

UNIVERSITAT DE BARCELONA

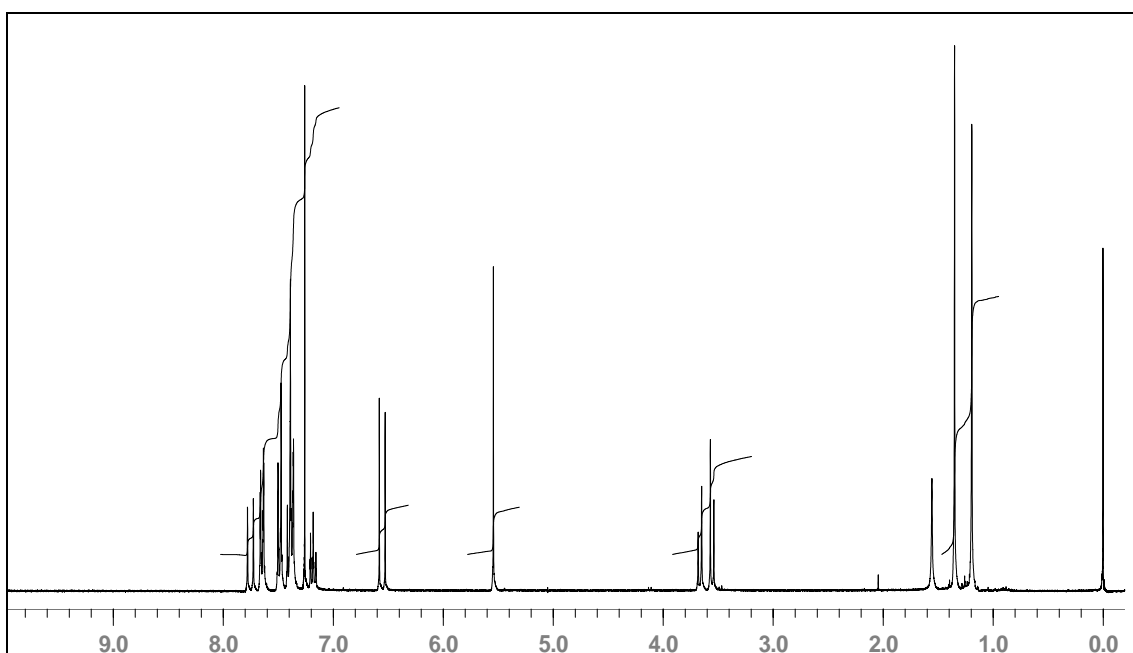
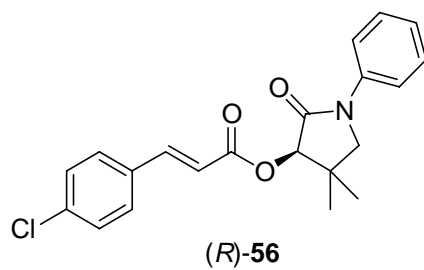
FACULTAT DE FARMÀCIA

DEPARTAMENT DE FARMACOLOGIA I QUÍMICA TERAPÈUTICA

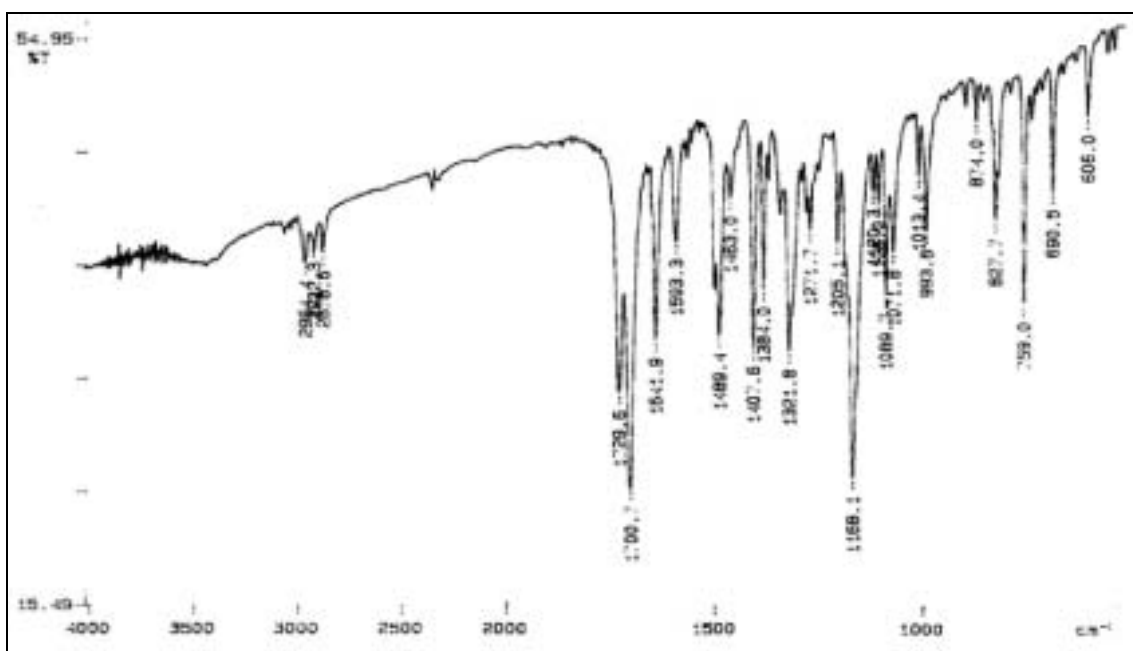
SÍNTESI DE NOVES PANTOLACTAMES *N*-SUBSTITUÏDES. NOVES APLICACIONS DE  
L'(*R*)- I (*S*)-*N*-FENILPANTOLACTAMA EN LA SÍNTESI DE FÀRMACS I COMPOSTOS  
D'INTERÈS BIOLÒGIC EN FORMA ENANTIOPURA

LAURA SÁNCHEZ SALGUERO  
2006

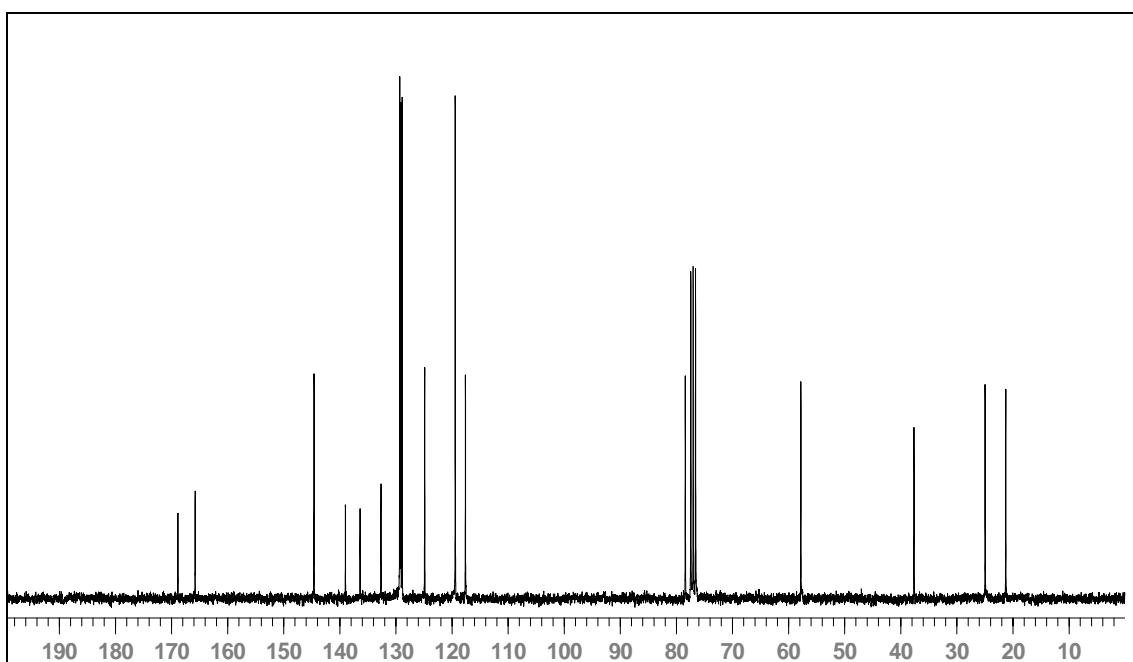
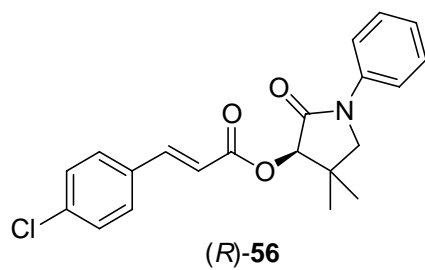
# Espectres



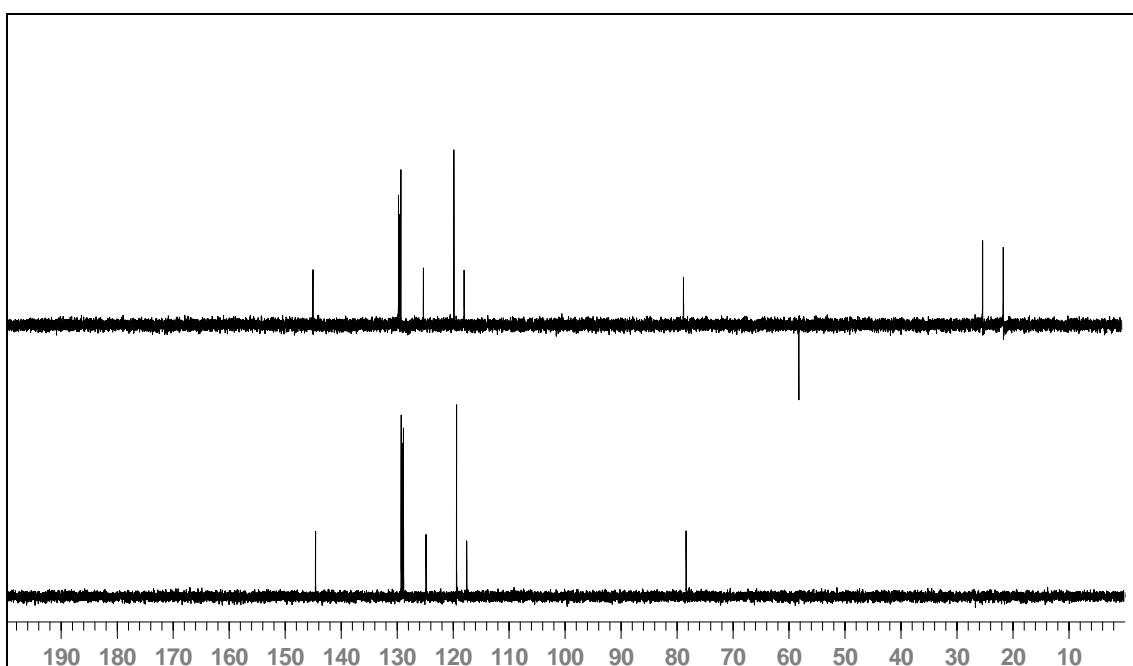
$^1\text{H-RMN}$  (300 MHz,  $\text{CDCl}_3$ ).



IR (KBr).

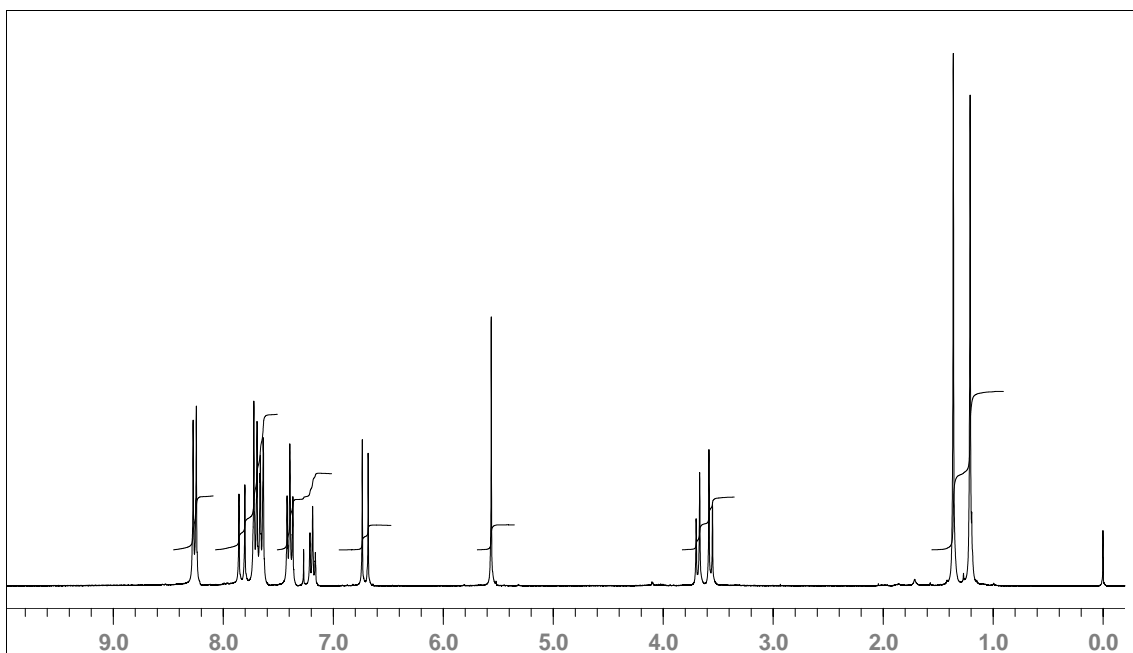
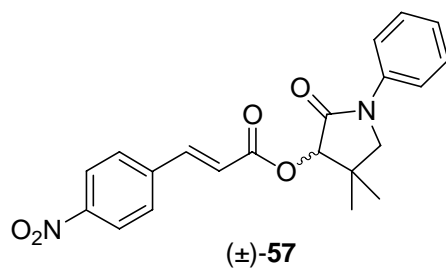


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ).

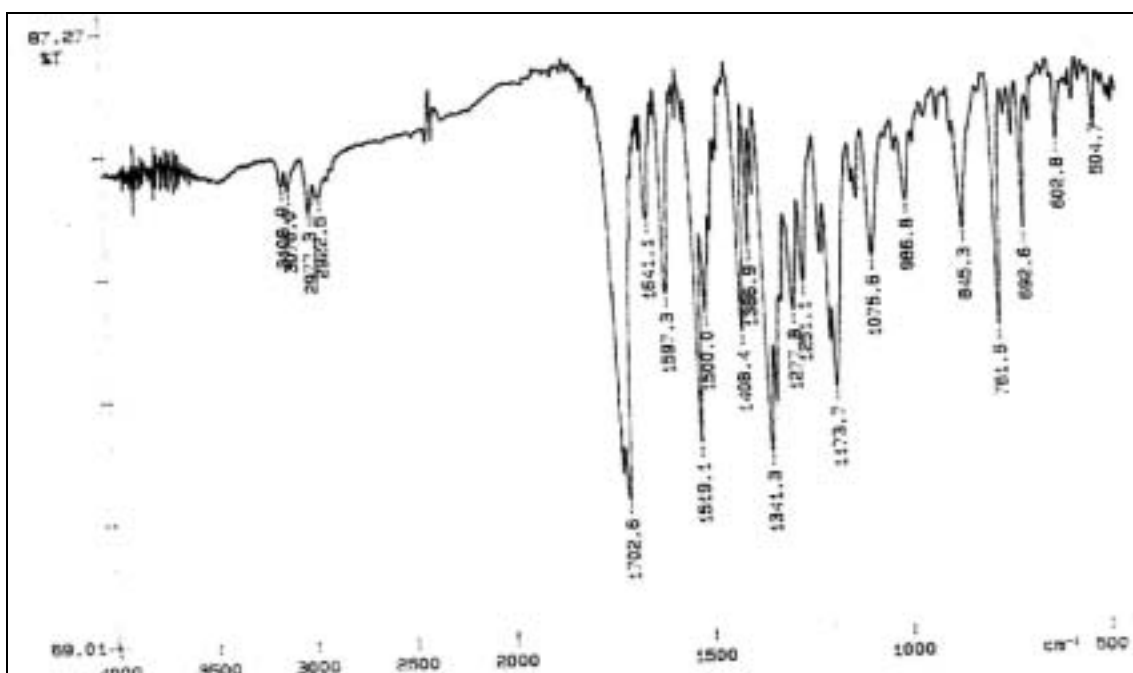


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ), DEPT.

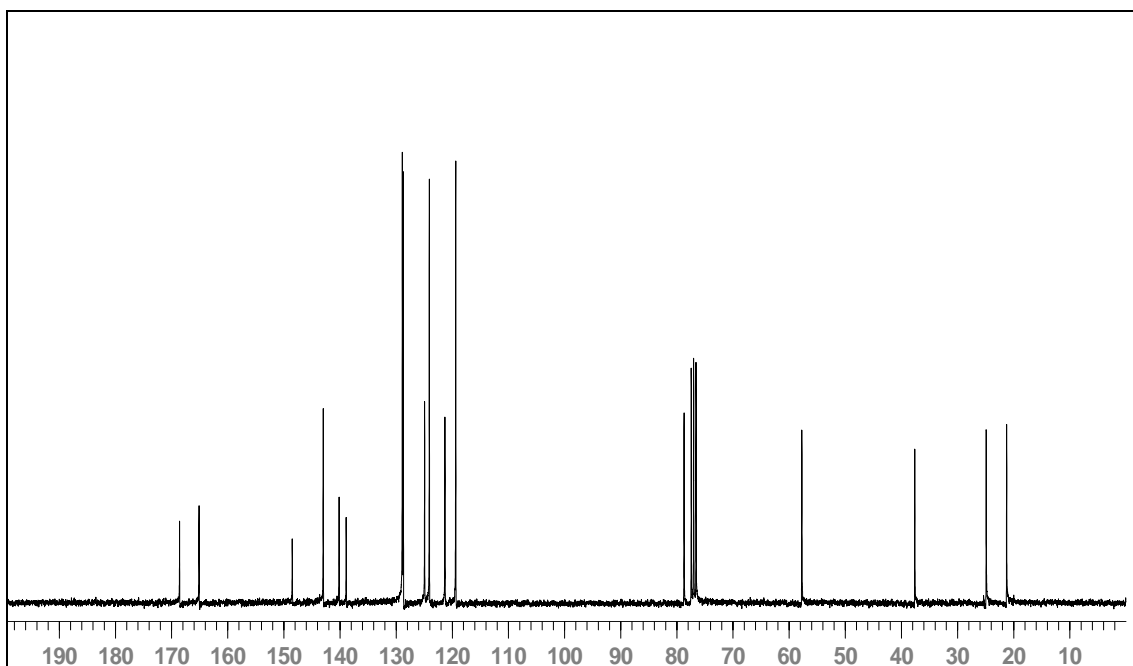
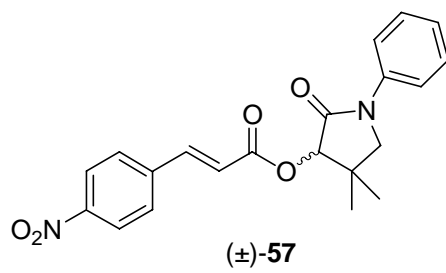
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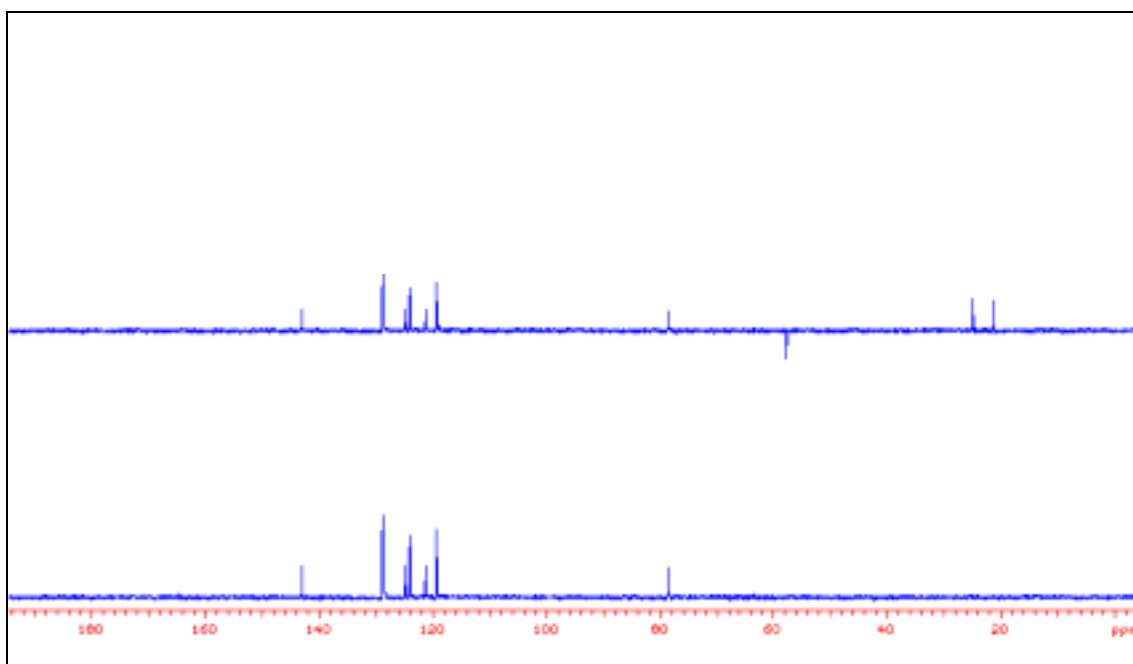
$^1\text{H-RMN}$  (300 MHz,  $\text{CDCl}_3$ ).



IR (KBr).

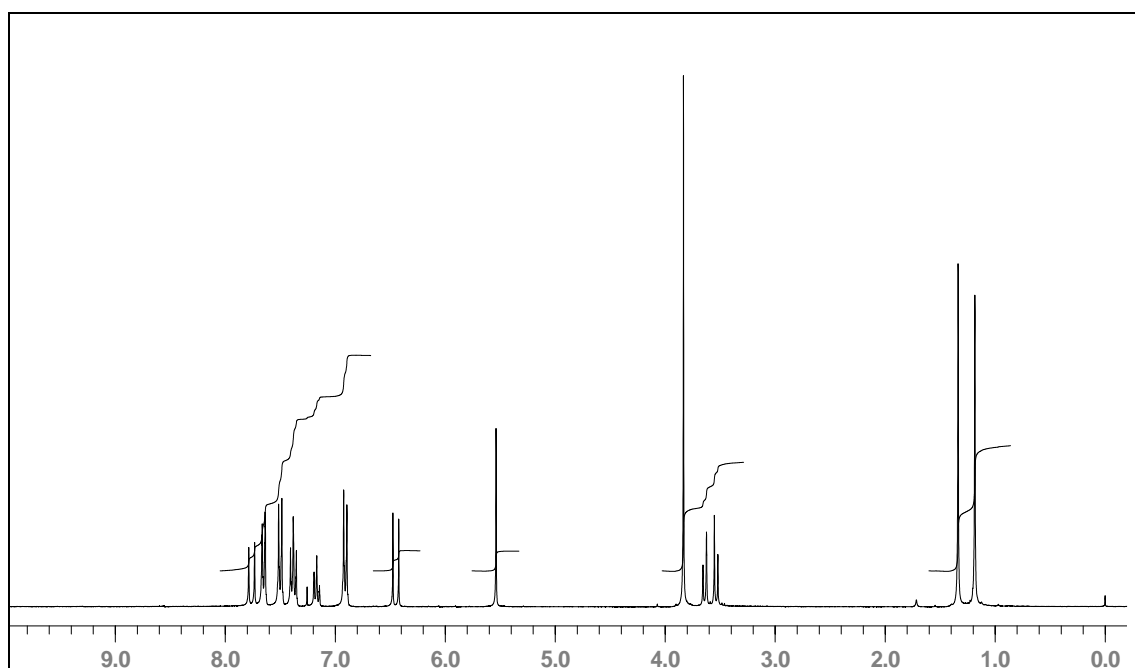
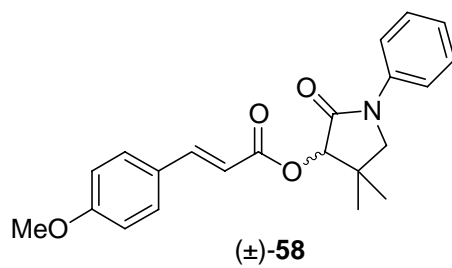


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>).

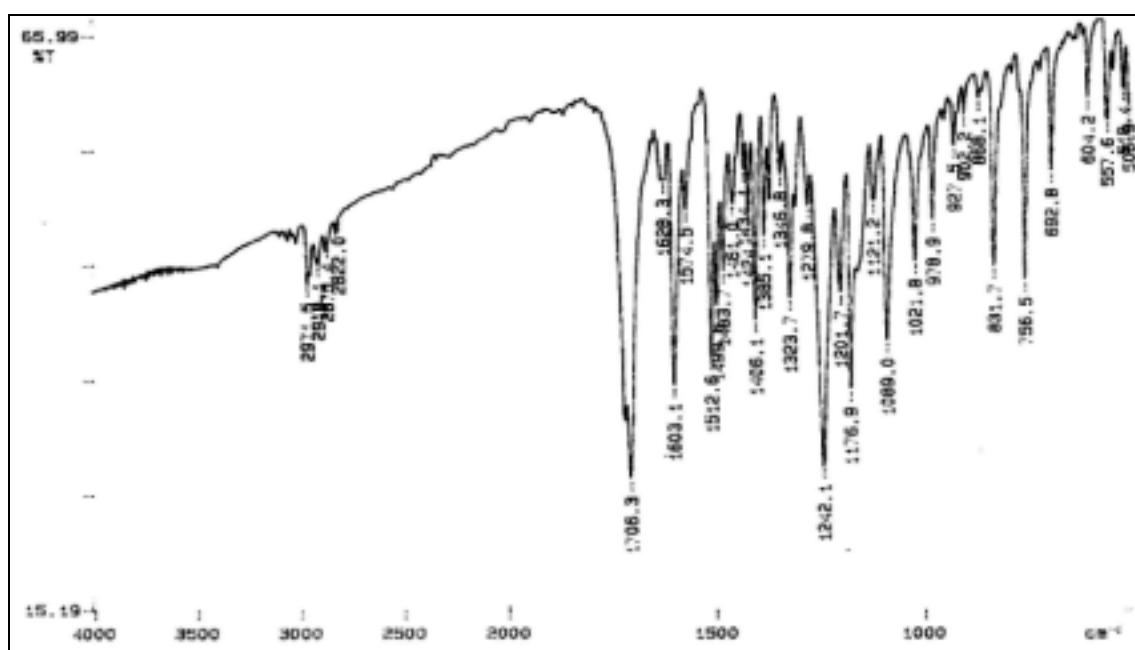


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>), DEPT.

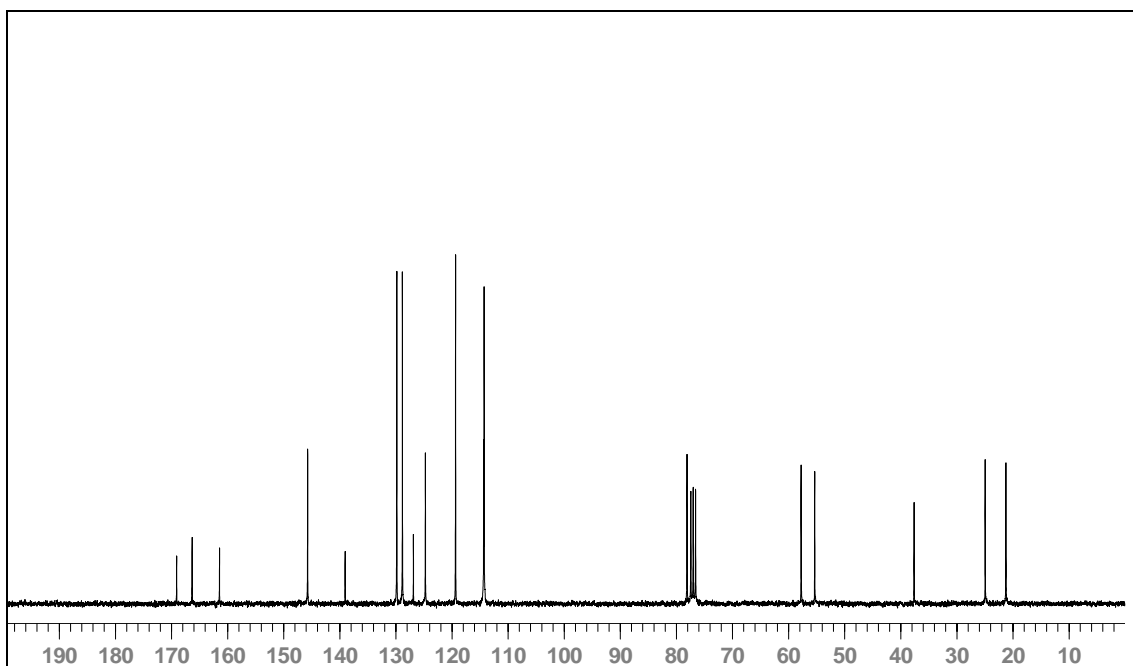
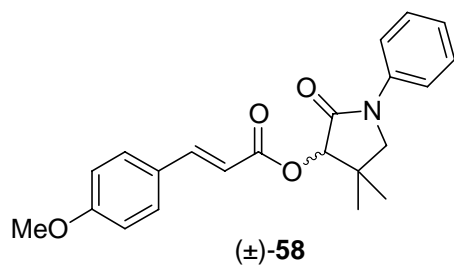
# Espectres



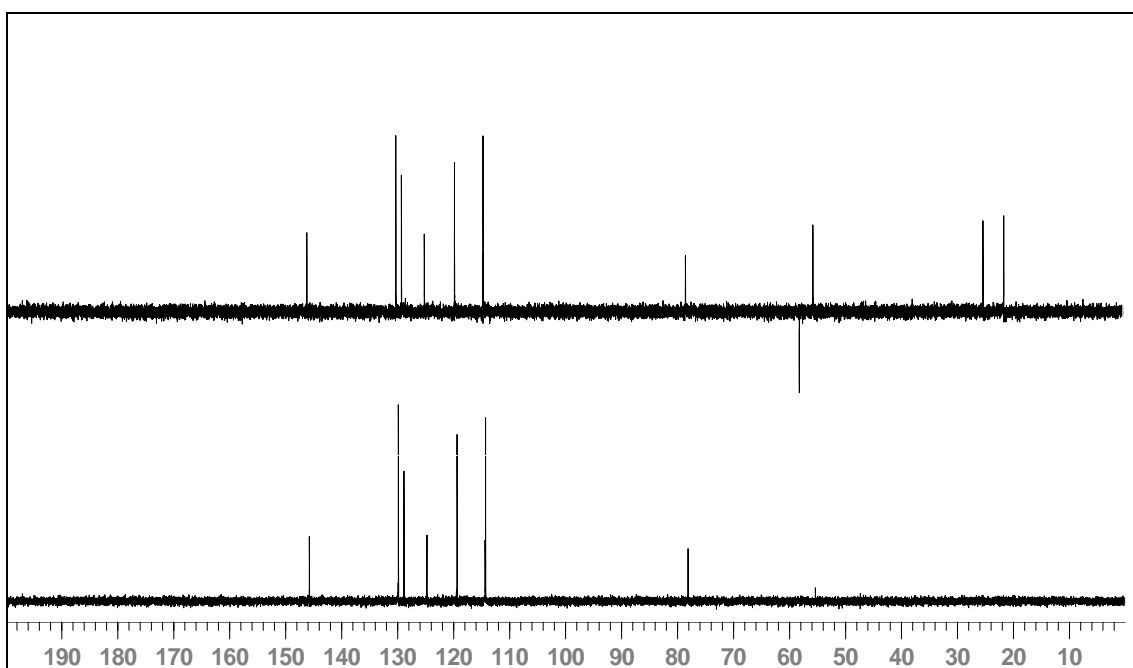
$^1\text{H-NMR}$  (300 MHz,  $\text{CDCl}_3$ ).



IR (KBr).

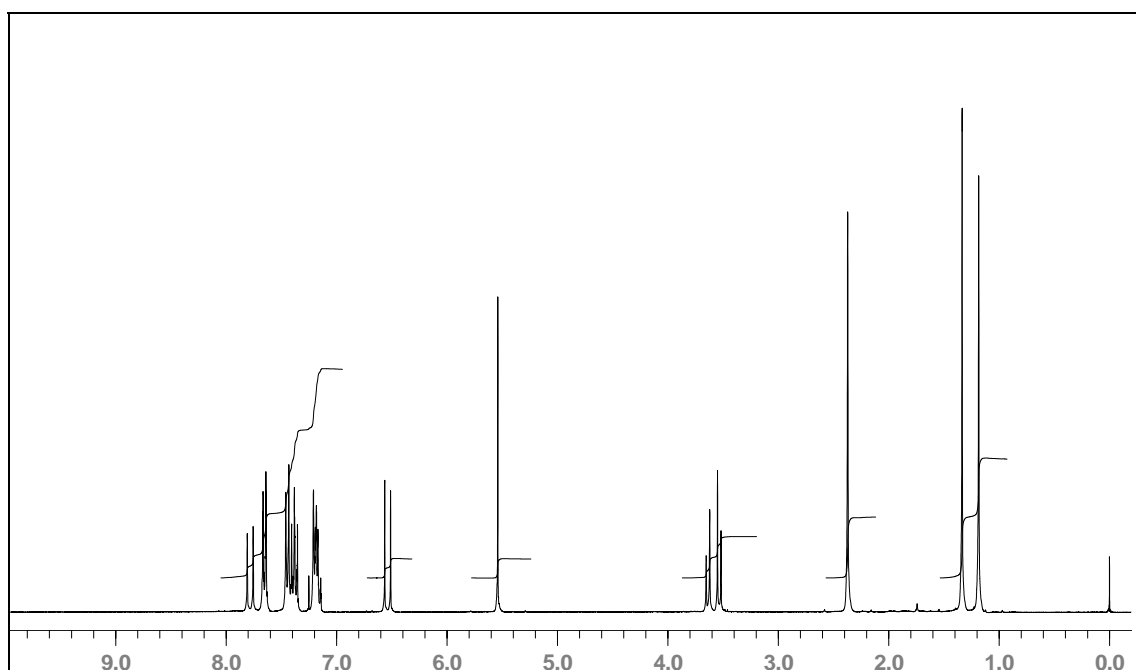
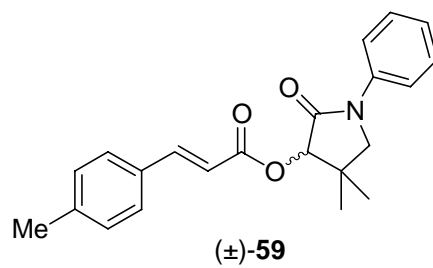


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

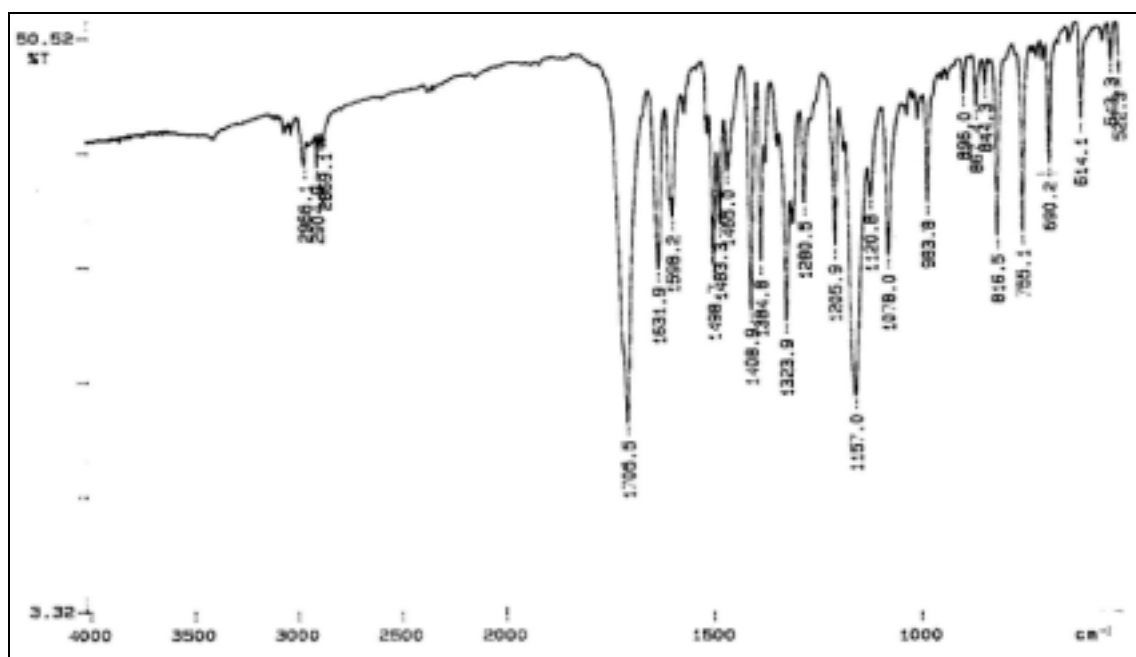


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

# Espectres



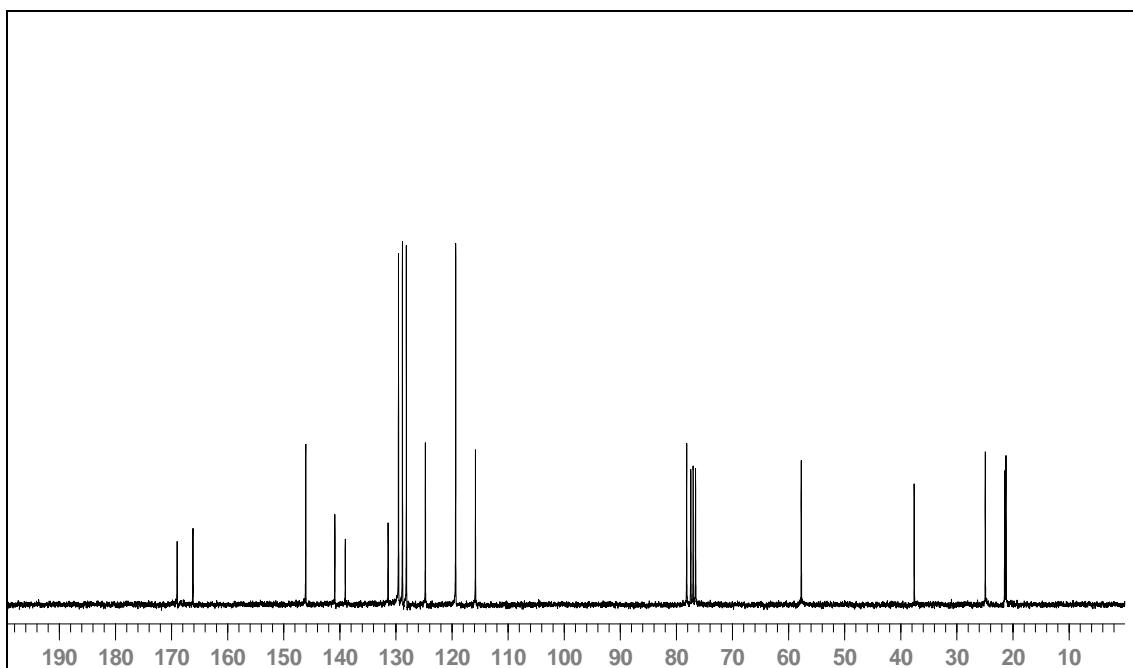
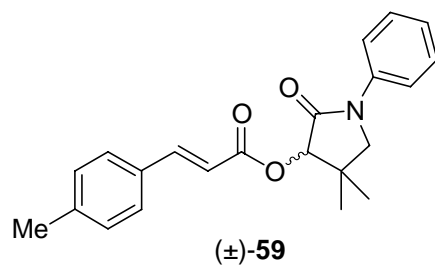
$^1\text{H-NMR}$  (300 MHz,  $\text{CDCl}_3$ ).



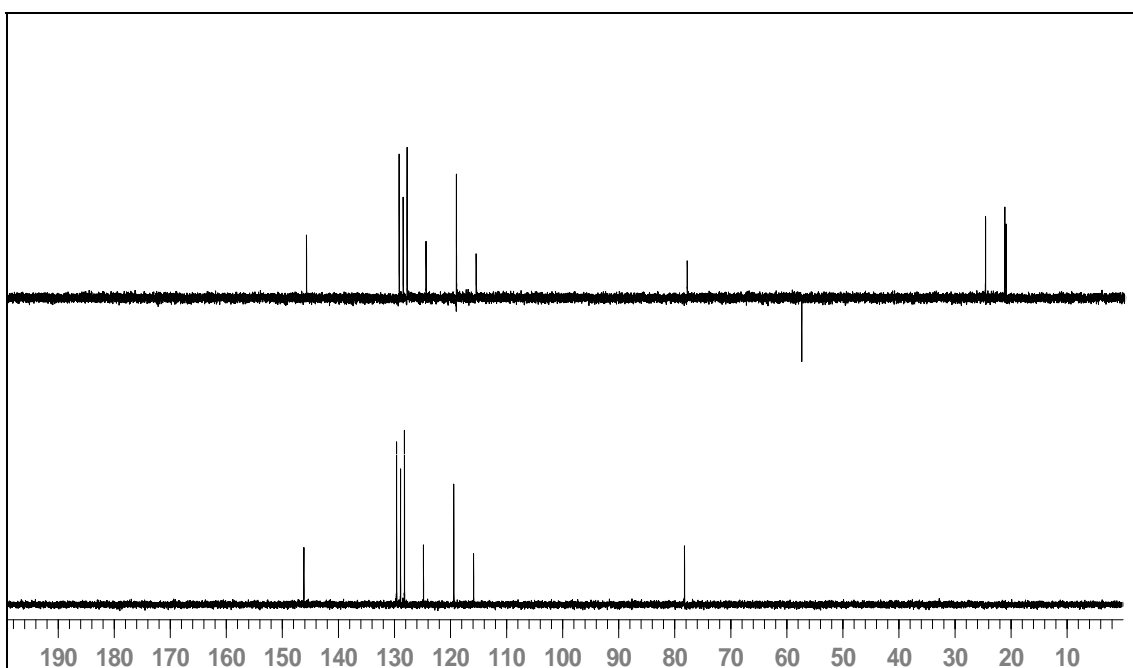
IR (KBr).



Espectres

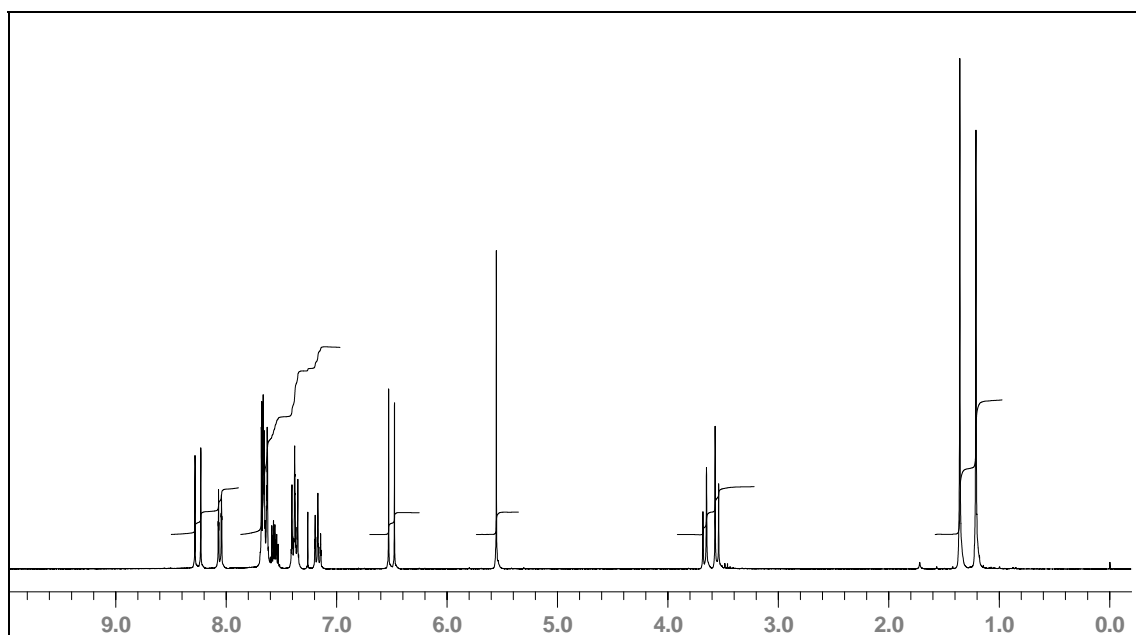
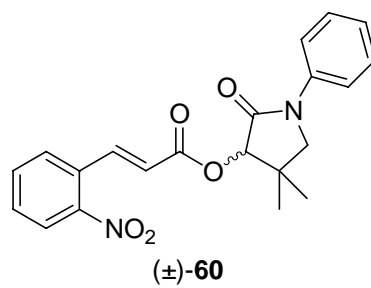


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ).

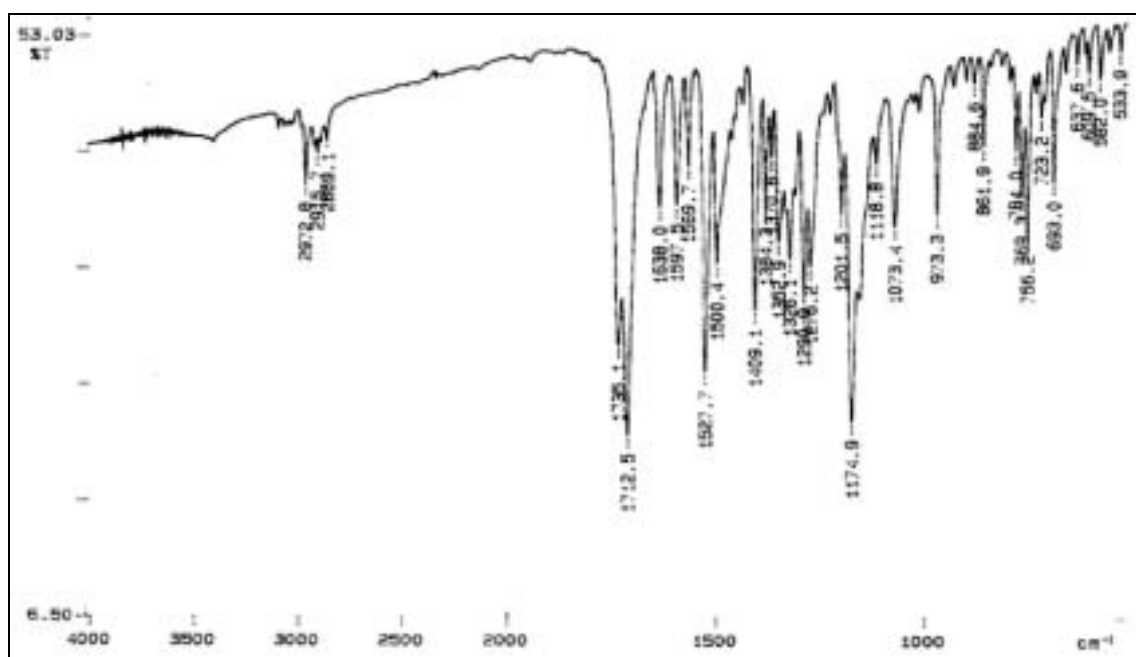


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ), DEPT.

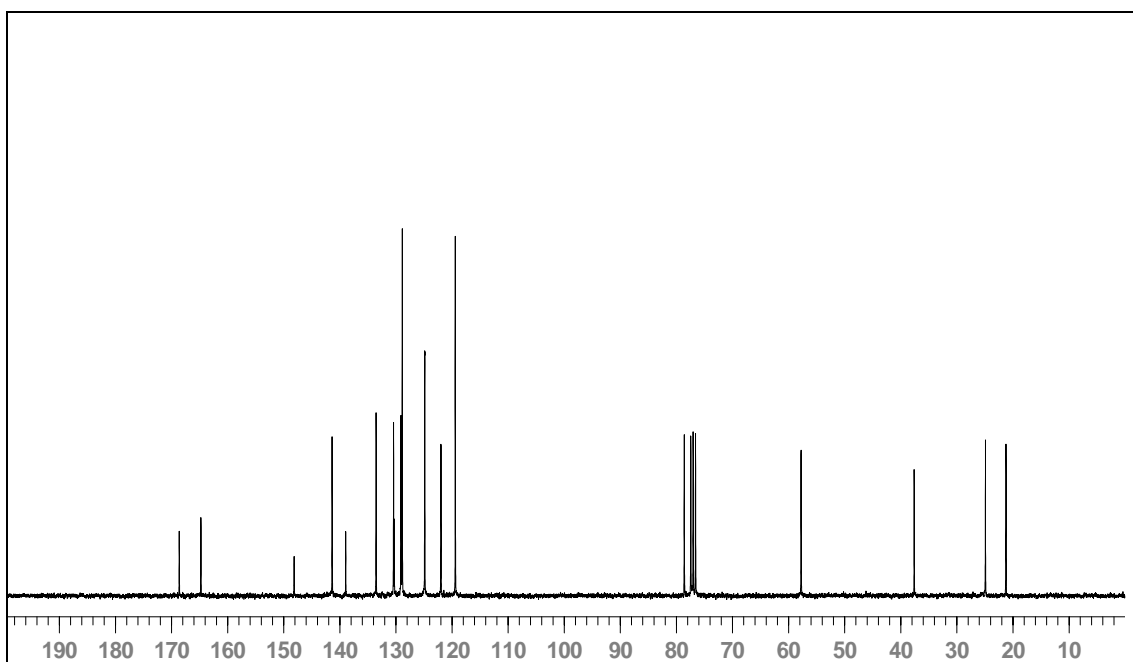
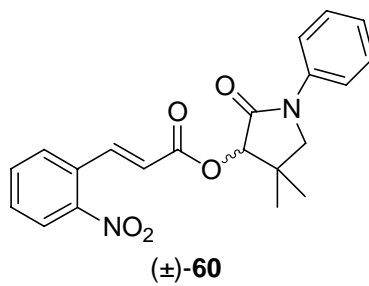
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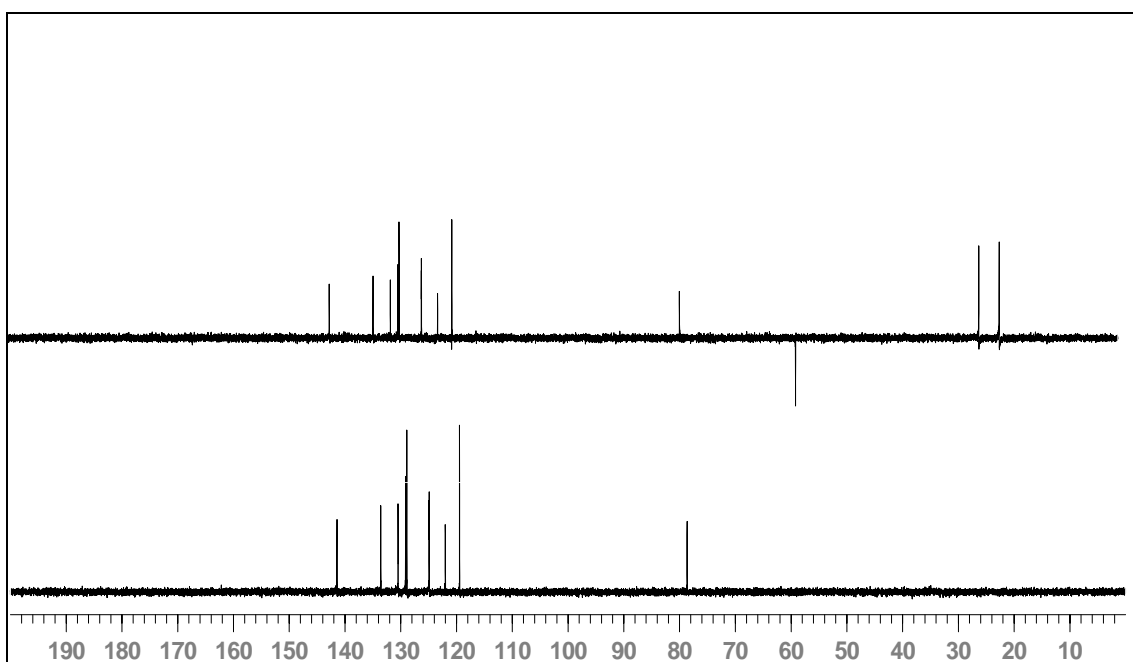
<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).



IR (KBr).

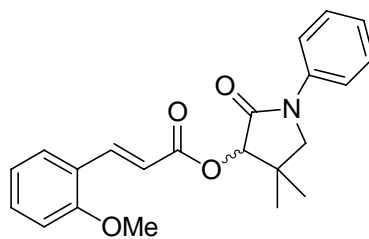


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>).

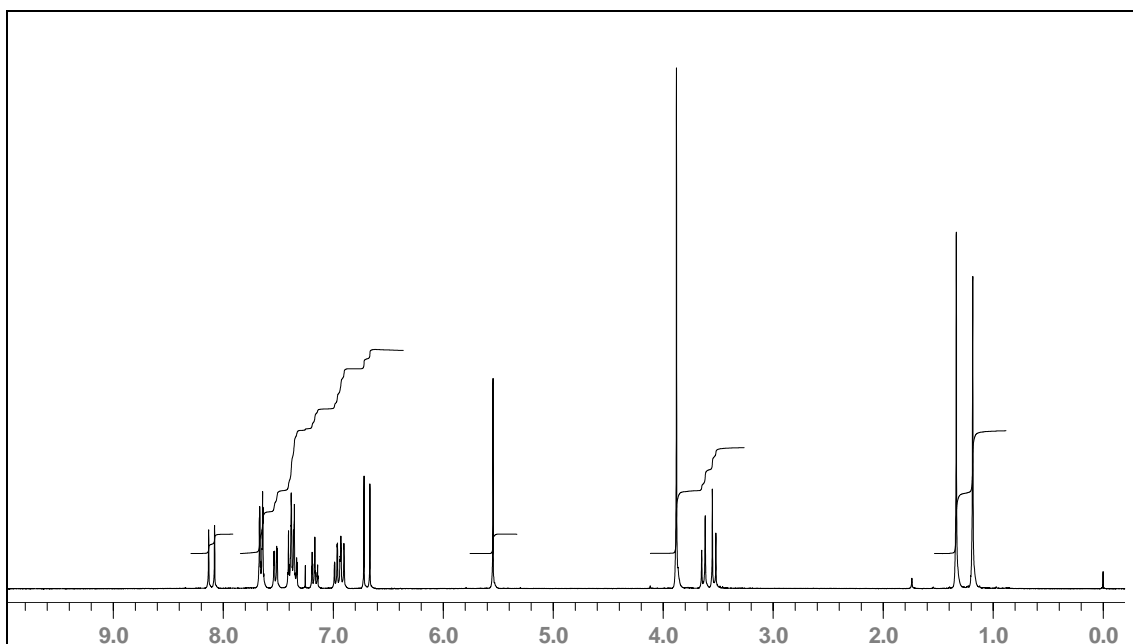


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>), DEPT.

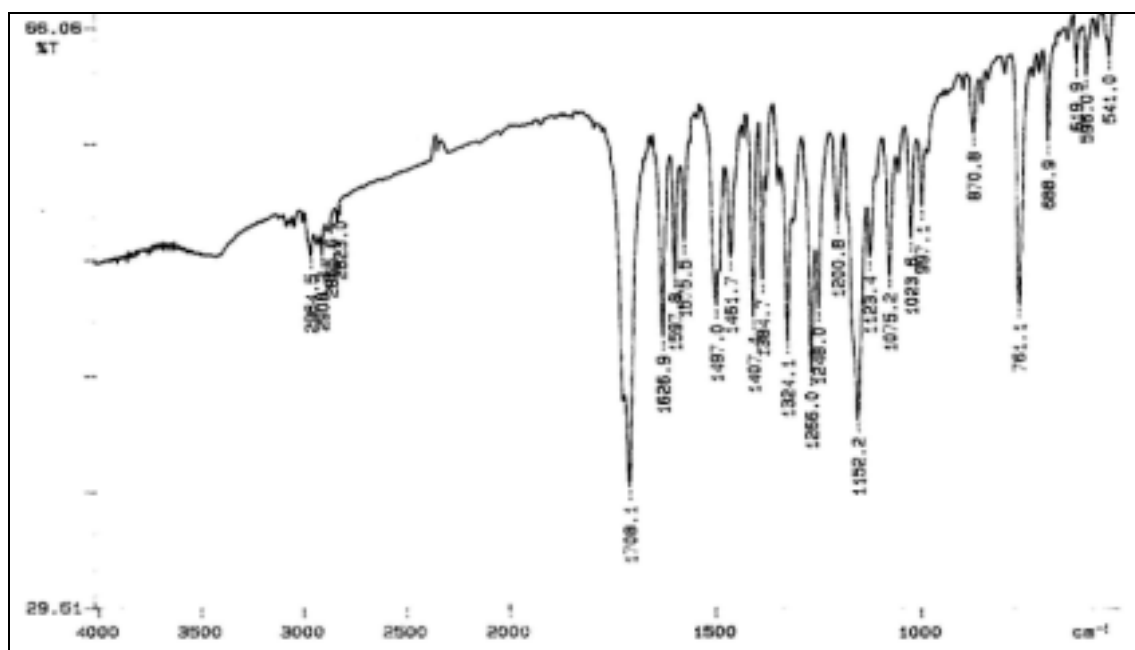
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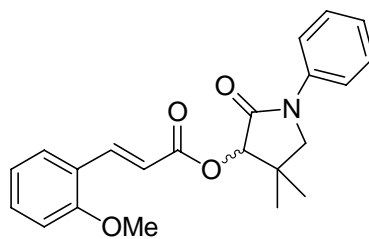
(±)-61



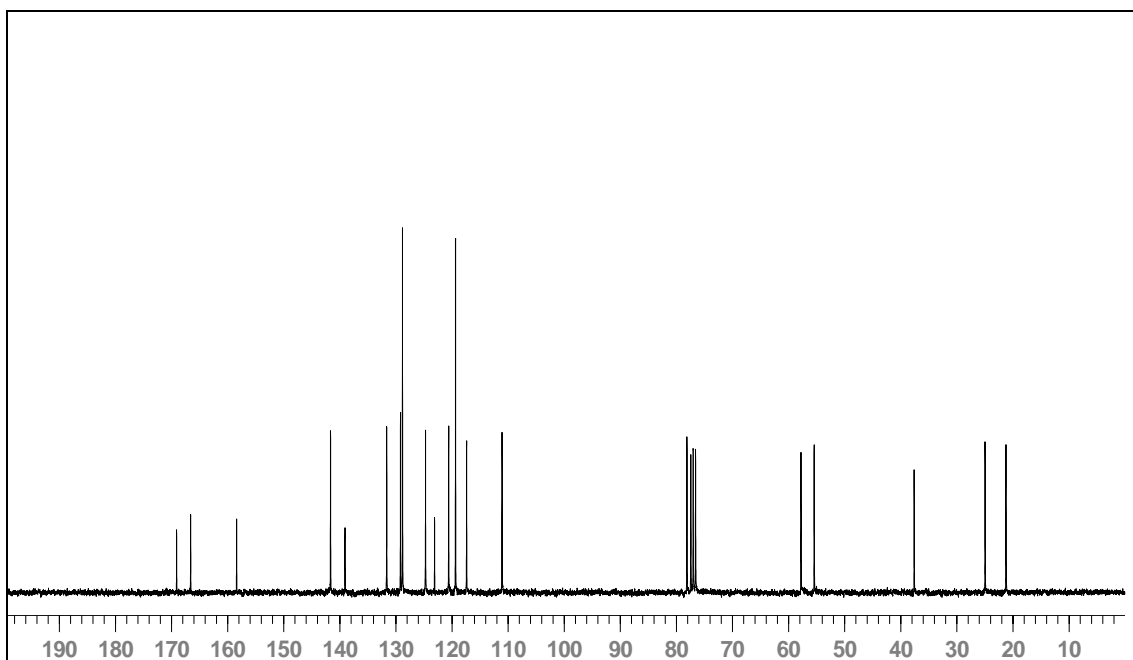
<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).



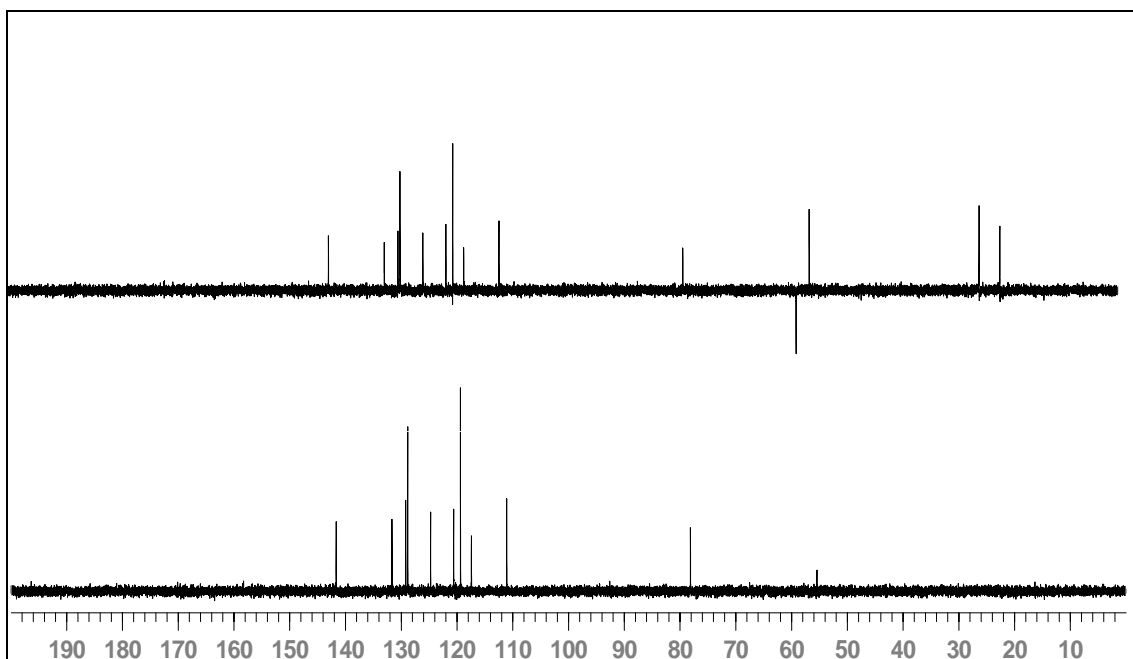
IR (KBr).



(±)-61

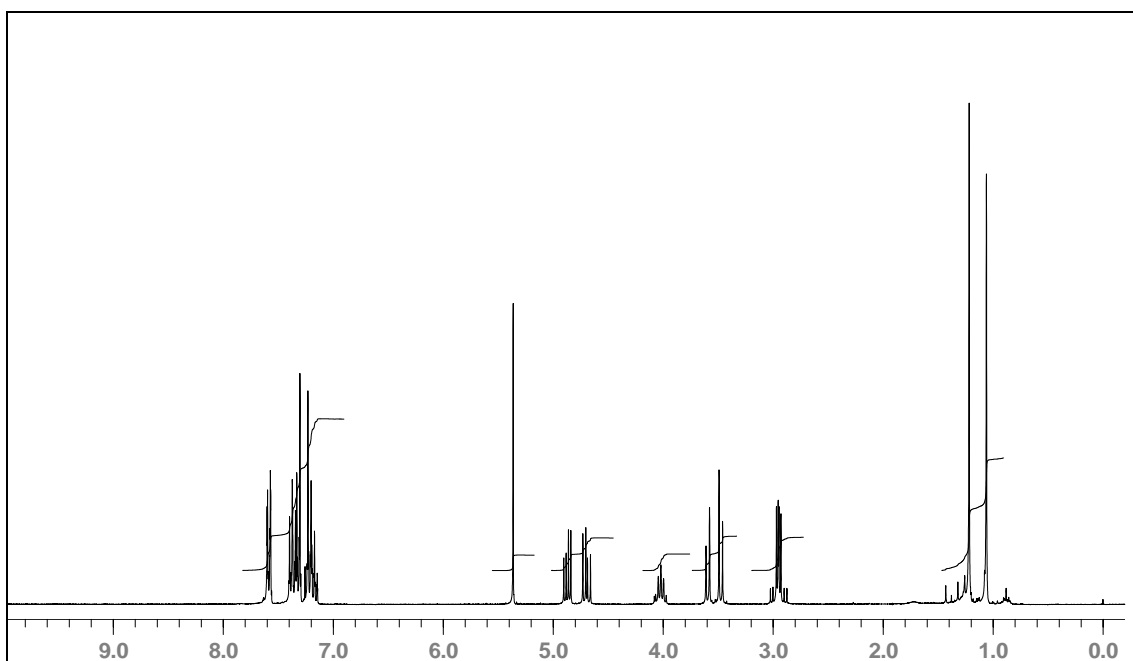
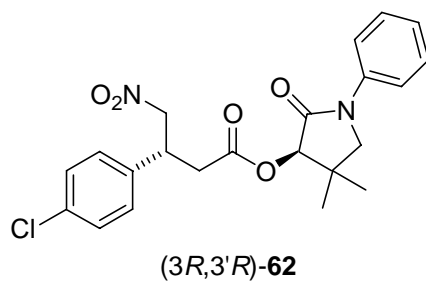


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

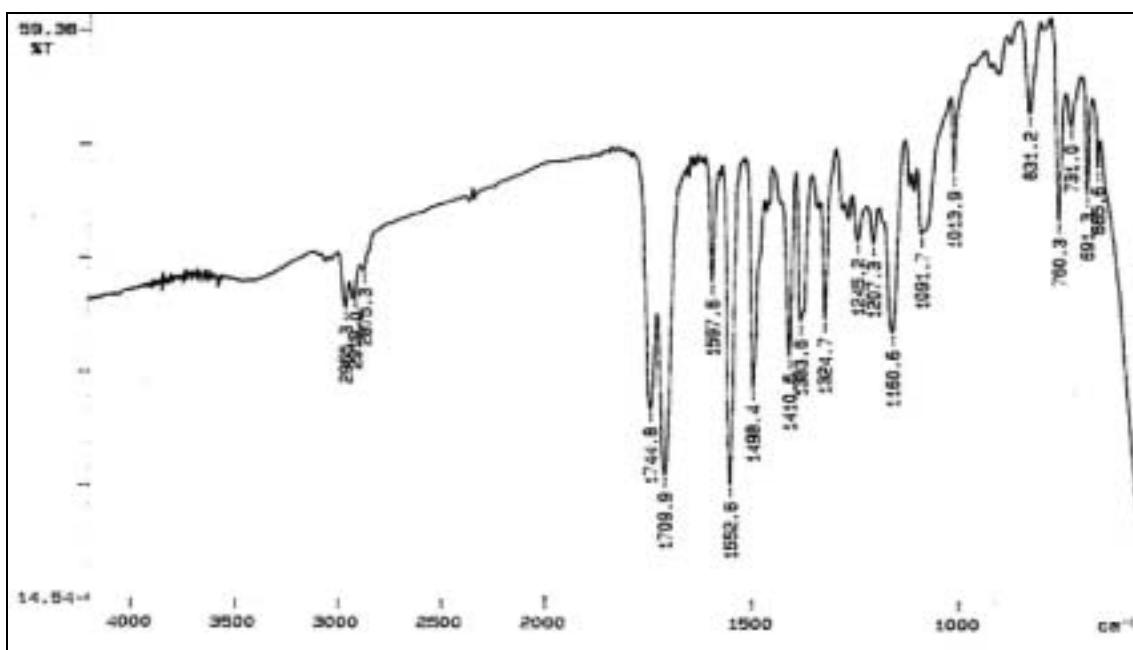


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

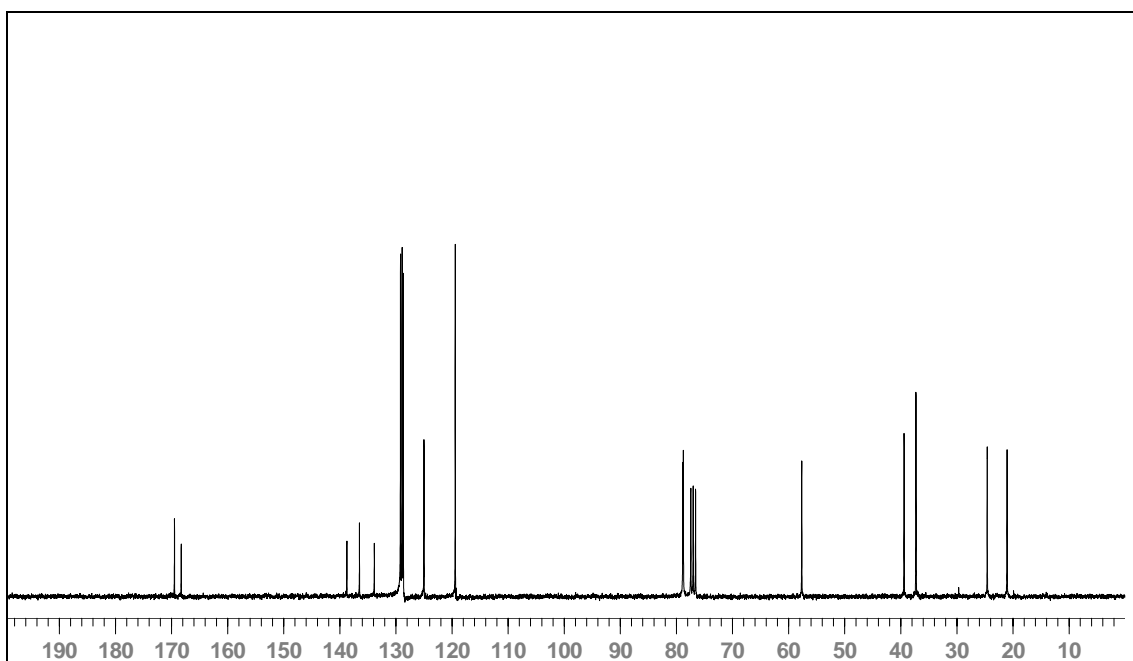
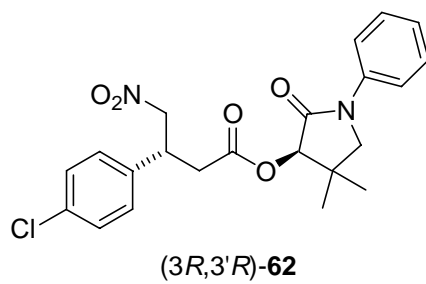
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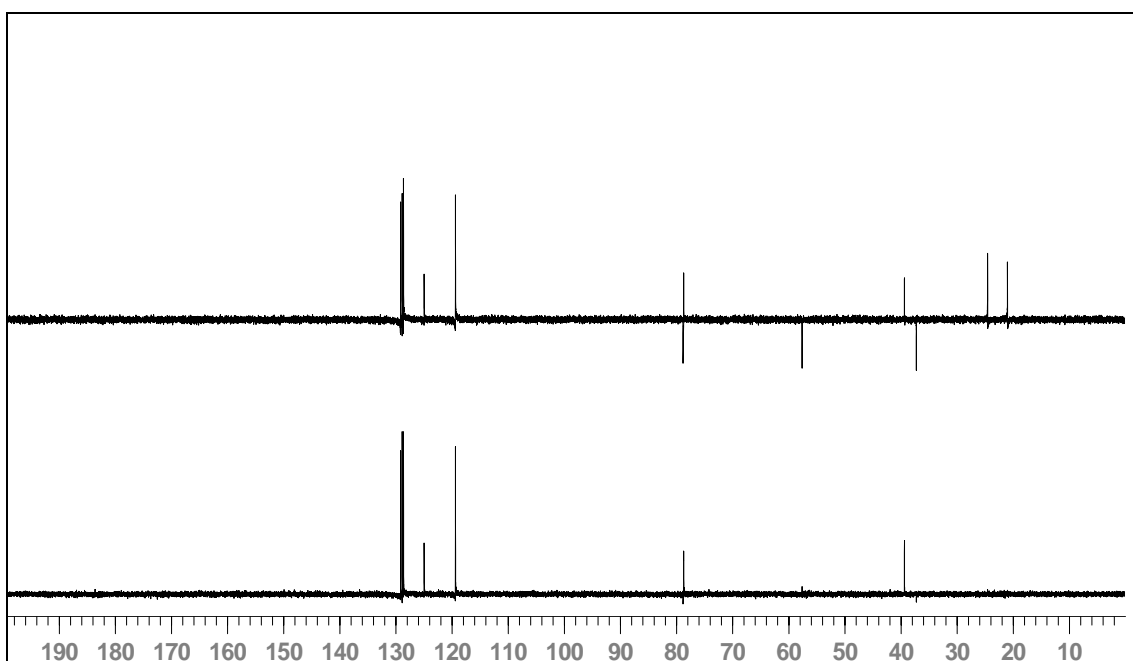
<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).



IR (NaCl).

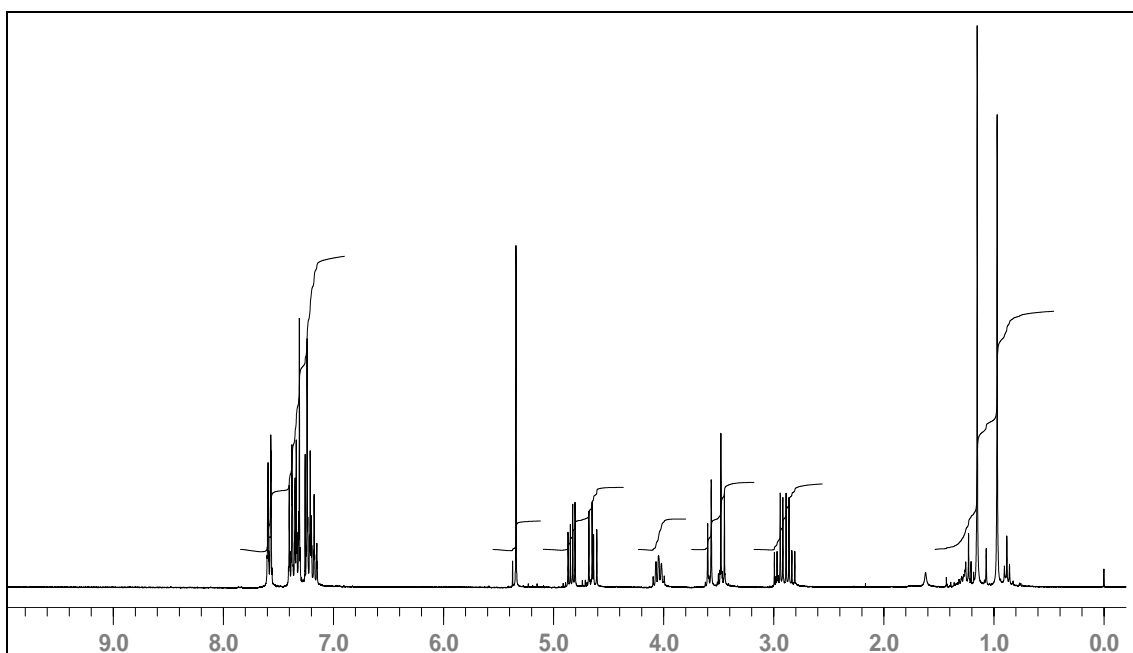
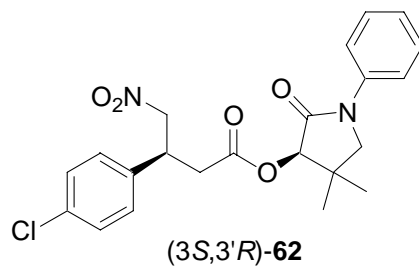


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

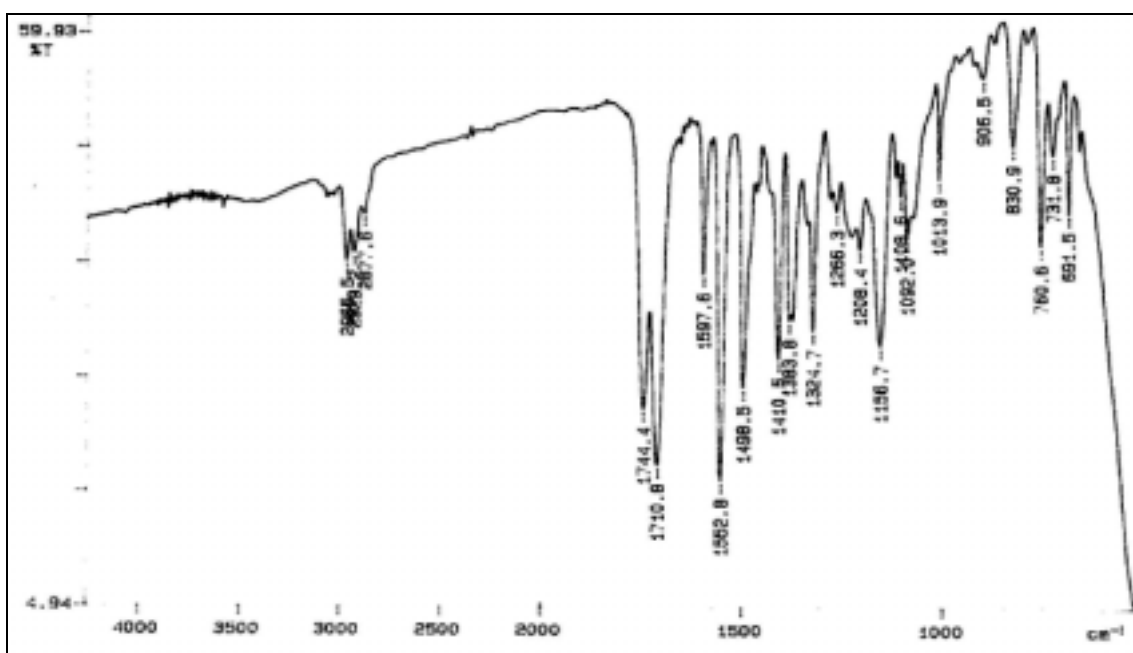


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

# Espectres

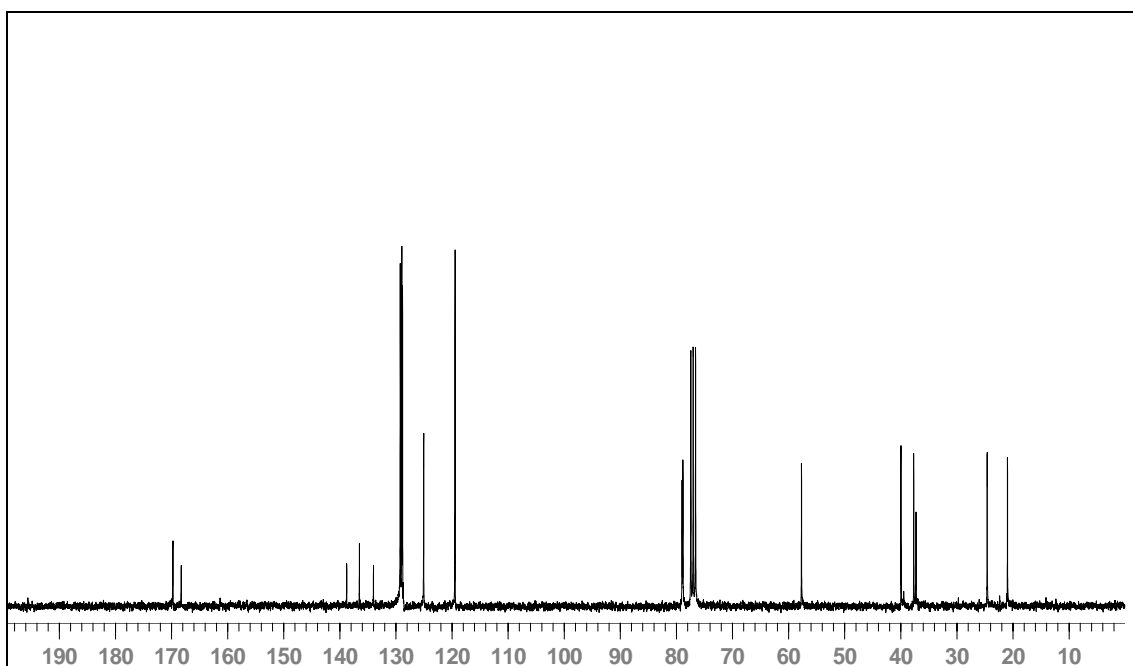
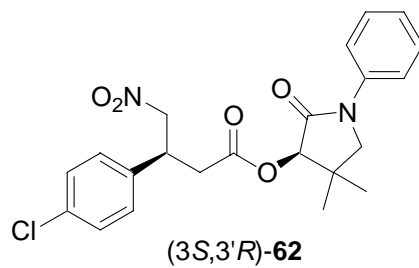


$^1\text{H-NMR}$  (300 MHz,  $\text{CDCl}_3$ ).

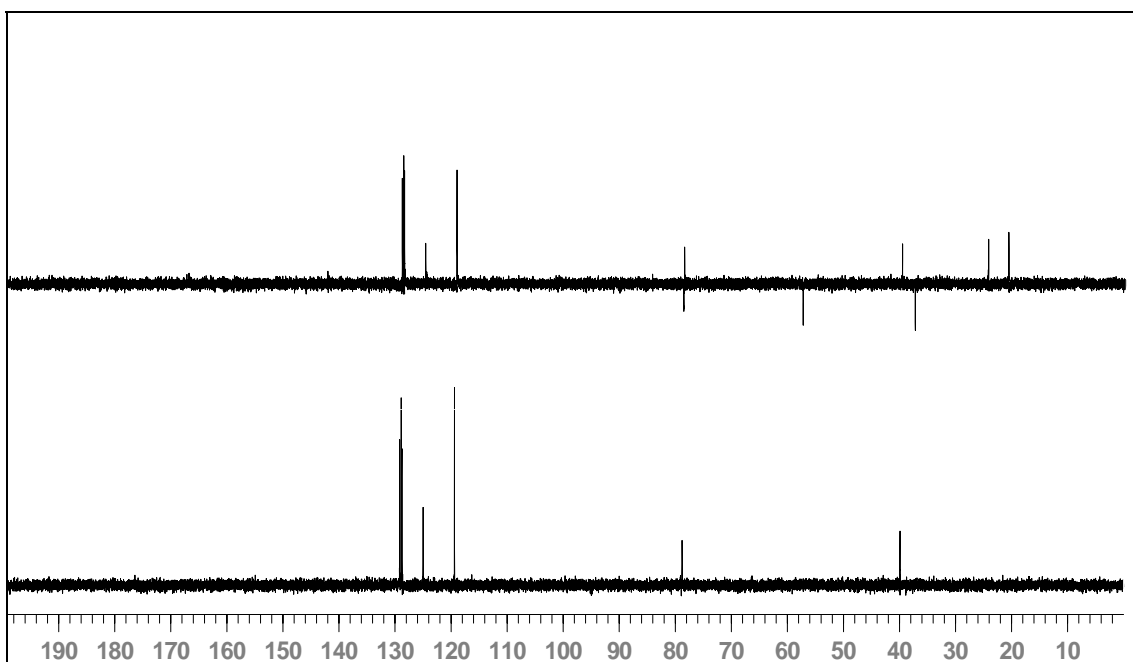


IR (NaCl).



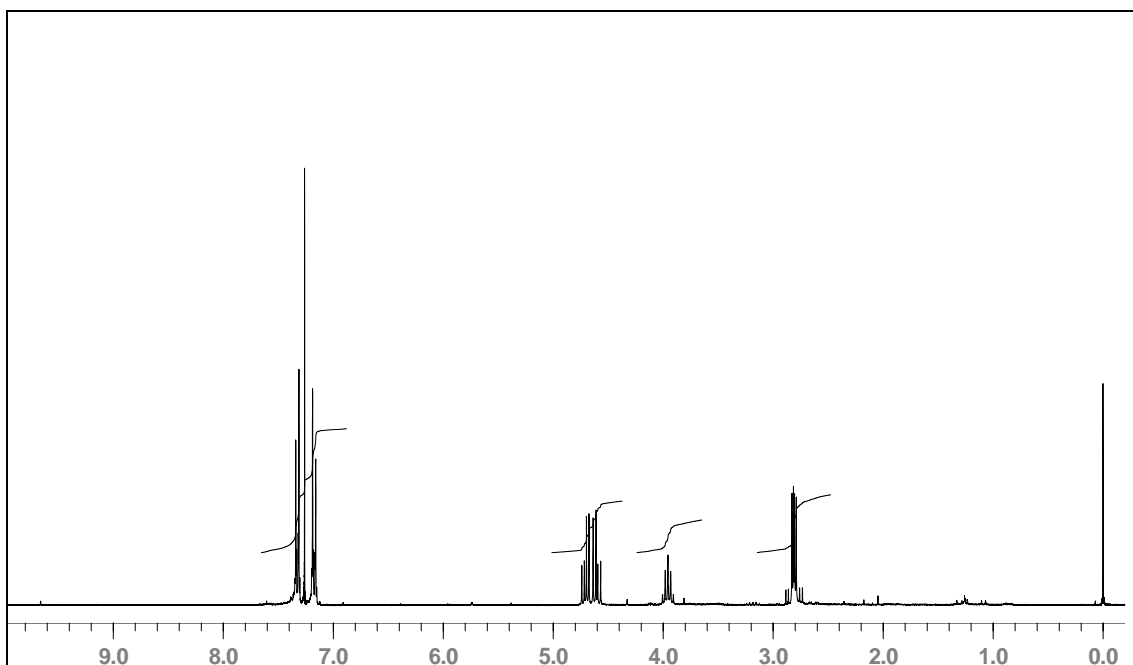
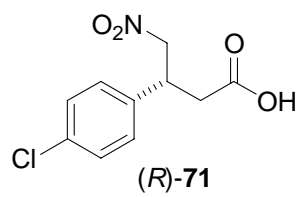


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

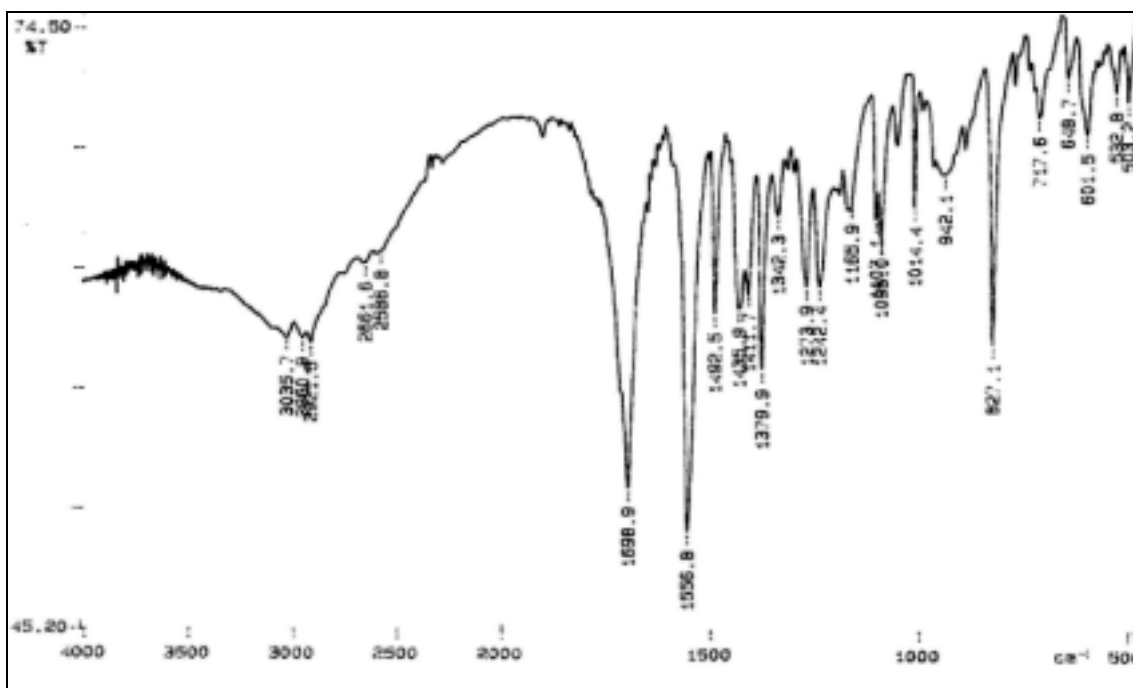


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

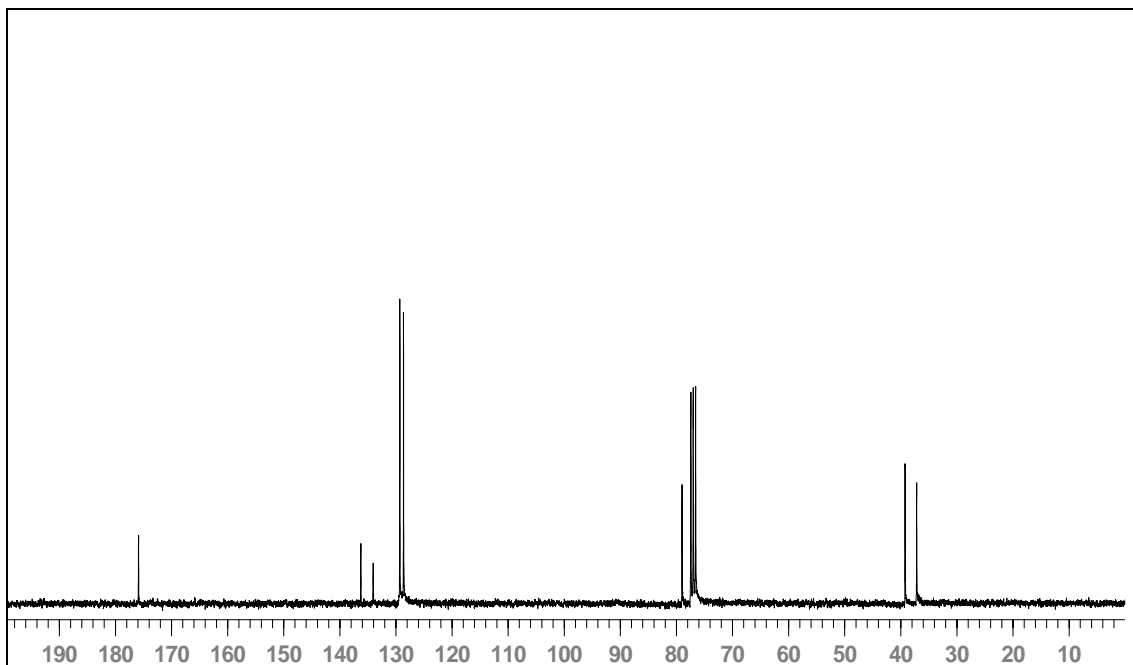
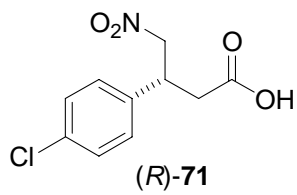
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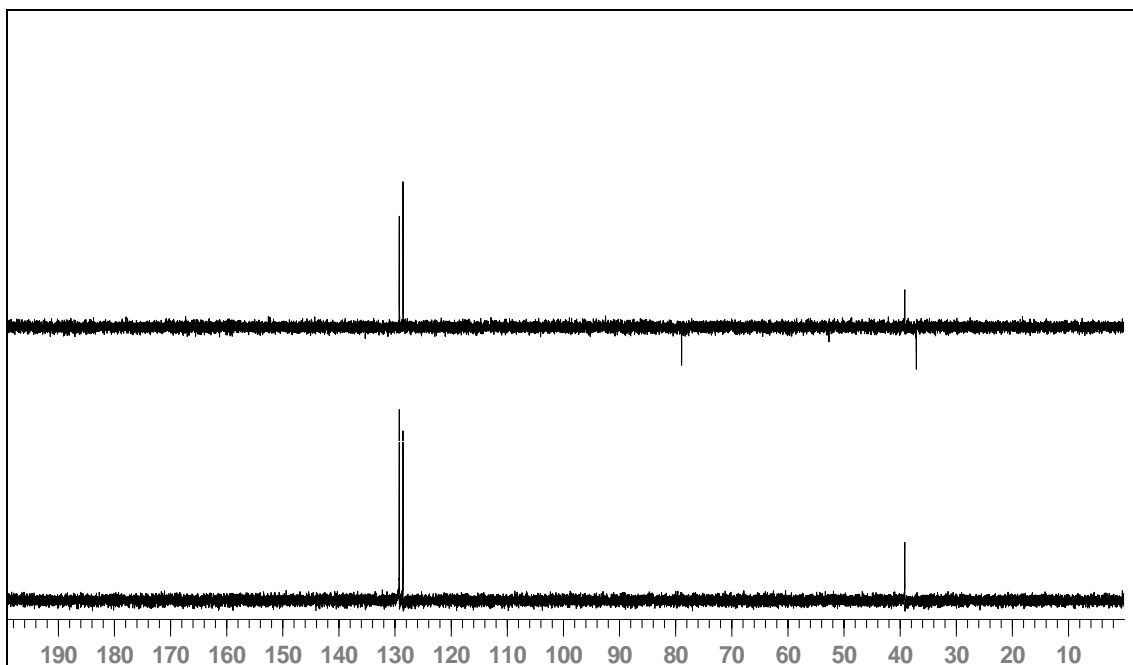
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IR (KBr).

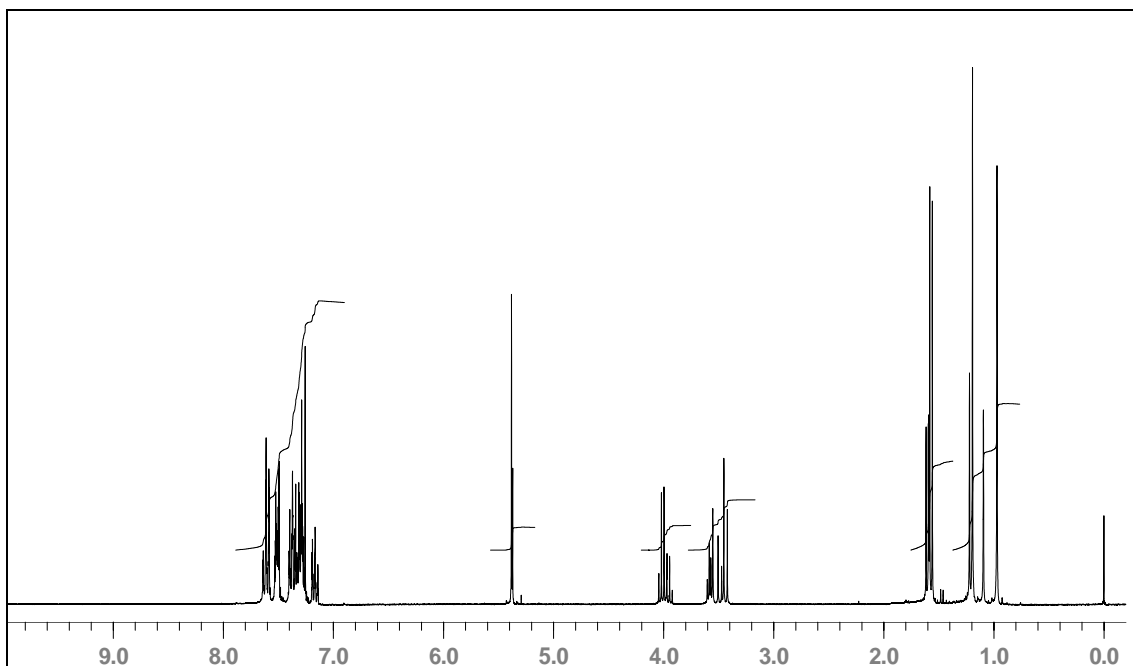
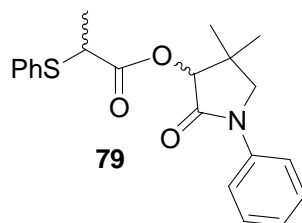


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ).

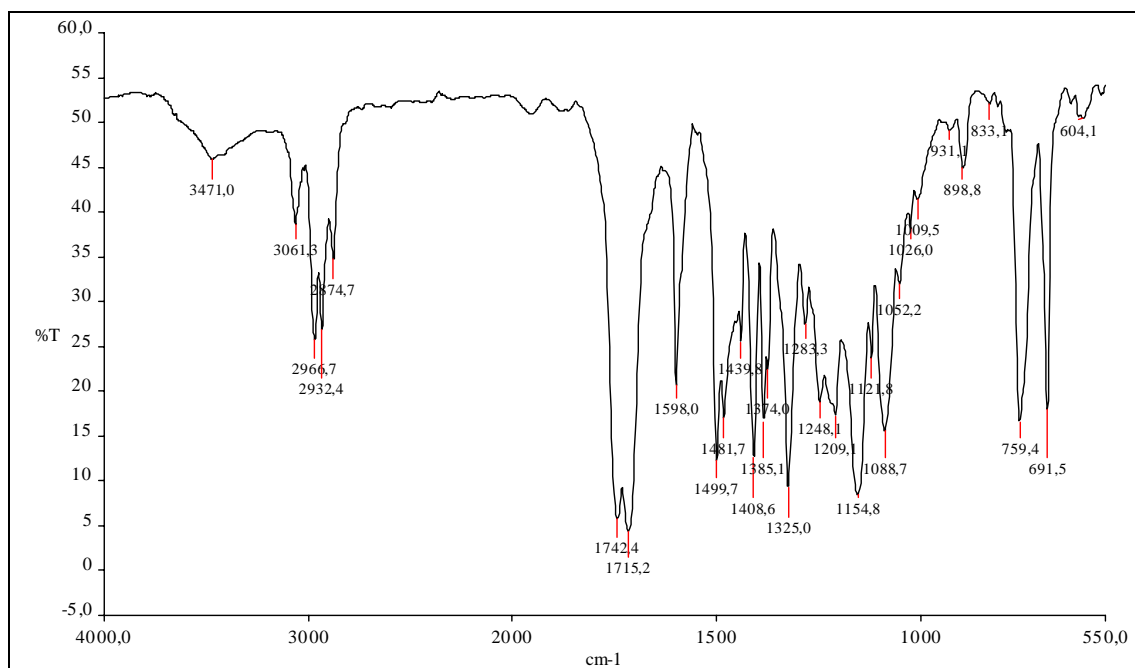


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ), DEPT.

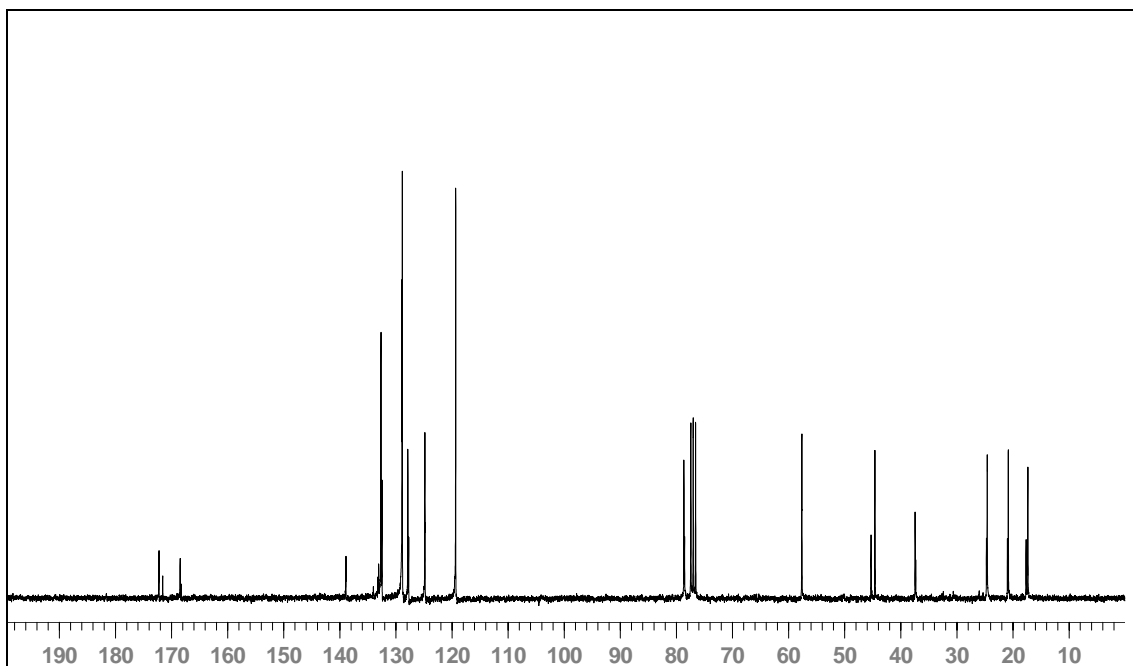
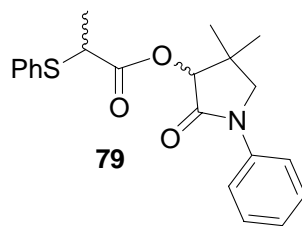
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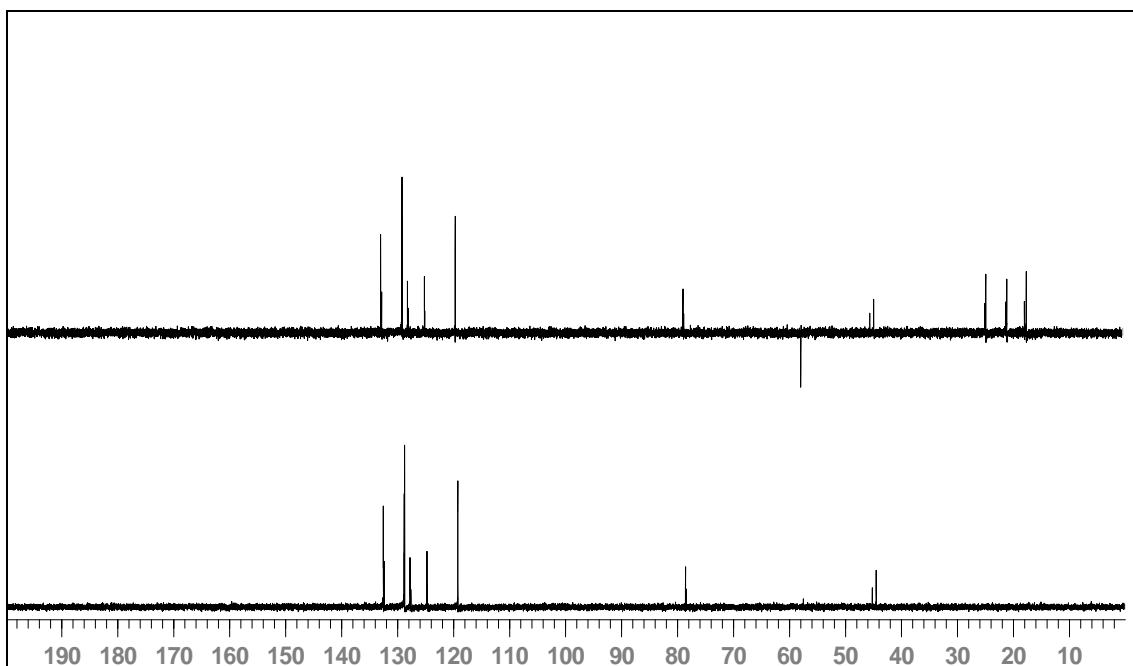
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IR (NaCl).

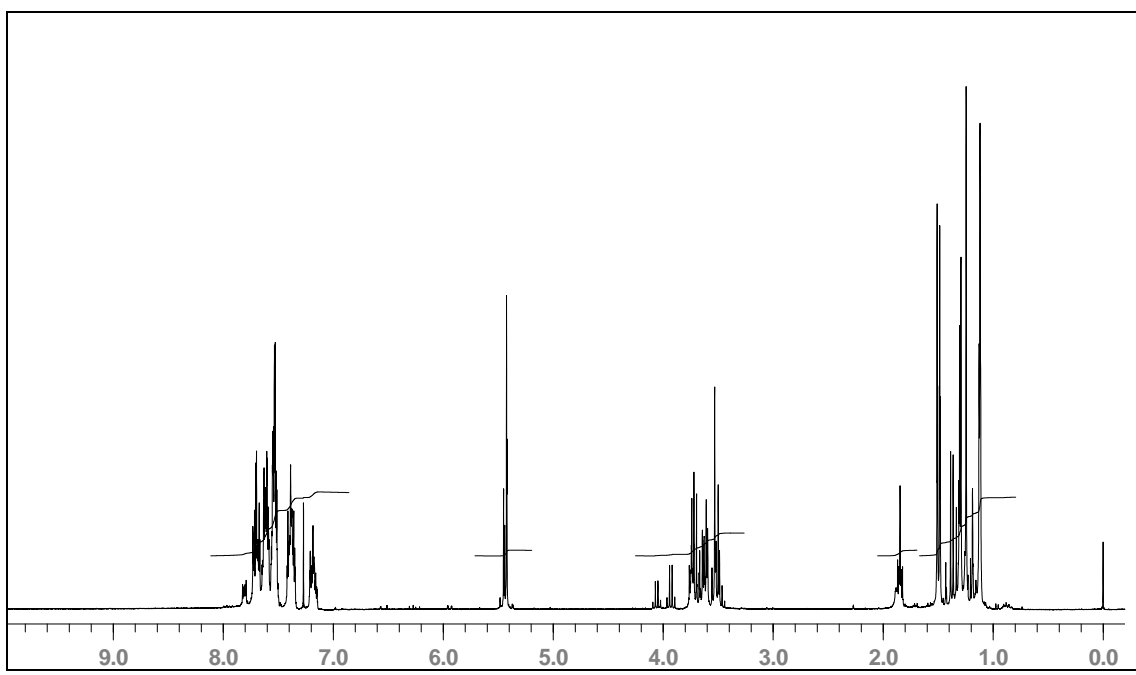
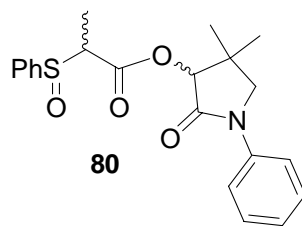


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

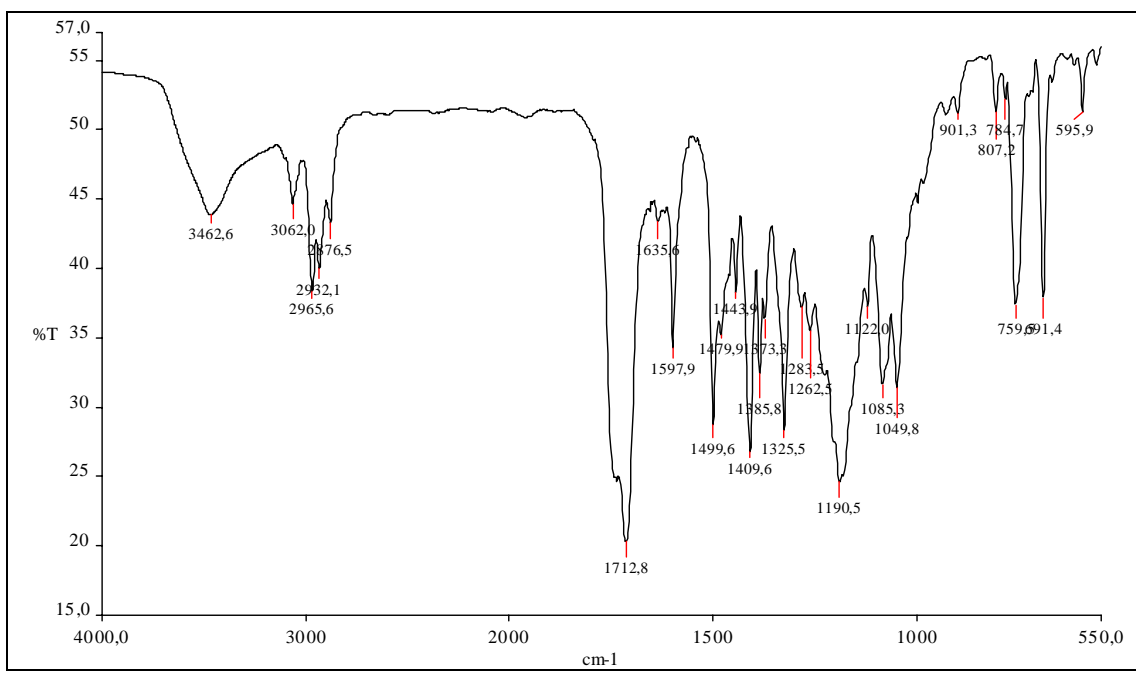


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

# Espectres

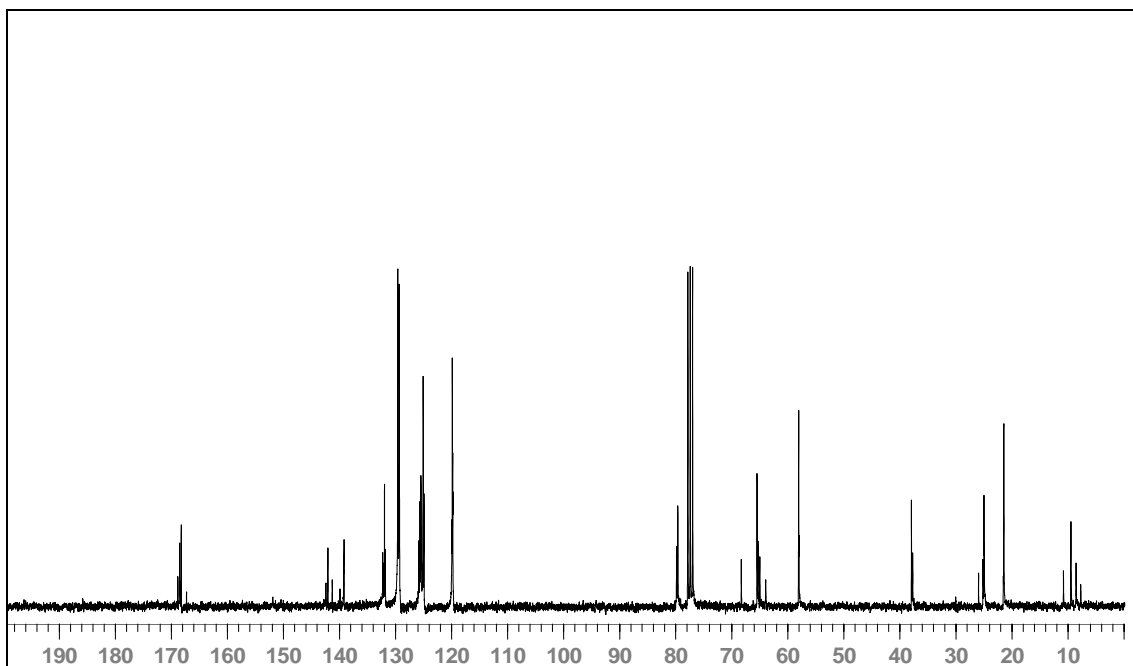
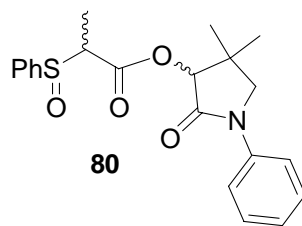


<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).

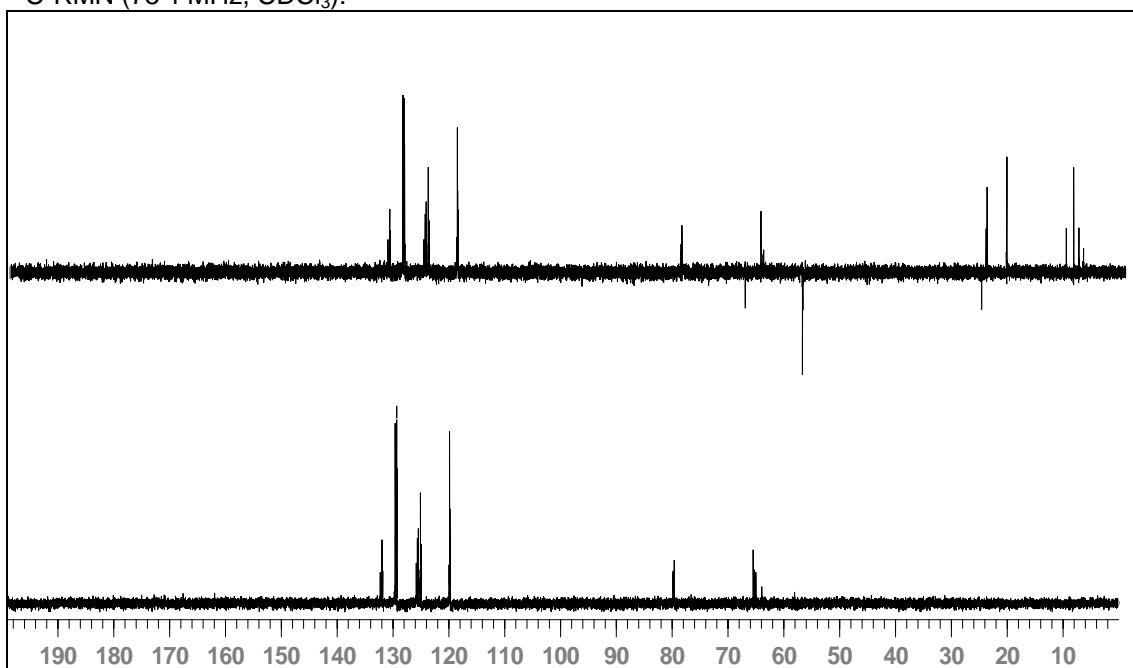


IR (NaCl).

# Espectres

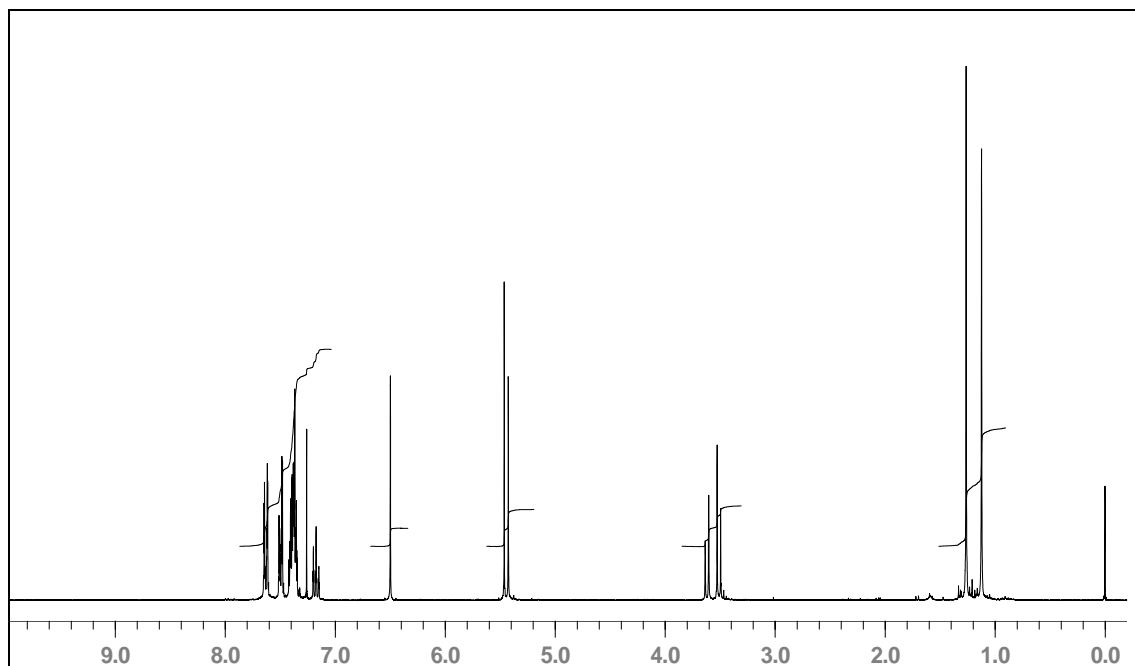
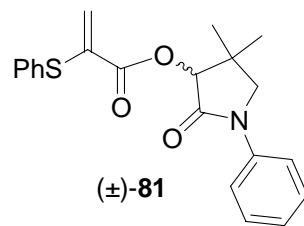


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ).

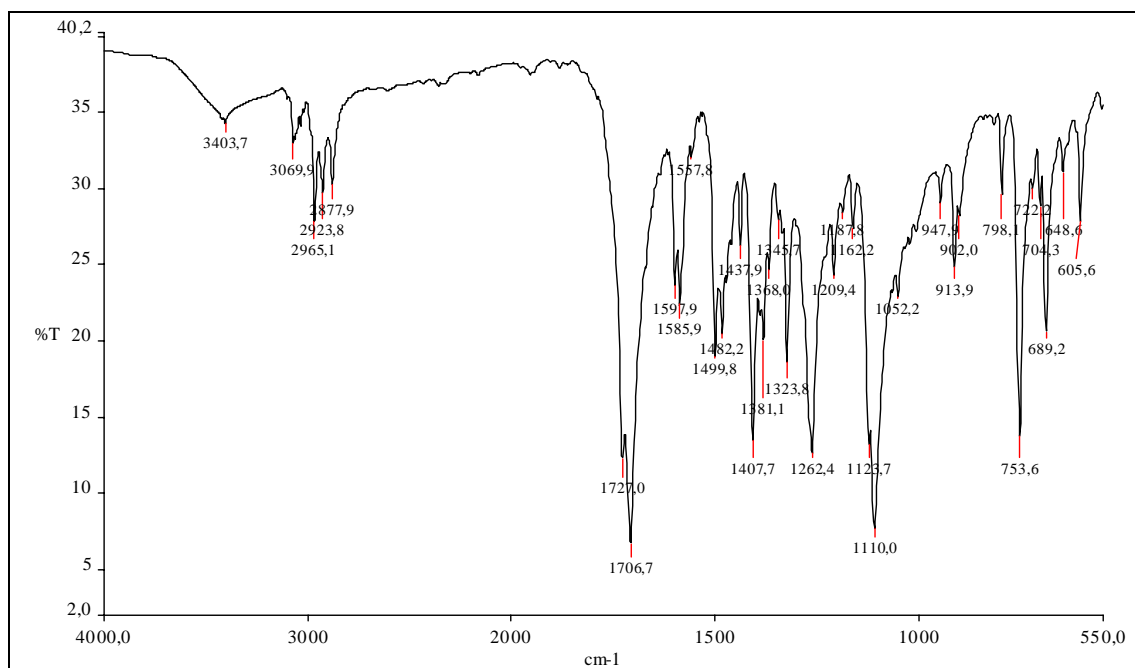


$^{13}\text{C}$ -RMN (75.4 MHz,  $\text{CDCl}_3$ ), DEPT.

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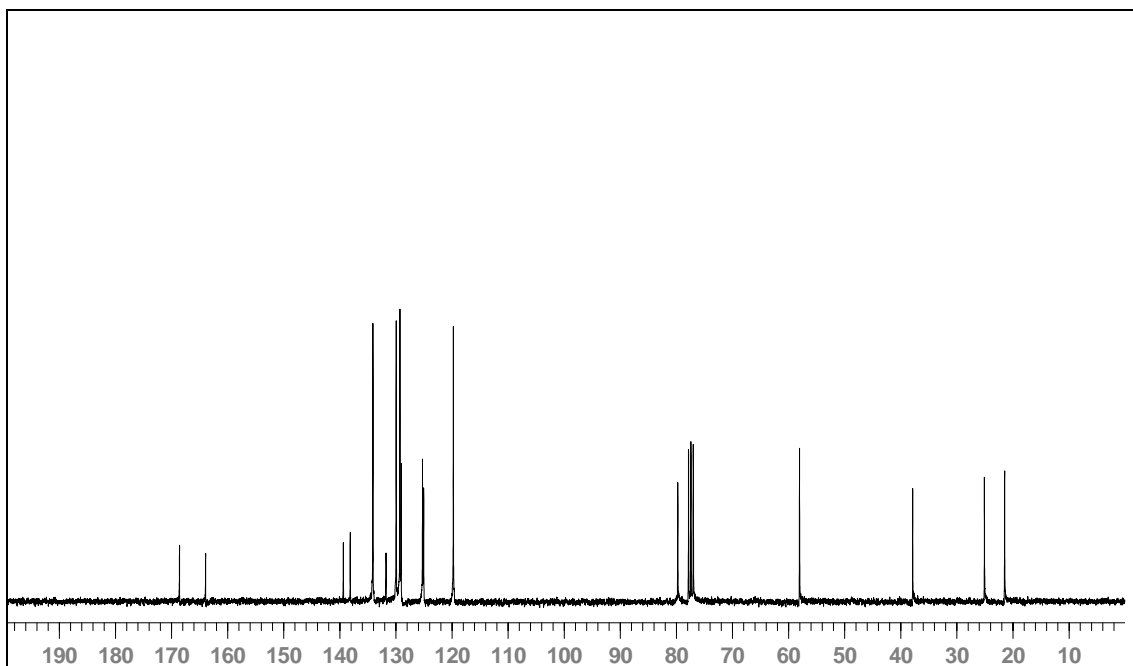
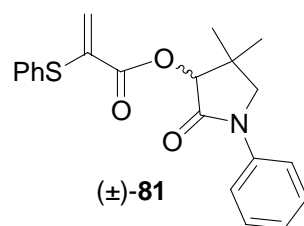
<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).



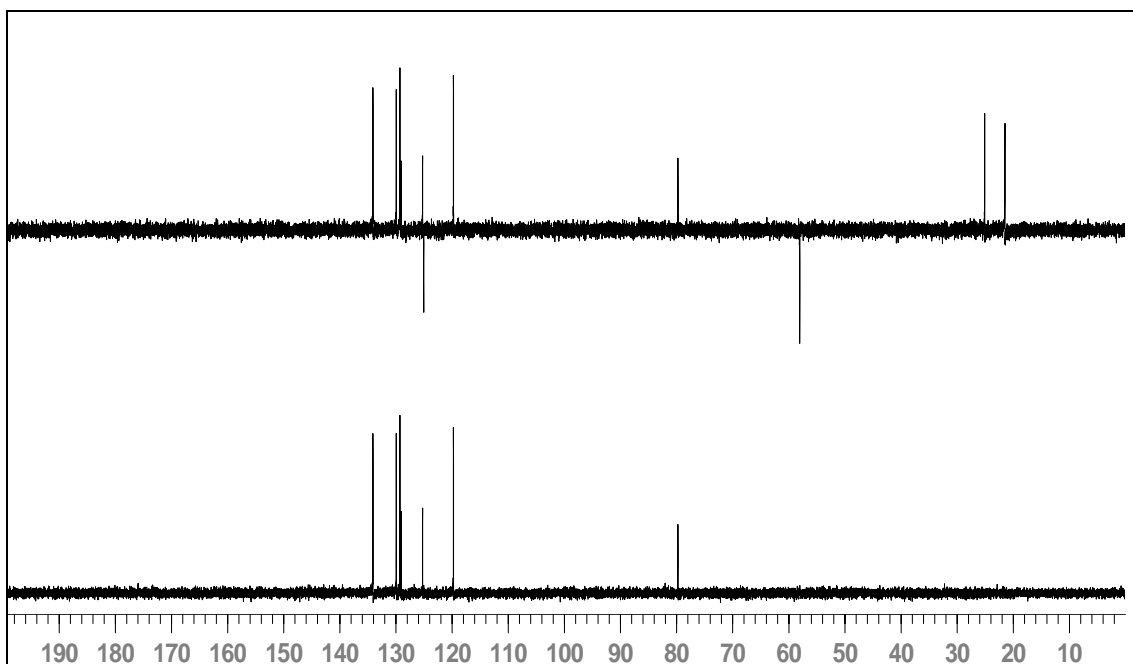
IR (KBr).



# Espectres

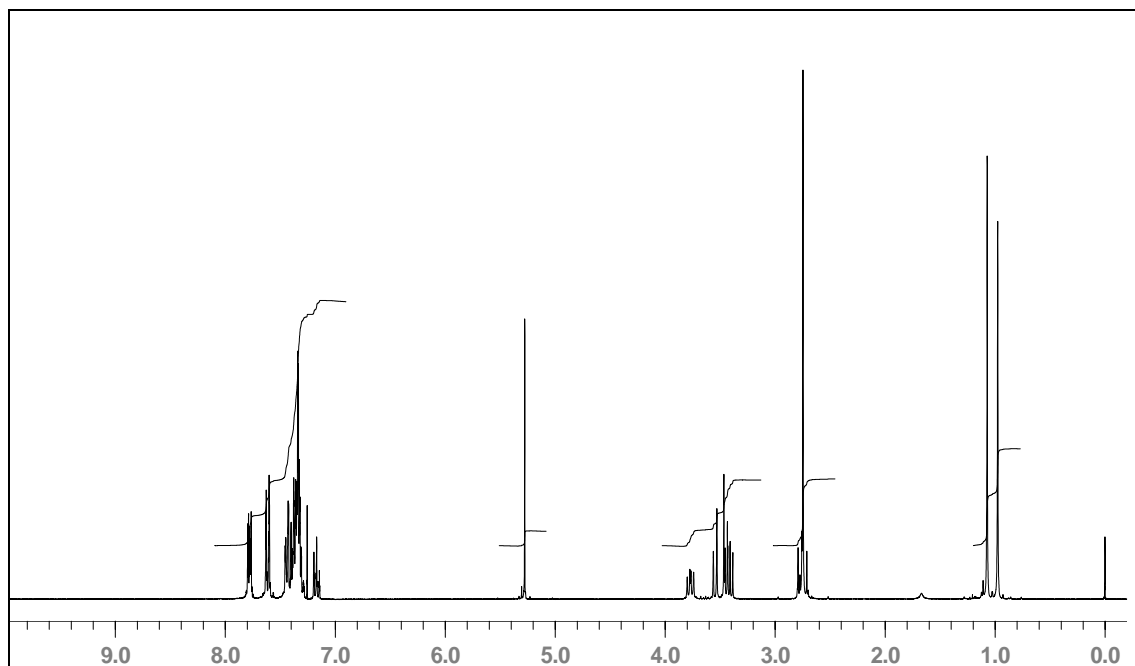
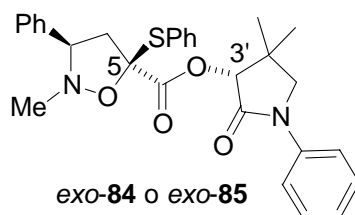


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

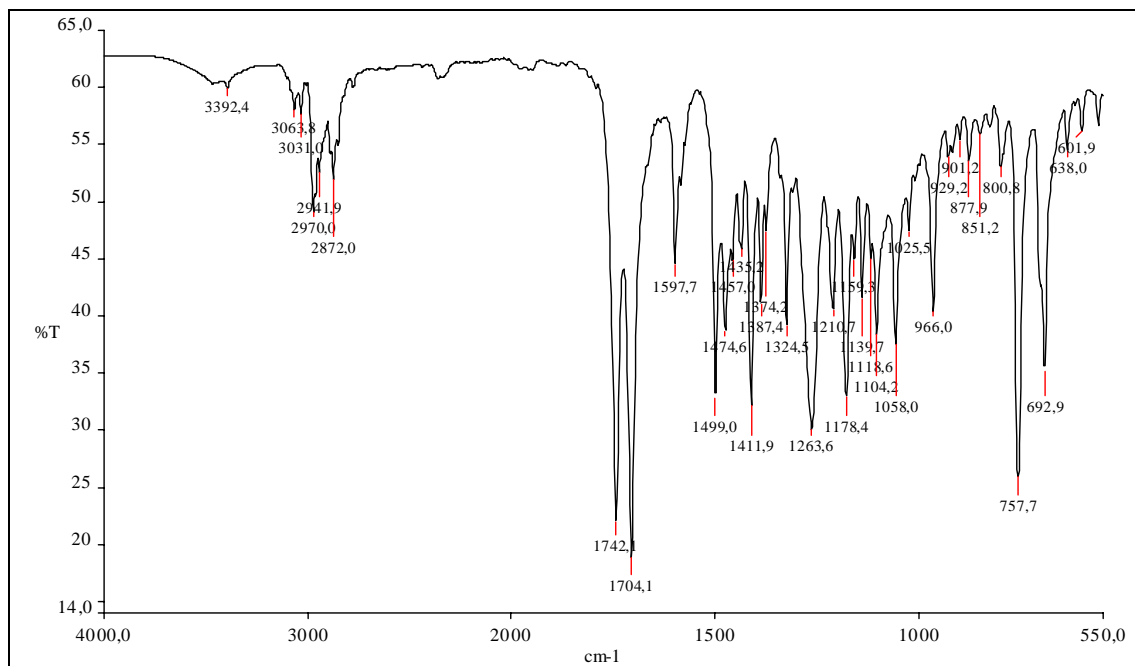


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

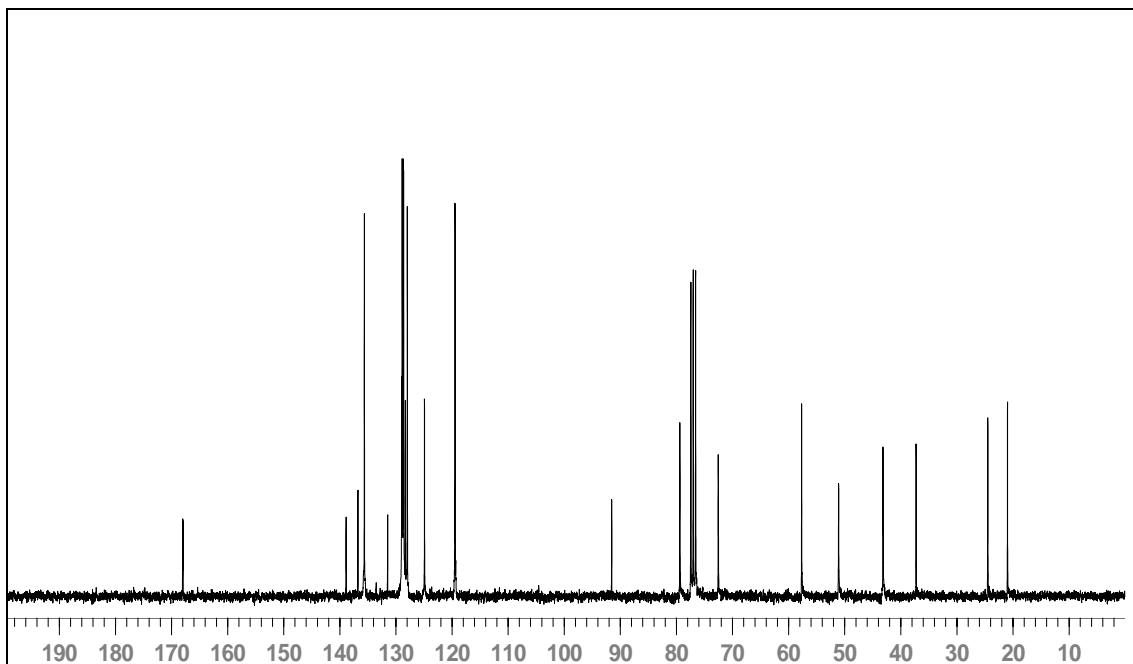
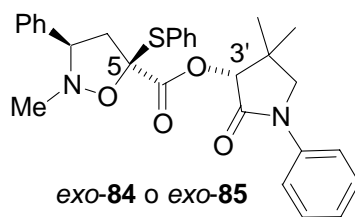
# Espectres



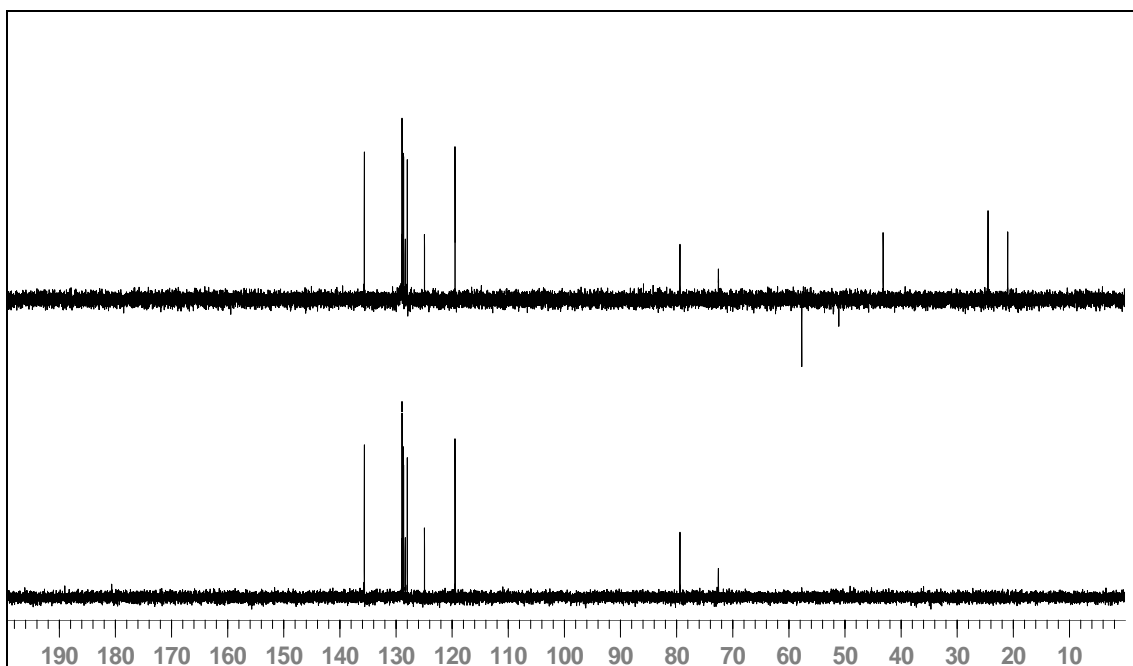
$^1\text{H-NMR}$  (300 MHz,  $\text{CDCl}_3$ ).



# Espectres

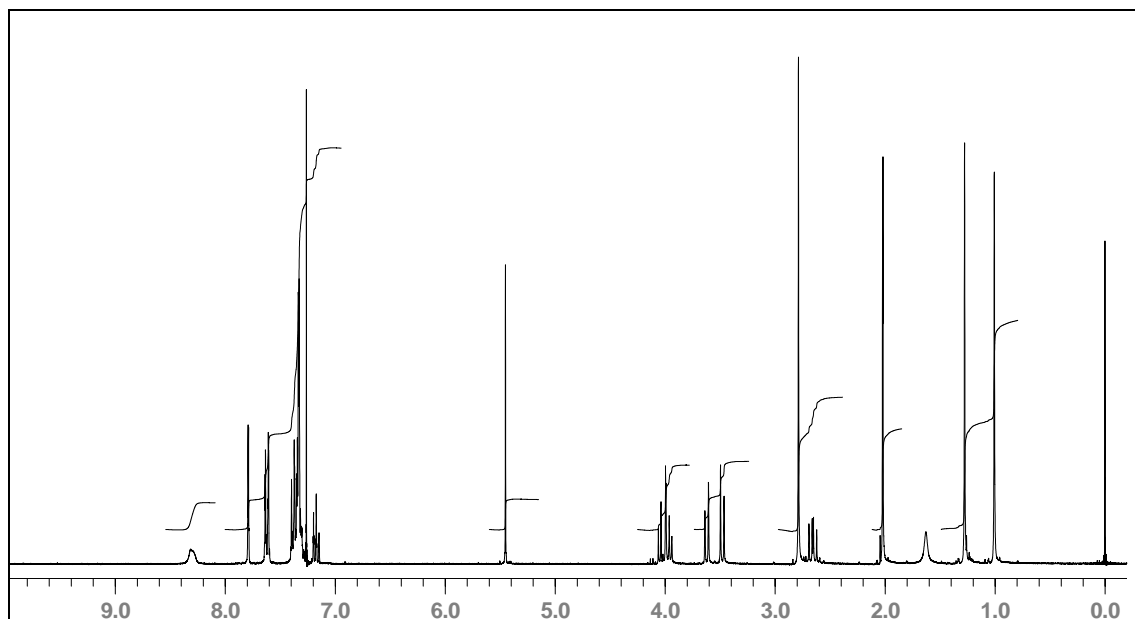
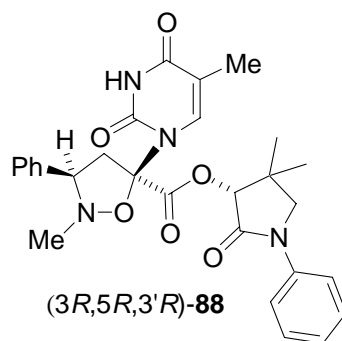


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

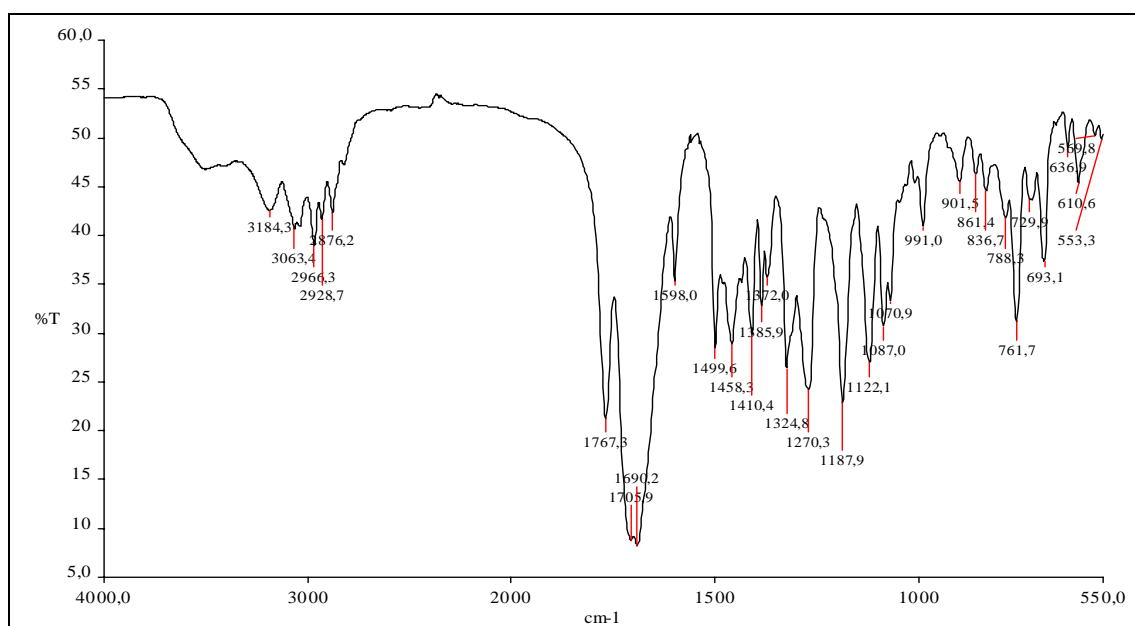


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

# Espectres

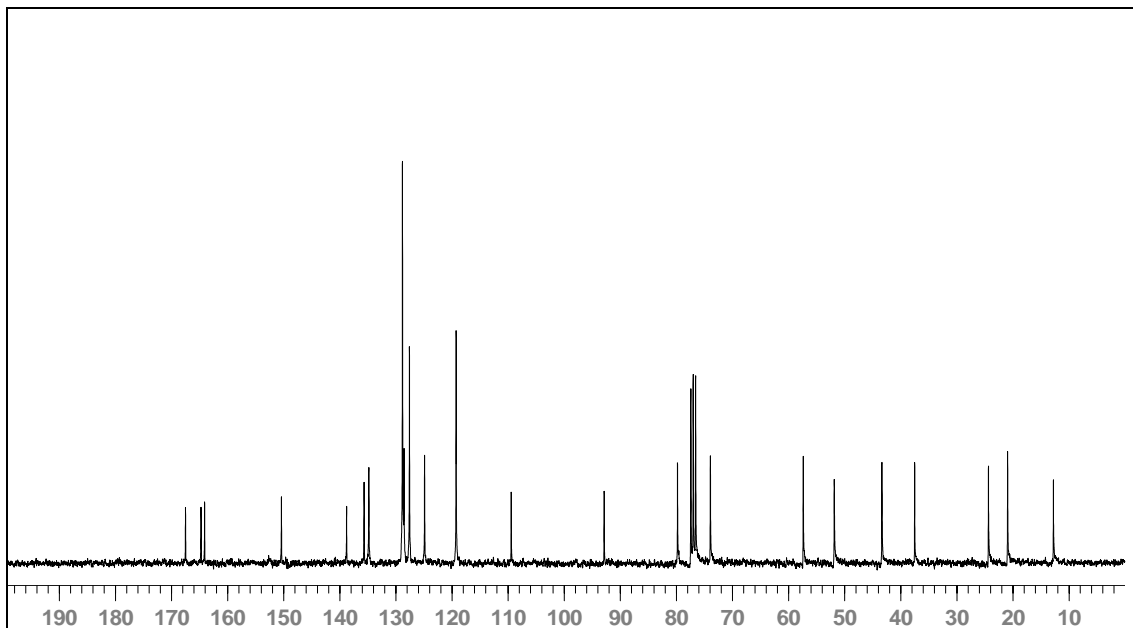
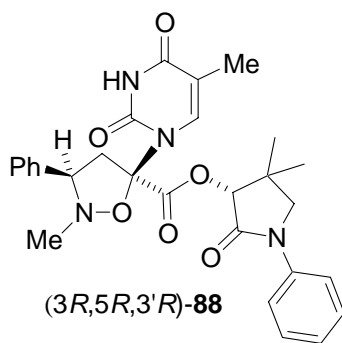


<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).

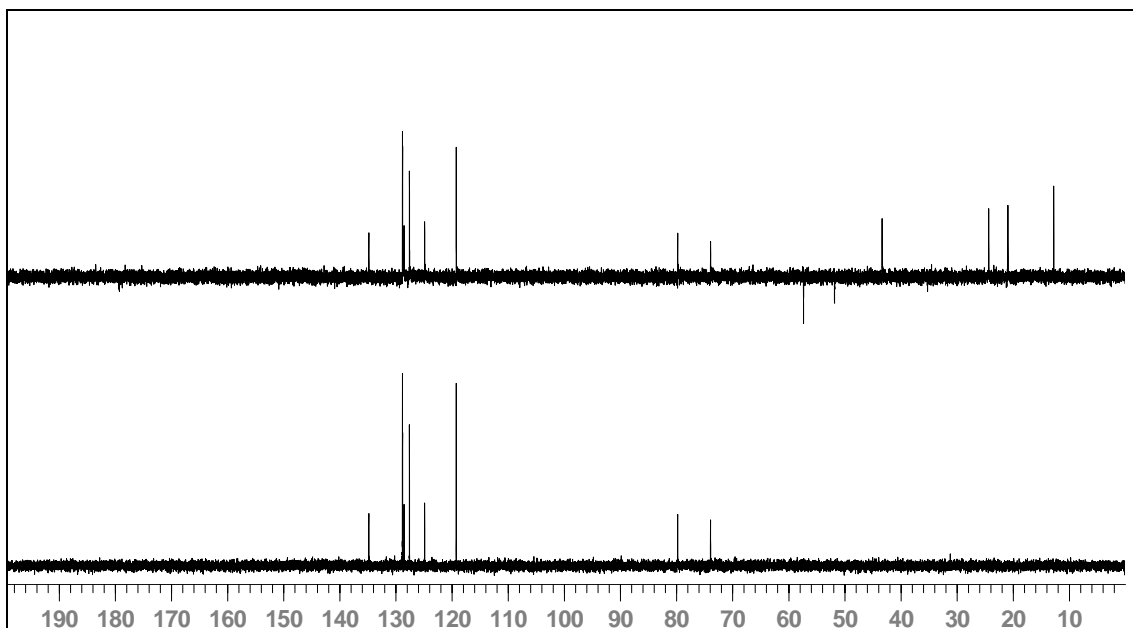


IR (KBr).

# Espectres

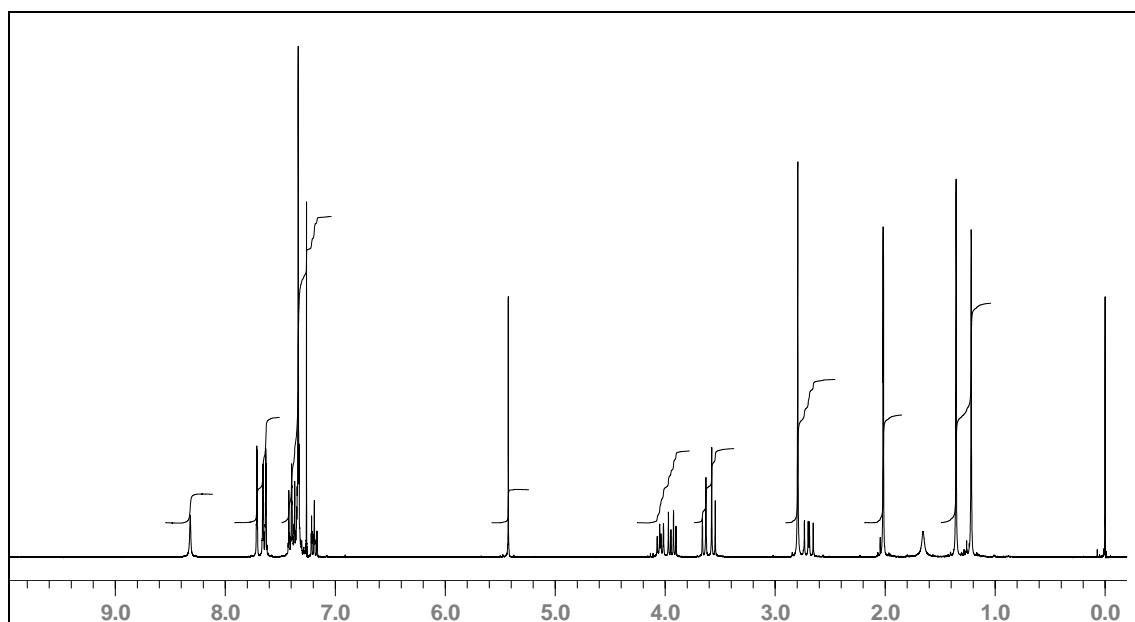
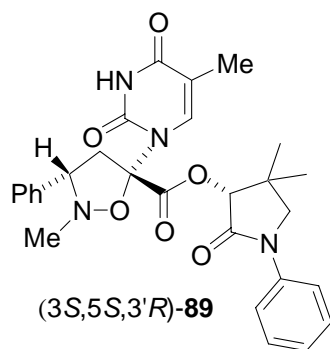


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

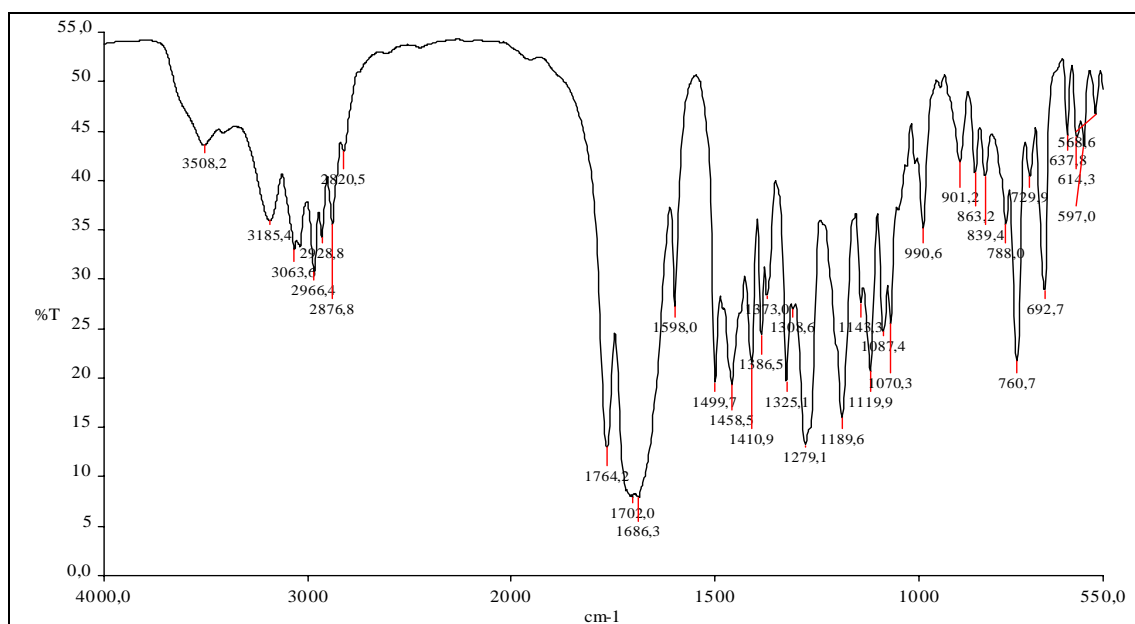


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

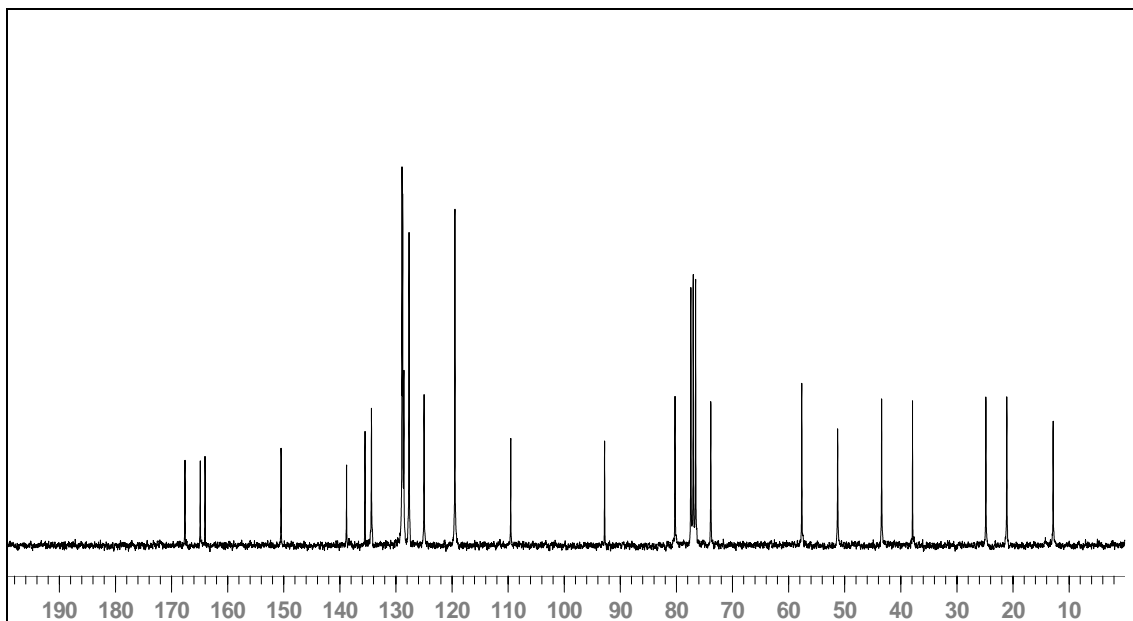
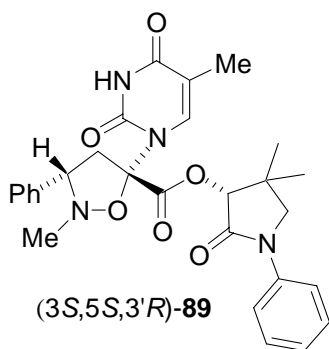
# Espectres



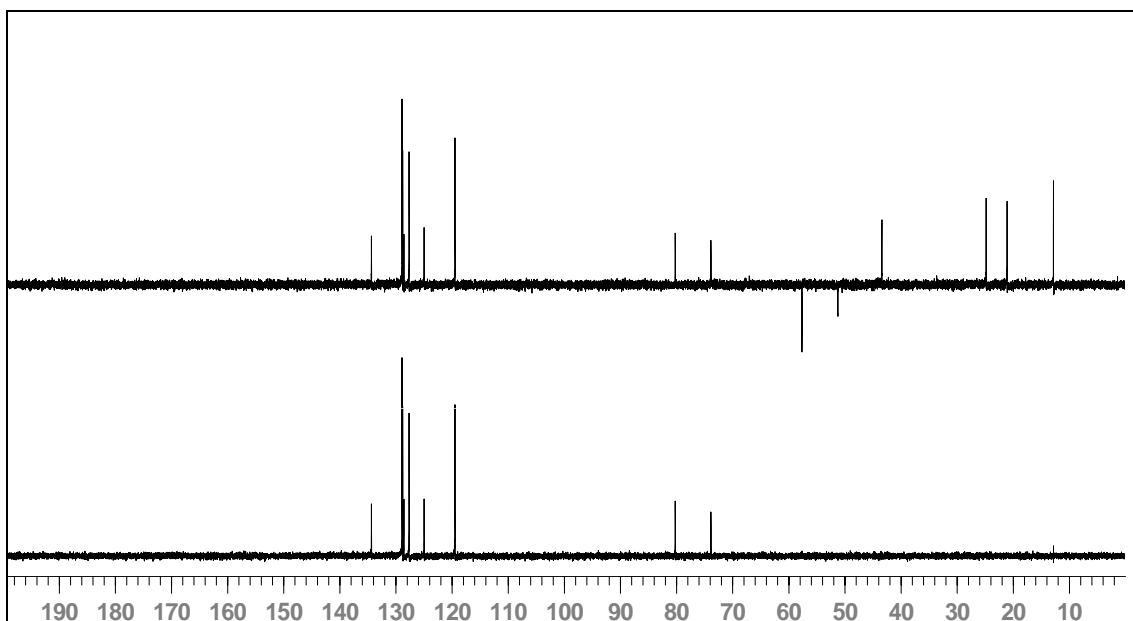
<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).



IR (KBr).

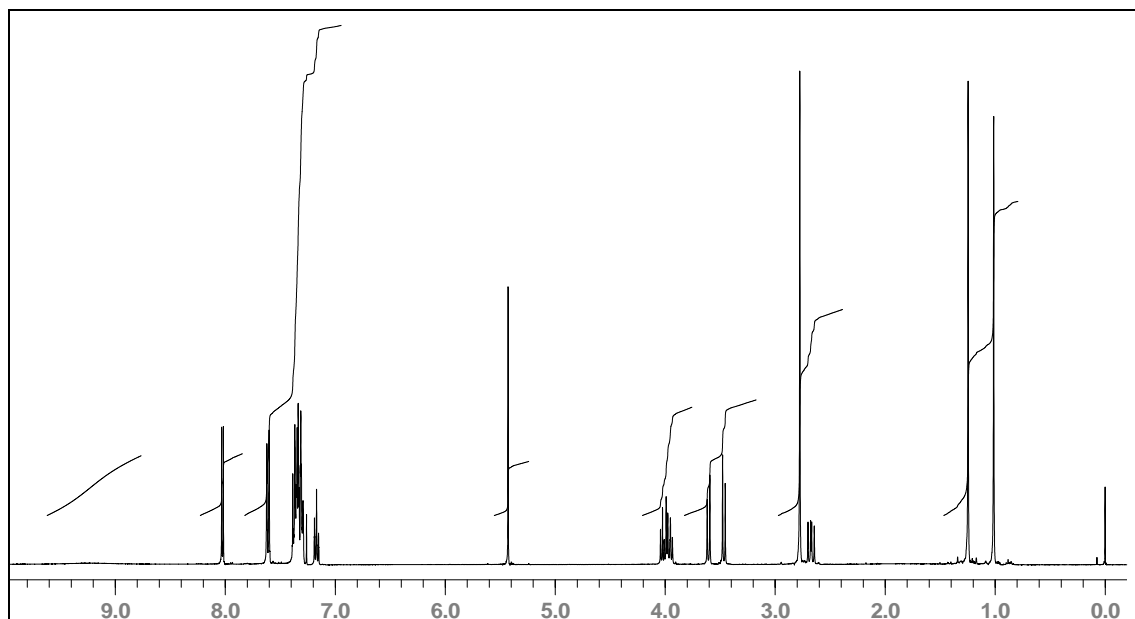
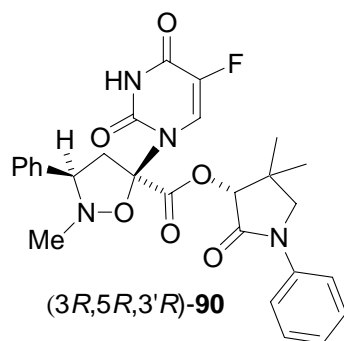


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).

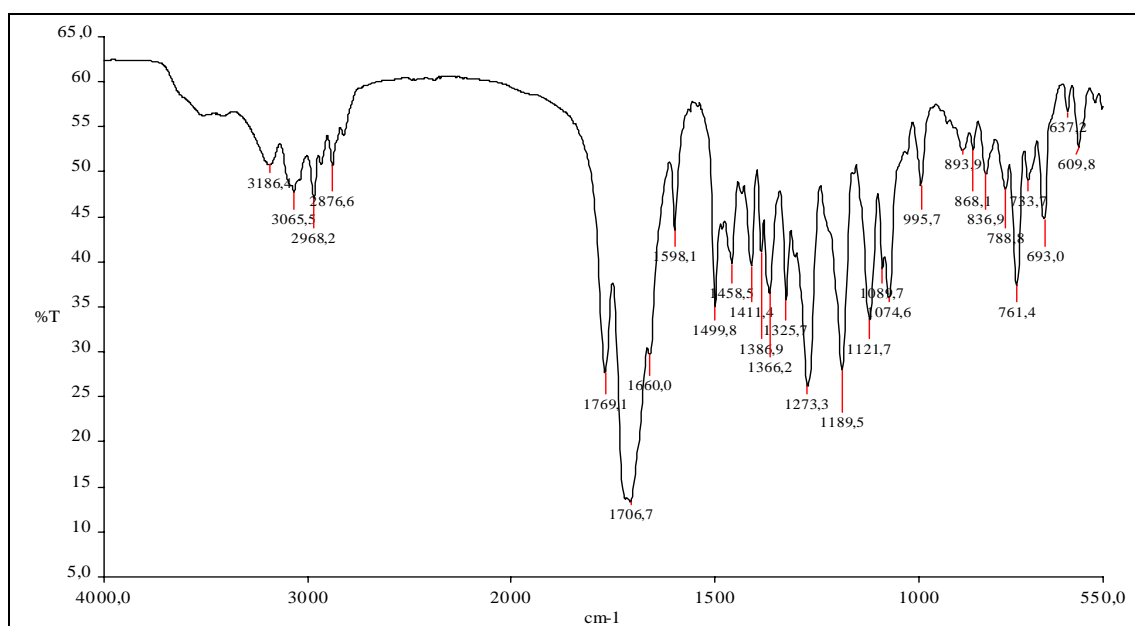


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

# Espectres



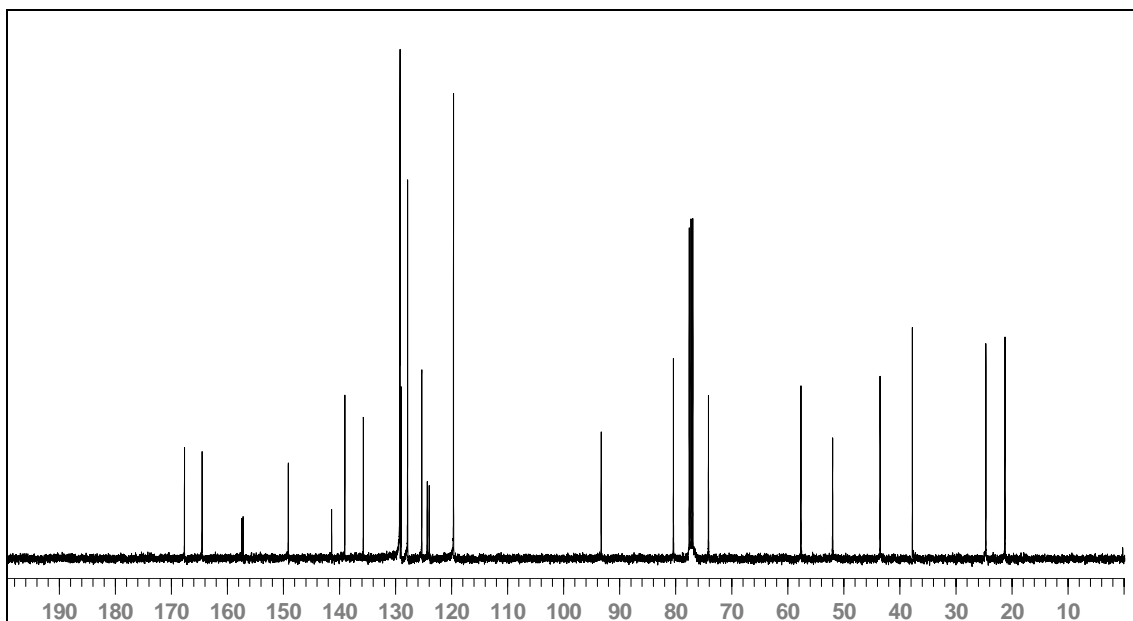
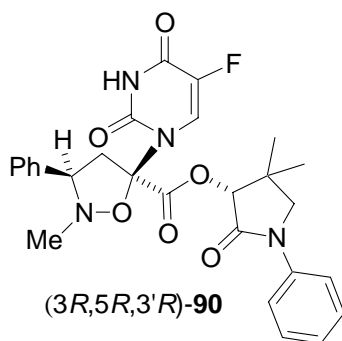
<sup>1</sup>H-RMN (400 MHz, CDCl<sub>3</sub>).



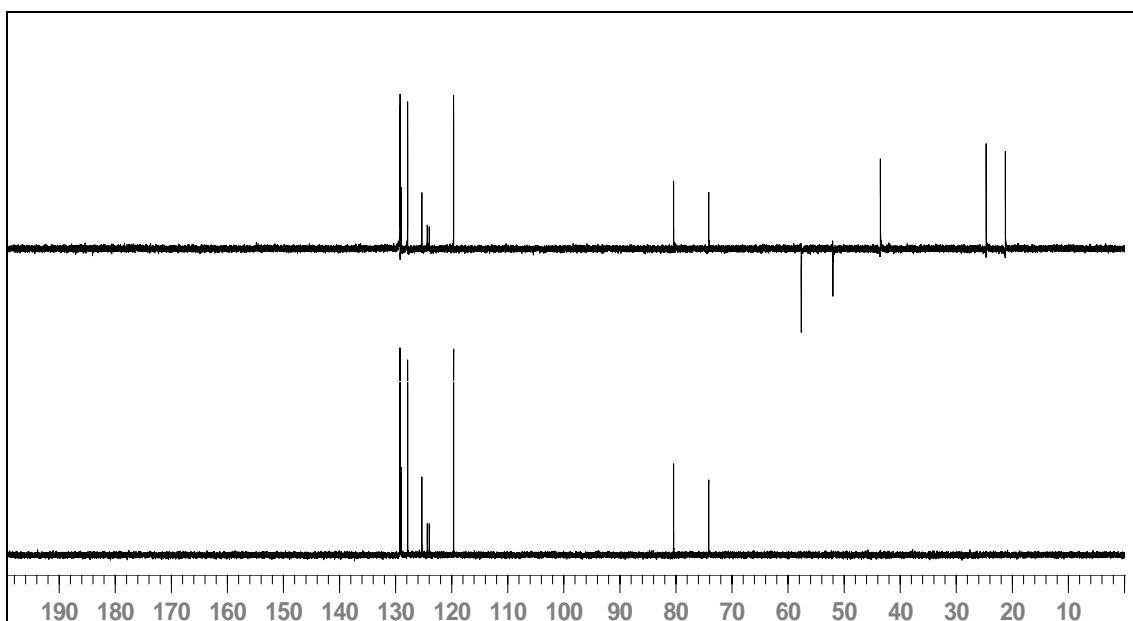
IR (KBr).



# Espectres

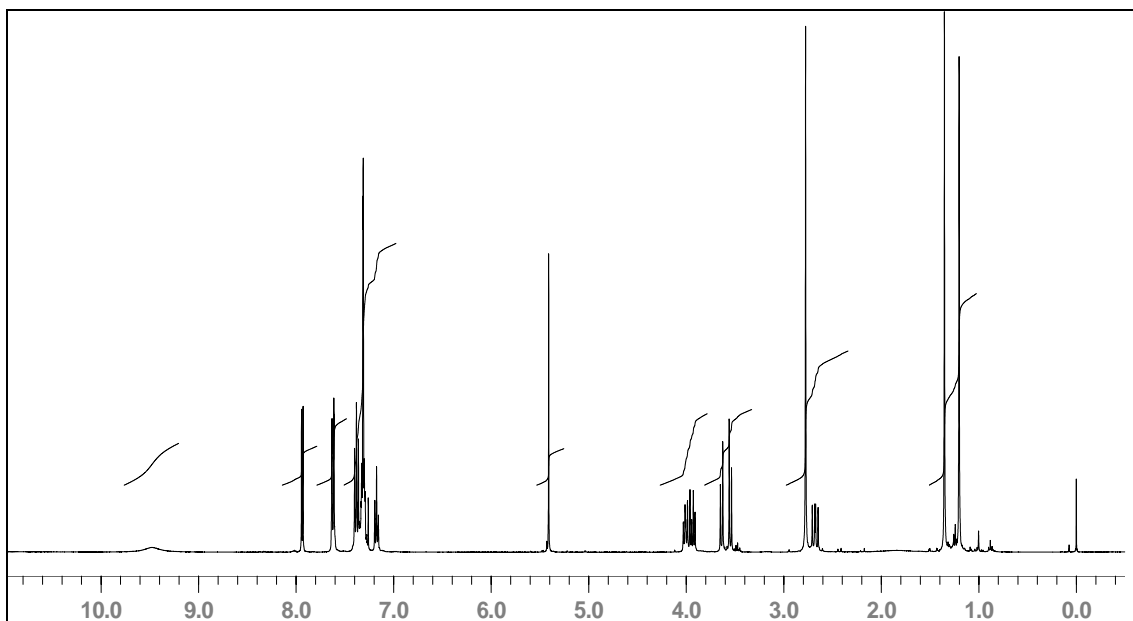
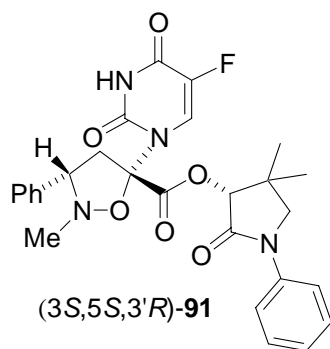


$^{13}\text{C}$ -RMN (100.5 MHz,  $\text{CDCl}_3$ ).

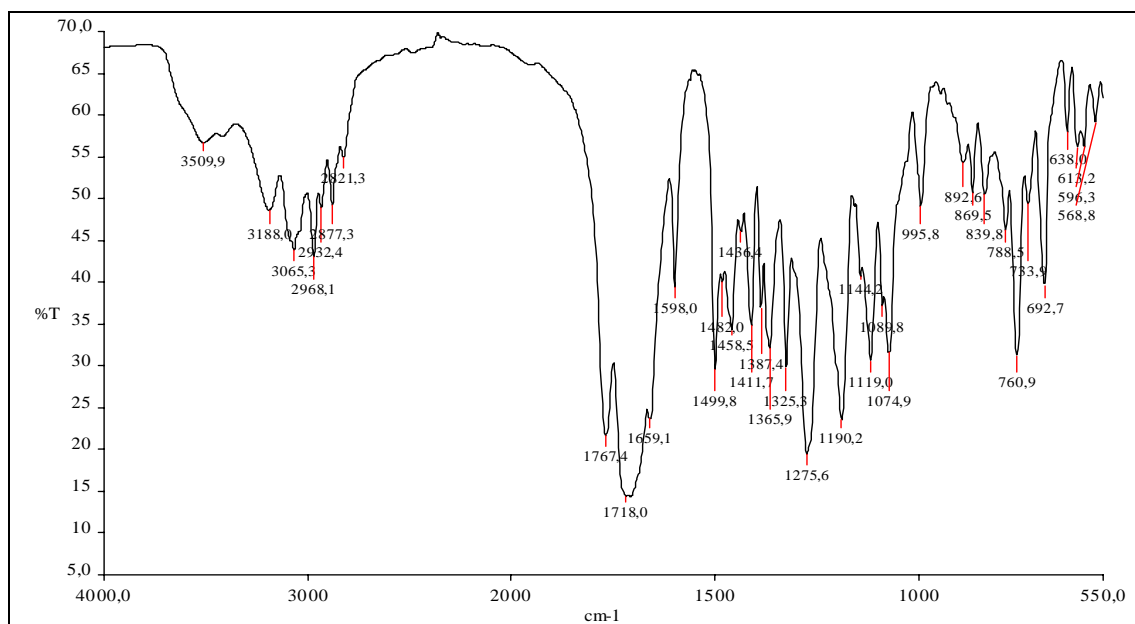


$^{13}\text{C}$ -RMN (100.5 MHz,  $\text{CDCl}_3$ ), DEPT.

# Espectres

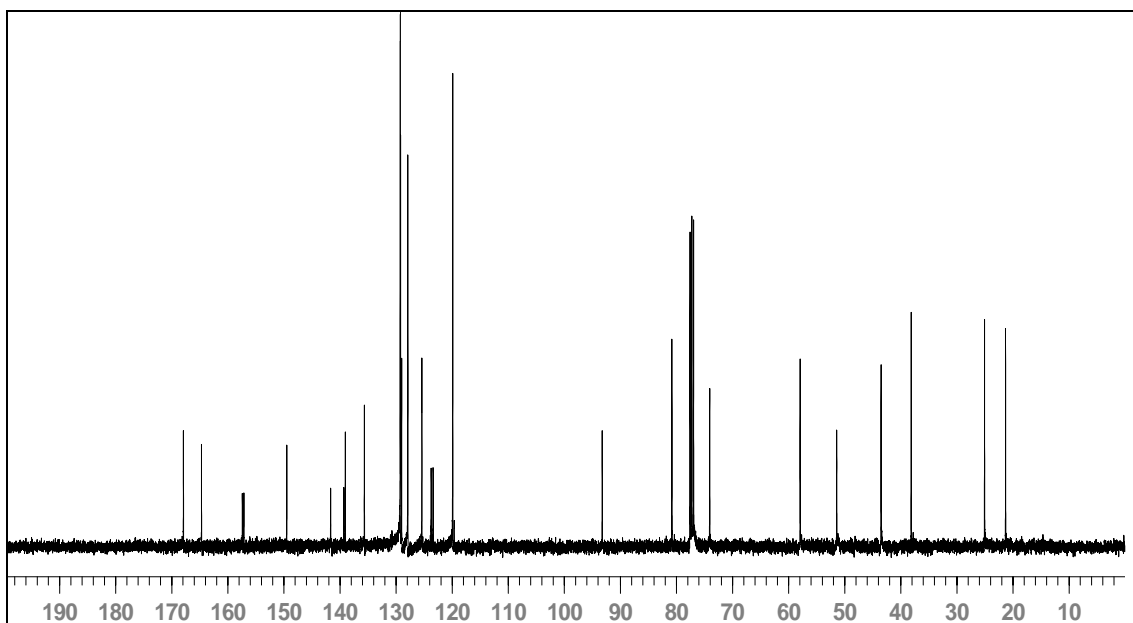
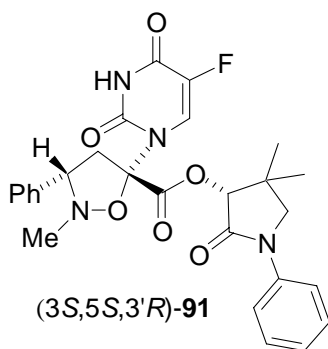


<sup>1</sup>H-RMN (400 MHz, CDCl<sub>3</sub>).

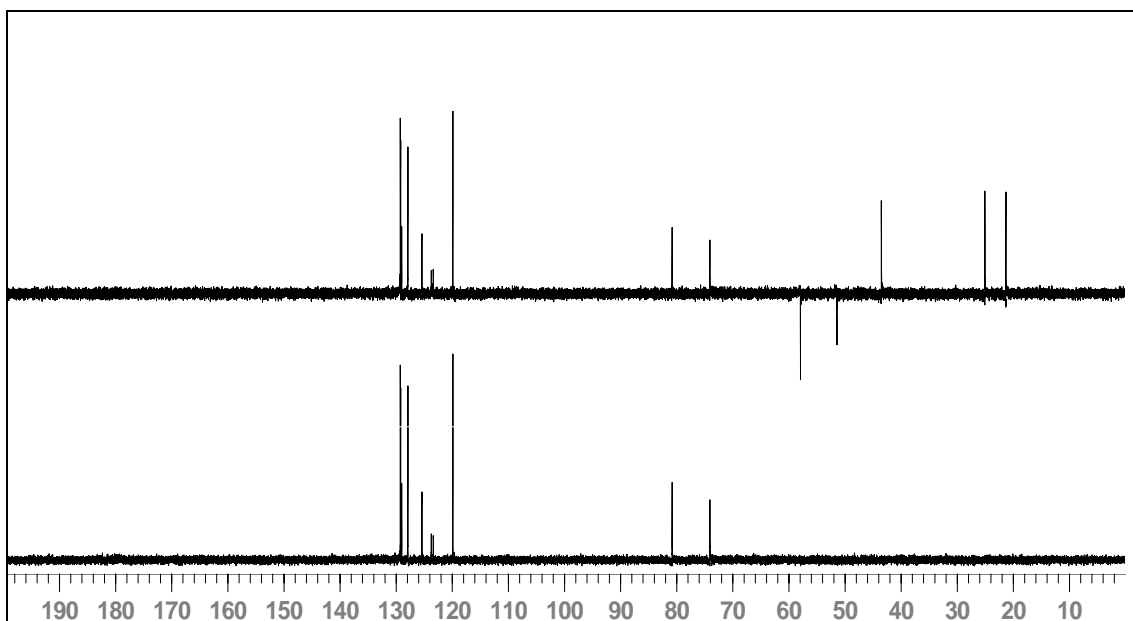


IR (KBr).

# Espectres

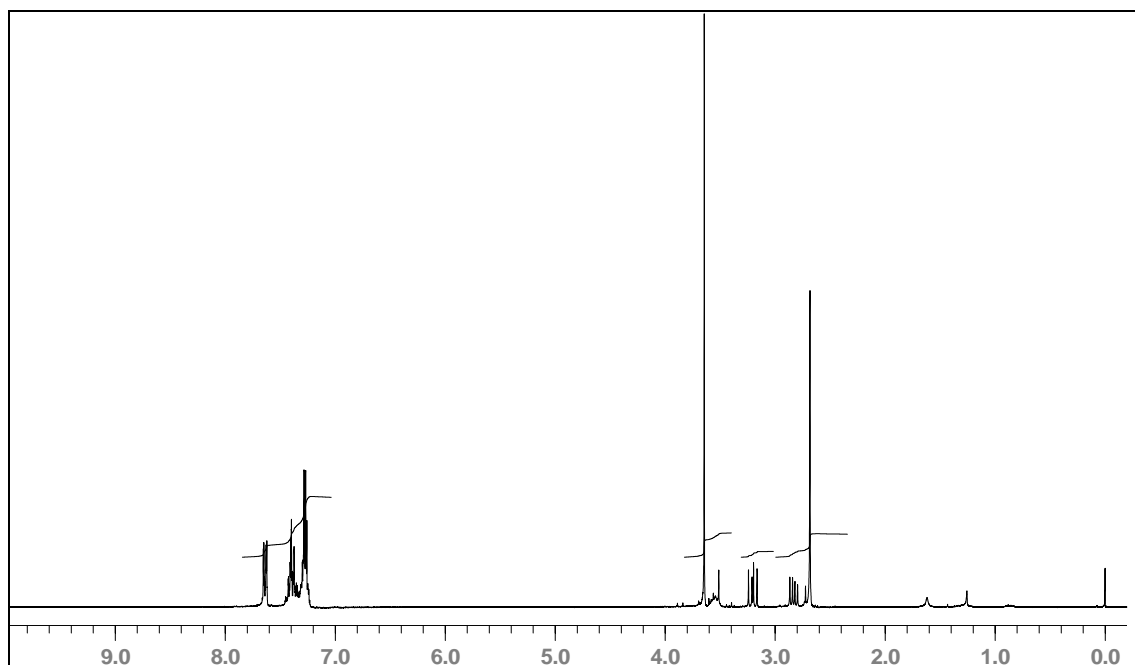
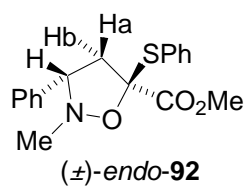


$^{13}\text{C}$ -RMN (100'5 MHz,  $\text{CDCl}_3$ ).

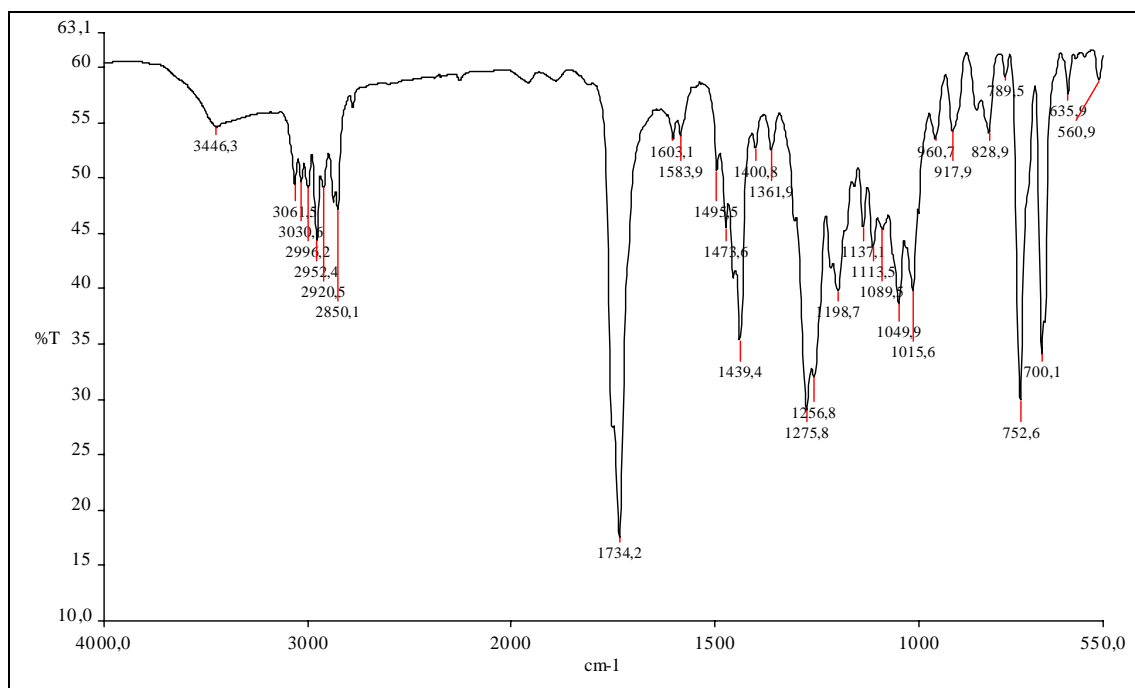


$^{13}\text{C}$ -RMN (100'5 MHz,  $\text{CDCl}_3$ ), DEPT.

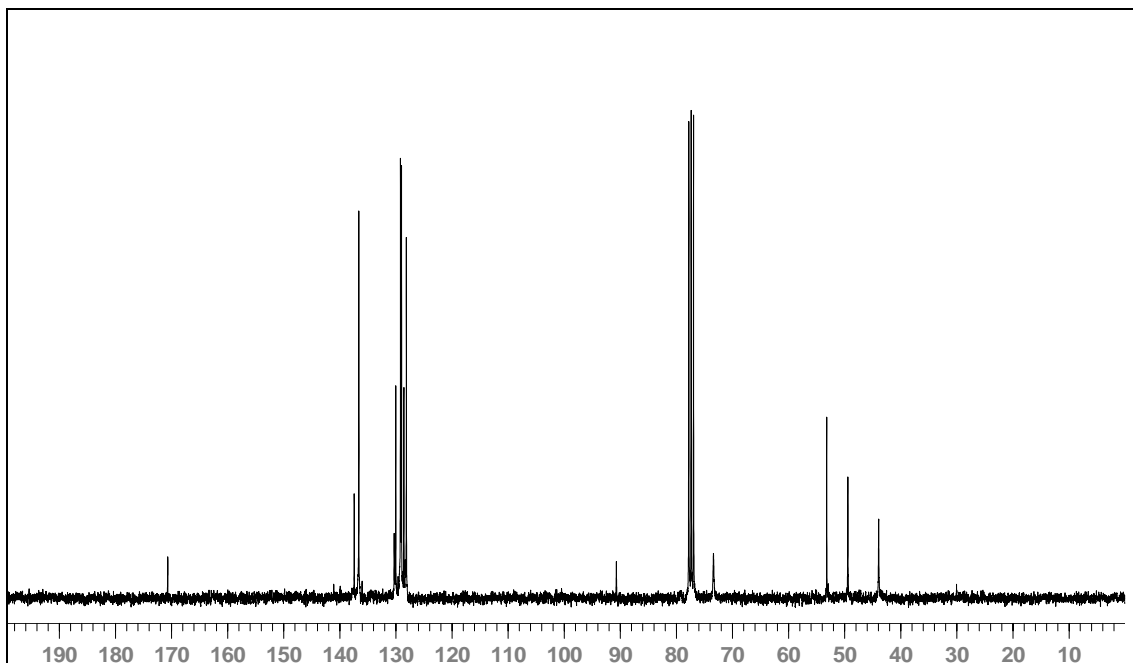
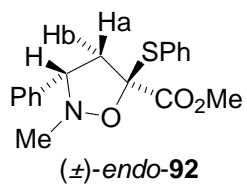
# Espectres



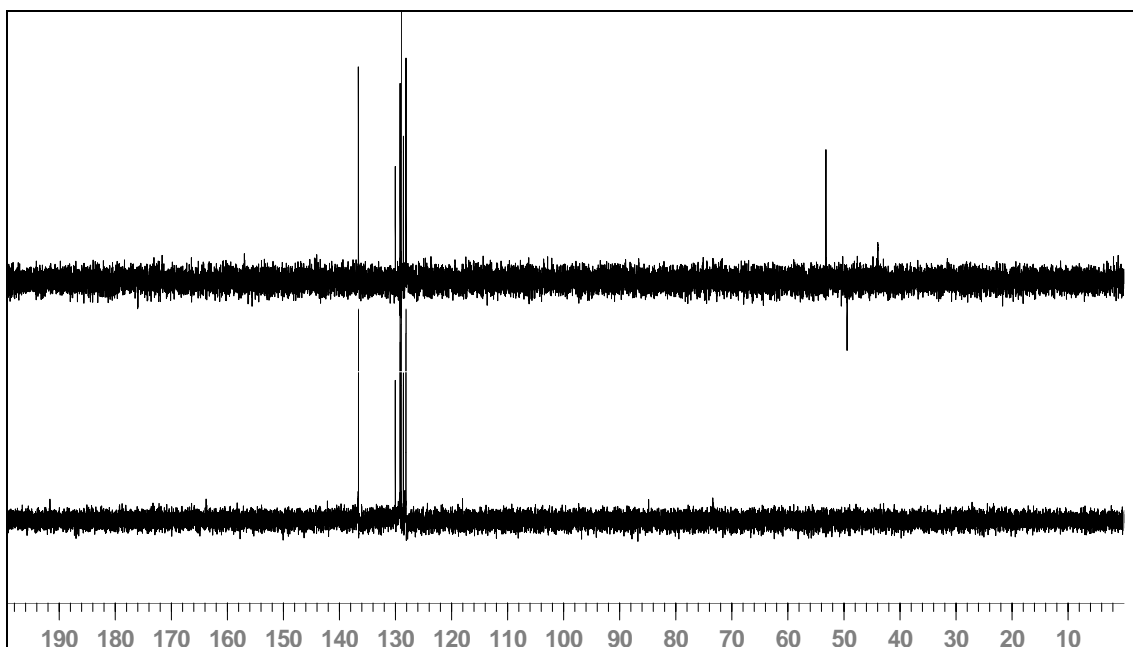
$^1\text{H}$ -RMN (300 MHz,  $\text{CDCl}_3$ ).



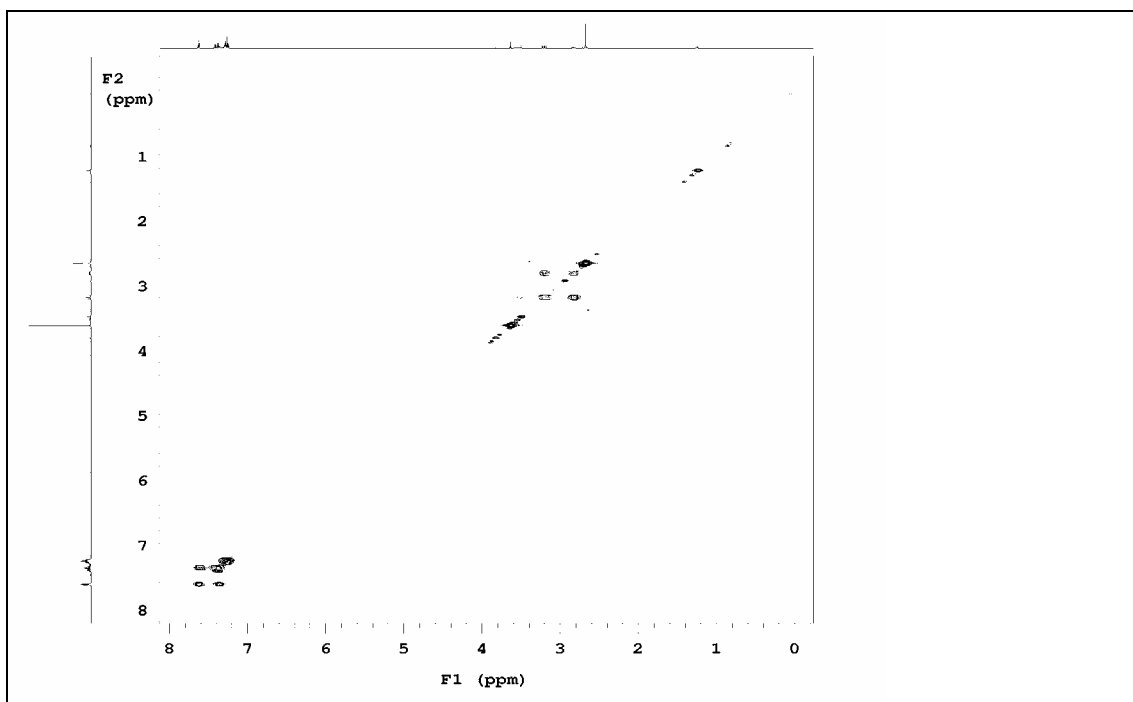
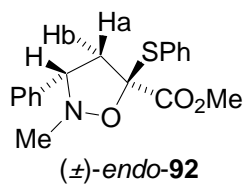
IR (NaCl).



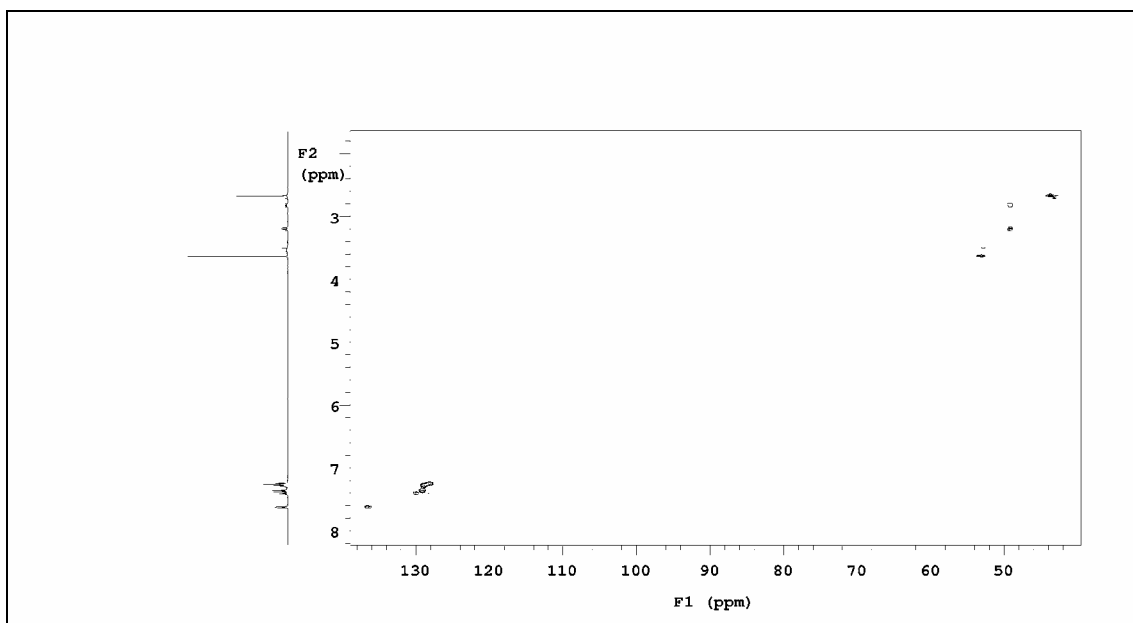
$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).



$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.

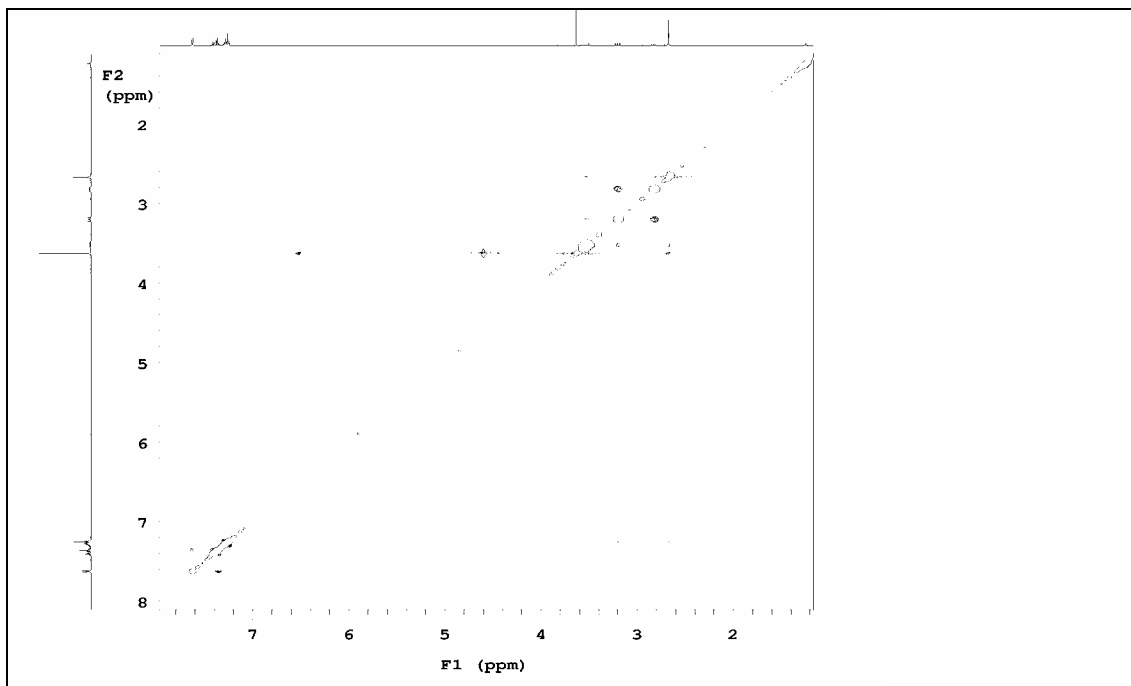
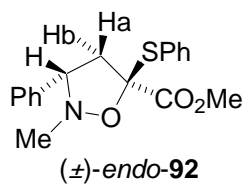


COSY-RMN (500 MHz,  $\text{CDCl}_3$ ).

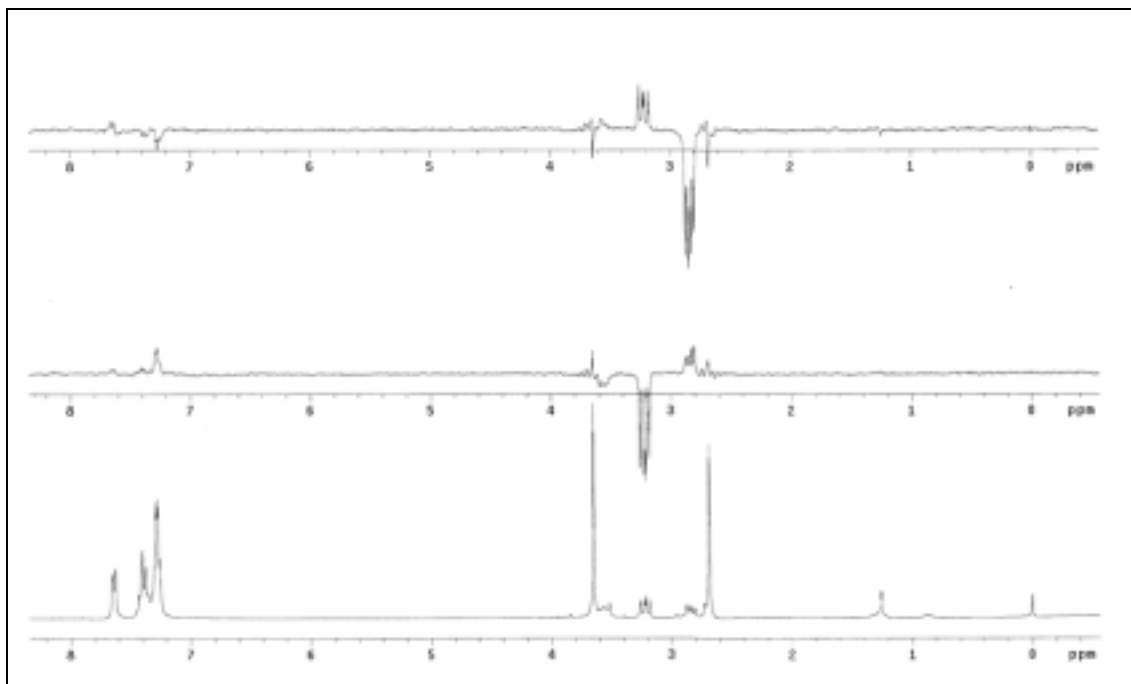


HSQC-RMN (500 MHz, 125.7 MHz,  $\text{CDCl}_3$ ).

# Espectres

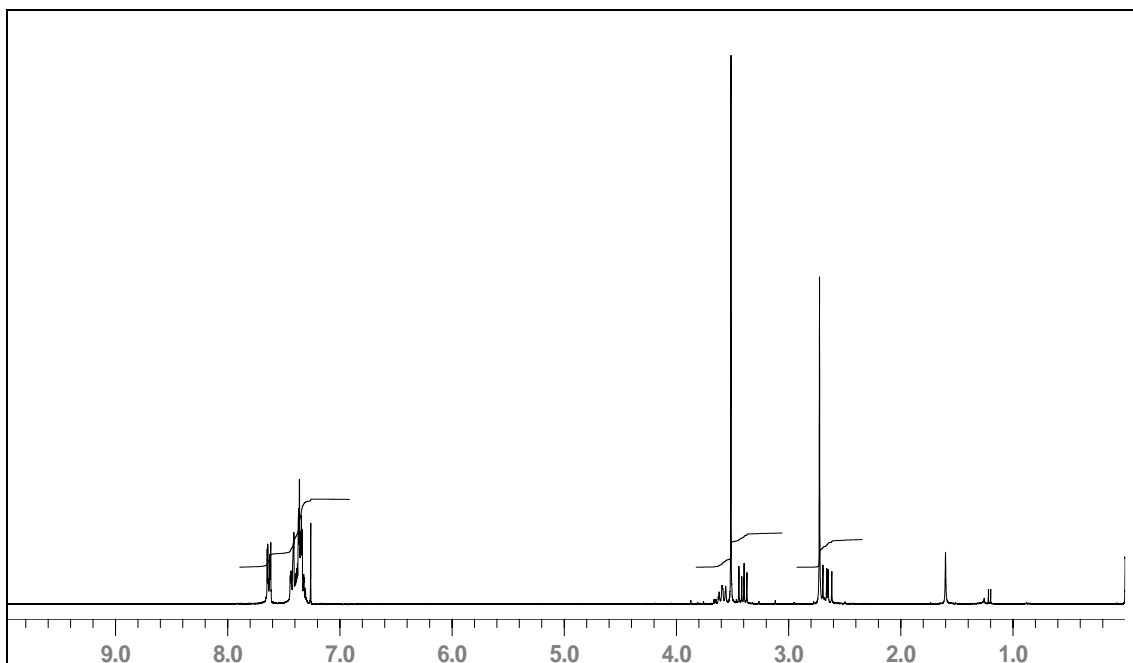
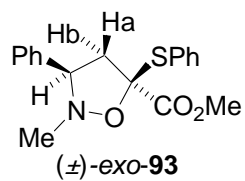


RMN-NOESY (500 MHz, CDCl<sub>3</sub>).

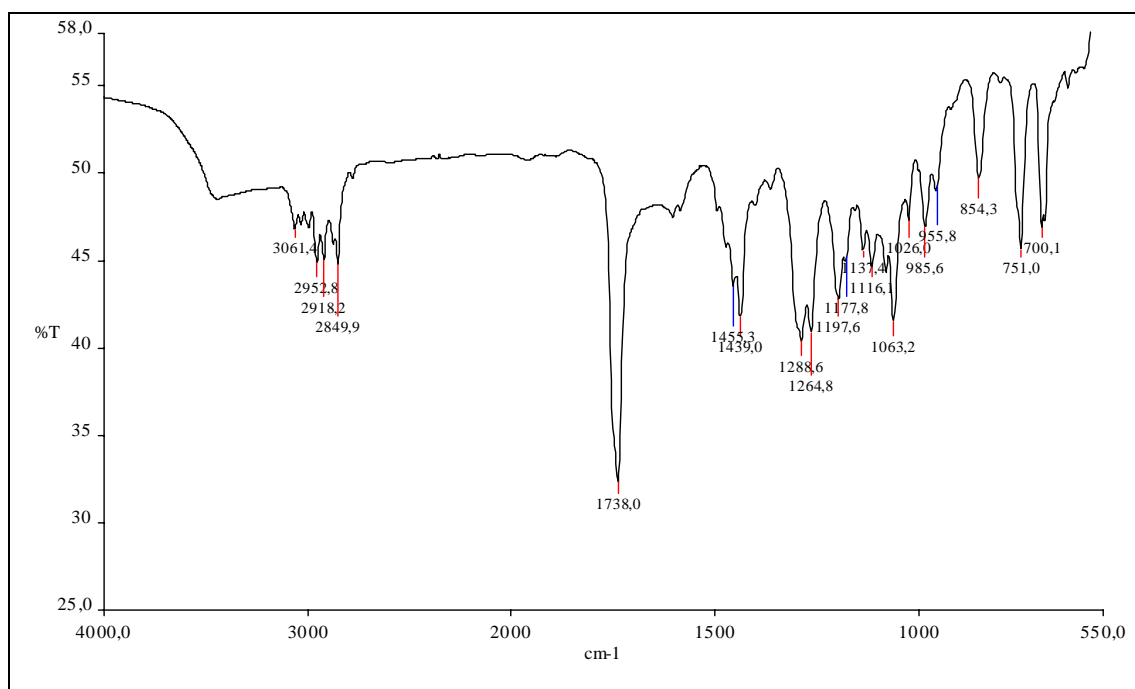


RMN-NOE-dif (300 MHz, CDCl<sub>3</sub>).

# Espectres

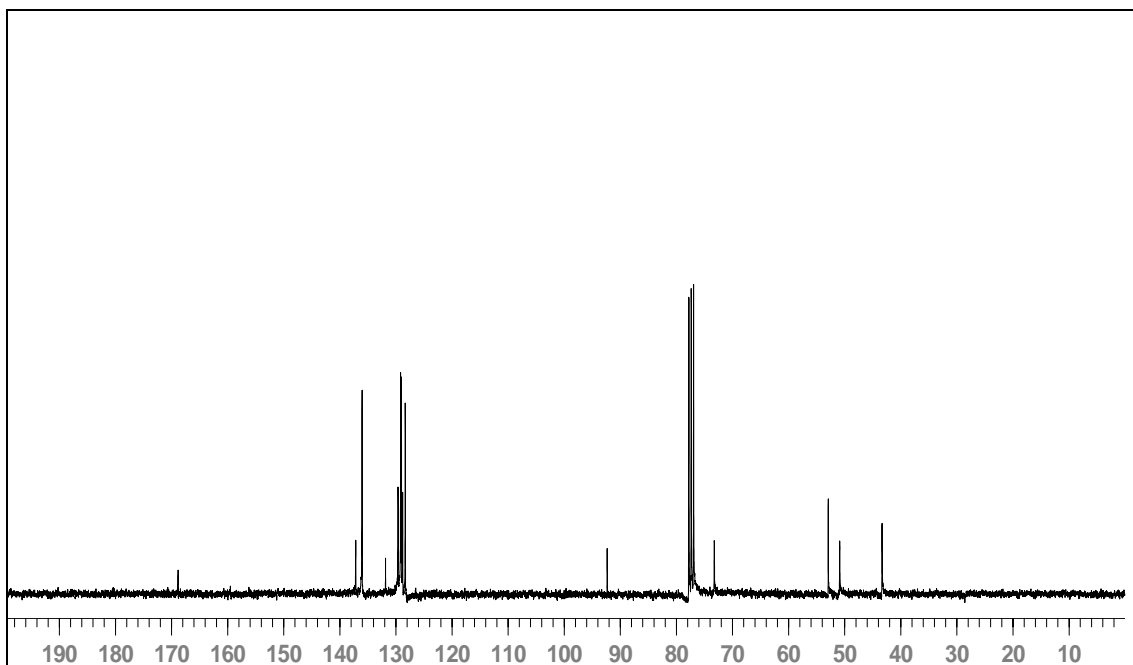
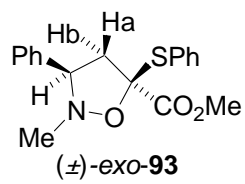


$^1\text{H}$ -RMN (300 MHz,  $\text{CDCl}_3$ ).

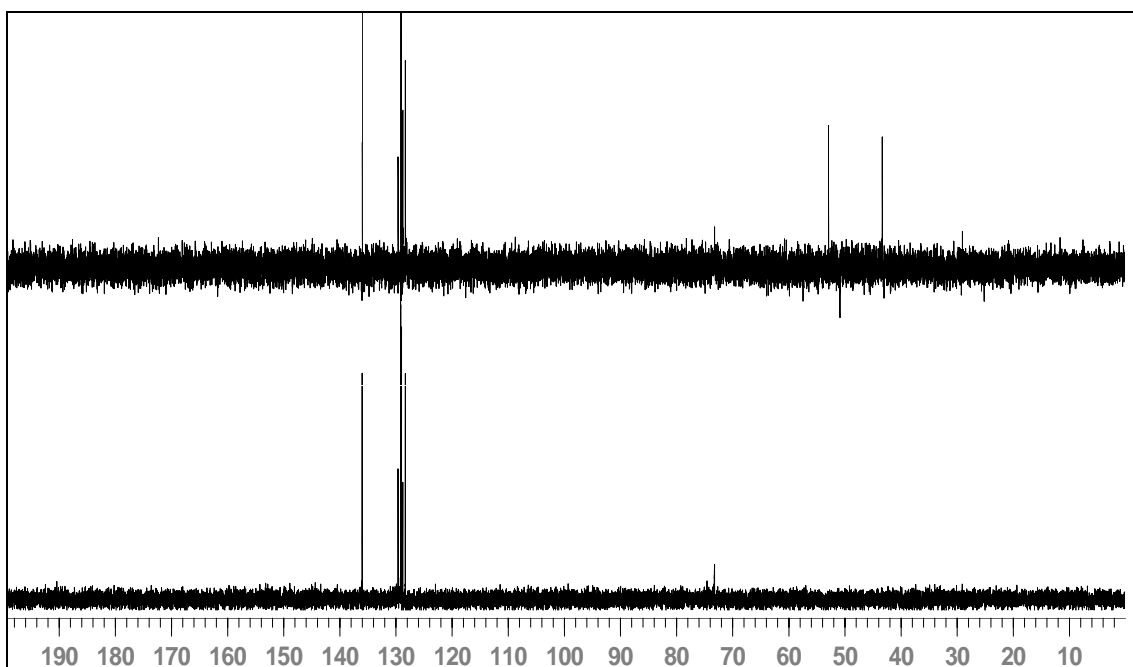


IR (NaCl).

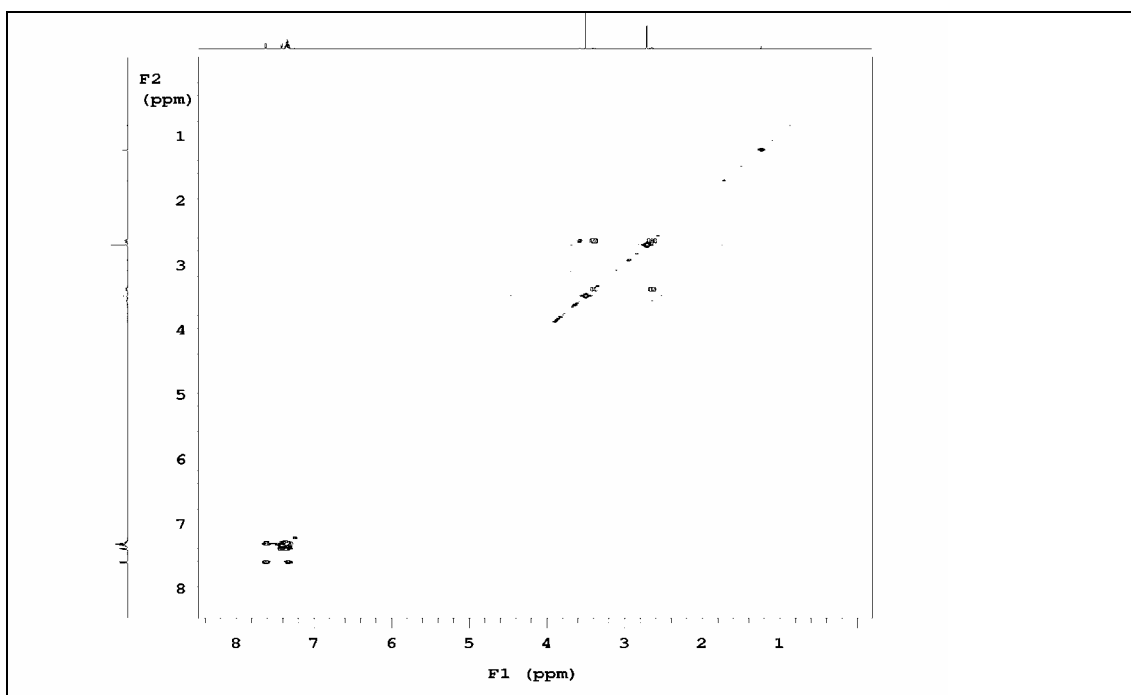
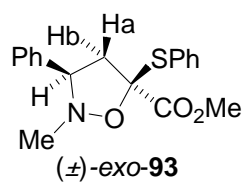




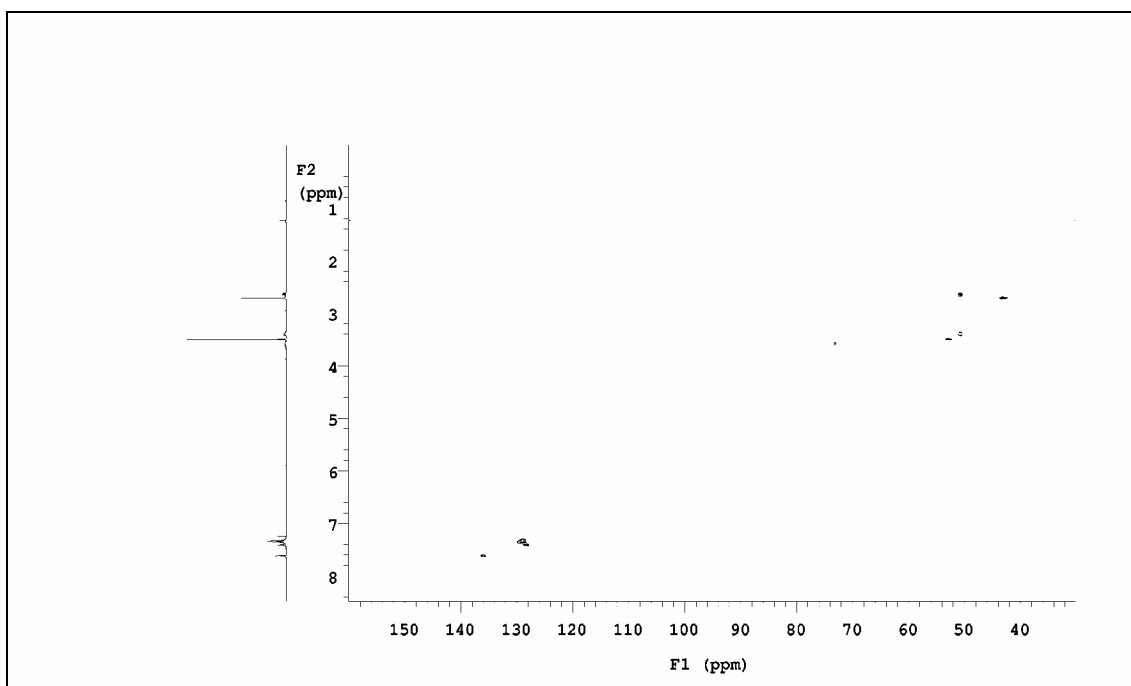
$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ).



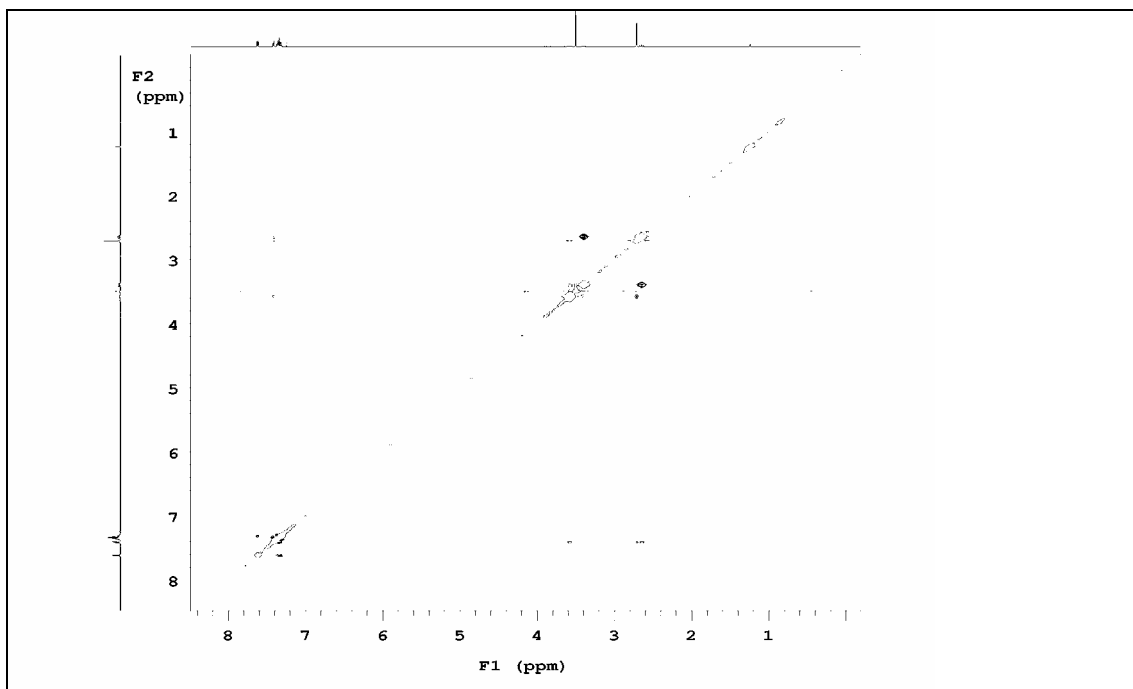
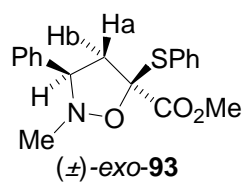
$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{CDCl}_3$ ), DEPT.



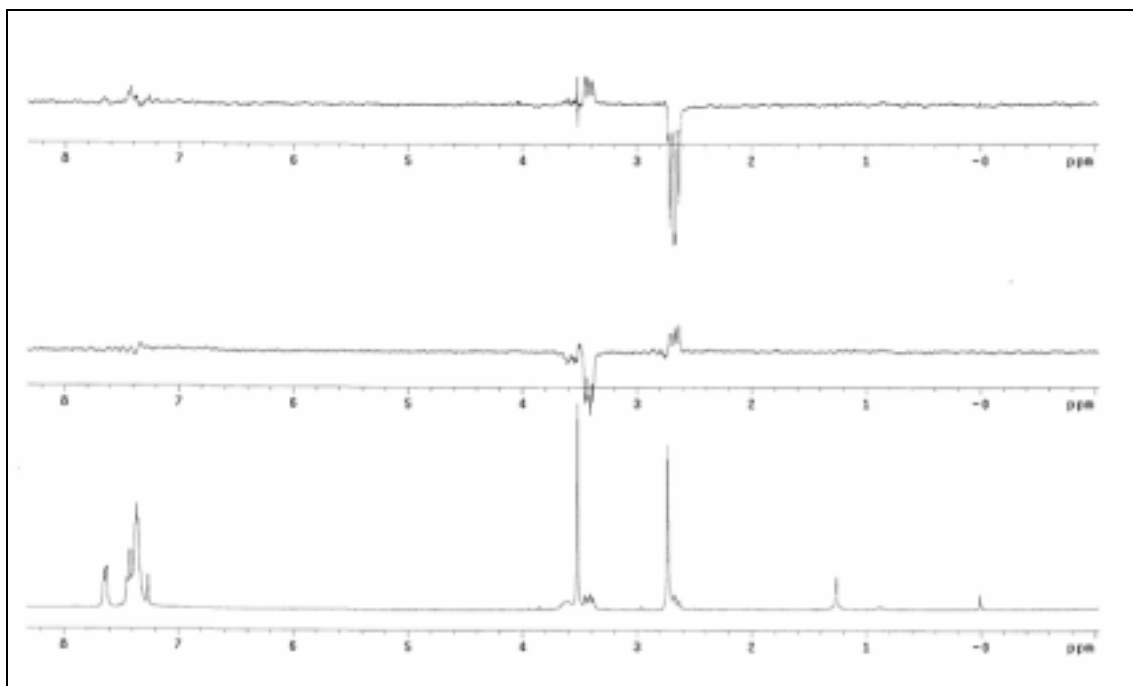
COSY-RMN (500 MHz,  $\text{CDCl}_3$ ).



HSQC-RMN (500 MHz, 125.7 MHz,  $\text{CDCl}_3$ ).

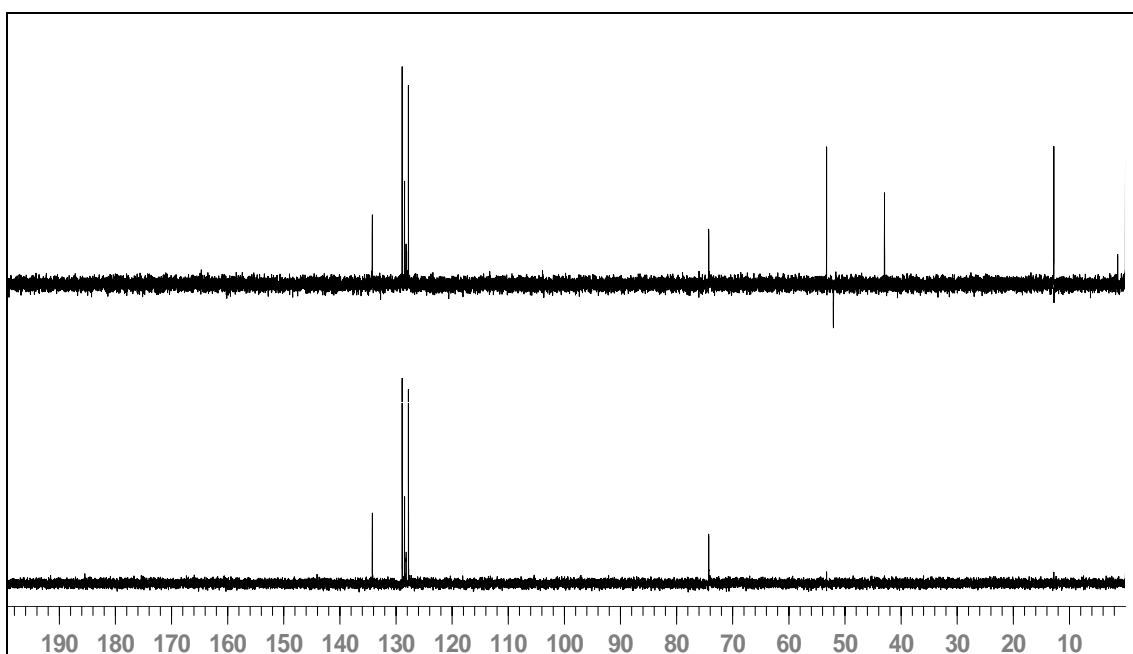
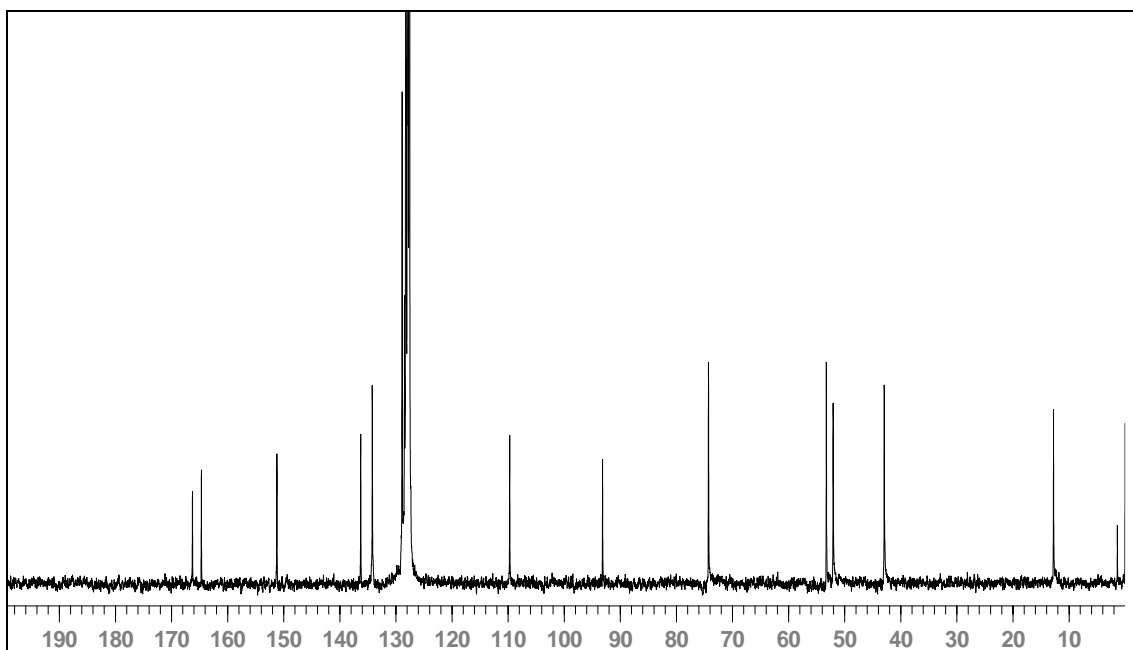
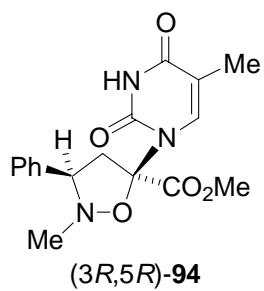


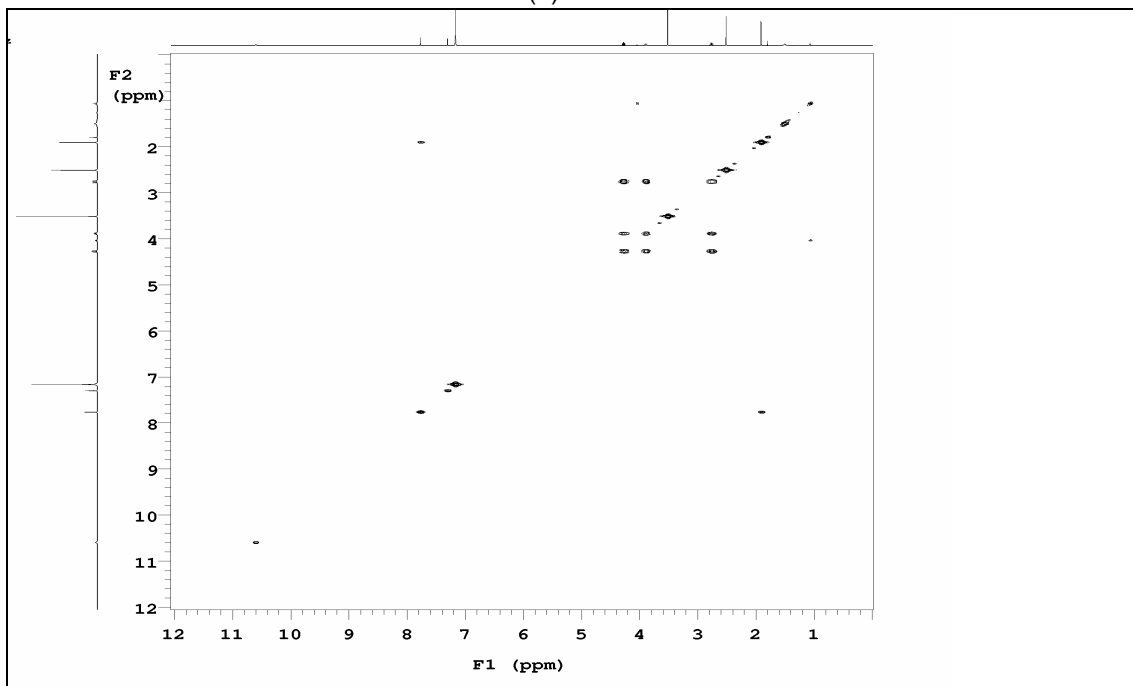
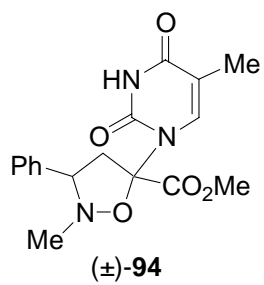
RMN-NOESY (500 MHz, CDCl<sub>3</sub>).



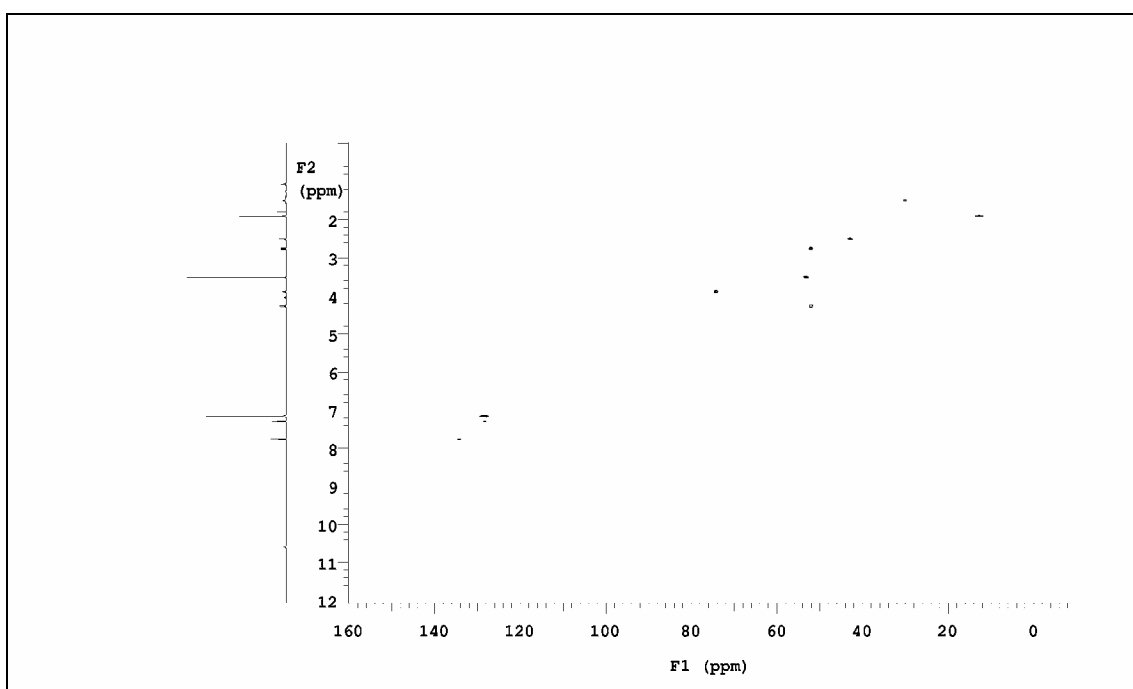
RMN-NOE-dif (300 MHz, CDCl<sub>3</sub>).



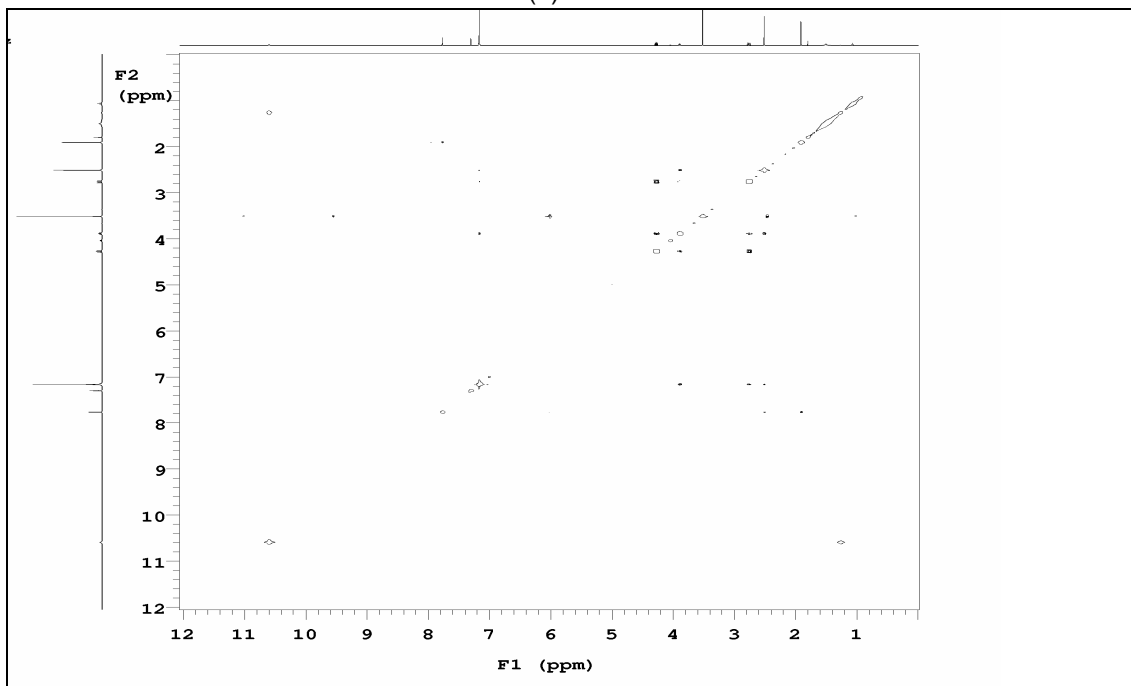
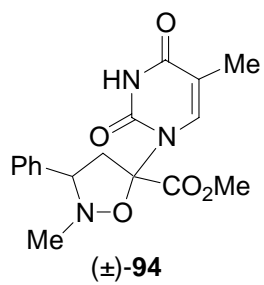




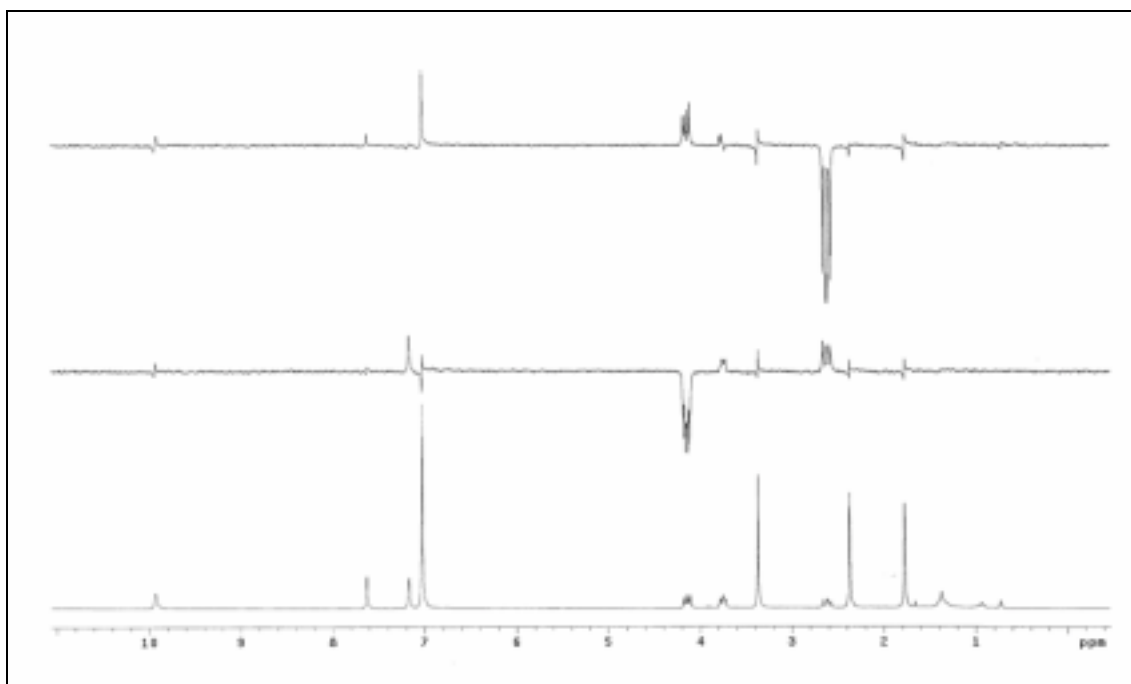
COSY-RMN (500 MHz, C<sub>6</sub>D<sub>6</sub>).



HSQC-RMN (500 MHz, C<sub>6</sub>D<sub>6</sub>).

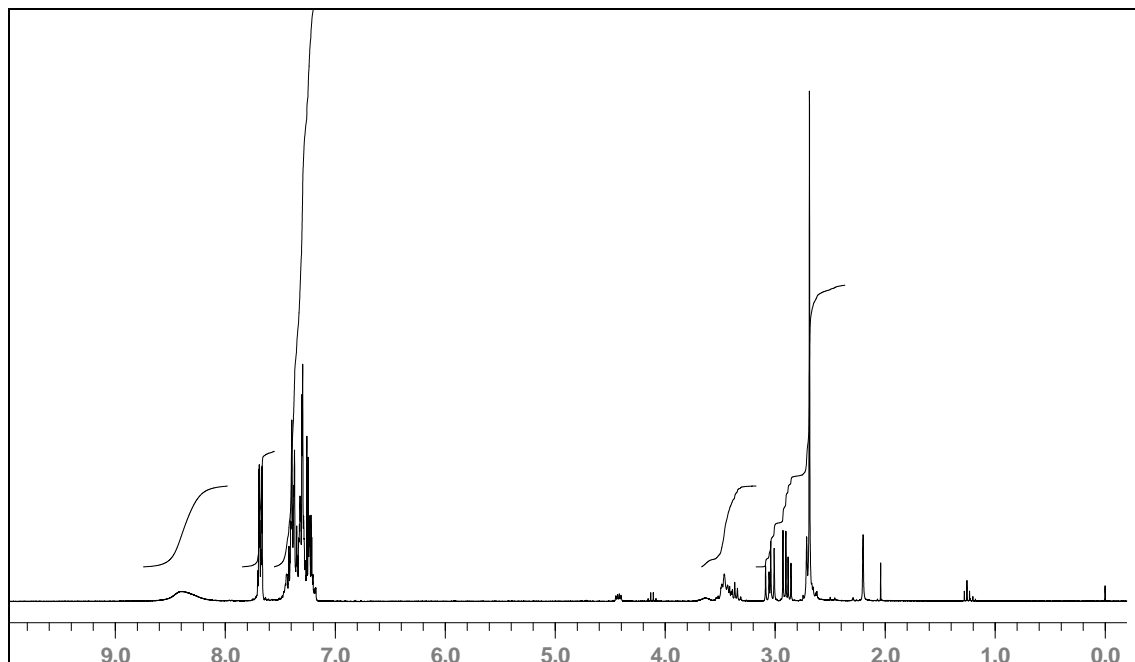
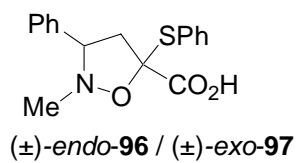


NOESY-RMN (500 MHz, C<sub>6</sub>D<sub>6</sub>).

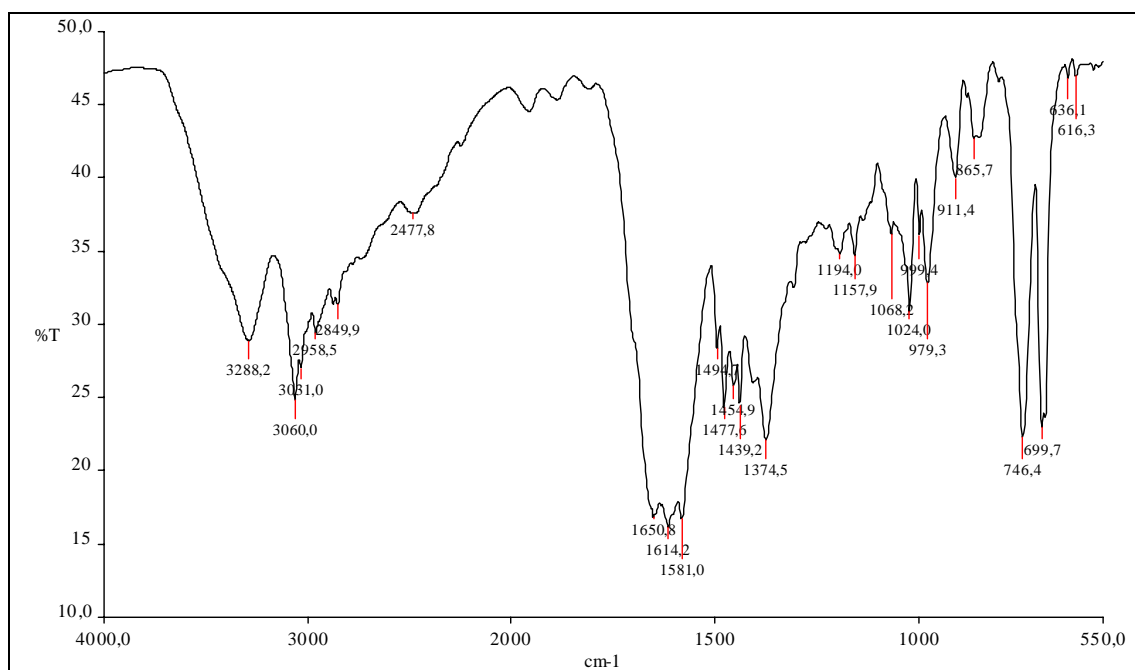


NOE-dif-RMN (300 MHz, C<sub>6</sub>D<sub>6</sub>).

# Espectres



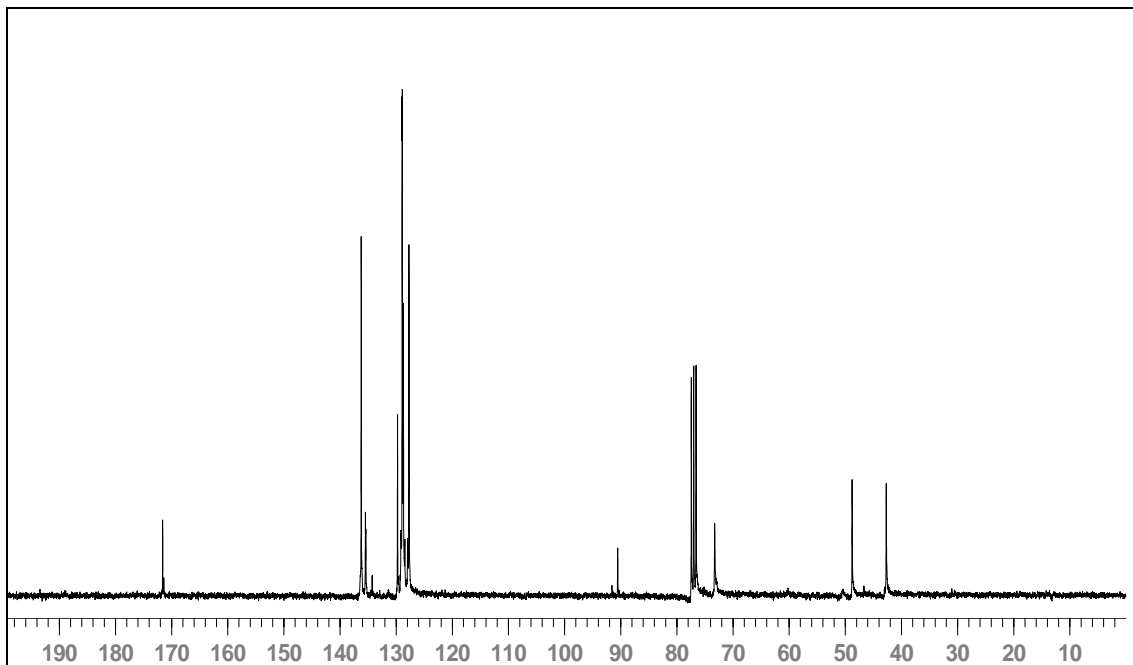
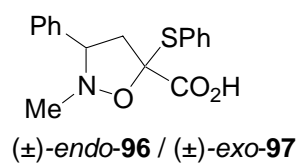
<sup>1</sup>H-RMN (300 MHz, CDCl<sub>3</sub>).



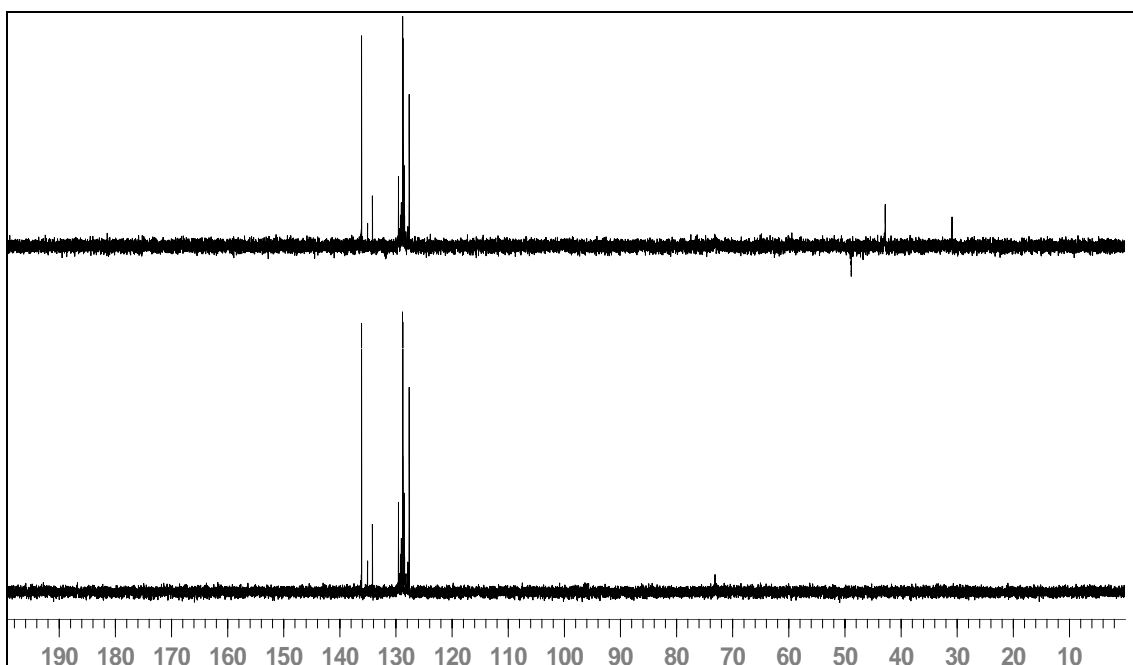
IR (NaCl).



# Espectres

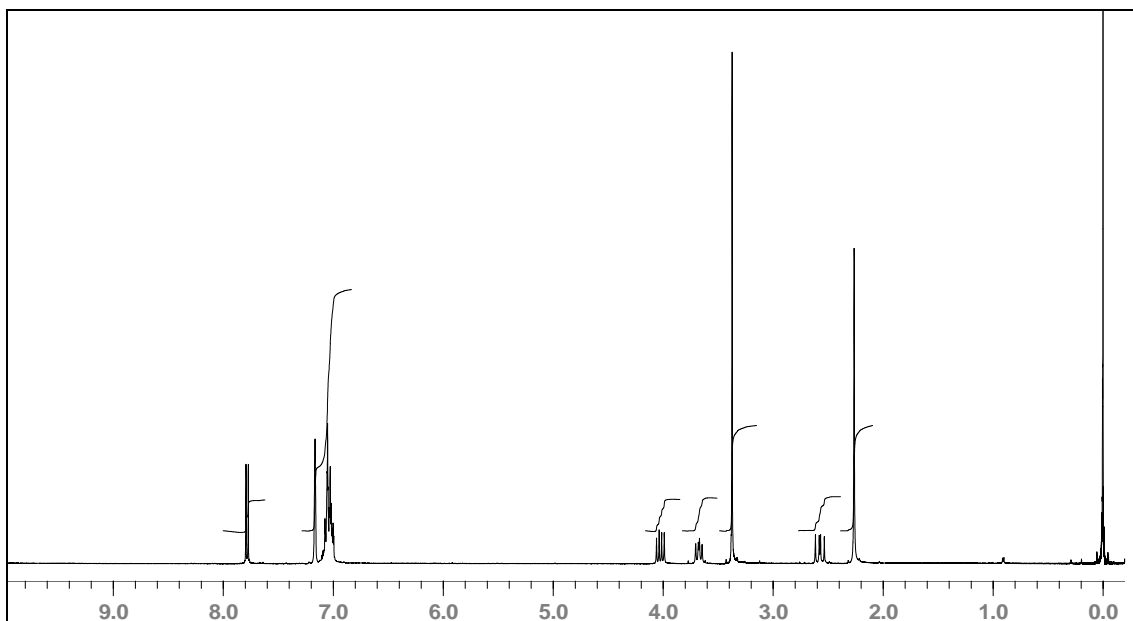
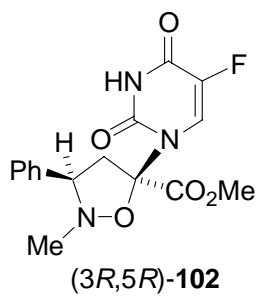


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>).

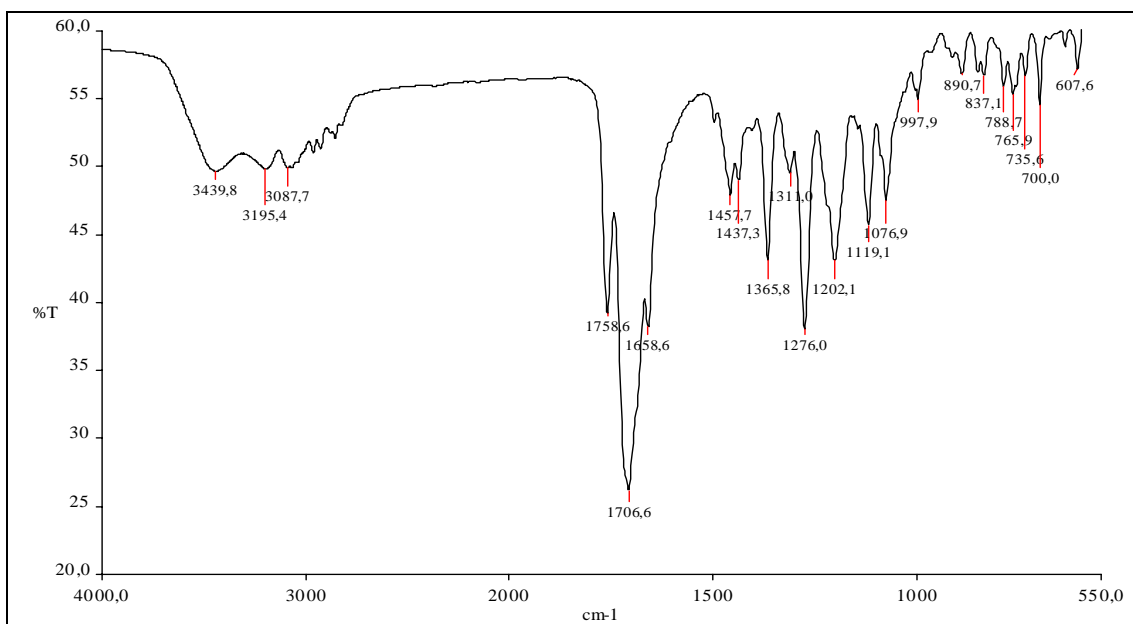


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>), DEPT.

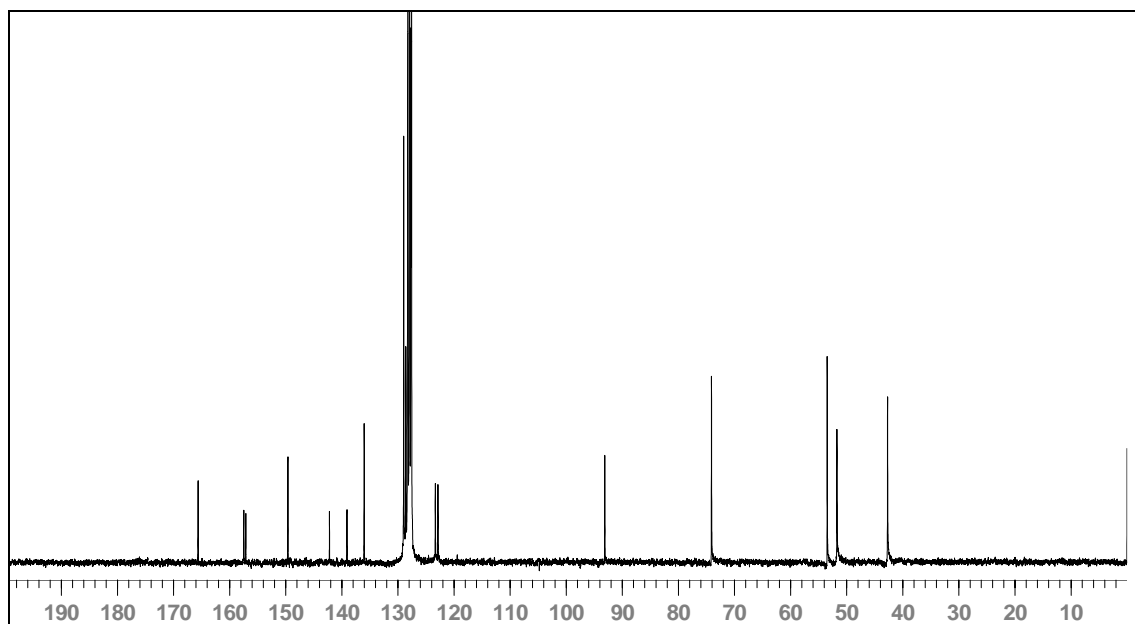
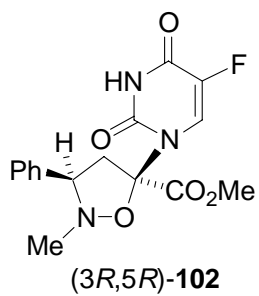
# Espectres



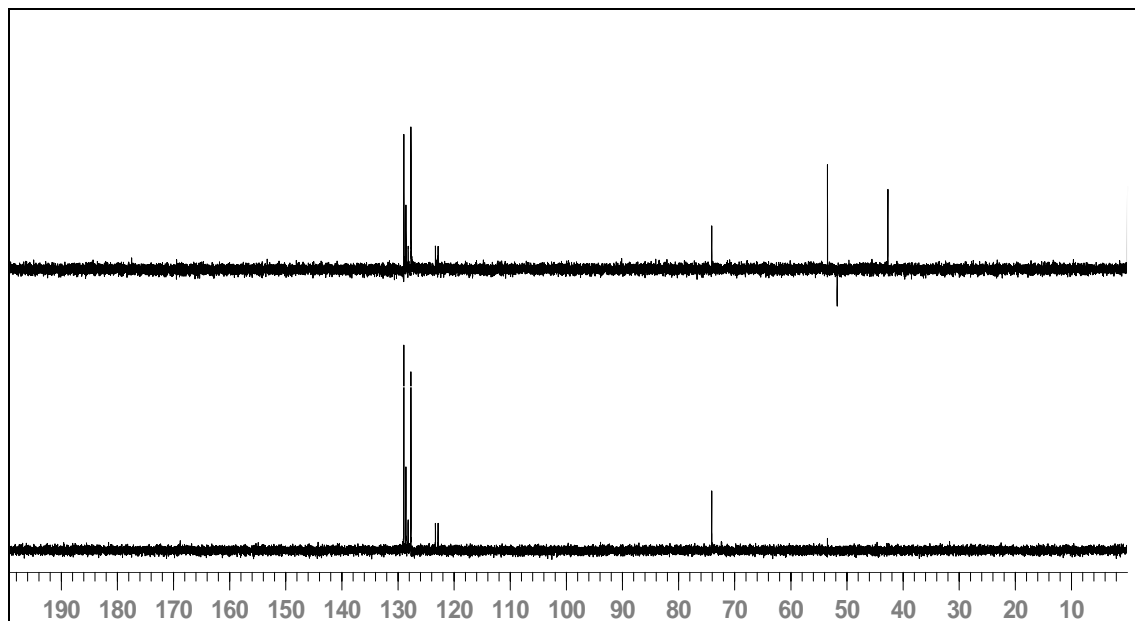
<sup>1</sup>H-RMN (300 MHz, C<sub>6</sub>D<sub>6</sub>).



IR (NaCl).

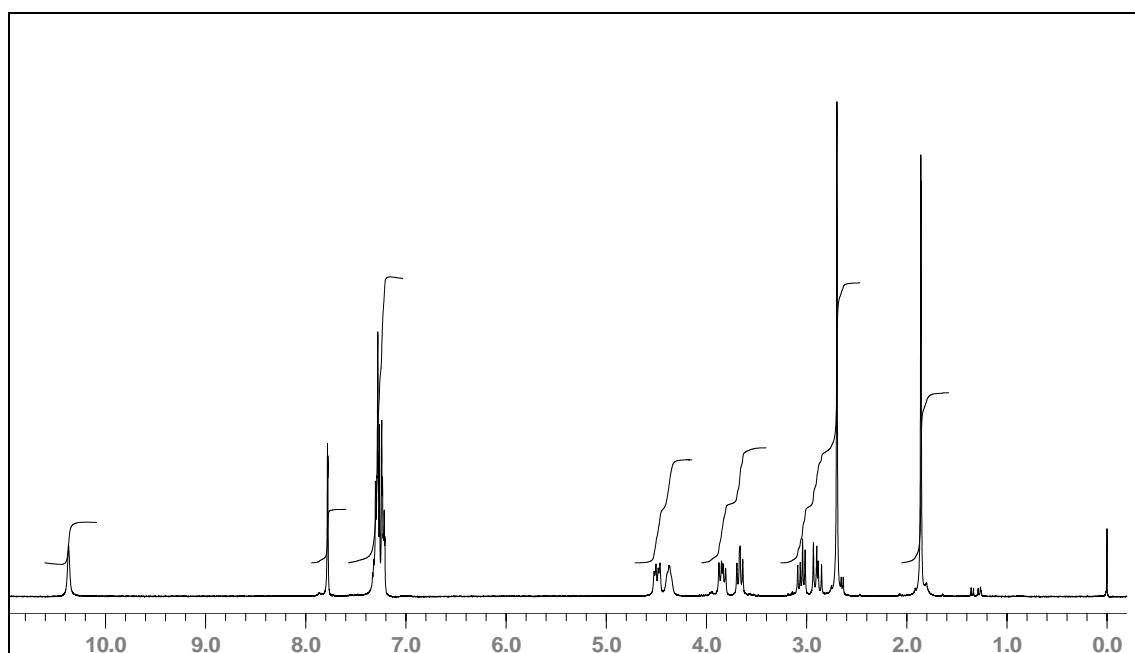
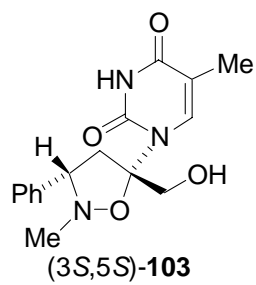


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{C}_6\text{D}_6$ ).

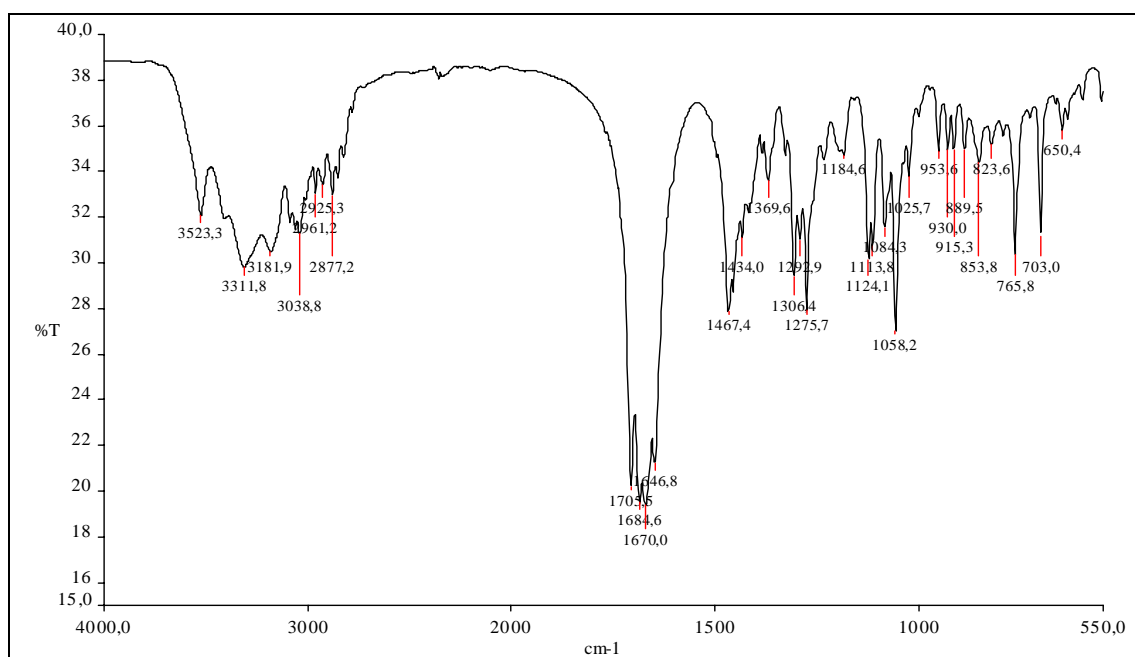


$^{13}\text{C}$ -RMN (75'4 MHz,  $\text{C}_6\text{D}_6$ ), DEPT.

# Espectres

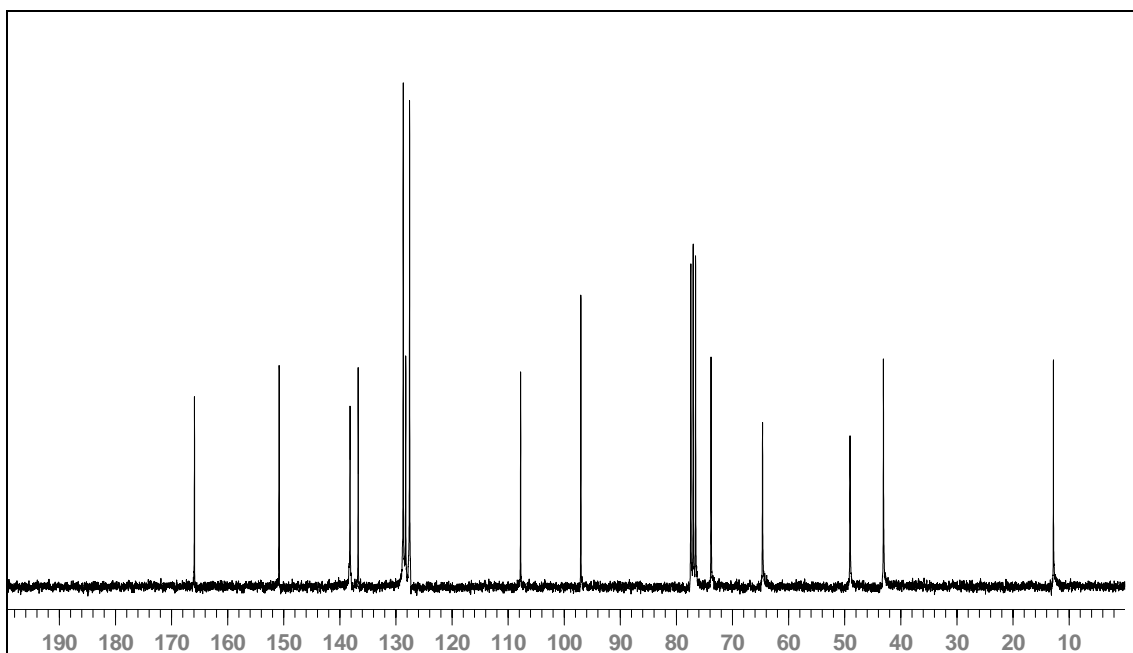
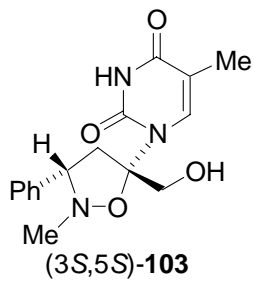


$^1\text{H-NMR}$  (300 MHz,  $\text{CDCl}_3$ ).

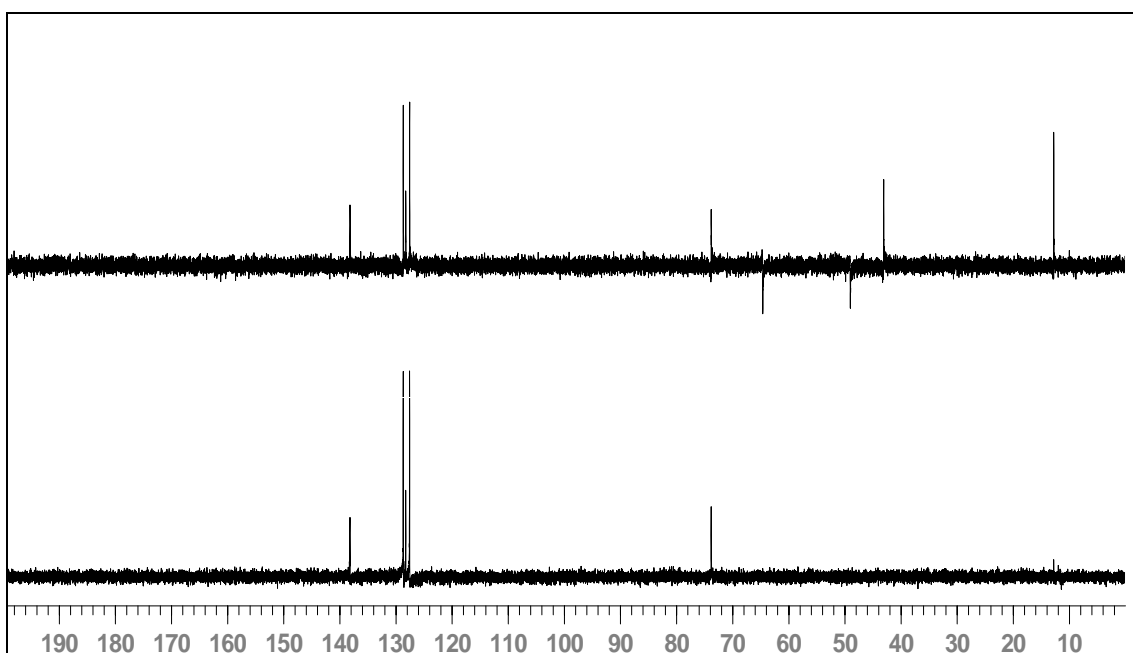


IR (KBr).

Espectres

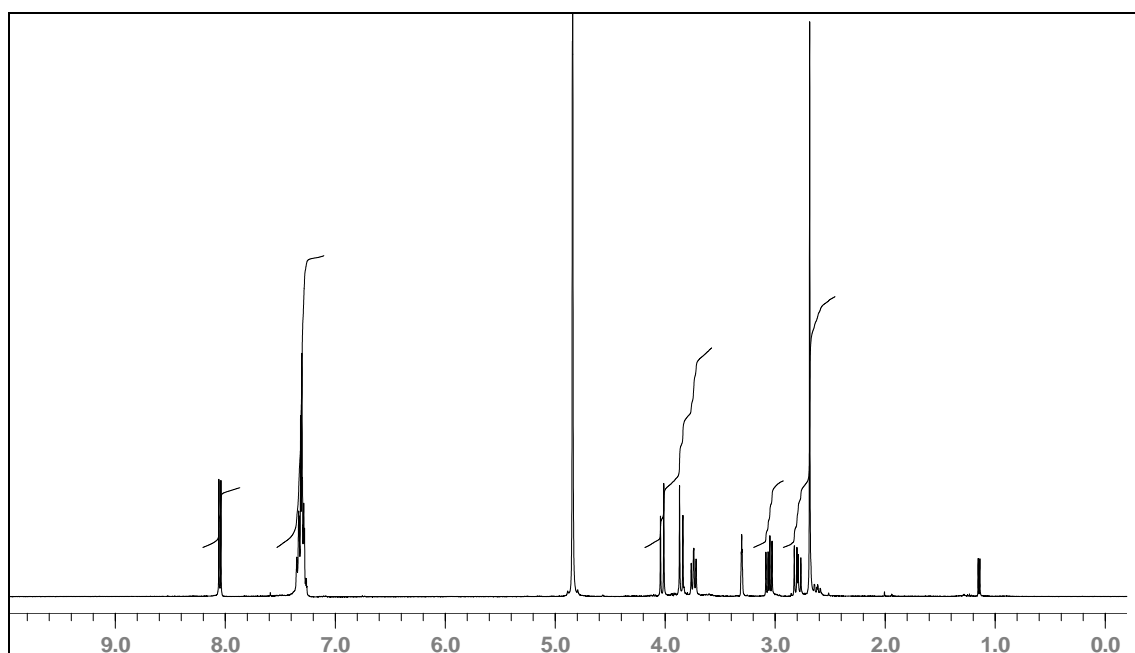
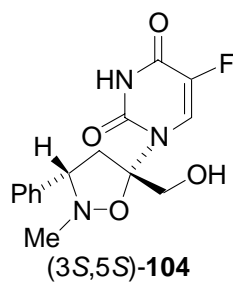


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>).

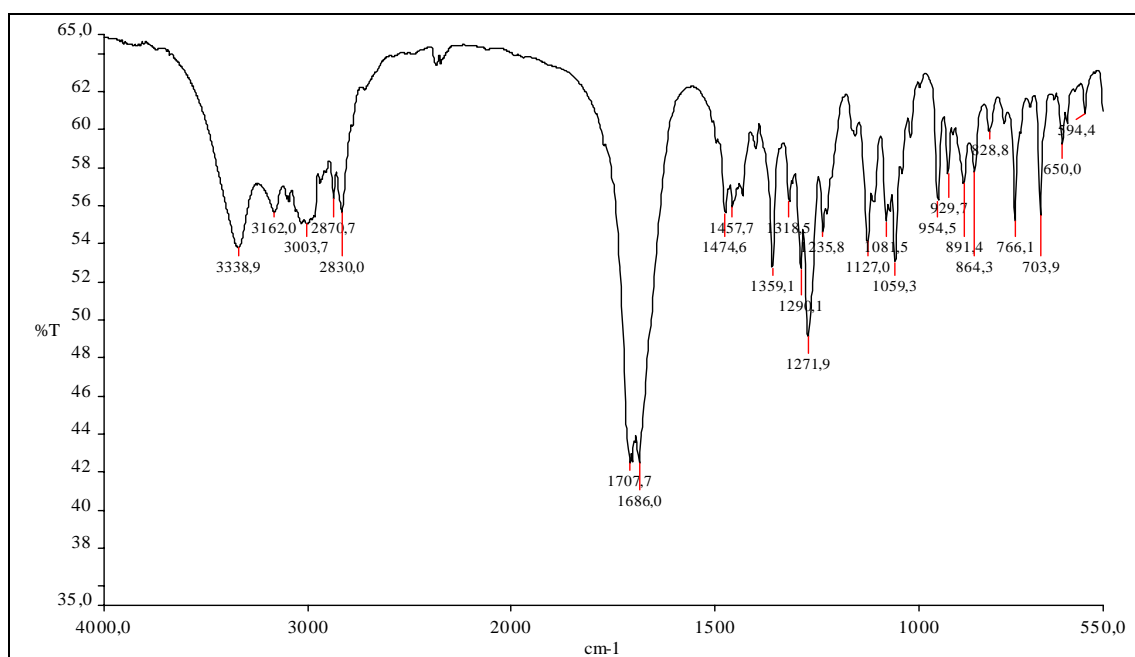


<sup>13</sup>C-RMN (75'4 MHz, CDCl<sub>3</sub>), DEPT.

# Espectres

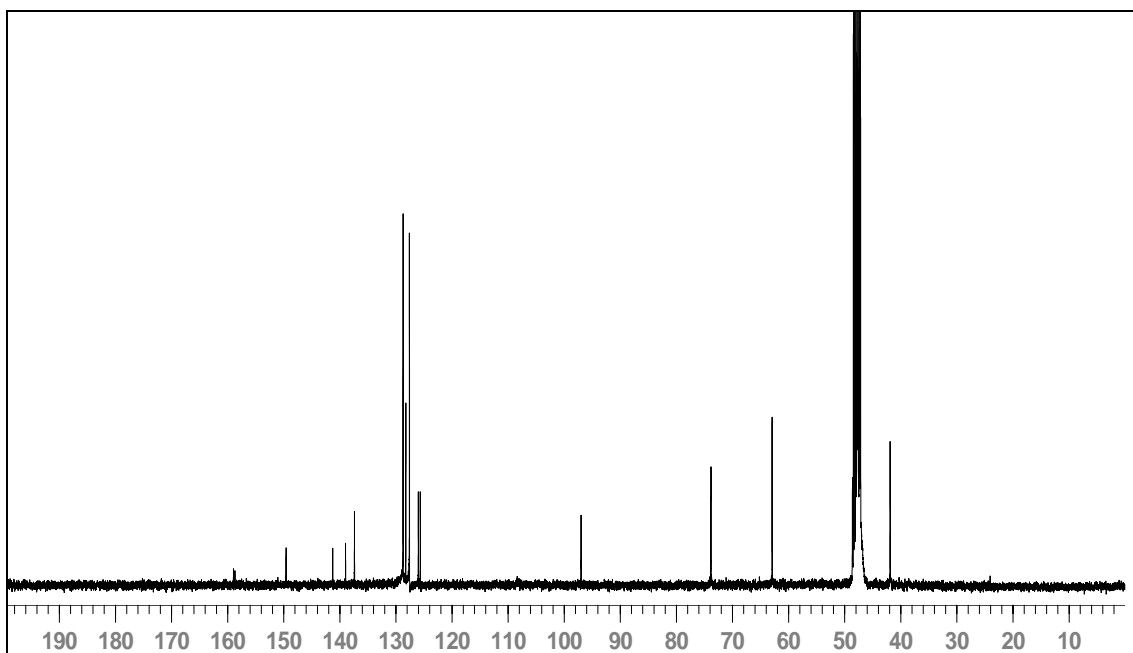
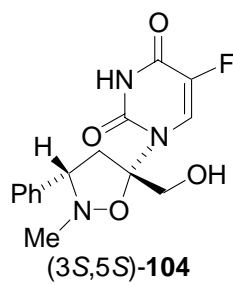


<sup>1</sup>H-RMN (400 MHz, CD<sub>3</sub>OD).

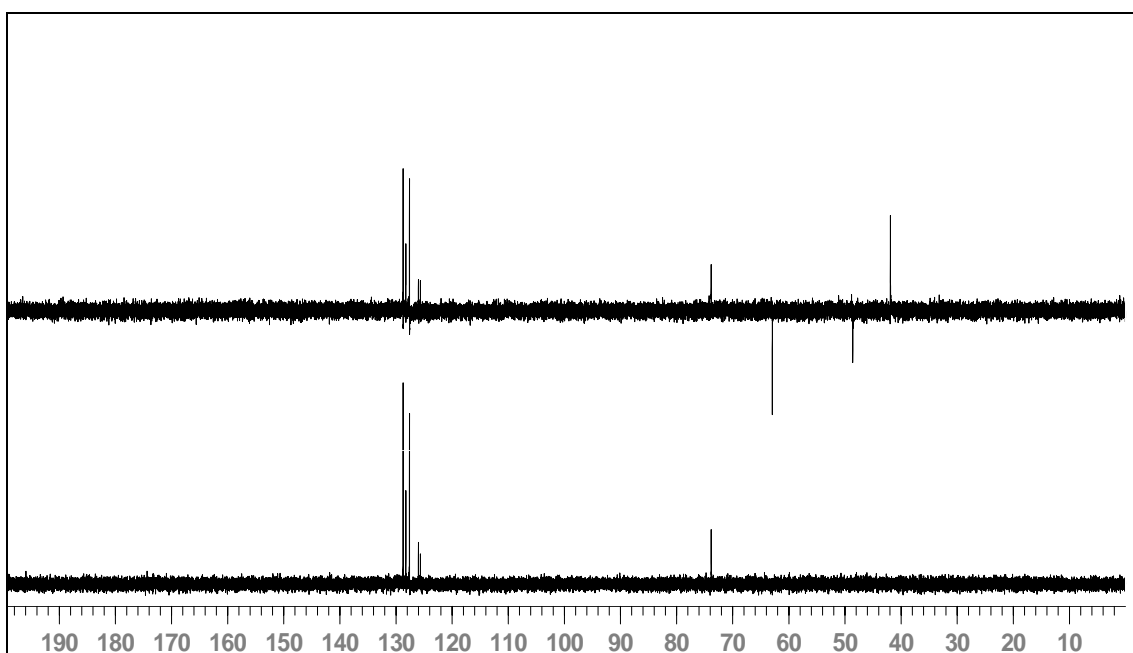


IR (KBr).

# Espectres



$^{13}\text{C}$ -RMN (100.5 MHz,  $\text{CD}_3\text{OD}$ ).



$^{13}\text{C}$ -RMN (100.5 MHz,  $\text{CD}_3\text{OD}$ ), DEPT.