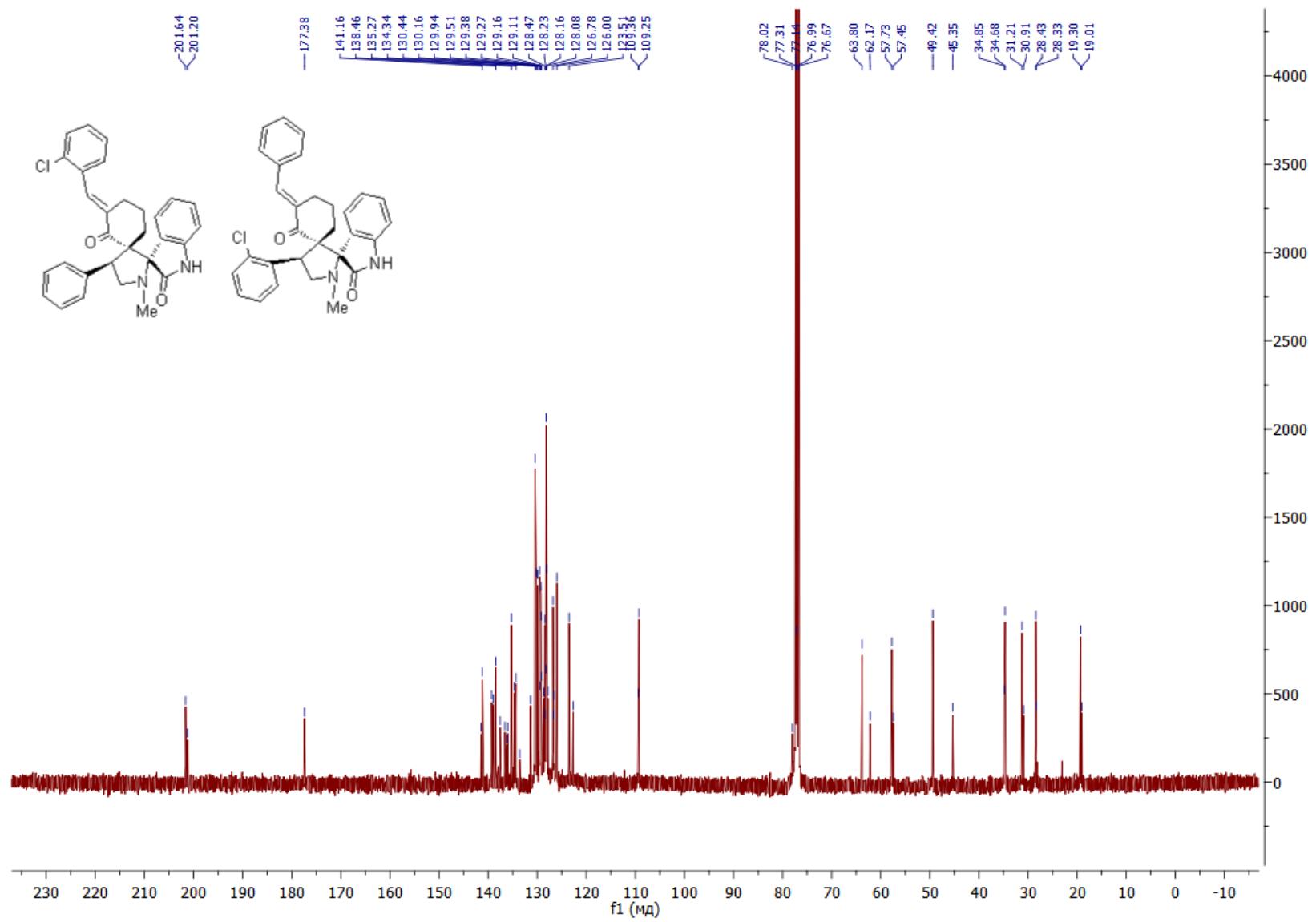
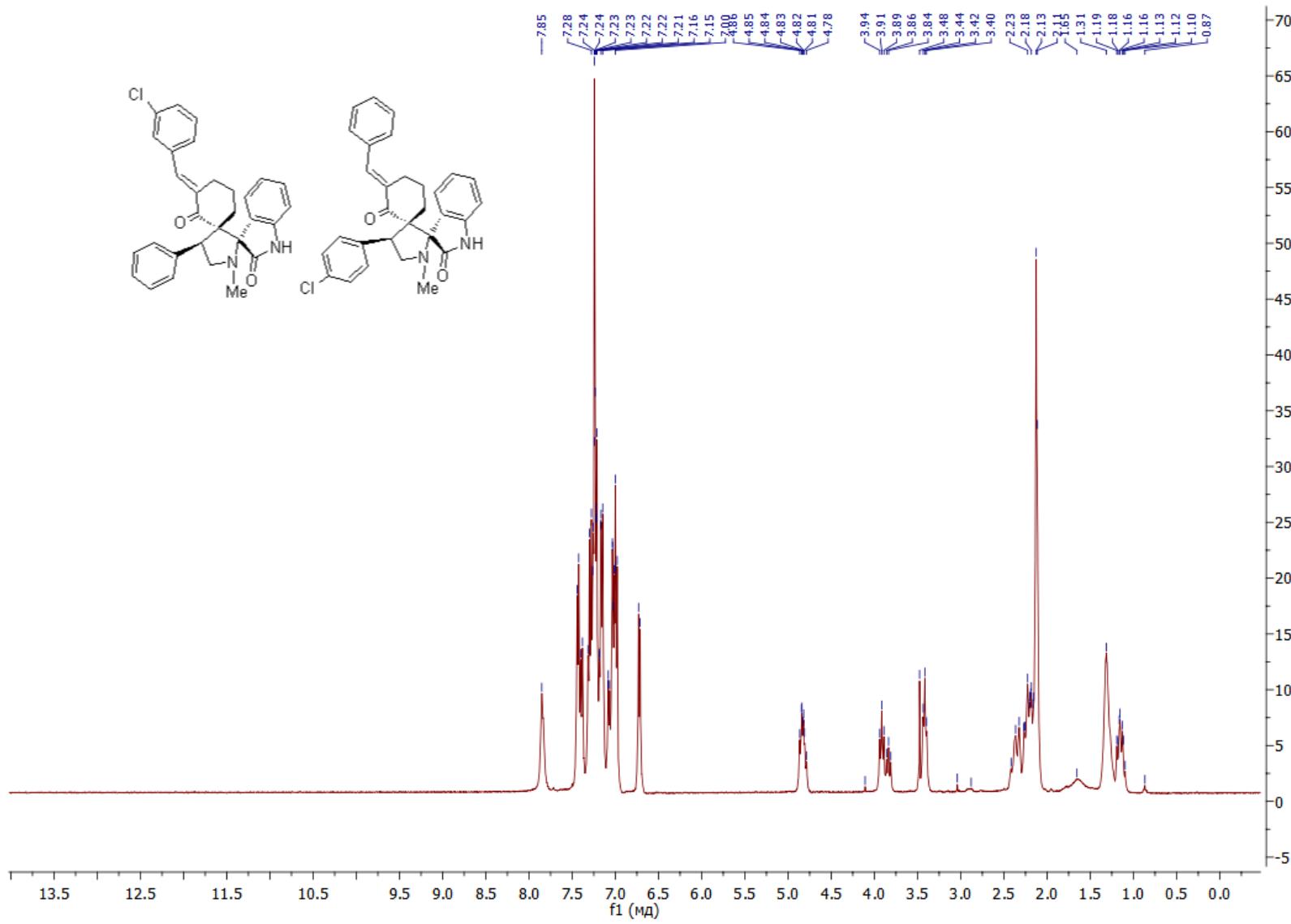


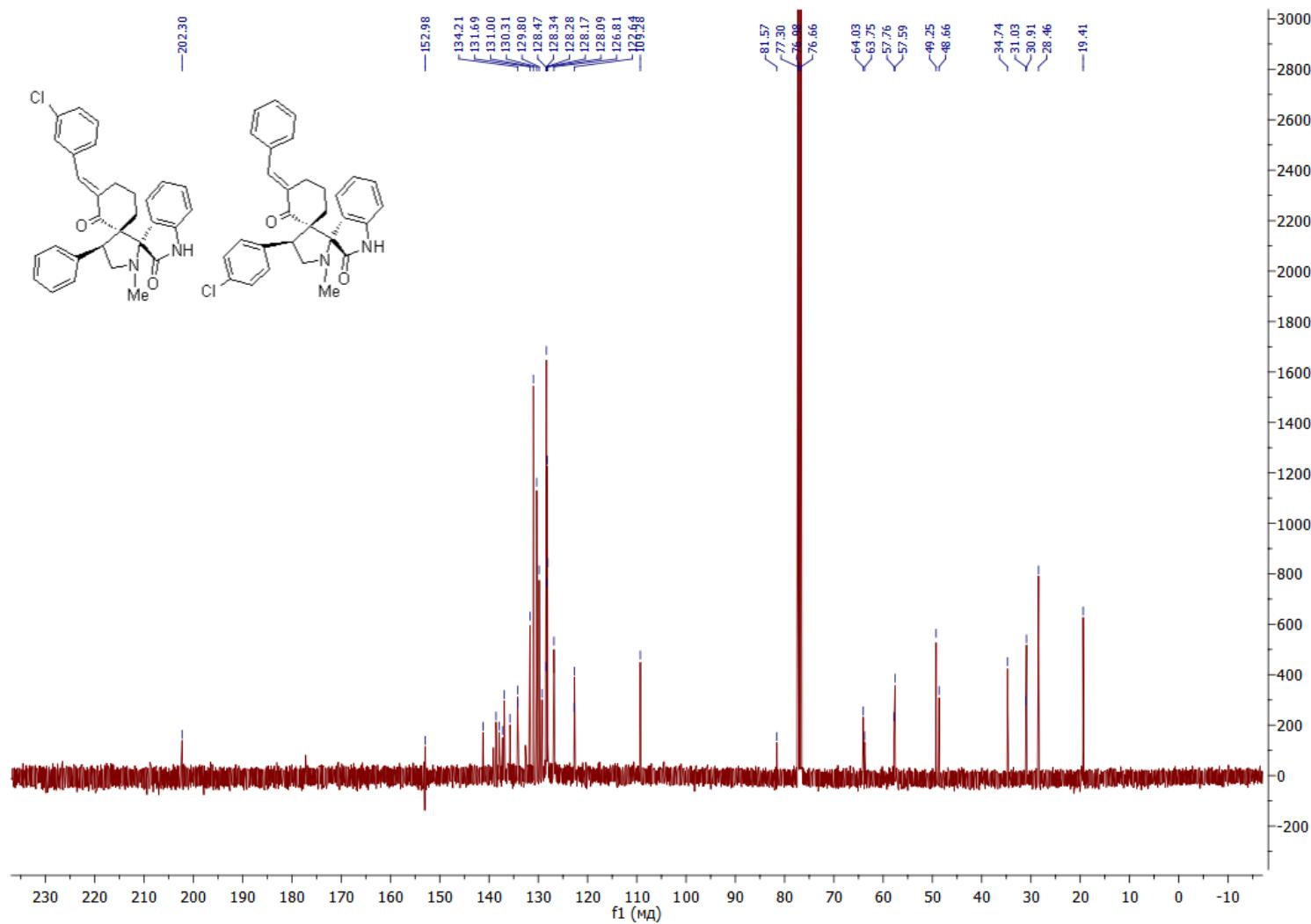
The  ${}^1\text{H}$  NMR 1-N-methyl-spiro[2.3 $^1$ ]oxindole-spiro[3.2 $^{11}$ ]611-(2-chlorophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3 $^1$ ]oxindole-spiro[3.2 $^{11}$ ]611-phenylmethylidenecyclohexanone-4-(2-chlorophenyl) pyrrolidines (**2** and **3 a**)



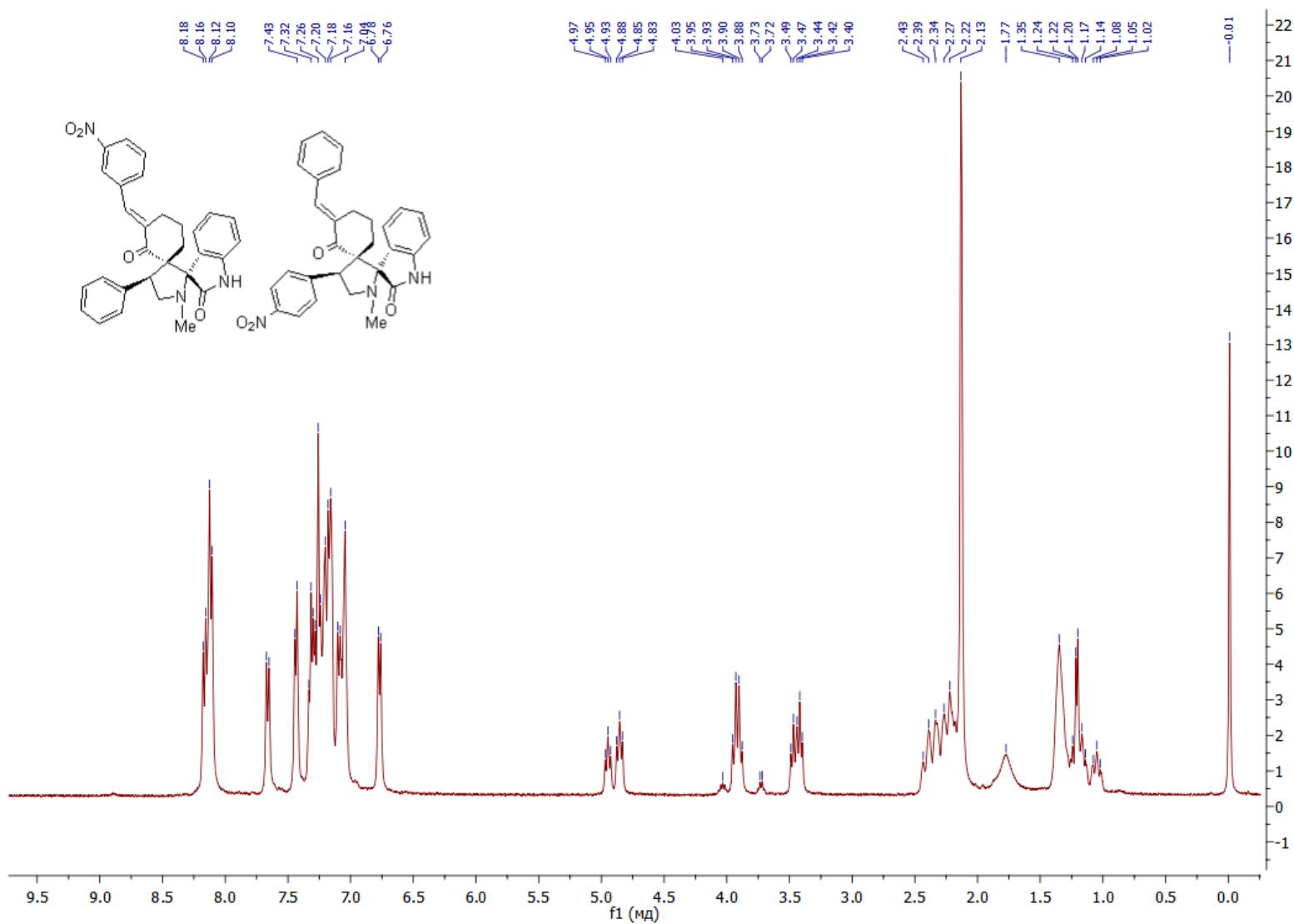
The  $^{13}\text{C}$  NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]611-(2-chlorophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]611-phenylmethylidenecyclohexanone-4- (2-chlorophenyl) pyrrolidines (**2** and **3 a**)



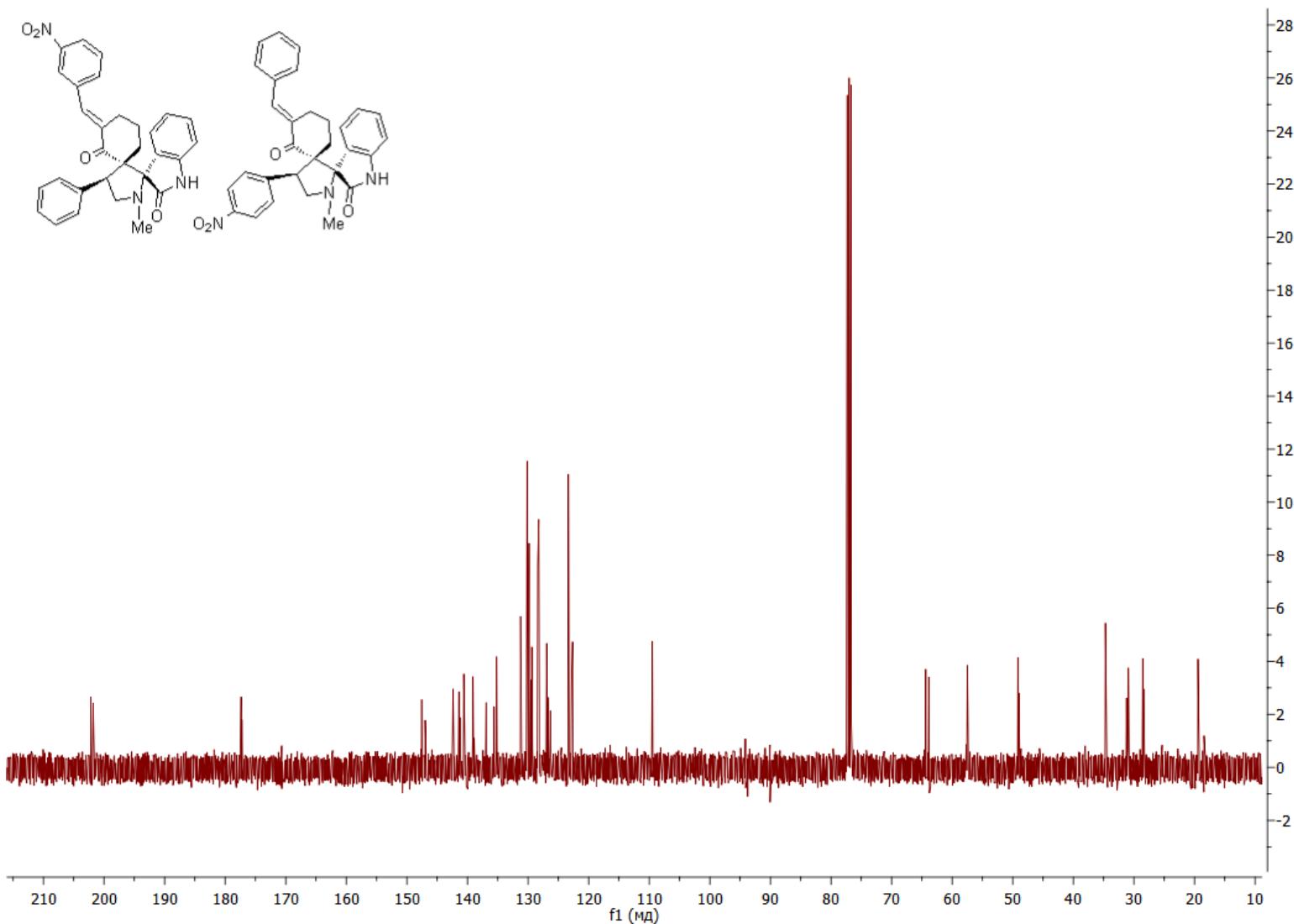
The  $^1\text{H}$  NMR 1-N-methyl-spiro[2.3 $^1$ ]oxindole-spiro[3.2 $^{11}$ ]611-(4-chlorophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3 $^1$ ]oxindole-spiro[3.2 $^{11}$ ]611-phenylmethylidenecyclohexanone-4-(4-chlorophenyl)pyrrolidines (**2** and **3 b**)



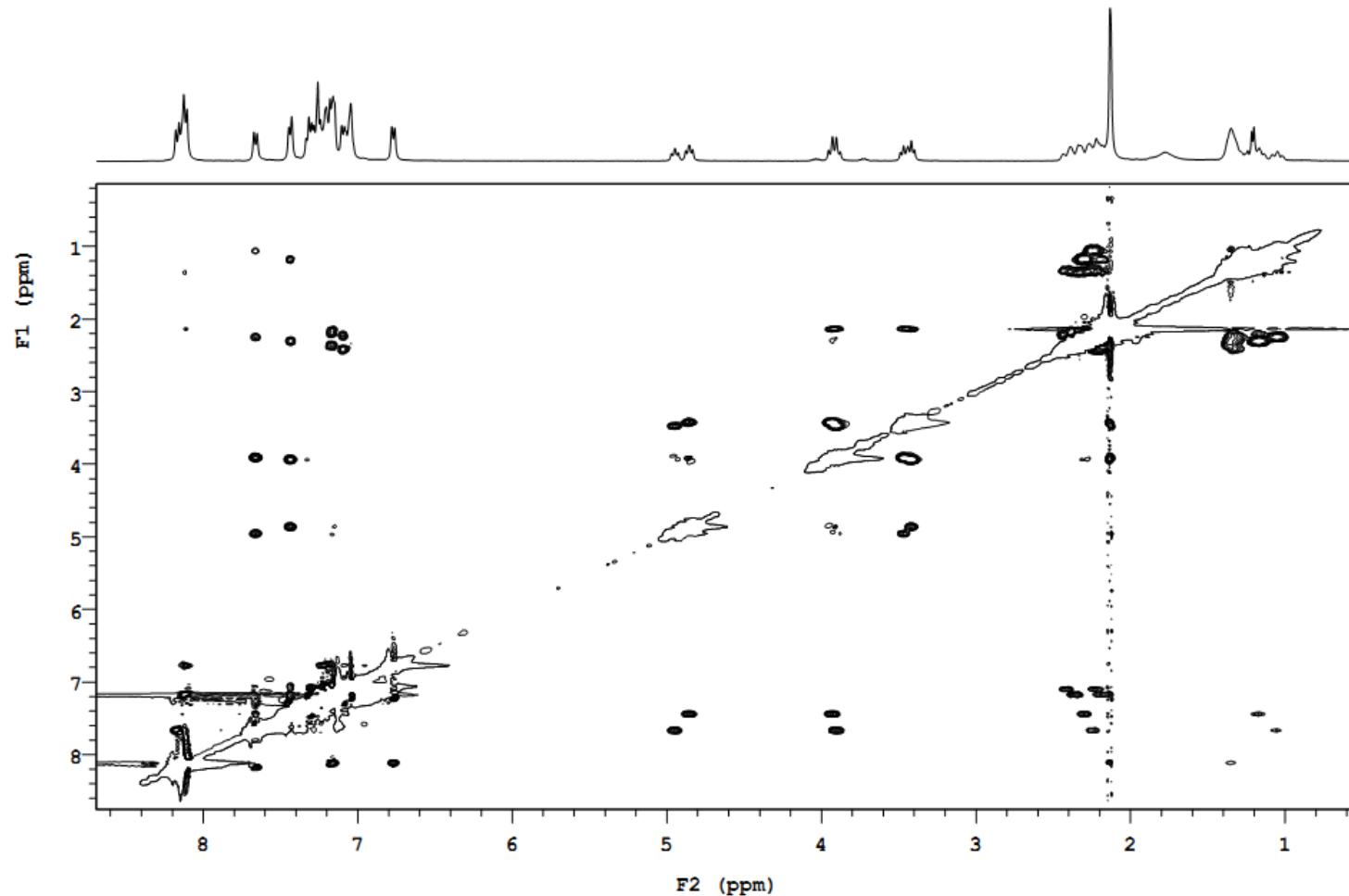
The  $^{13}\text{C}$  NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]611-(4-chlorophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]611-phenylmethylidenecyclohexanone-4-(4-chlorophenyl)pyrrolidines (**2** and **3 b**)



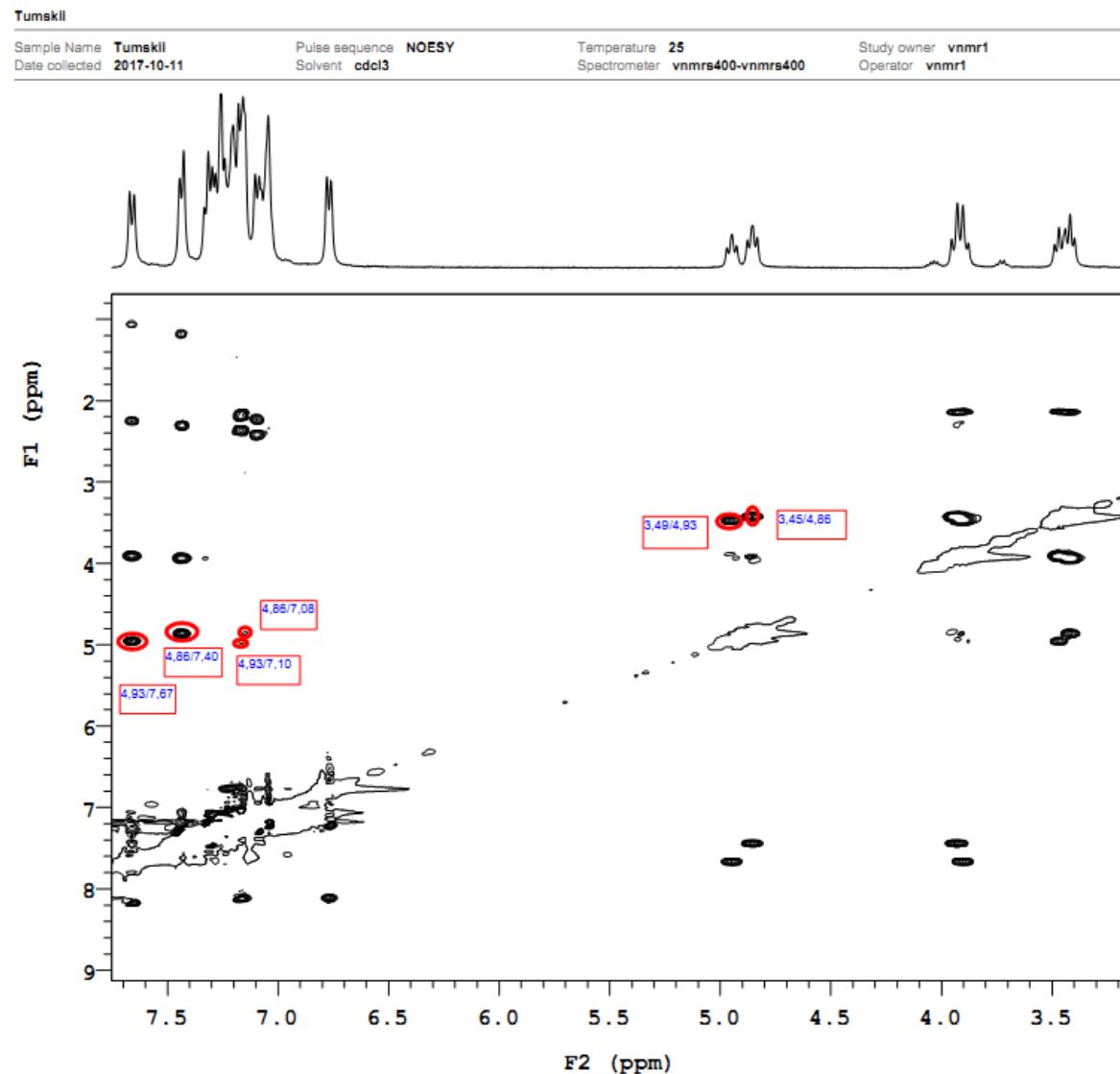
The  $^1\text{H}$  NMR 1-N-methyl-spiro[2.3 $^1$ ]oxindole-spiro[3.2 $^{11}$ ]6 $^{11}$ -(4-nitrophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3 $^1$ ]oxindole-spiro[3.2 $^{11}$ ]6 $^{11}$ -phenylmethylidenecyclohexanone-4- (4-nitrophenyl) -pyrrolidines (**2** and **3 c**)



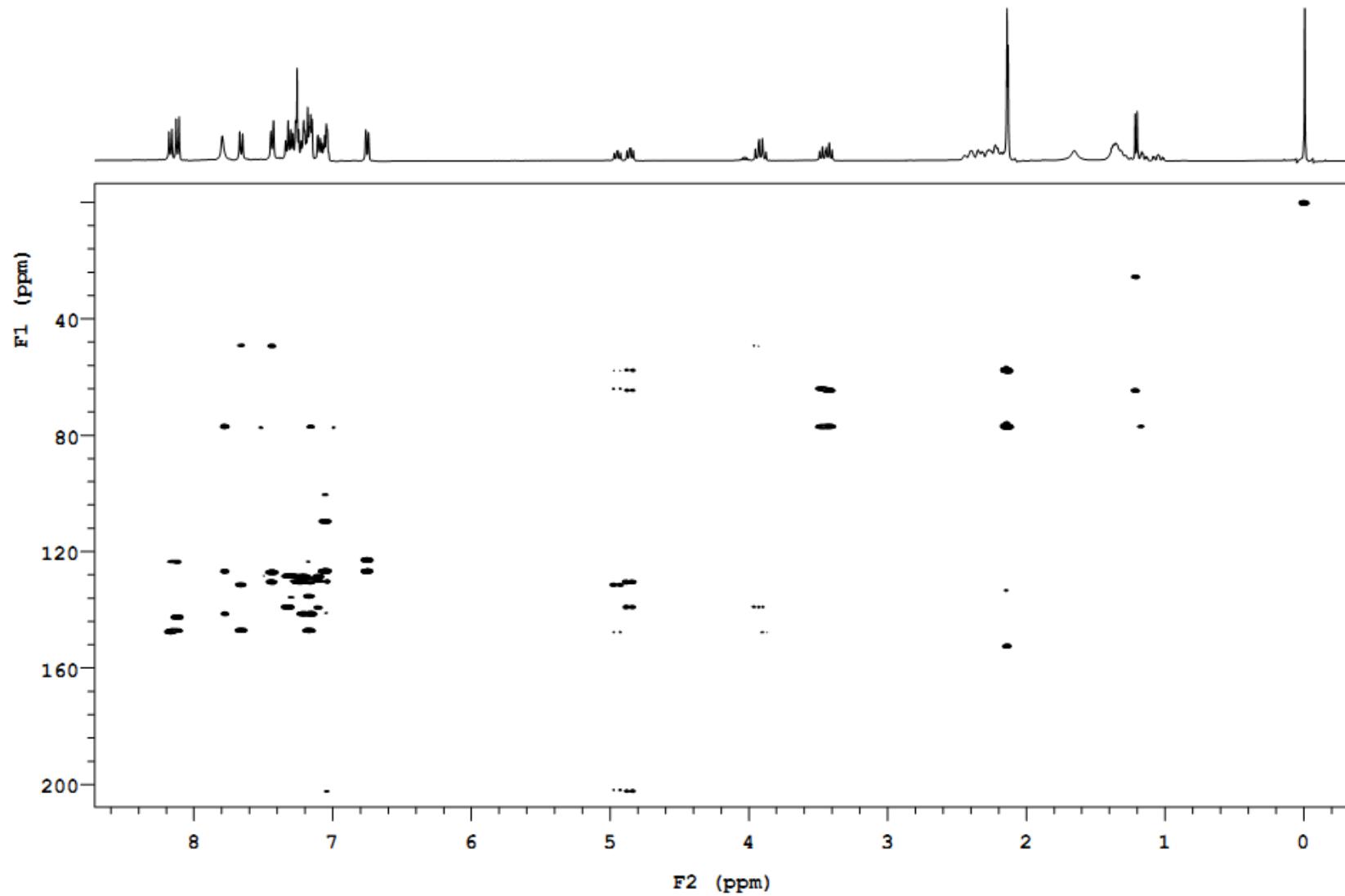
The  $^{13}\text{C}$  NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-(4-nitrophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-phenylmethylidenecyclohexanone-4- (4-nitrophenyl) -pyrrolidines (**2** and **3 c**)



The NOESY spectrum of 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-(4-nitrophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-phenylmethylidenecyclohexanone-4- (4-nitrophenyl) -pyrrolidines (**2** and **3 c**)



The detailed NOESY spectrum of 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-(4-nitrophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-phenylmethylidenecyclohexanone-4- (4-nitrophenyl) -pyrrolidines (**2** and **3 c**)



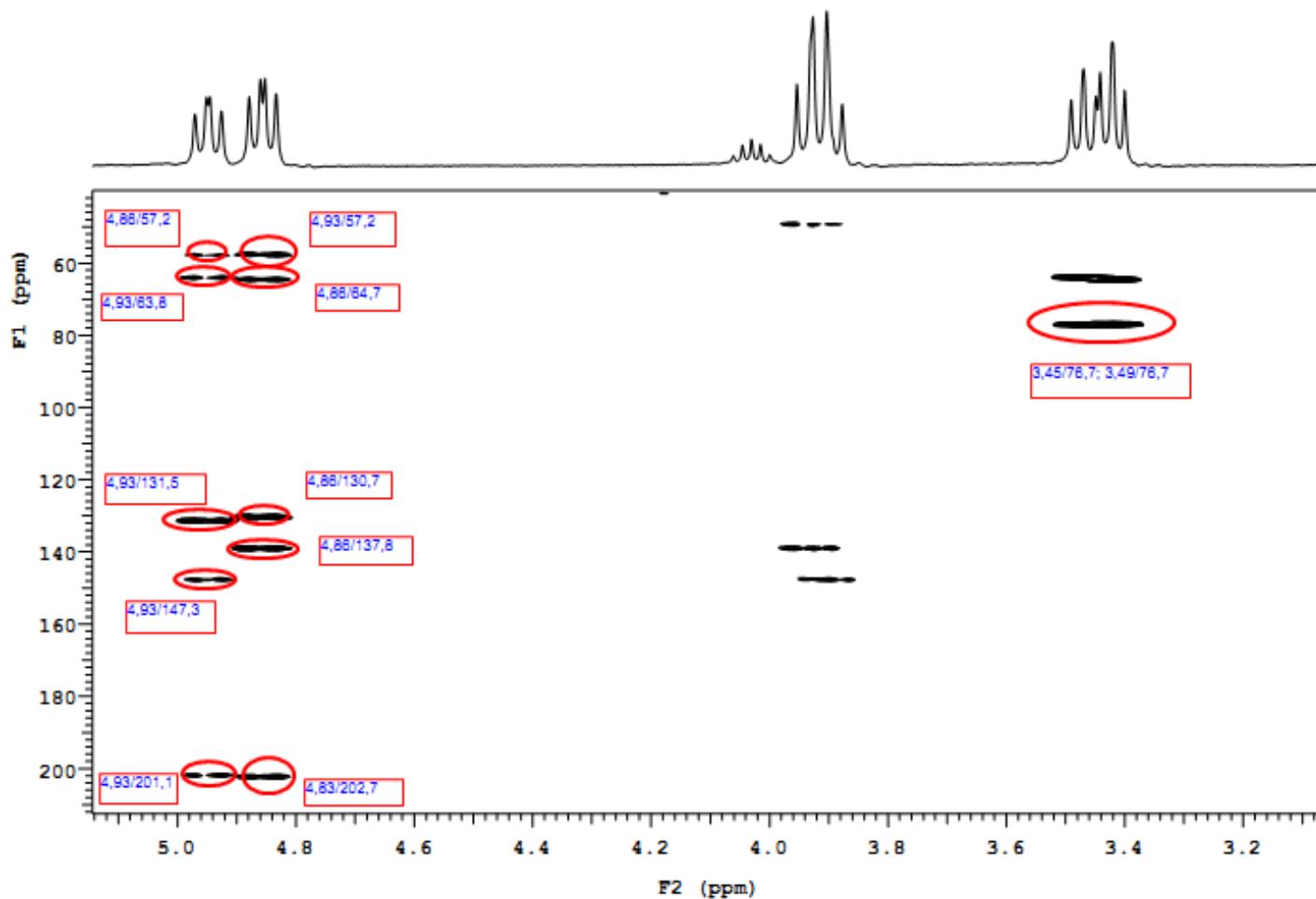
The  $^1\text{H}$ - $^{13}\text{C}$  HMBC spectrum of 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-(4-nitrophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-phenylmethylidenecyclohexanone-4- (4-nitrophenyl) -pyrrolidines (**2** and **3c**)

37\_Tumakly

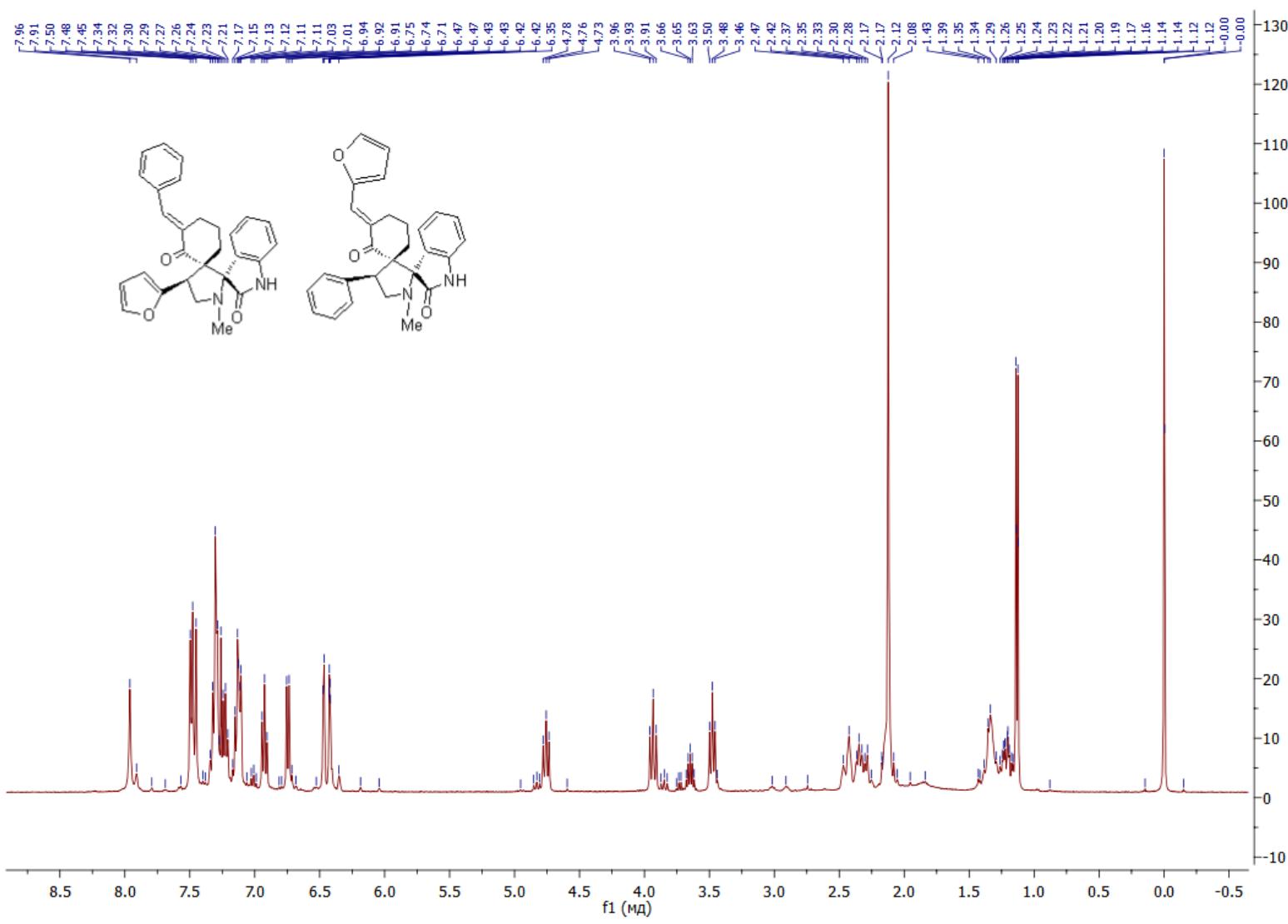
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 Date collected: 2016-11-15

 Pulse sequence: gHMBC  
 Solvent: edet3

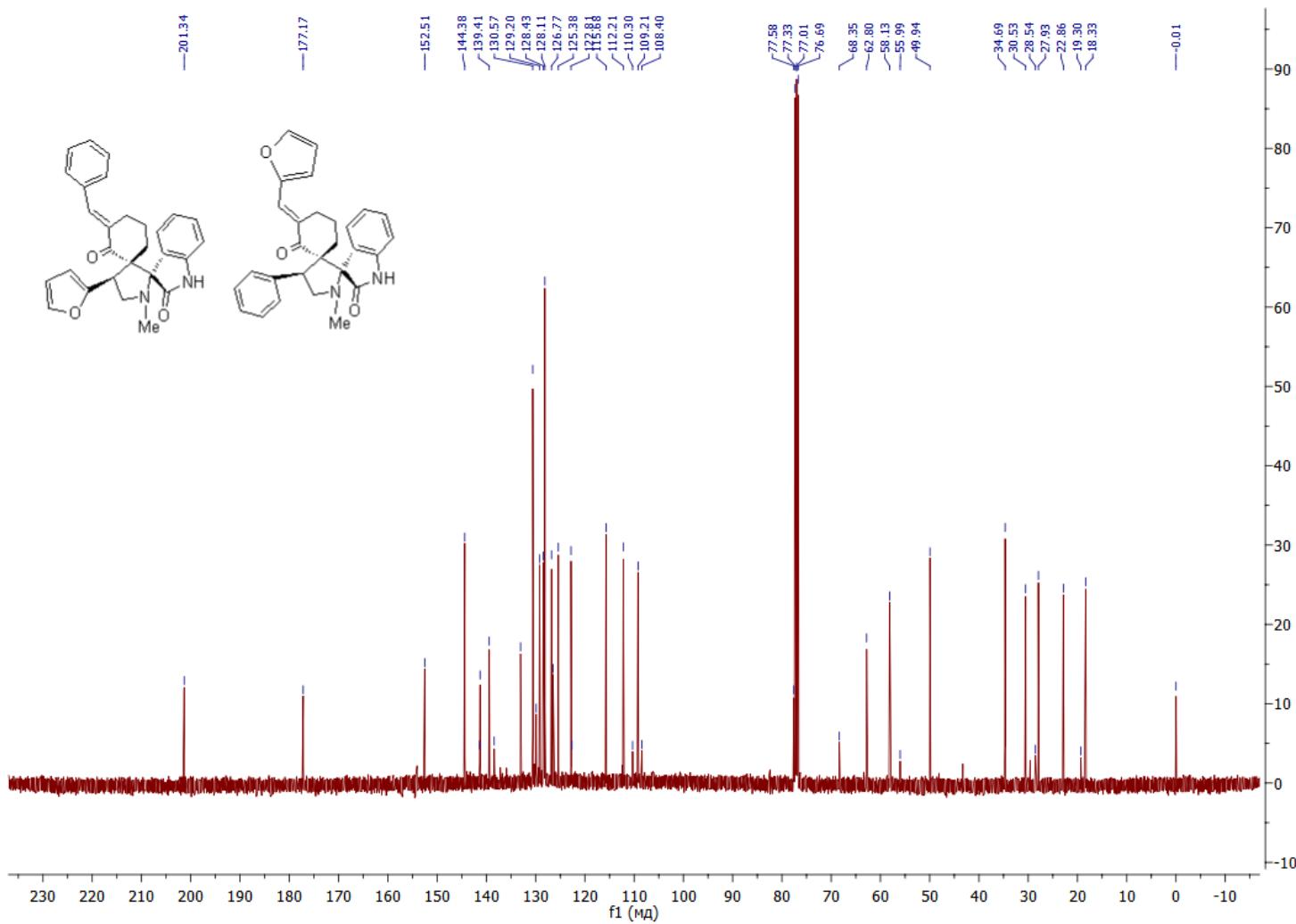
 Temperature: 30  
 Spectrometer: vnmrs400-vnmrs400

 Study owner: vnmr1  
 Operator: vnmr1


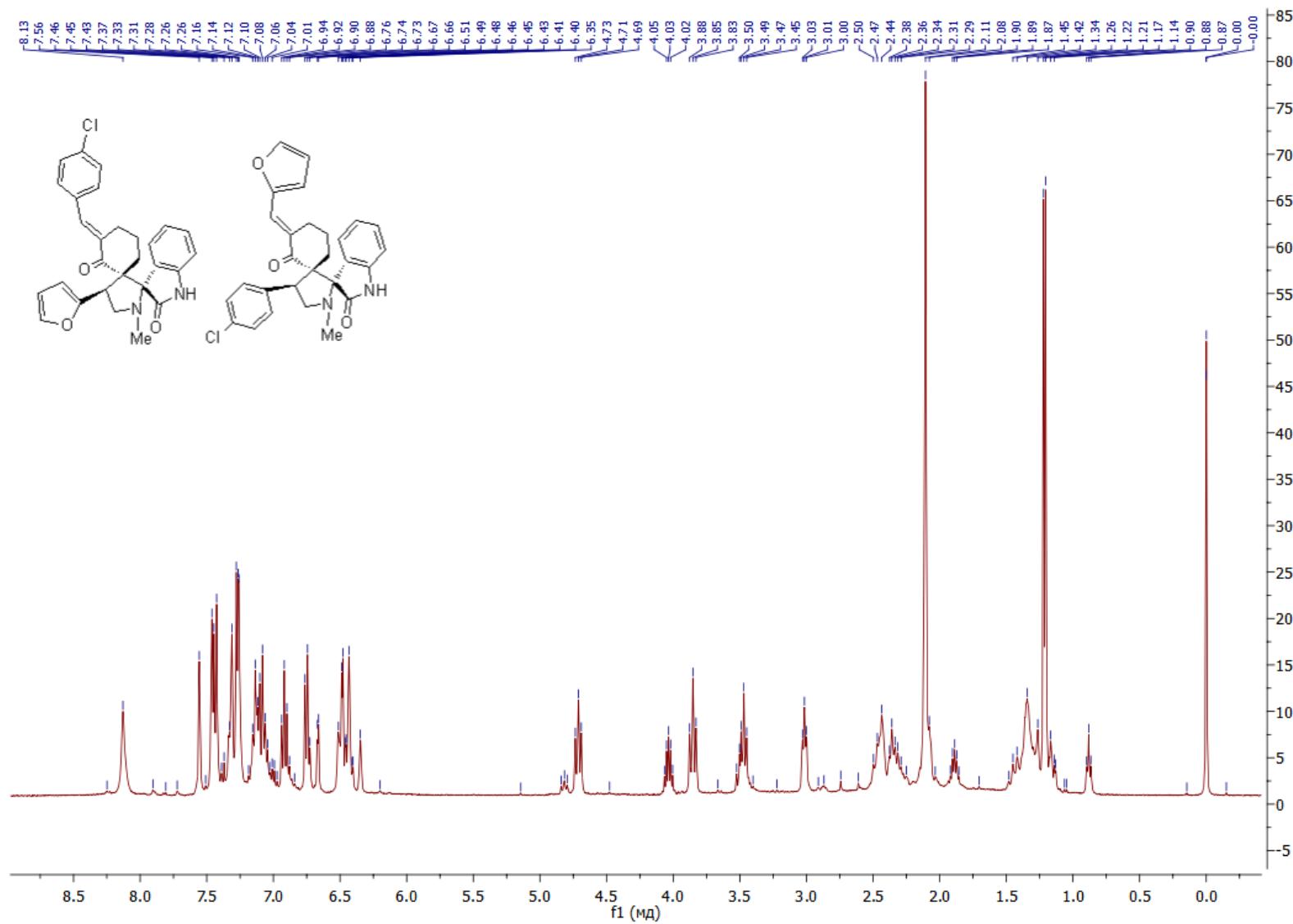
The detailed  $^1\text{H}$ - $^{13}\text{C}$  HMBC spectrum of 1-N-methyl-spiro[2.3 $^1\text{H}$ ]oxindole-spiro[3.2 $^{11}\text{C}$ ]6 $^{11}\text{C}$ -(4-nitrophenyl)methylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3 $^1\text{H}$ ]oxindole-spiro[3.2 $^{11}\text{C}$ ]6 $^{11}\text{C}$ -phenylmethylidenecyclohexanone-4- (4-nitrophenyl) -pyrrolidines (**2** and **3 c**)



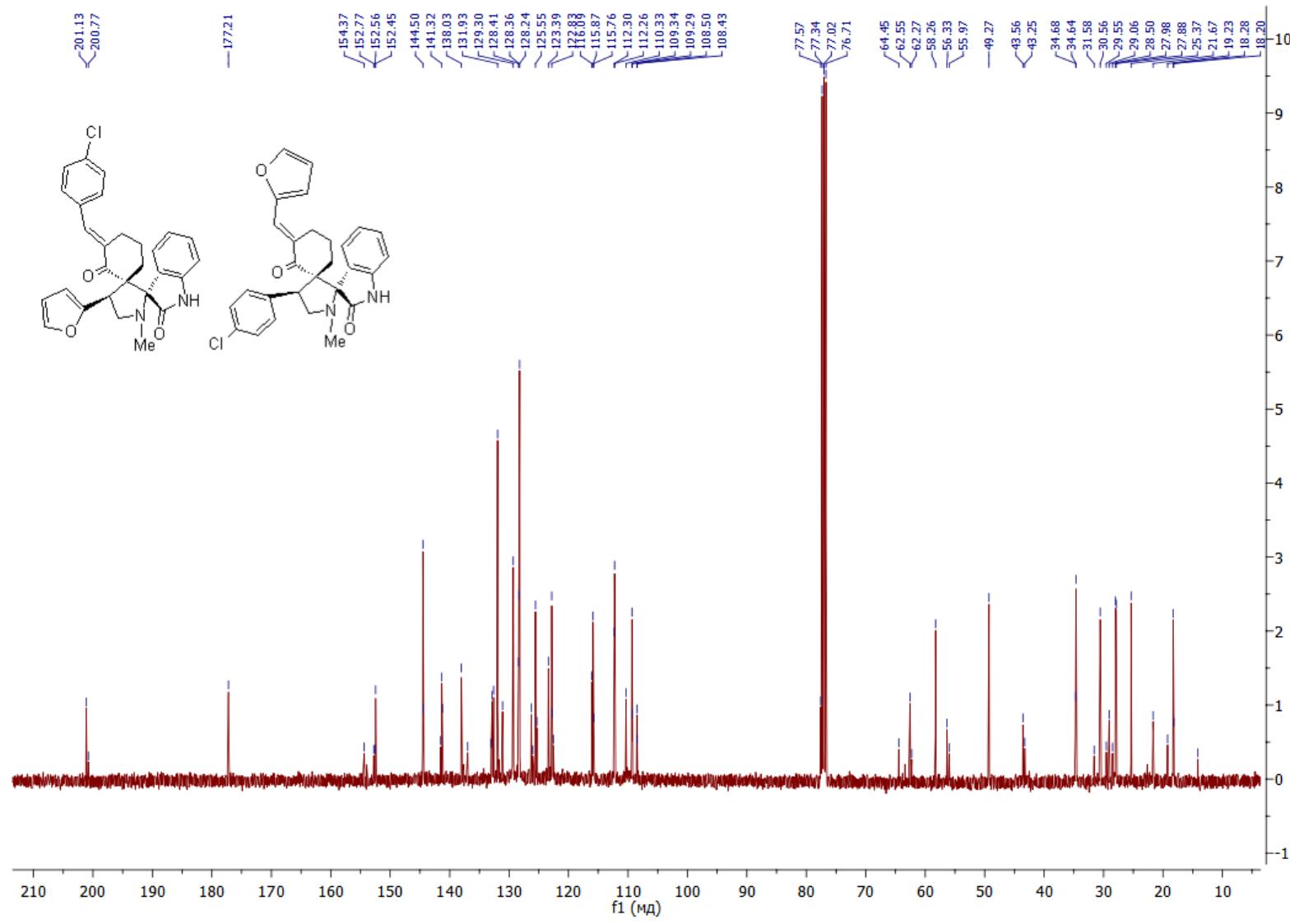
The <sup>1</sup>H NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-phenylmethylidenecyclohexanone-4-2-furylpiperidines (**3** and **4 d**)



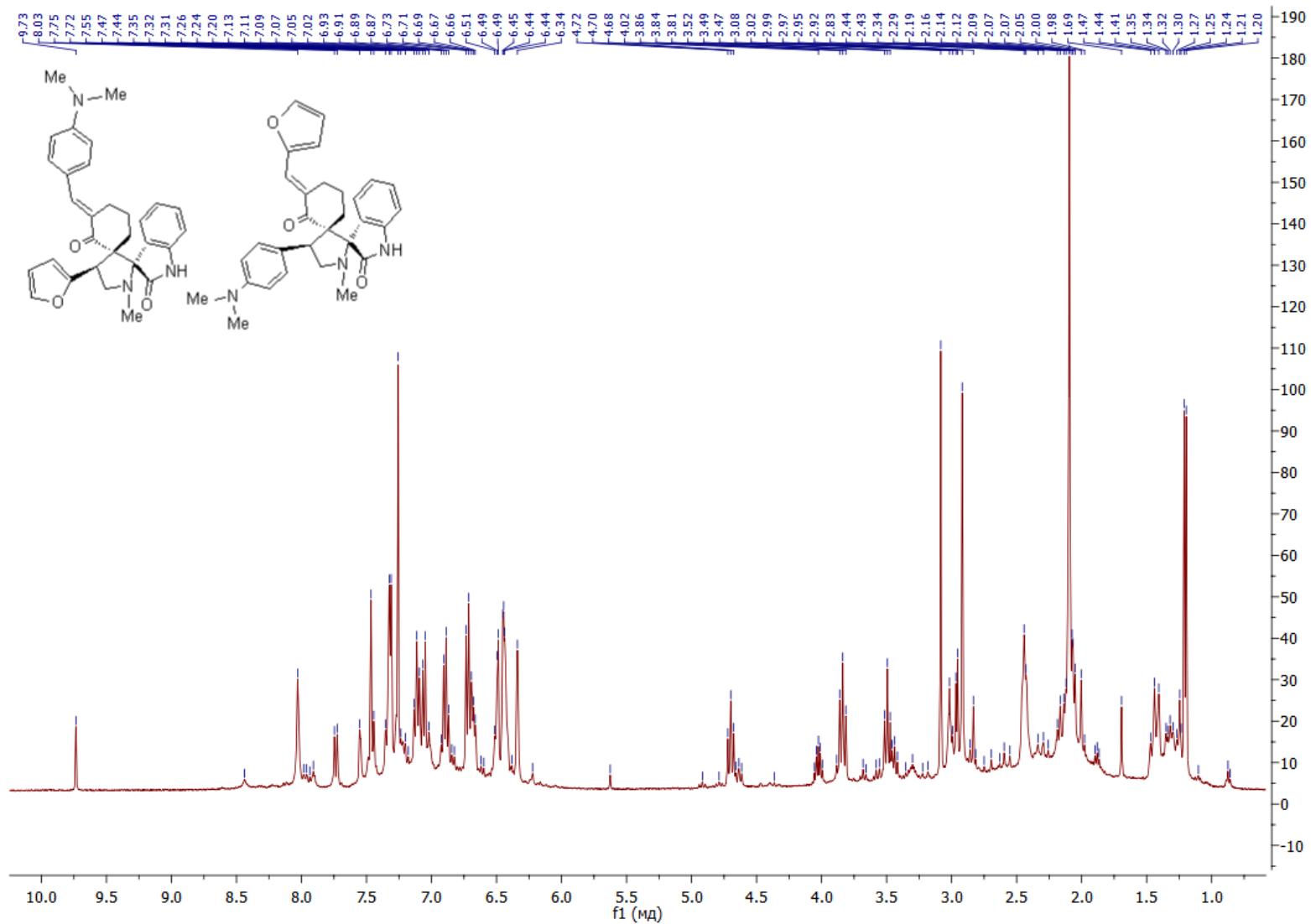
The  $^{13}\text{C}$  NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylidenecyclohexanone-4-phenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-phenylmethylidenecyclohexanone-4-2-furylpyrrolidines (**3** and **4 d**)



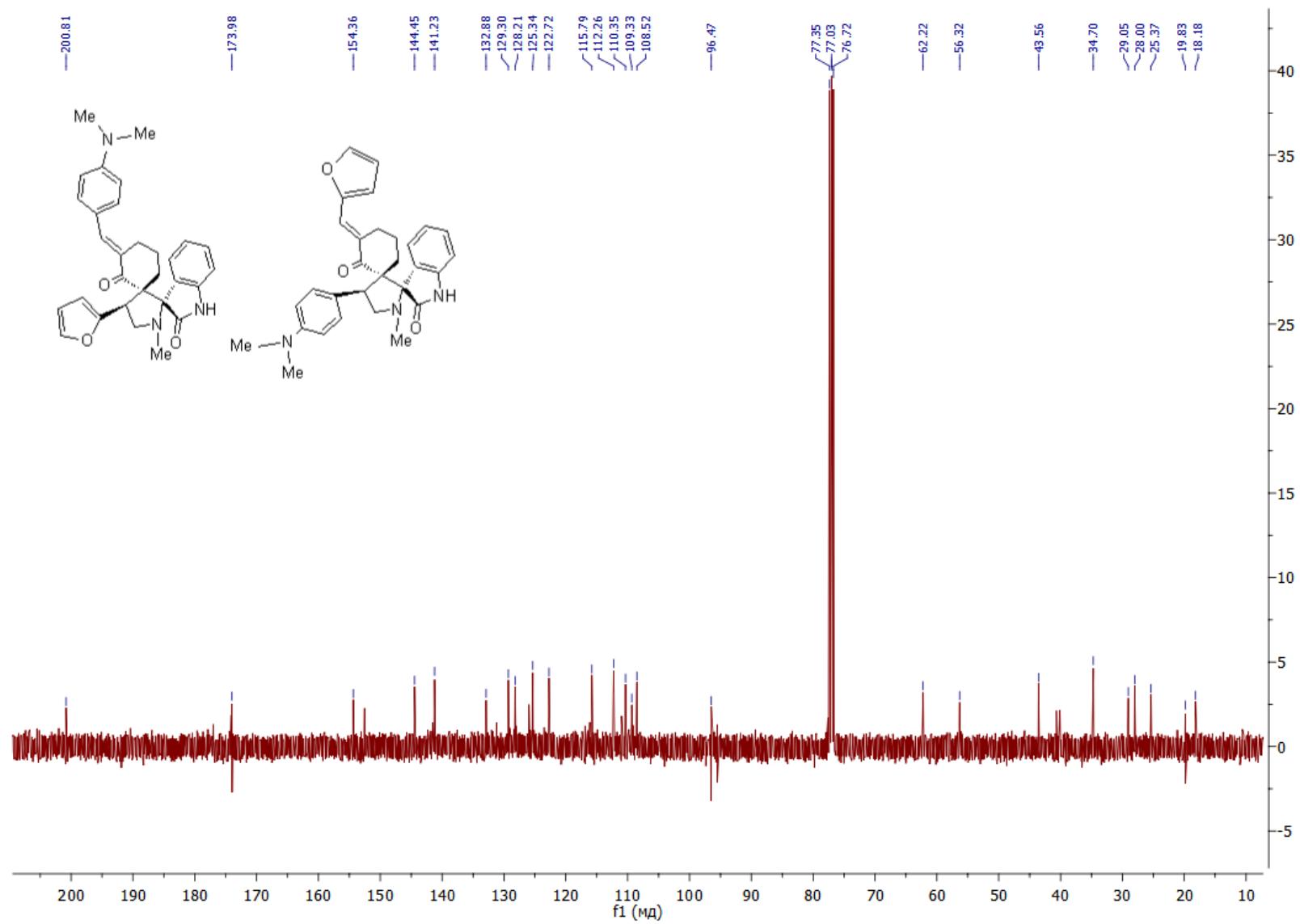
The  $^1\text{H}$  NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylenecyclohexanone-4-4-chlorophenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-4-chlorophenylmethylenecyclohexanone-4-2-furylpyrrolidines (**3** and **4 e**)



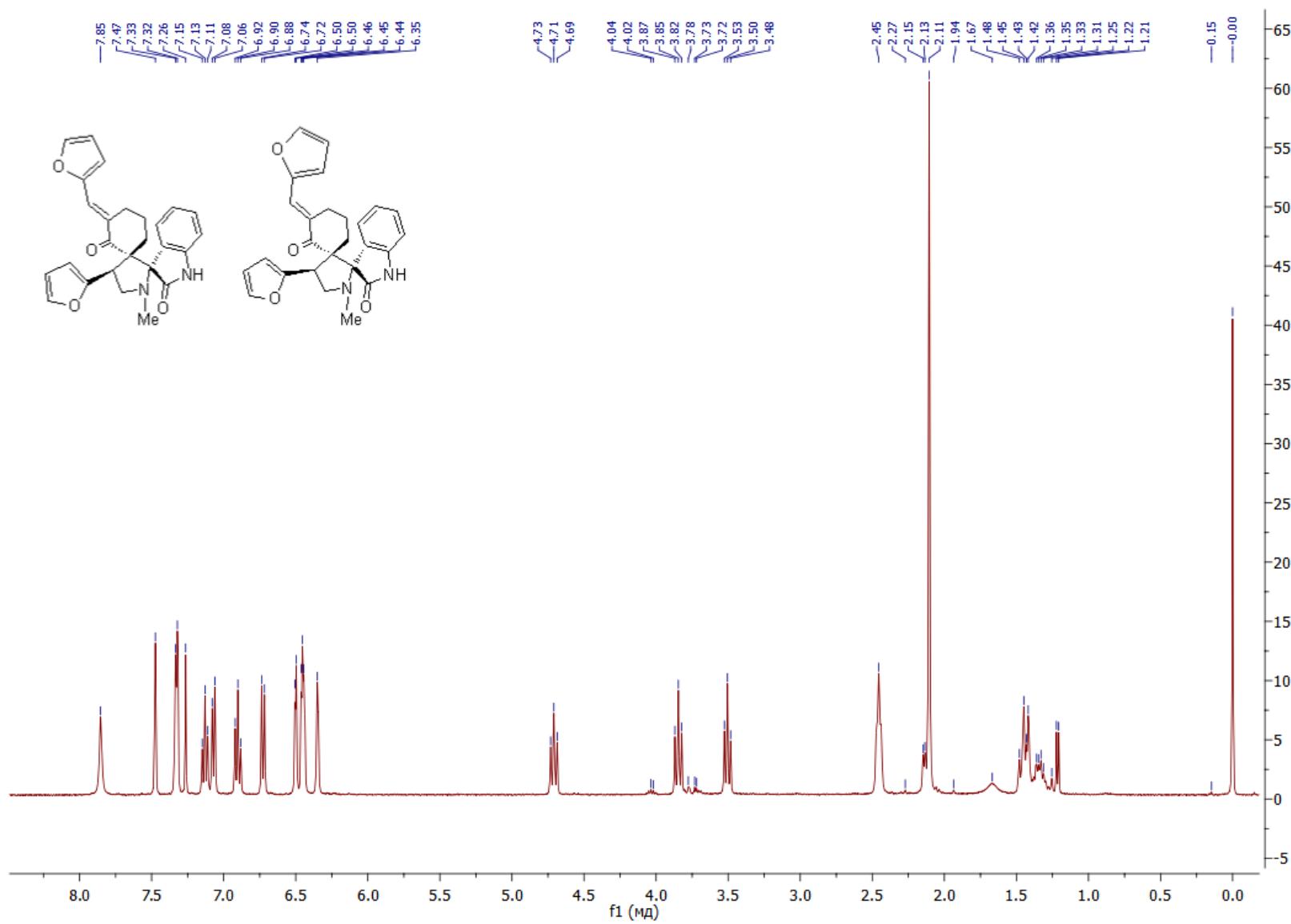
The  $^{13}\text{C}$  NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylenecyclohexanone-4-4-chlorophenyl-pyrrolidines and 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-4-chlorophenylmethylenecyclohexanone-4-2-furylpyrrolidines (**3** and **4 e**)



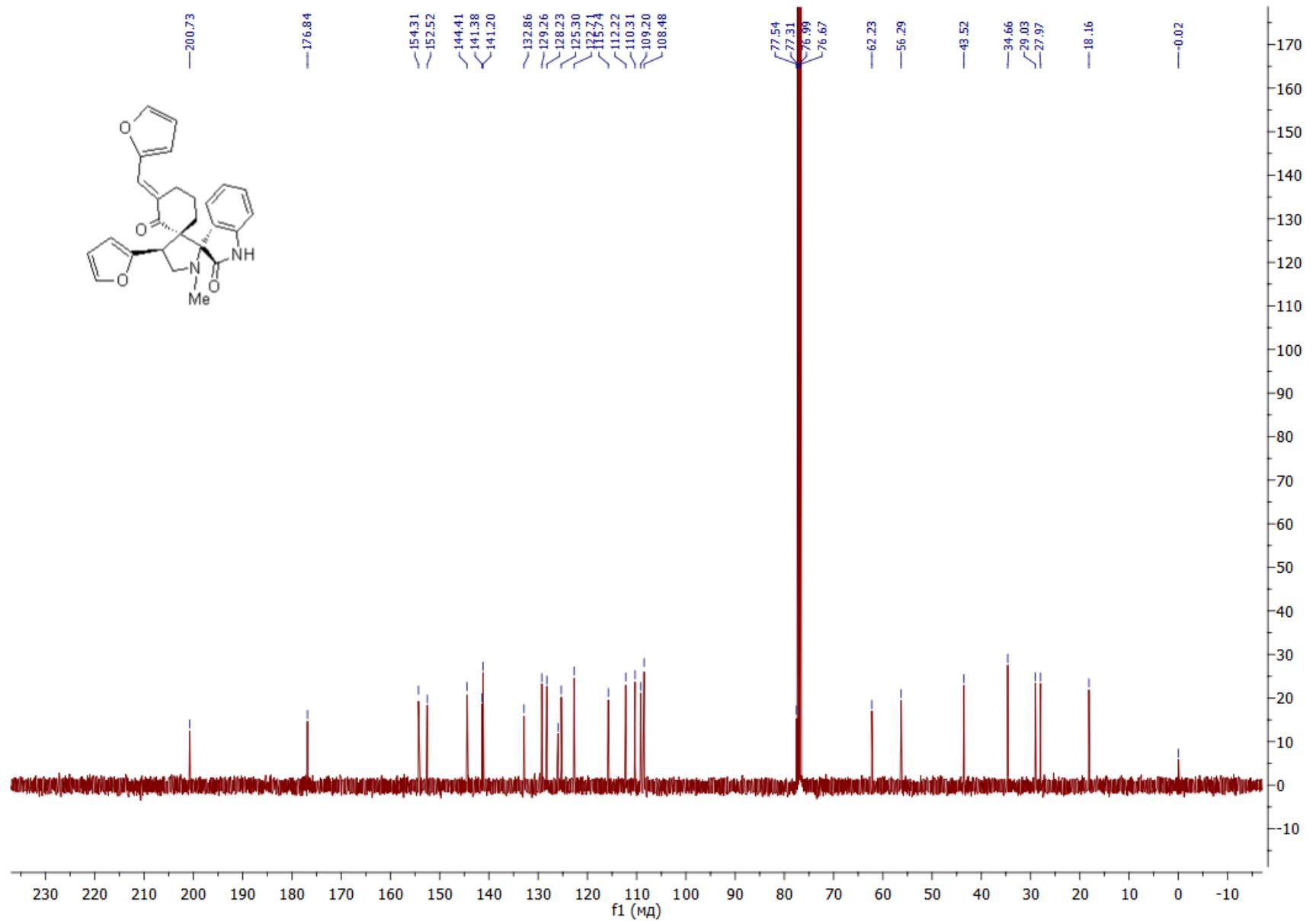
The  $^1\text{H}$  NMR 1-N-methyl-spiro[2.31]oxindole-spiro[3.211]611-2-furylmethylenecyclohexanone-4-4-N,N-(dimethyl)phenyl-pyrrolidines and 1-N-methyl-spiro[2.31]oxindole-spiro[3.211]611--4-N,N-(dimethyl)phenylmethylenecyclohexanone- 4-2-furylpyrrolidines (**2** and **3 f**)



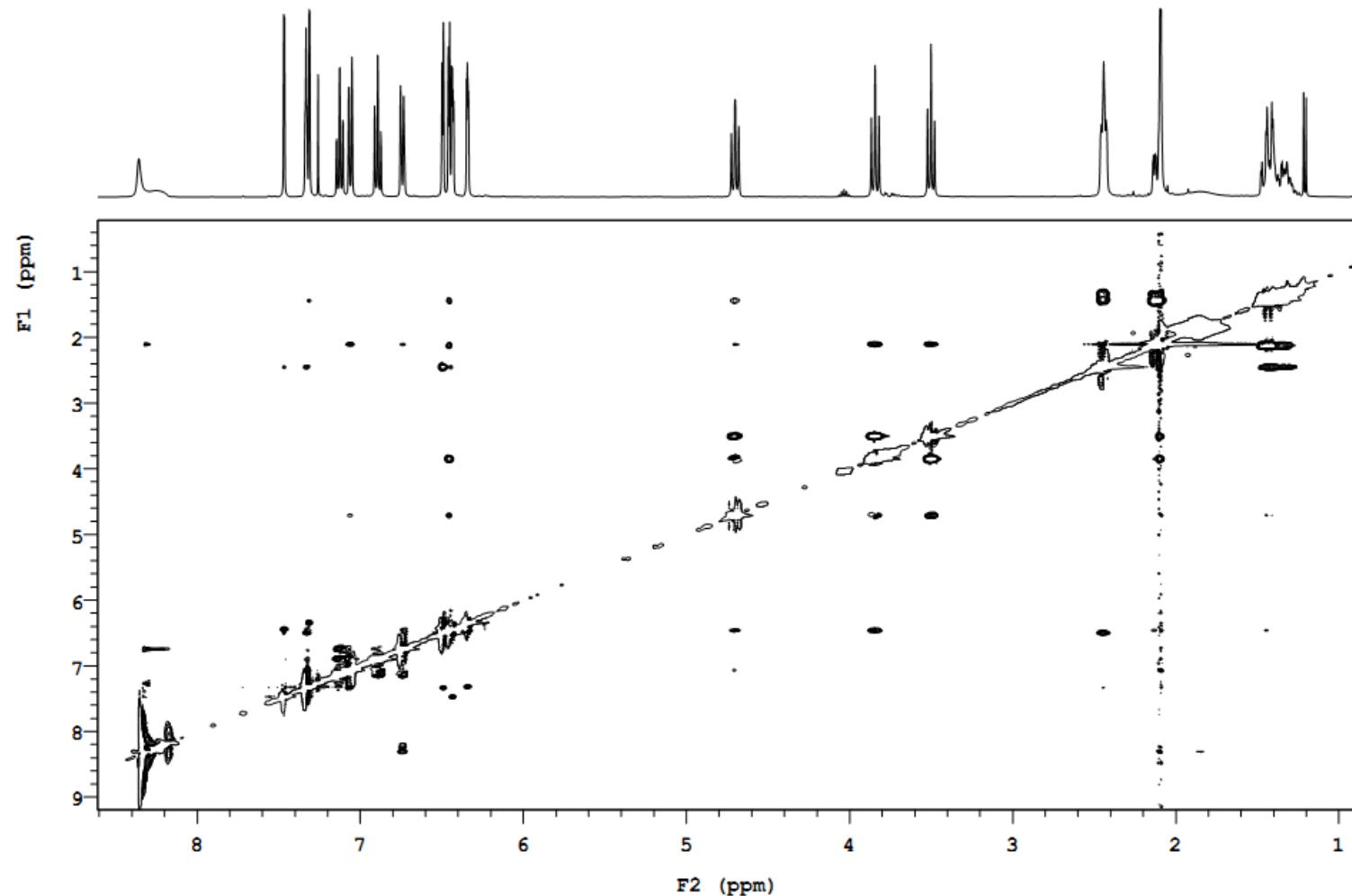
The  $^{13}\text{C}$  NMR 1-N-methyl-spiro[2.3]oxindole-spiro[3.2]1]611-2-furylmethylenecyclohexanone-4-4-N,N-(dimethyl)phenyl-pyrrolidines and 1-N-methyl-spiro[2.3]oxindole-spiro[3.2]1]611--4-N,N-(dimethyl)phenylmethylenecyclohexanone- 4-2-furylpiperidines (2 and 3 f)



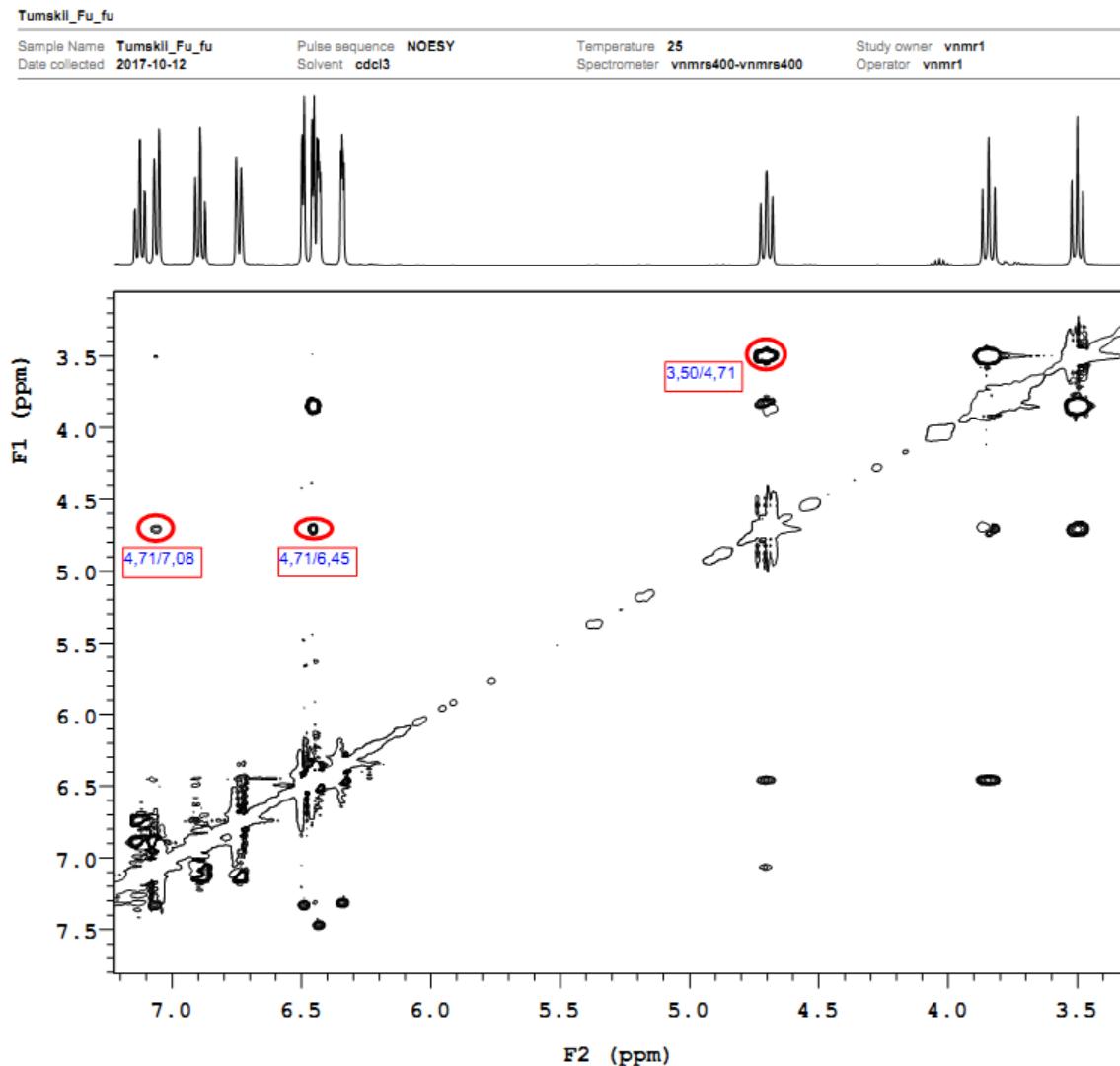
The <sup>1</sup>H NMR 1-N-methyl-spiro[2.3]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylenecyclohexanone-4-2-furylpyrrolidines (**3g**)



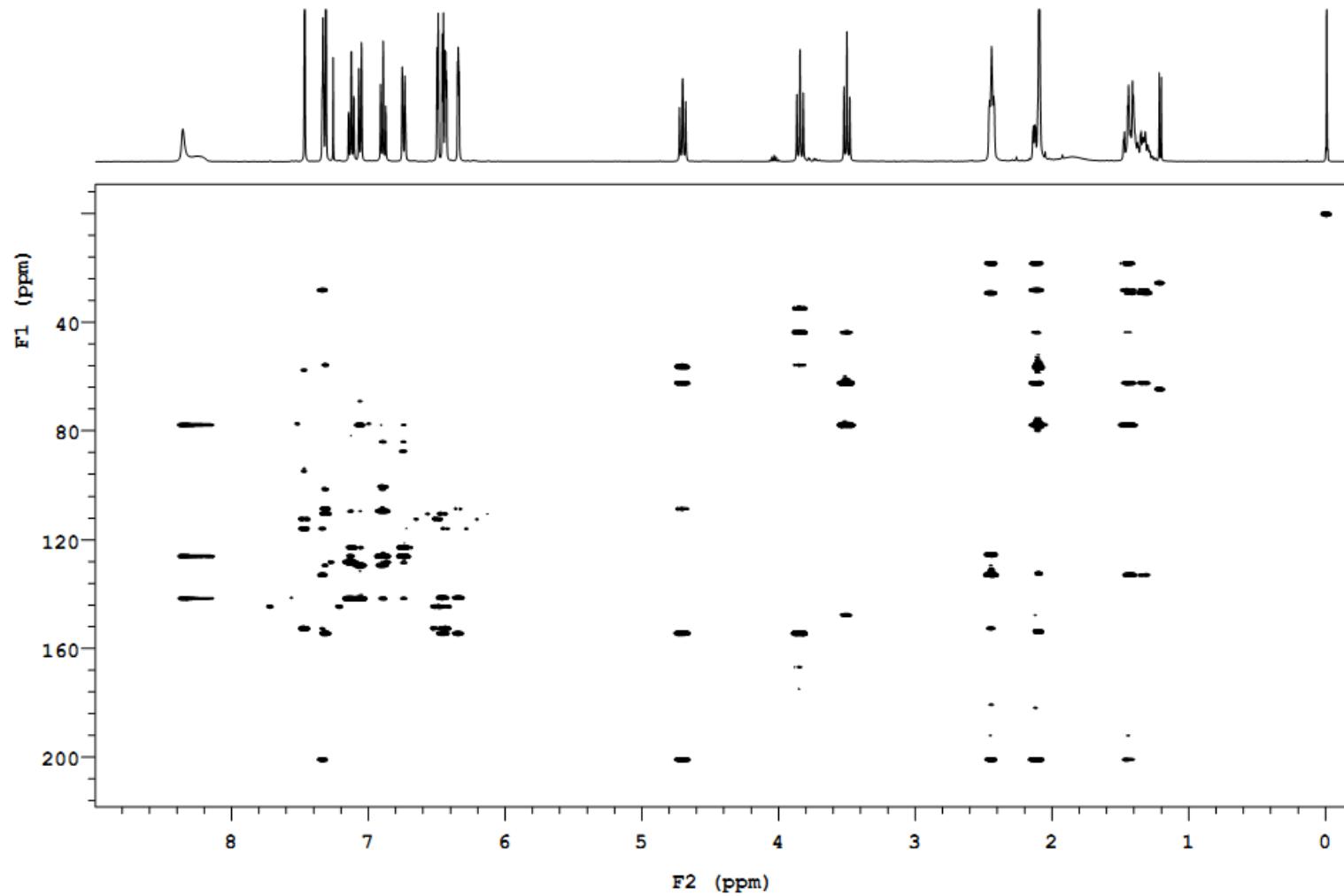
The  $^{13}\text{C}$  NMR 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylenecyclohexanone-4-2-furylpyrrolidines (3f)



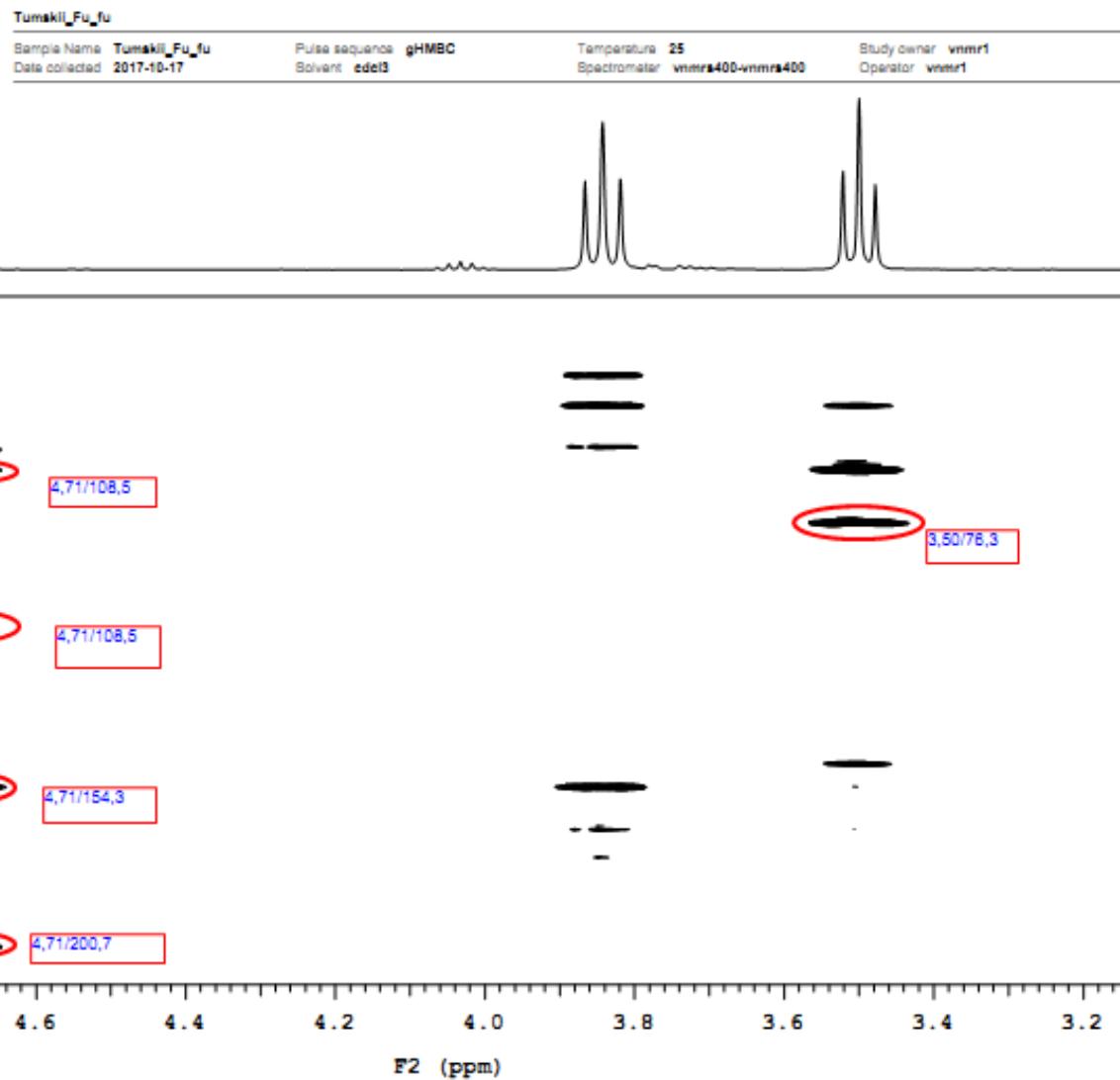
The NOESY spectrum 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylidenecyclohexanone-4-2-furylpyrrolidines (**3f**)



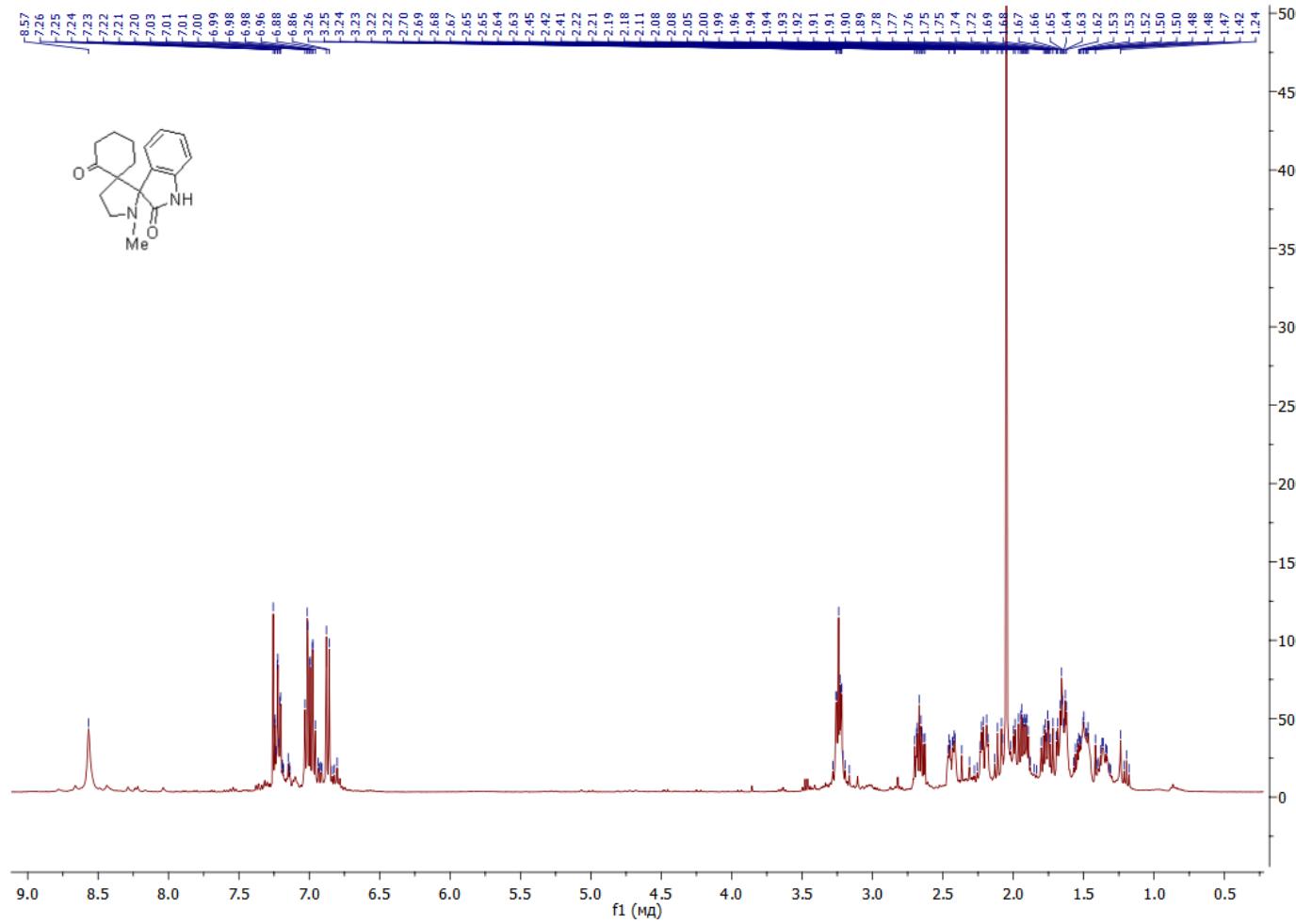
The detailed NOESY spectrum 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylenecyclohexanone-4-2-furylpyrrolidines (**3f**)



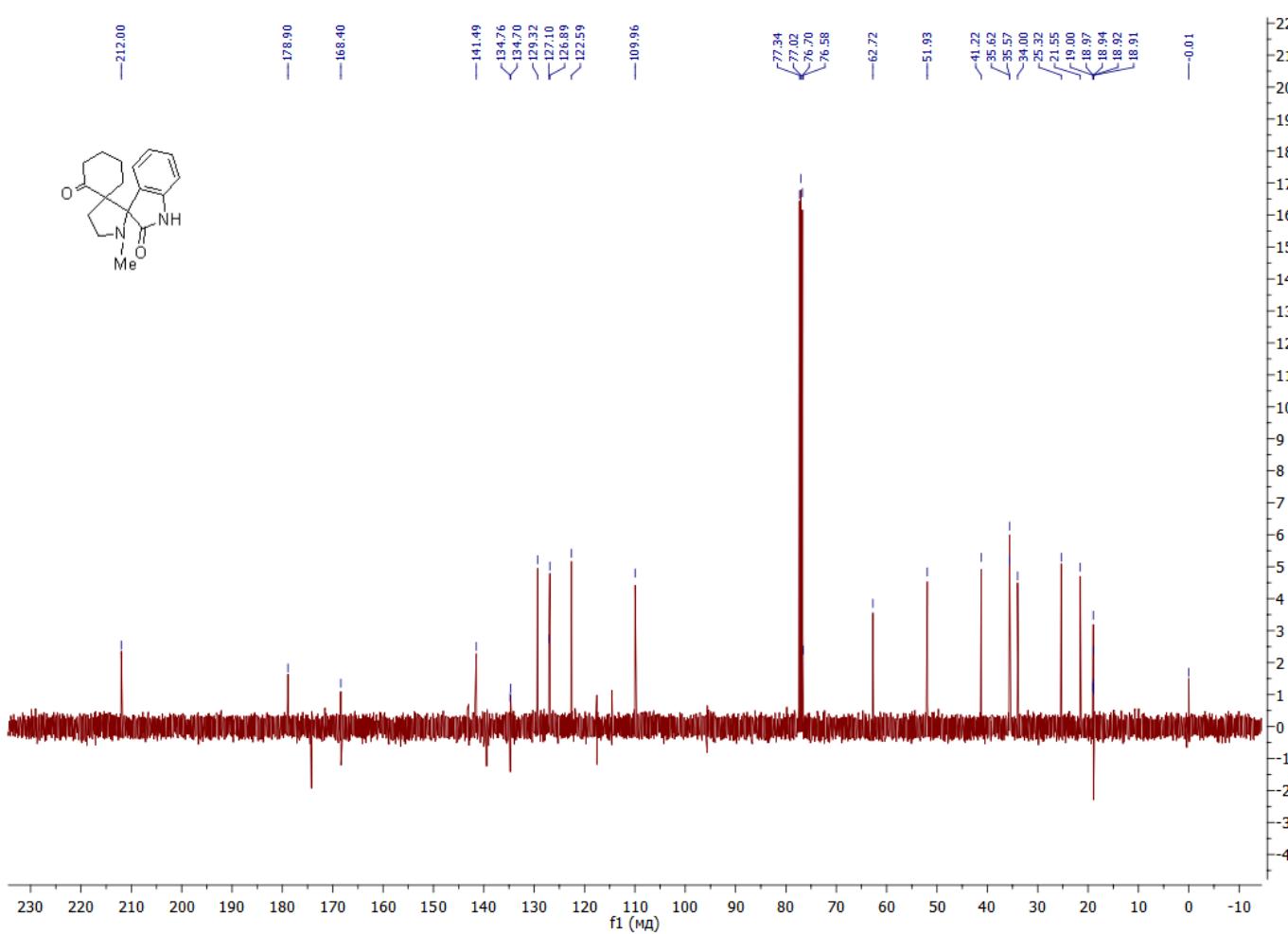
The  $^1\text{H}$   $^{13}\text{C}$  HMBC spectrum 1-N-methyl-spiro[2.3 $^1$ ]oxindole-spiro[3.2 $^{11}$ ]6 $^{11}$ -2-furylmethylenecyclohexanone-4-2-furylpyrrolidines (**3f**)



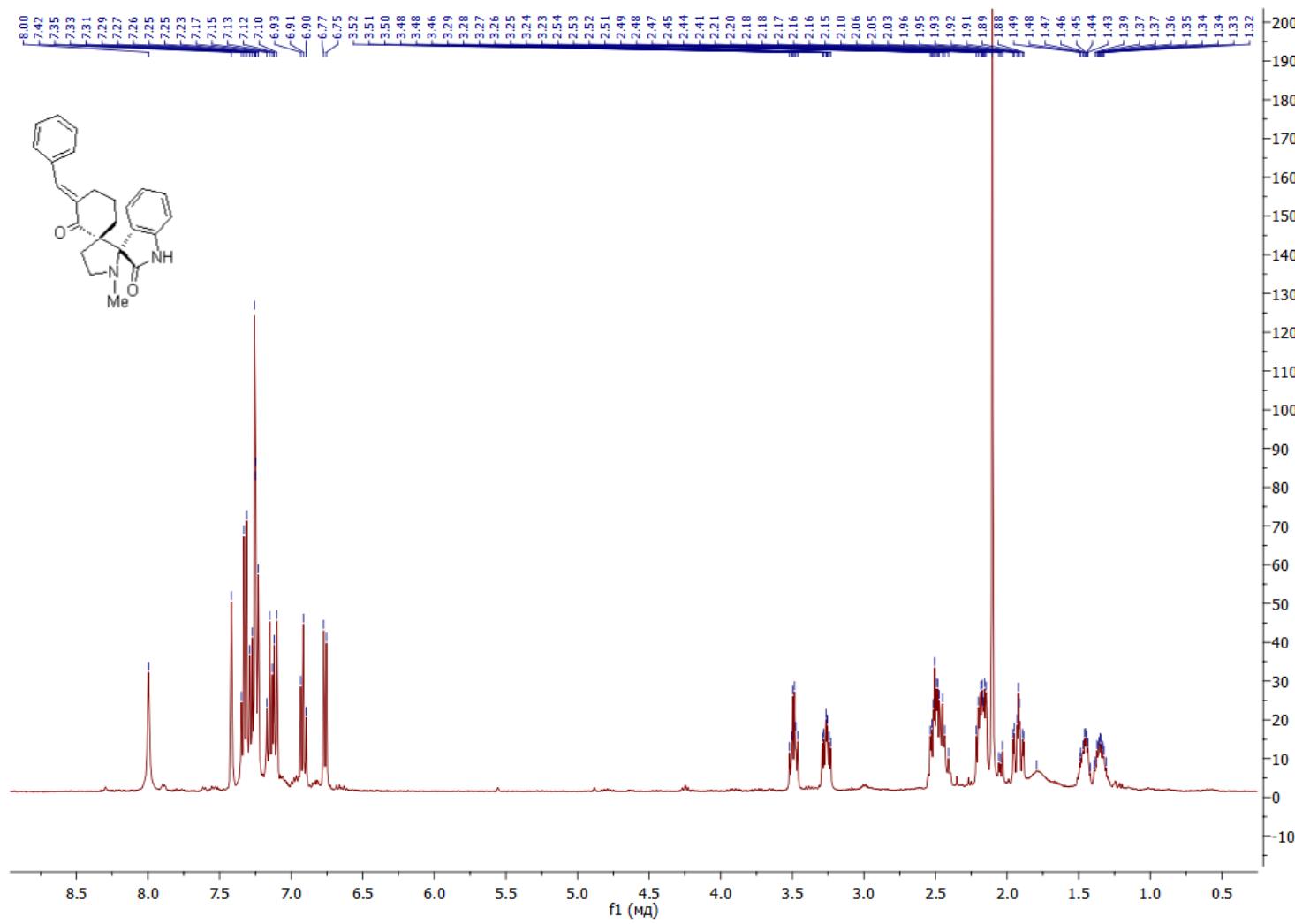
The detailed  $^1\text{H}$   $^{13}\text{C}$  HMBC spectrum 1-N-methyl-spiro[2.3<sup>1</sup>]oxindole-spiro[3.2<sup>11</sup>]6<sup>11</sup>-2-furylmethylenecyclohexanone-4-2-furylpyrrolidines (**3f**)



The  $^1\text{H}$  NMR 14-N-methyl-2,14-diazaspiro[4.0.5.3]tetradecan-3,4-benzo-1,7-dione 5



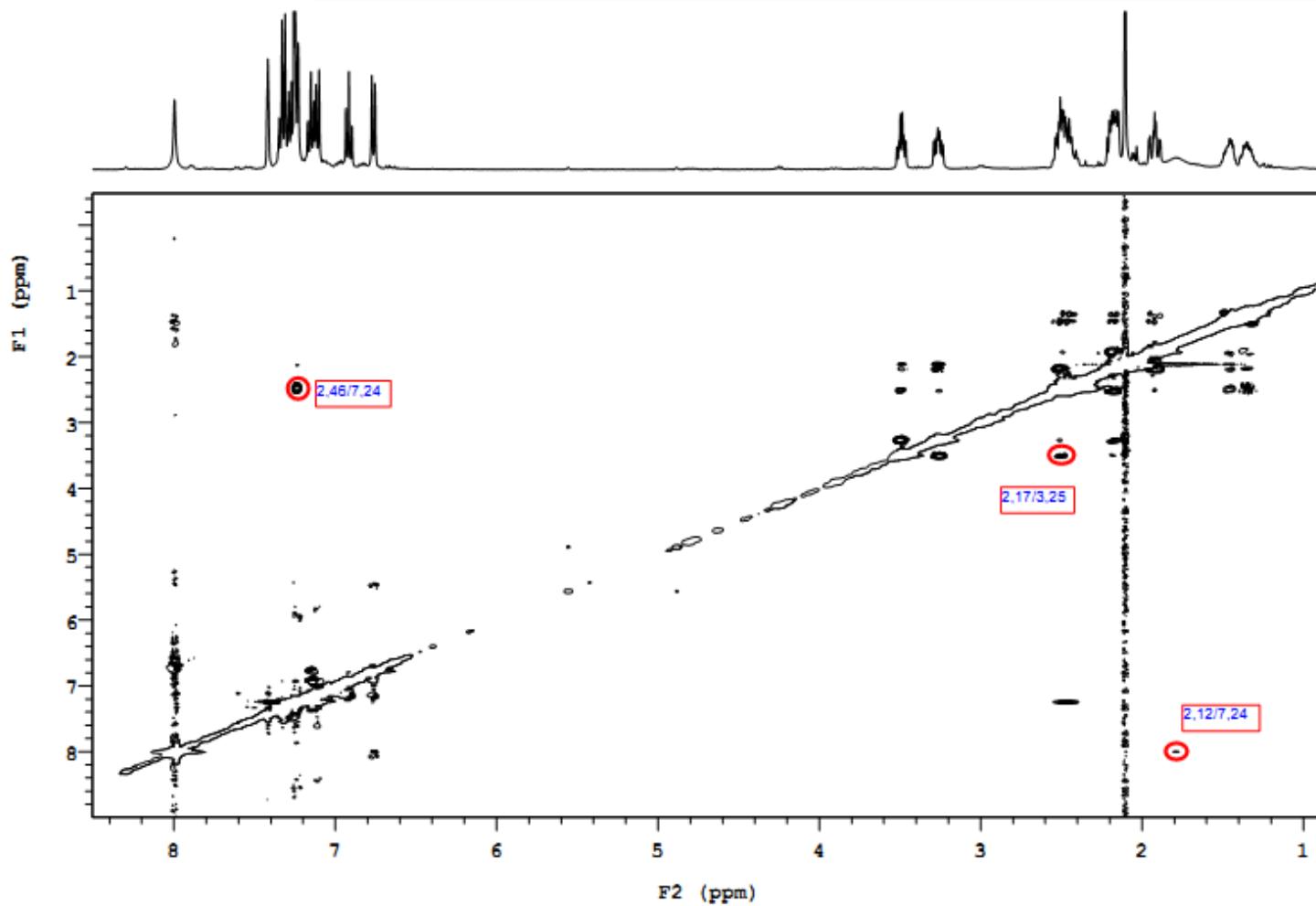
The  $^{13}\text{C}$  NMR 14-N-methyl-2,14-diazaspiro[4.0.5.3]tetradecan-3,4-benzo-1,7-dione 5



The <sup>1</sup>H NMR 8-Phenylmethyliden-14-N-methyl-2,14-diazaspiro[4.0.5.3]tetradecan-3,4-benzo-1,7-dione 7



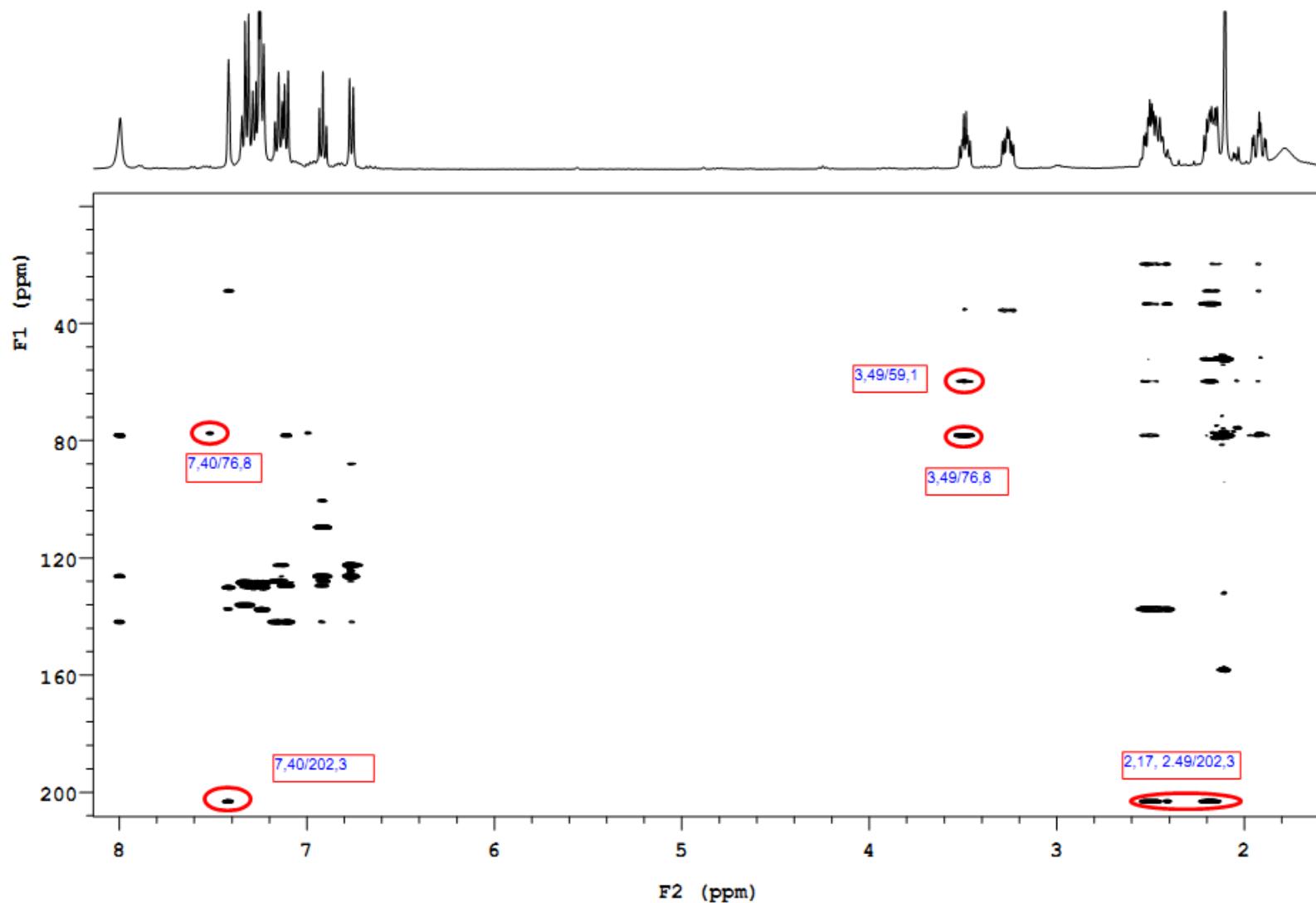
235\_Averklev

Sample Name 235\_Averklev  
Data collected 2017-06-05Pulse sequence NOESY  
Solvent oclcl3Temperature 25  
Spectrometer vnmrs400-vnmrs400Study owner vnmmr1  
Operator vnmmr1

The NOESY spectrum 8-Phenylmethyliden-14-N-methyl-2,14-diazaspiro[4.0.5.3]tetradecan-3,4-benzo-1,7-dione 7



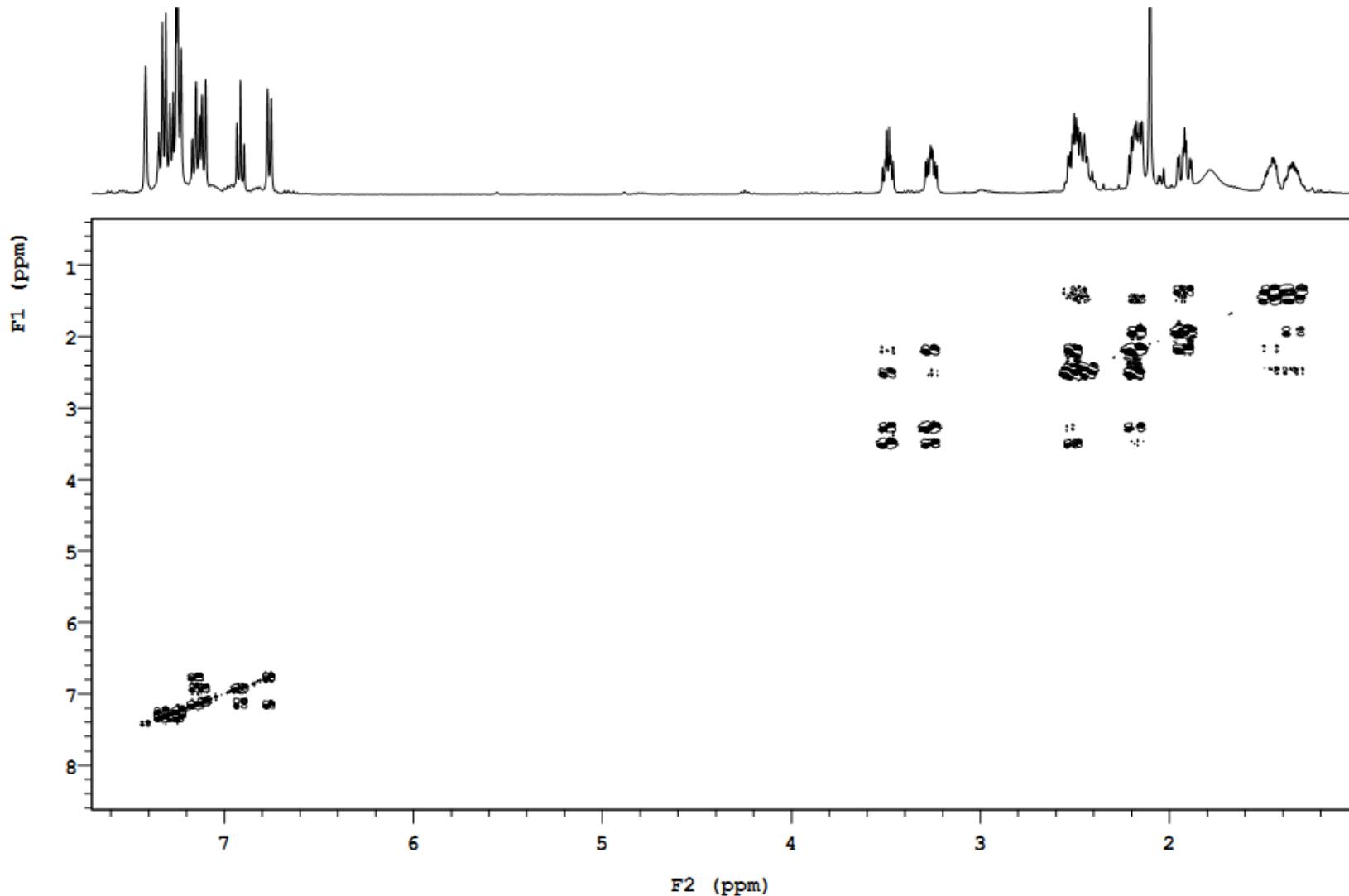
235\_Averklev

Sample Name 235\_Averklev  
Date collected 2017-06-01Pulse sequence gHMBC  
Solvent *cdcl*3Temperature 25  
Spectrometer vnmr400-vnmr400Study owner vnmr1  
Operator vnmr1

The <sup>1</sup>H<sup>13</sup>C HMBC spectrum 8-Phenylmethyliden-14-N-methyl-2,14-diazaspiro[4.0.5.3]tetradecan-3,4-benzo-1,7-dione 7



235\_Averklev

Sample Name 235\_Averklev  
Date collected 2017-06-01Pulse sequence gDQCOSY  
Solvent  $\text{cdcl}_3$ Temperature 25  
Spectrometer vnmrs400-vnmrs400Study owner vnmr1  
Operator vnmr1

The dqCOSY spectrum 8-Phenylmethyliden-14-N-methyl-2,14-diazaspiro[4.0.5.3]tetradecan-3,4-benzo-1,7-dione 7