Brønsted Acid Activation of α-Diazo Imides: A Highly *syn*-Selective Glycolate Mannich Reaction

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S-II-X

Figure 1. ^{1}H NMR (400 MHz, $CDCl_3$) of **1b**

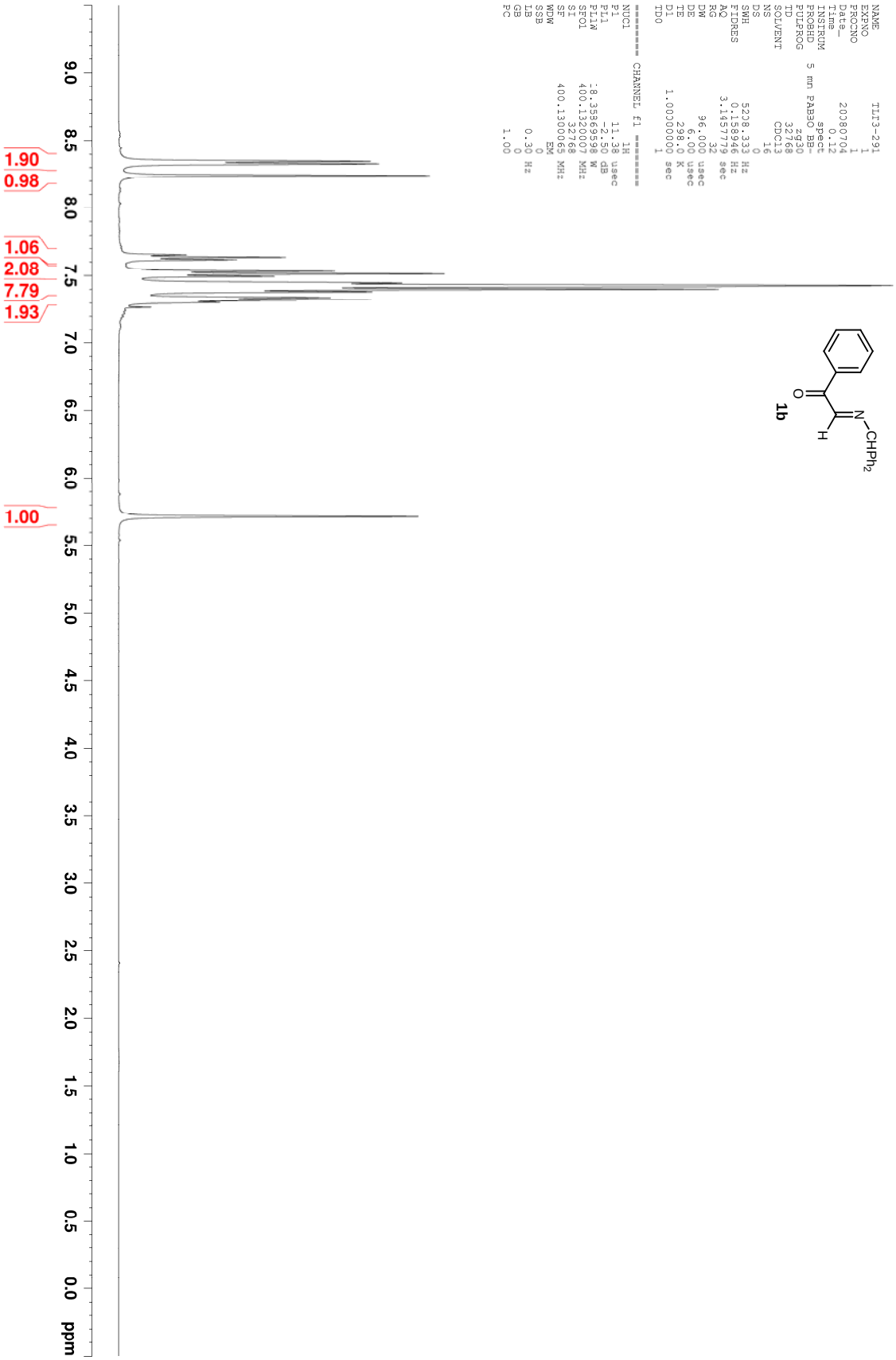

Figure 2. ^{13}C NMR (100 MHz, $CDCl_3$) of **1b**

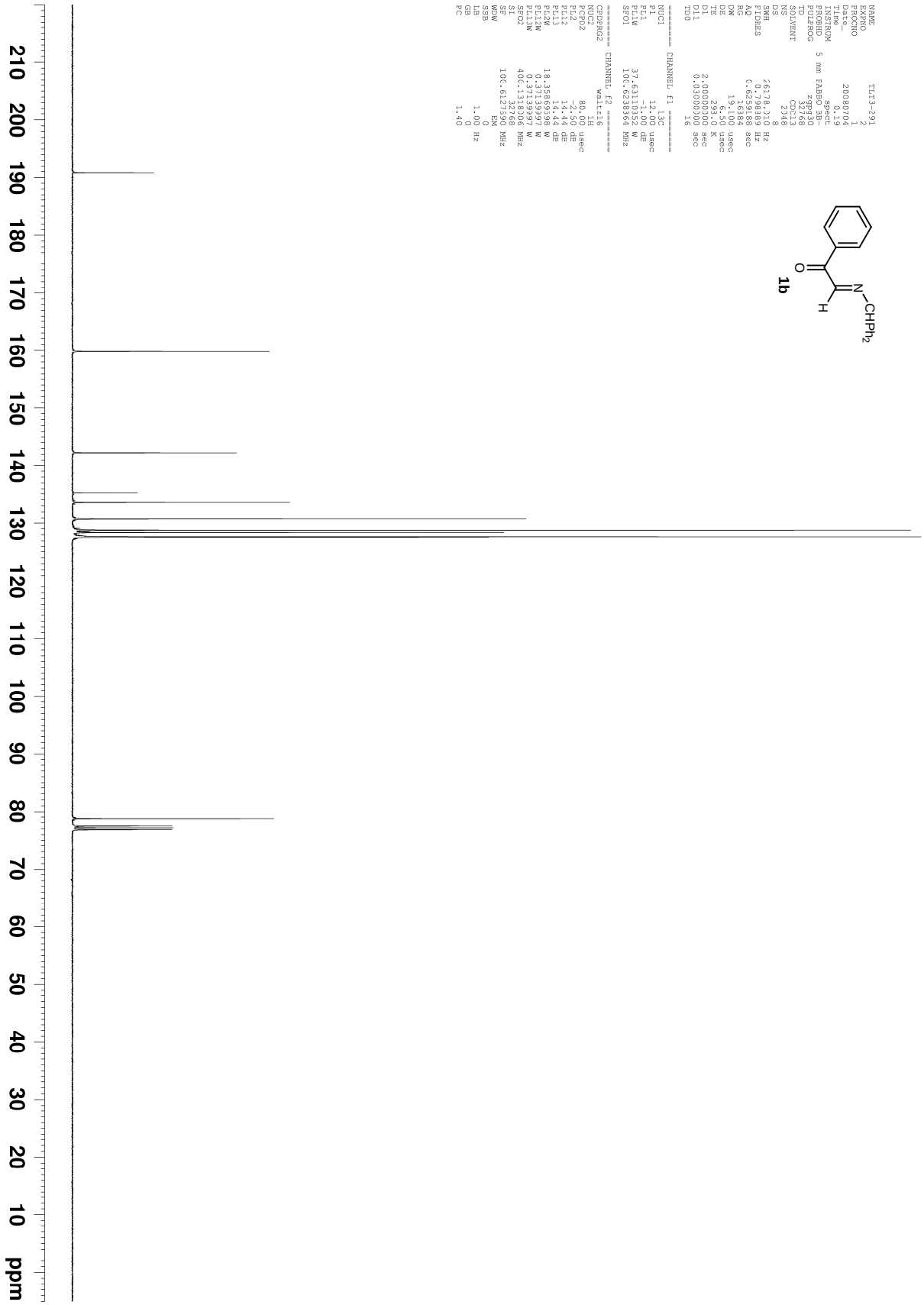

Figure 3. ^{1}H NMR (400 MHz, $CDCl_3$) of **1c**

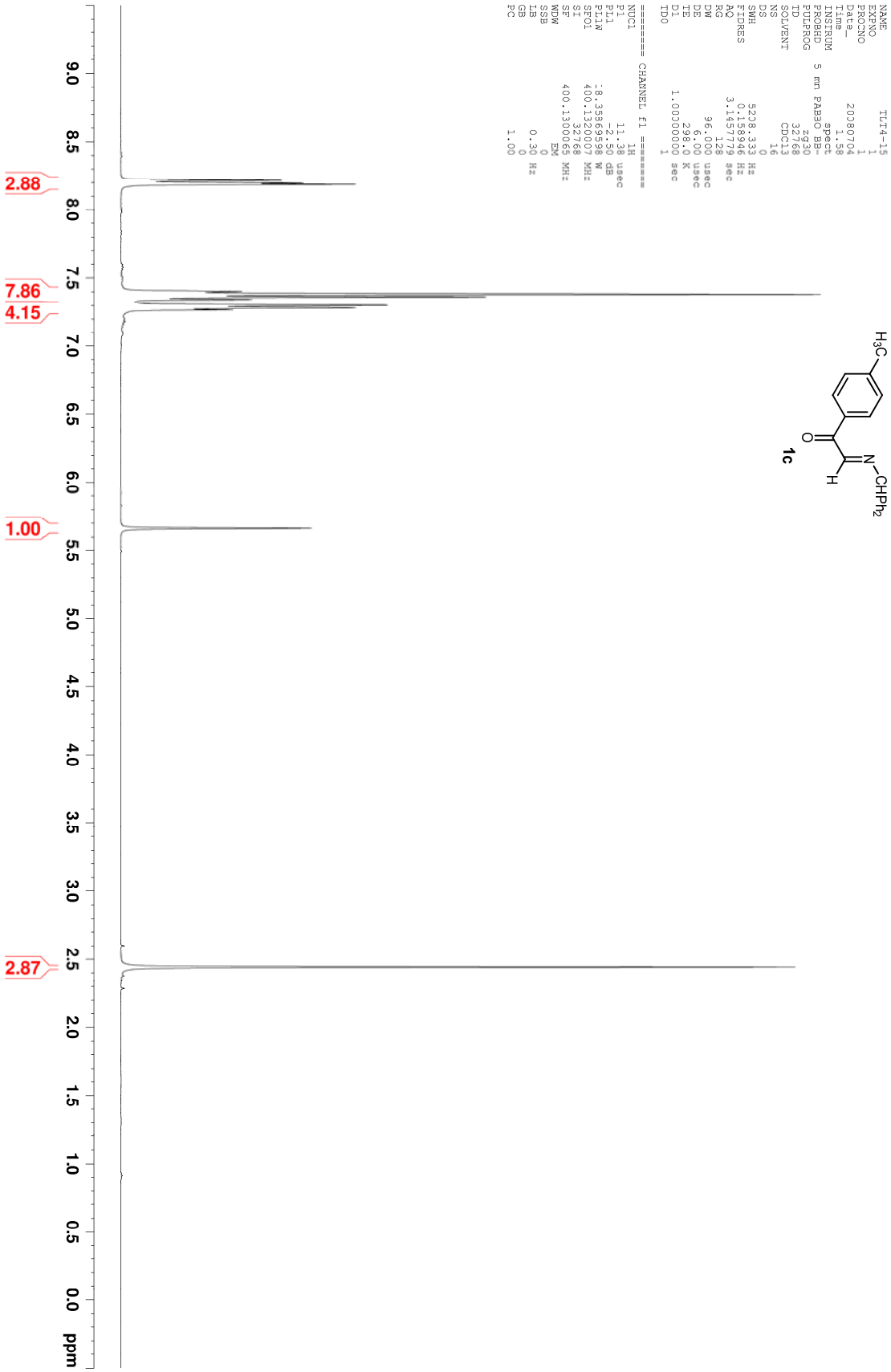

Figure 4. ^{13}C NMR (100 MHz, $CDCl_3$) of **1c**

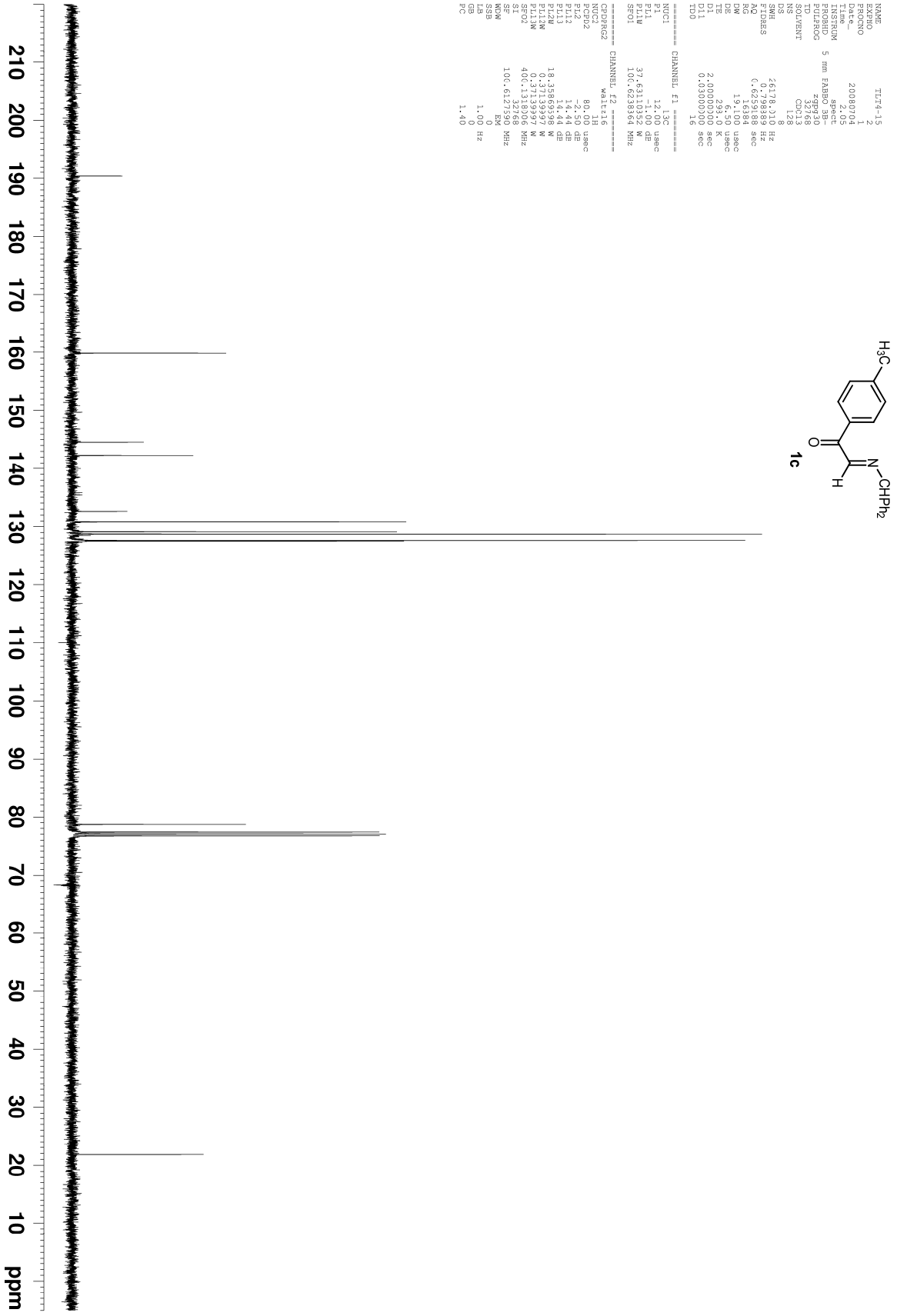

Figure 5. ^{1}H NMR (400 MHz, $CDCl_3$) of **1d**

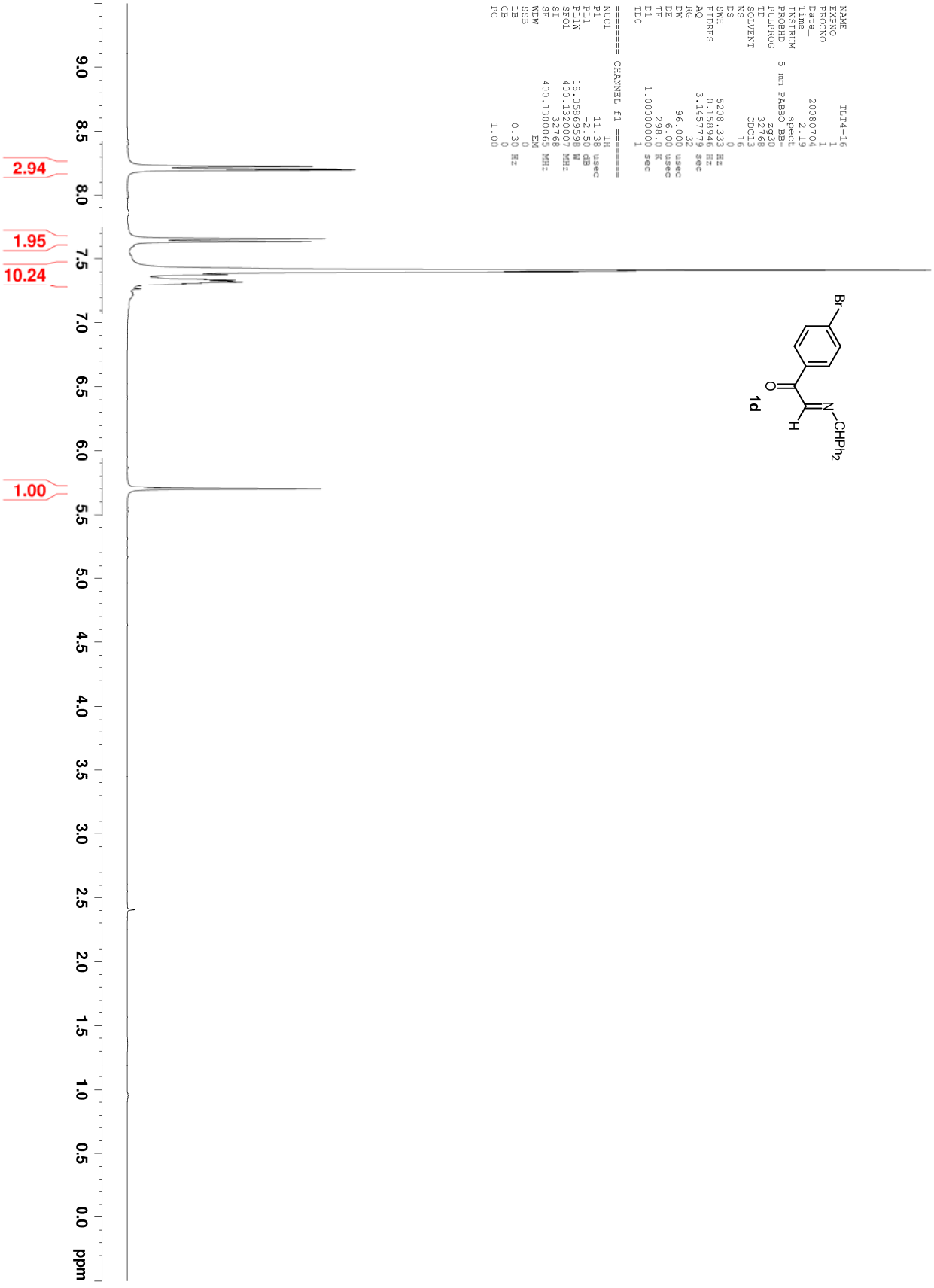

Figure 6. ^{13}C NMR (100 MHz, $CDCl_3$) of **1d**

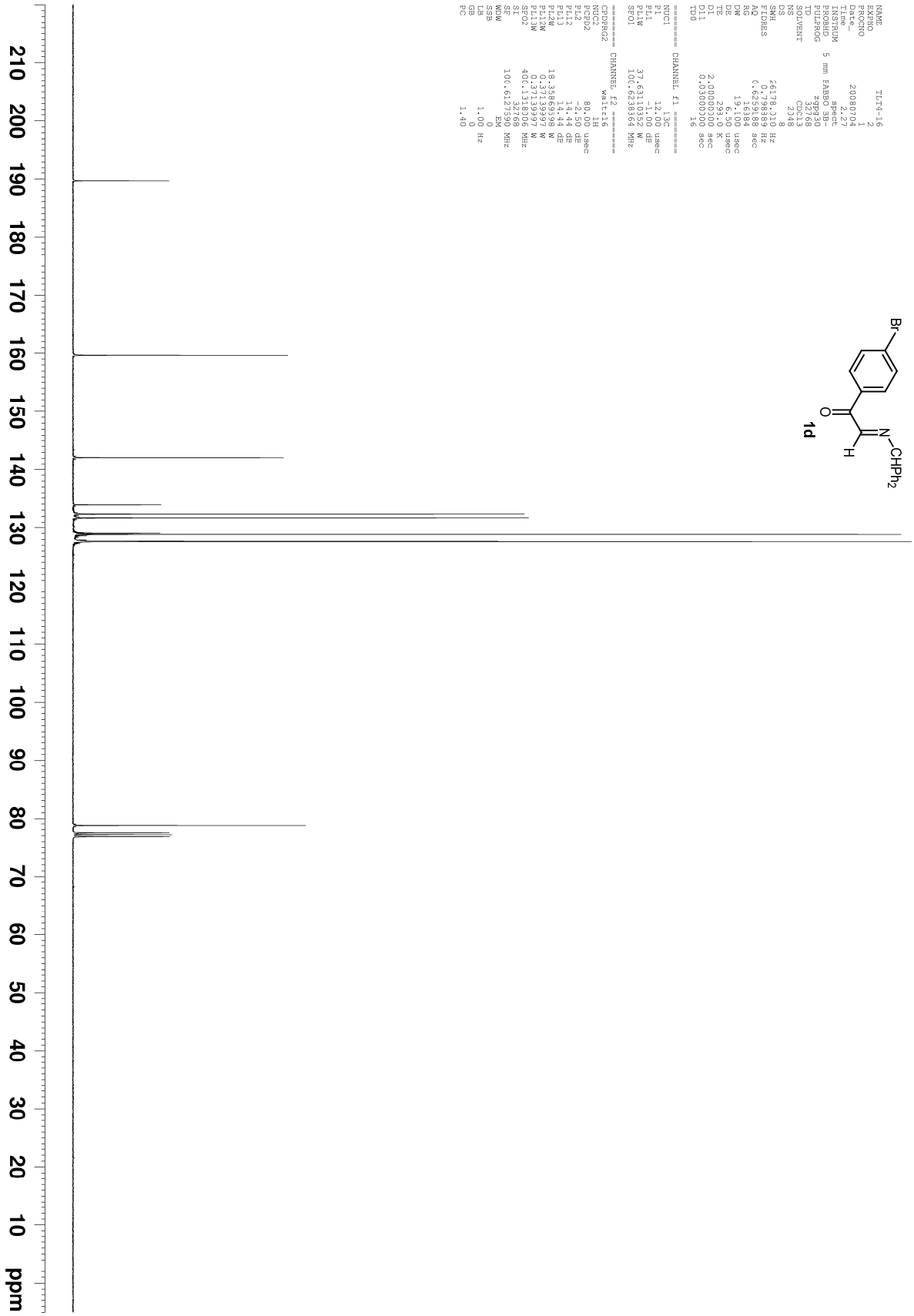

Figure 7. ^{1}H NMR (400 MHz, $CDCl_3$) of **1e**

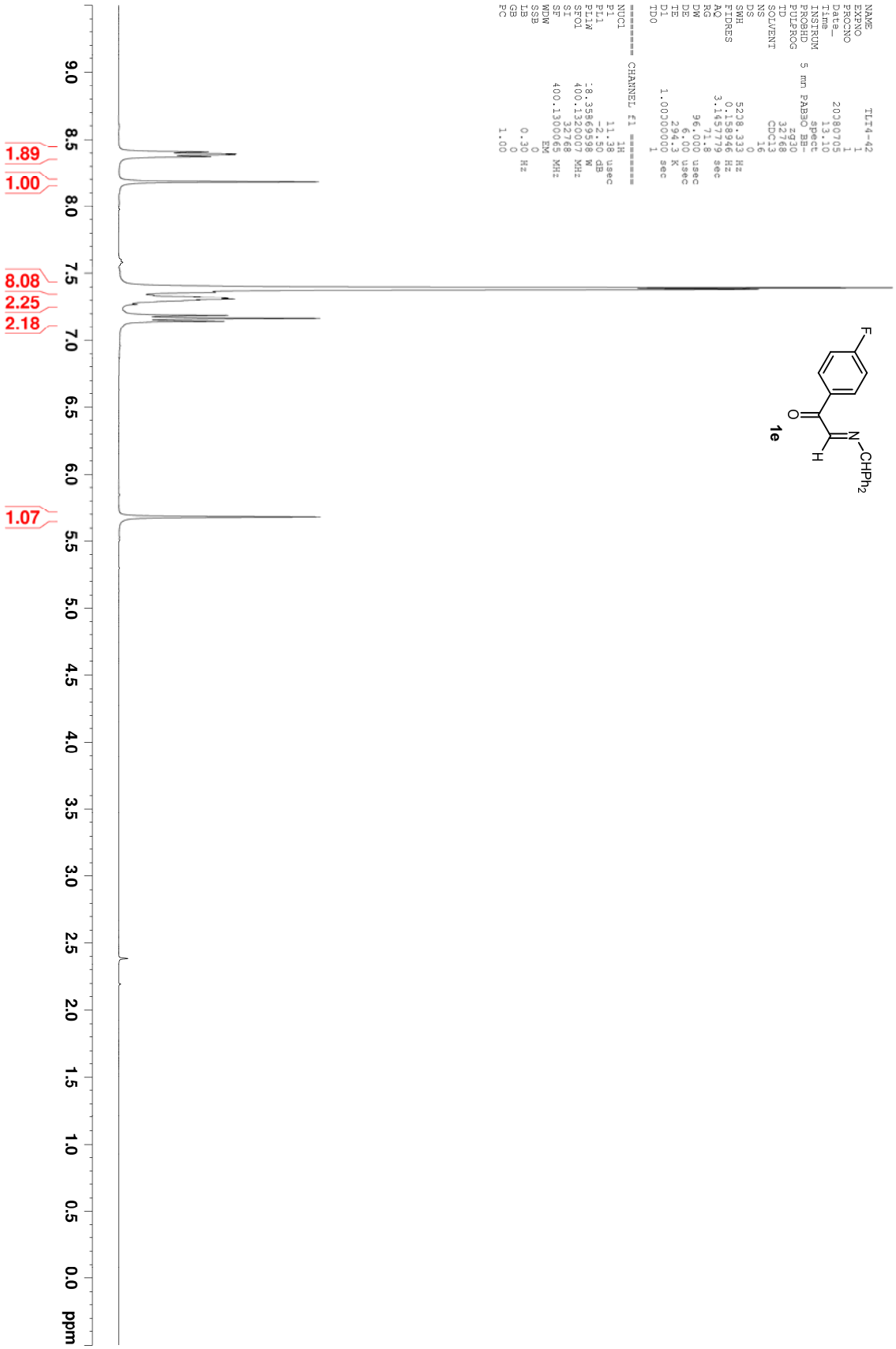

Figure 8. ^{13}C NMR (100 MHz, $CDCl_3$) of **1e**

Figure 9. ^{1}H NMR (400 MHz, $CDCl_3$) of **1f**

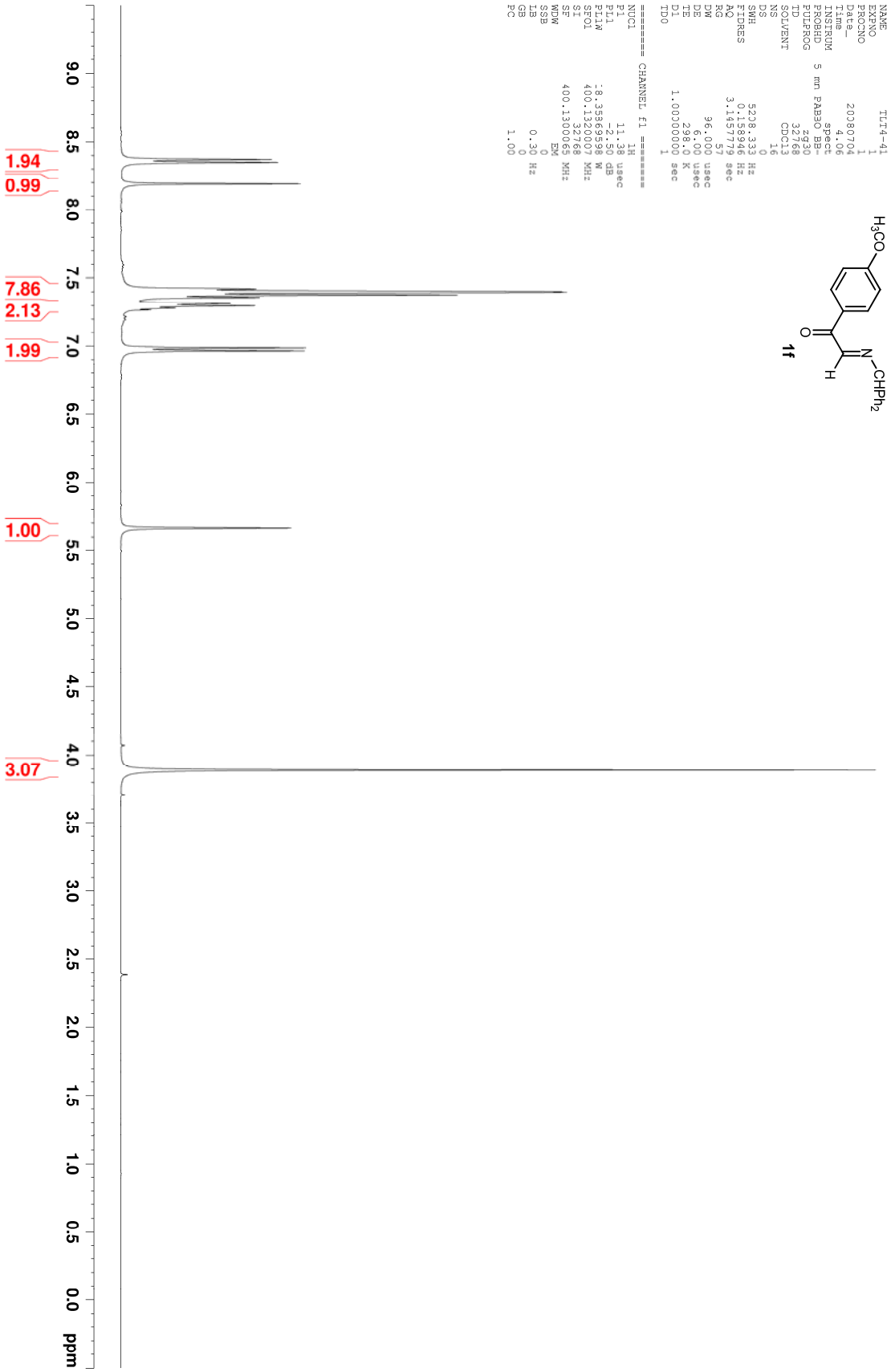

Figure 10. ^{13}C NMR (100 MHz, $CDCl_3$) of **1f**

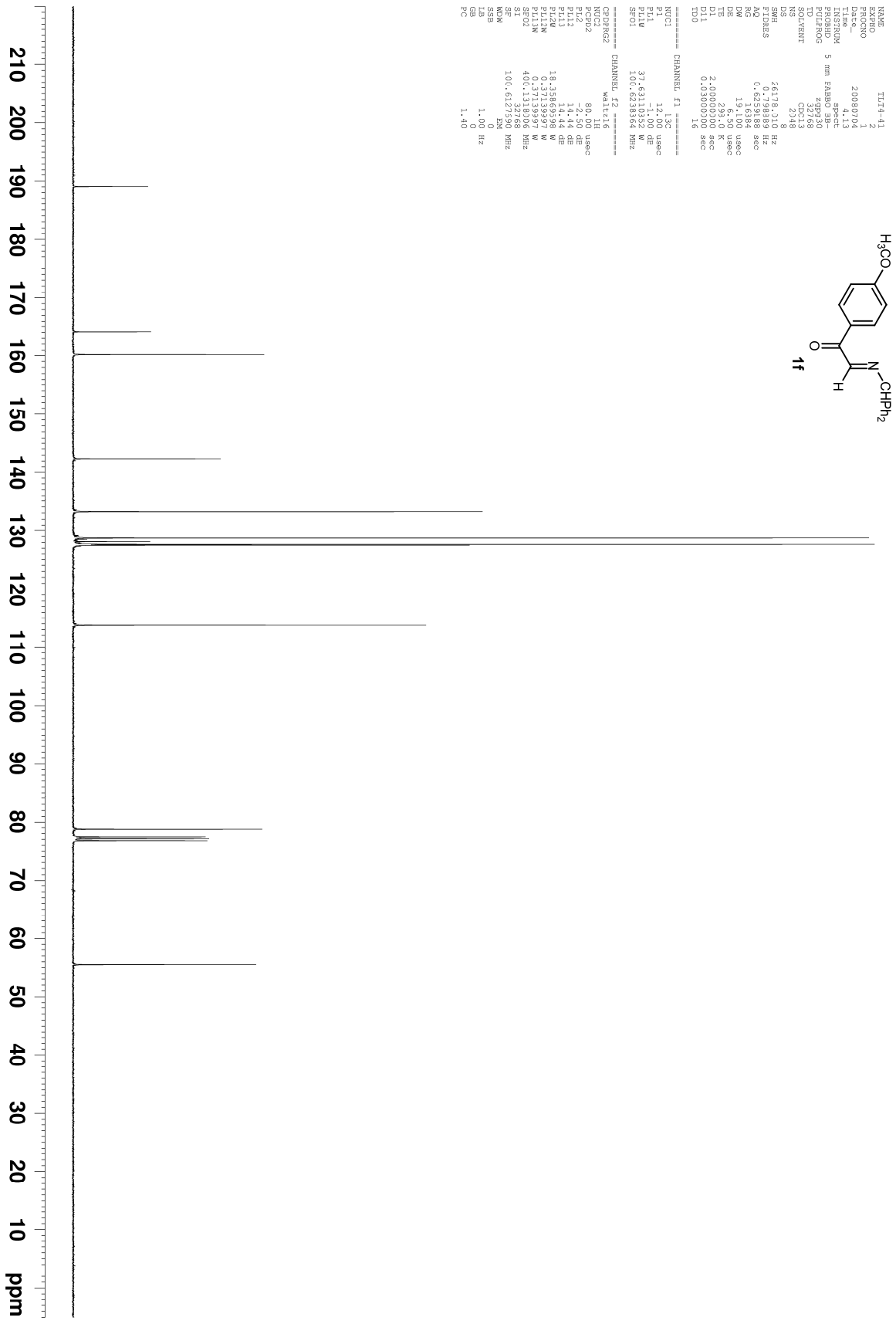

Figure 11. ^{1}H NMR (500 MHz, $CDCl_3$) of **1g**

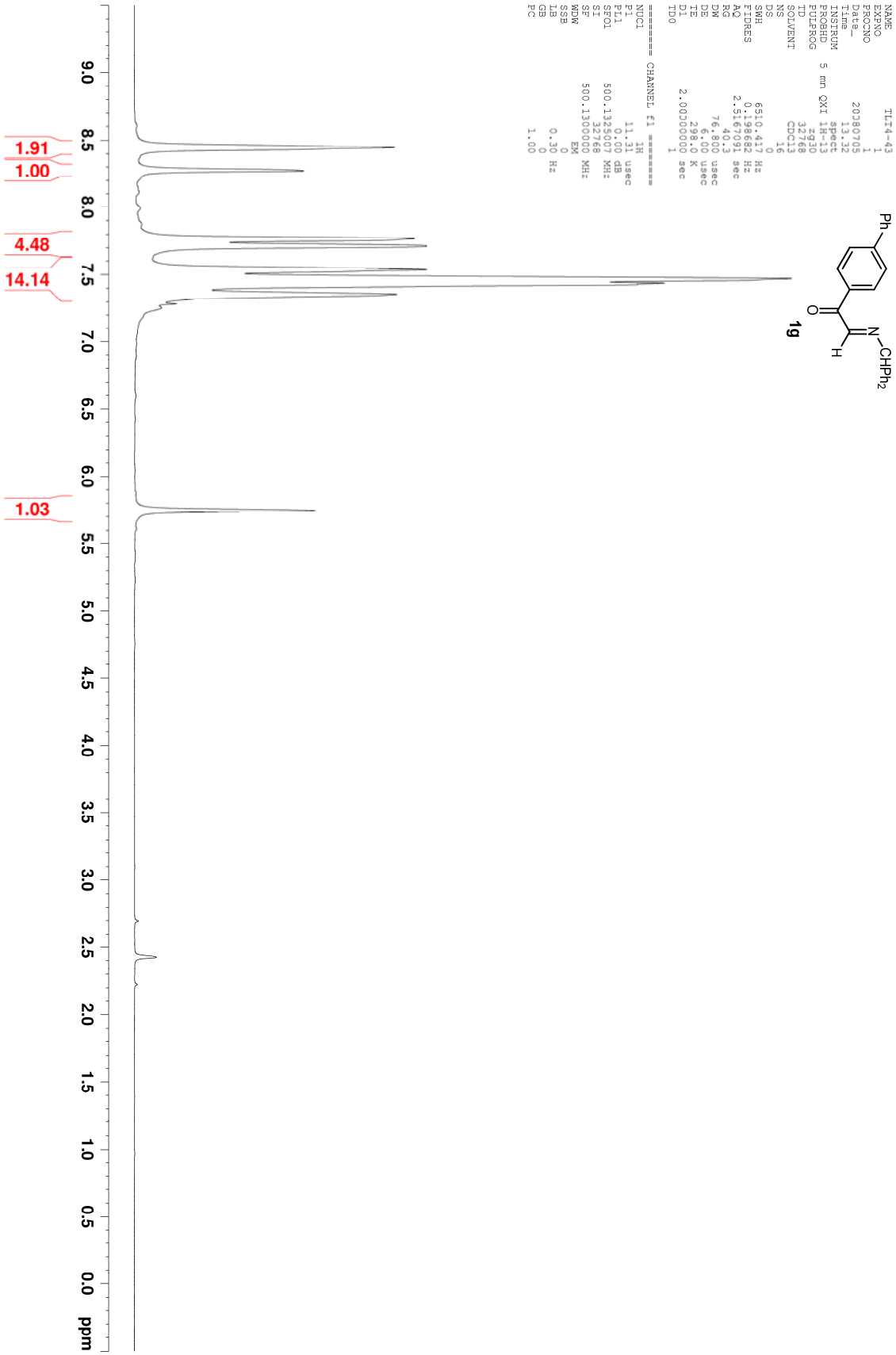

Figure 12. ^{13}C NMR (125 MHz, $CDCl_3$) of **1g**

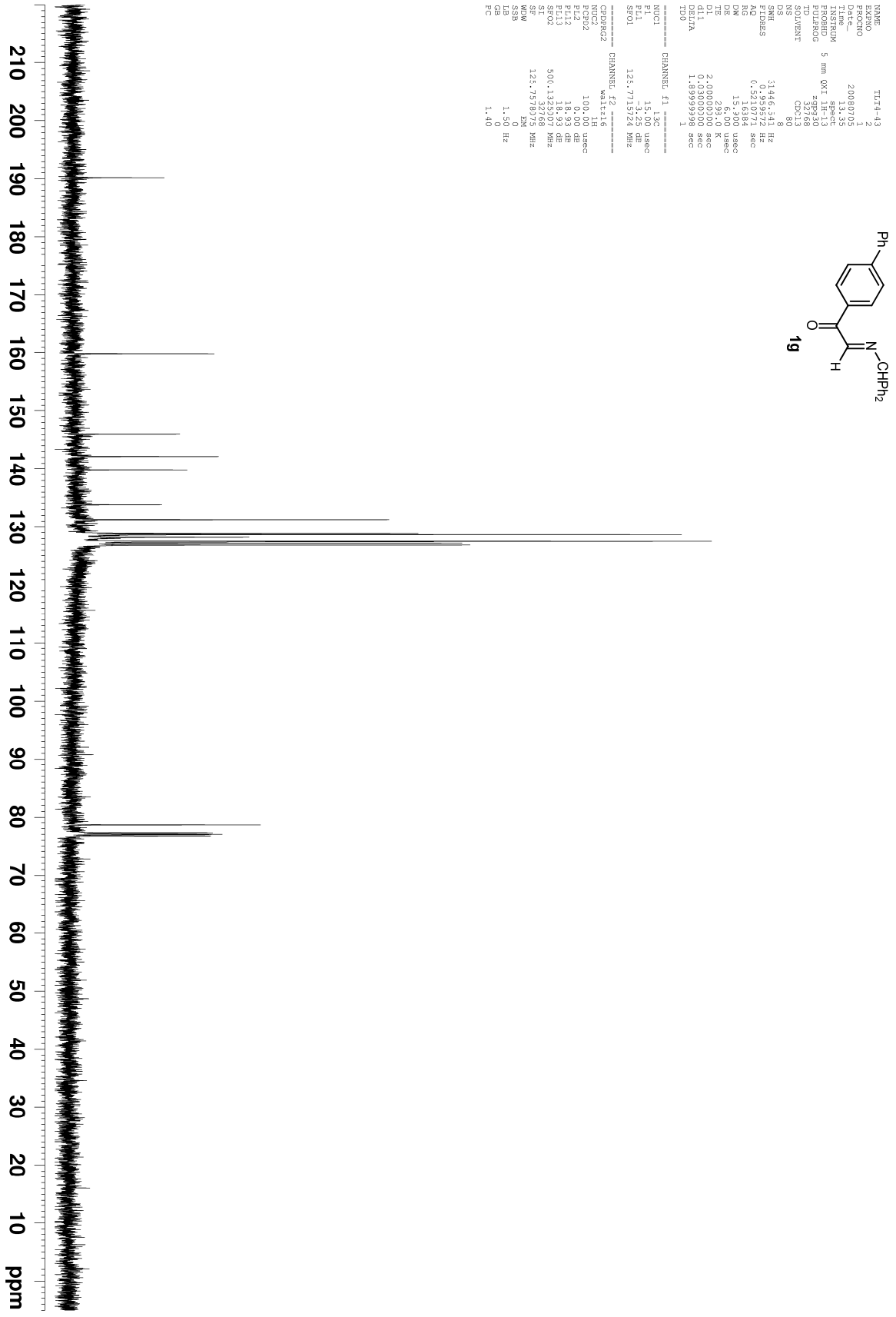

Figure 13. ^{1}H NMR (400 MHz, $CDCl_3$) of **1h**

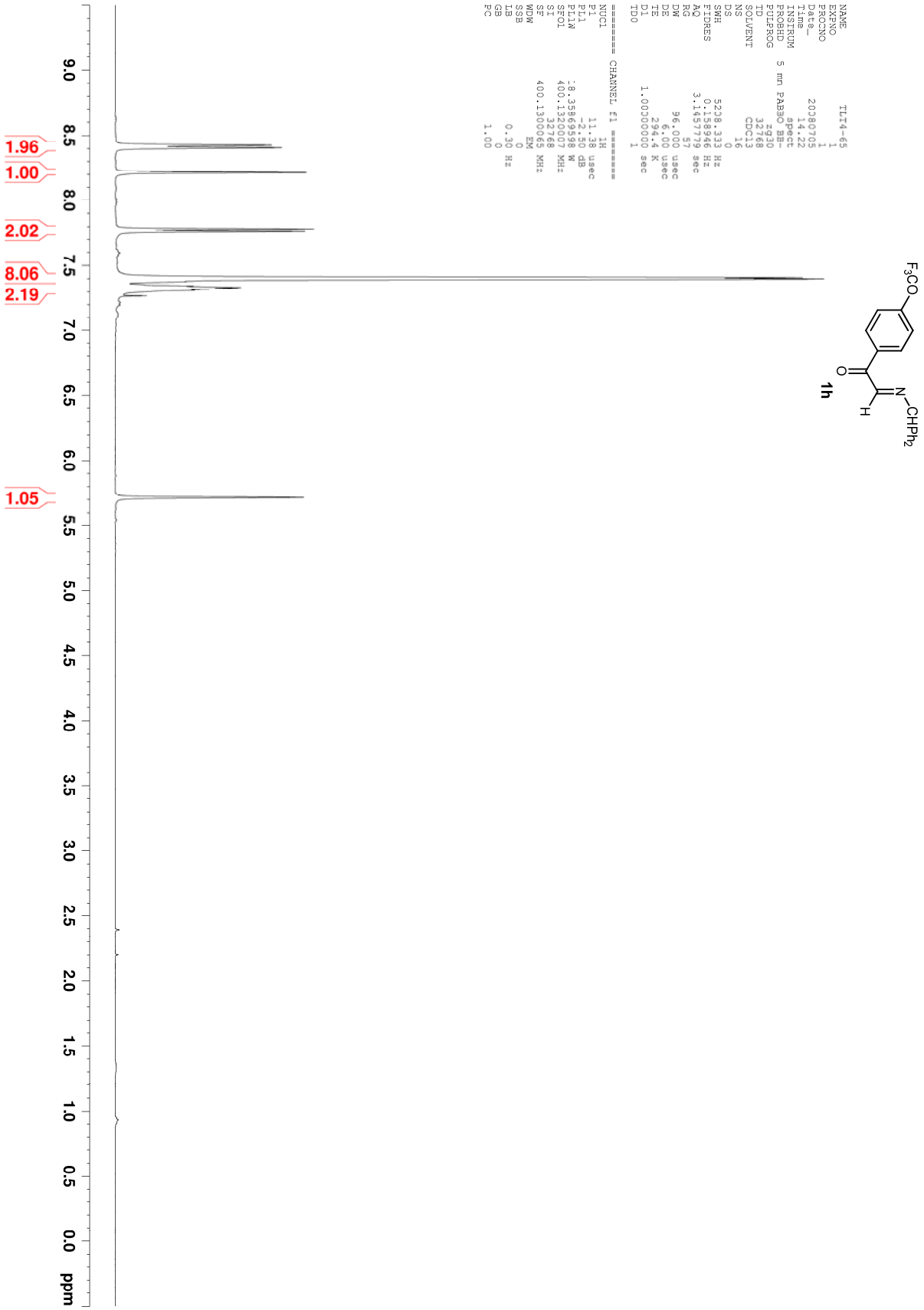

Figure 14. ^{13}C NMR (100 MHz, $CDCl_3$) of **1h**

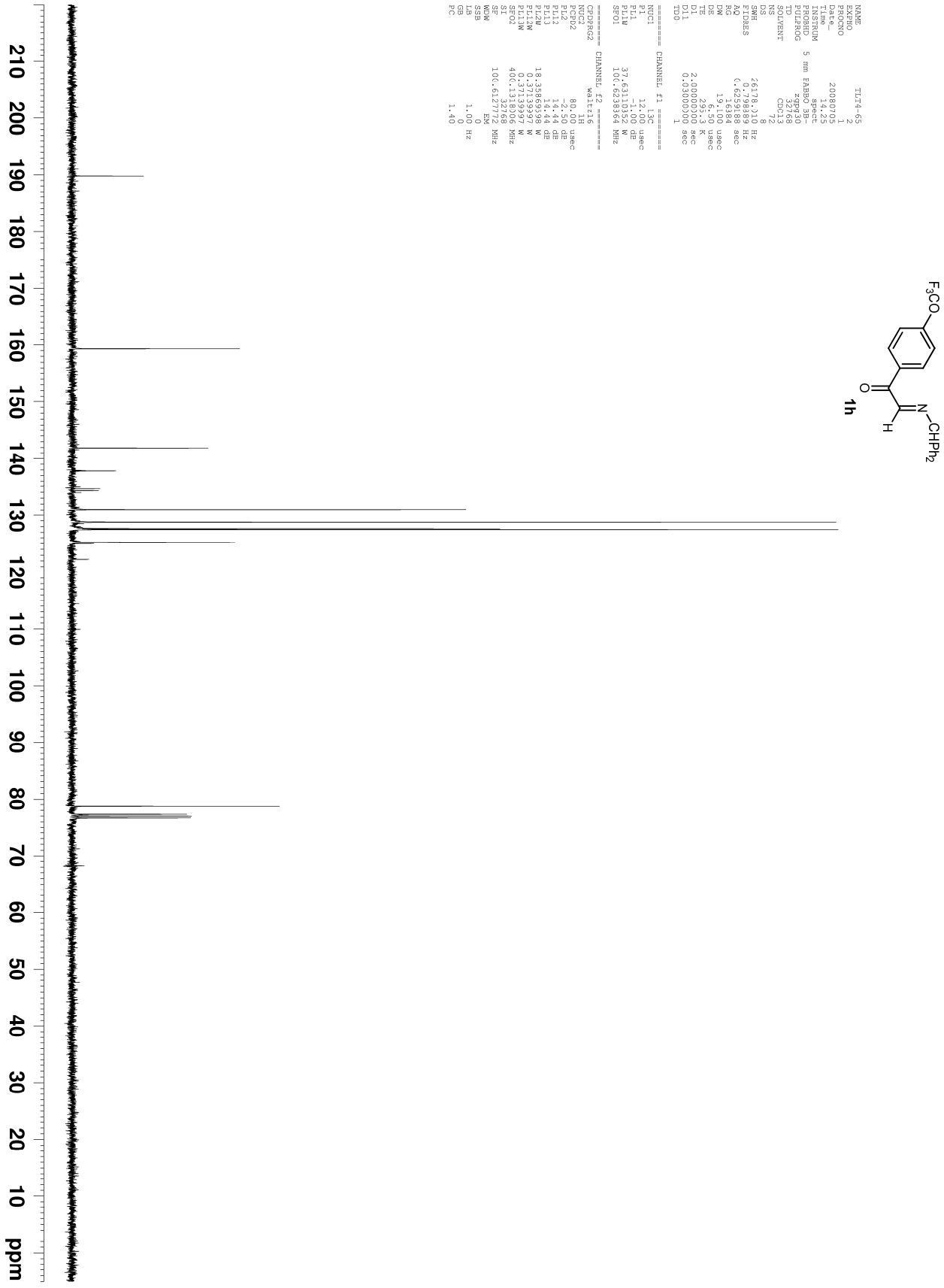

Figure 15. ^{1}H NMR (400 MHz, $CDCl_3$) of **1i**

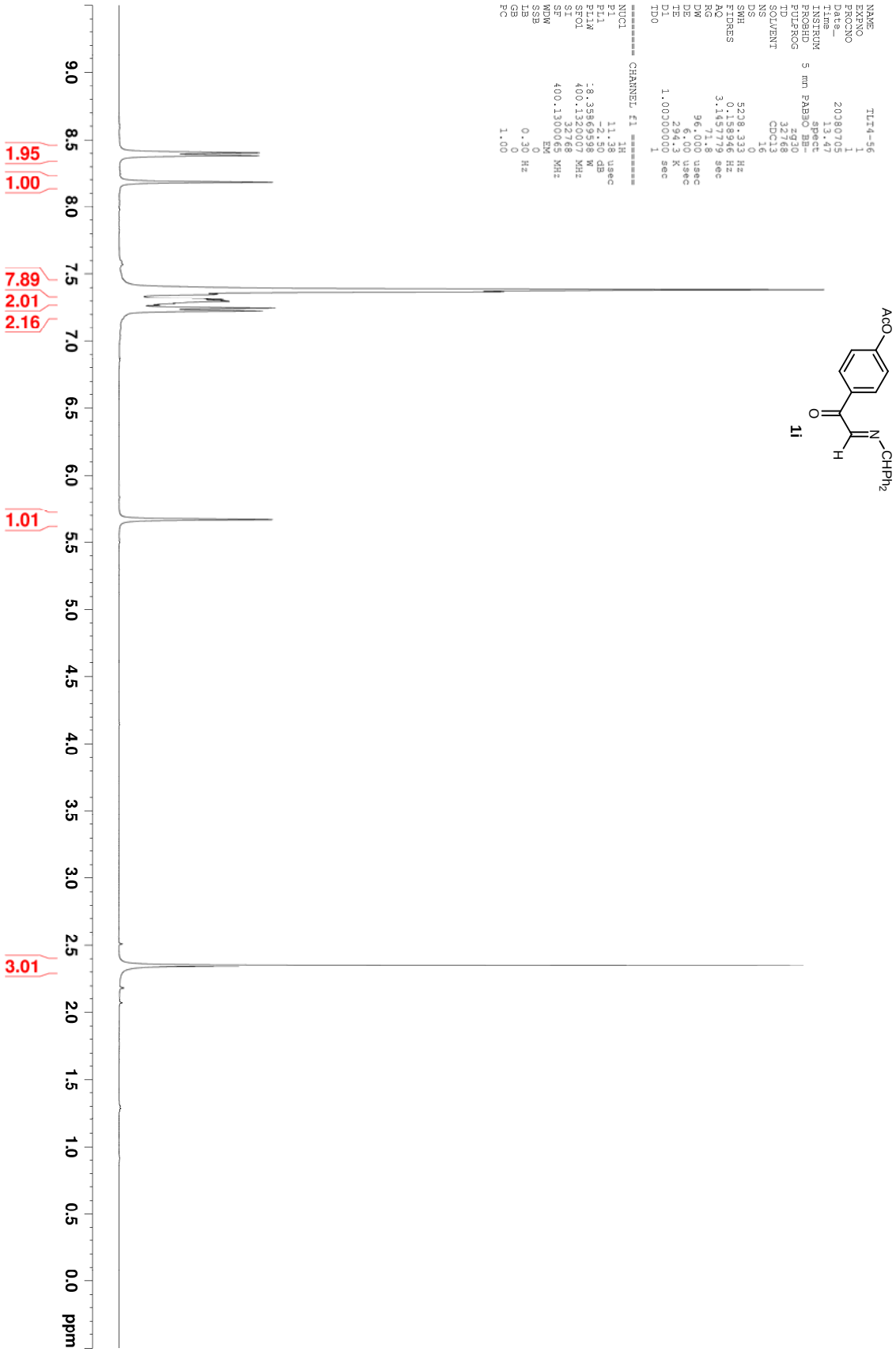

Figure 16. ^{13}C NMR (100 MHz, $CDCl_3$) of **1i**

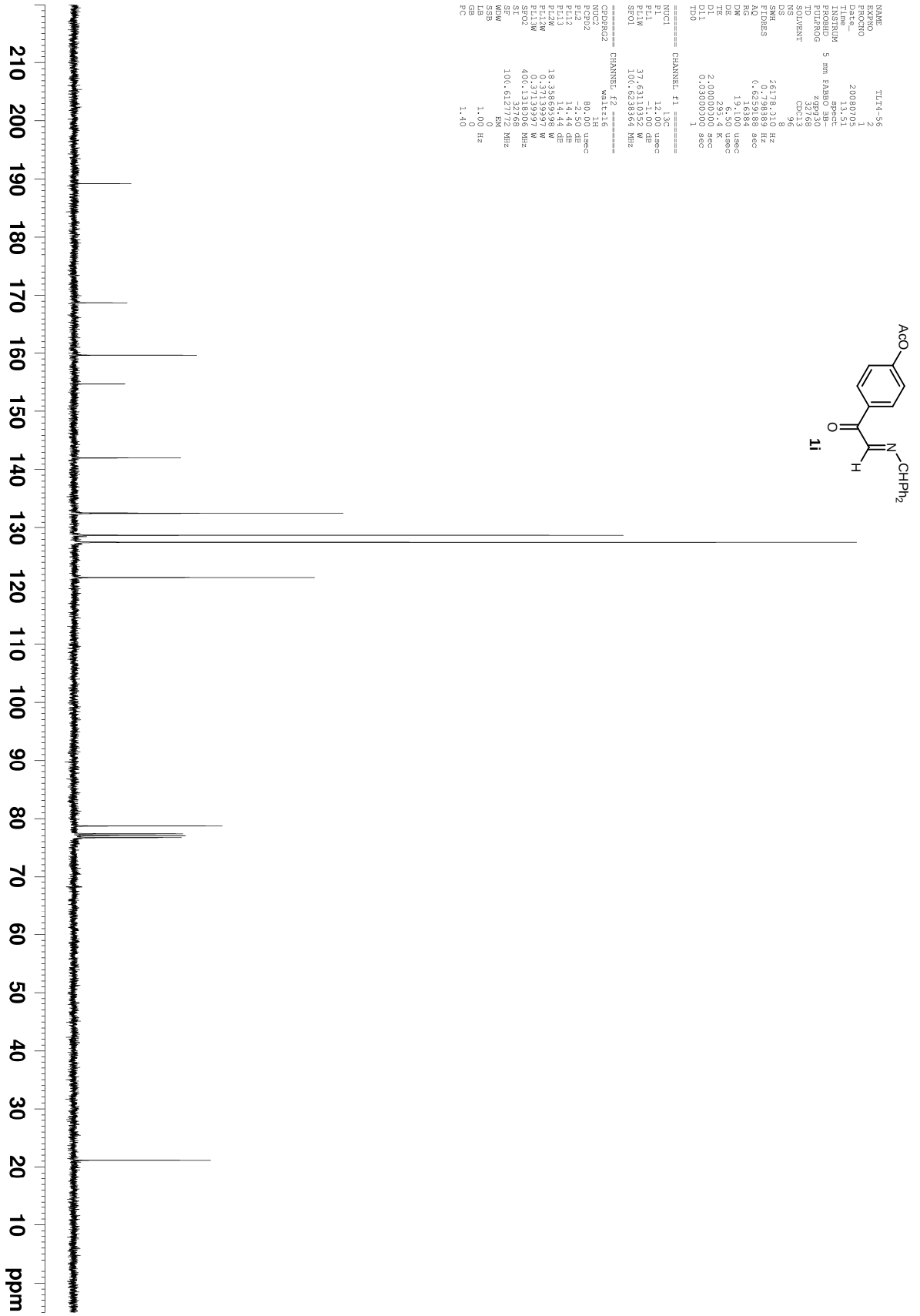

Figure 17. ^{1}H NMR (400 MHz, $CDCl_3$) of **1j**

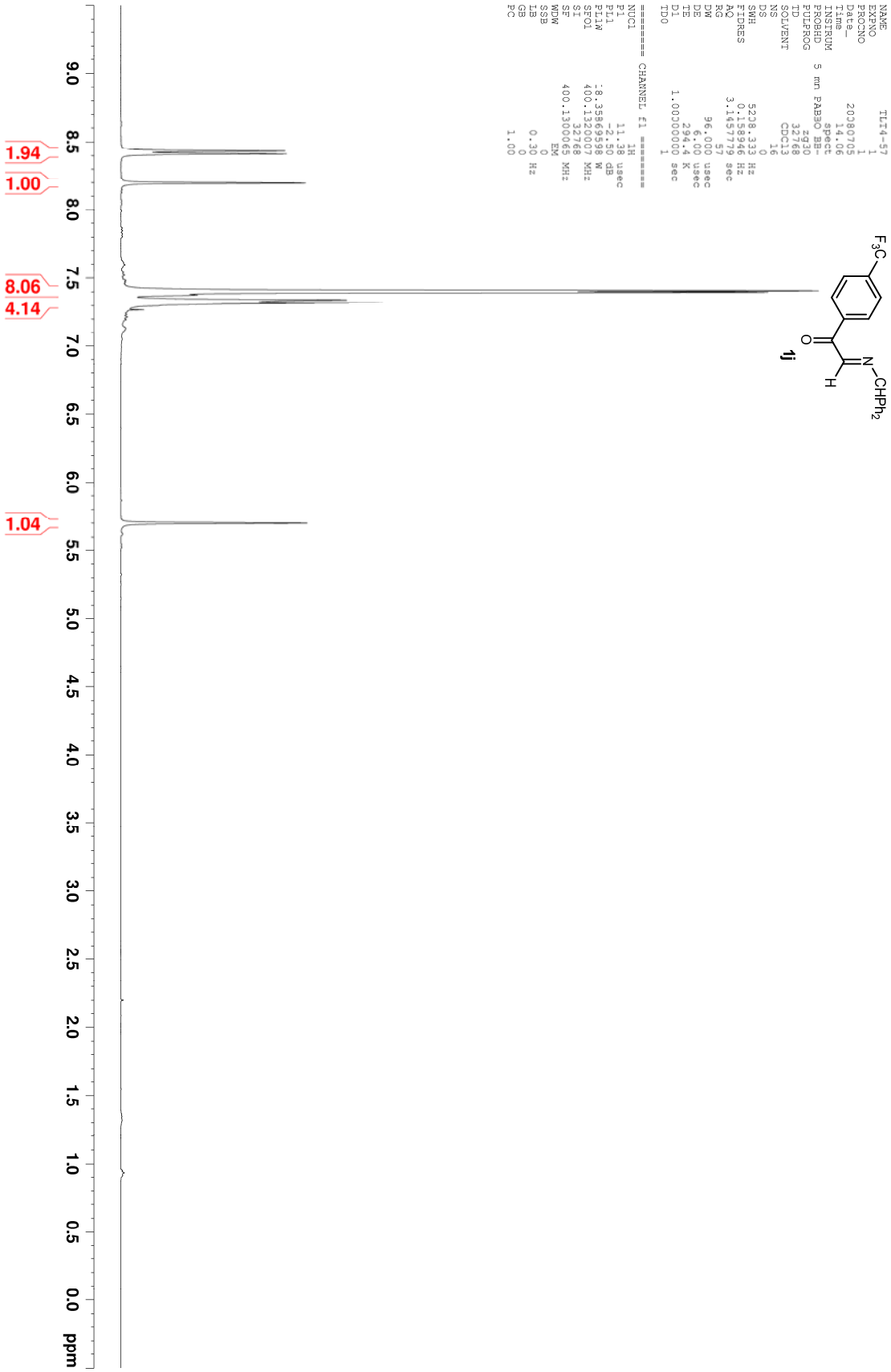

Figure 18. ^{13}C NMR (100 MHz, $CDCl_3$) of **1j**

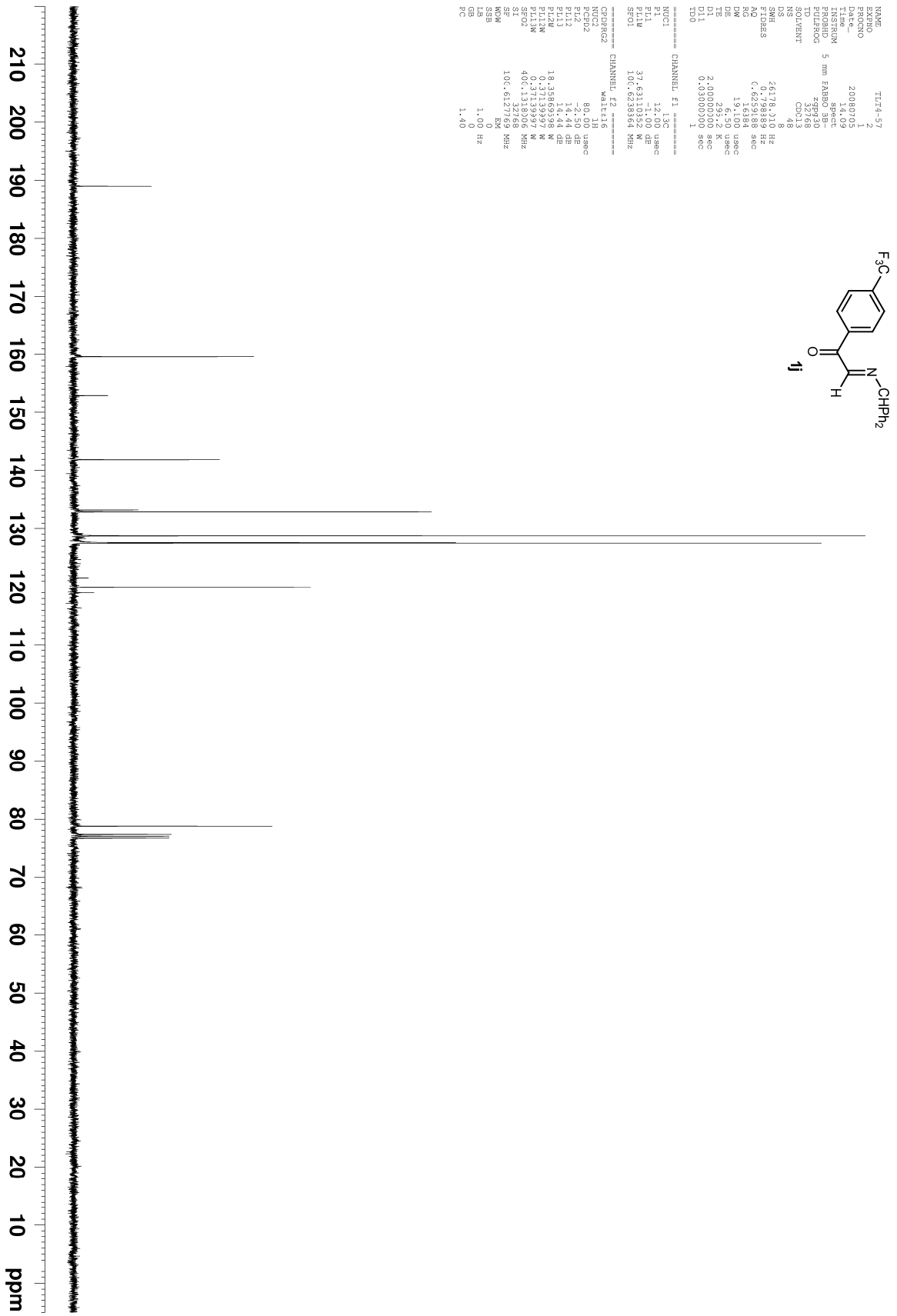

Figure 19. ^{1}H NMR (400 MHz, $CDCl_3$) of **1k**

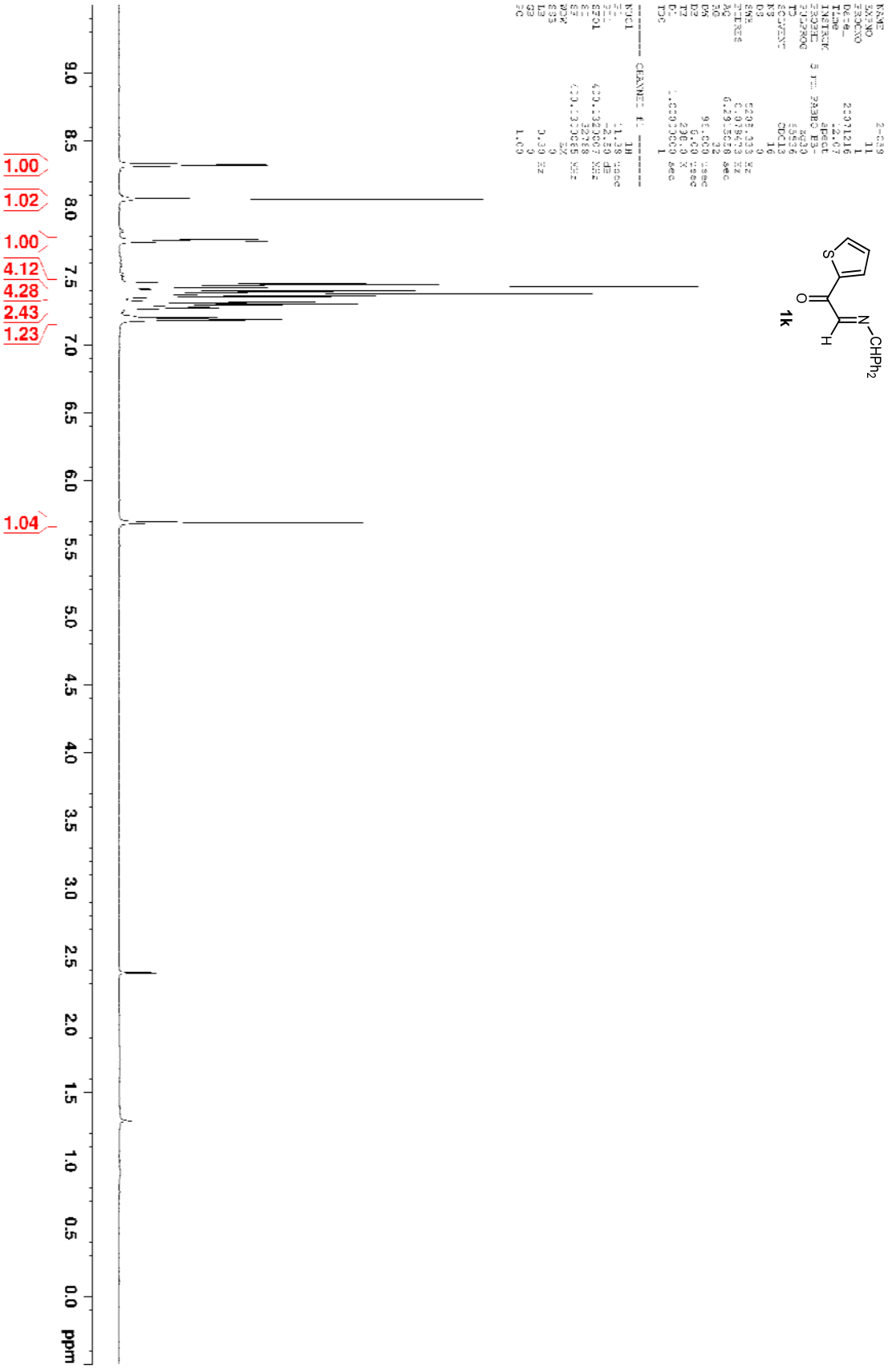

Figure 20. ^{13}C NMR (100 MHz, $CDCl_3$) of **1k**

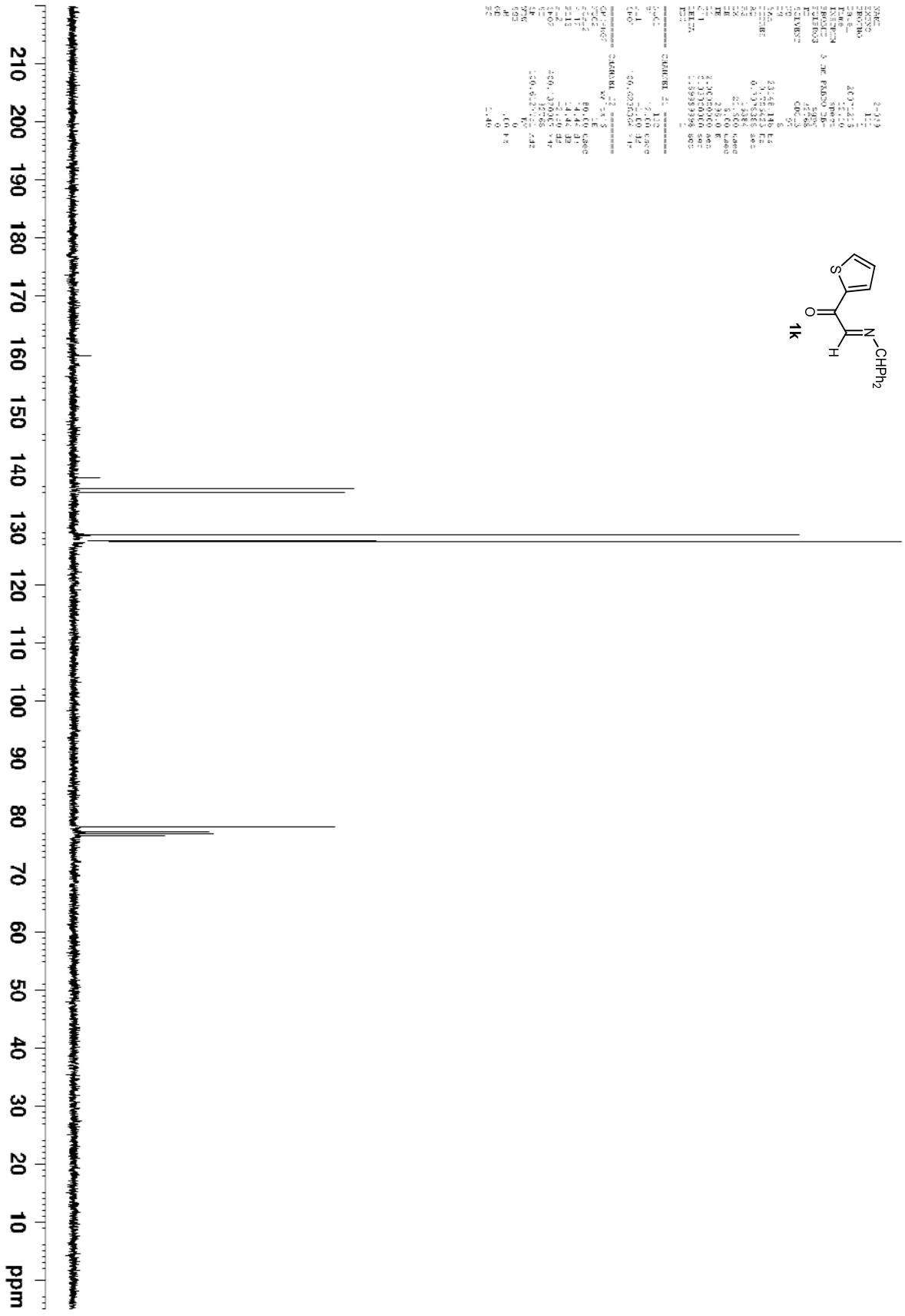

Figure 21. ^{1}H NMR (400 MHz, $CDCl_3$) of **1l**

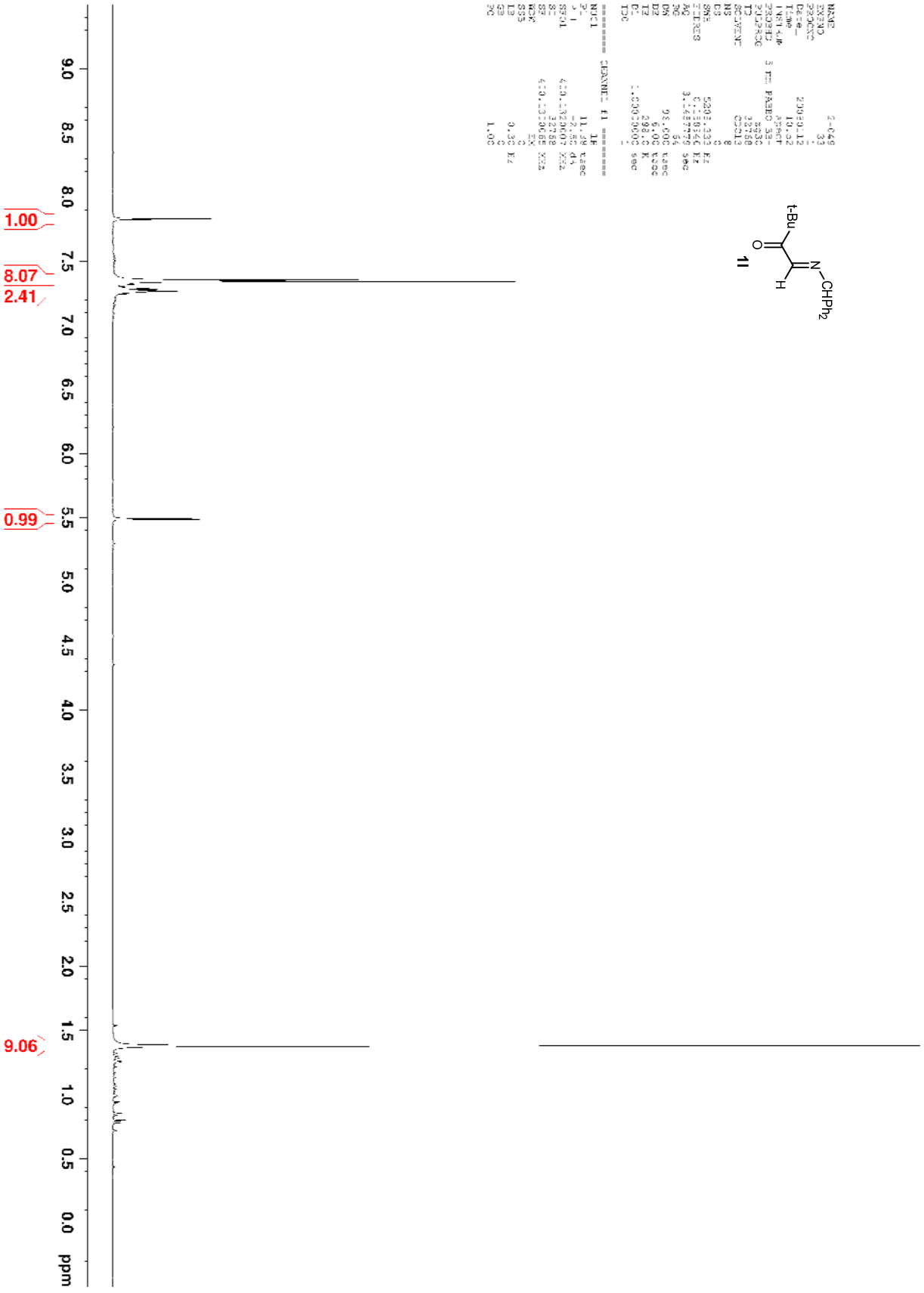

Figure 22. ^{13}C NMR (100 MHz, $CDCl_3$) of **1l**

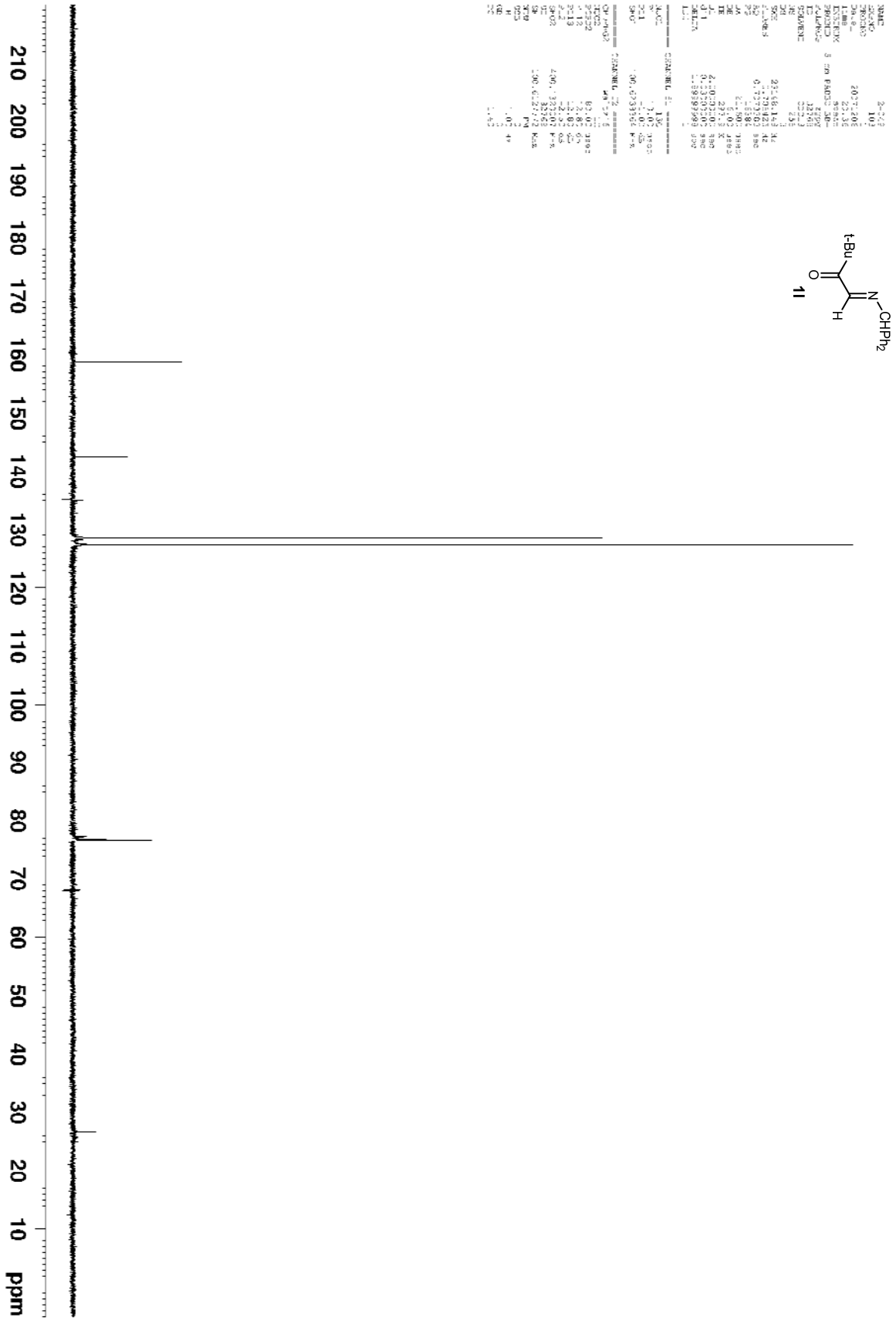

Figure 23. ^{1}H NMR (400 MHz, $CDCl_3$) of **1m**

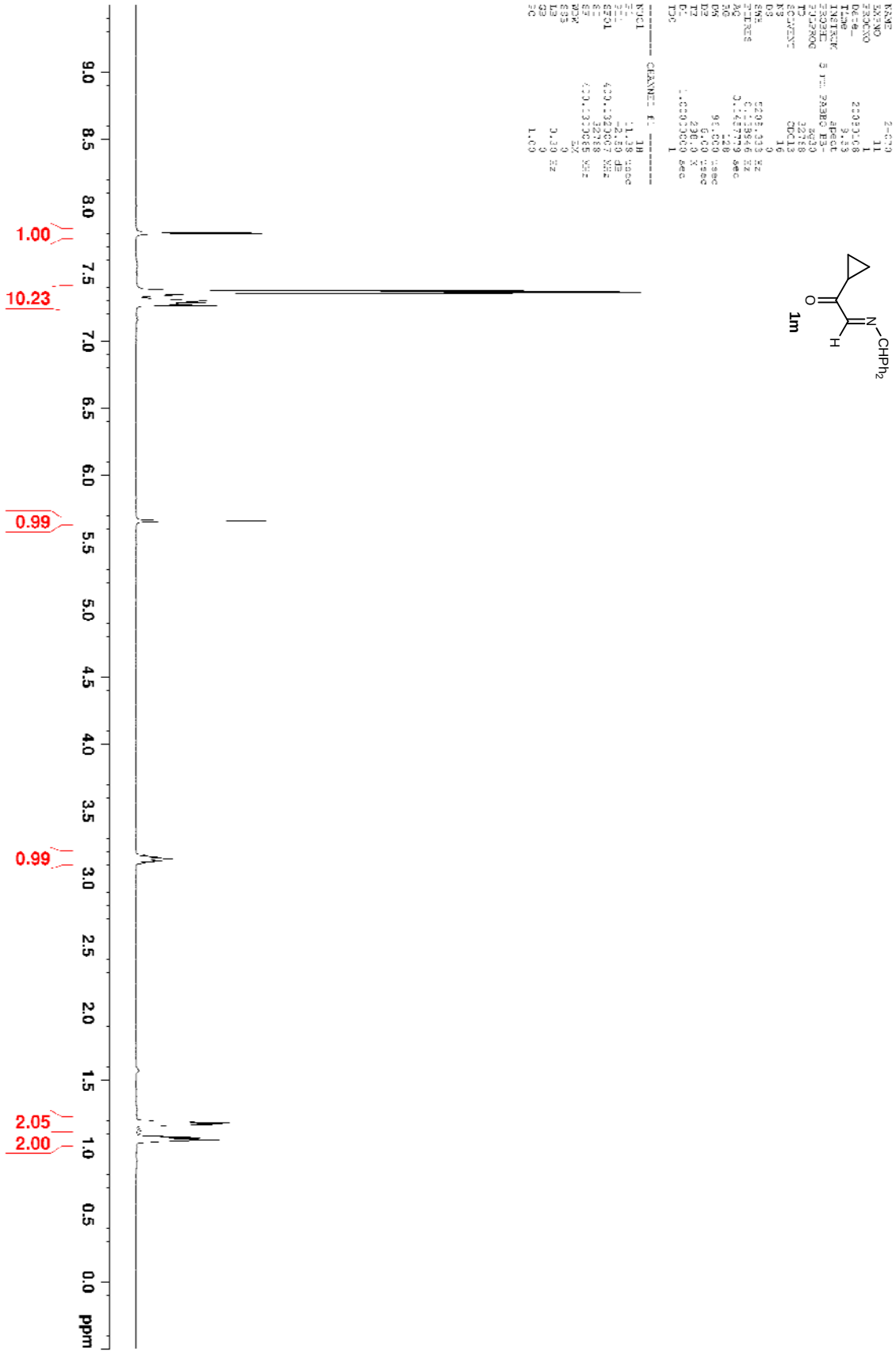

Figure 24. ^{13}C NMR (100 MHz, $CDCl_3$) of **1m**

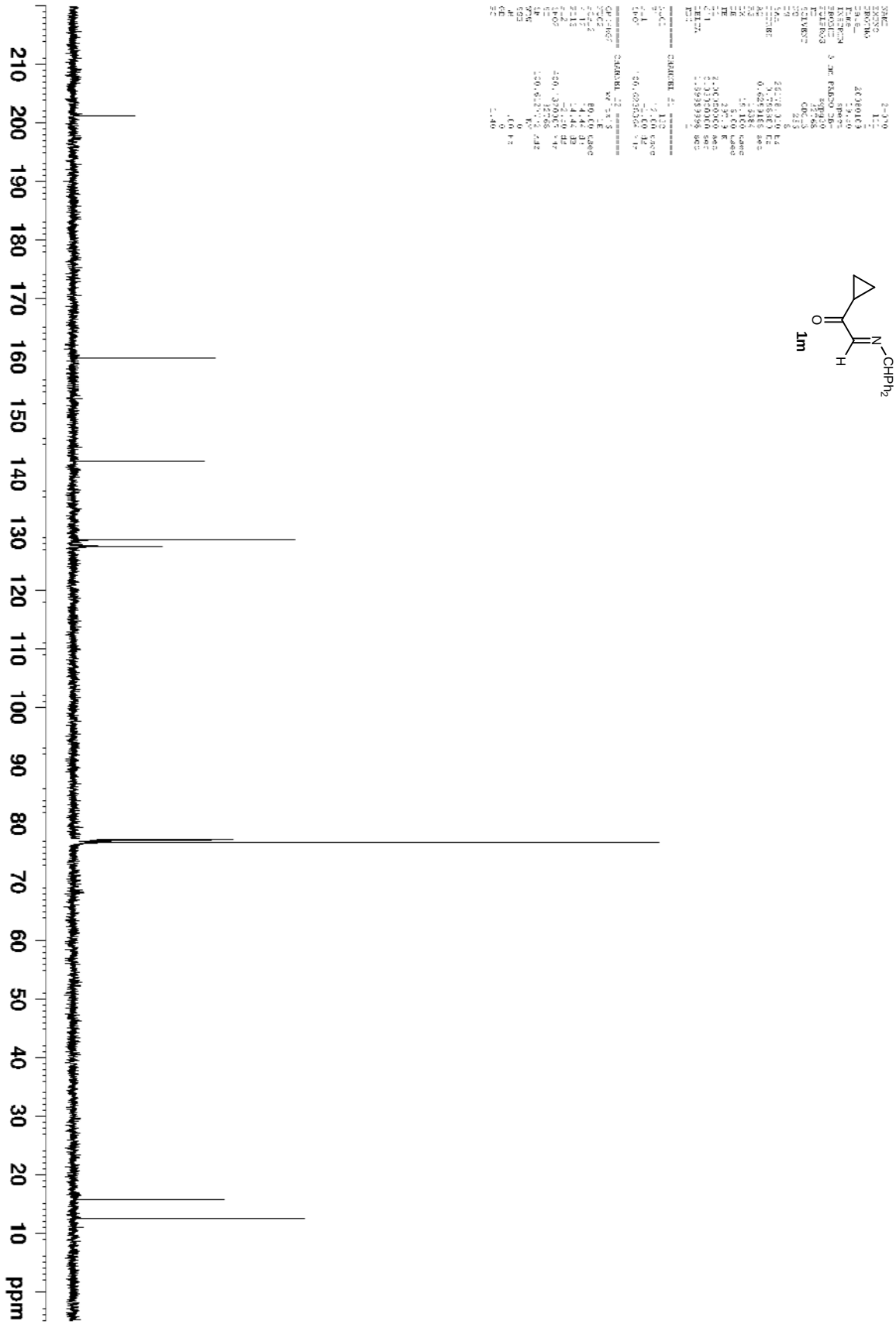

Figure 25. ^{1}H NMR (400 MHz, $CDCl_3$) of **1n**

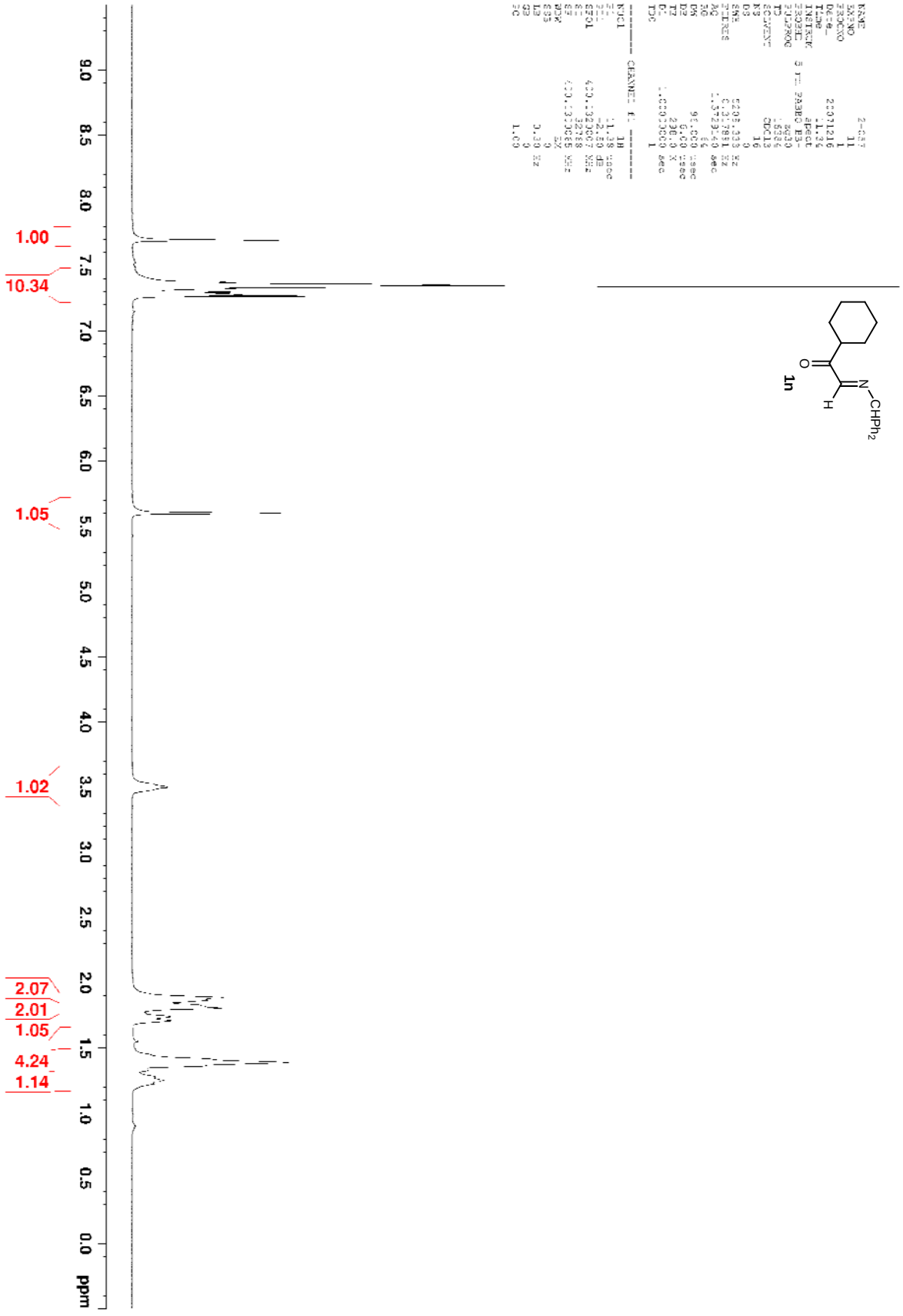

Figure 26. ^{13}C NMR (100 MHz, $CDCl_3$) of **1n**

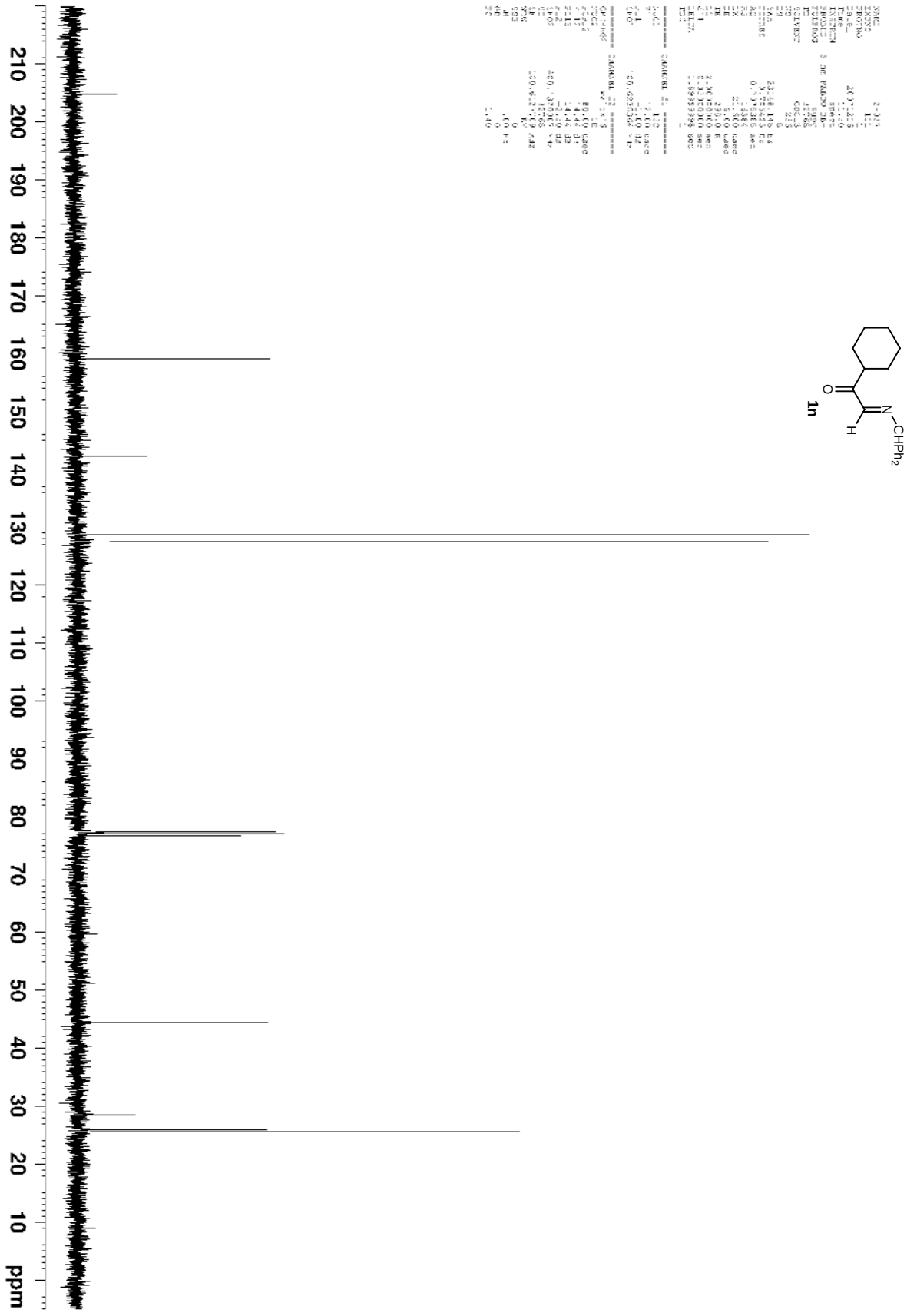

Figure 27. ^{1}H NMR (400 MHz, $CDCl_3$) of **1o**

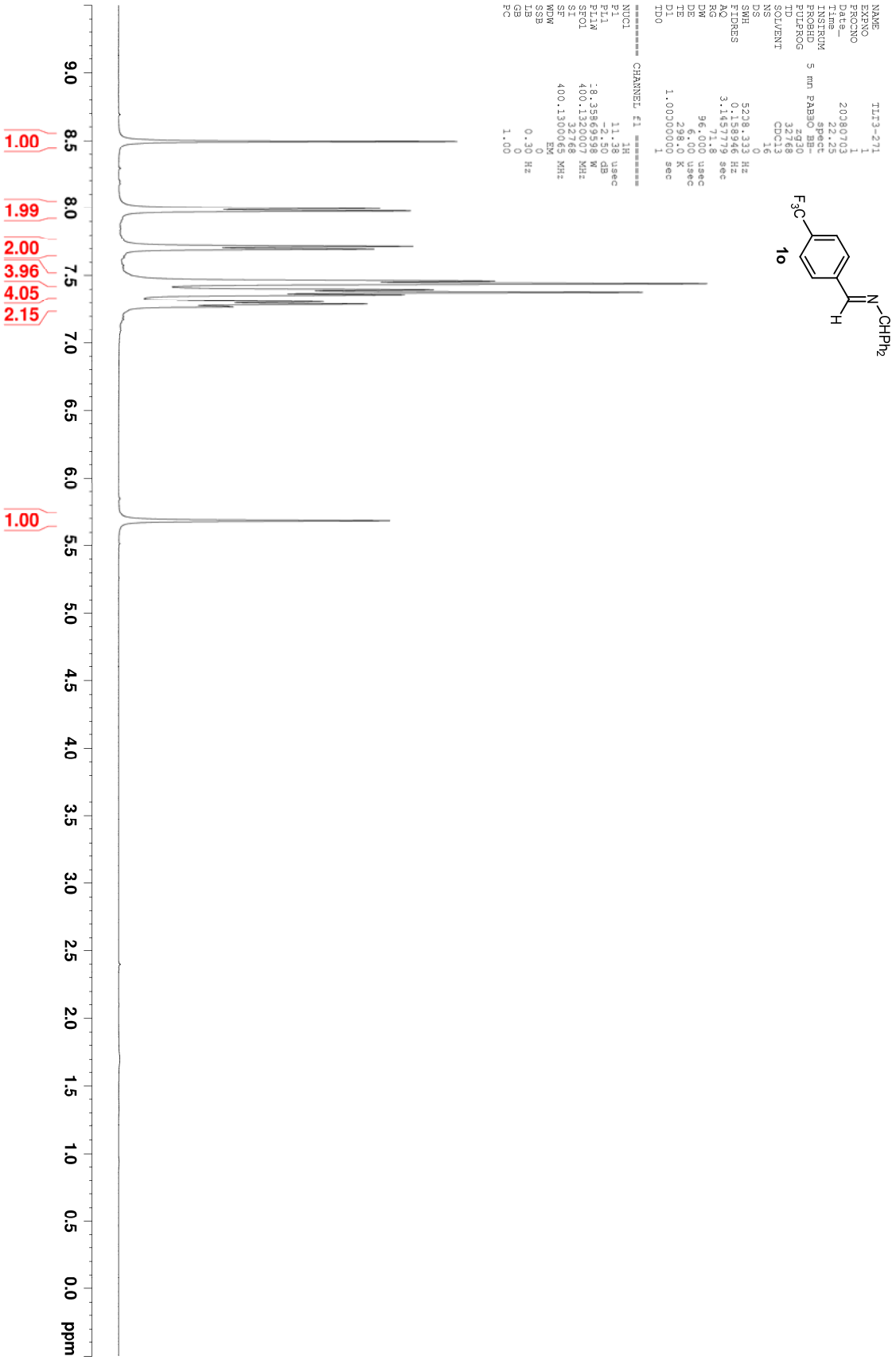

Figure 28. ^{13}C NMR (100 MHz, $CDCl_3$) of **1o**

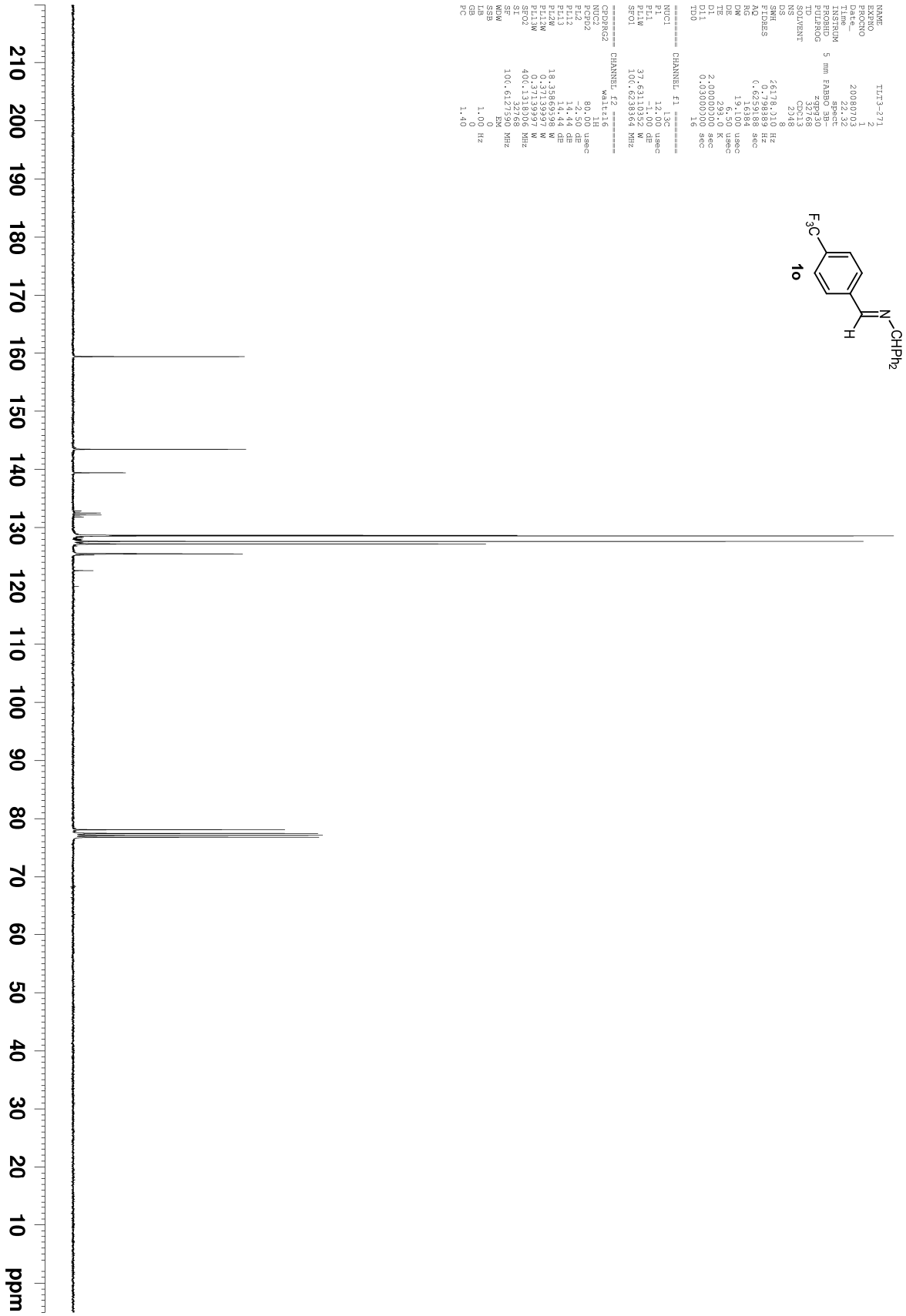

Figure 29. ^{1}H NMR (400 MHz, $CDCl_3$) of **1q**

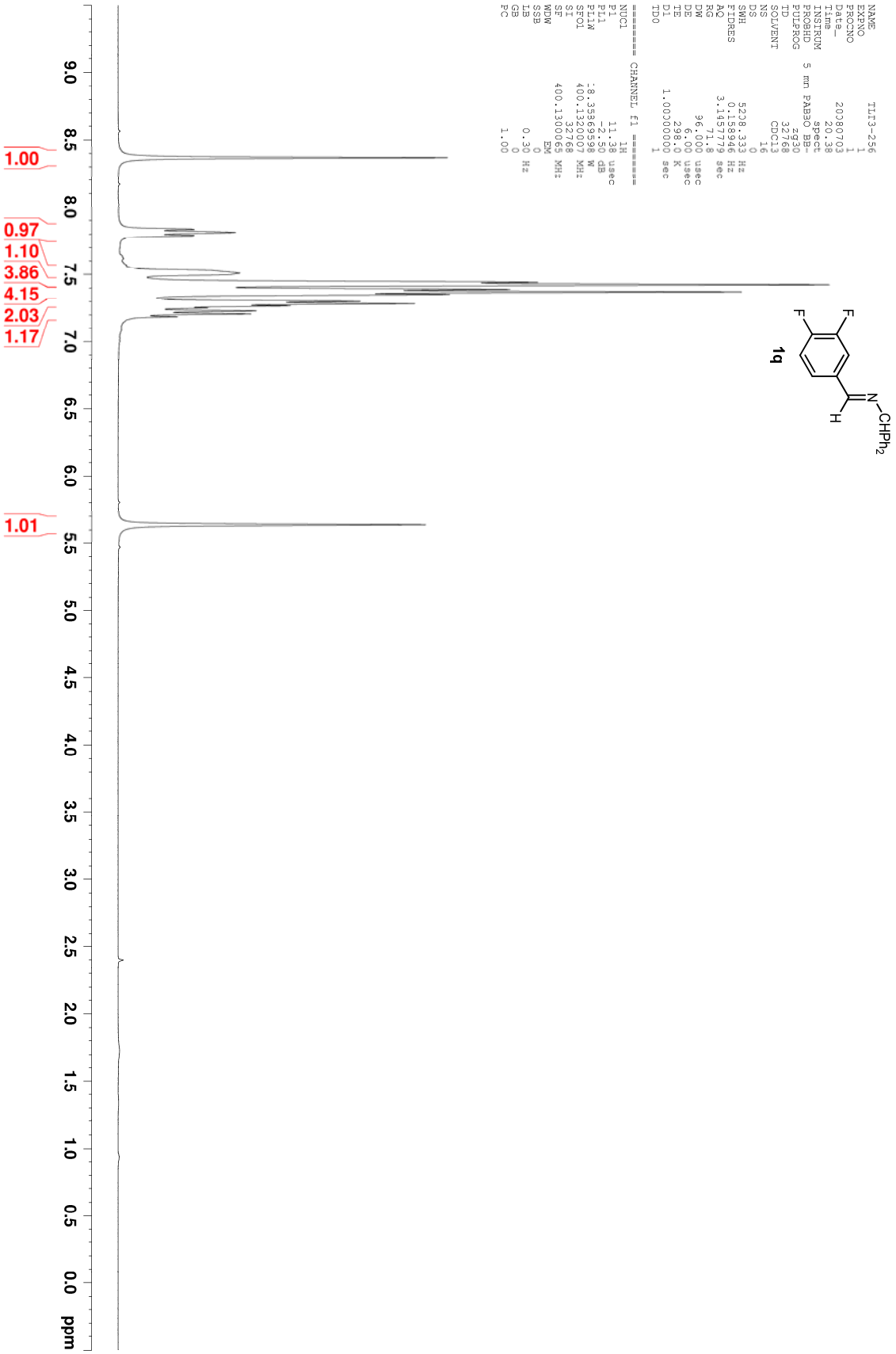

Figure 30. ^{13}C NMR (100 MHz, $CDCl_3$) of **1q**

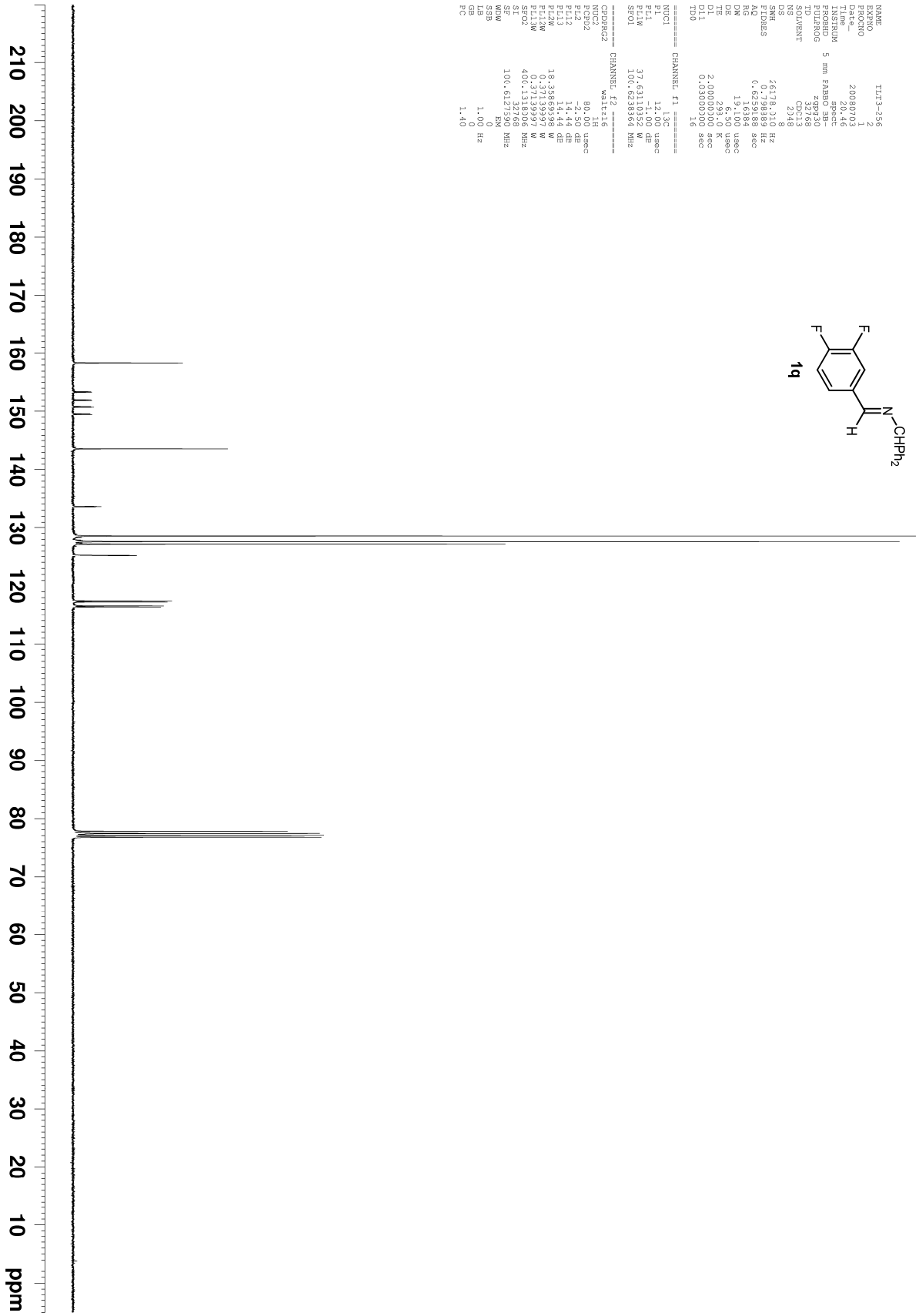

Figure 31. ^{1}H NMR (400 MHz, $CDCl_3$) of **1t**

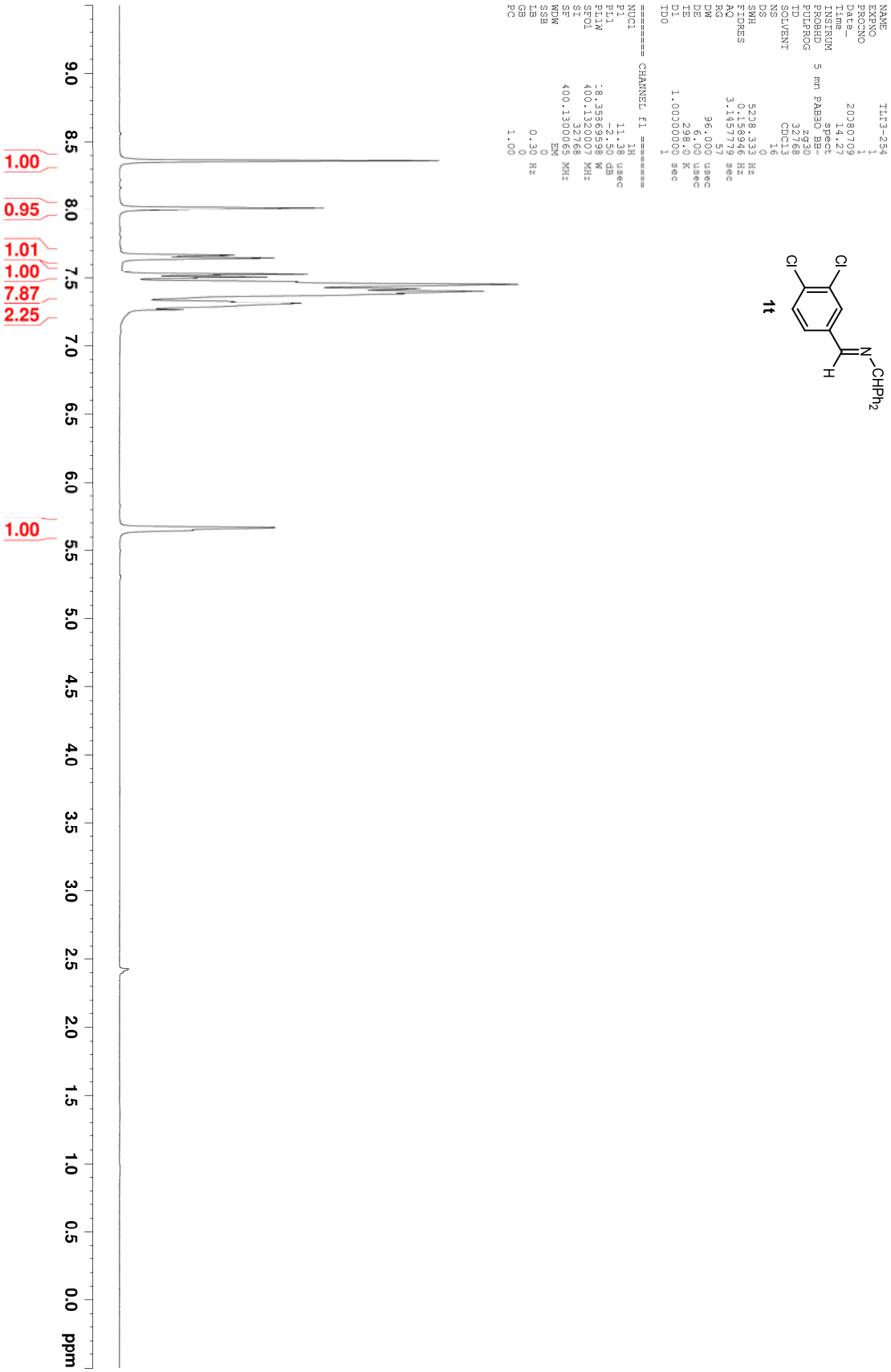

Figure 32. ^{13}C NMR (100 MHz, $CDCl_3$) of **1t**

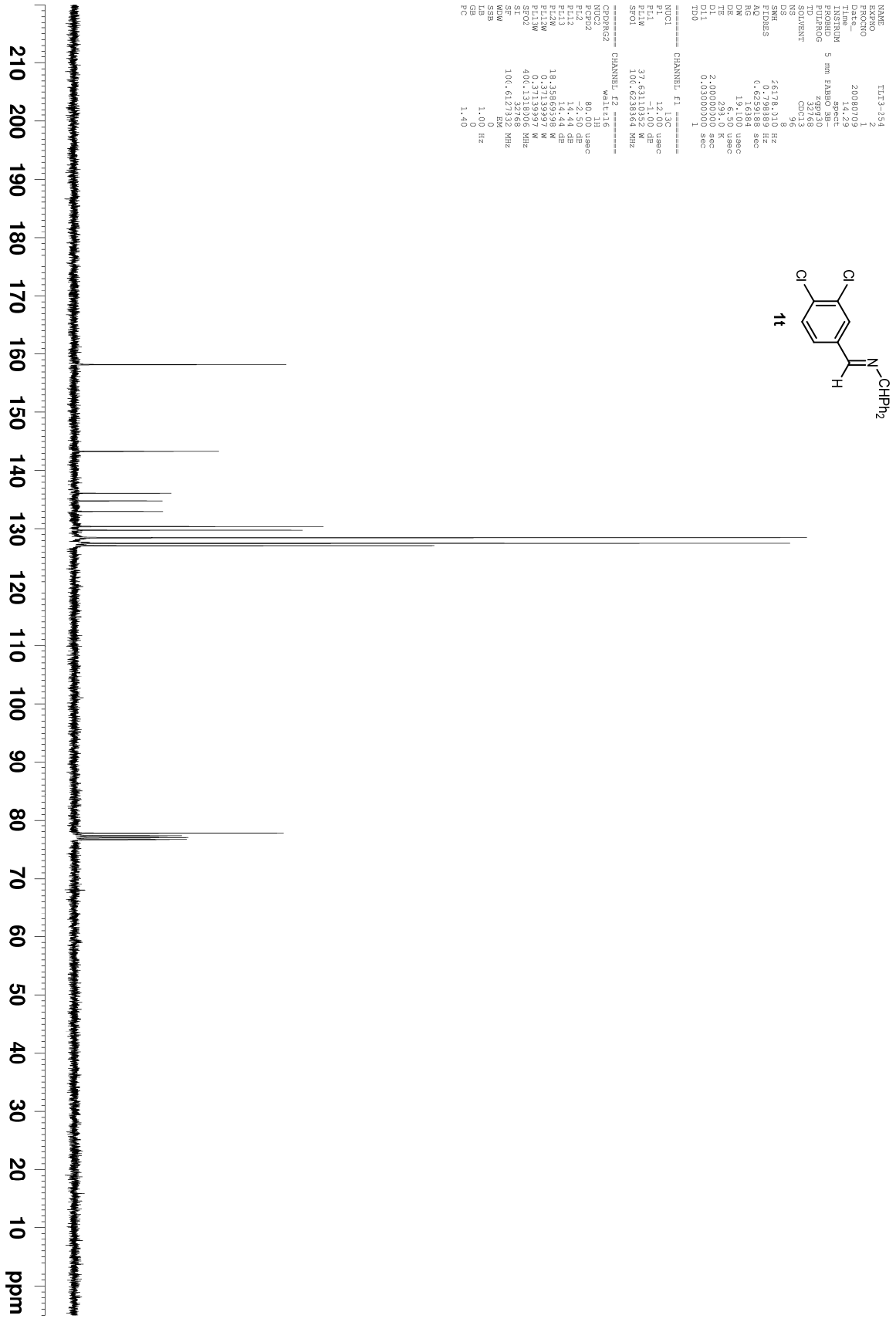

Figure 33. ^{1}H NMR (400 MHz, $CDCl_3$) of **1w**

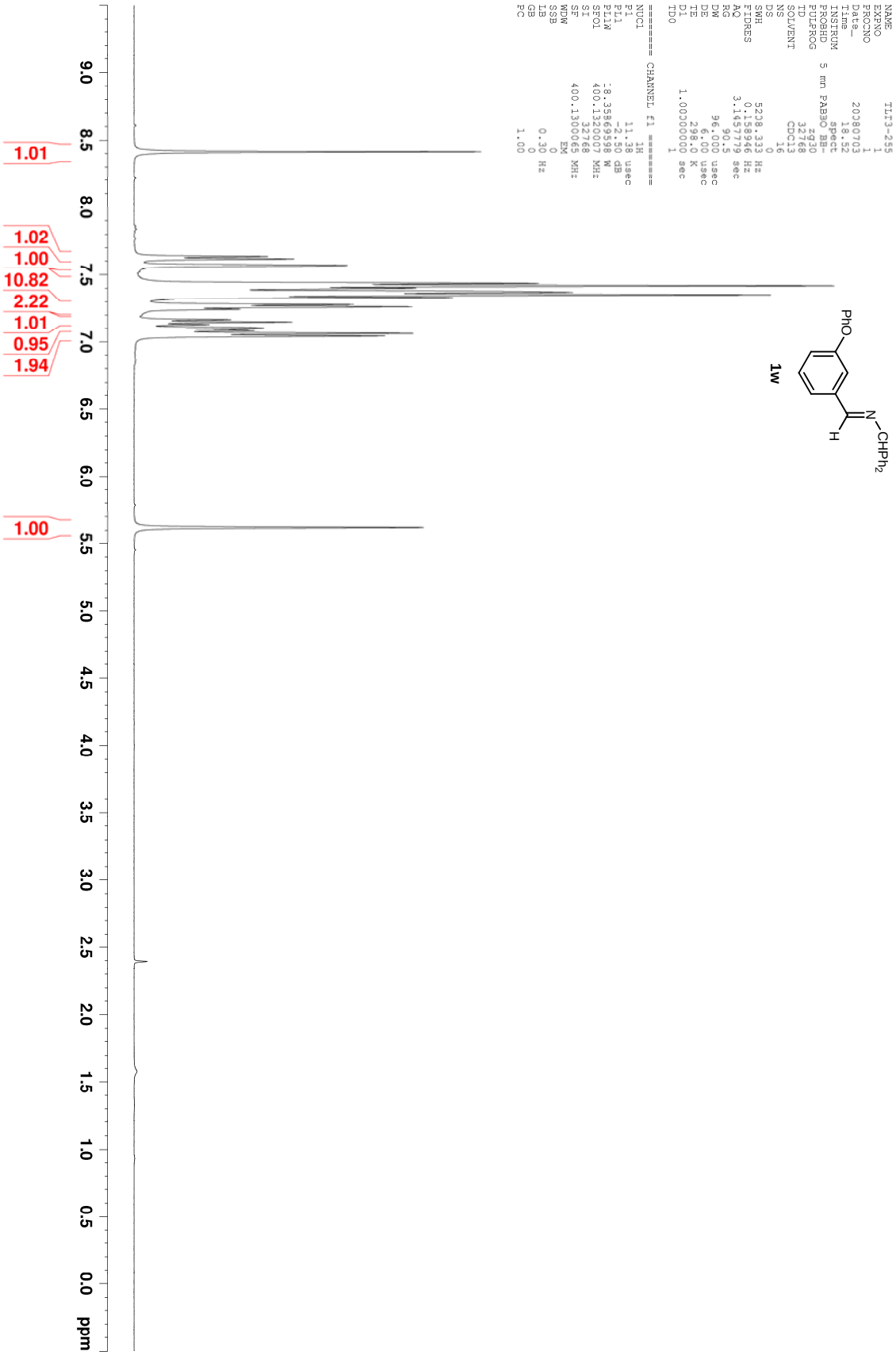

Figure 34. ^{13}C NMR (100 MHz, $CDCl_3$) of **1w**

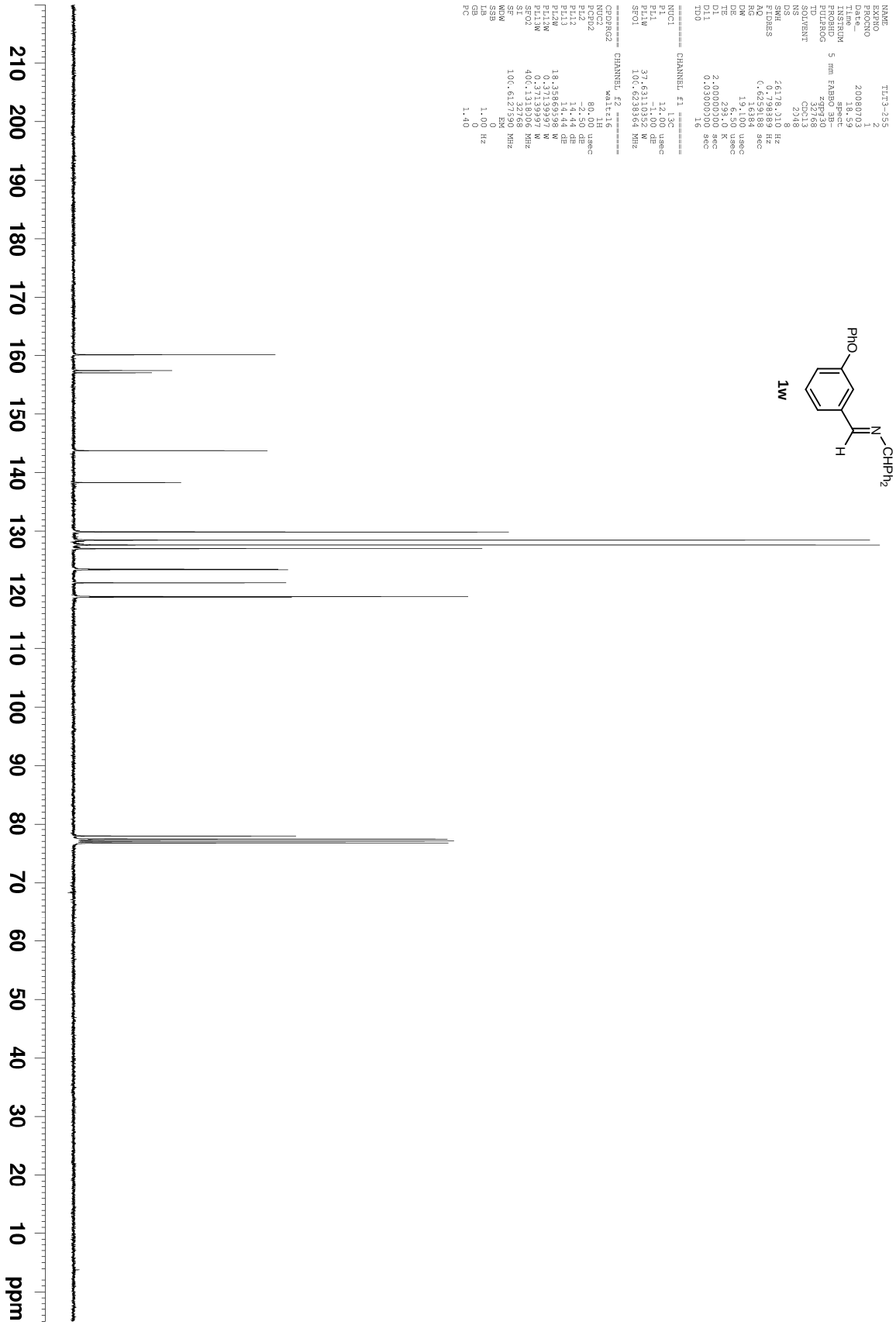

Figure 35. ^{1}H NMR (400 MHz, $CDCl_3$) of **S1**

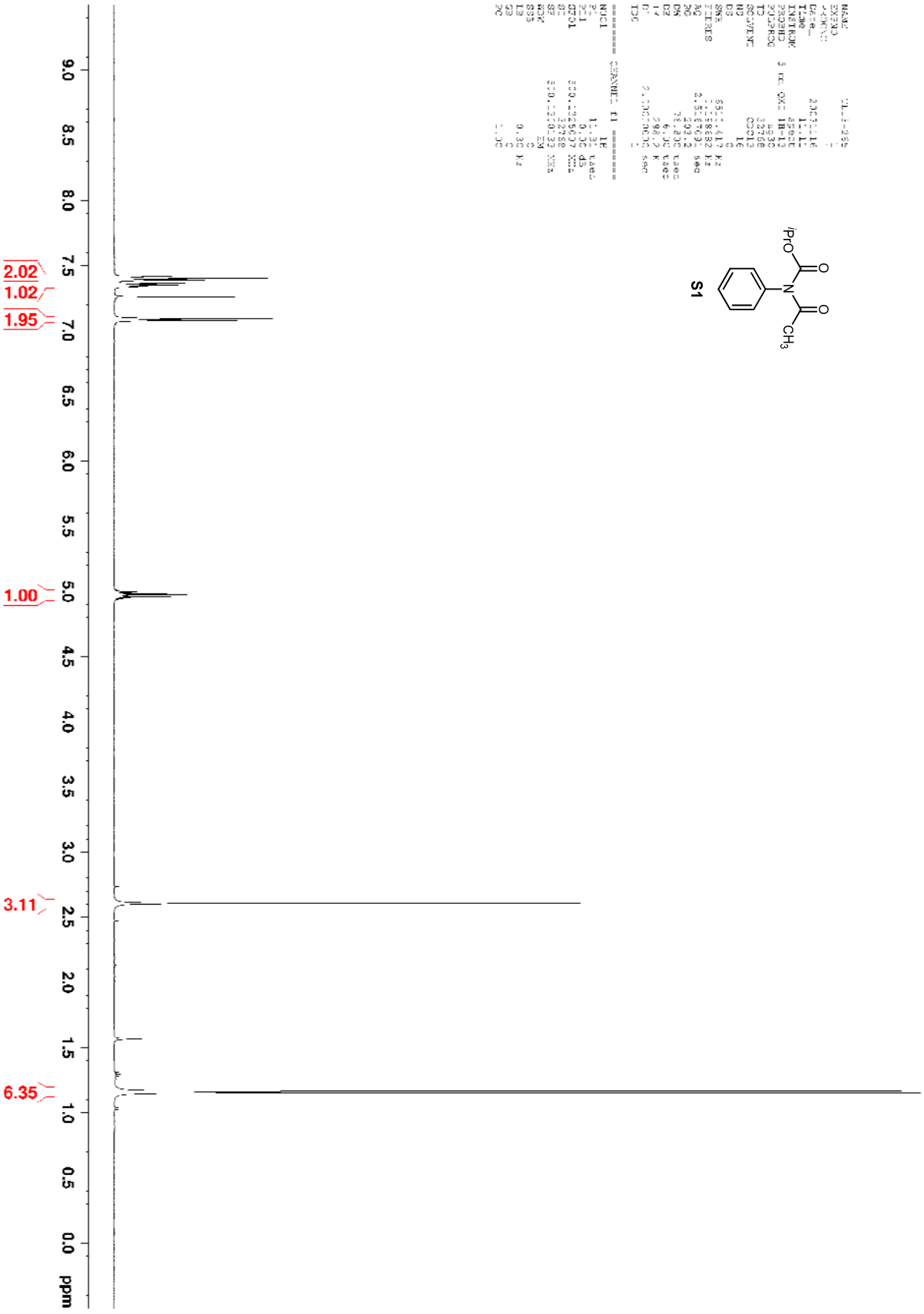

Figure 36. ^{13}C NMR (100 MHz, $CDCl_3$) of **S1**

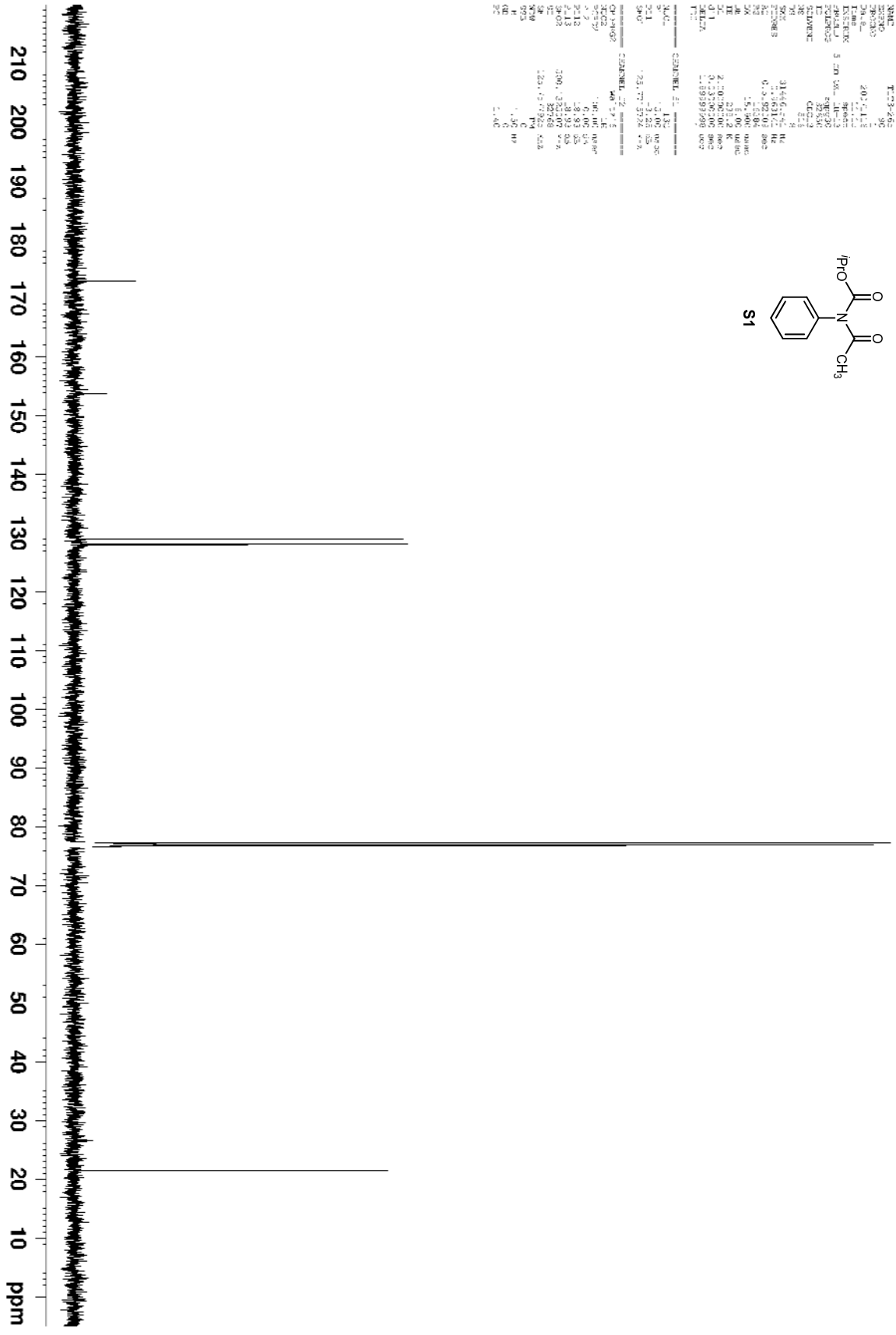

Figure 37. ^{1}H NMR (400 MHz, $CDCl_3$) of **2**

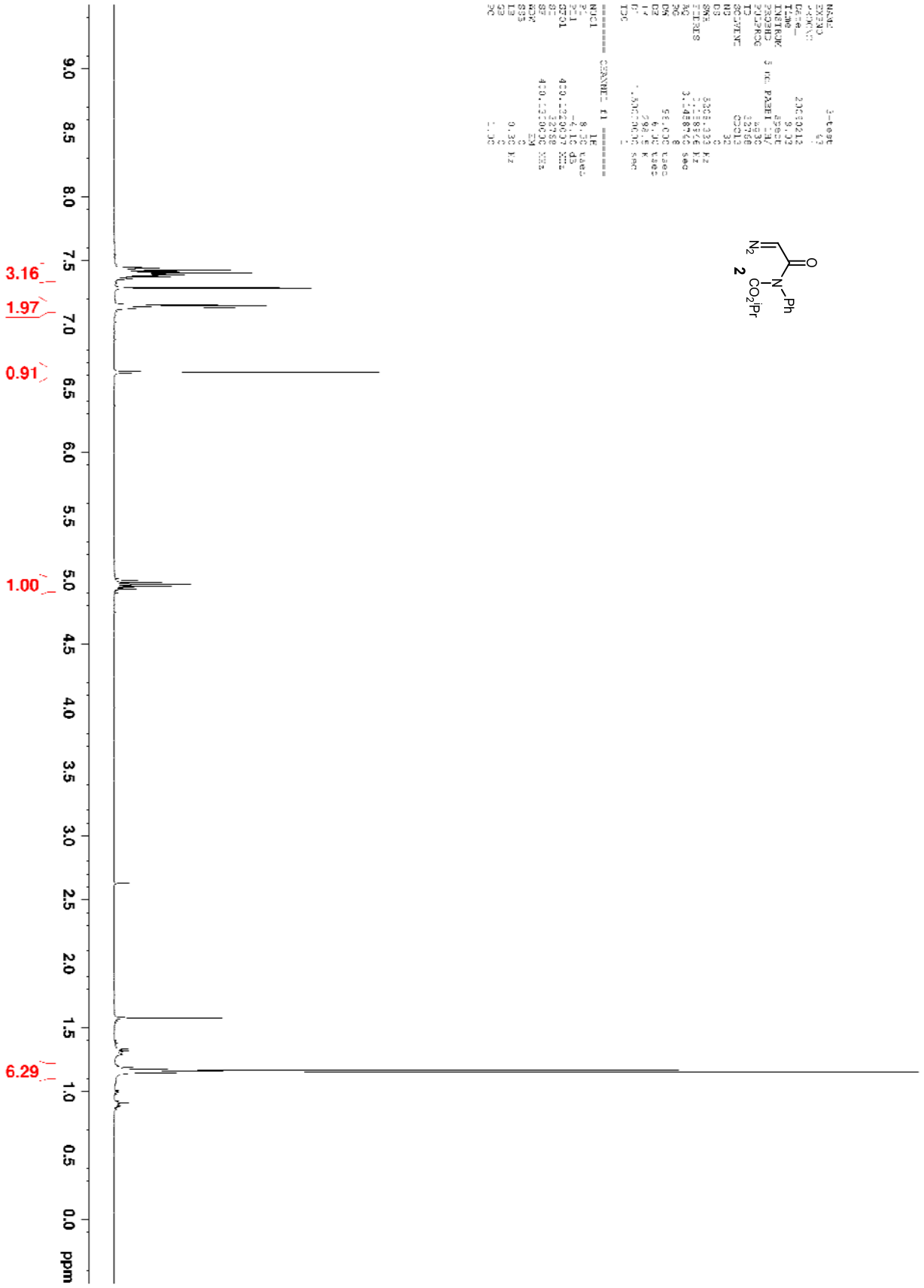

Figure 38. ^{13}C NMR (100 MHz, $CDCl_3$) of **2**

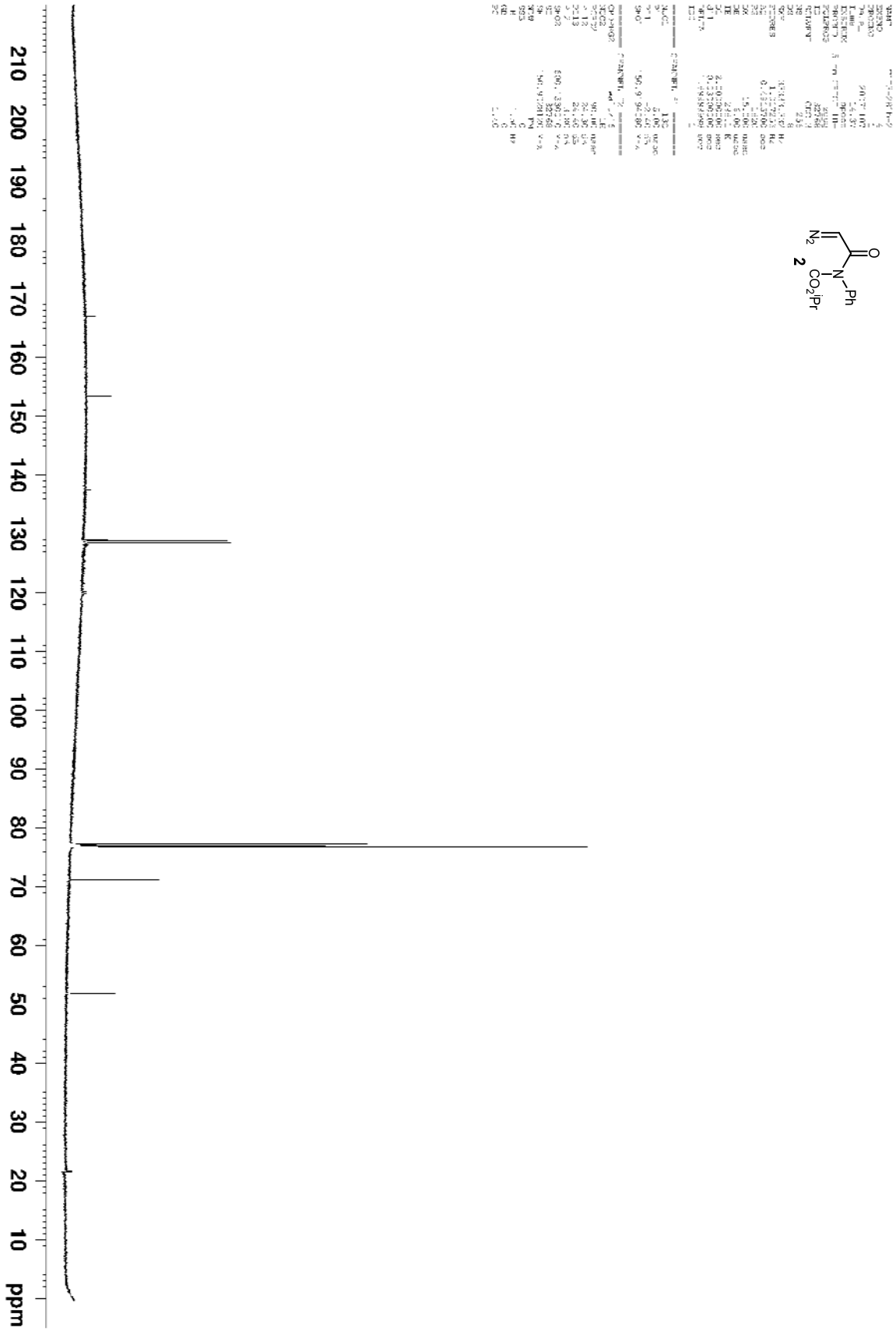

Figure 39. ^{1}H NMR (500 MHz, $CDCl_3$) of **3a**

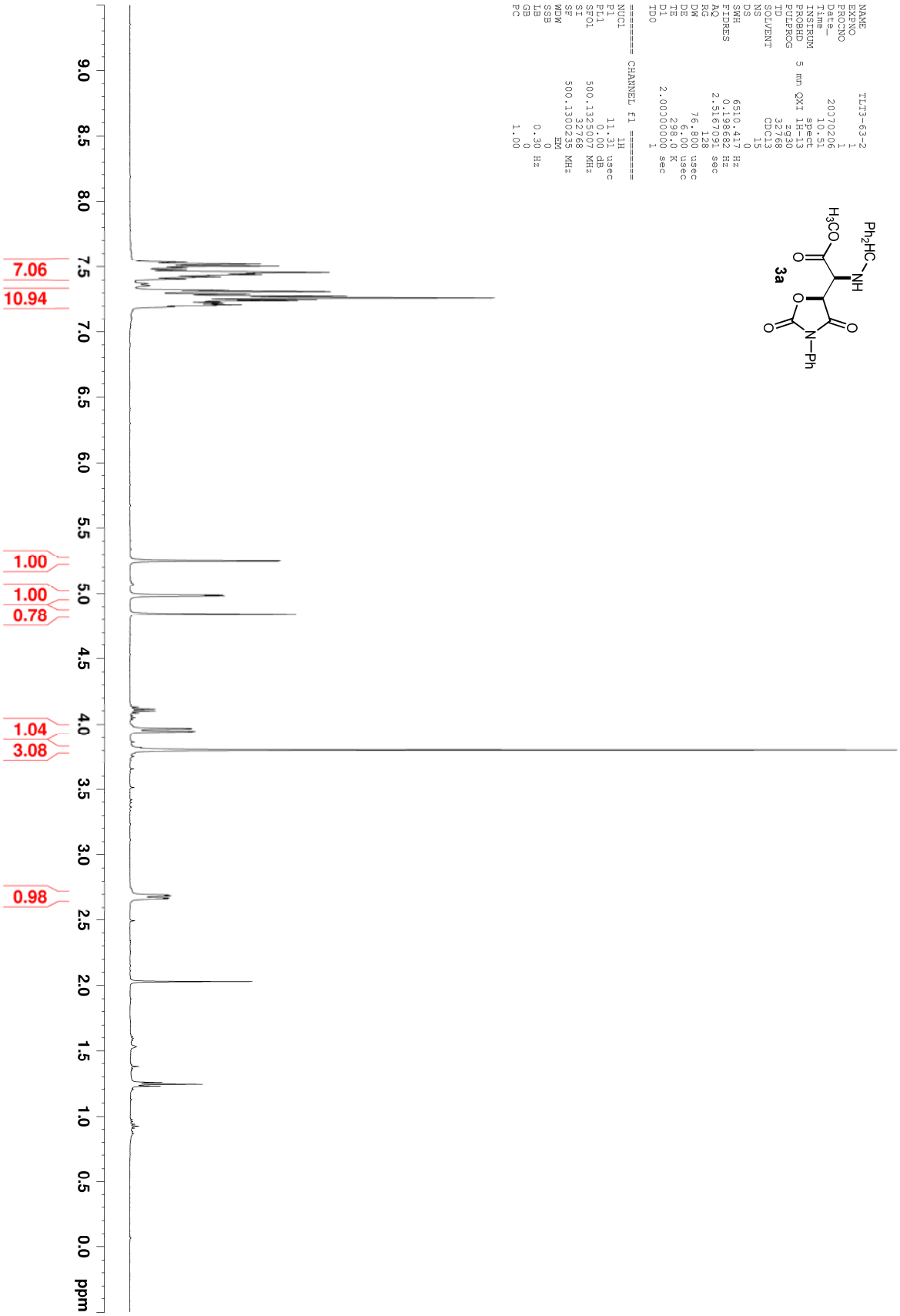

Figure 40. ^{13}C NMR (125 MHz, $CDCl_3$) of **3a**

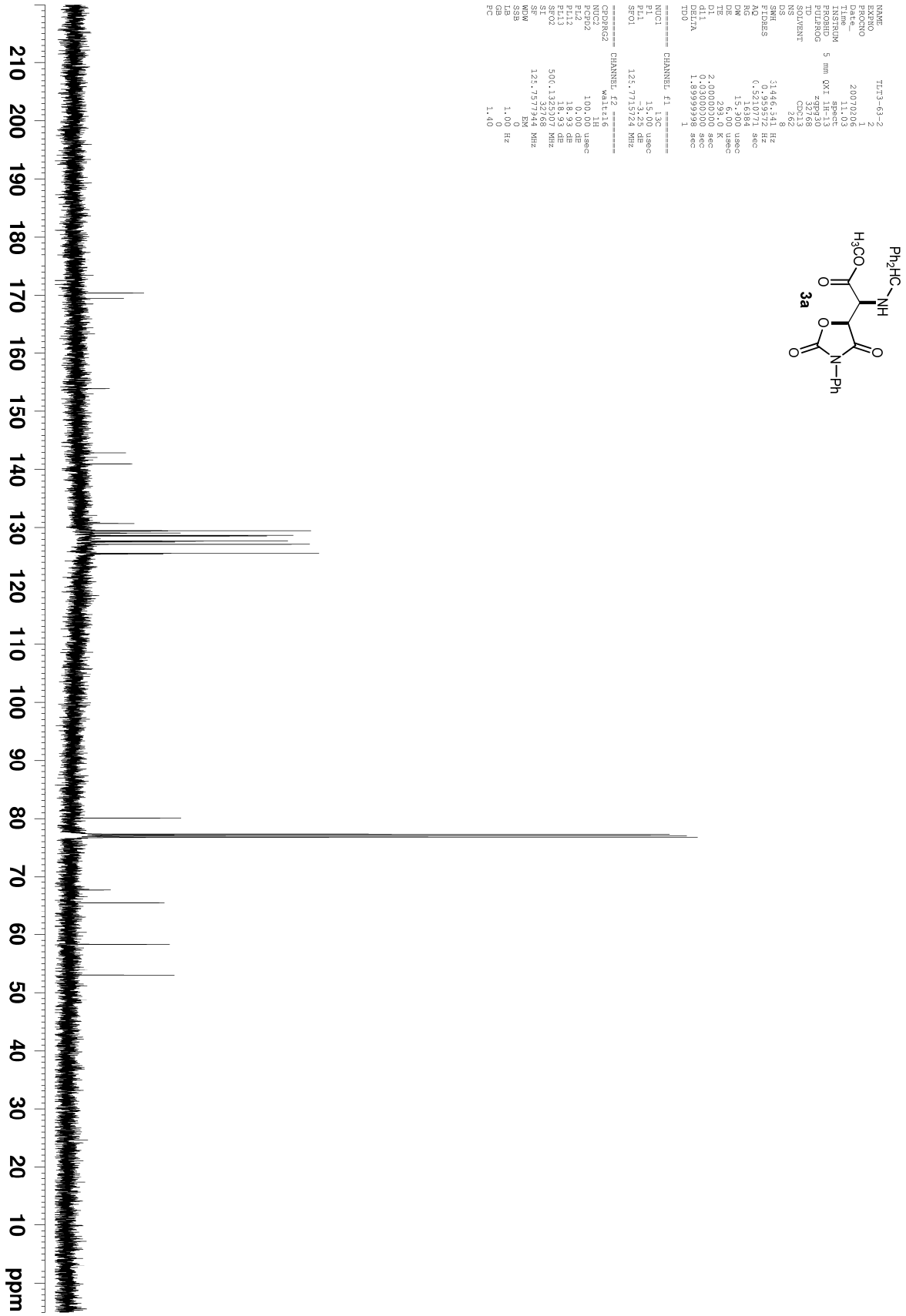

Figure 41. ^{1}H NMR (500 MHz, $CDCl_3$) of **3b**

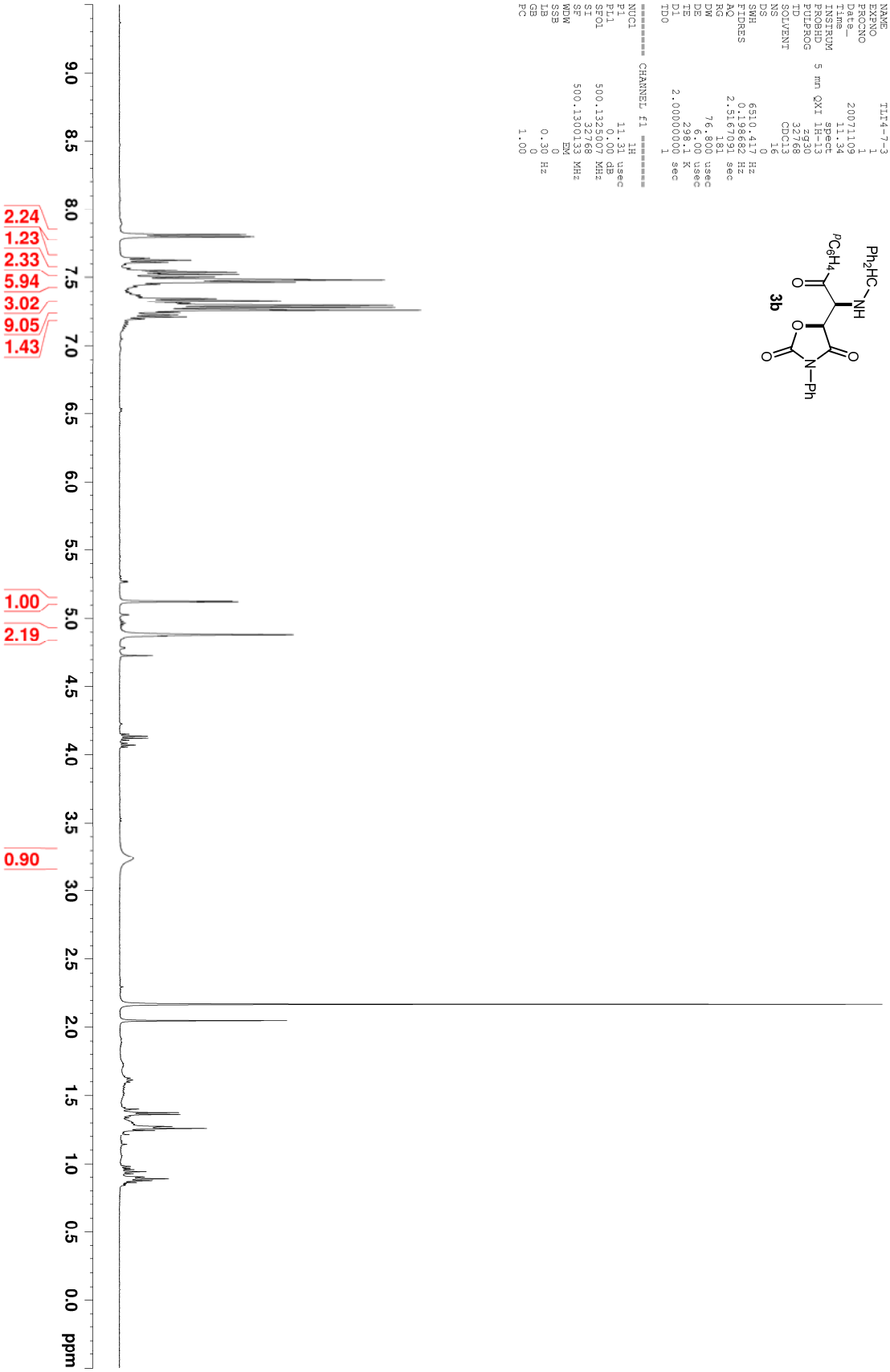

Figure 42. ^{13}C NMR (125 MHz, $CDCl_3$) of **3b**

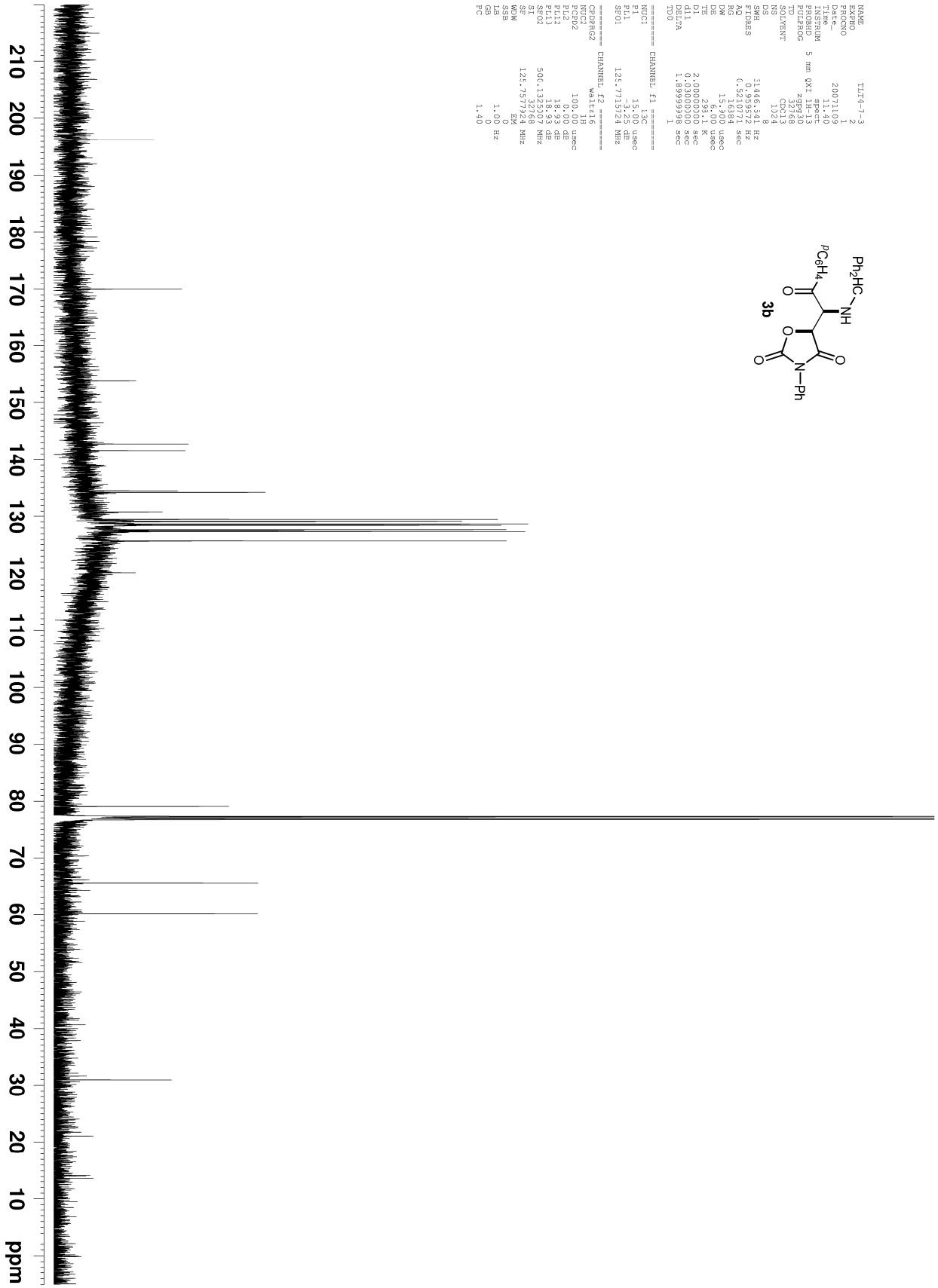

Figure 43. ^{1}H NMR (600 MHz, $CDCl_3$) of **3c**

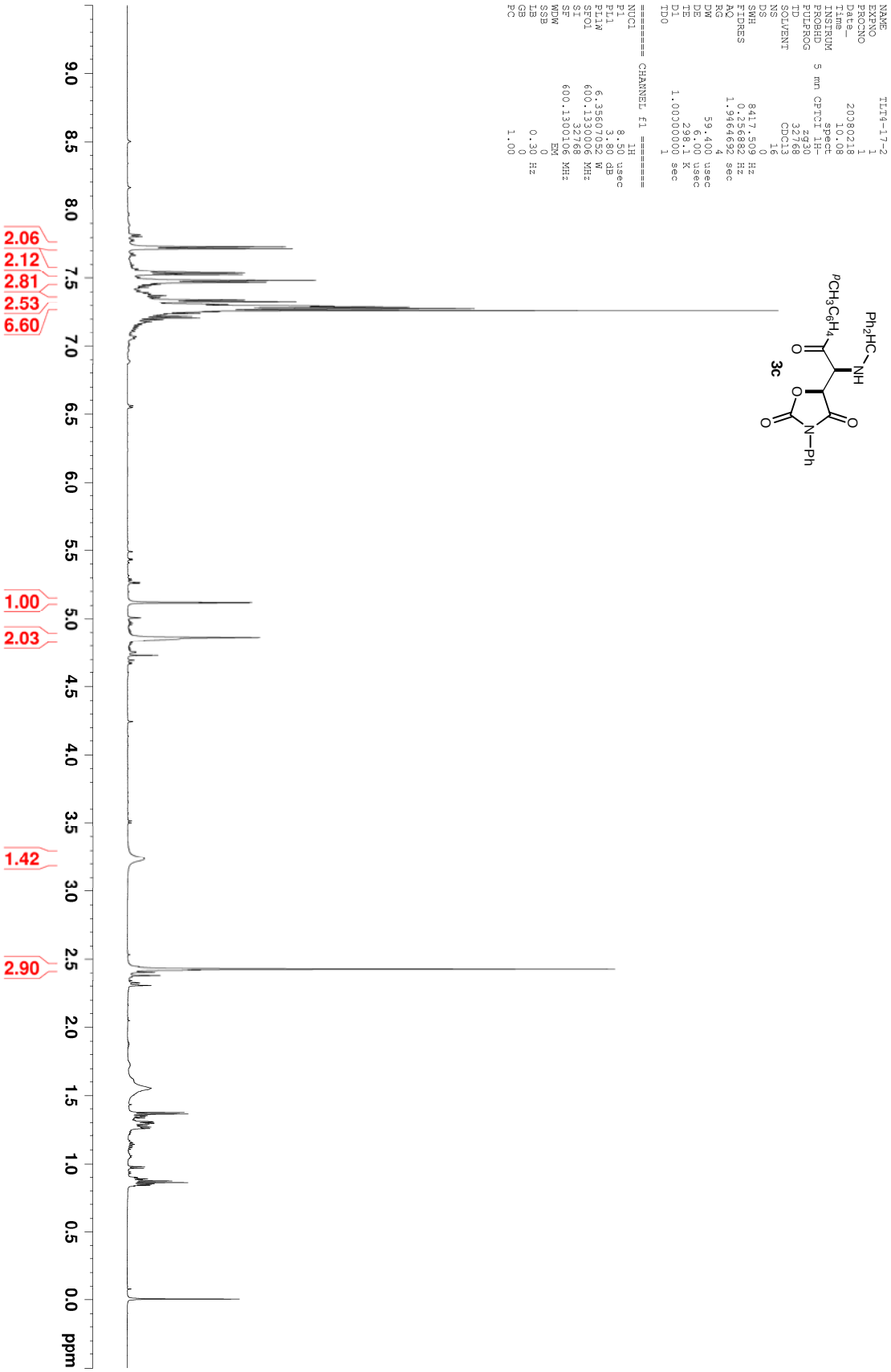

Figure 44. ^{13}C NMR (150 MHz, $CDCl_3$) of **3c**

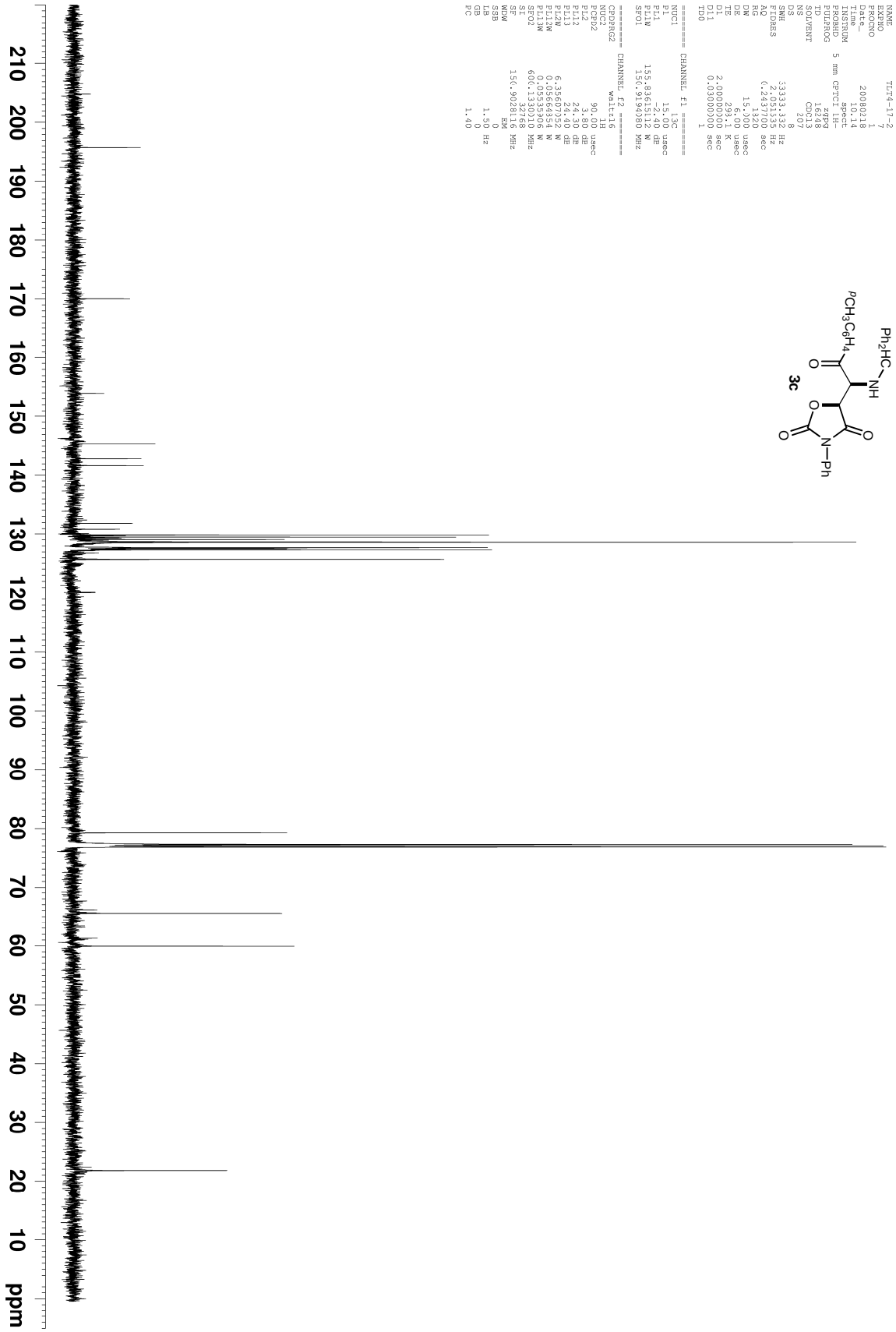

Figure 45. ^{1}H NMR (600 MHz, $CDCl_3$) of **3d**

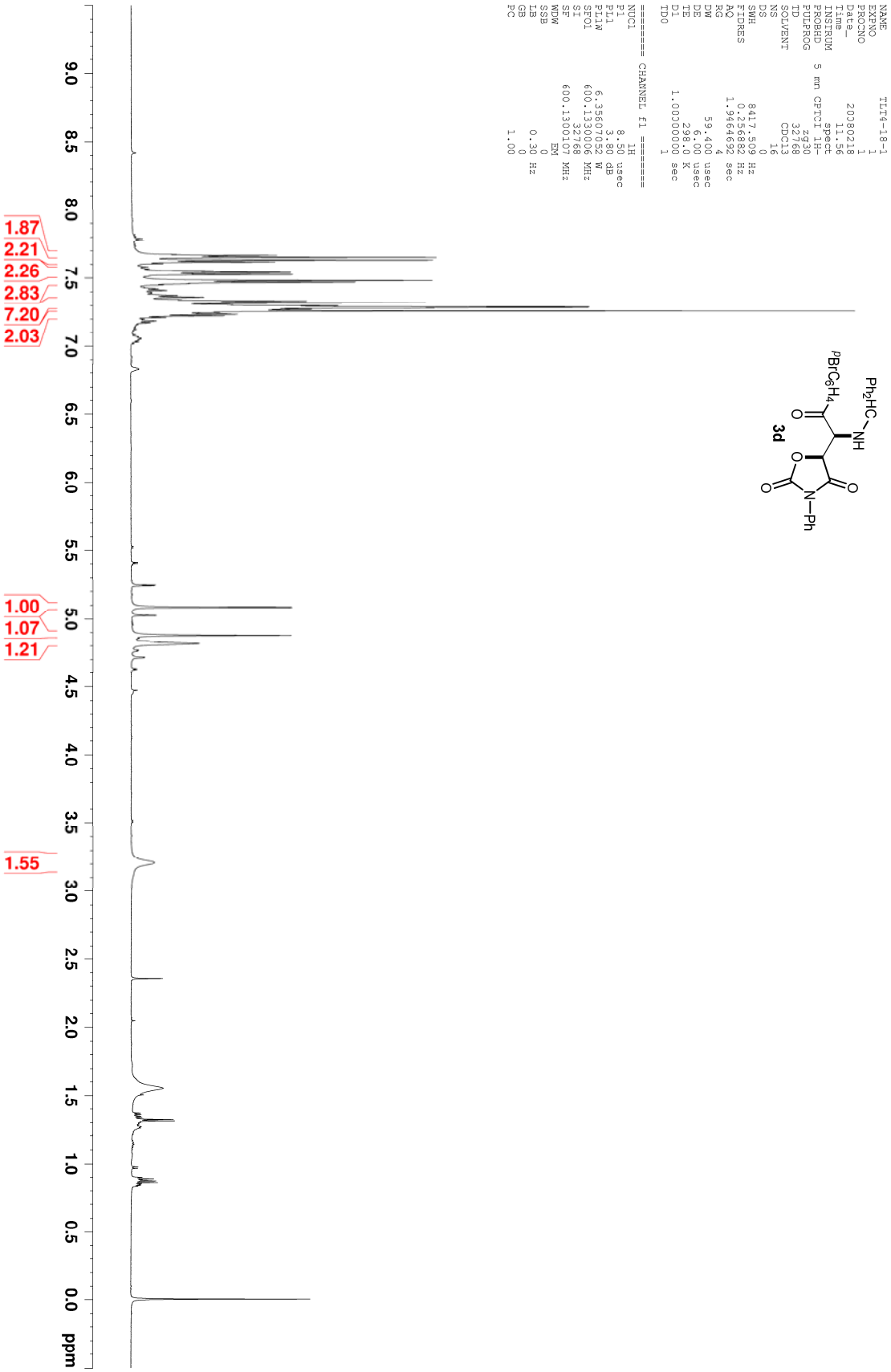

Figure 46. ^{13}C NMR (150 MHz, $CDCl_3$) of **3d**

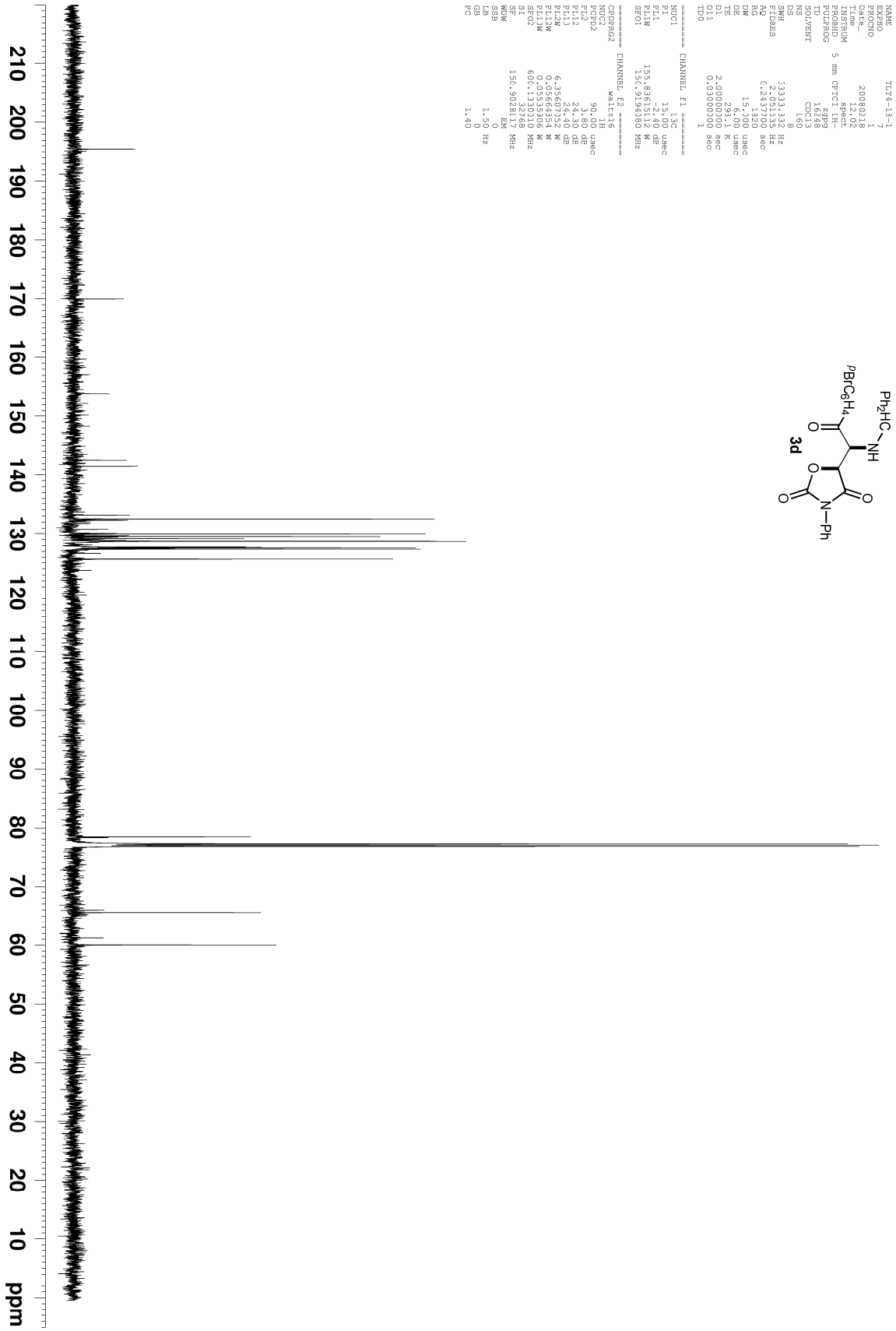

Figure 47. ^{1}H NMR (600 MHz, $CDCl_3$) of **3e**

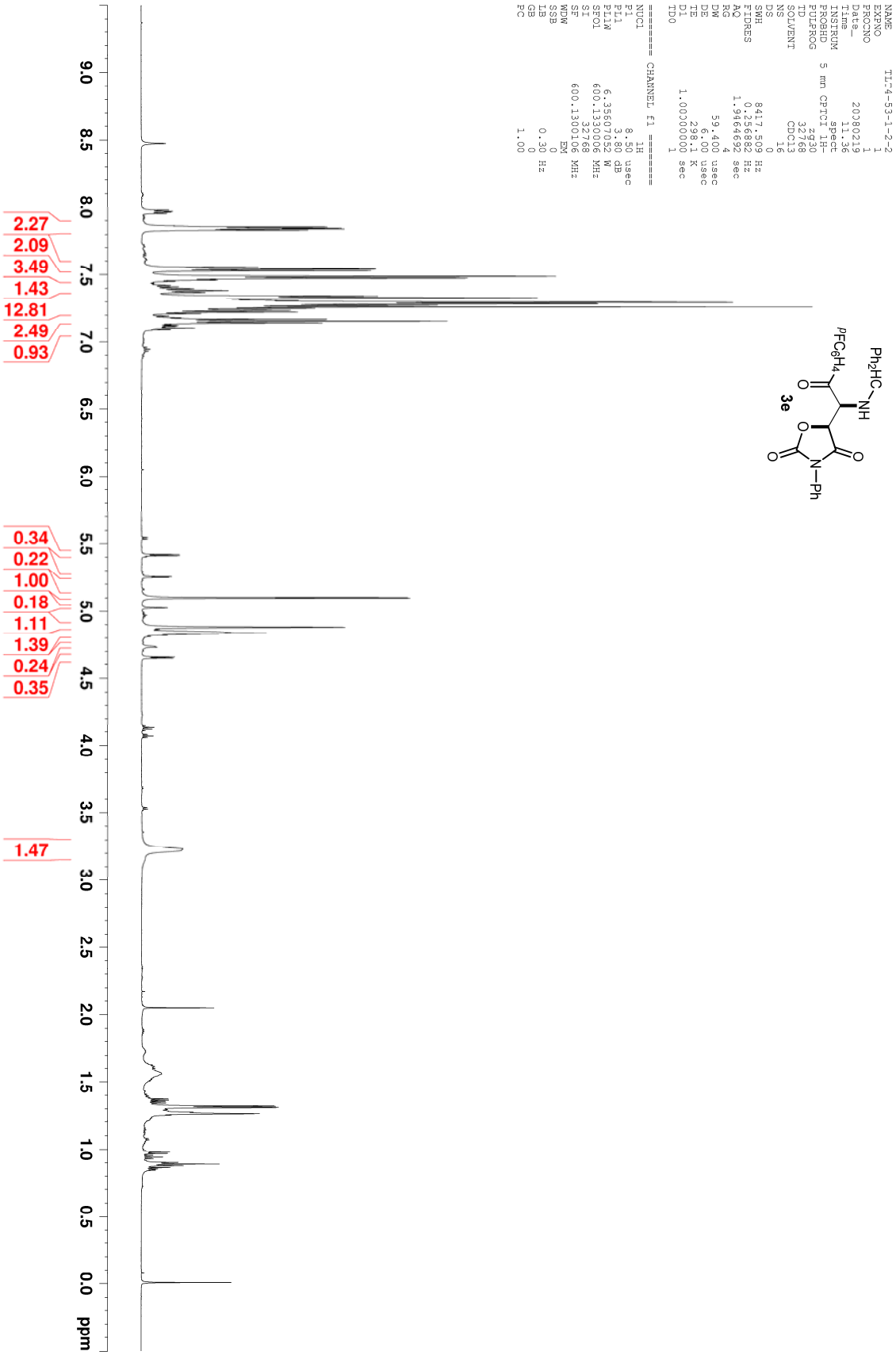

Figure 48. ^{13}C NMR (150 MHz, $CDCl_3$) of **3e**

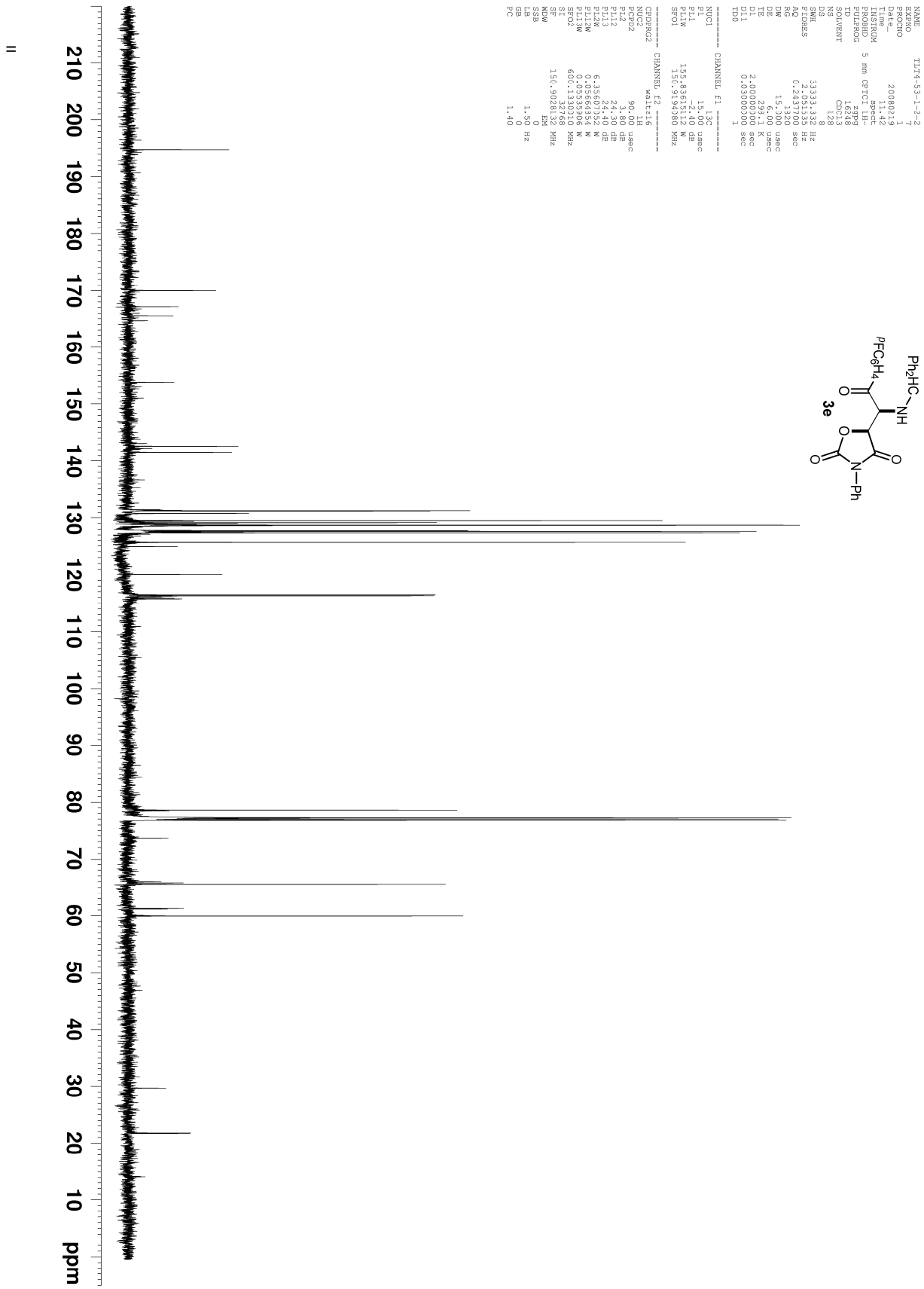

Figure 49. ^{1}H NMR (600 MHz, $CDCl_3$) of **3f**

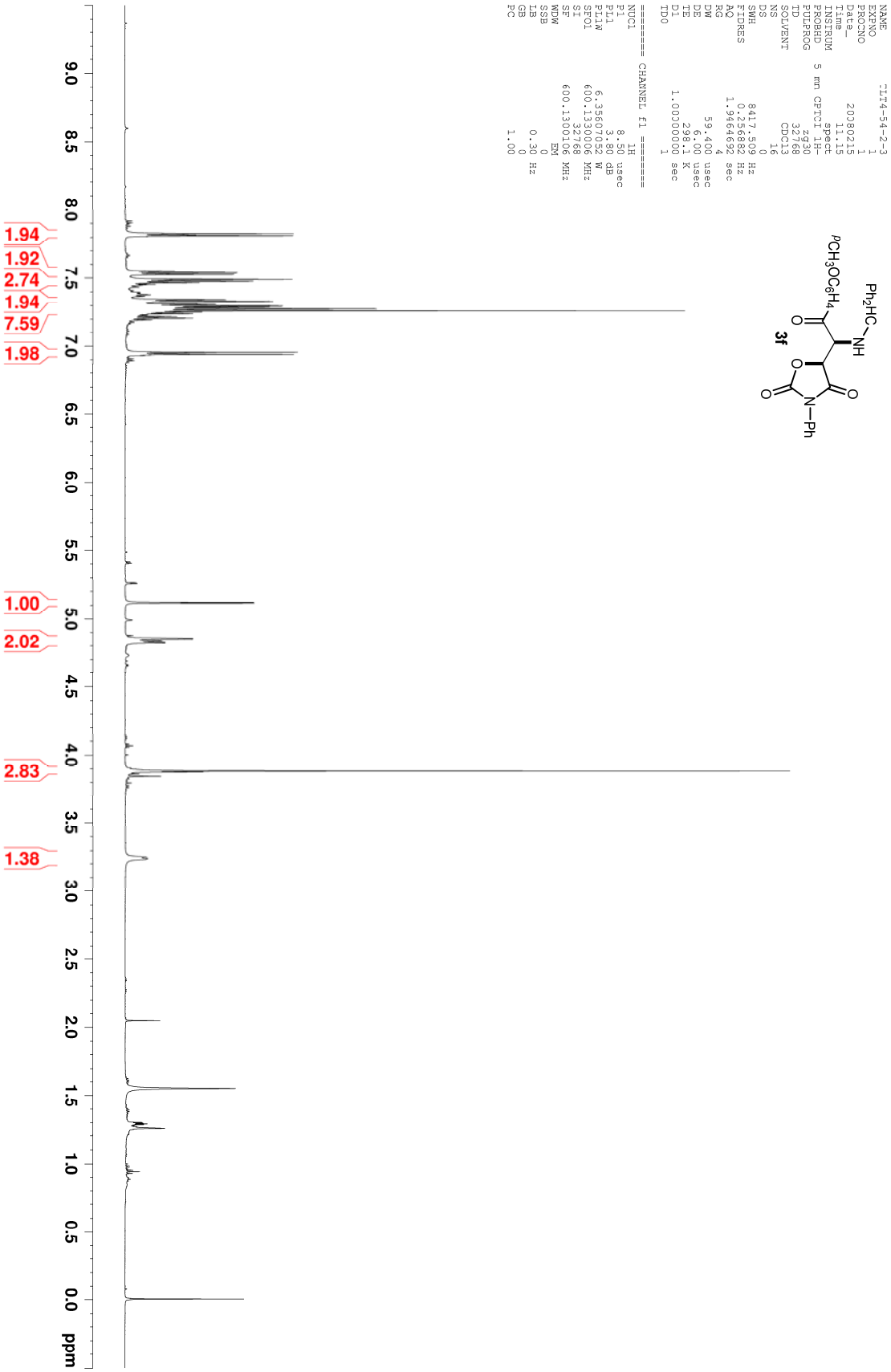

Figure 50. ^{13}C NMR (150 MHz, $CDCl_3$) of **3f**

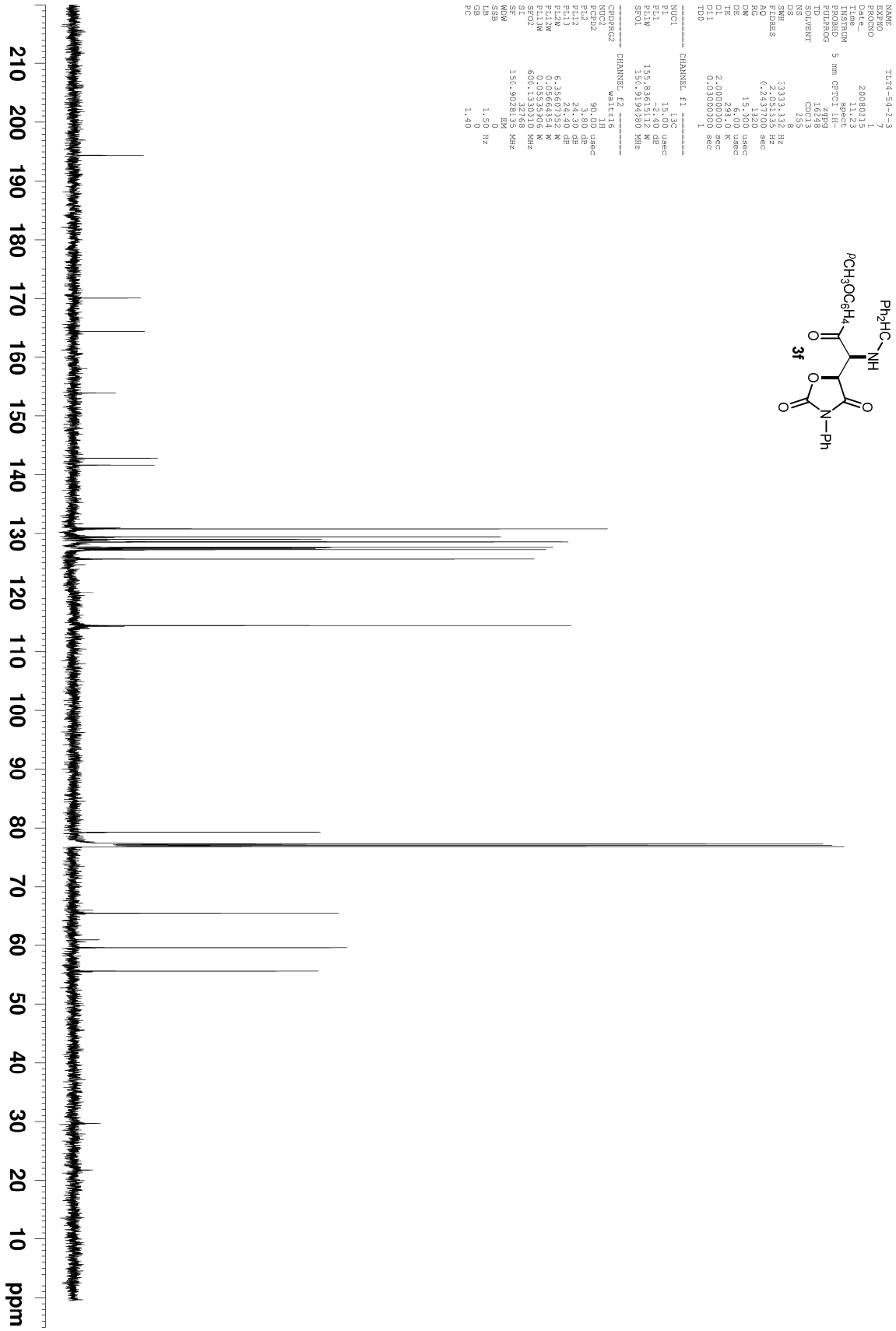

Figure 51. ^{1}H NMR (600 MHz, $CDCl_3$) of **3g**

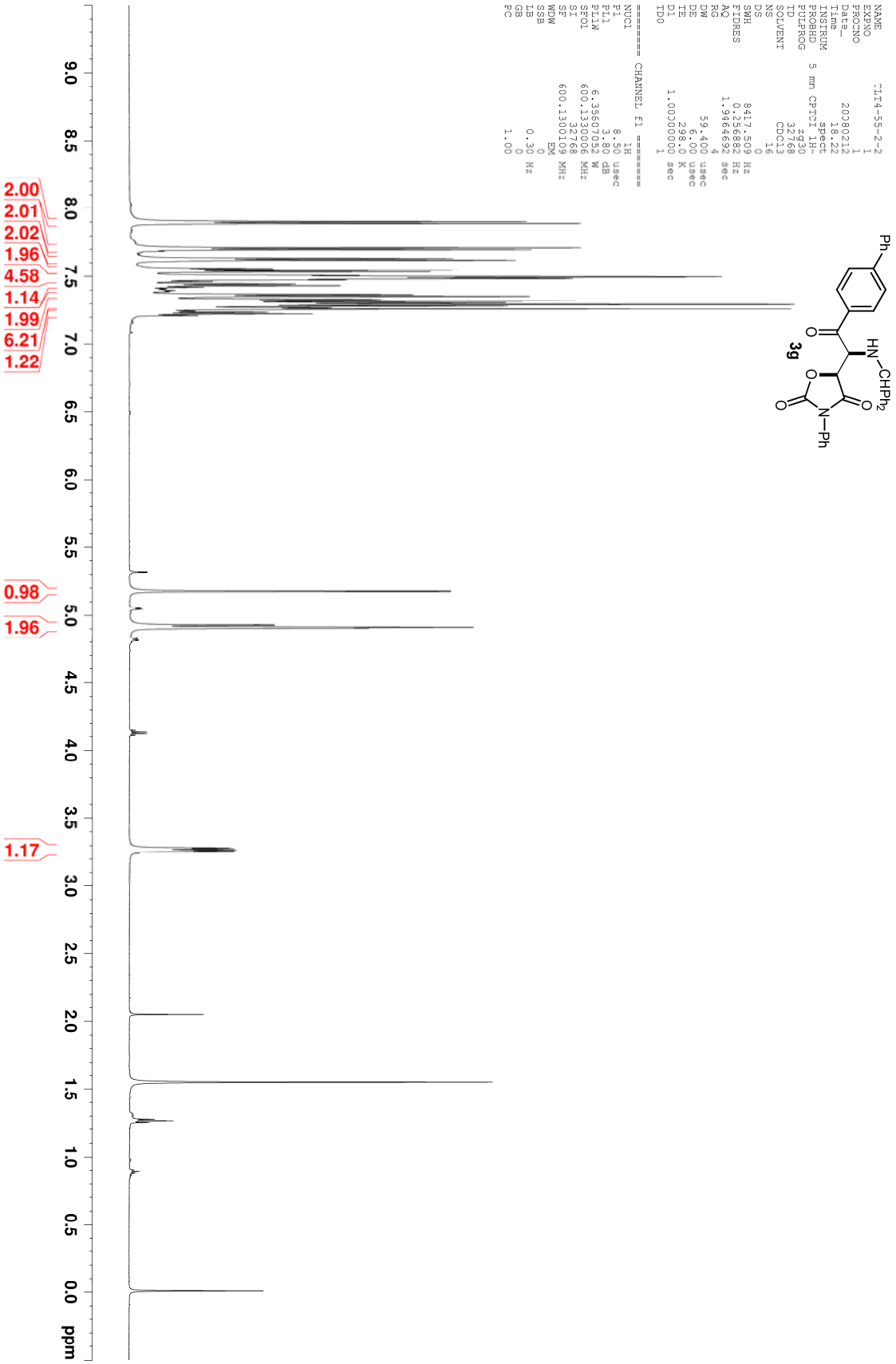

Figure 52. ^{13}C NMR (150 MHz, $CDCl_3$) of **3g**

Figure 53. ^{1}H NMR (500 MHz, $CDCl_3$) of **3h**

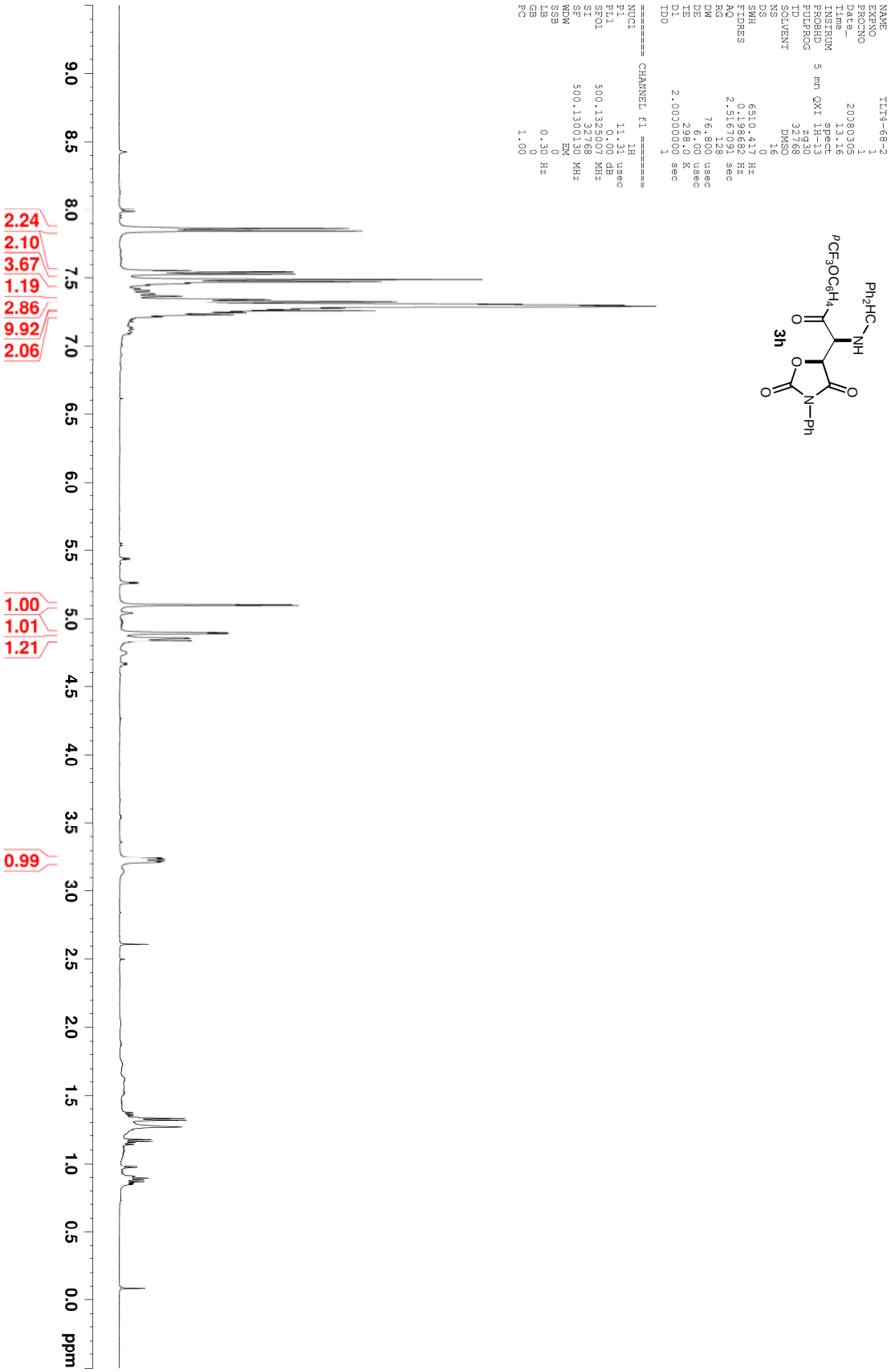

Figure 54. ^{13}C NMR (125 MHz, $CDCl_3$) of **3h**

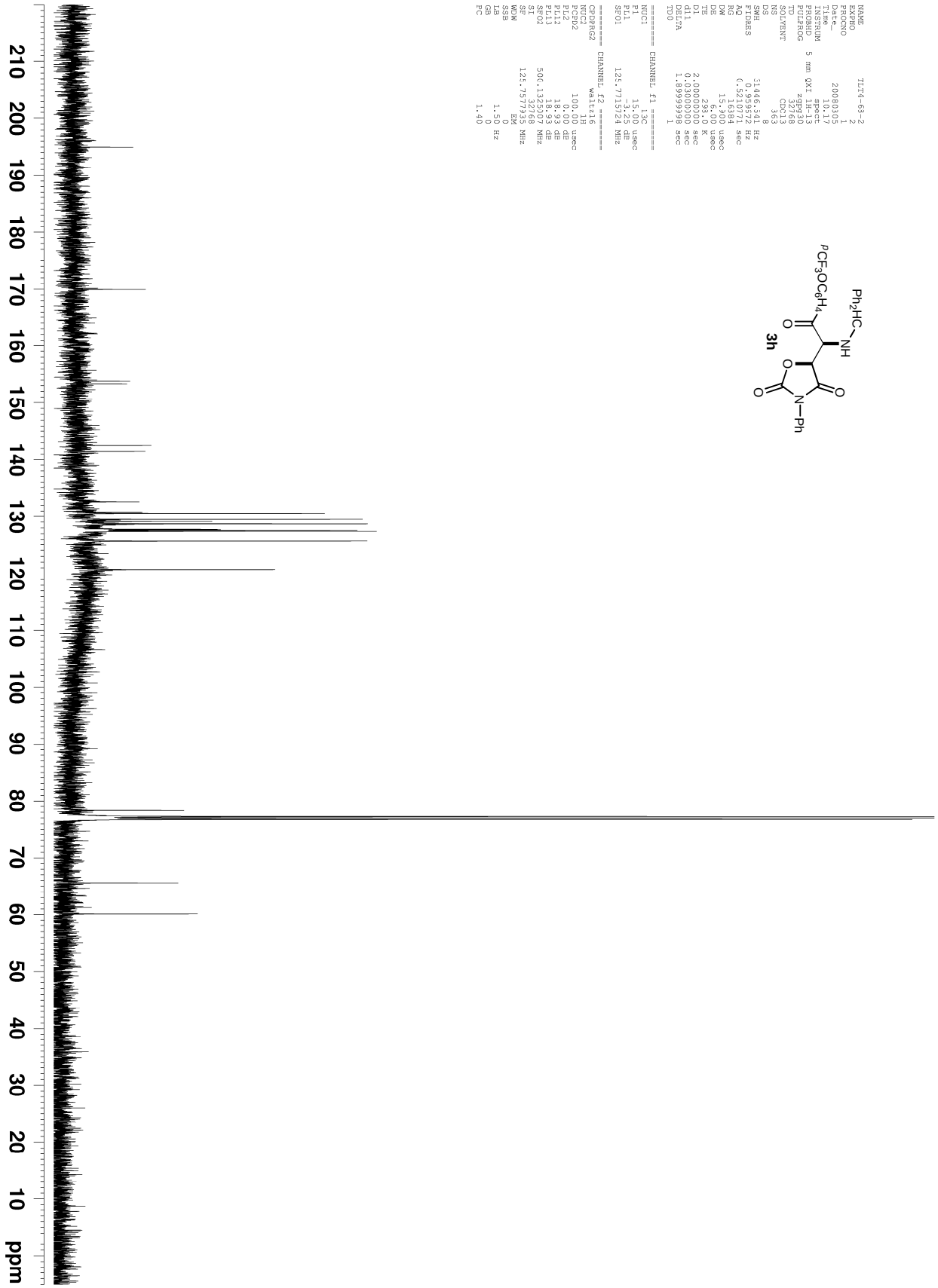

Figure 55. ^{1}H NMR (600 MHz, $CDCl_3$) of **3i**

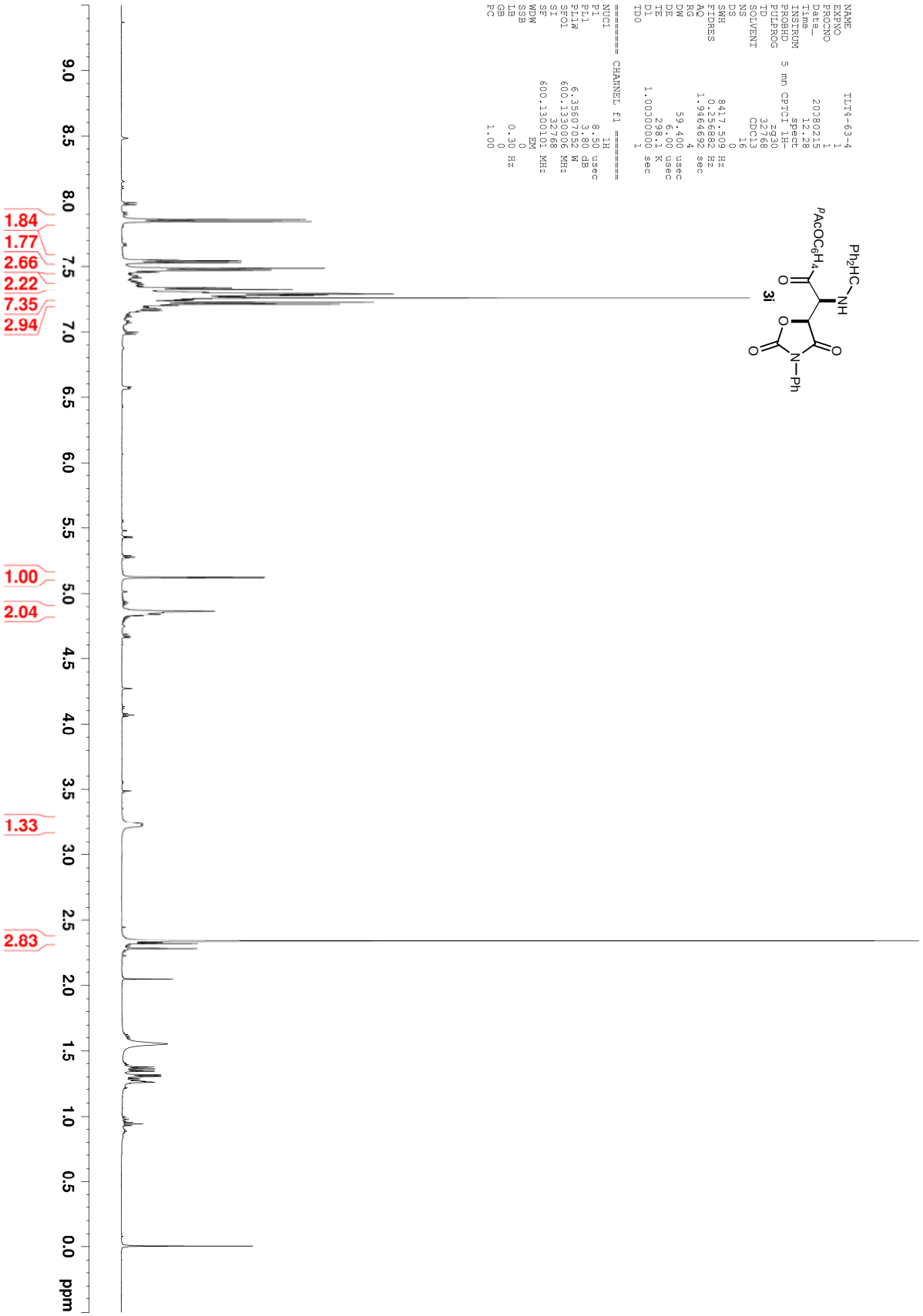

Figure 56. ^{13}C NMR (150 MHz, $CDCl_3$) of **3i**

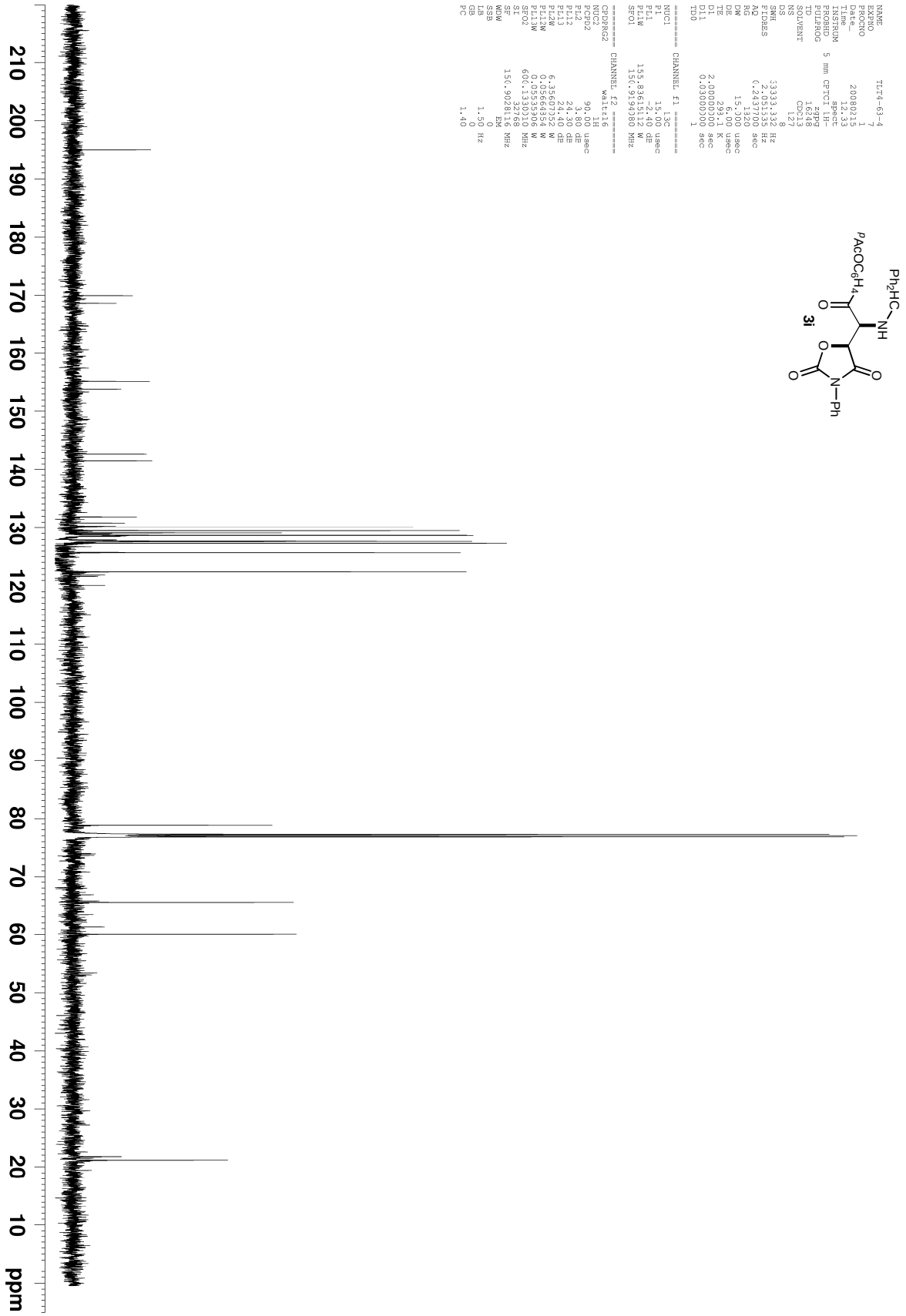

Figure 57. ^{1}H NMR (500 MHz, $CDCl_3$) of **3j**

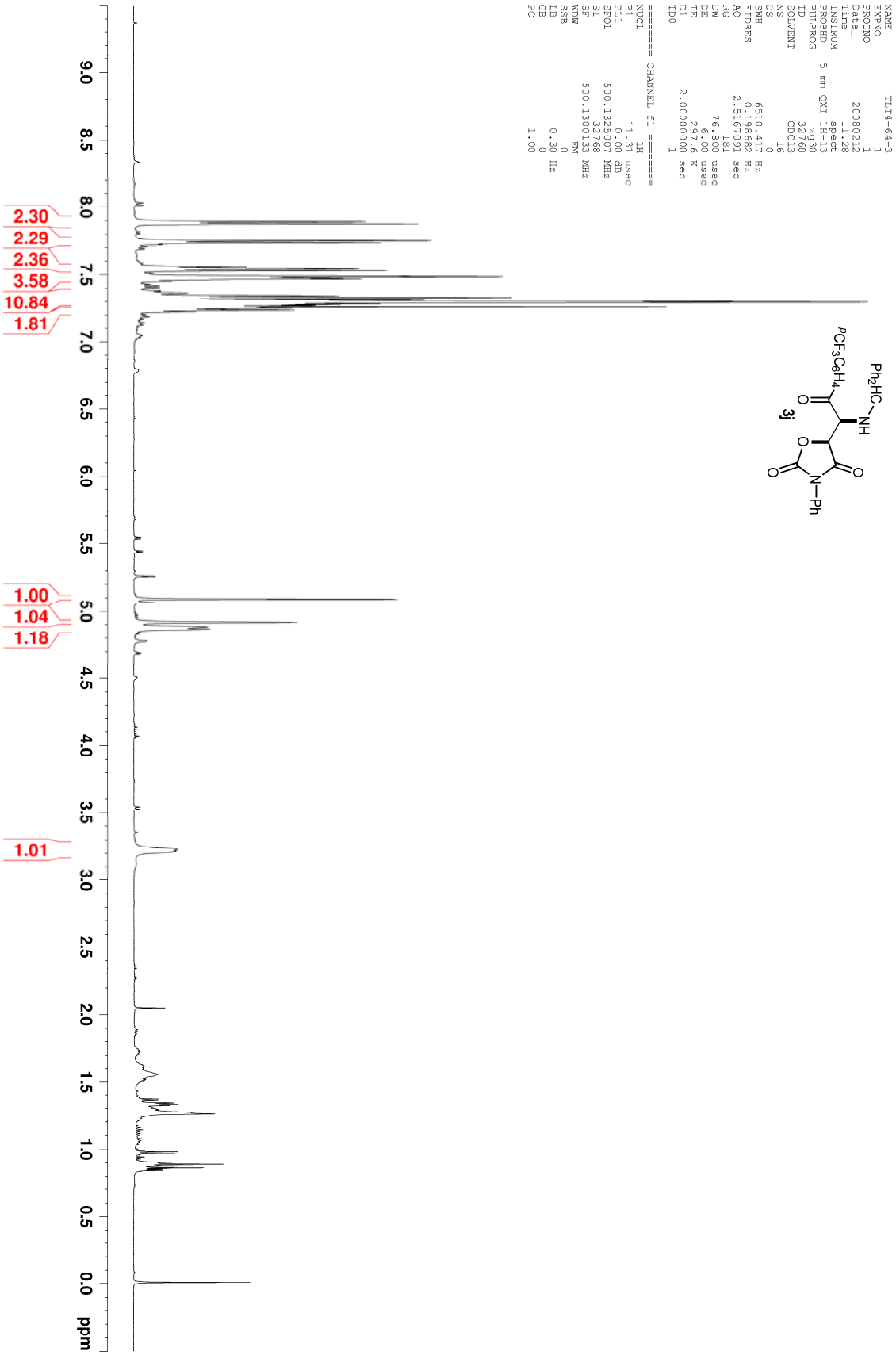

Figure 58. ^{13}C NMR (125 MHz, $CDCl_3$) of **3j**

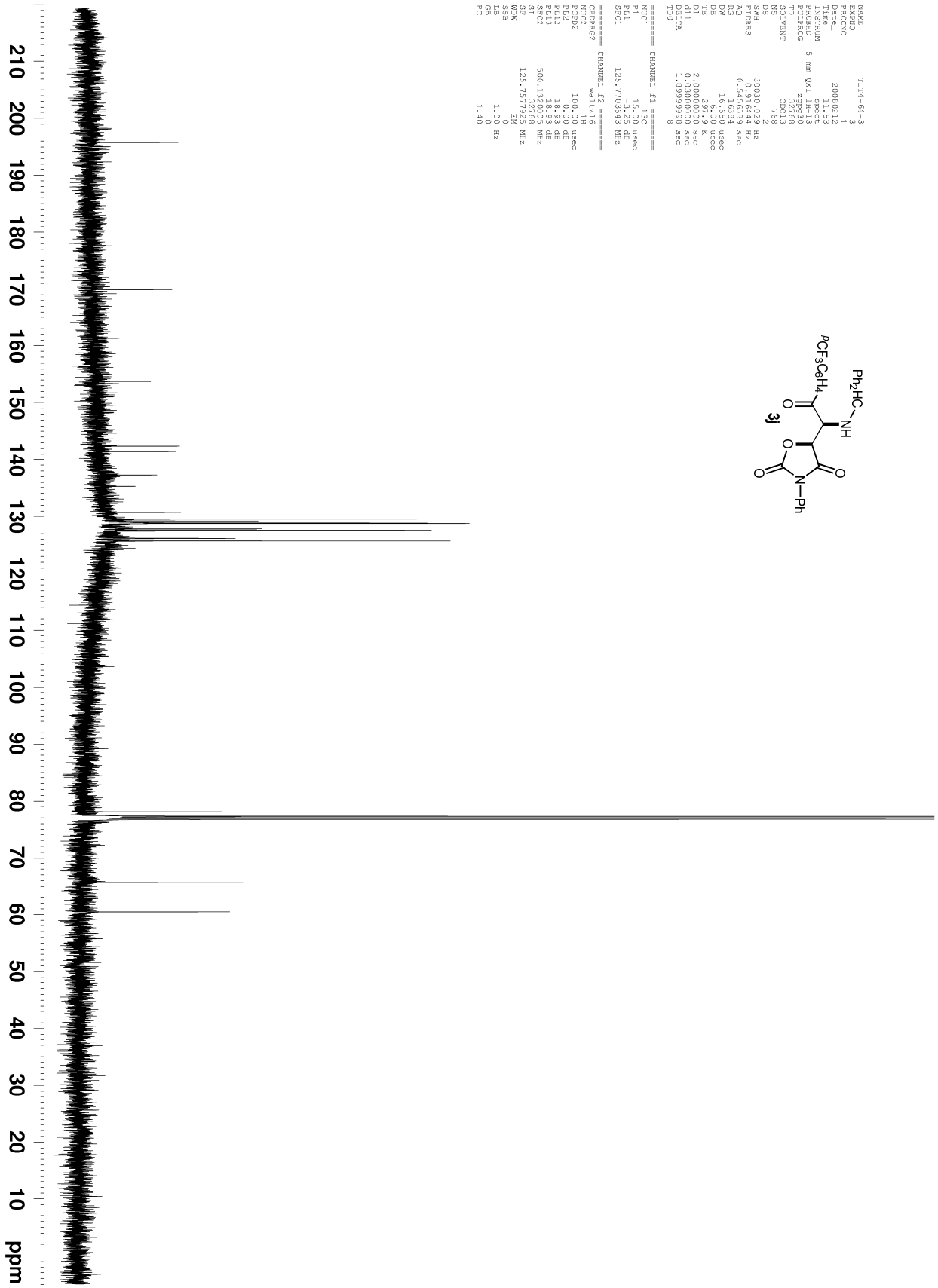

Figure 59. ^{1}H NMR (500 MHz, $CDCl_3$) of **3k**

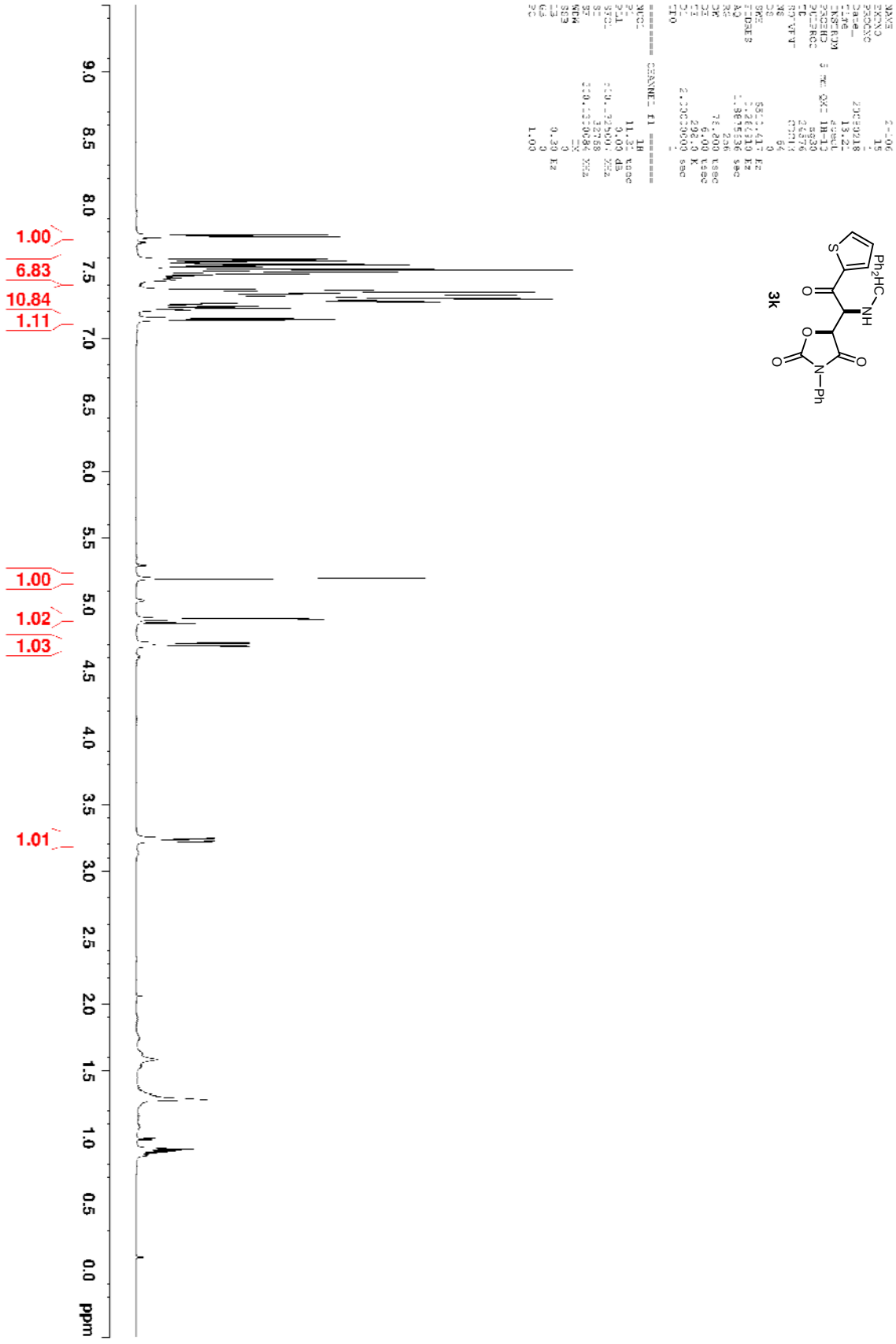

Figure 60. ^{13}C NMR (125 MHz, $CDCl_3$) of **3k**

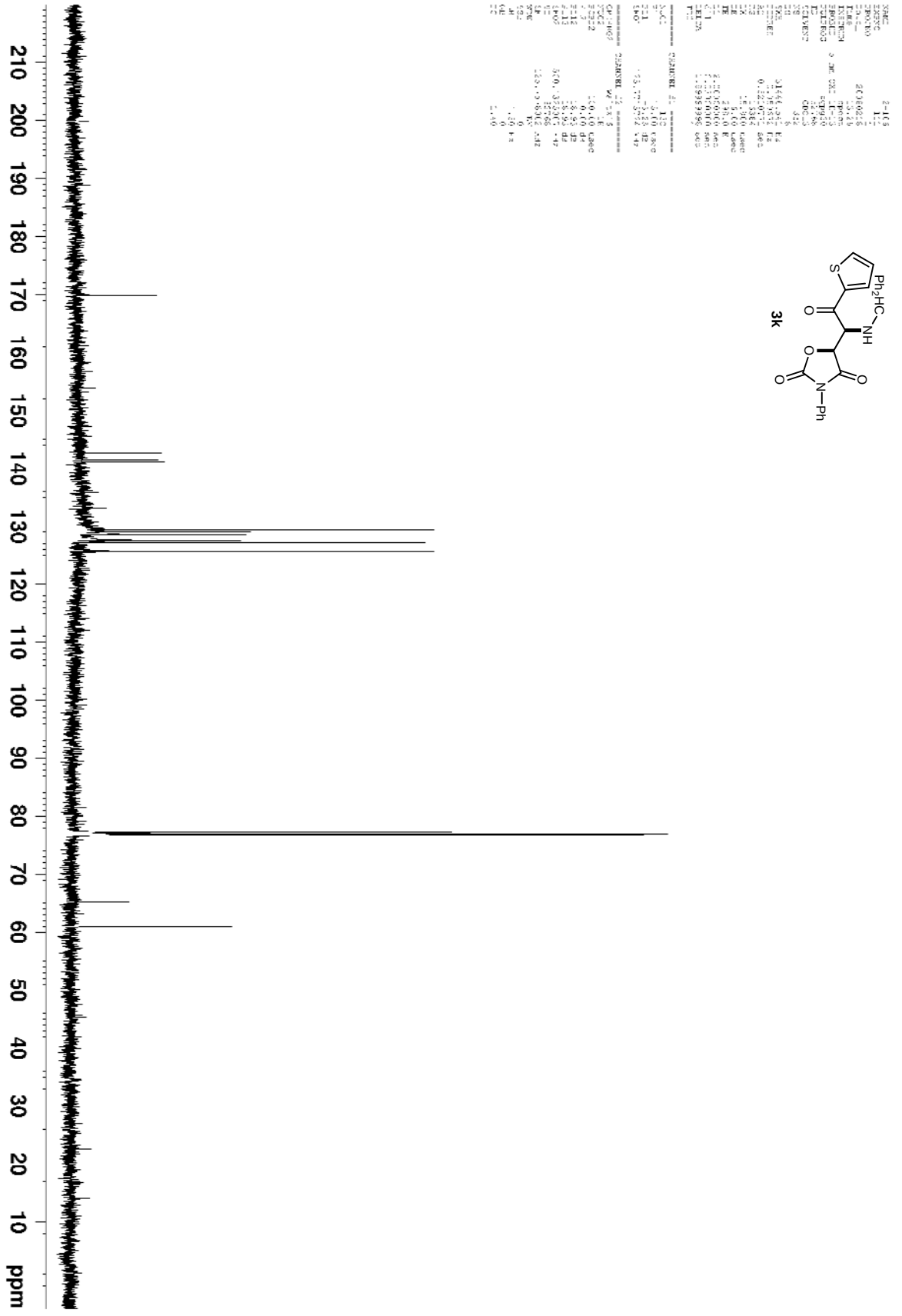

Figure 61. ^{1}H NMR (500 MHz, $CDCl_3$) of **3l**

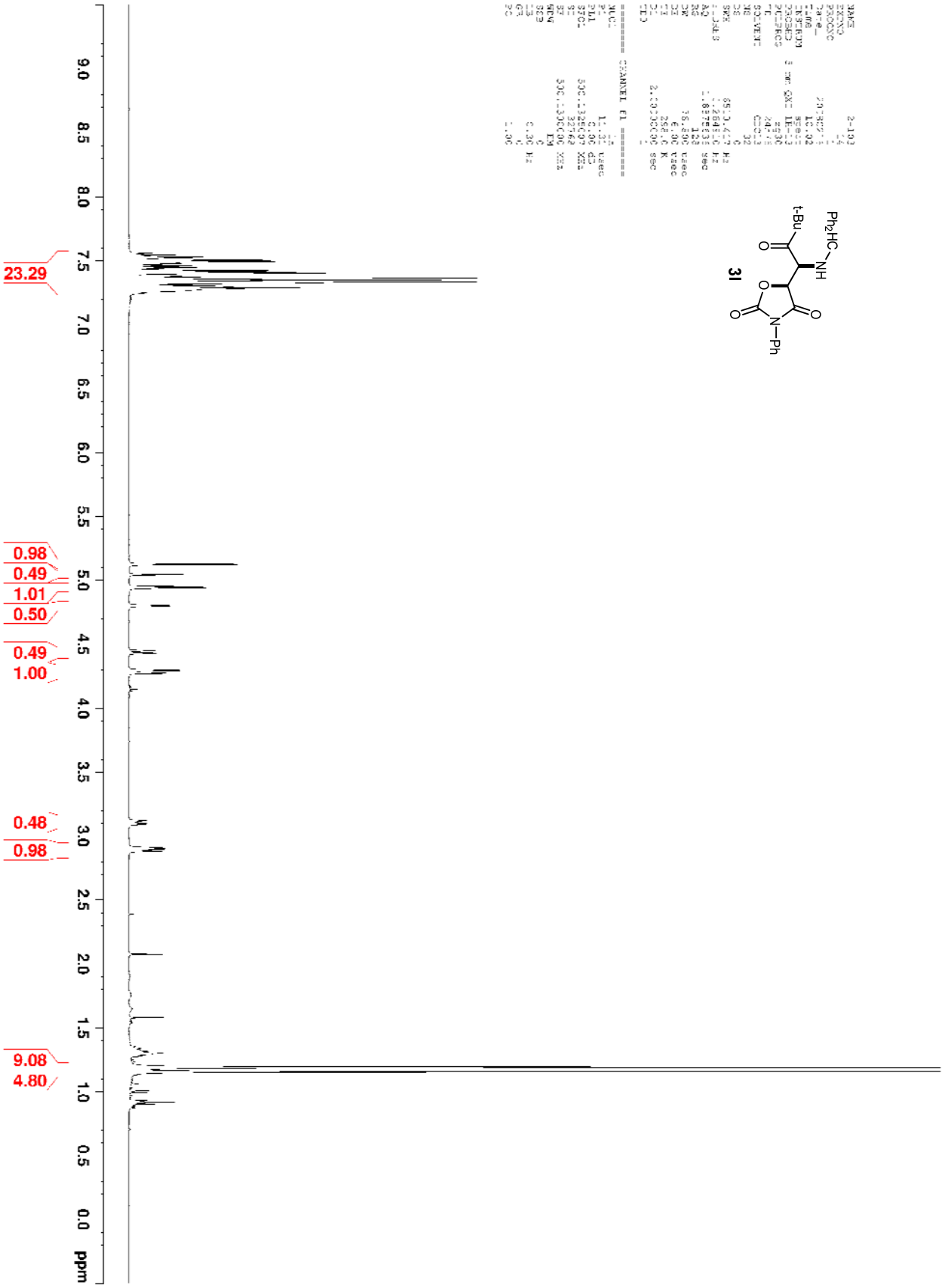

Figure 62. ^{13}C NMR (125 MHz, $CDCl_3$) of **3l**

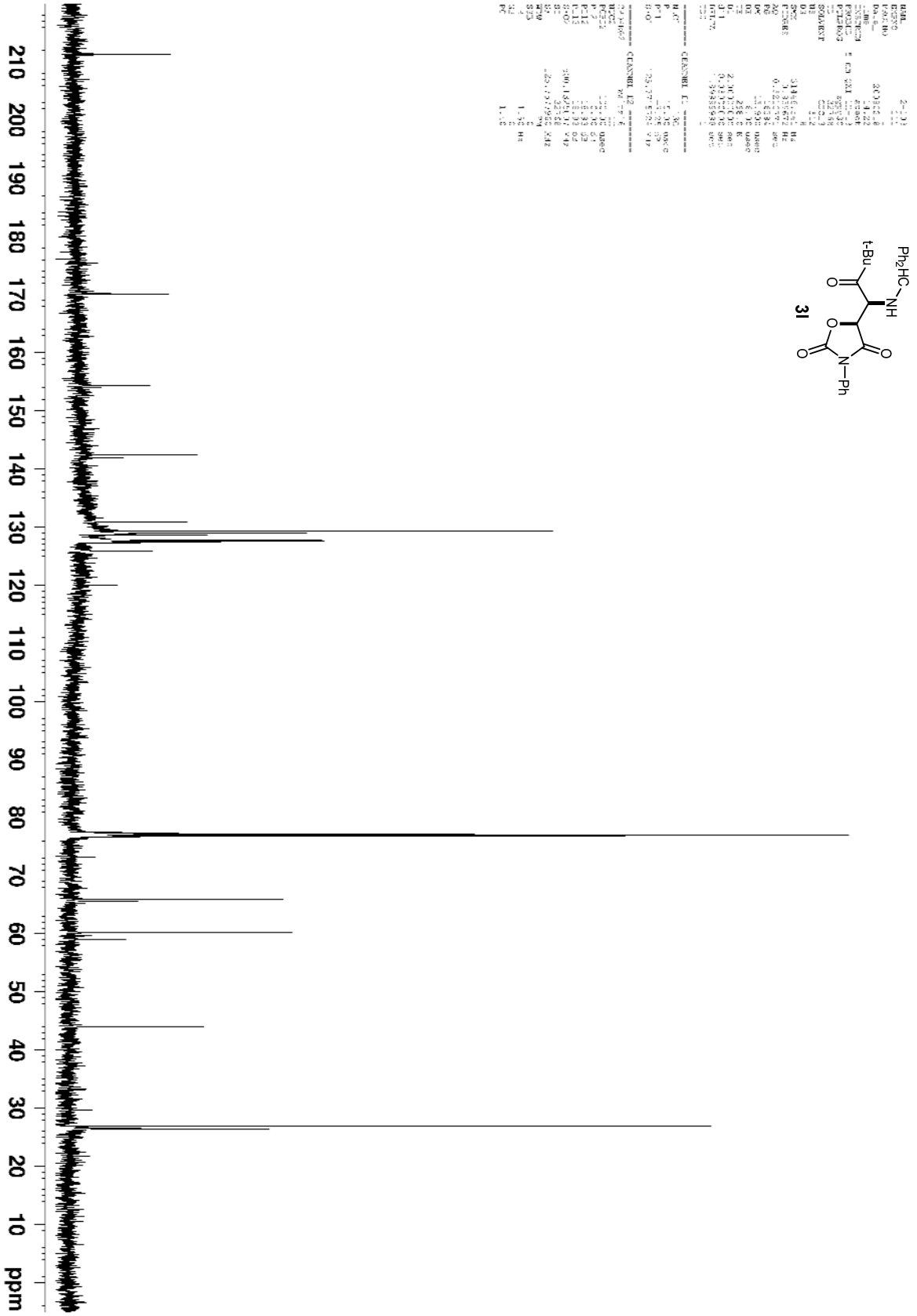

Figure 63. ^{1}H NMR (400 MHz, $CDCl_3$) of **3m**

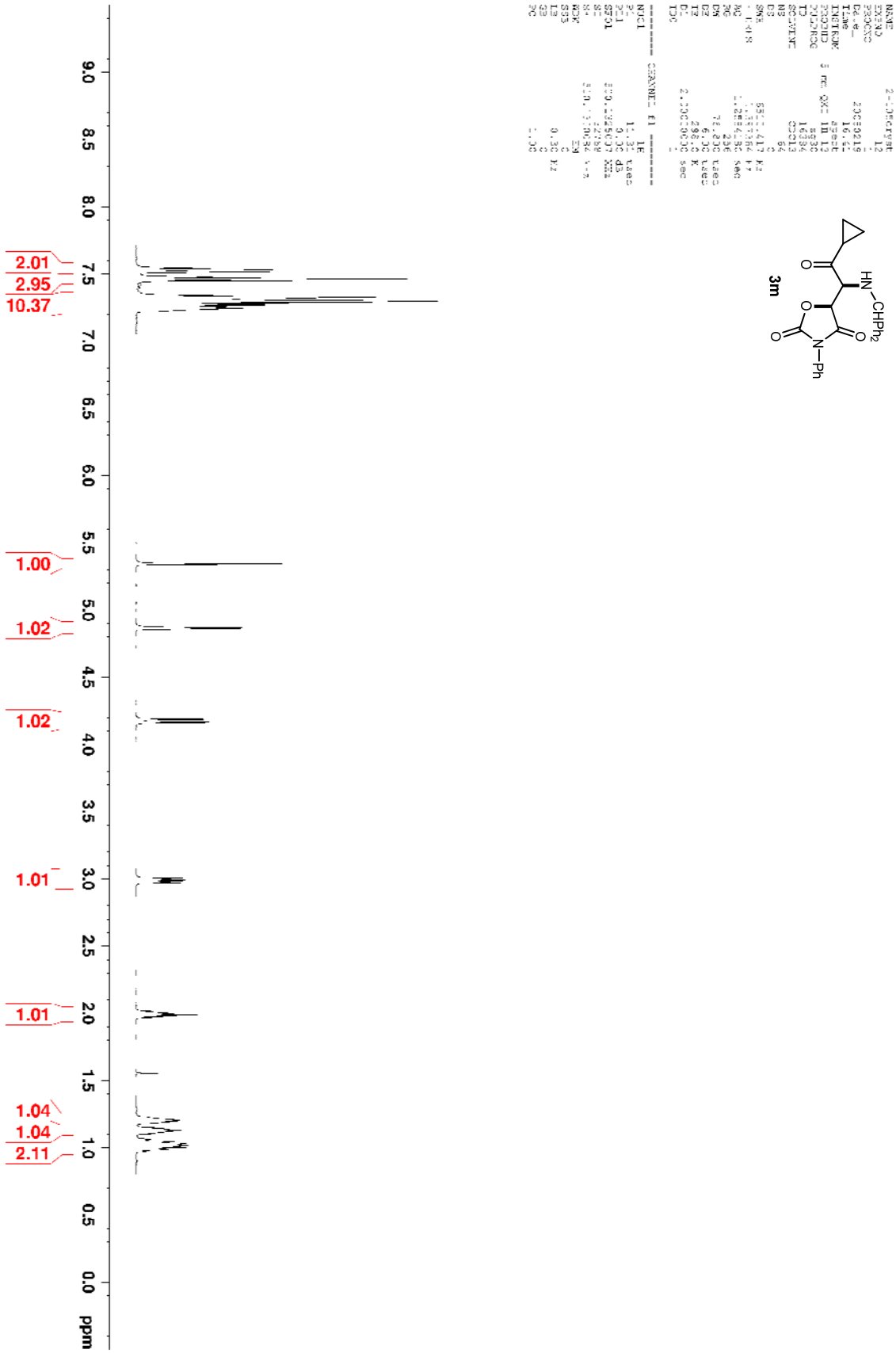

Figure 64. ^{13}C NMR (100 MHz, $CDCl_3$) of **3m**

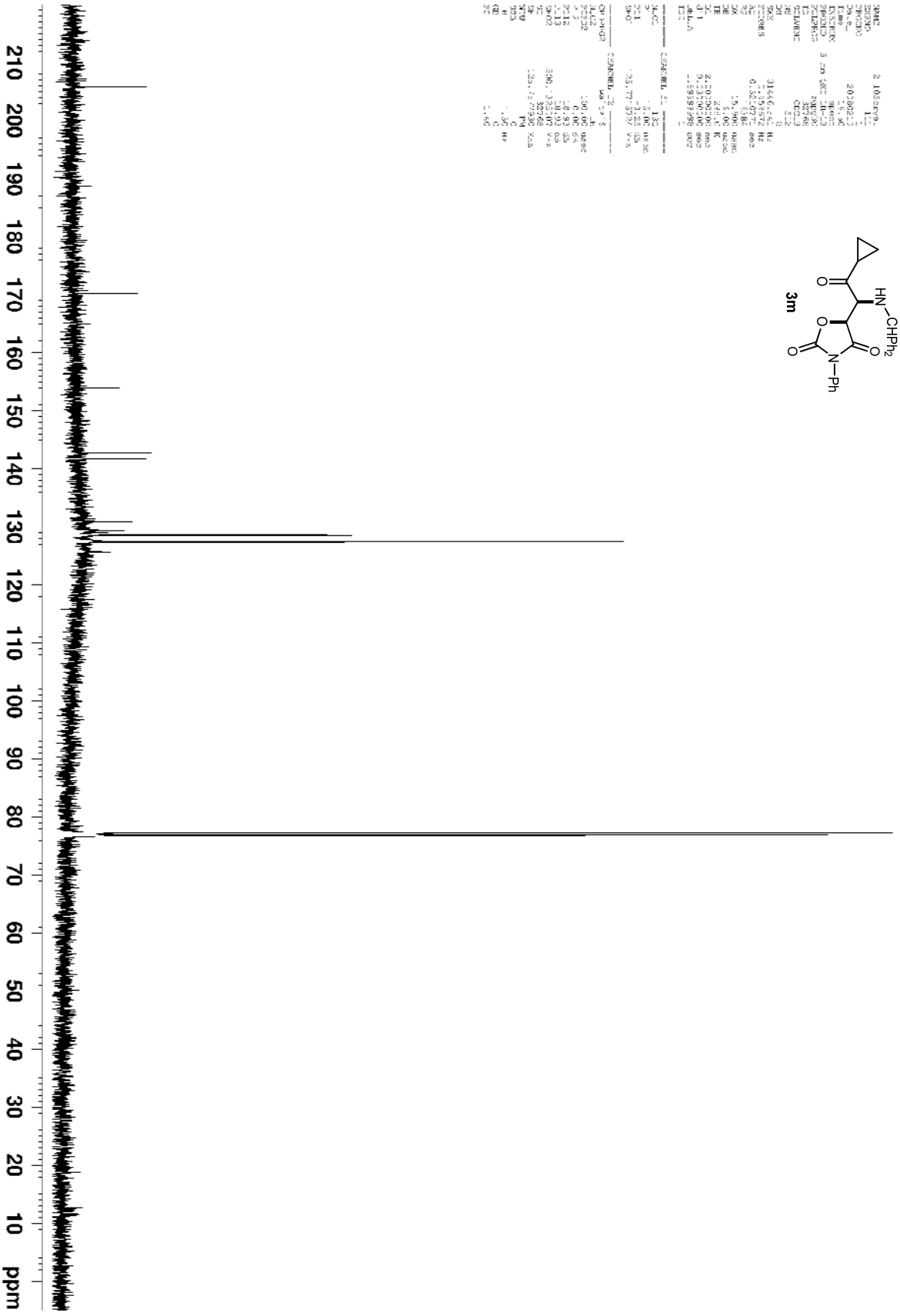

Figure 65. ^{1}H NMR (400 MHz, $CDCl_3$) of **3n**

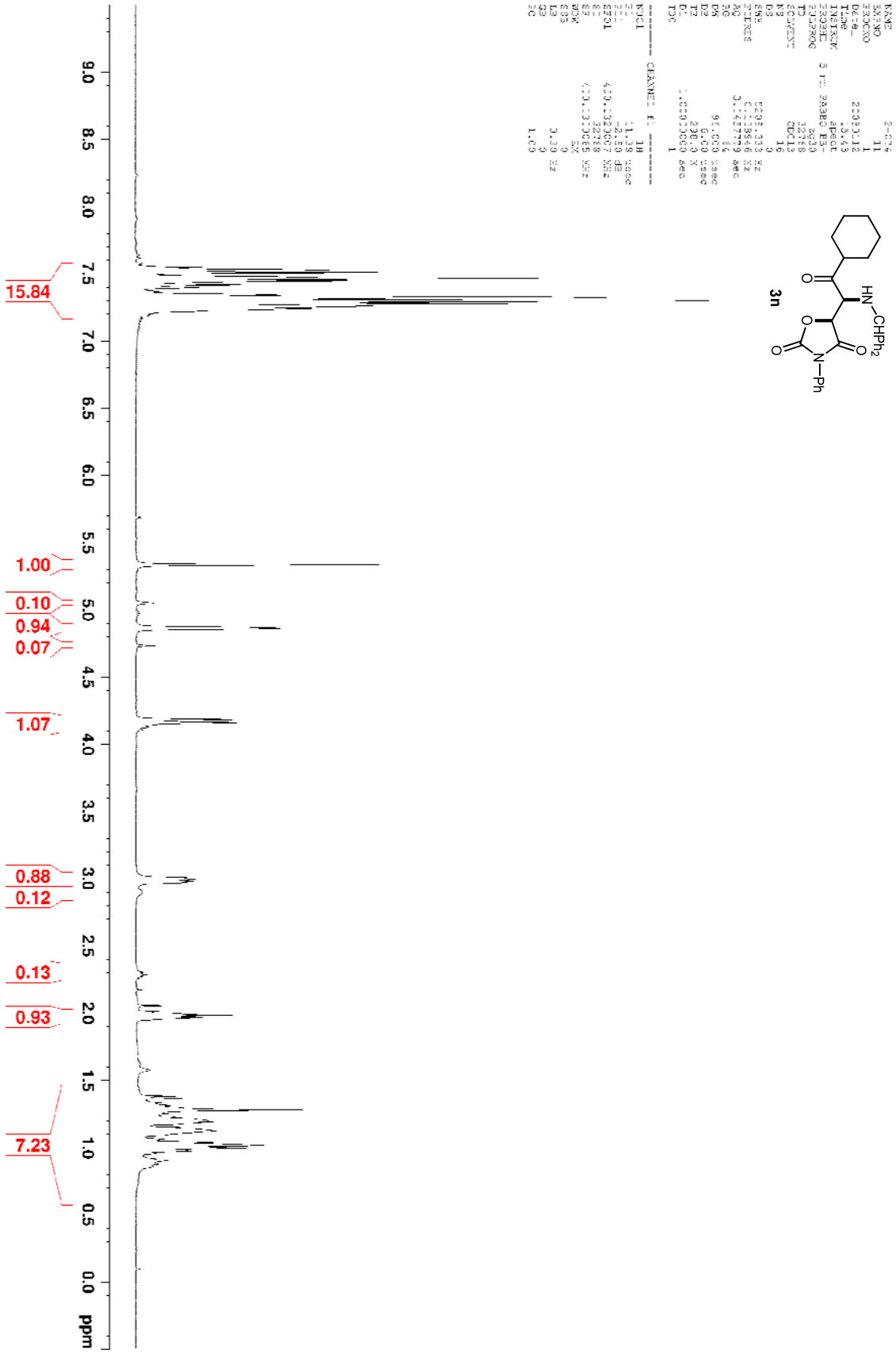

Figure 66. ^{13}C NMR (100 MHz, $CDCl_3$) of **3n**

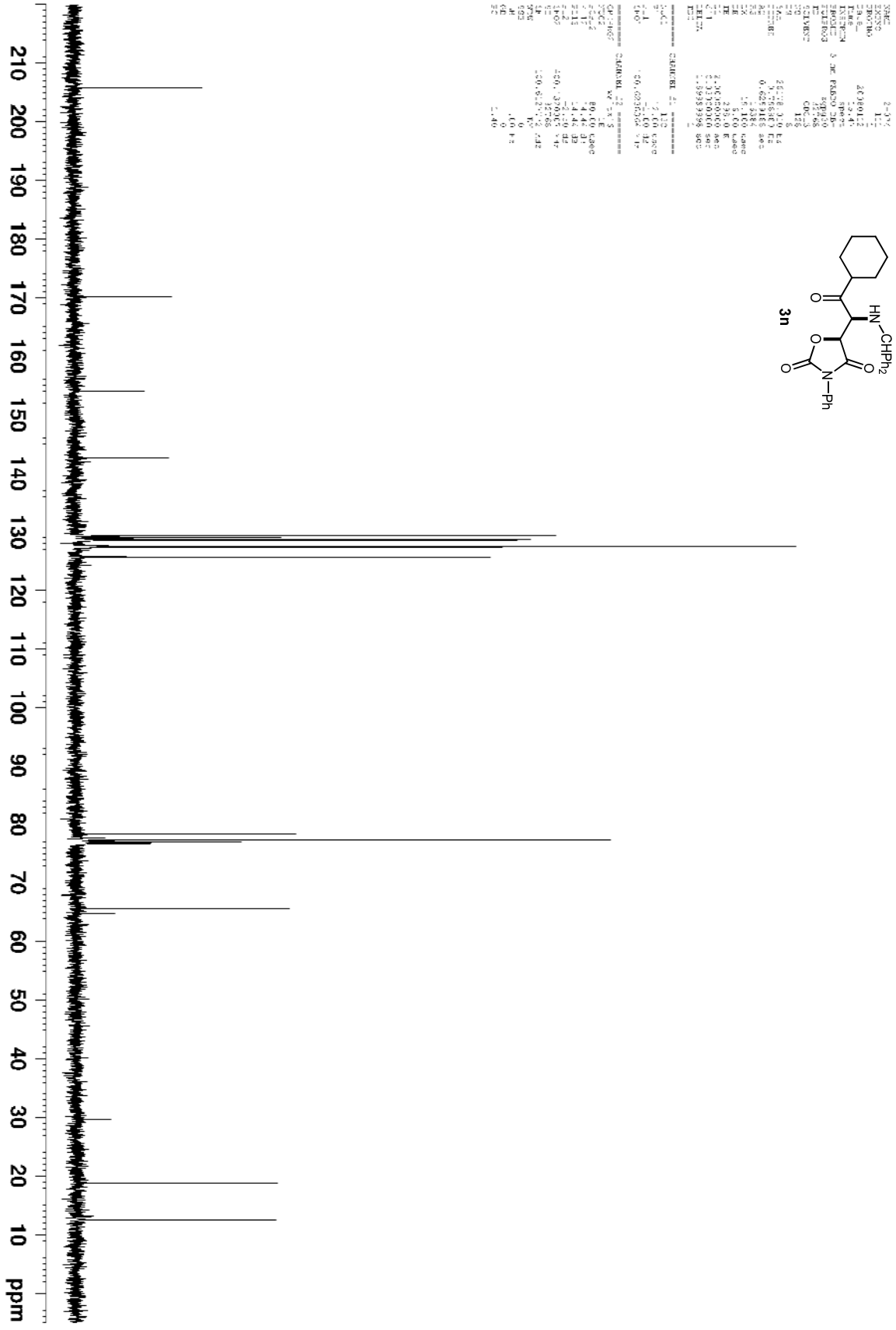

Figure 67. ^{1}H NMR (500 MHz, $CDCl_3$) of **3o**

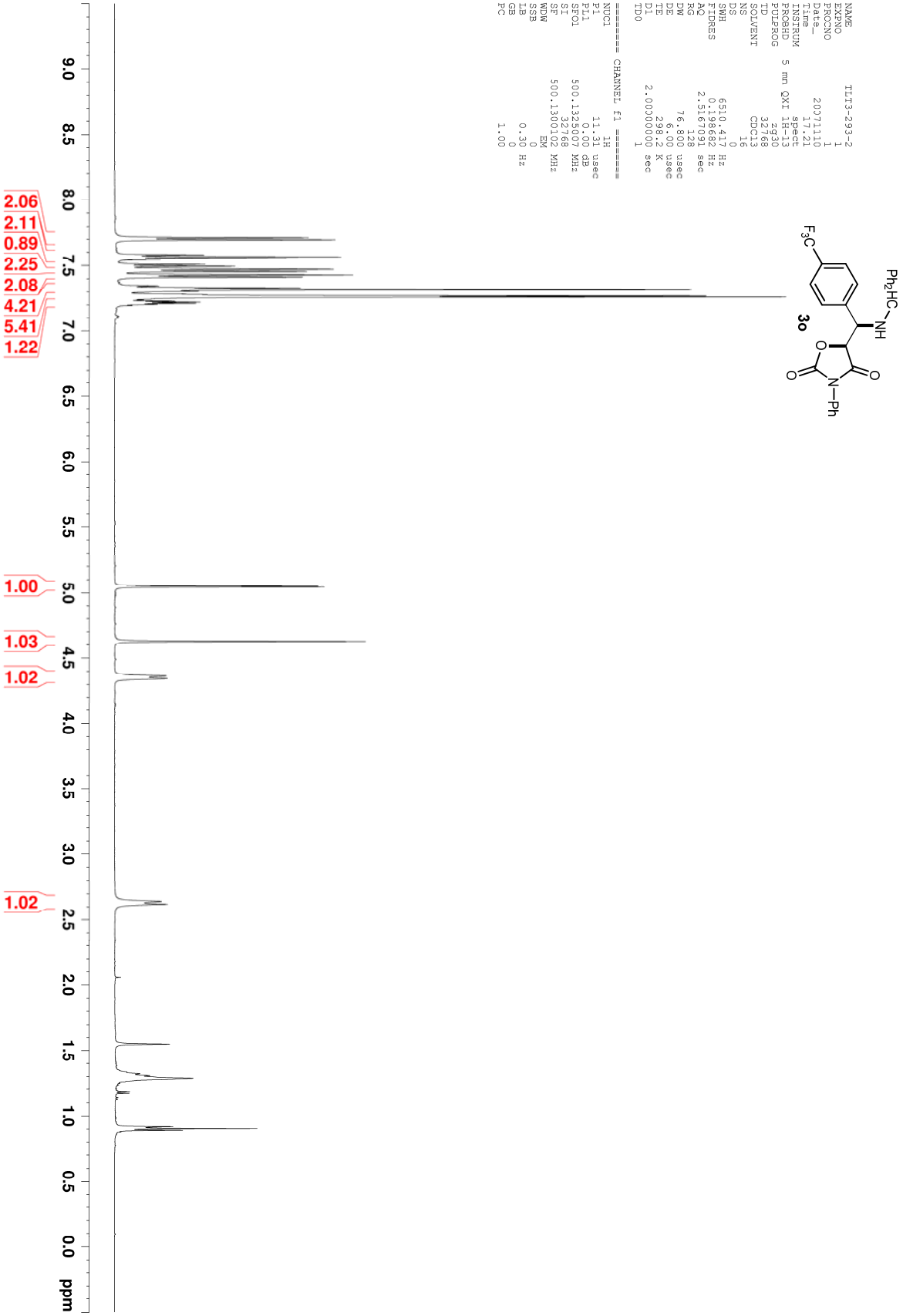

Figure 68. ^{13}C NMR (125 MHz, $CDCl_3$) of **3o**

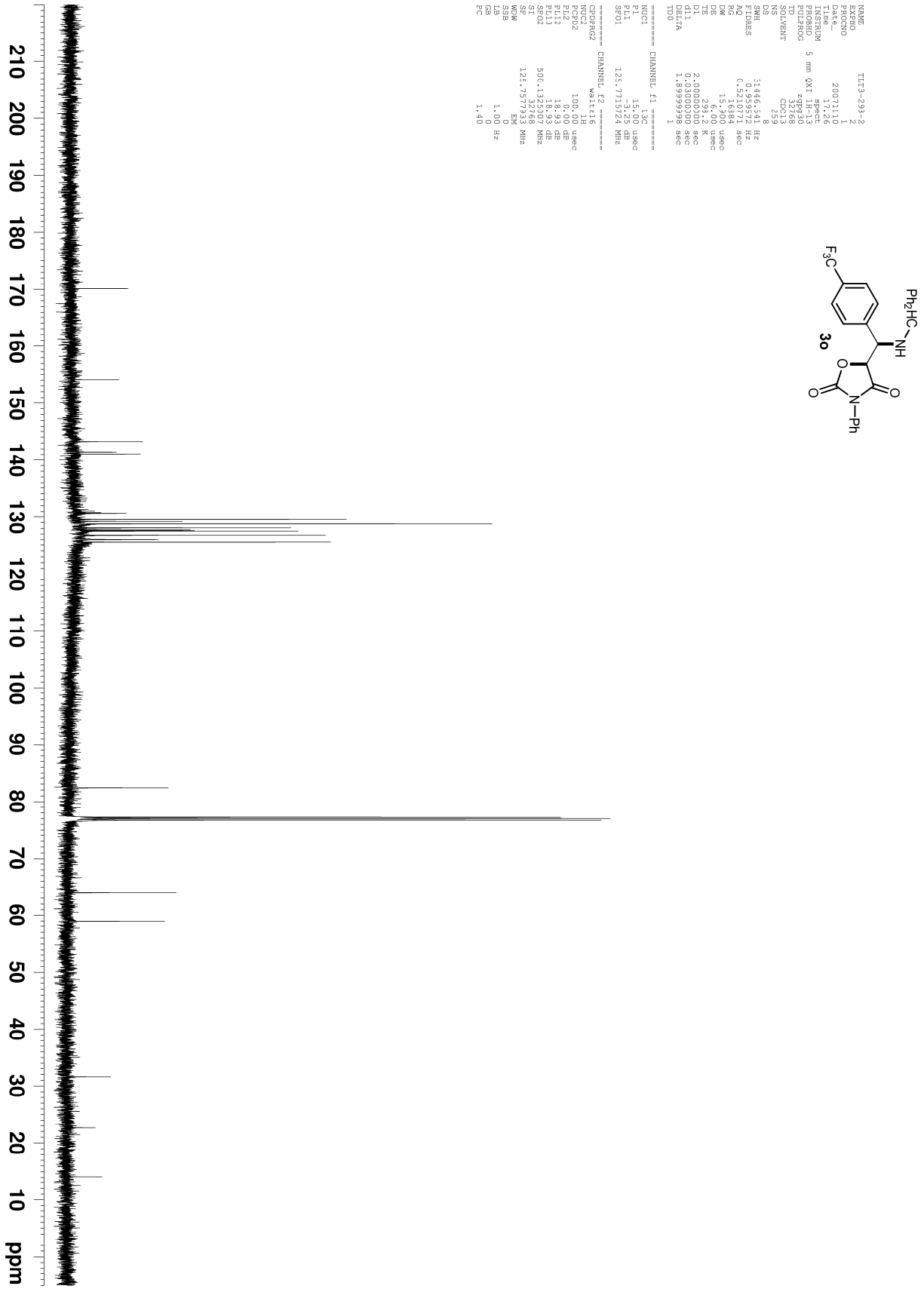

Figure 69. ^{1}H NMR (500 MHz, $CDCl_3$) of **3p**

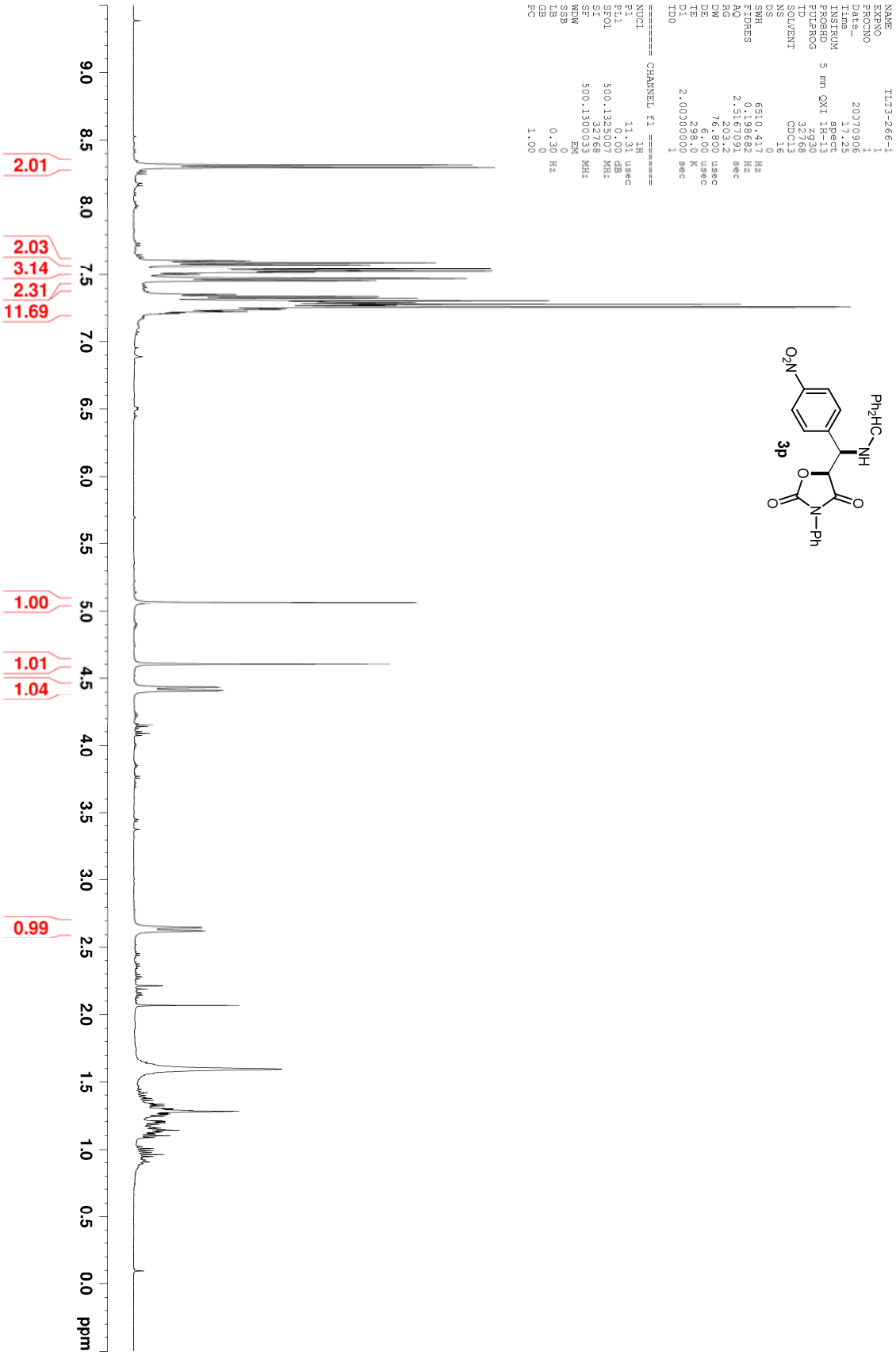

Figure 70. ^{13}C NMR (125 MHz, $CDCl_3$) of **3p**

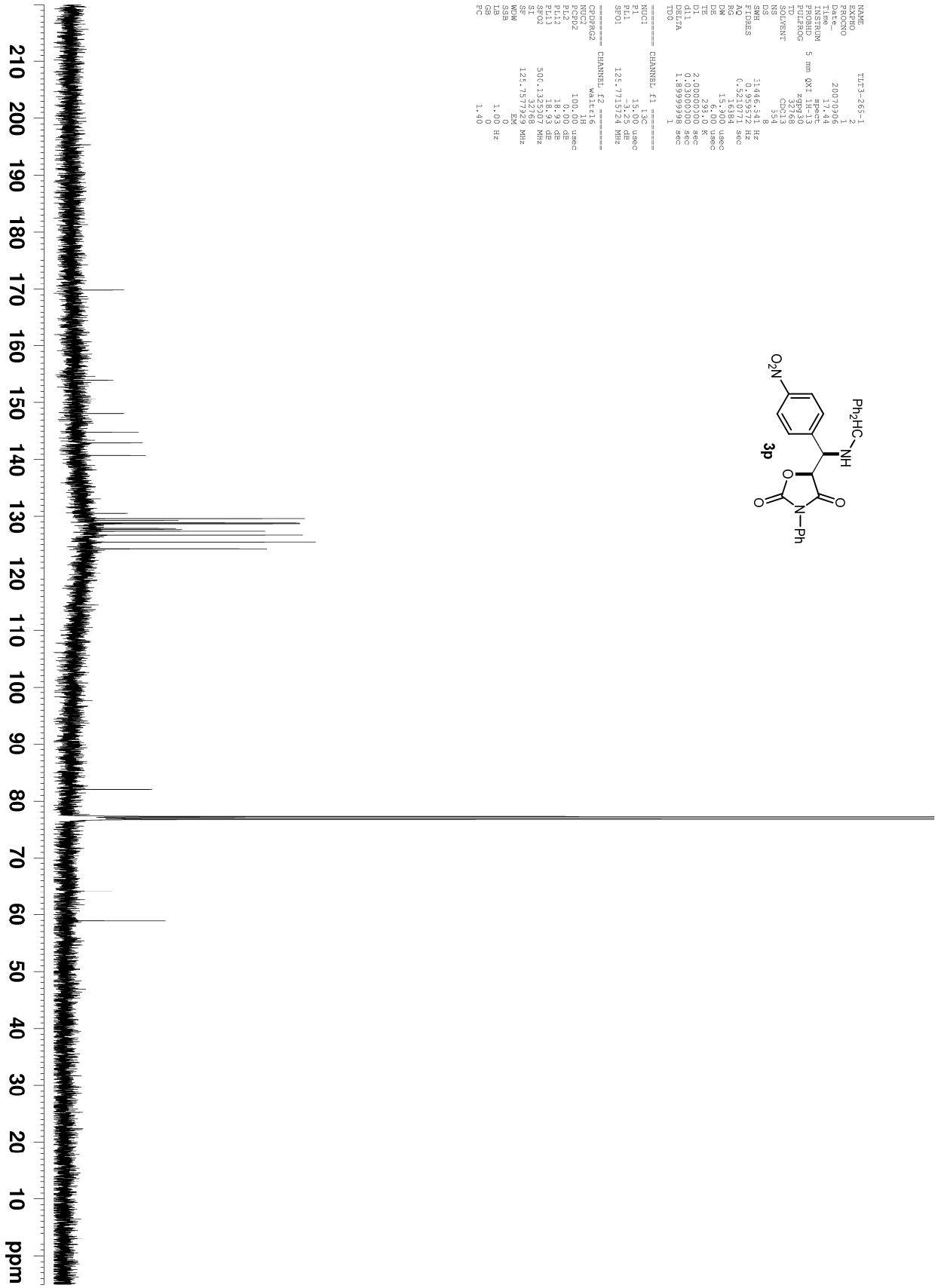

Figure 71. ^{1}H NMR (500 MHz, $CDCl_3$) of **3q**

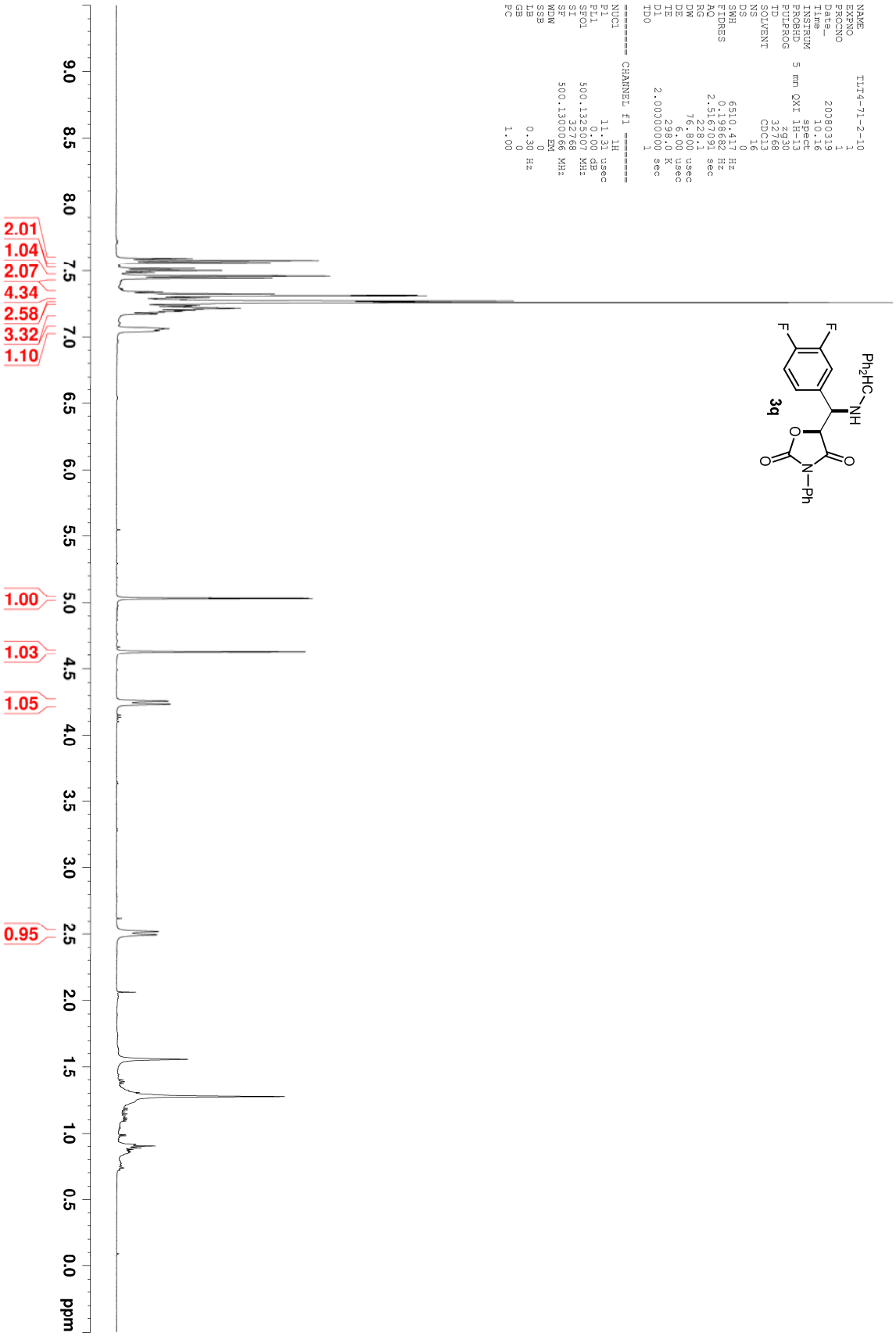

Figure 72. ^{13}C NMR (125 MHz, $CDCl_3$) of **3q**

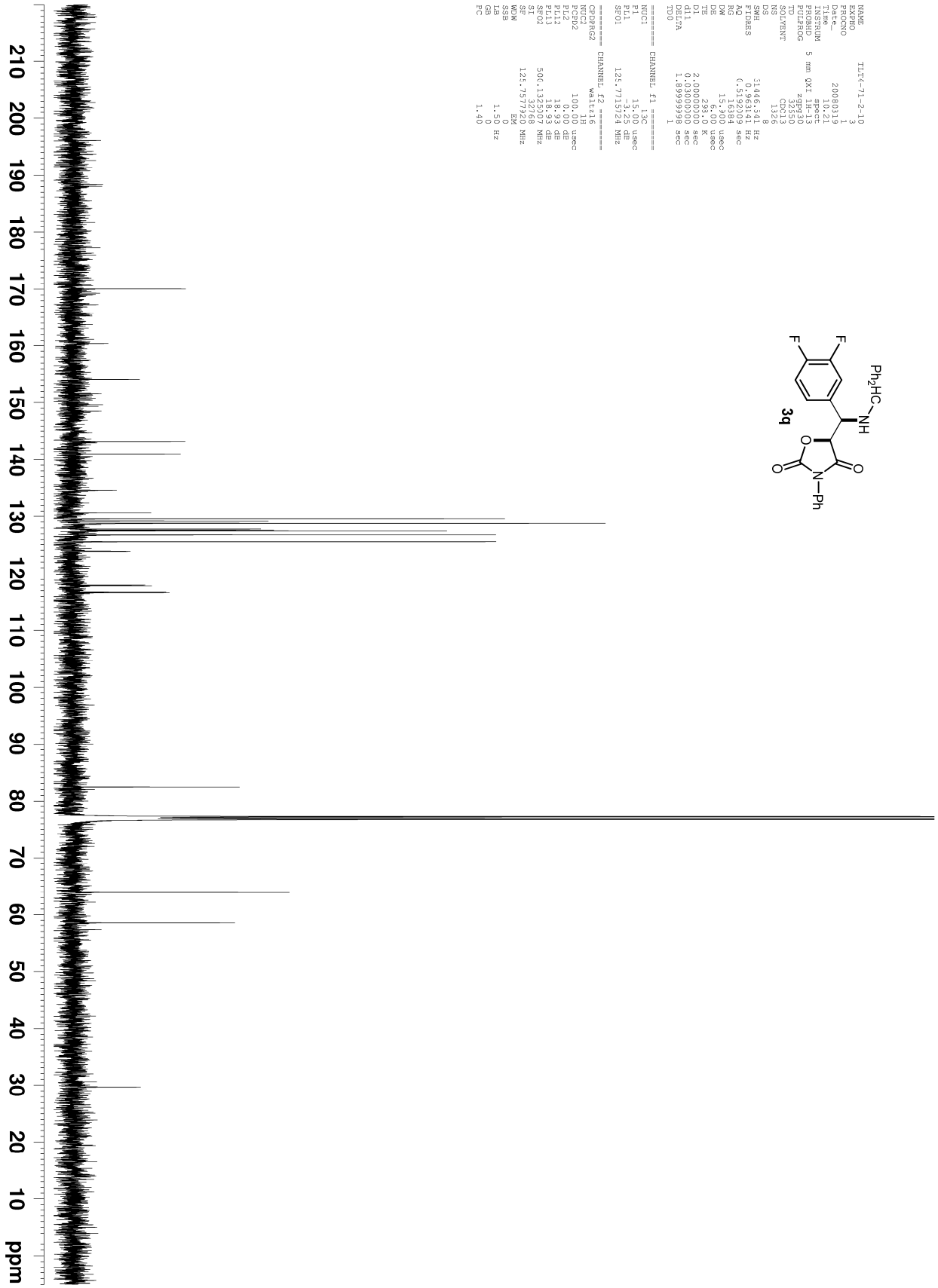

Figure 73. ^{1}H NMR (500 MHz, $CDCl_3$) of **3r**

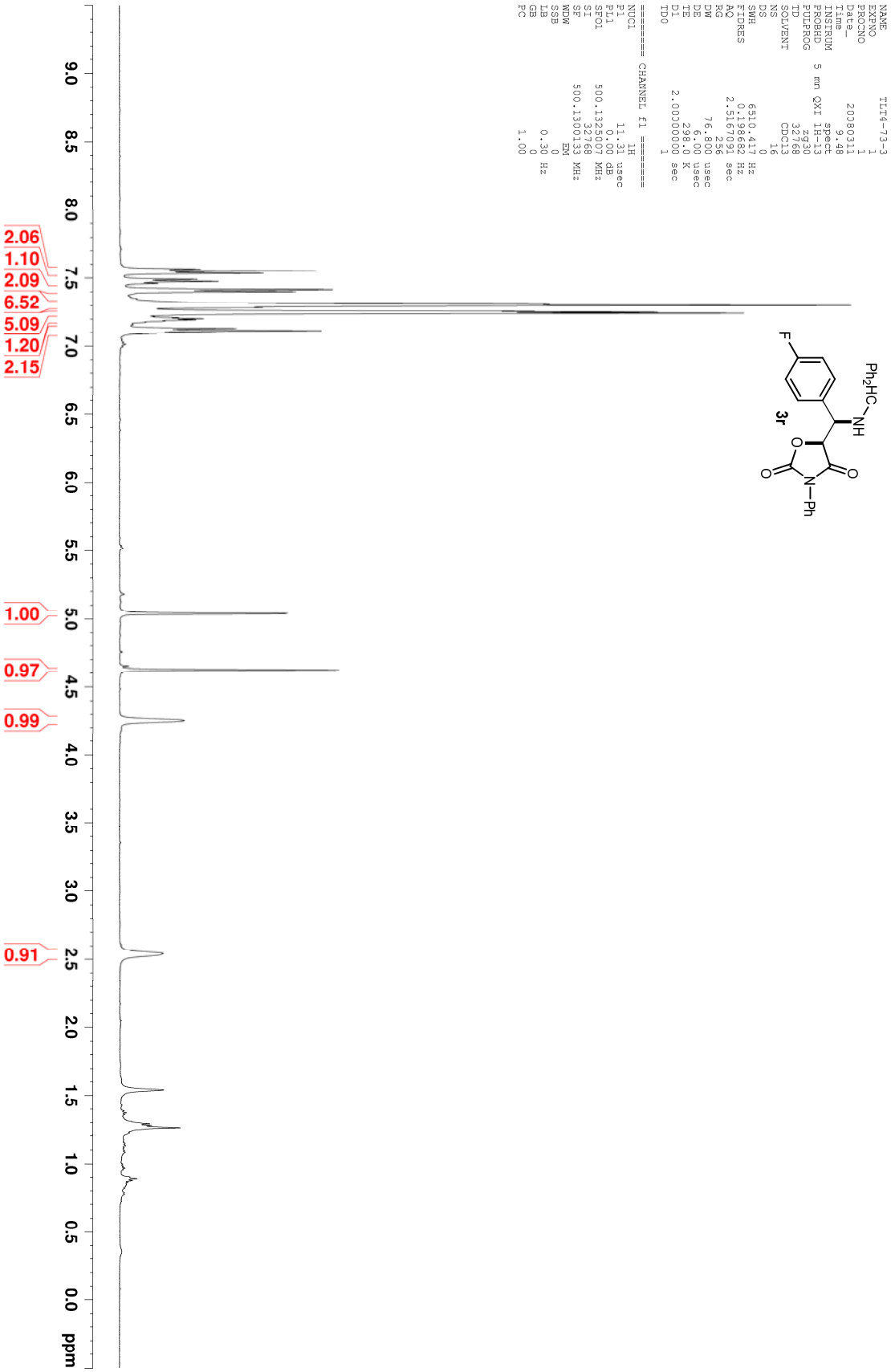

Figure 74. ^{13}C NMR (125 MHz, $CDCl_3$) of **3r**

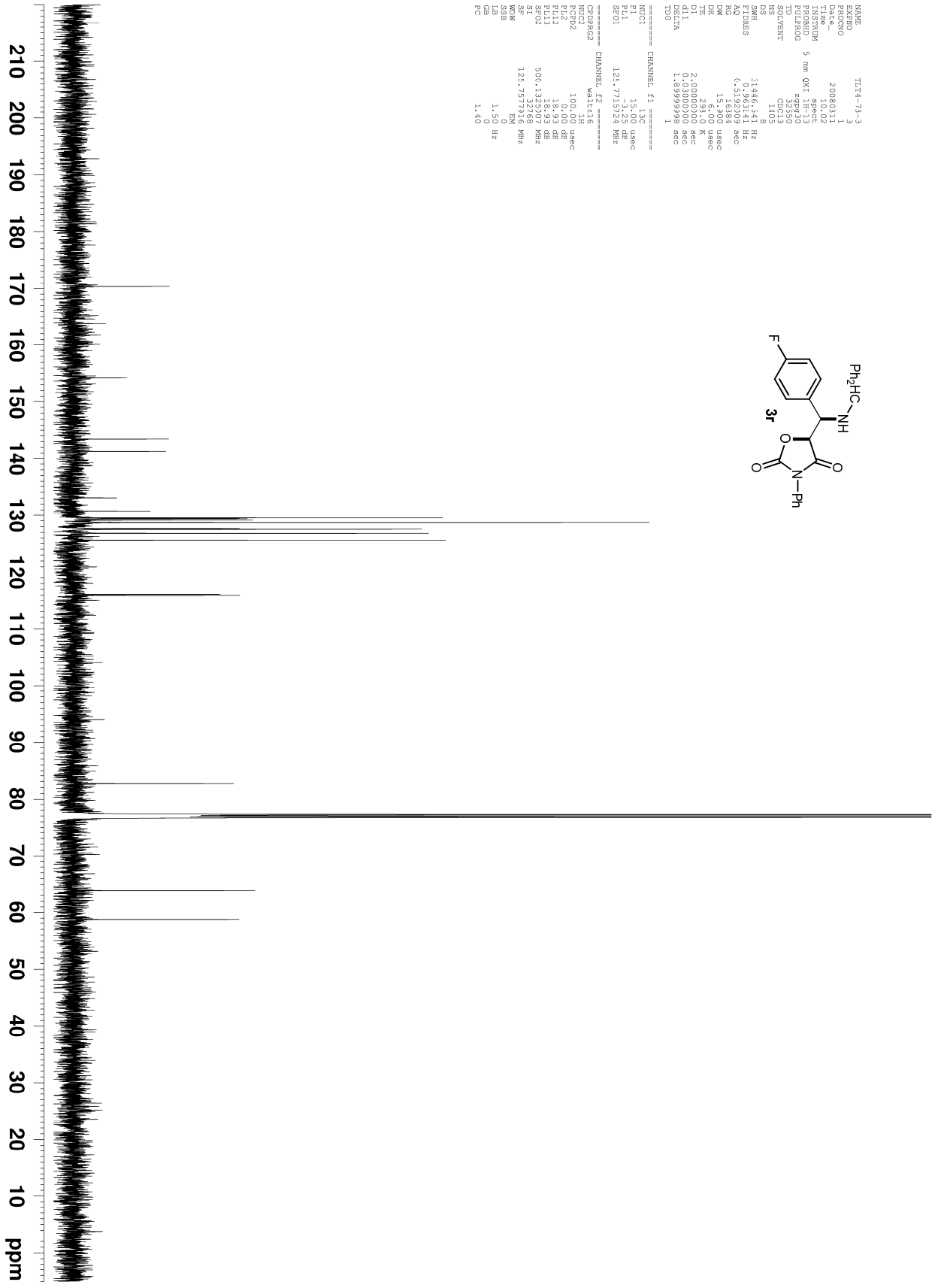

Figure 75. ^{1}H NMR (500 MHz, $CDCl_3$) of **3s**

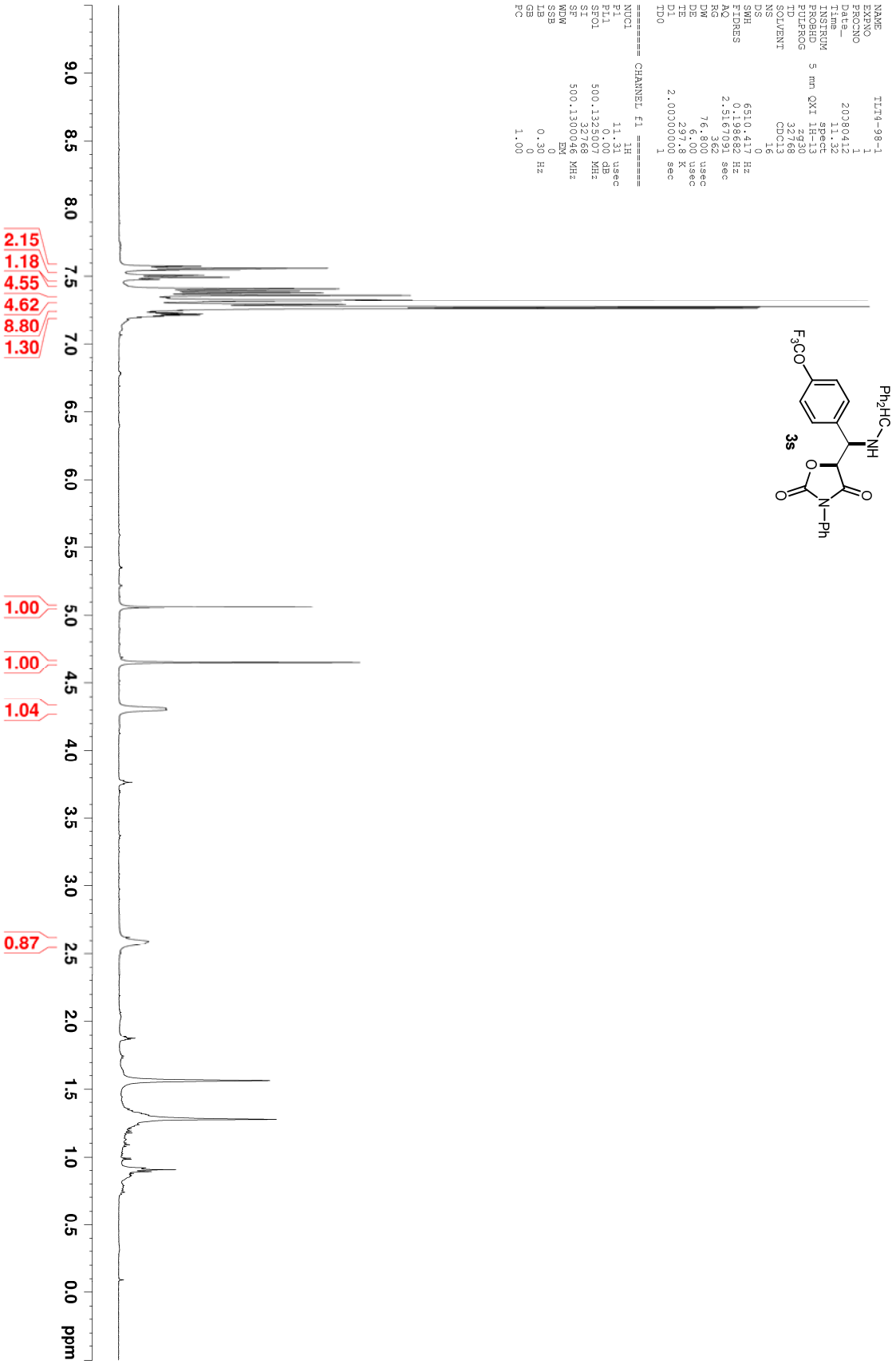

Figure 76. ^{13}C NMR (125 MHz, $CDCl_3$) of **3s**

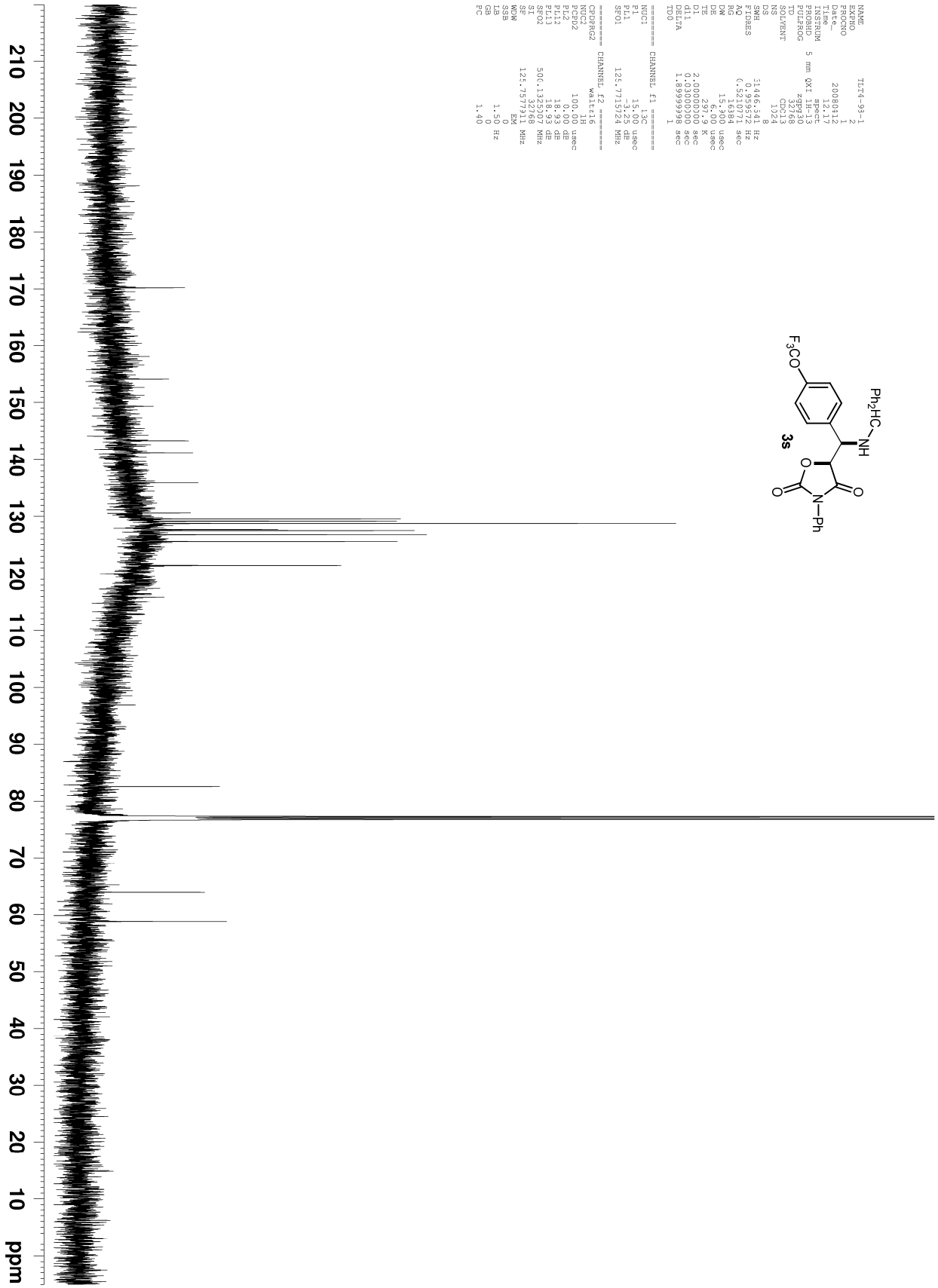

Figure 77. ^{1}H NMR (500 MHz, $CDCl_3$) of **3t**

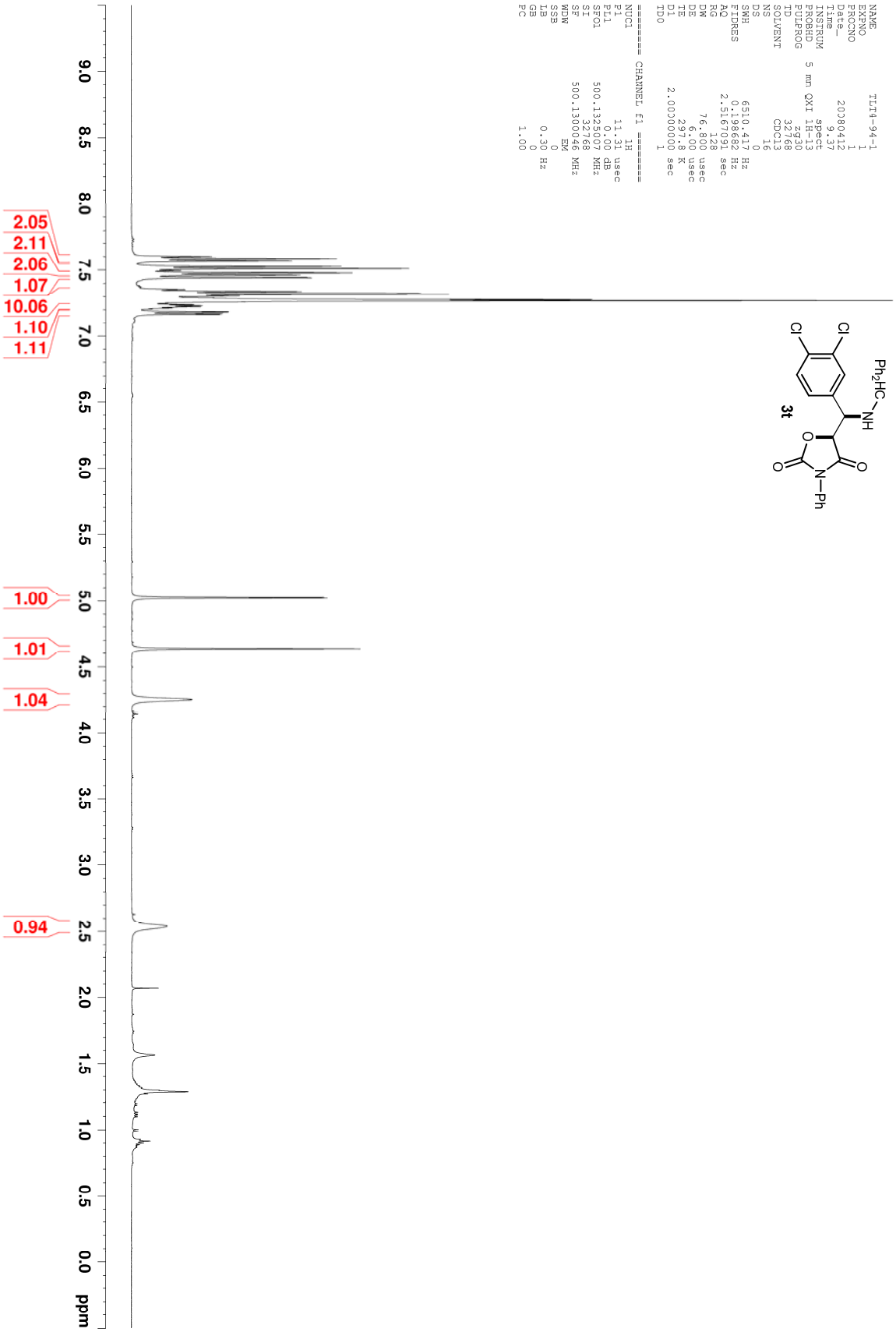

Figure 78. ^{13}C NMR (125 MHz, $CDCl_3$) of **3t**

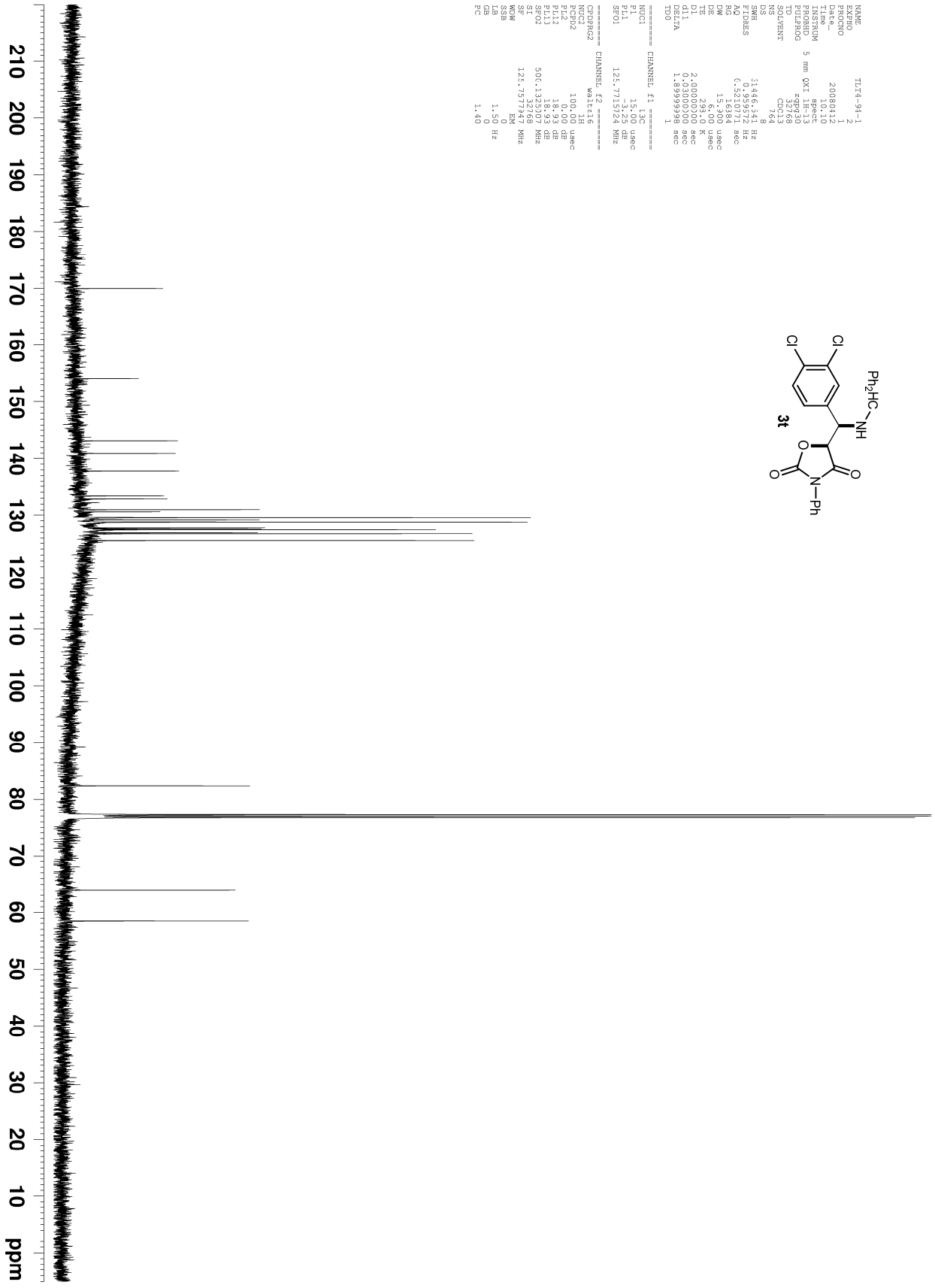

Figure 79. ^{1}H NMR (500 MHz, $CDCl_3$) of **3u**

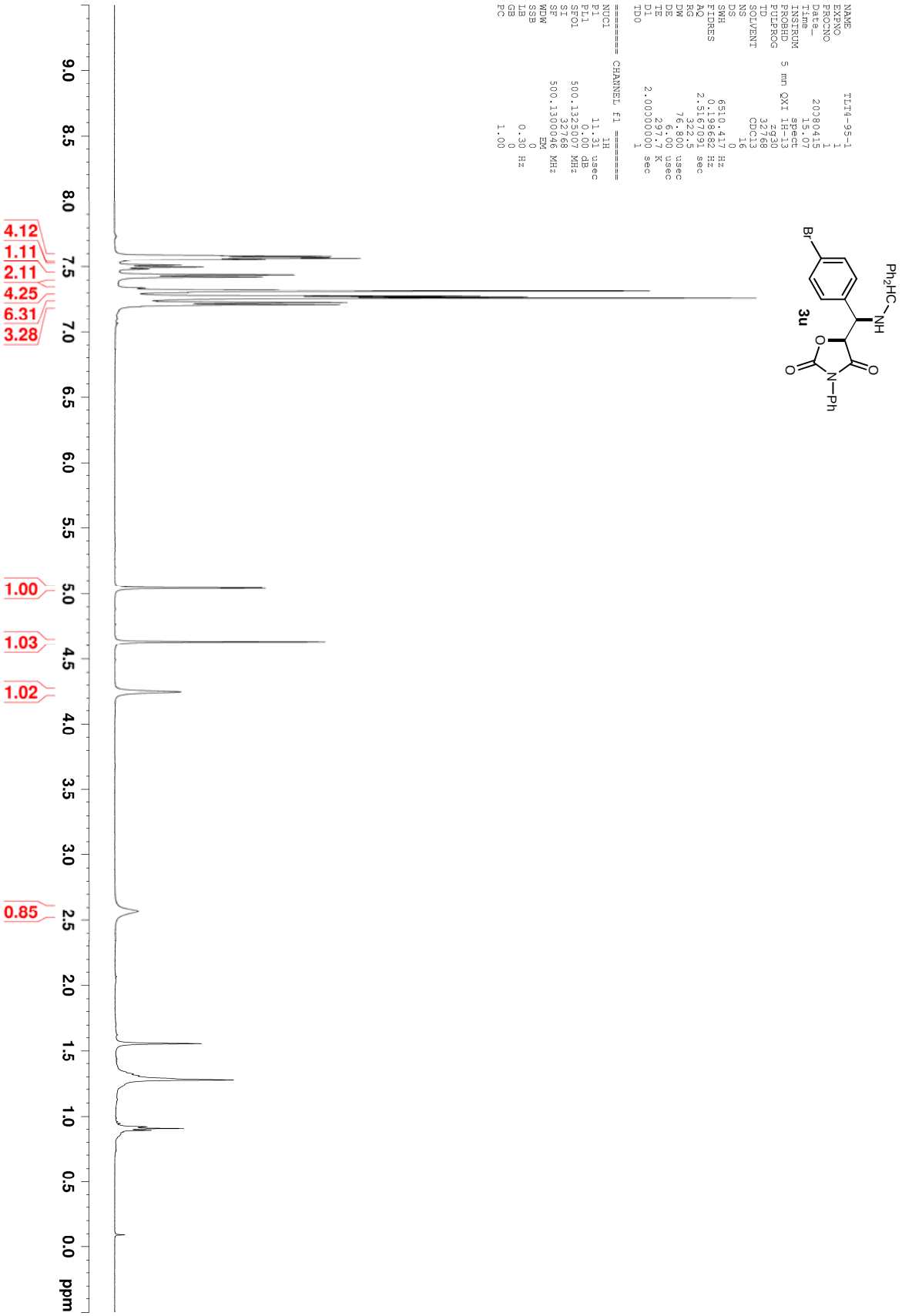

Figure 80. ^{13}C NMR (125 MHz, $CDCl_3$) of **3u**

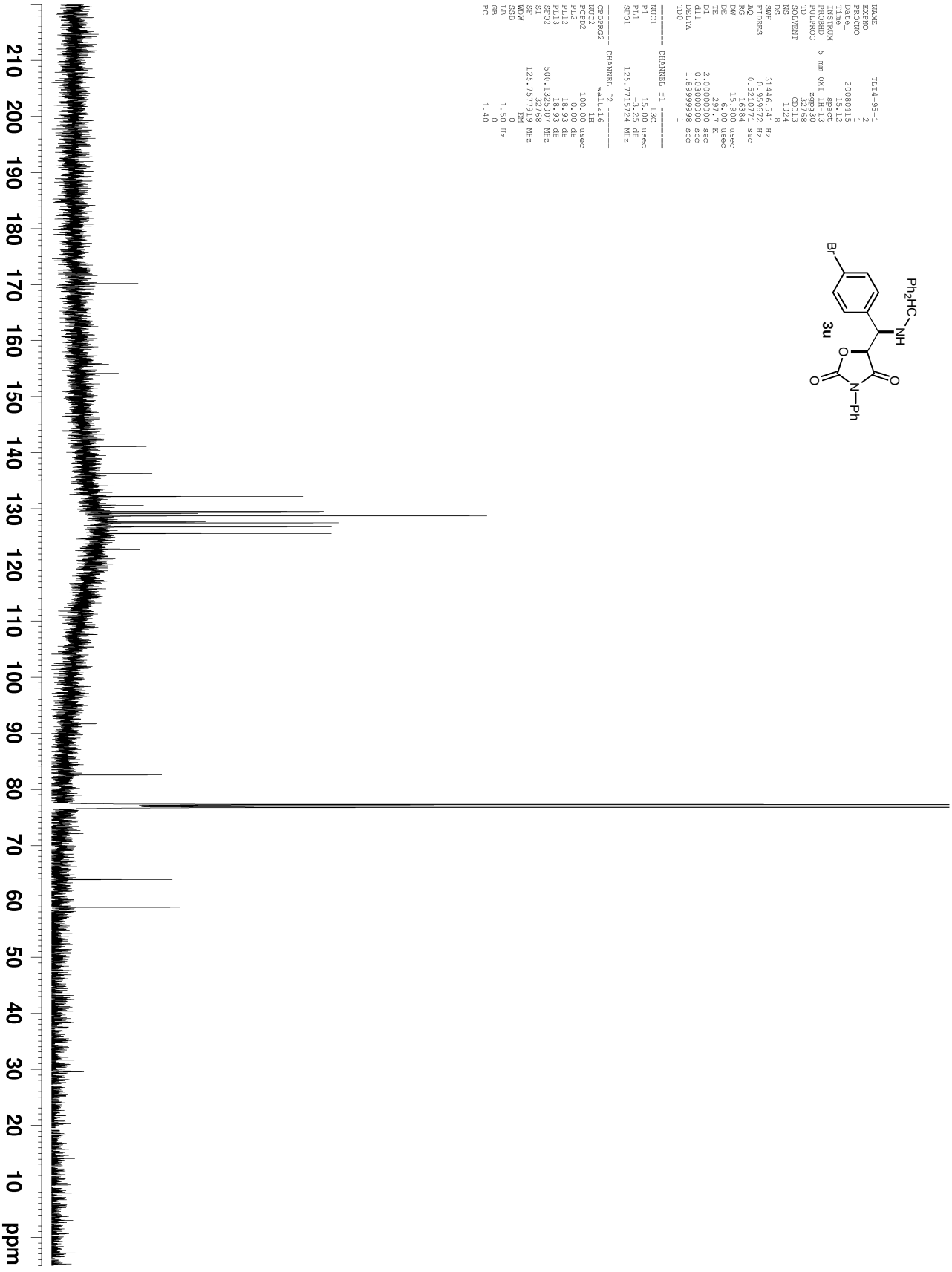

Figure 81. ^{1}H NMR (500 MHz, $CDCl_3$) of **3v**

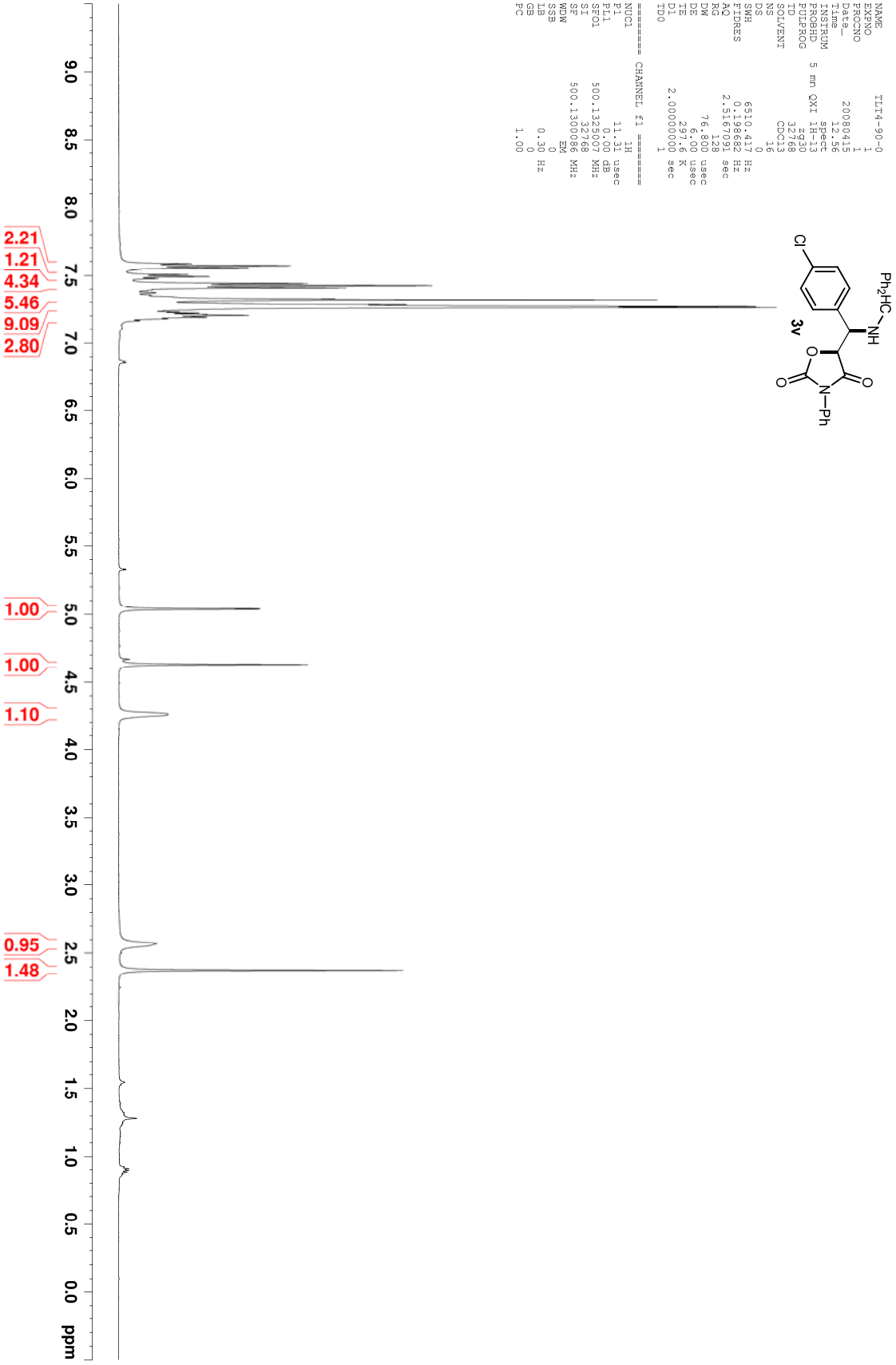

Figure 82. ^{13}C NMR (125 MHz, $CDCl_3$) of **3v**

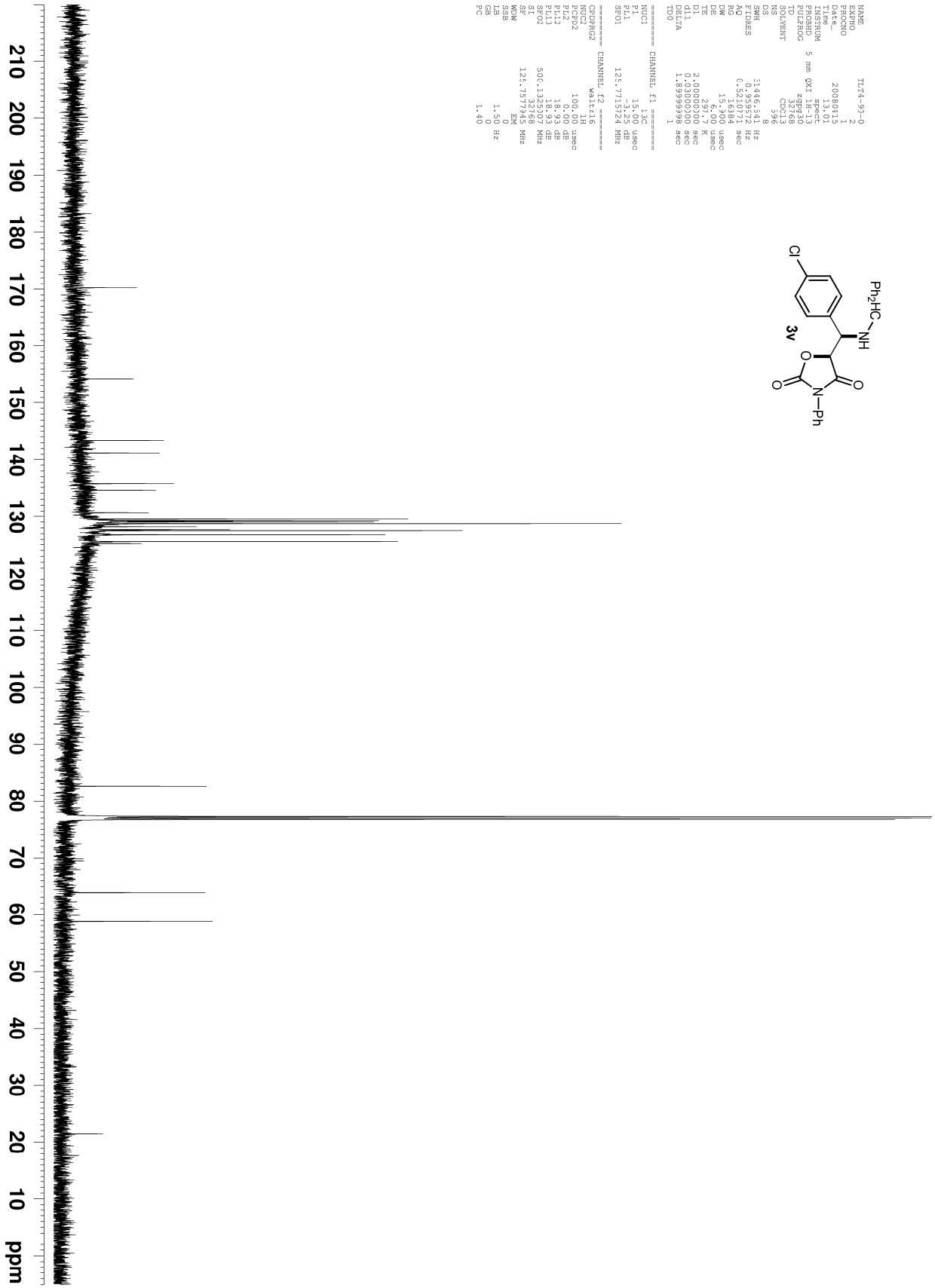

Figure 83. ^{1}H NMR (500 MHz, $CDCl_3$) of **3w**

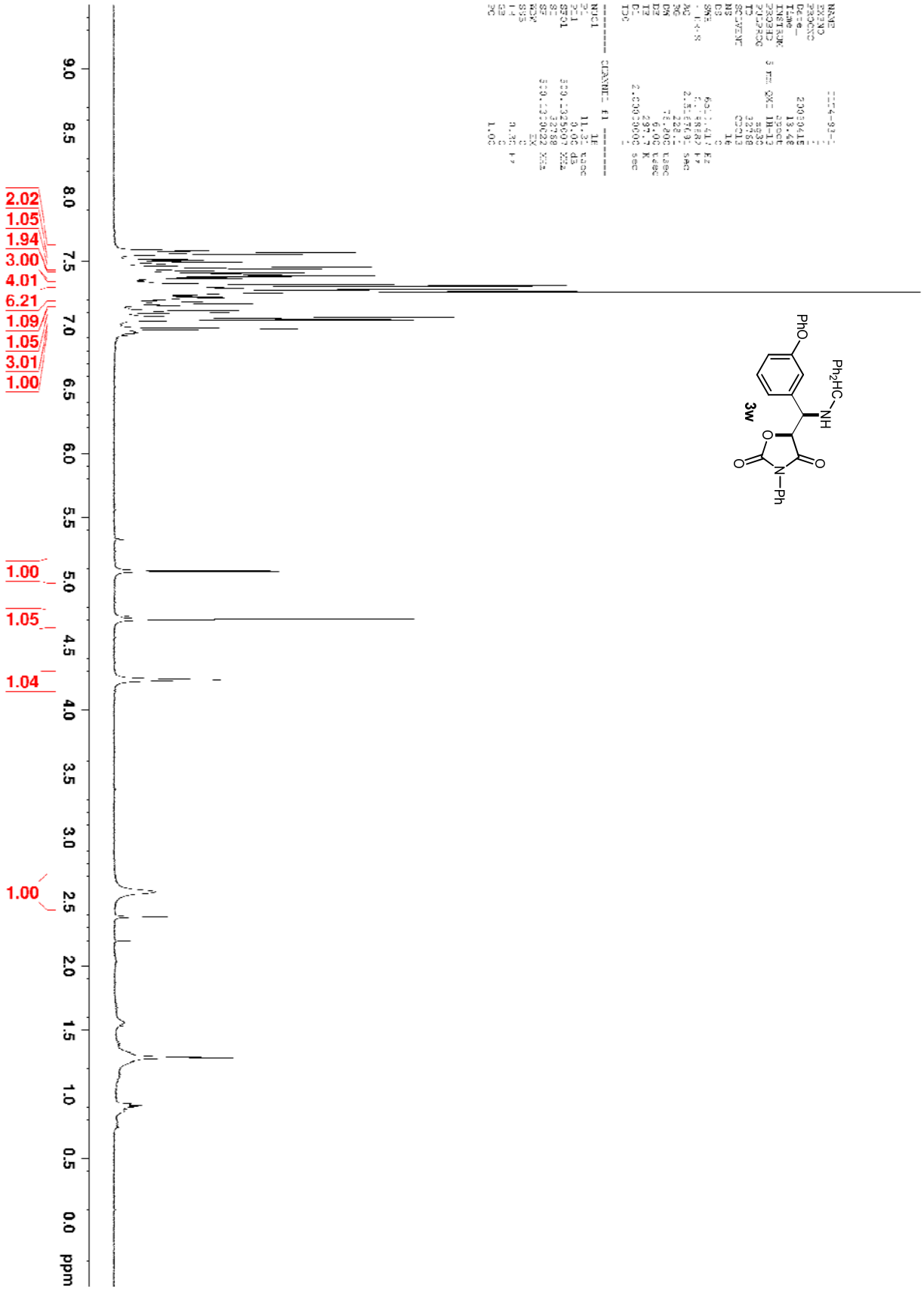

Figure 84. ^{13}C NMR (125 MHz, $CDCl_3$) of **3w**

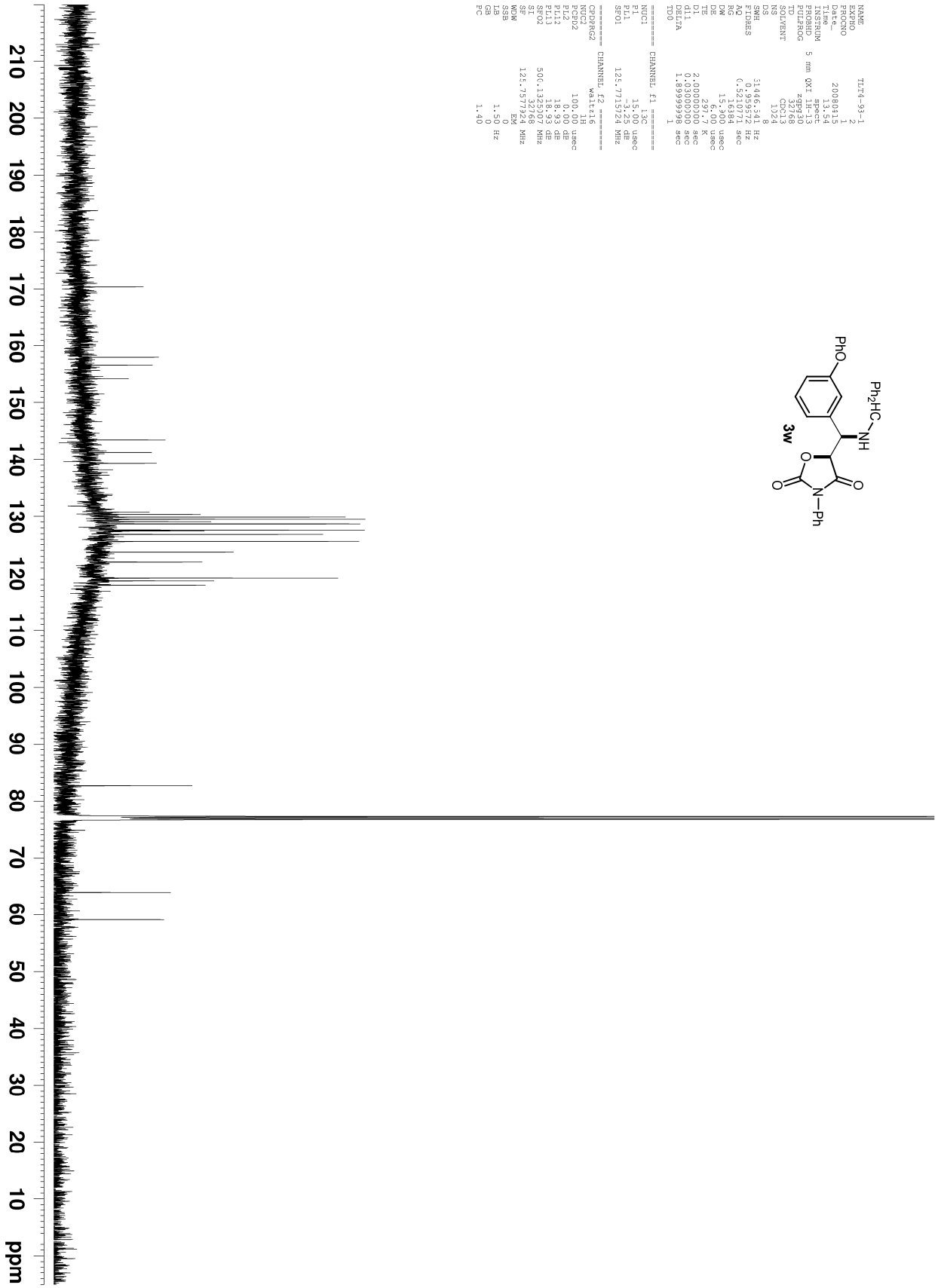

Figure 85. ^{1}H NMR (600 MHz, $CDCl_3$) of **3x**

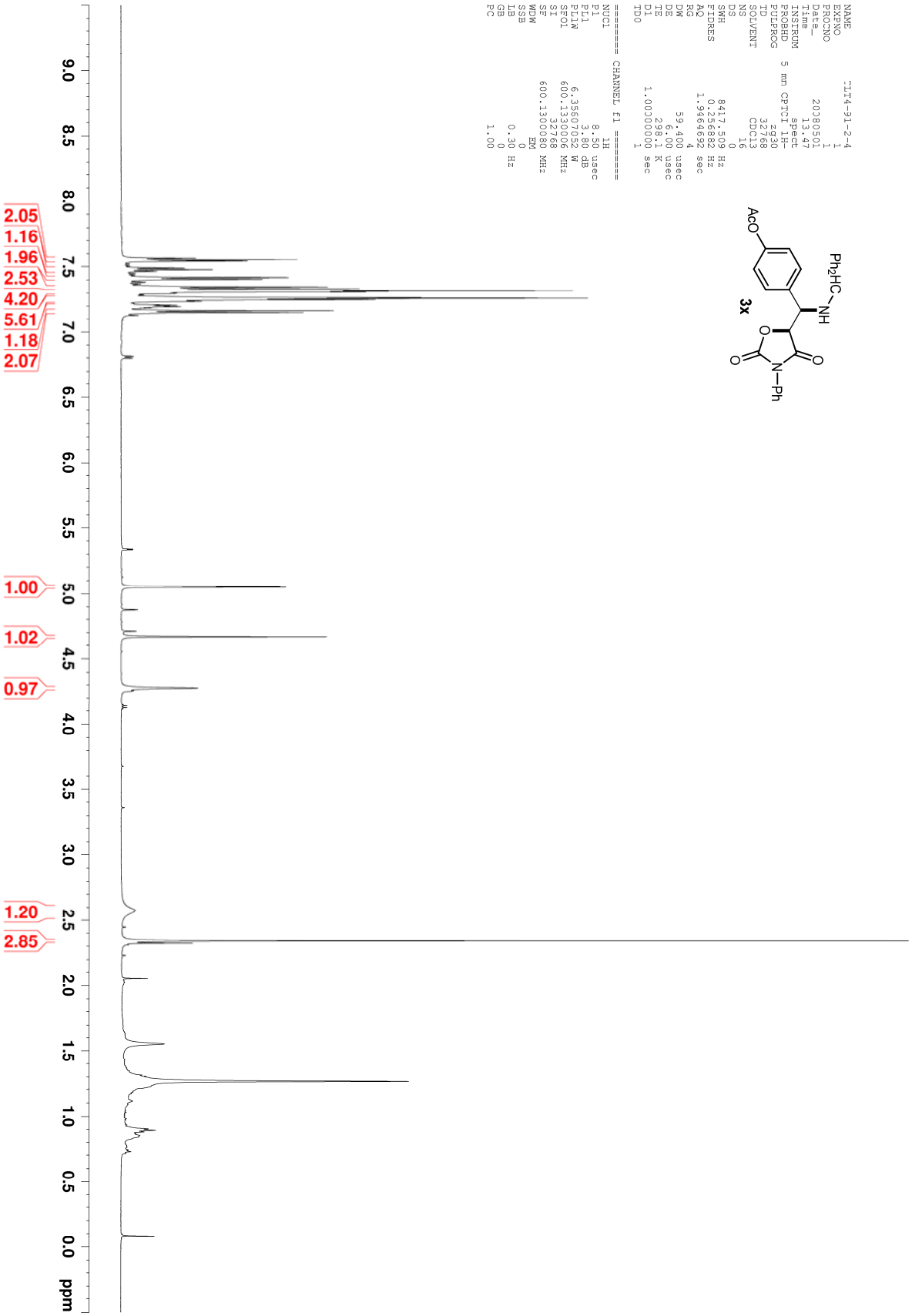

Figure 86. ^{13}C NMR (150 MHz, $CDCl_3$) of **3x**

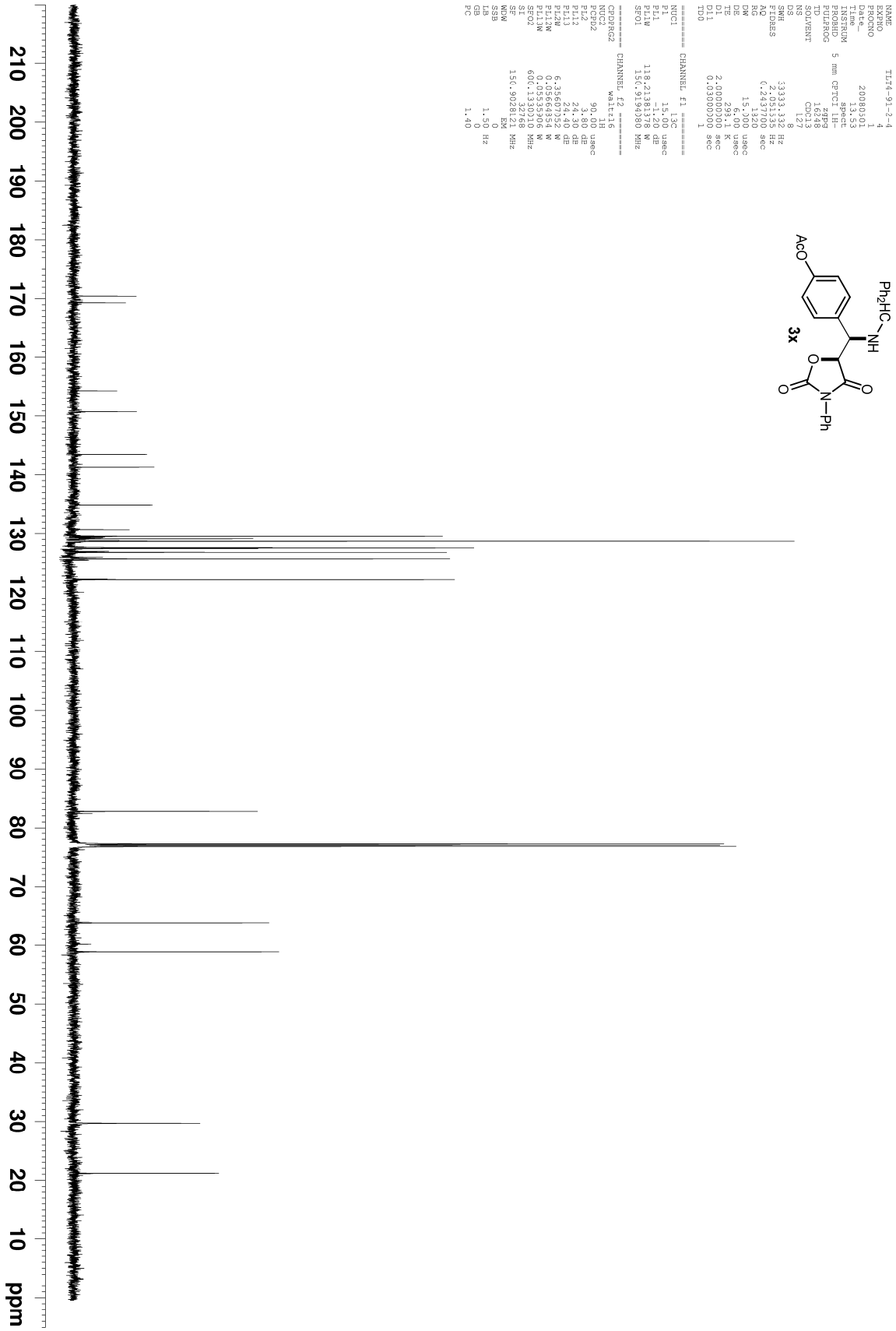

Figure 87. ^{1}H NMR (600 MHz, $CDCl_3$) of **3y**

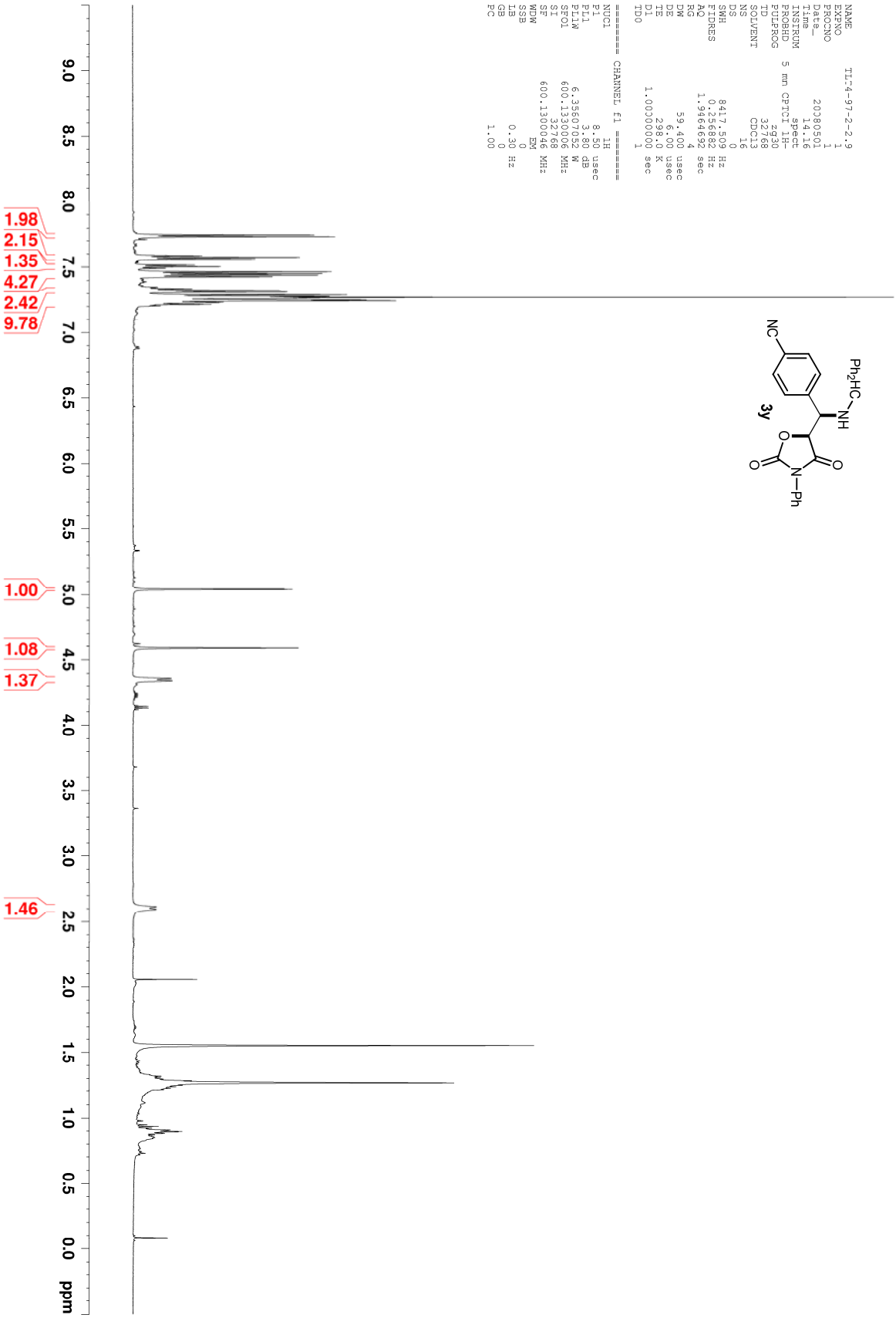

Figure 88. ^{13}C NMR (150 MHz, $CDCl_3$) of **3y**

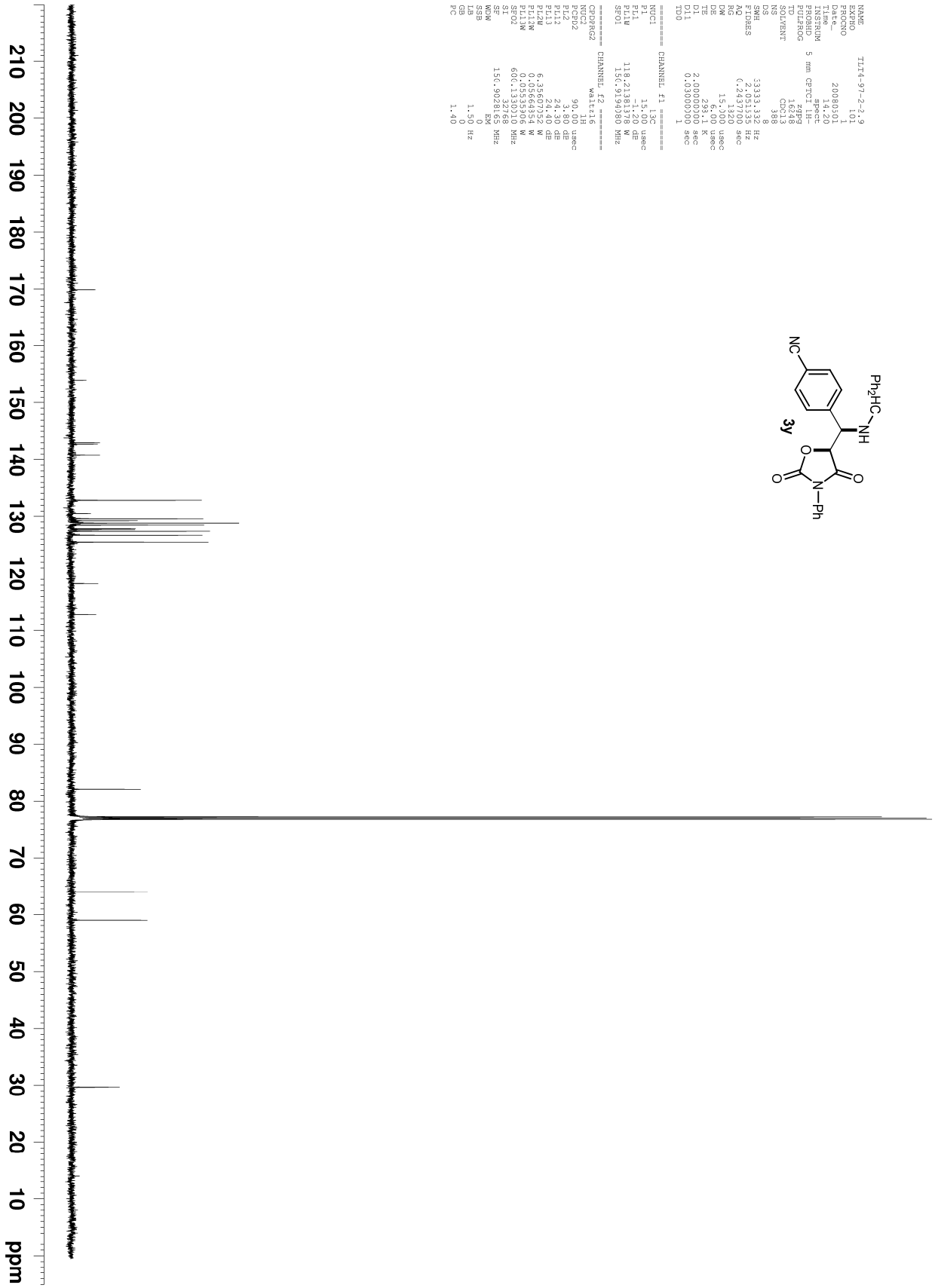

Figure 89. ^{1}H NMR (500 MHz, $CDCl_3$) of **5**

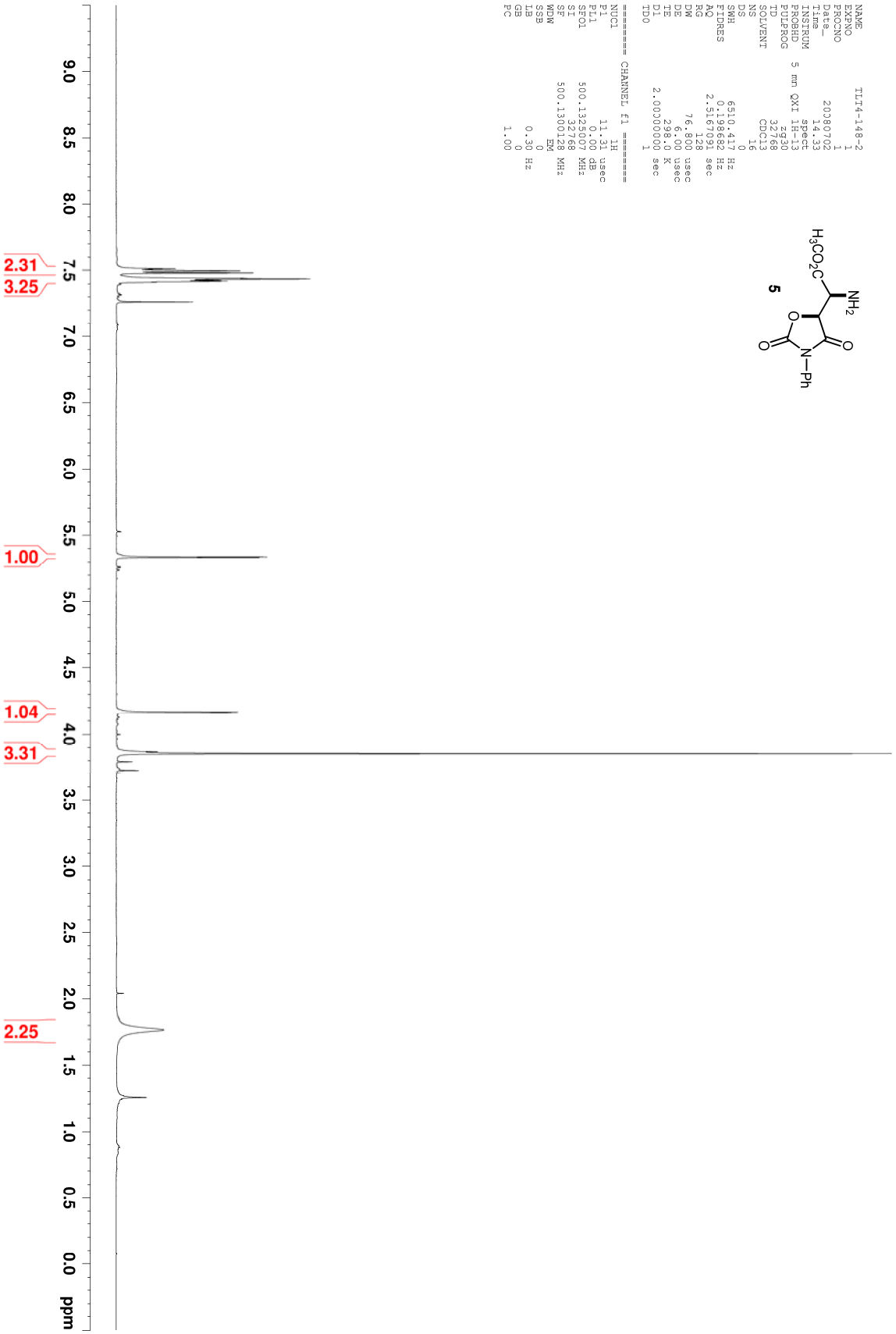

Figure 90. ^{13}C NMR (125 MHz, $CDCl_3$) of **5**

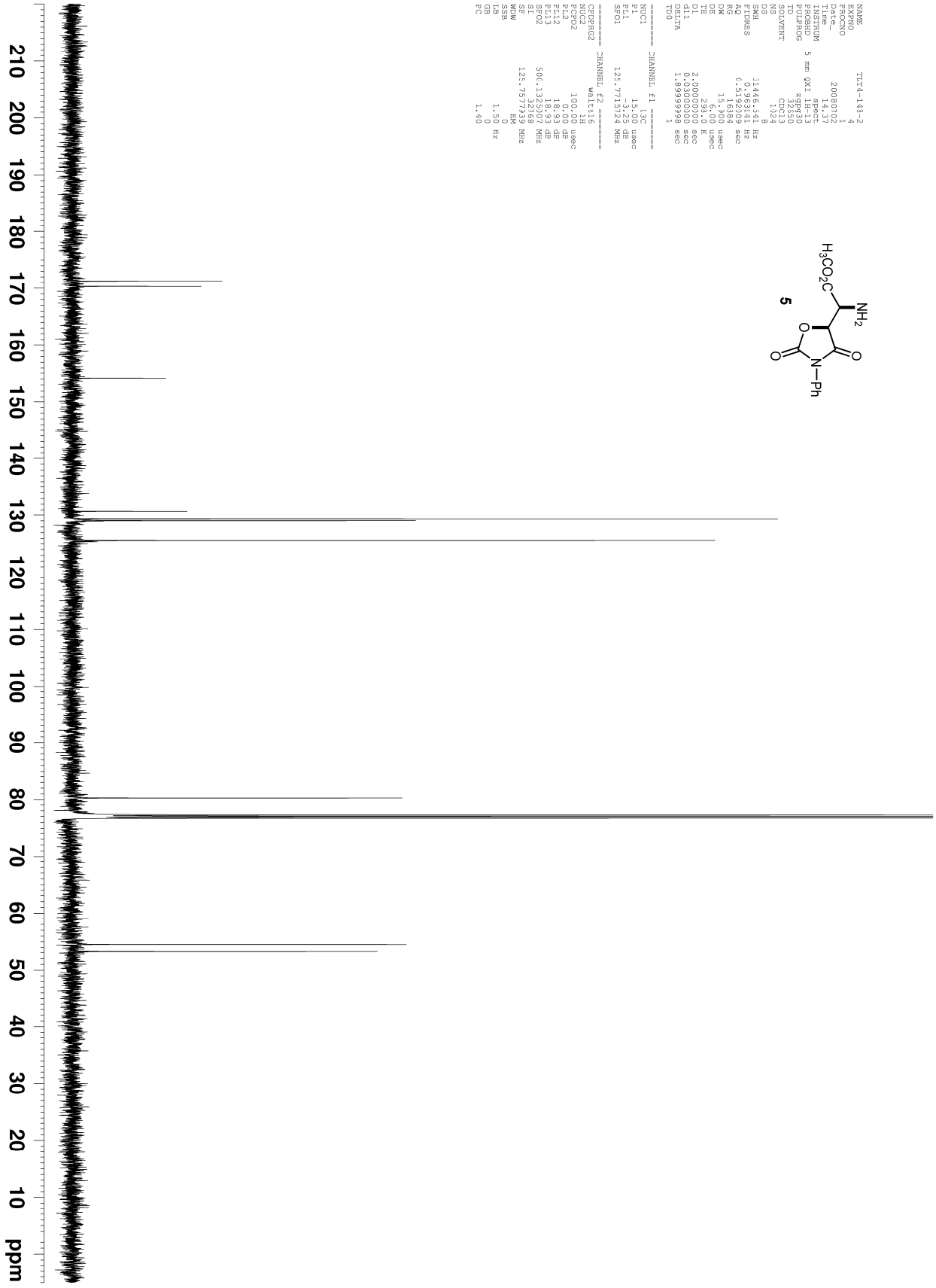

Figure 91. ^{1}H NMR (600 MHz, $CDCl_3$) of **6**

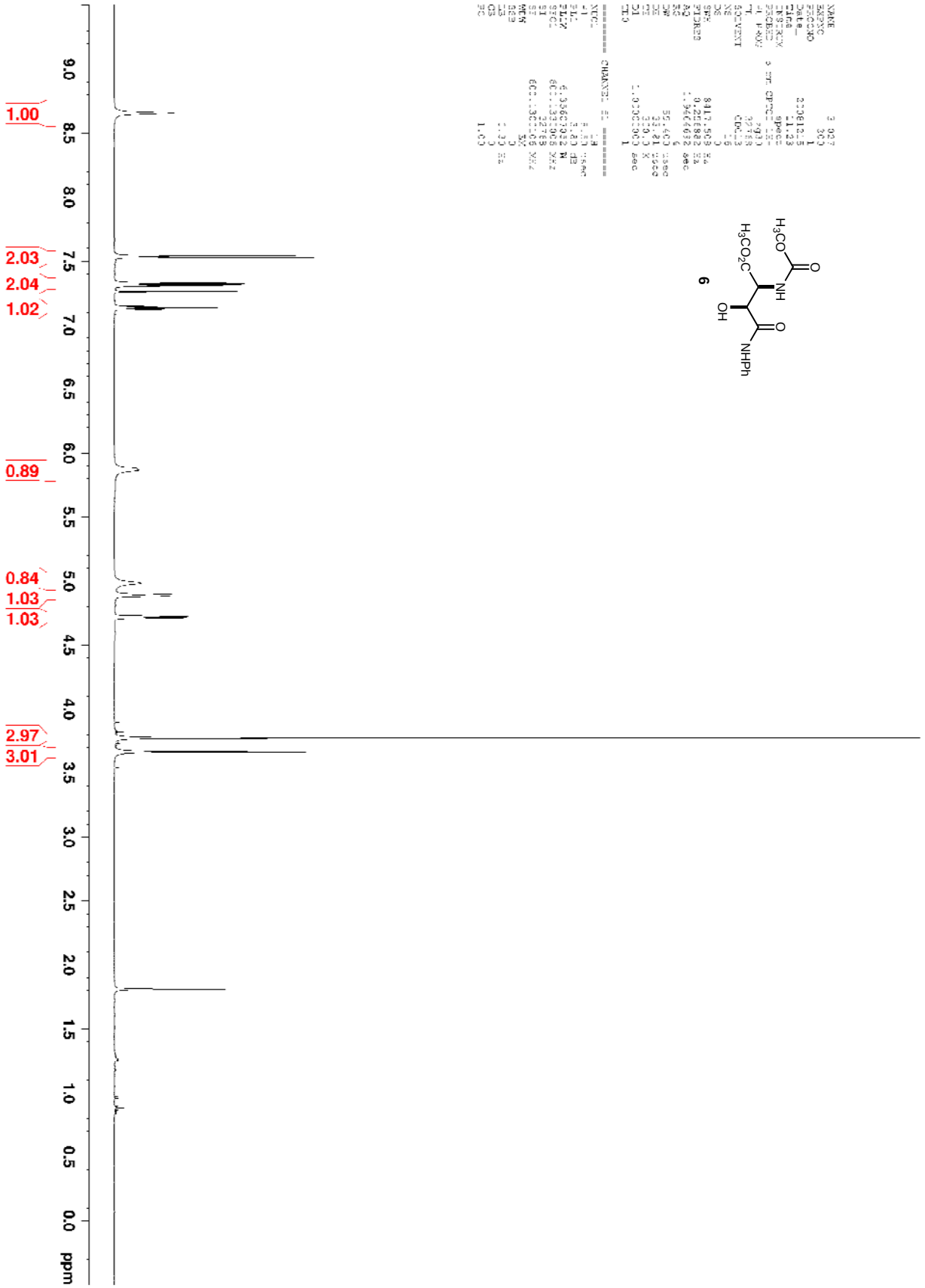

Figure 92. ^{13}C NMR (150 MHz, $CDCl_3$) of 6