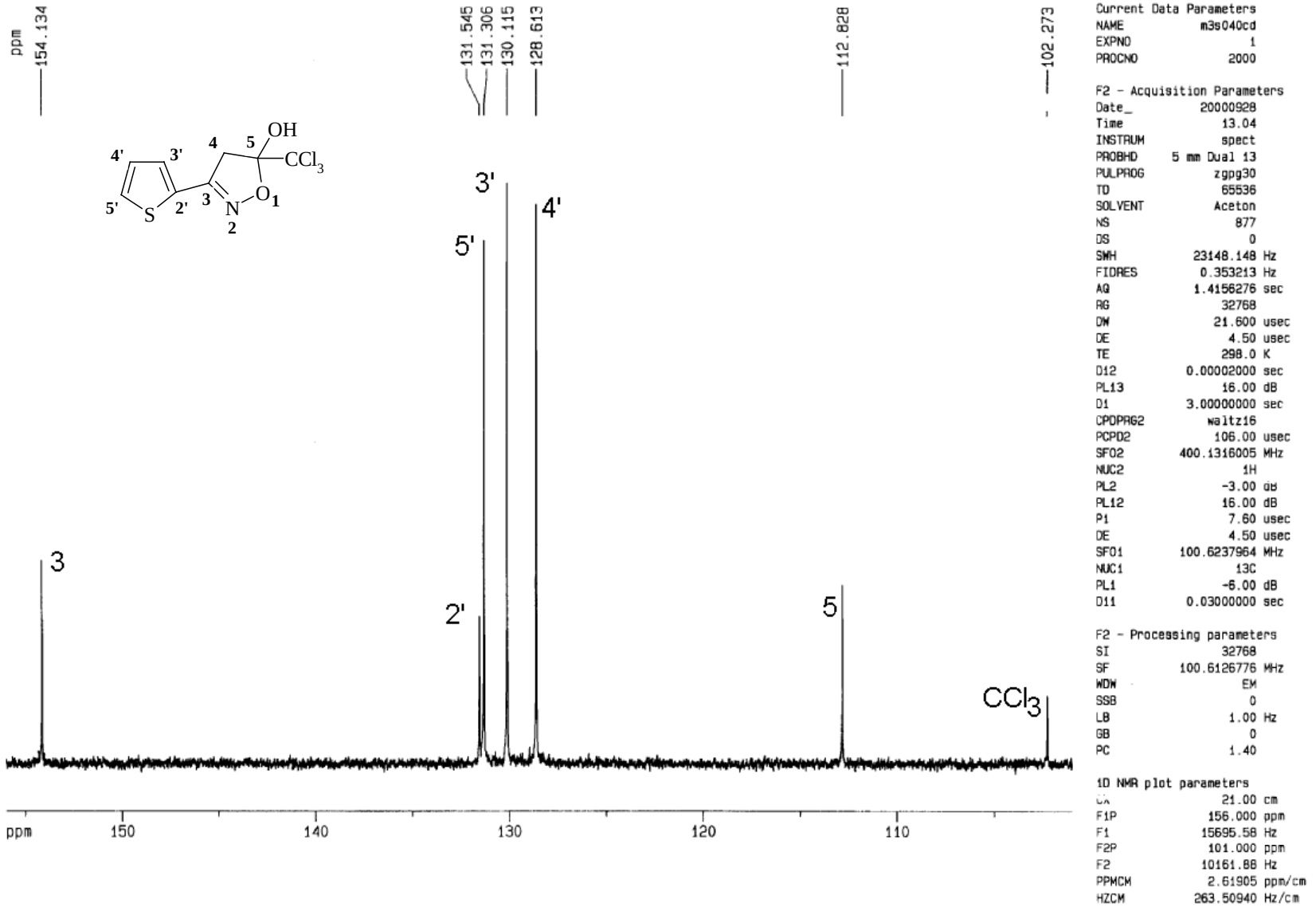

Figura 41. Espectros de RMN ^{13}C do 5-triclorometil-3-[2-tienil]-5-hidroxi-4,5-diidro-isoxazol (**6b**) em acetona.

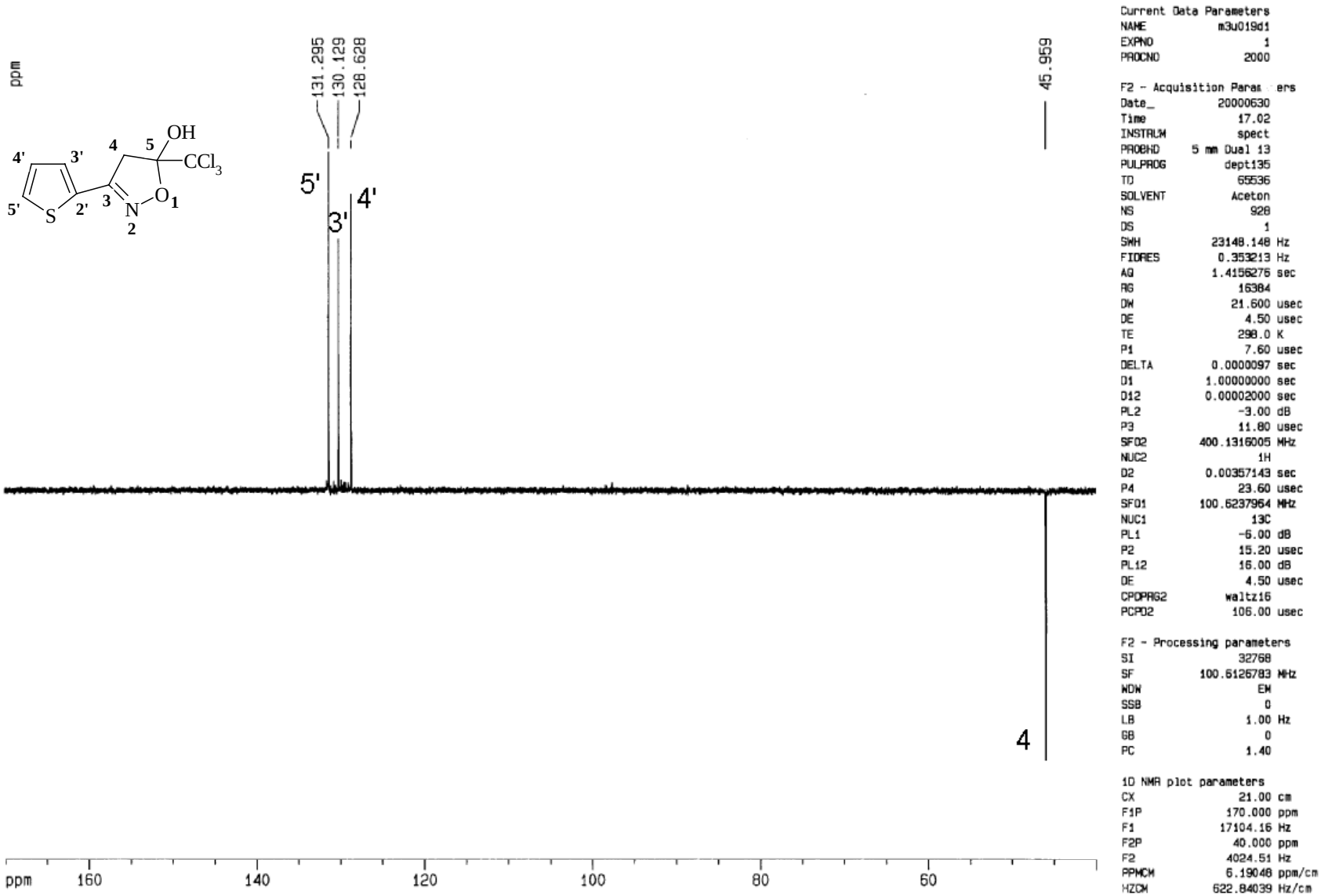

Figura 42. Espectros de RMN ^{13}C (DEPT 135) do 5-triclorometil-3-[2-tienil]-5-hidroxi-4,5-diidro-isoxazol (**6b**) em acetona.

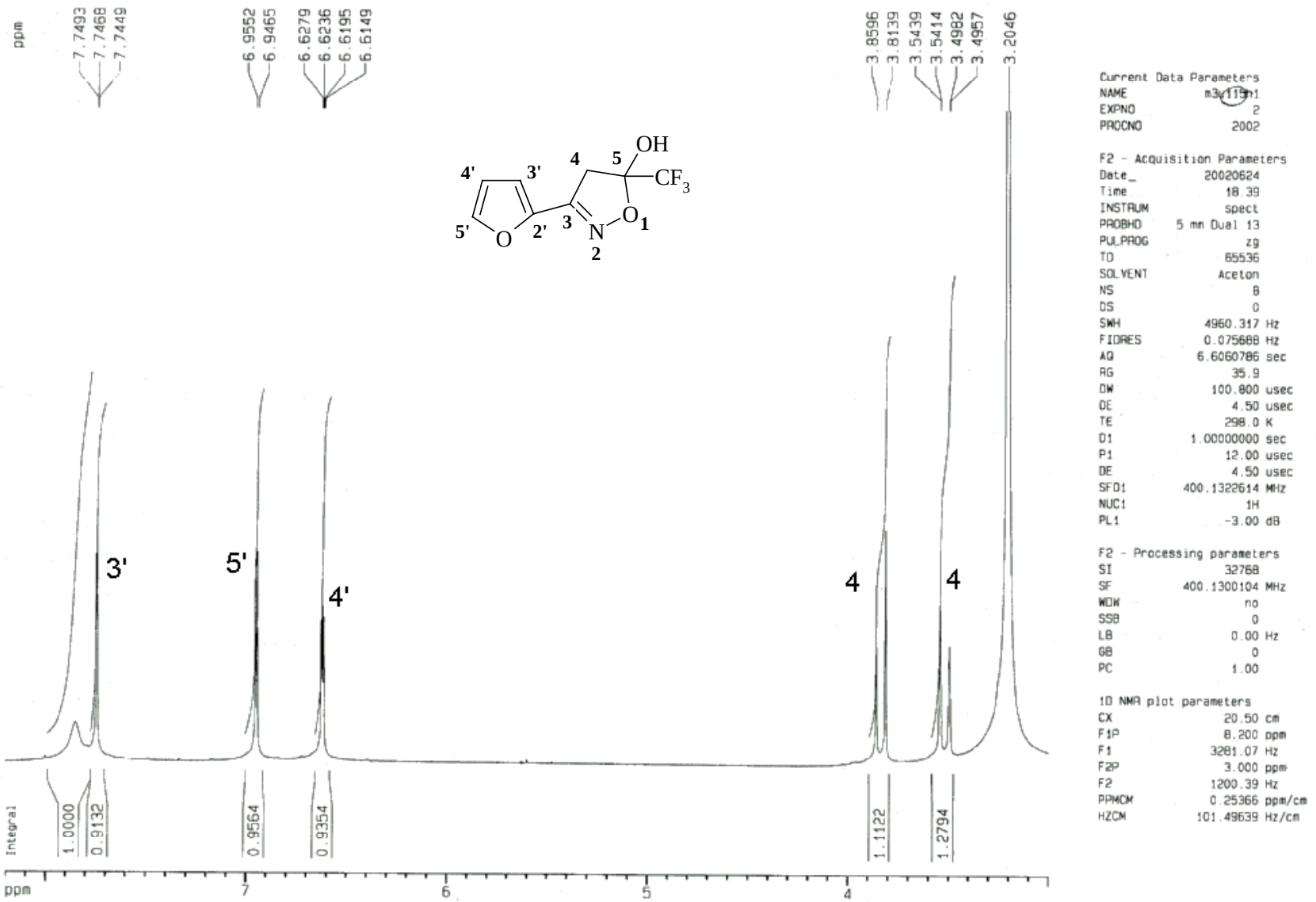

Figura 43. Espectros de RMN ^{1}H do 5-trifluormetil-3-[2-furil]-5-hidroxi-4,5-diidro-isoxazol (**7a**) em acetona.

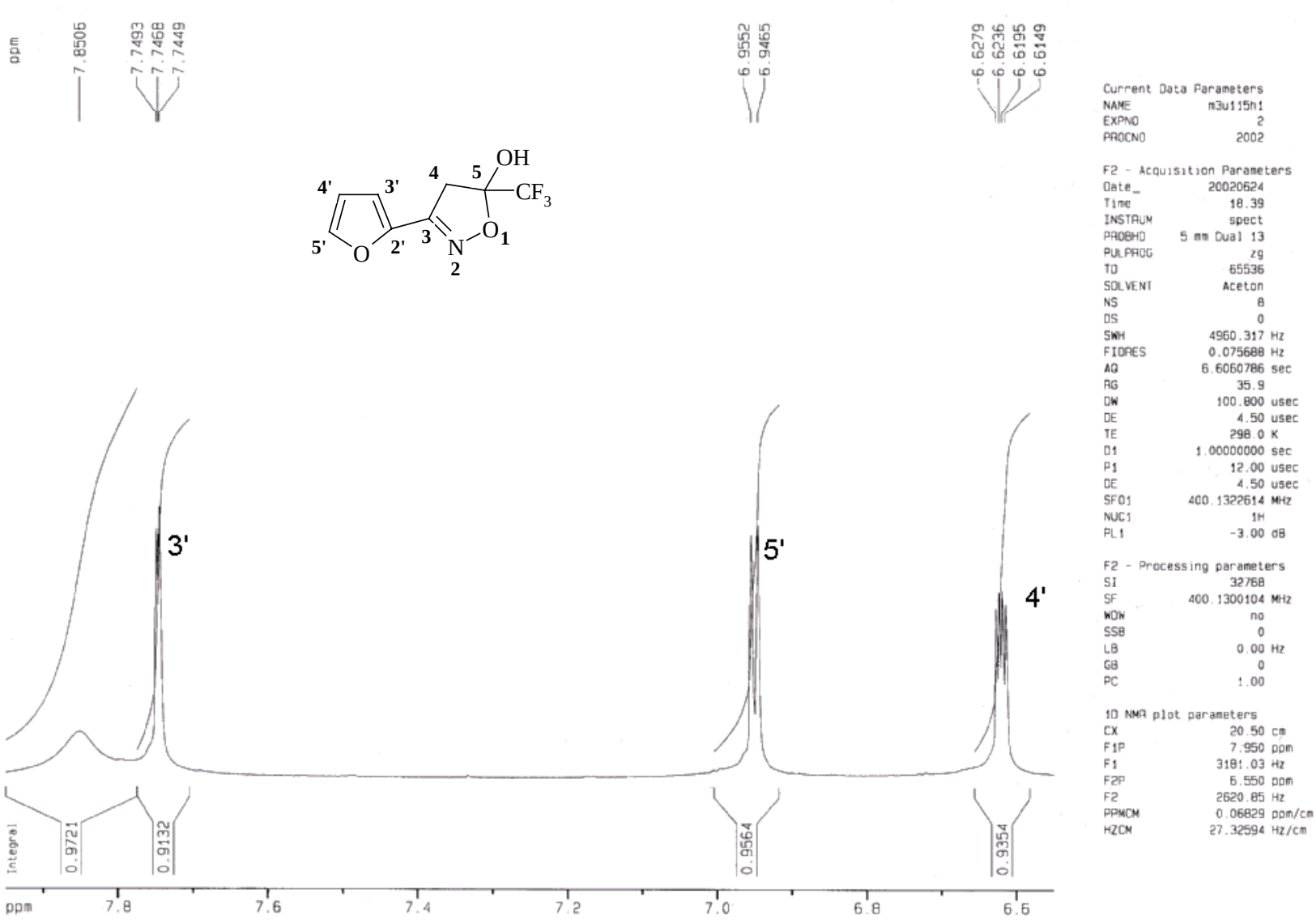

Figura 44. Espectros de RMN ^{1}H, expansão entre 6,6-7,8 ppm do 5-trifluormetil-3-[2-furil]-5-hidroxi-4,5-diidro-isoxazol (**7a**) em acetona.

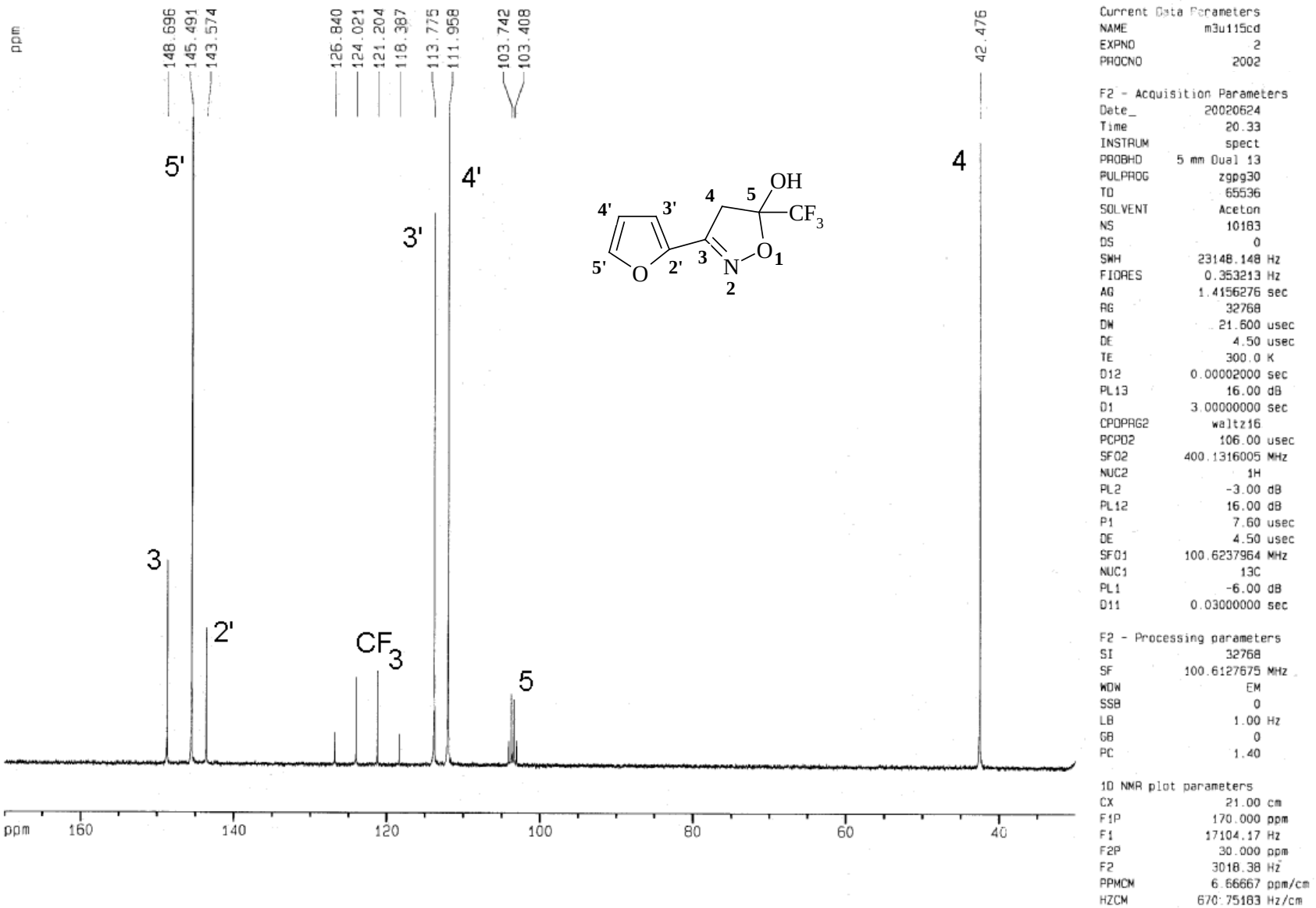

Figura 45. Espectros de RMN ^{13}C do 5-trifluormetil-3-[2-furil]-5-hidroxi-4,5-diidro-isoxazol (**7a**) em acetona.