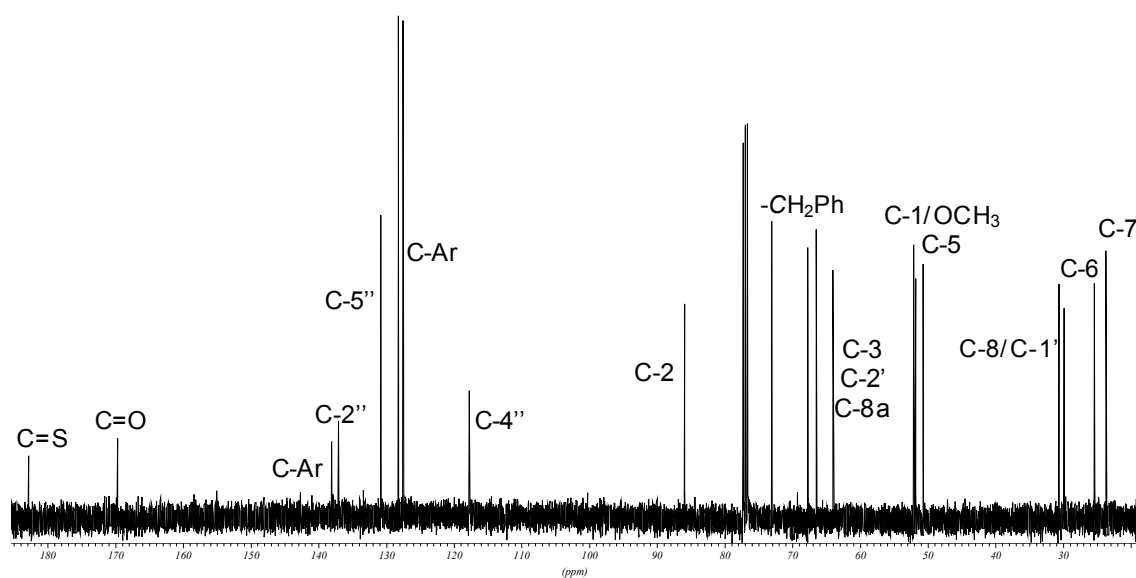
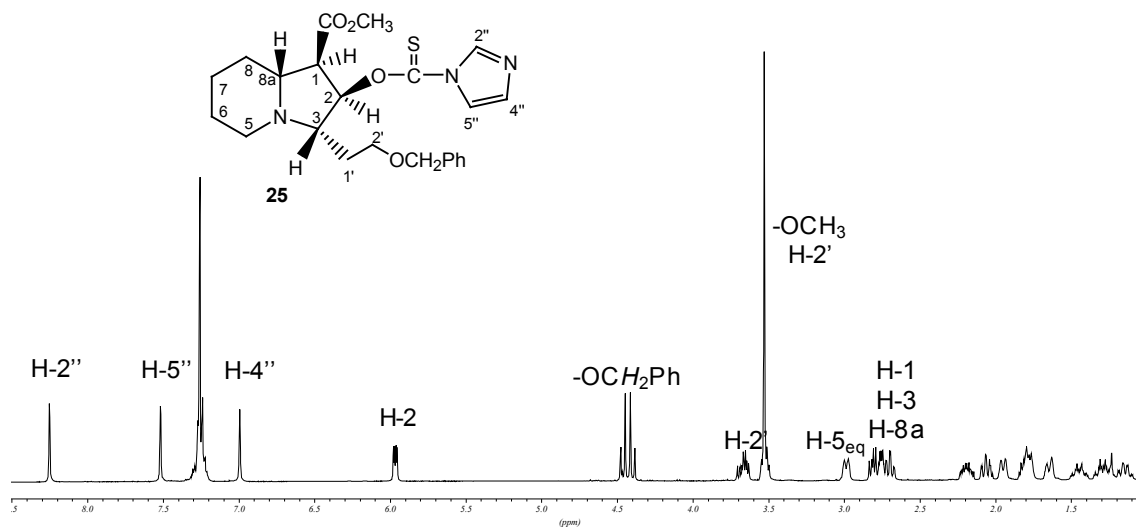
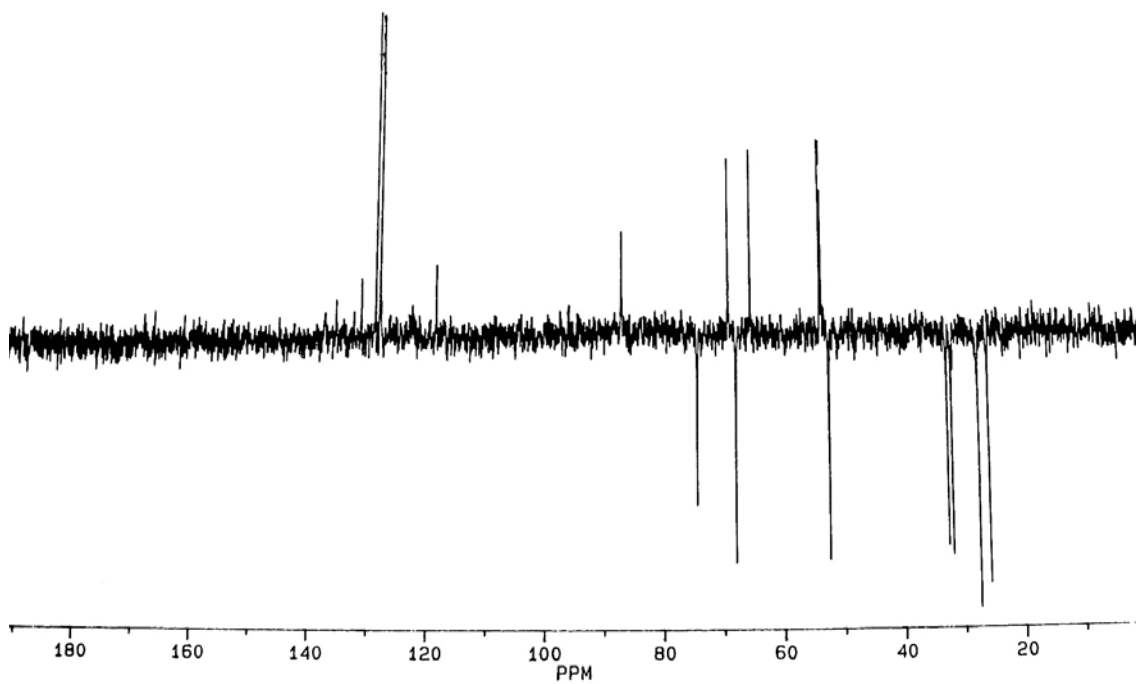
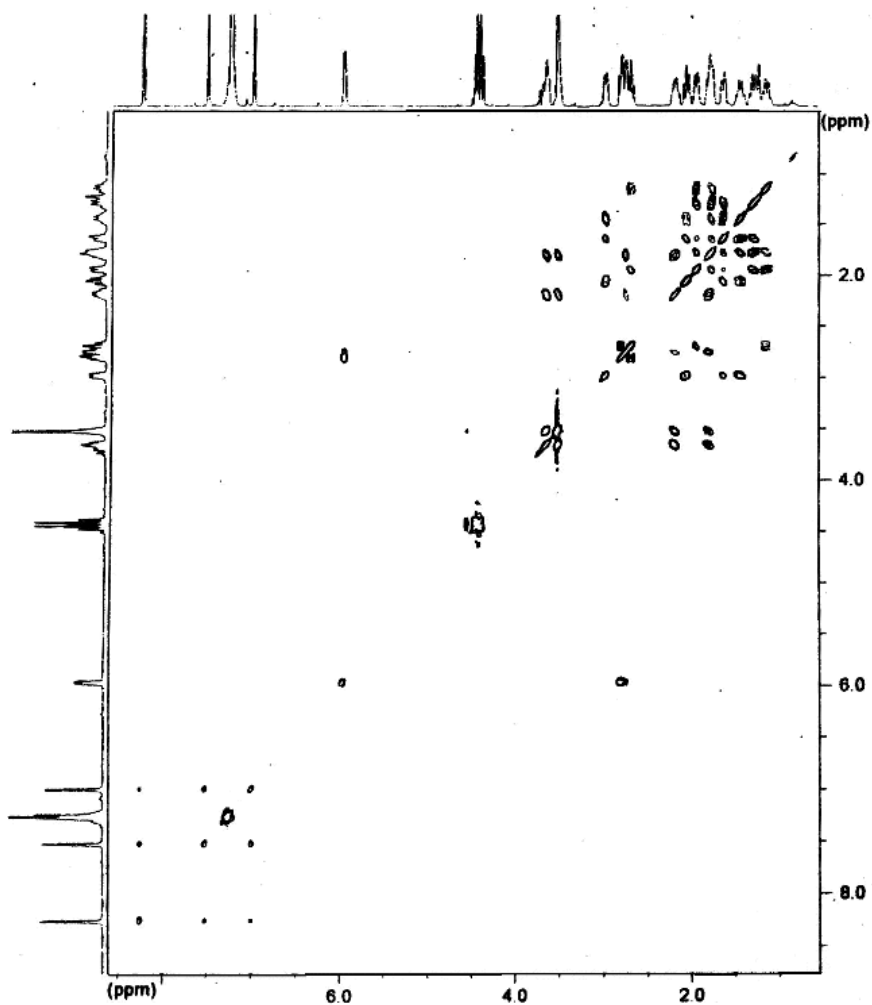


## **VI- ESPECTRES**

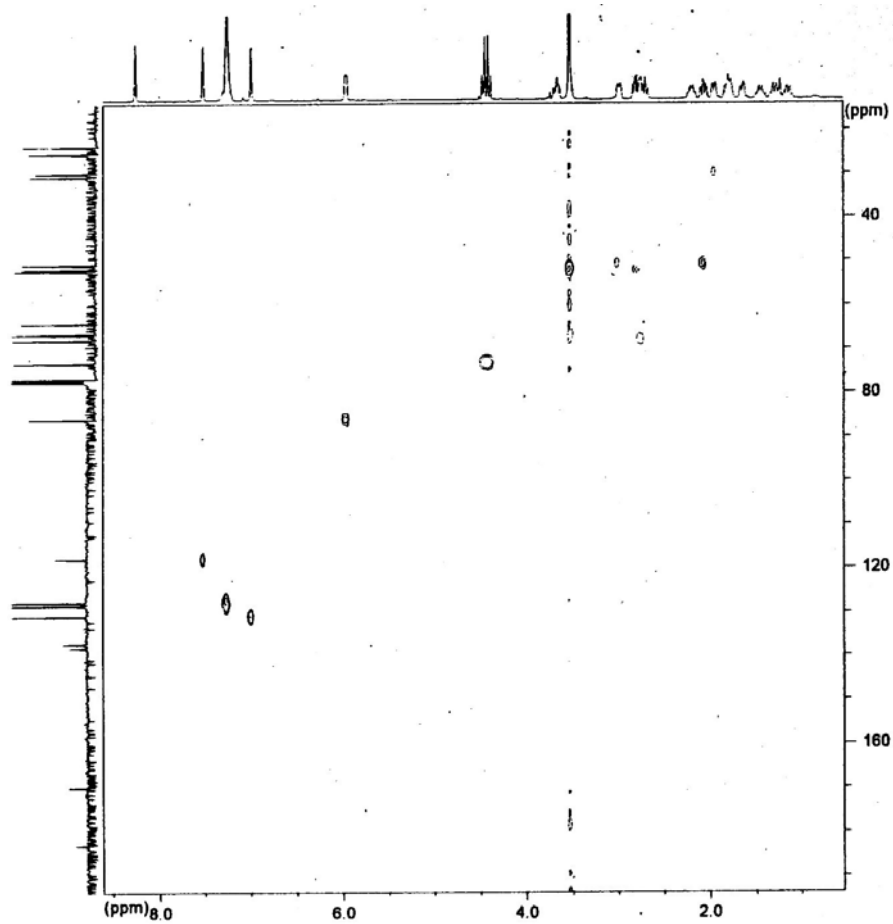
**ESPECTRES RUTA A**



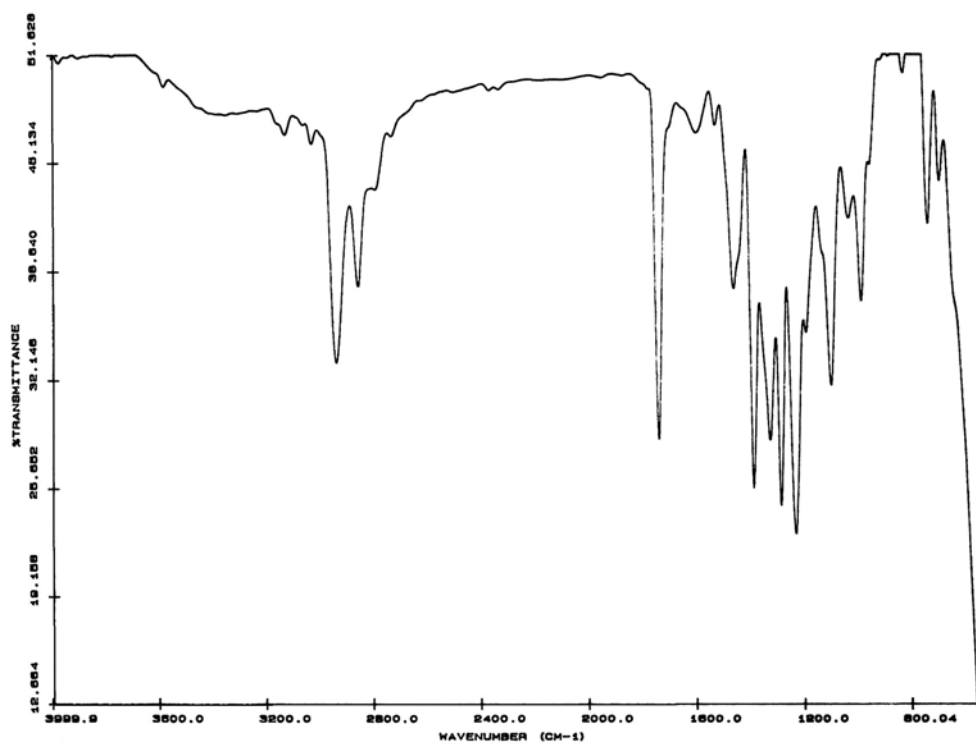
DEPT (100 MHz,  $\text{CDCl}_3$ ) de 25



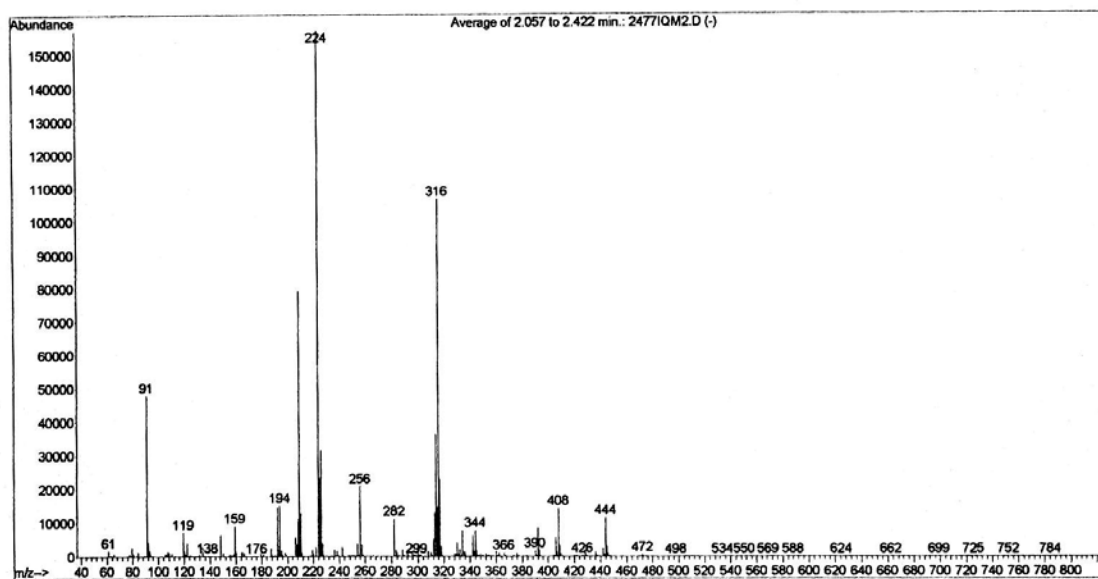
COSY (400 MHz,  $\text{CDCl}_3$ ) de 25



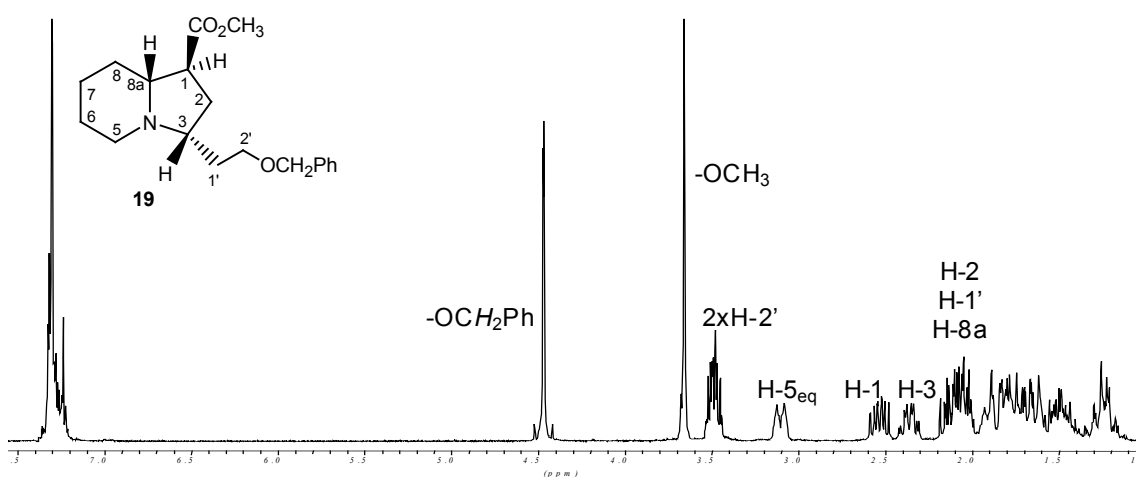
Correlació  $^1\text{H}/^{13}\text{C}$  (400 MHz,  $\text{CDCl}_3$ ) de 25



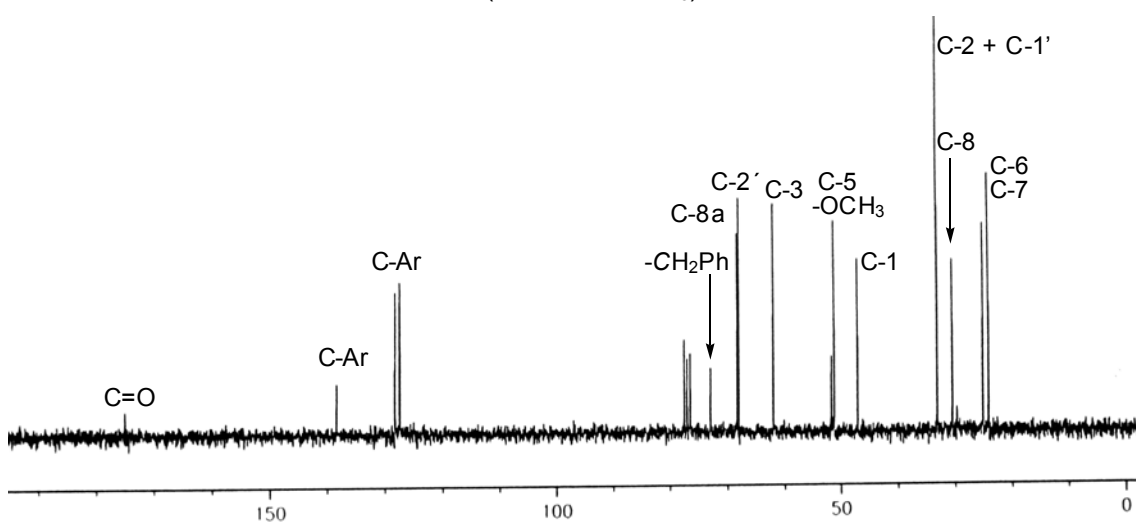
IR (film) de 25



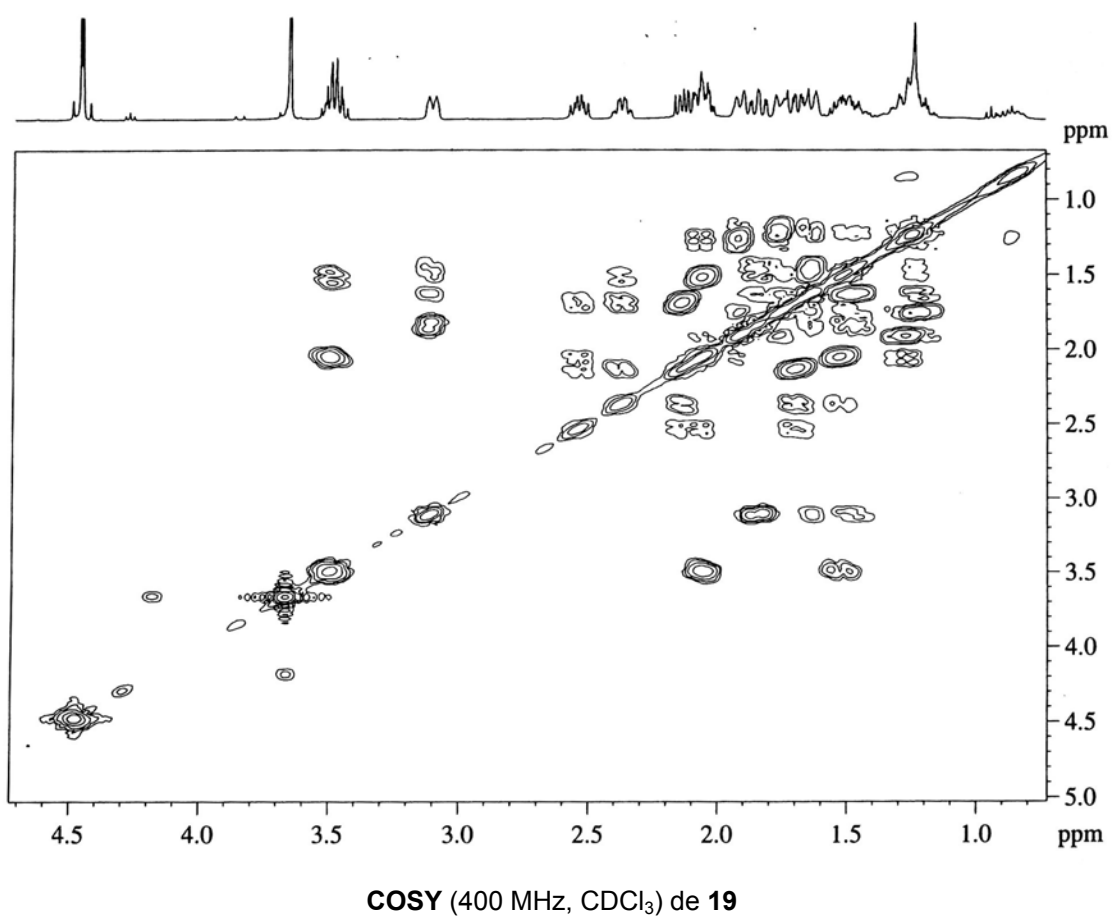
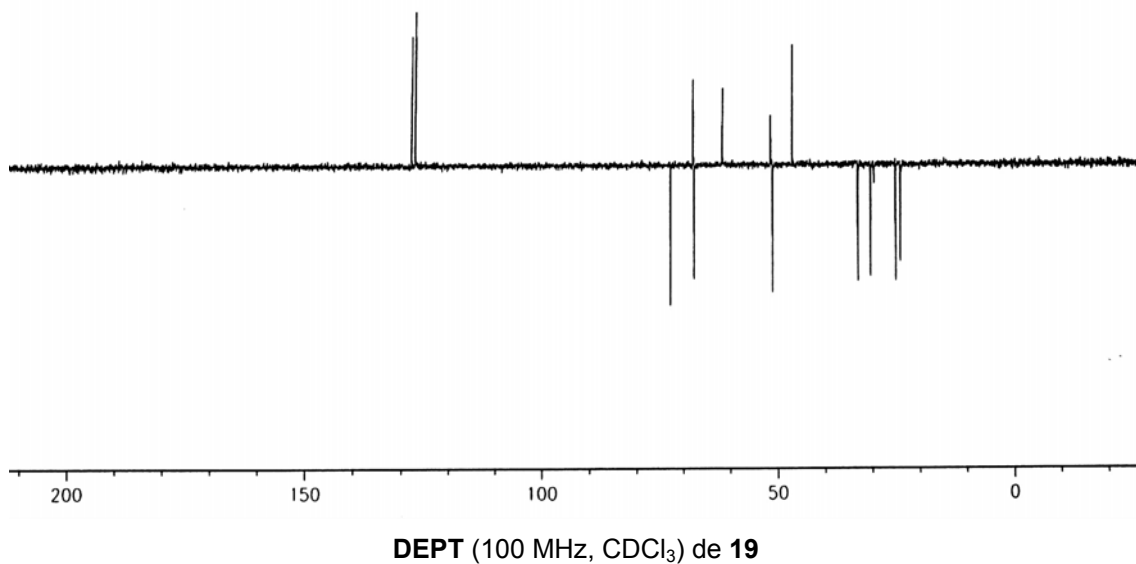
EM (IQ/CH<sub>4</sub>) de 25

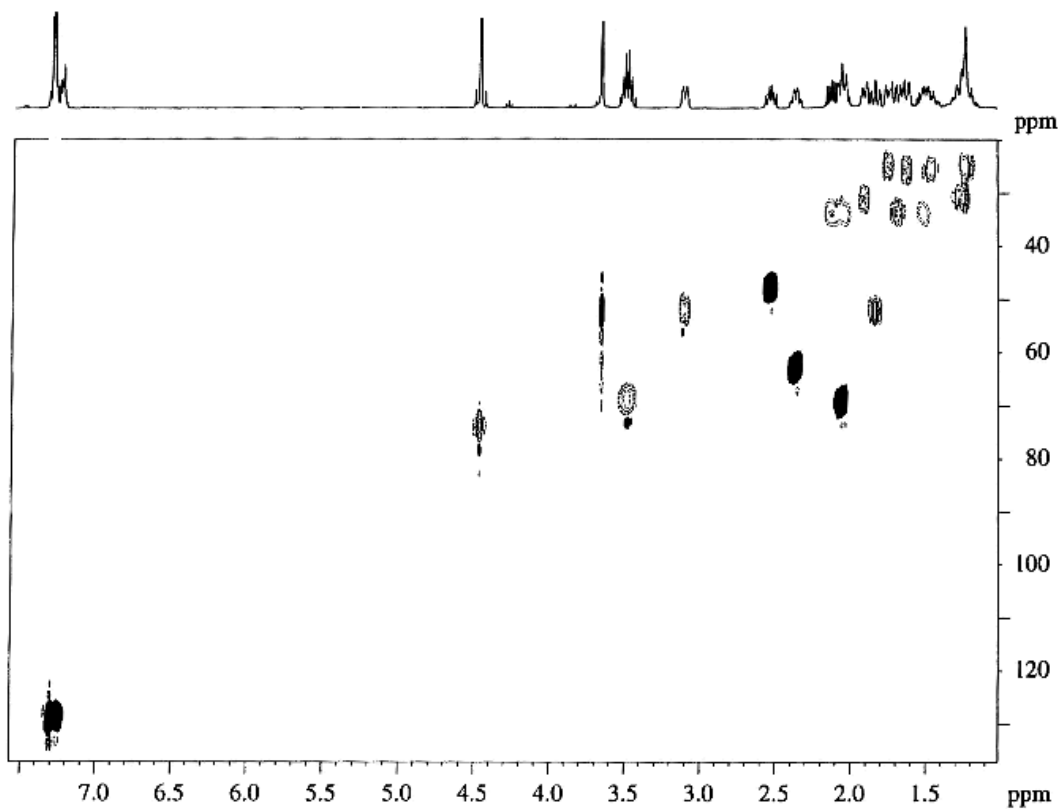


<sup>1</sup>H-RMN (400 MHz, CDCl<sub>3</sub>) de 19

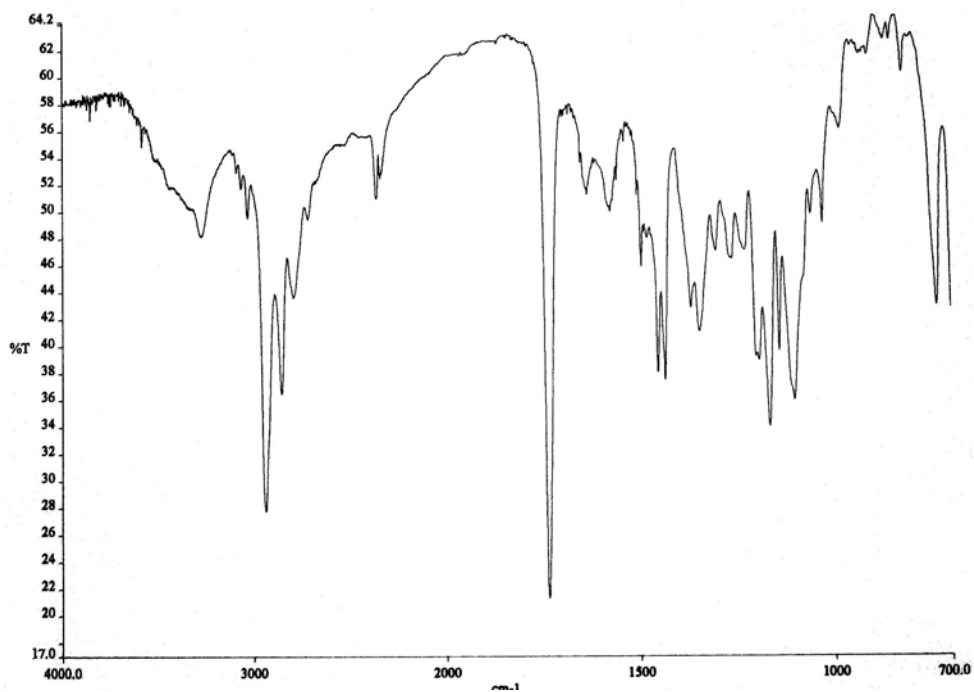


<sup>13</sup>C-RMN (100 MHz, CDCl<sub>3</sub>) de 19

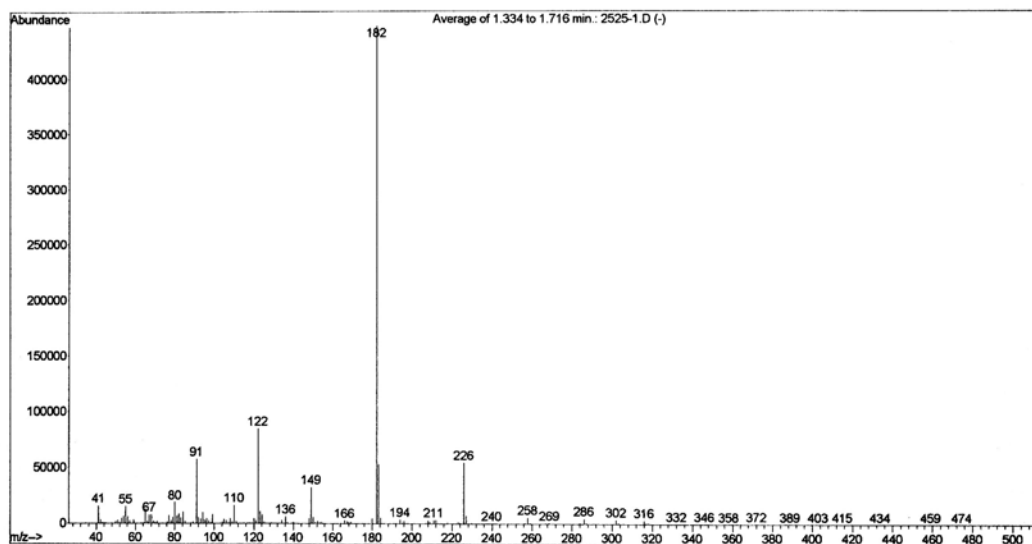




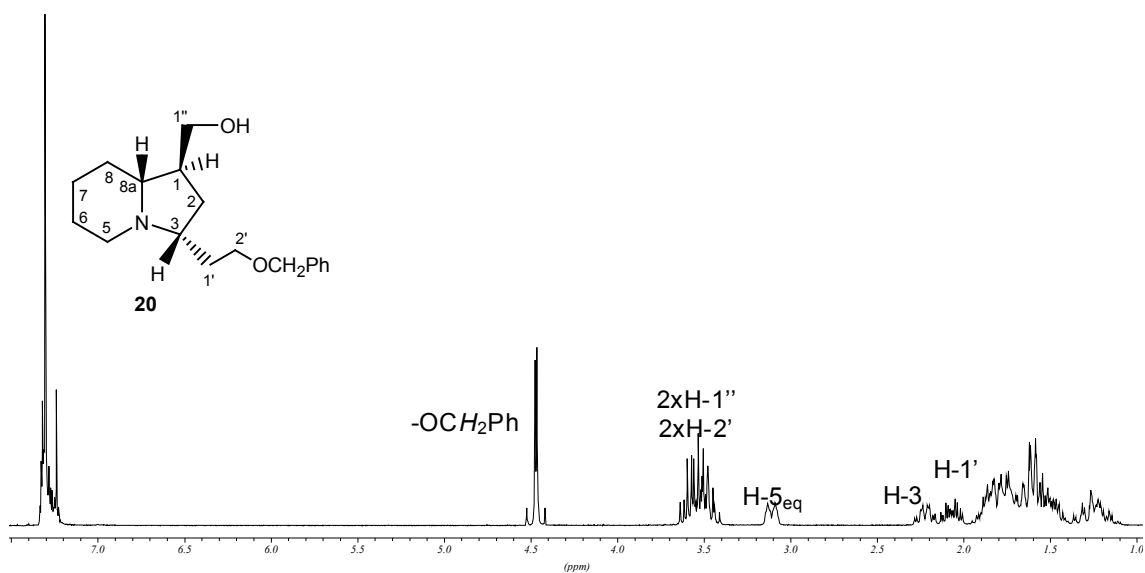
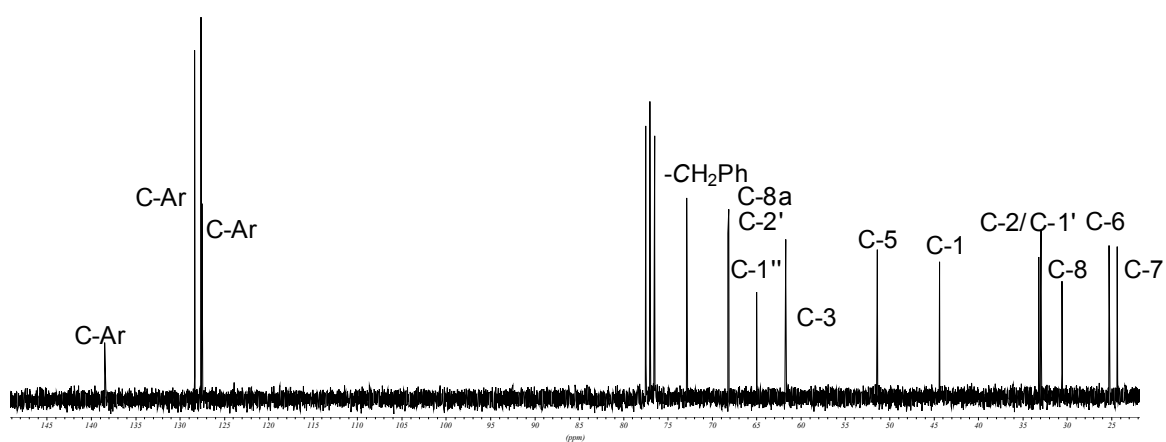
Correlació  $^1\text{H}/^{13}\text{C}$  (400 MHz,  $\text{CDCl}_3$ ) de **19**



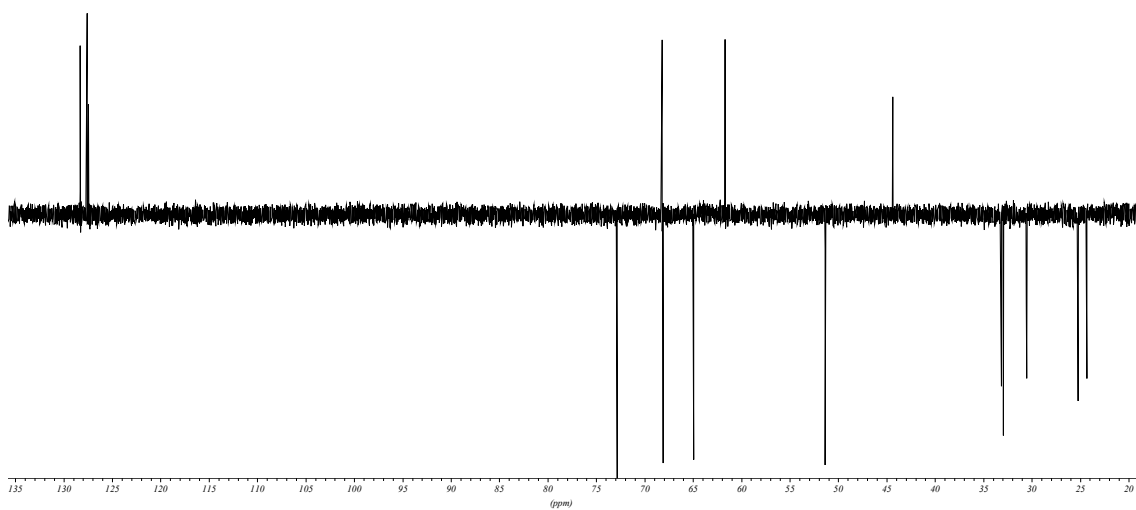
IR (film) de **19**



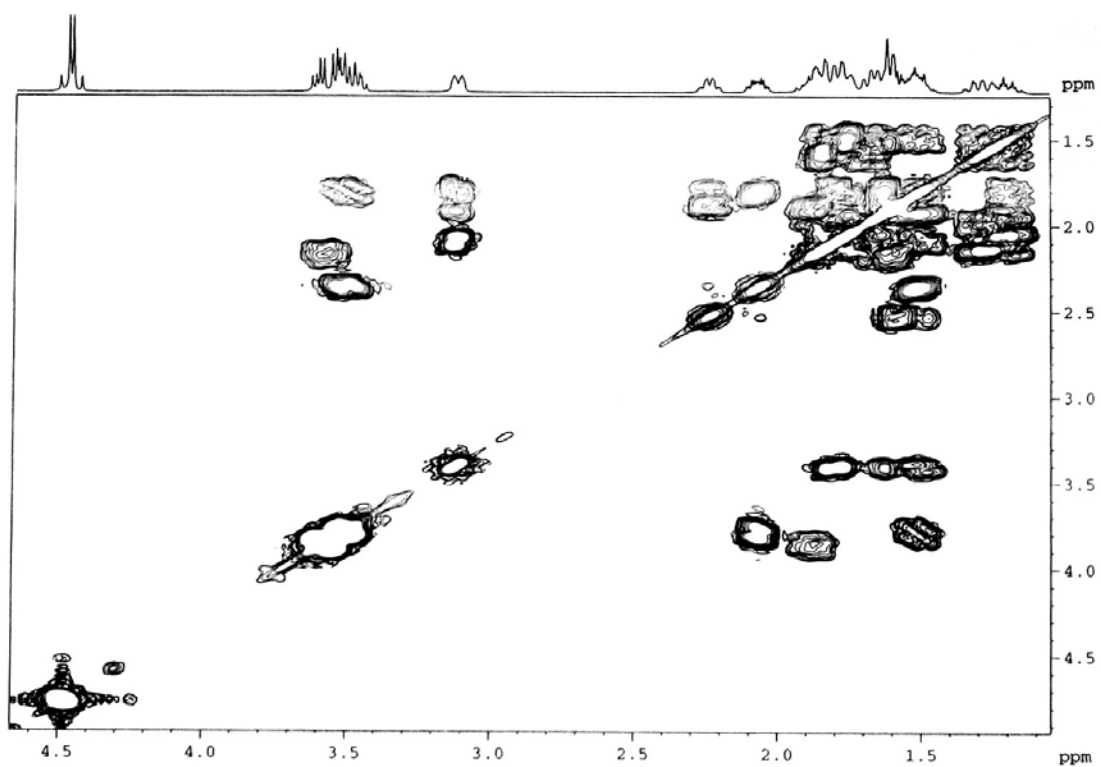
EM de 19

<sup>1</sup>H-RMN (250 MHz, CDCl<sub>3</sub>) de **20**<sup>13</sup>C-RMN (62.5 MHz, CDCl<sub>3</sub>) de **20**

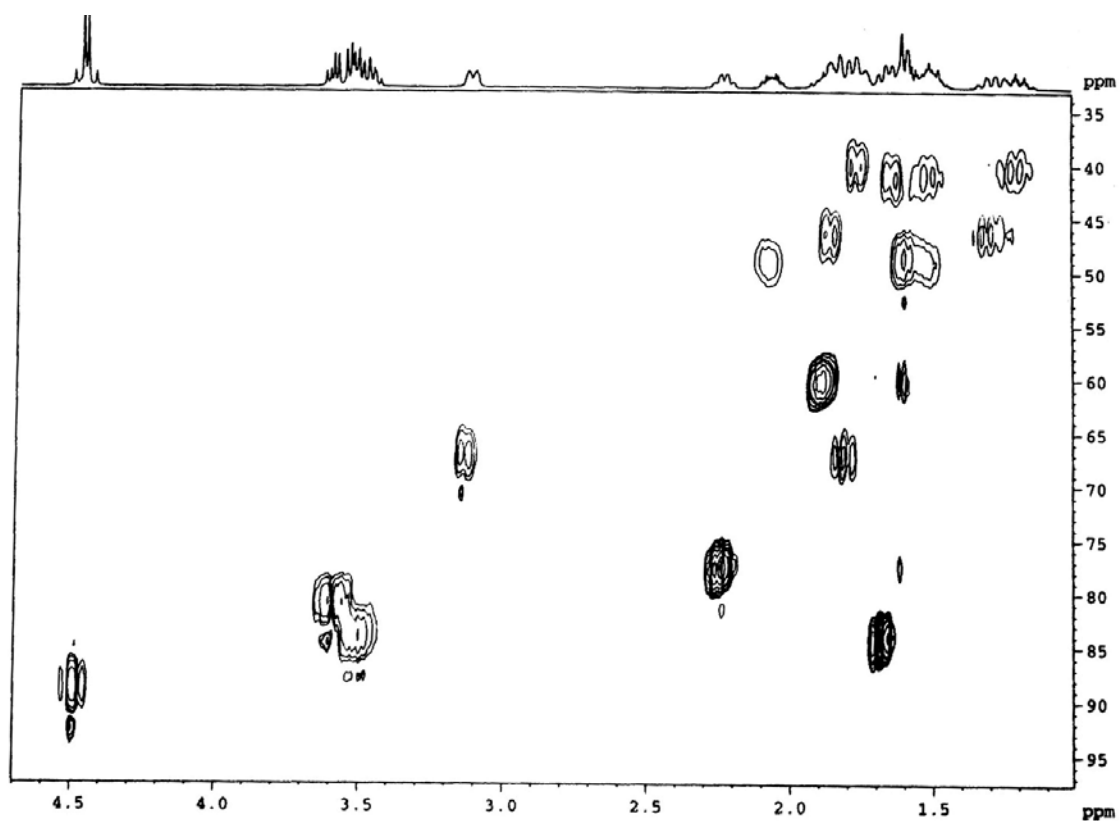
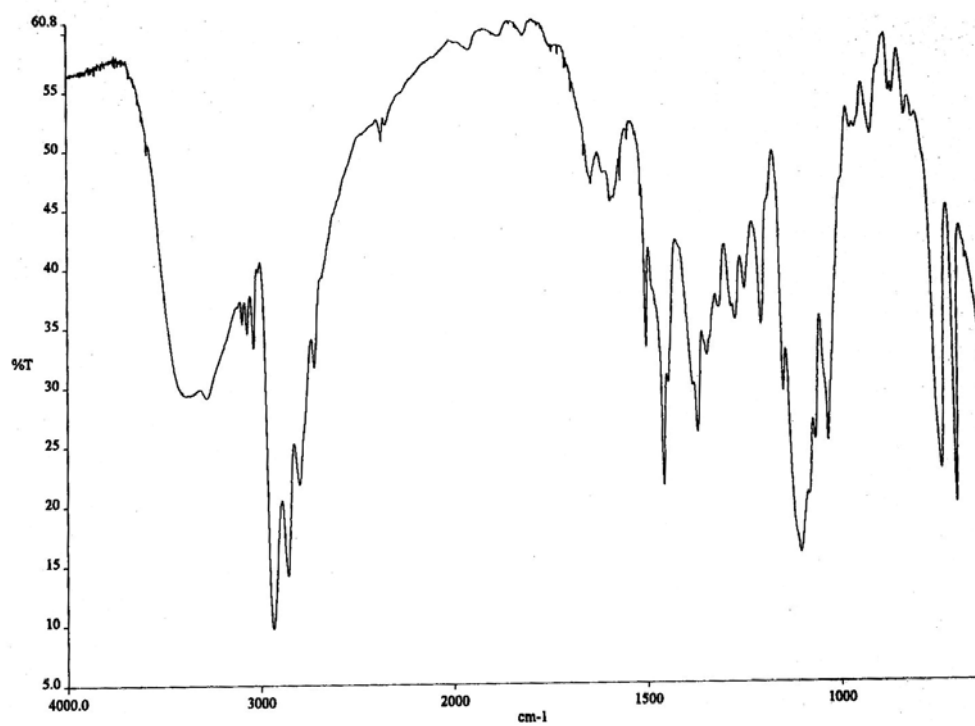




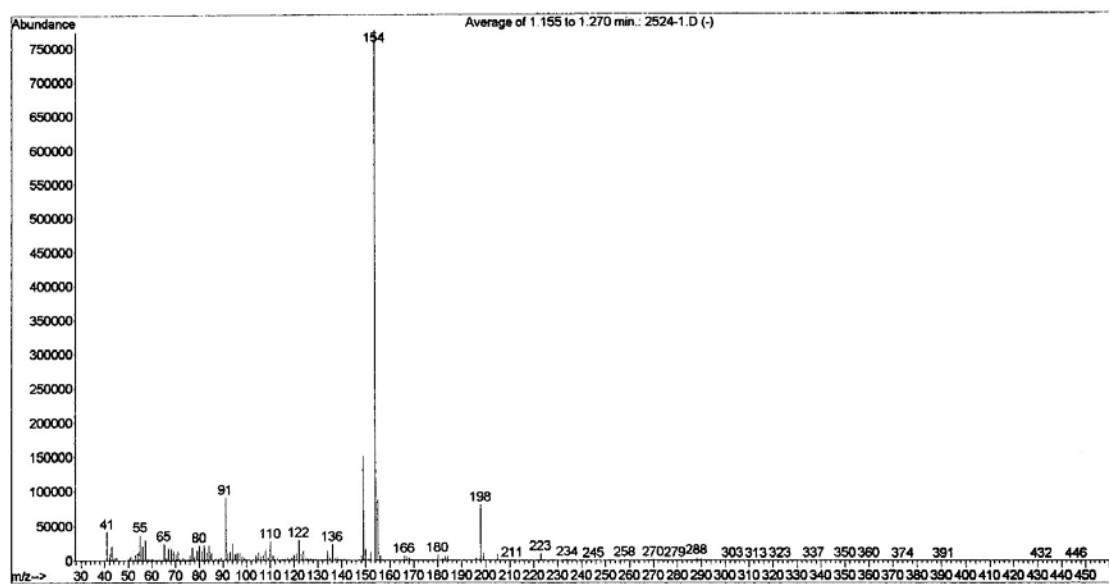
DEPT (62.5 MHz, CDCl<sub>3</sub>) de **20**



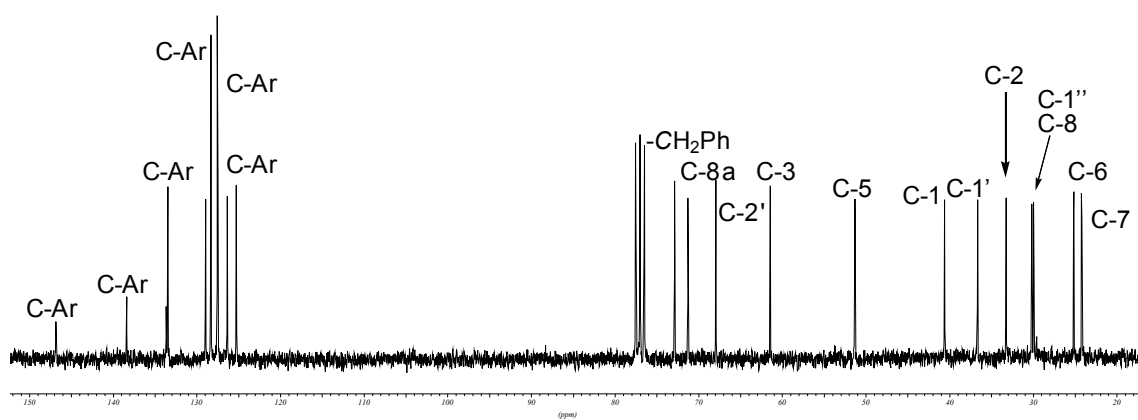
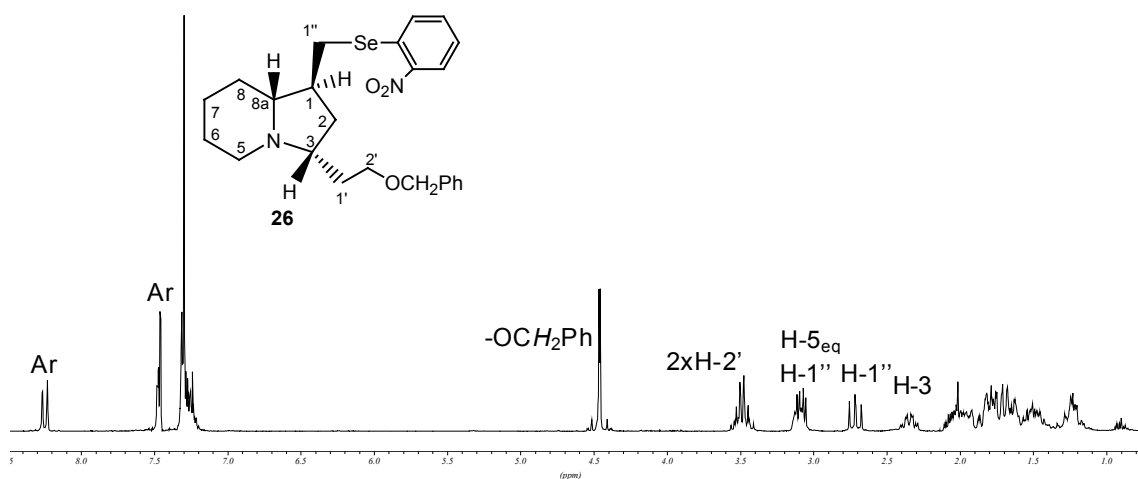
COSY (250 MHz, CDCl<sub>3</sub>) de **20**

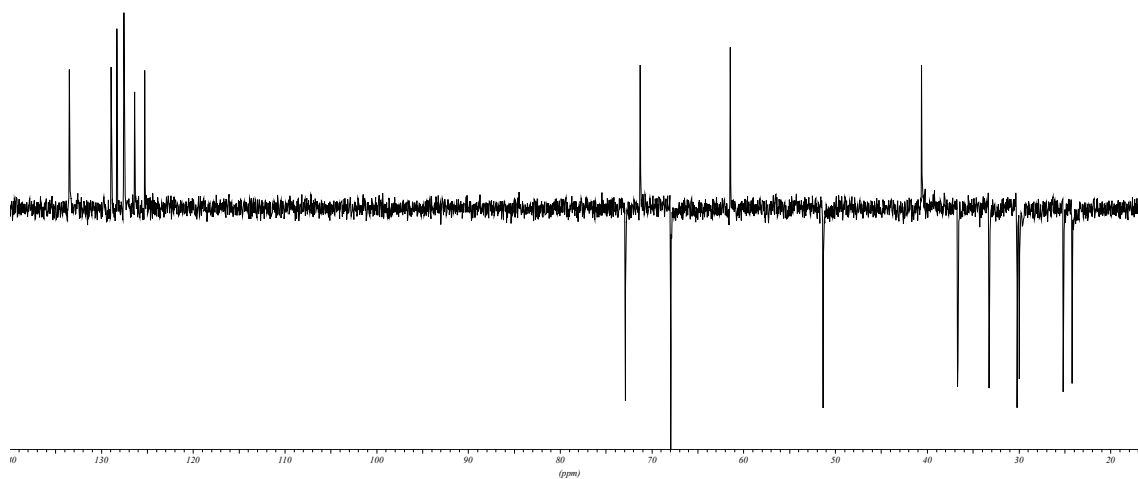
Correlació  $^1\text{H}/^{13}\text{C}$  (250 MHz,  $\text{CDCl}_3$ ) de 20

IR (film) de 20

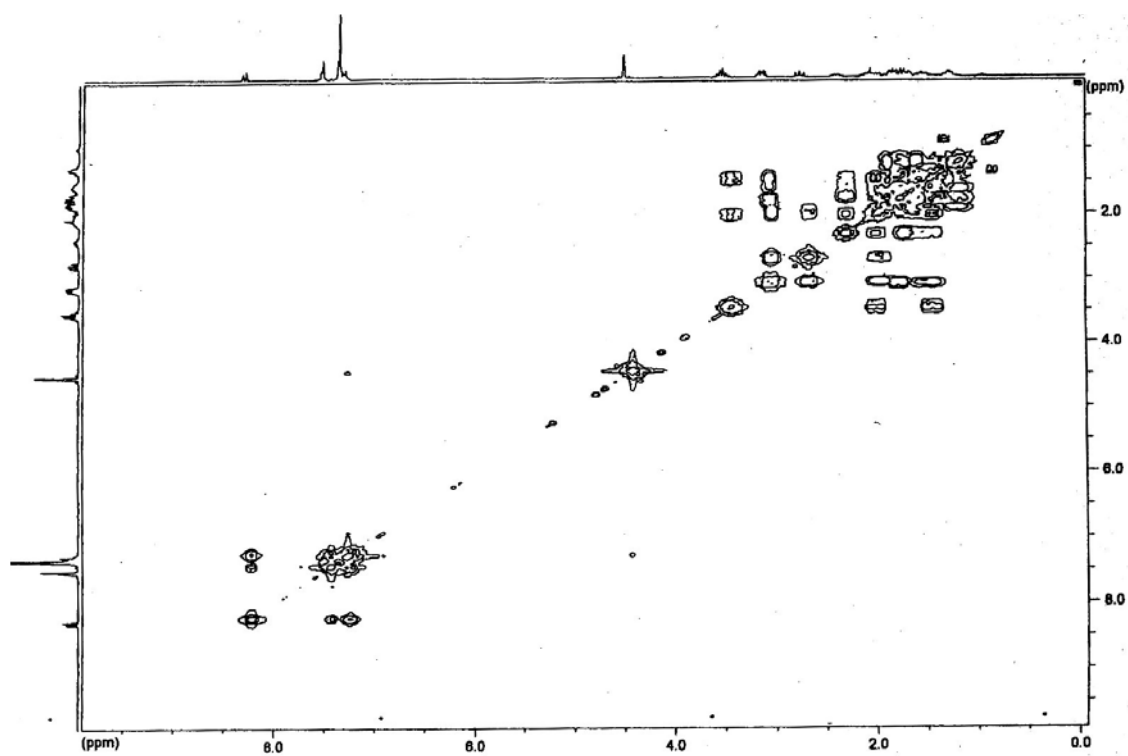


EM de 20

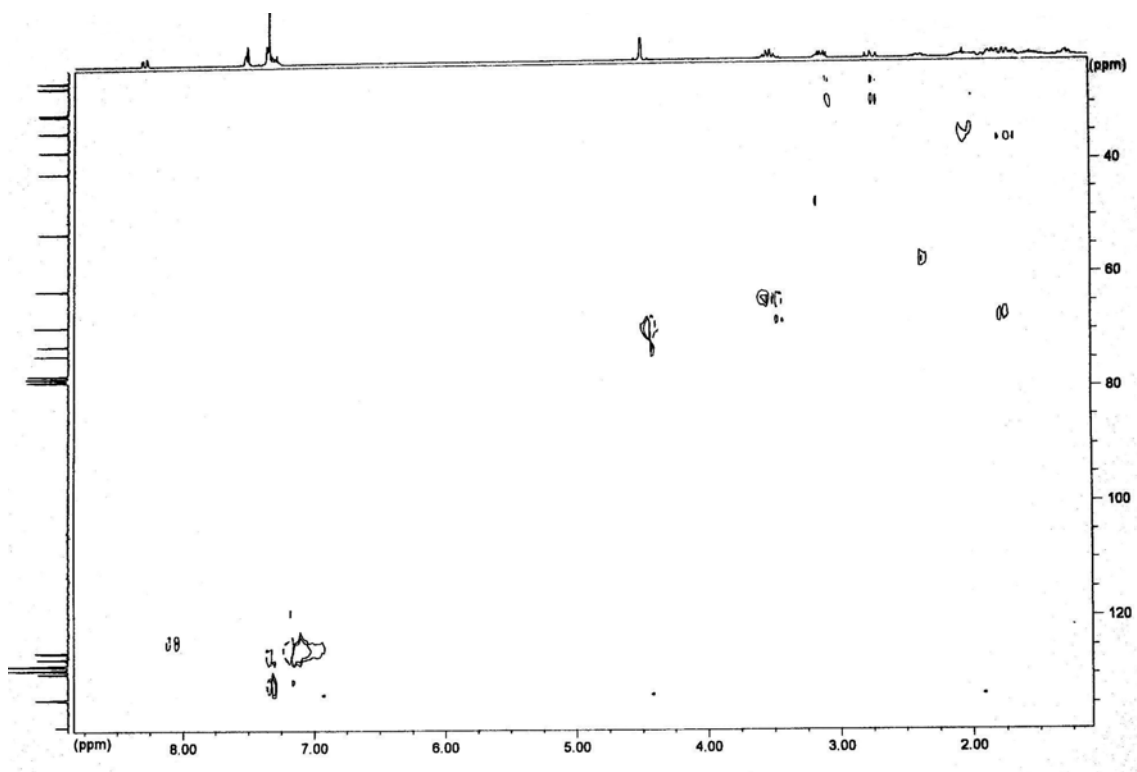




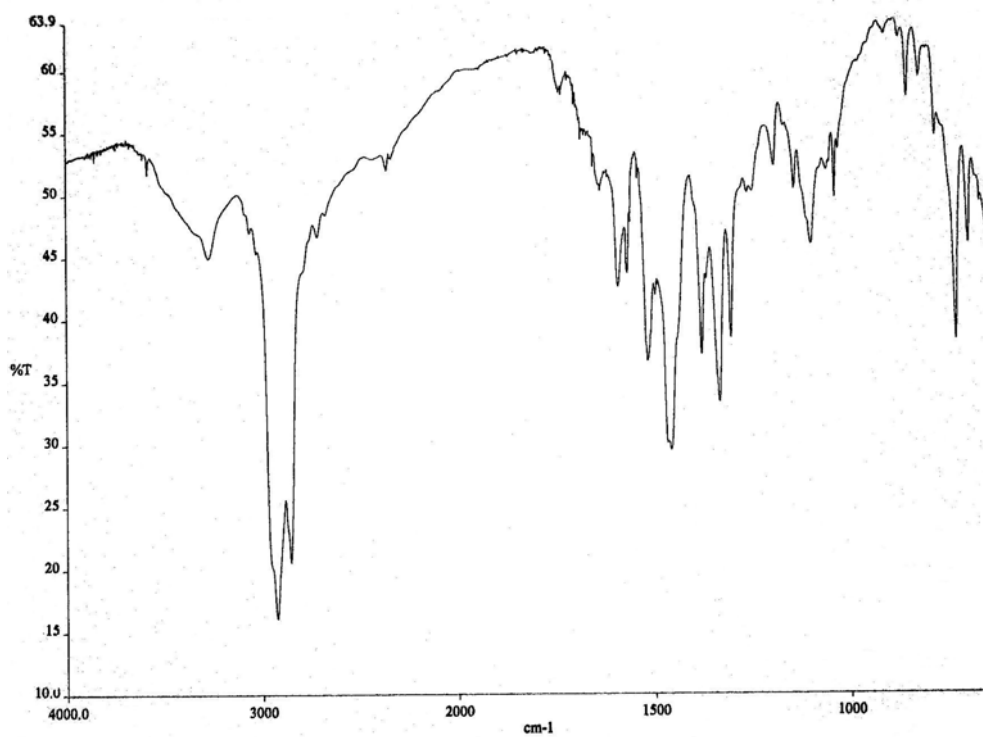
DEPT (62.5 MHz,  $\text{CDCl}_3$ ) de 26



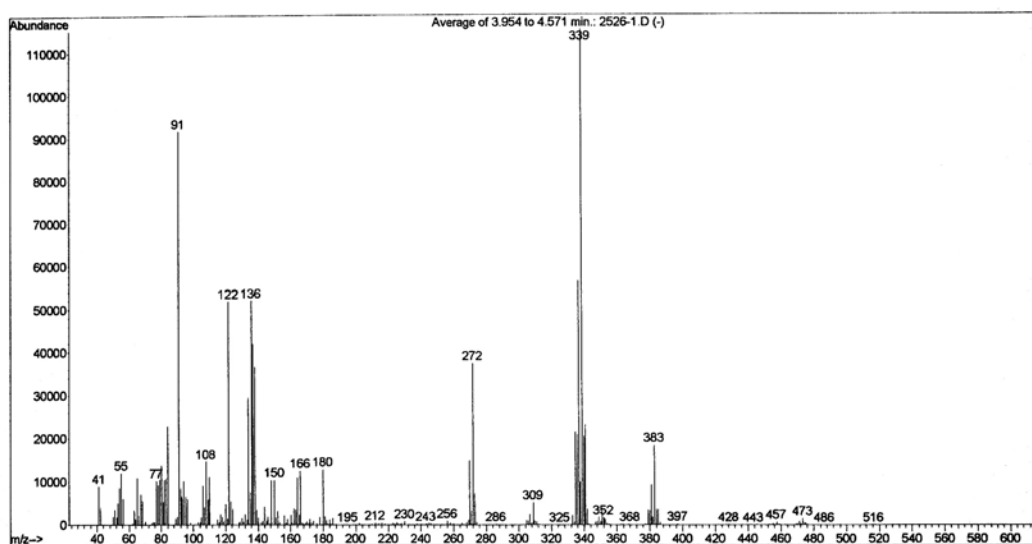
COSY (250 MHz,  $\text{CDCl}_3$ ) de 26



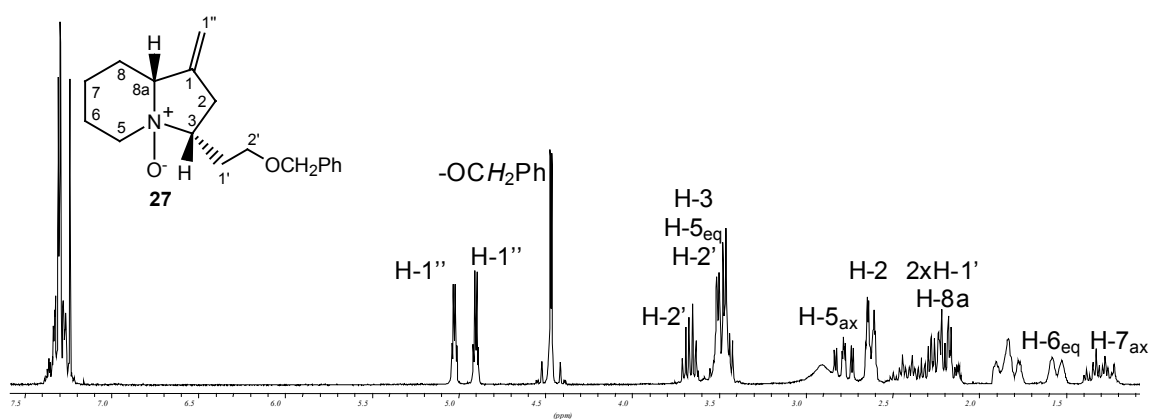
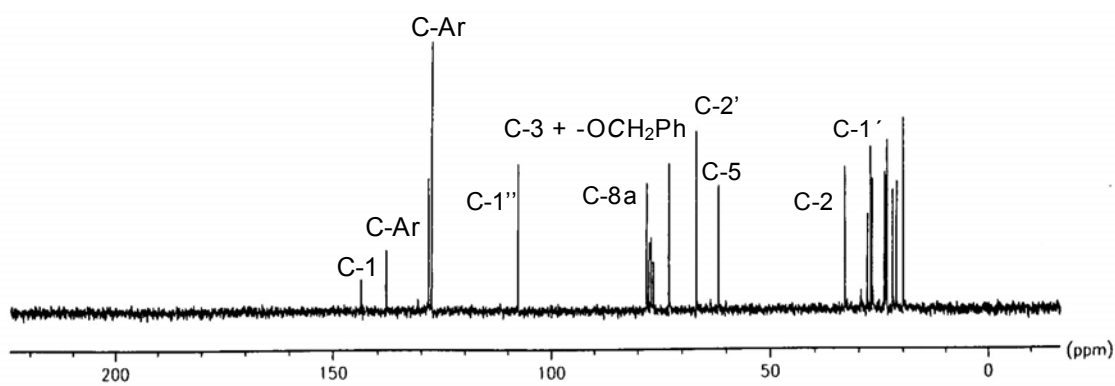
Correlació  $^1\text{H}/^{13}\text{C}$  (250 MHz,  $\text{CDCl}_3$ ) de 26

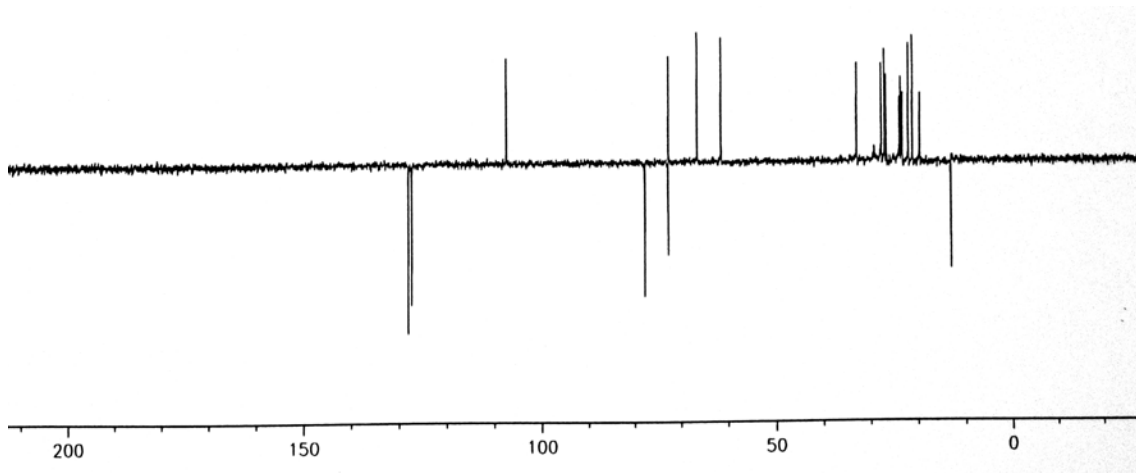


IR (film) de 26

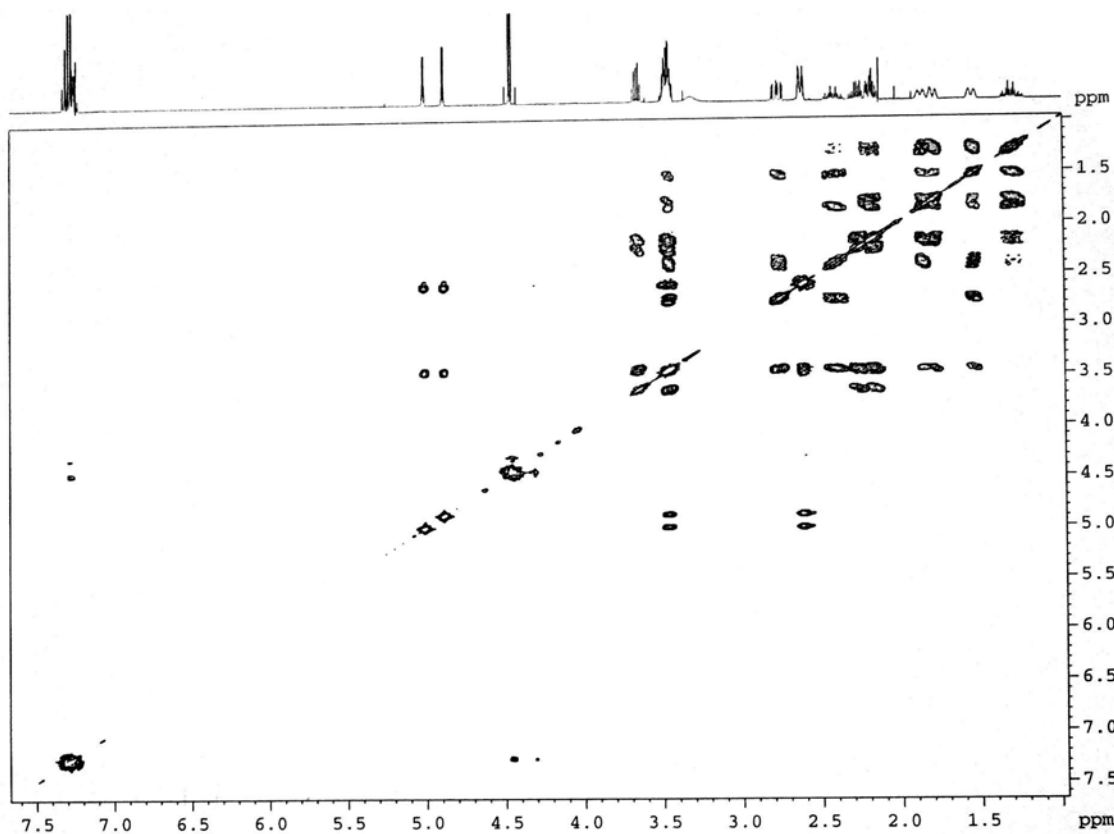


EM de 26

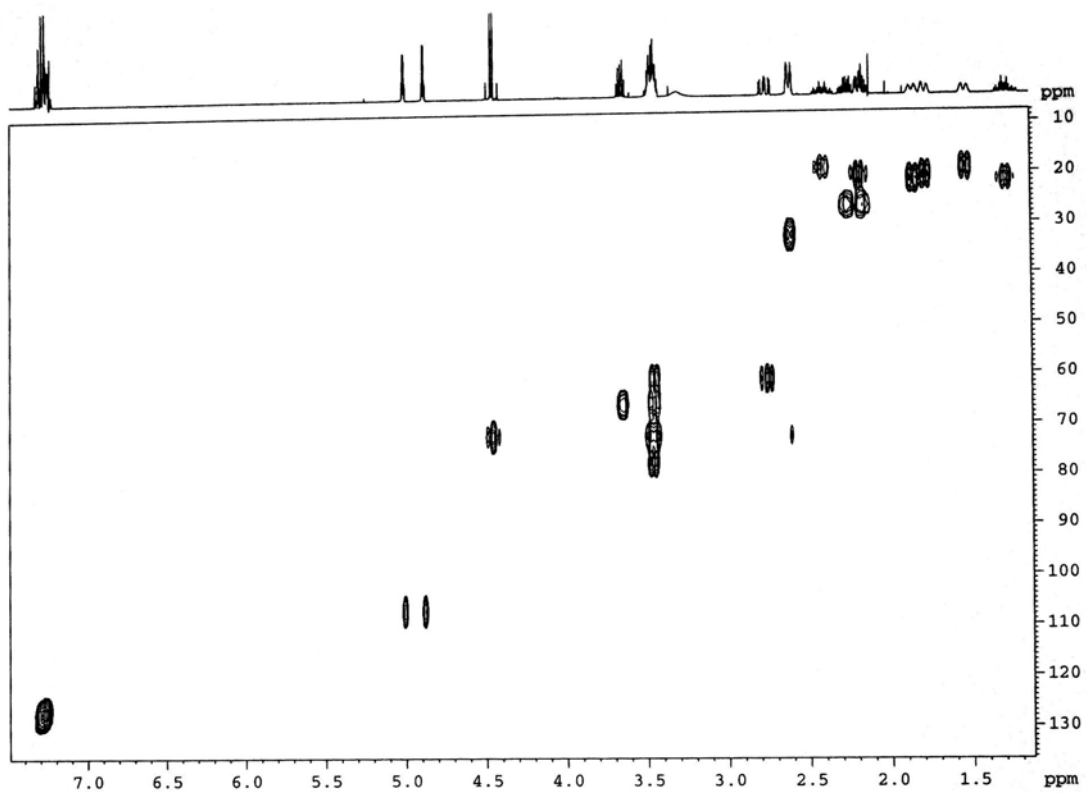
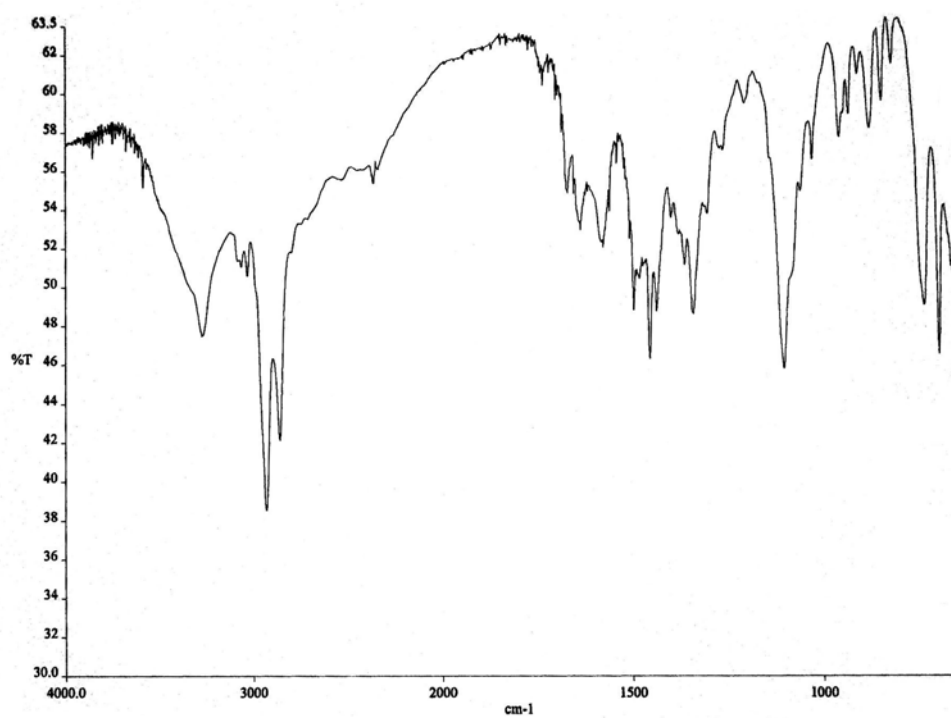
 $^1\text{H-RMN}$  (250 MHz,  $\text{CDCl}_3$ ) de 27 $^{13}\text{C-RMN}$  (62.5 MHz,  $\text{CDCl}_3$ ) de 27



DEPT (62.5 MHz,  $\text{CDCl}_3$ ) de 27

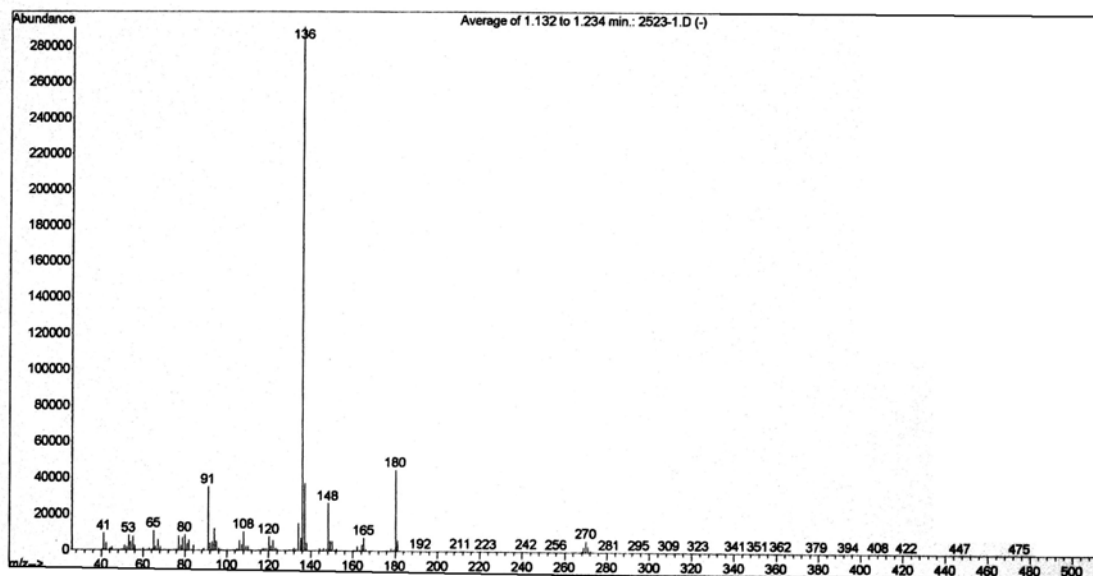


COSY (250 MHz,  $\text{CDCl}_3$ ) de 27

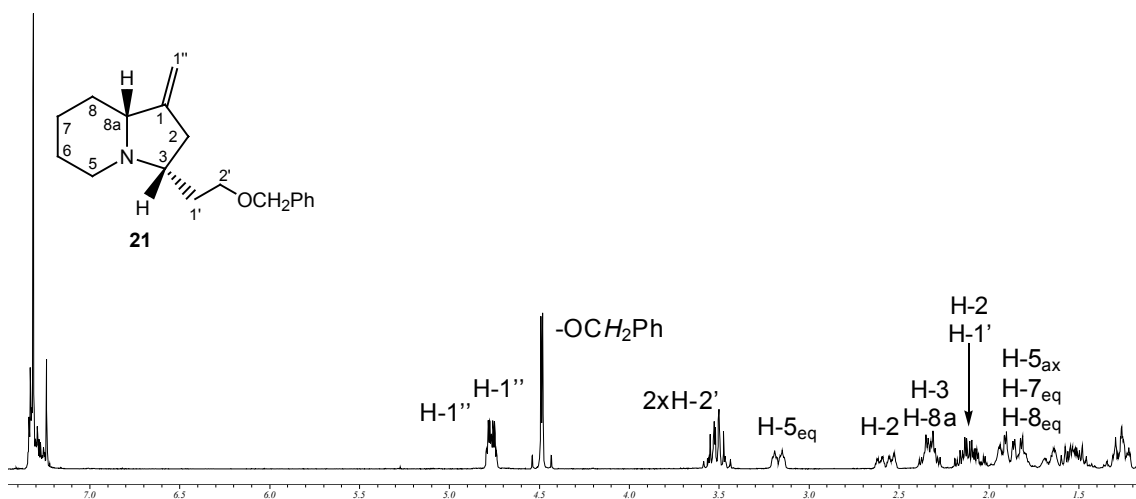
Correlació  $^1\text{H}/^{13}\text{C}$  (250 MHz,  $\text{CDCl}_3$ ) de 27

IR (film) de 27

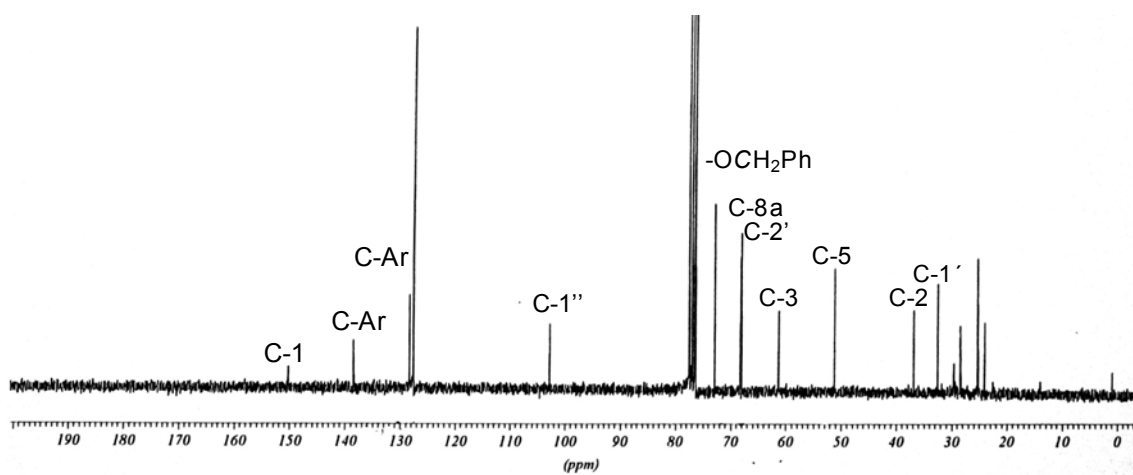




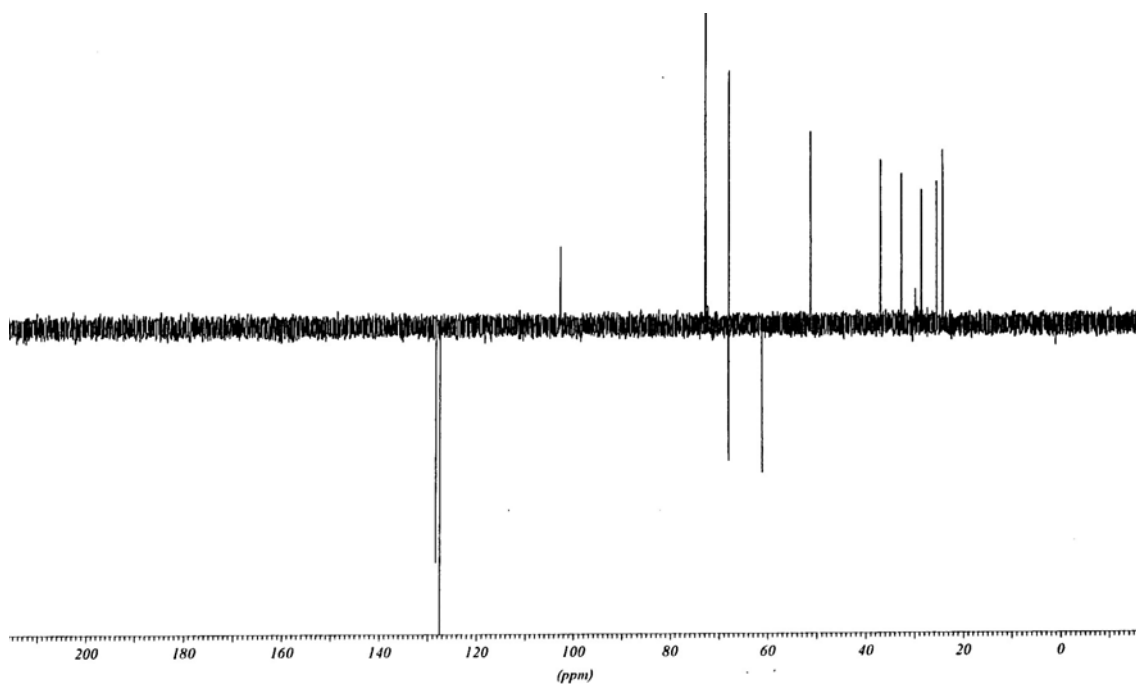
EM de 27



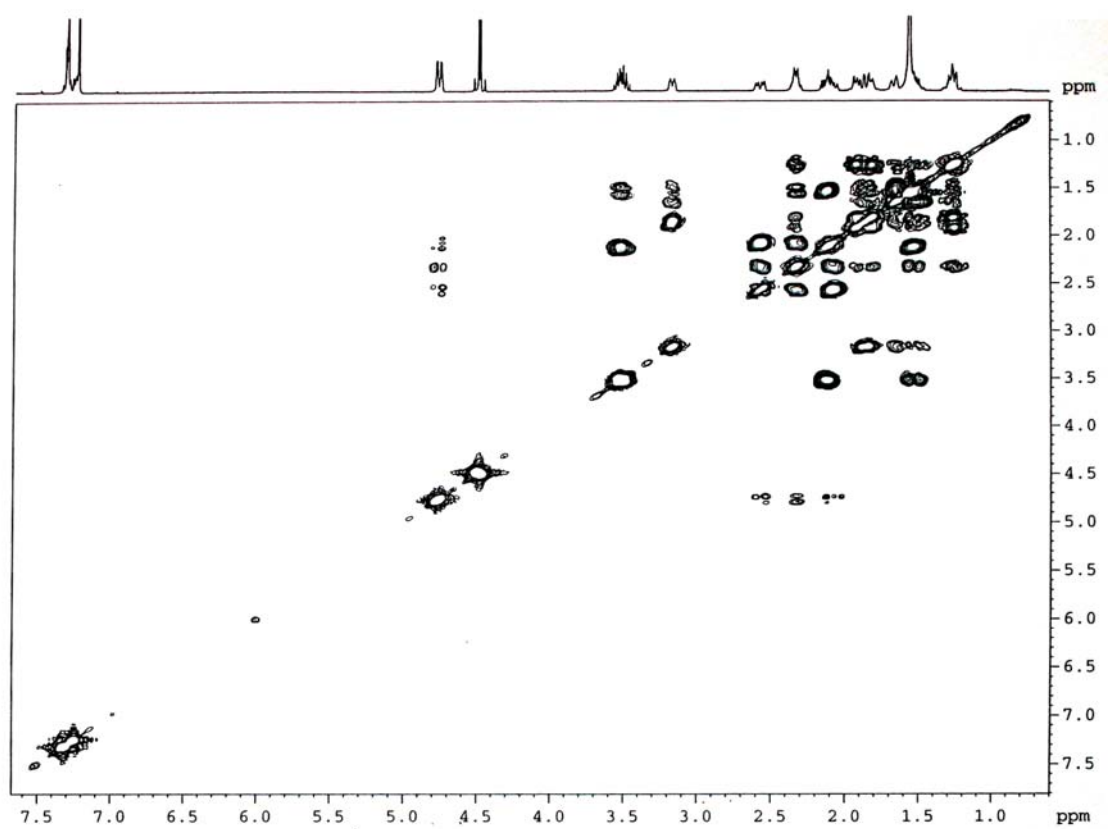
<sup>1</sup>H-RMN (250 MHz, CDCl<sub>3</sub>) de 21



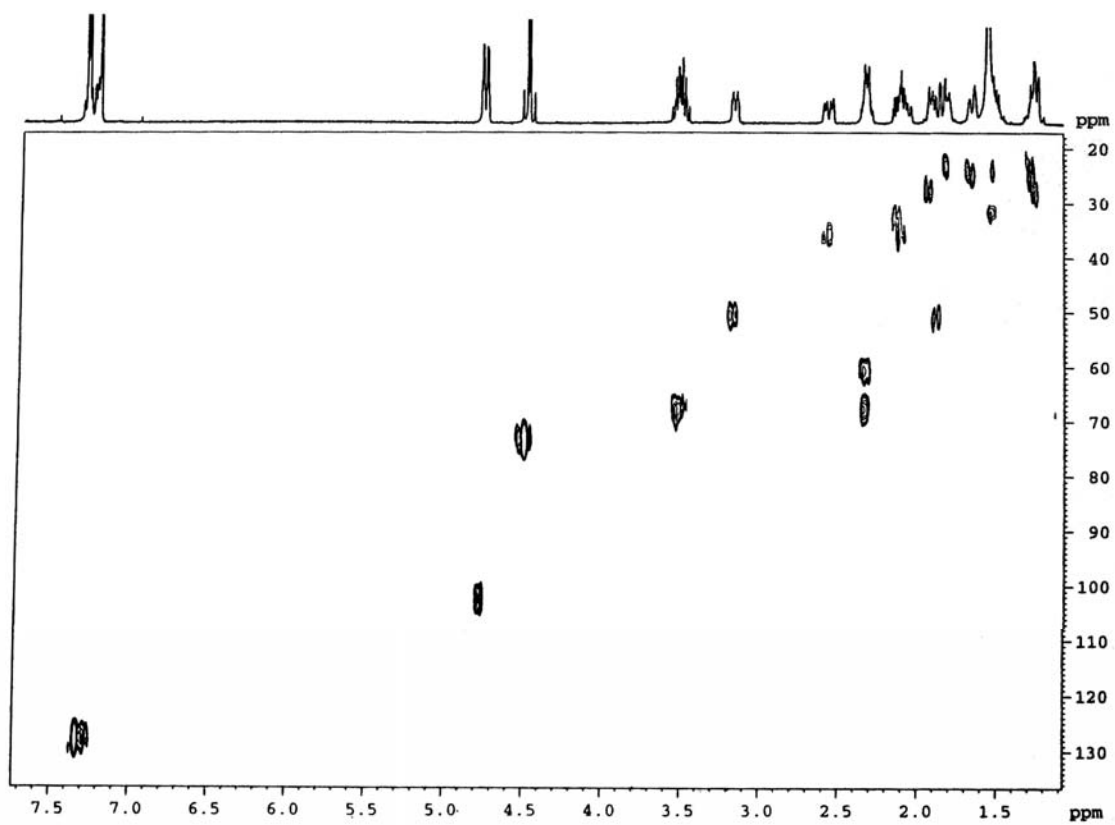
<sup>13</sup>C-RMN (62.5 MHz, CDCl<sub>3</sub>) de 21



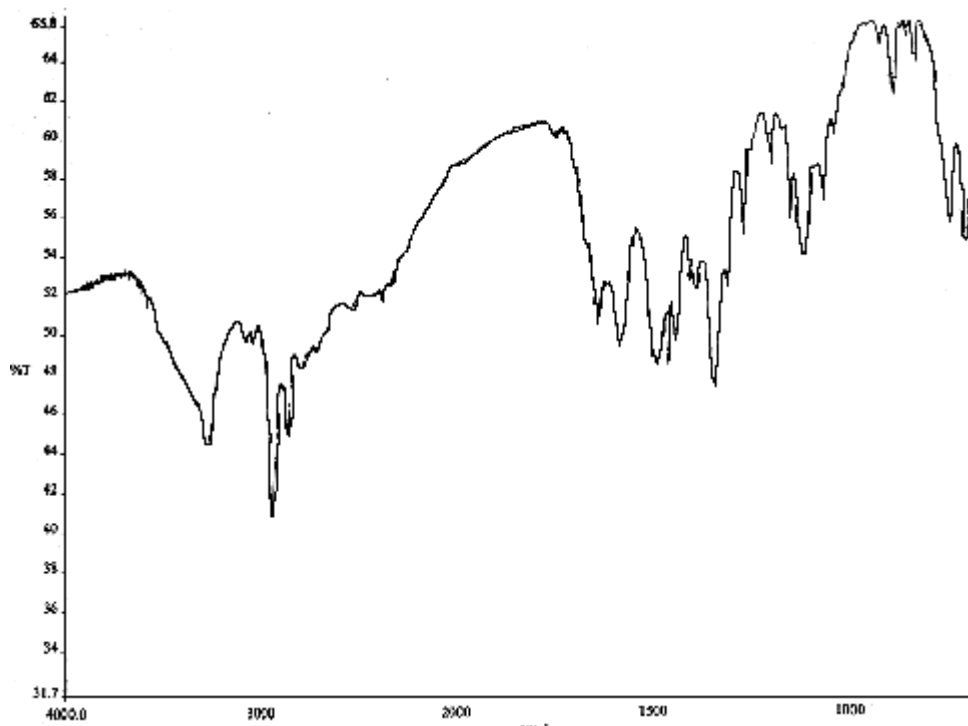
DEPT (62.5 MHz,  $\text{CDCl}_3$ ) de 21



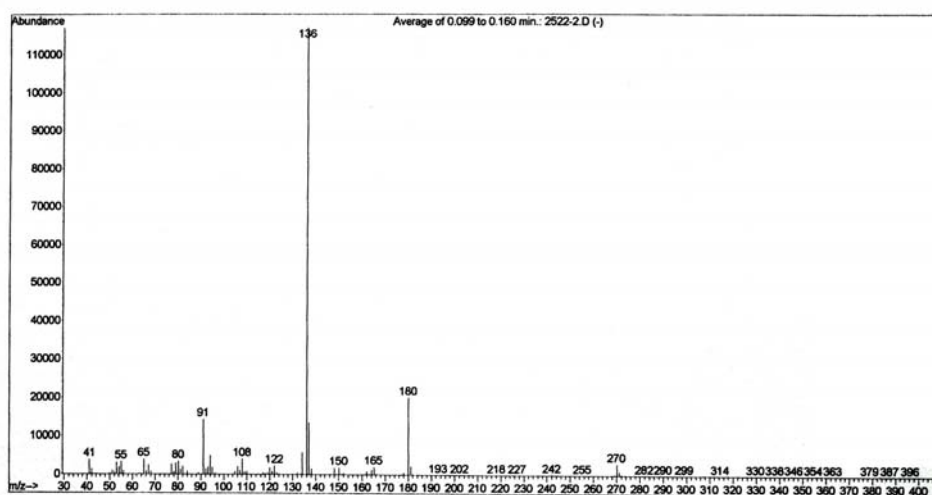
COSY (250 MHz,  $\text{CDCl}_3$ ) de 21



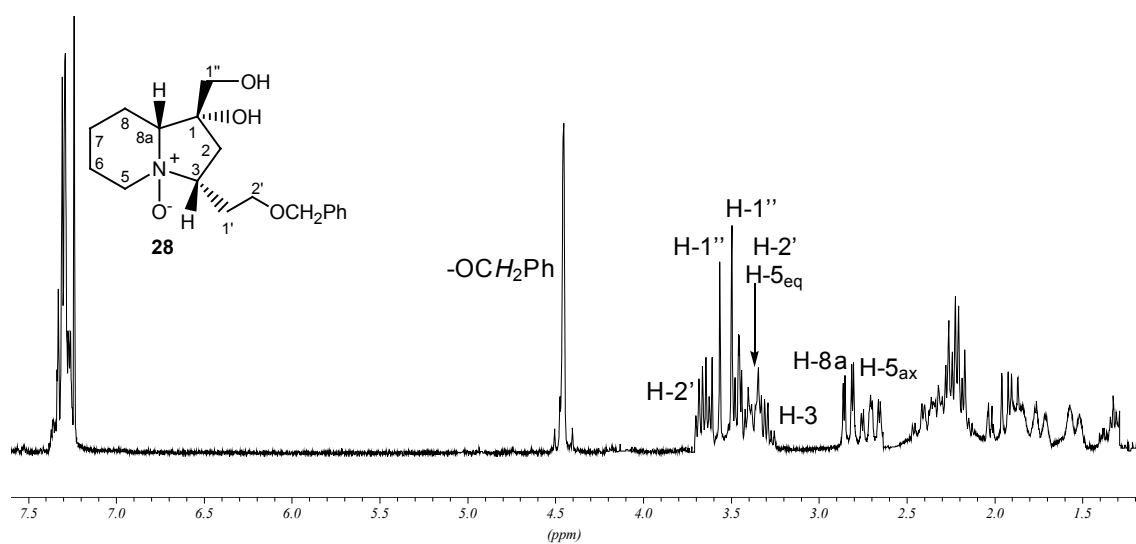
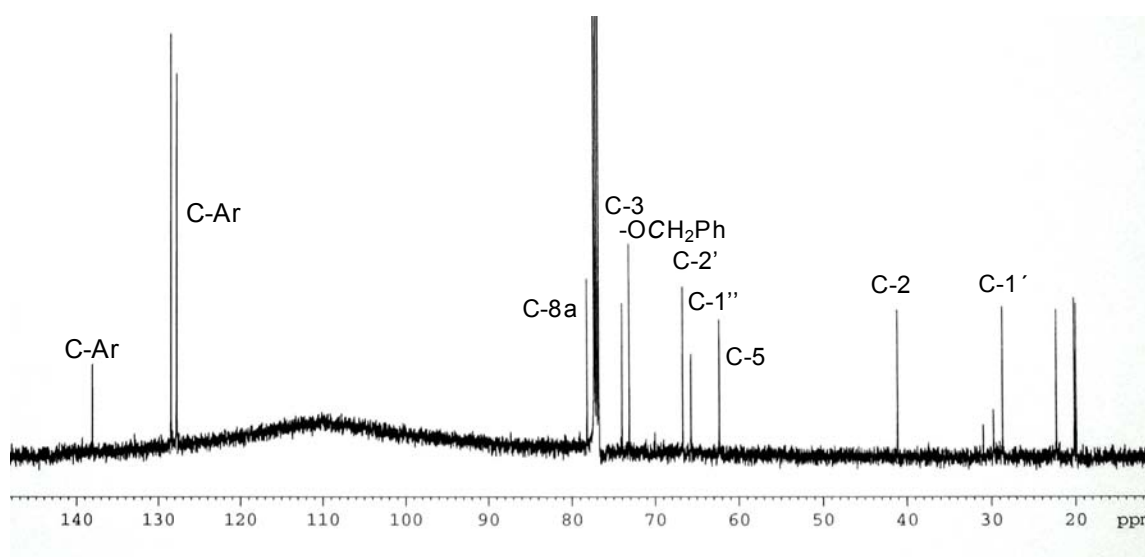
Correlació  $^1\text{H}/^{13}\text{C}$  (250 MHz,  $\text{CDCl}_3$ ) de 21

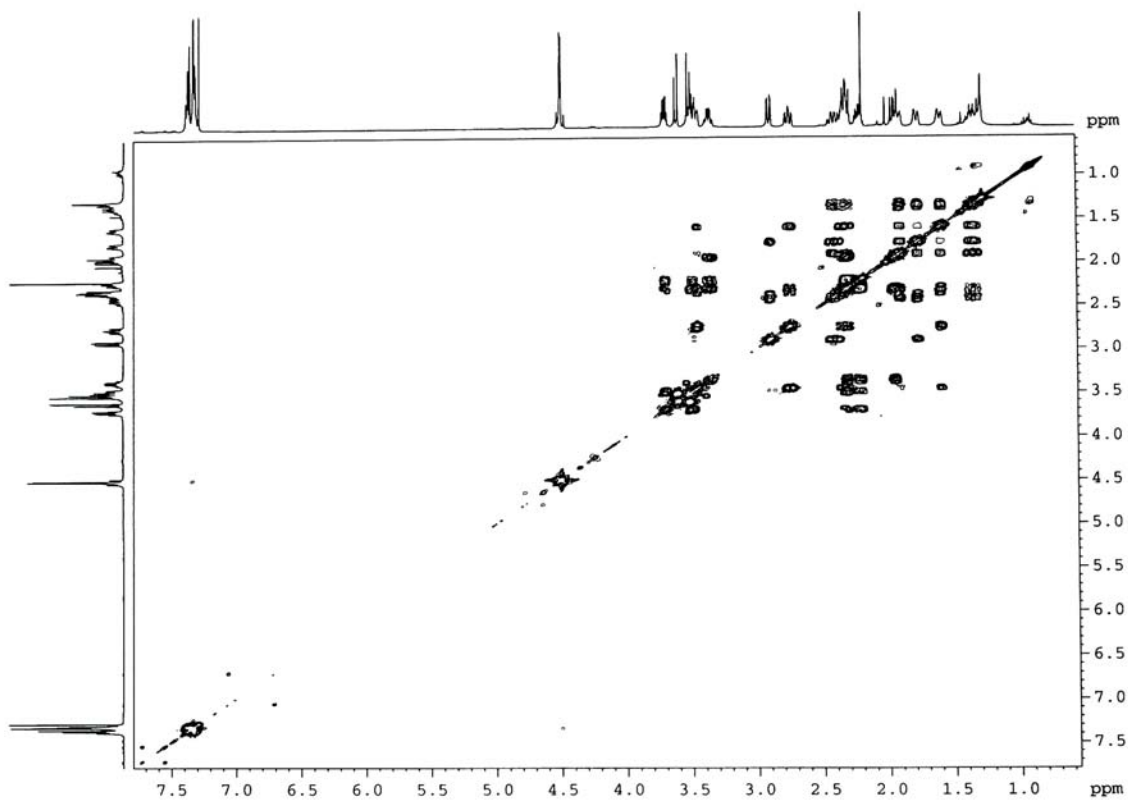


IR (film) de 21

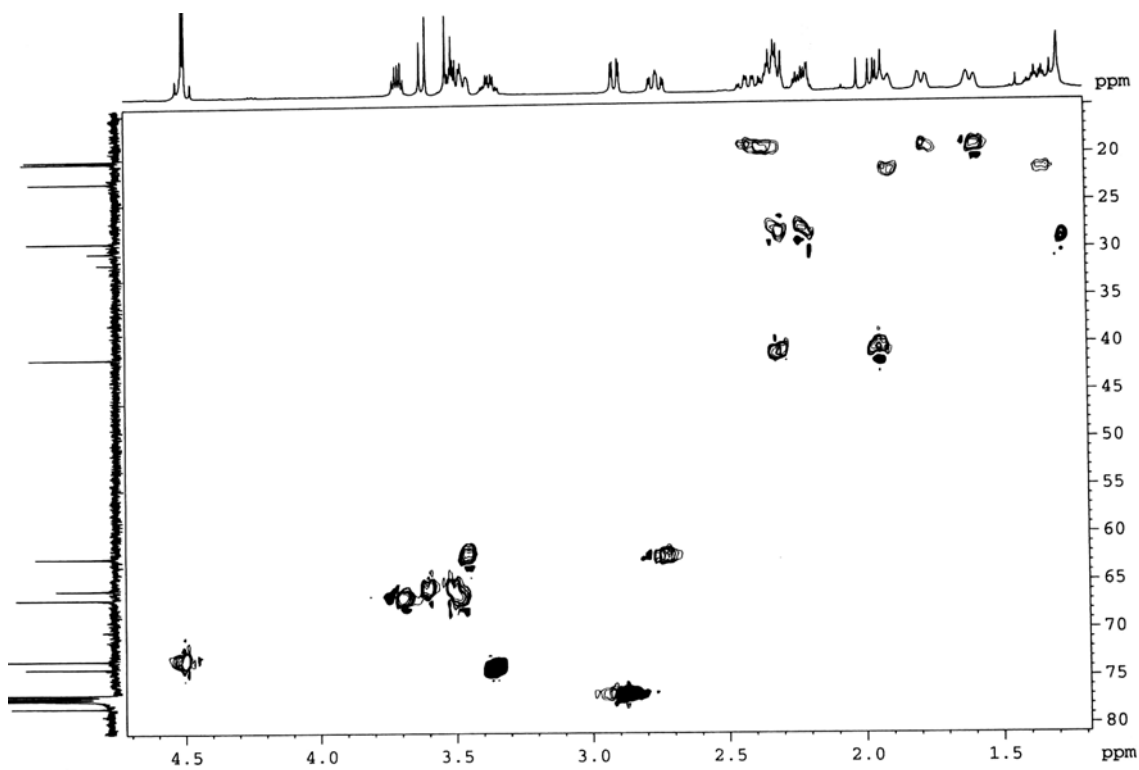


EM de 21

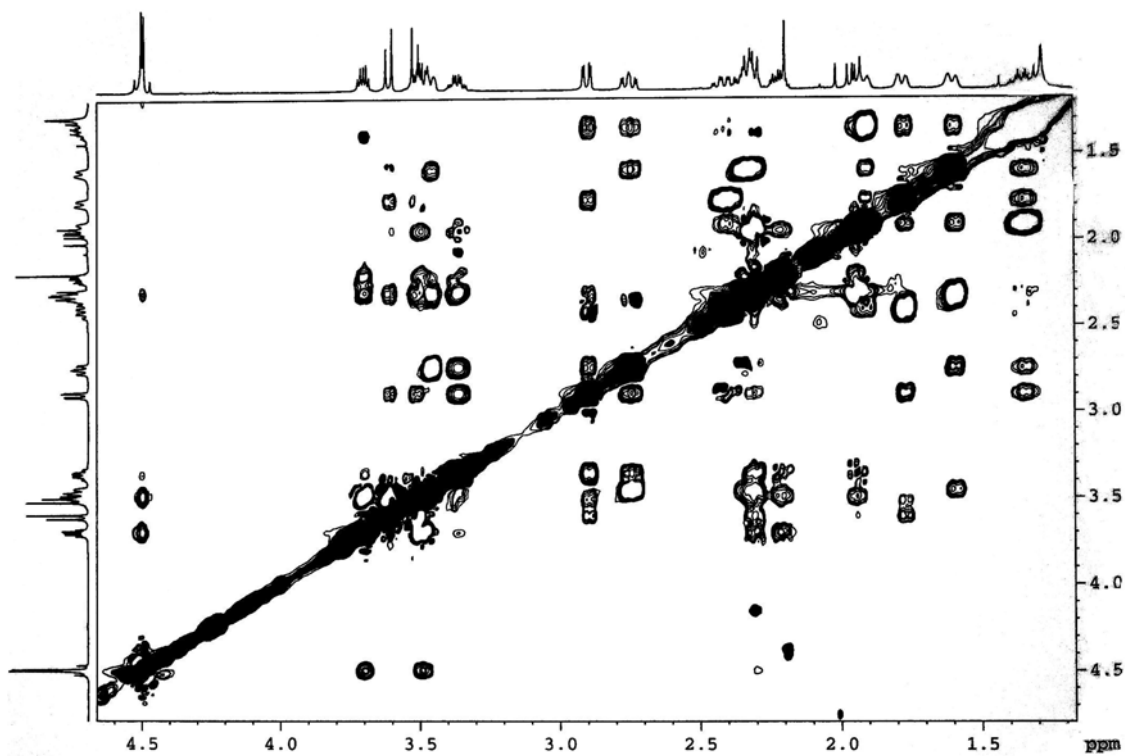
 $^1\text{H-RMN}$  (400 MHz,  $\text{CDCl}_3$ ) de 28 $^{13}\text{C-RMN}$  (100 MHz,  $\text{CDCl}_3$ ) de 28



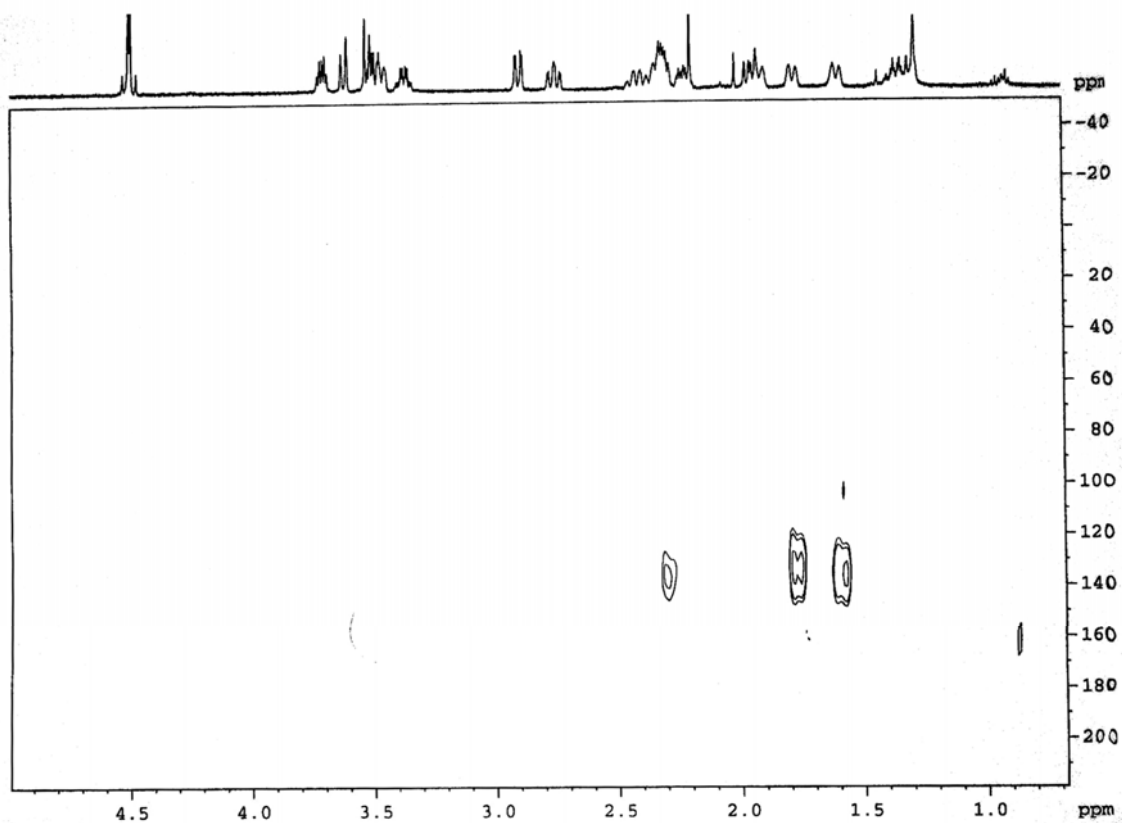
**COSY (400 MHz, CDCl<sub>3</sub>) de 28**



**Correlació <sup>1</sup>H/<sup>13</sup>C (400 MHz, CDCl<sub>3</sub>) de 28**



NOESY (400 MHz,  $\text{CDCl}_3$ ) de 28



N GHNMQC (400 MHz,  $\text{CDCl}_3$ ) de 28

