

# Síntesis y caracterización de un sistema aceptor-dador-aceptor basado en perilendiimida-ftalocianina de silicio-C<sub>60</sub> como análogo fotosintético natural

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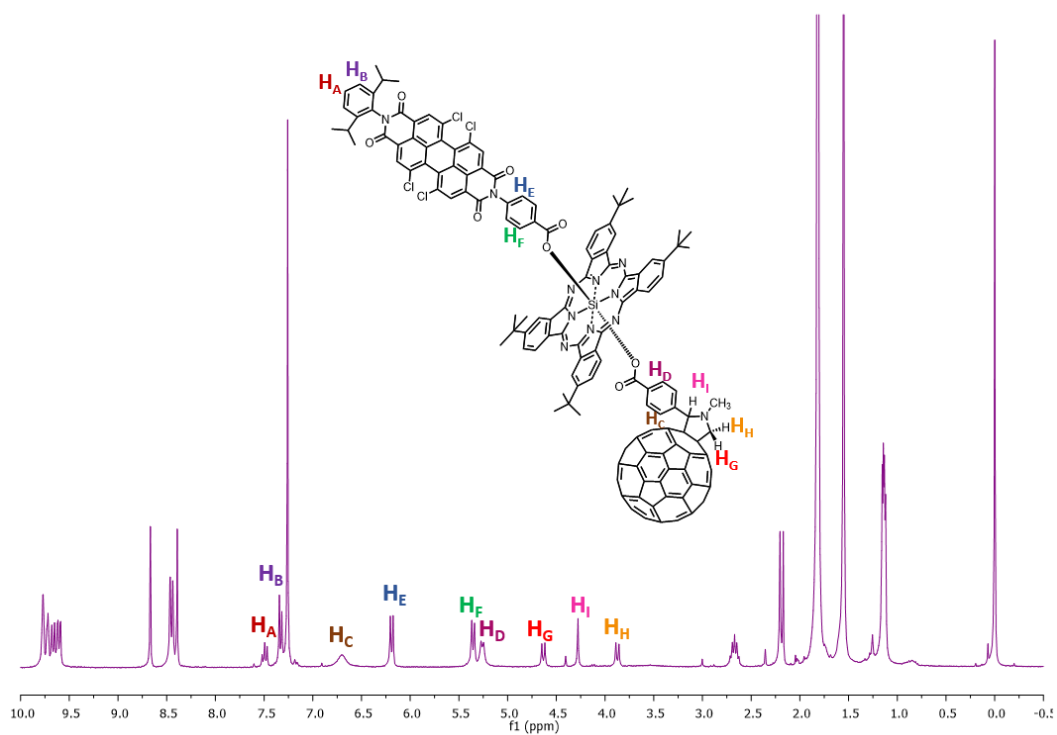


Figura 1. Espectro de  $^1\text{H-NMR}$  de PDI-SiPc-C<sub>60</sub> 1 (300 MHz, CDCl<sub>3</sub>, 25 °C).

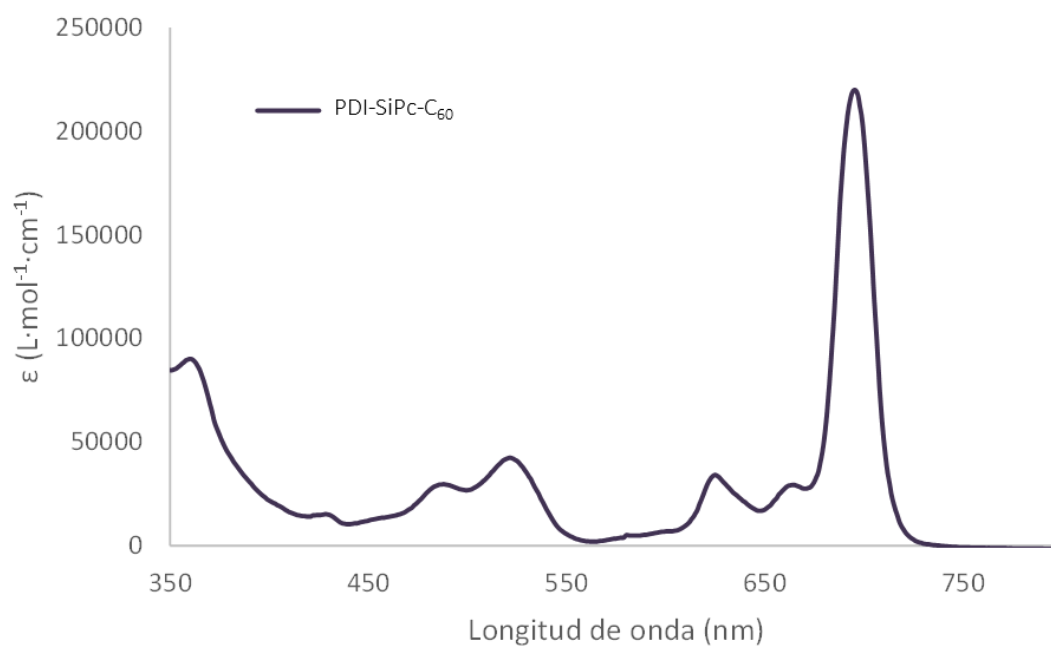


Figura 2: Espectro de UV-vis de PDI-SiPc-C<sub>60</sub> 1 (CHCl<sub>3</sub>).

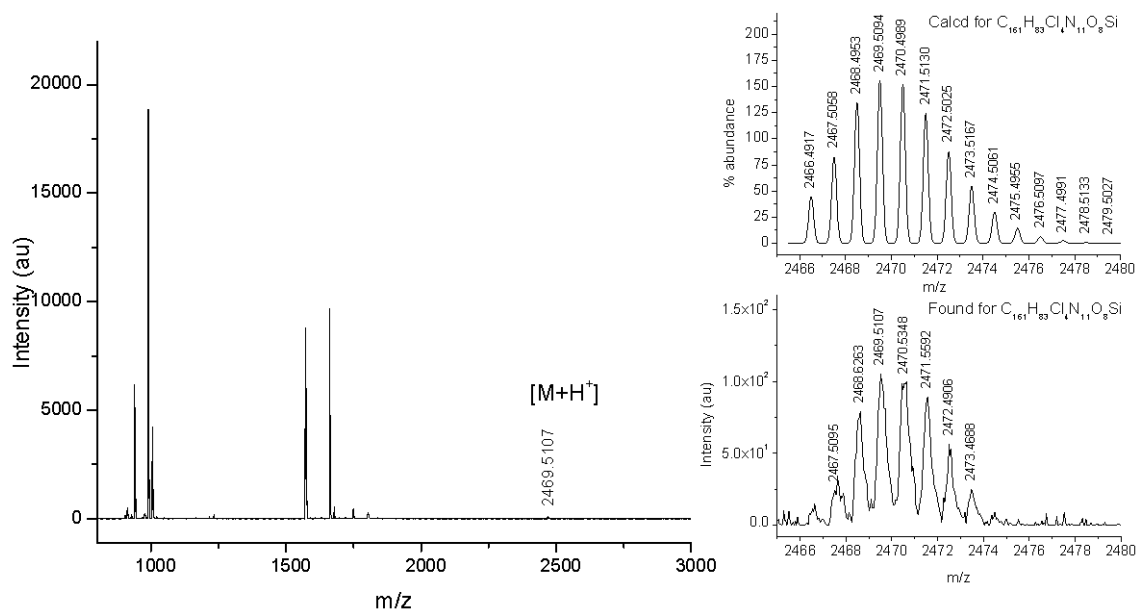


Figura 3: Espectro de HR-MALDI-TOF de PDI-SiPc-C<sub>60</sub> 1 (modo positivo).

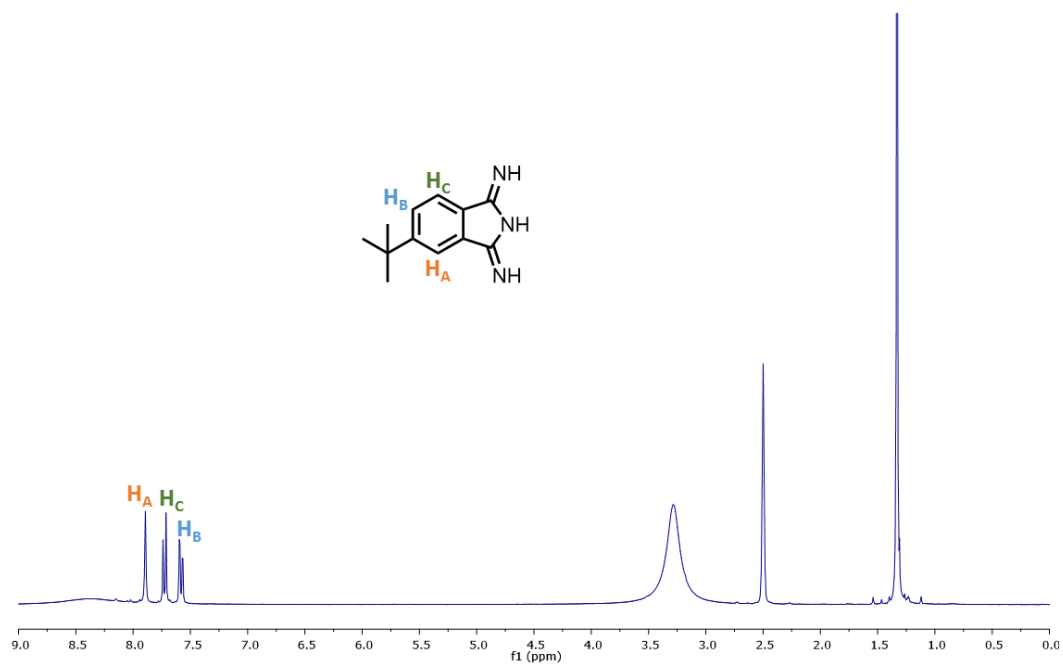


Figura 4. Espectro de <sup>1</sup>H-RMN de 2 (300 MHz, DMSO, 25 °C).

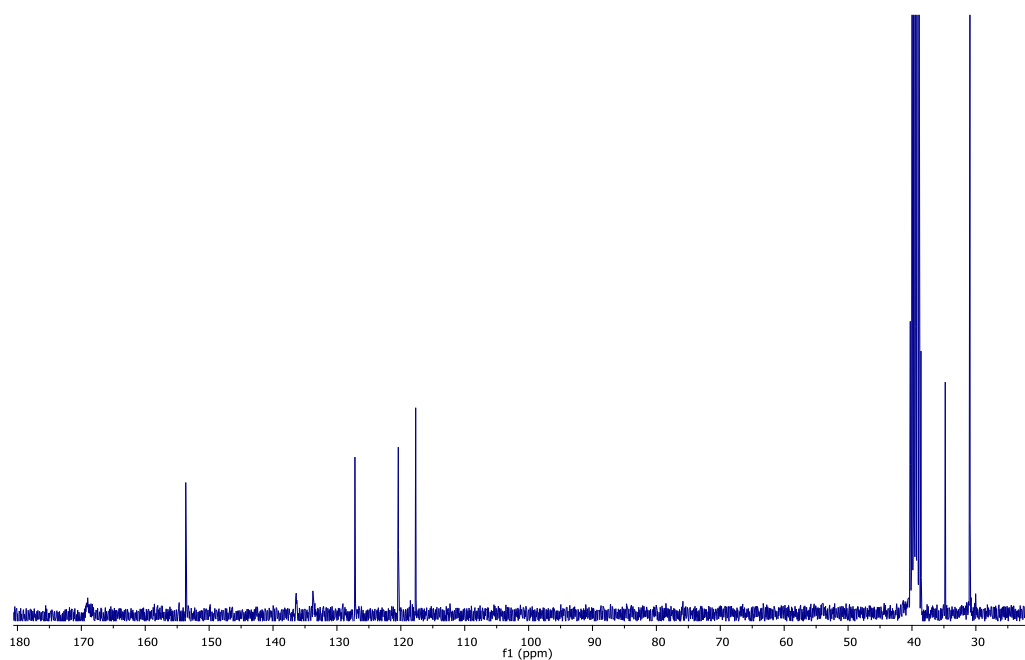


Figura 5. Espectro de  $^{13}\text{C}$ -RMN de 2 (75 MHz, DMSO, 25 °C).

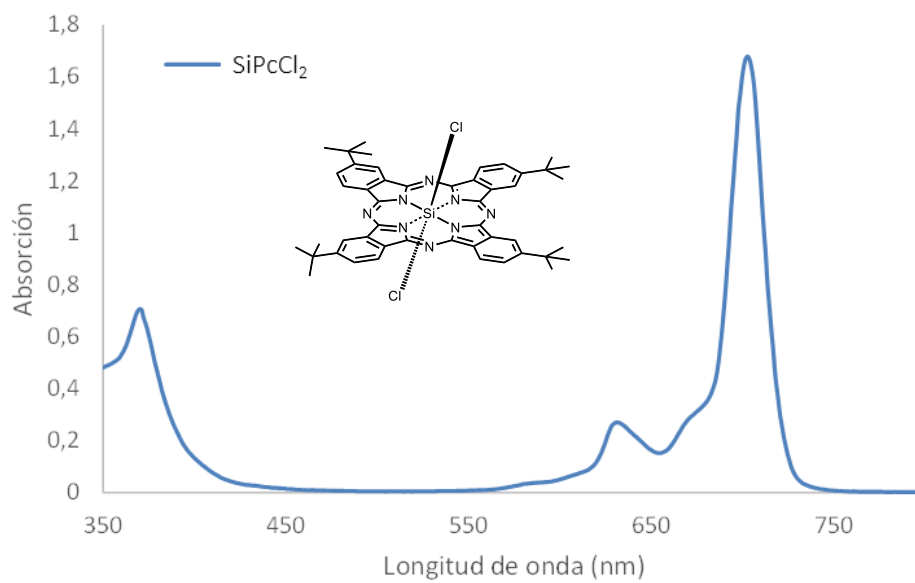


Figura 6. Espectro de UV-vis de SiPcCl<sub>2</sub> 3 (CHCl<sub>3</sub>).

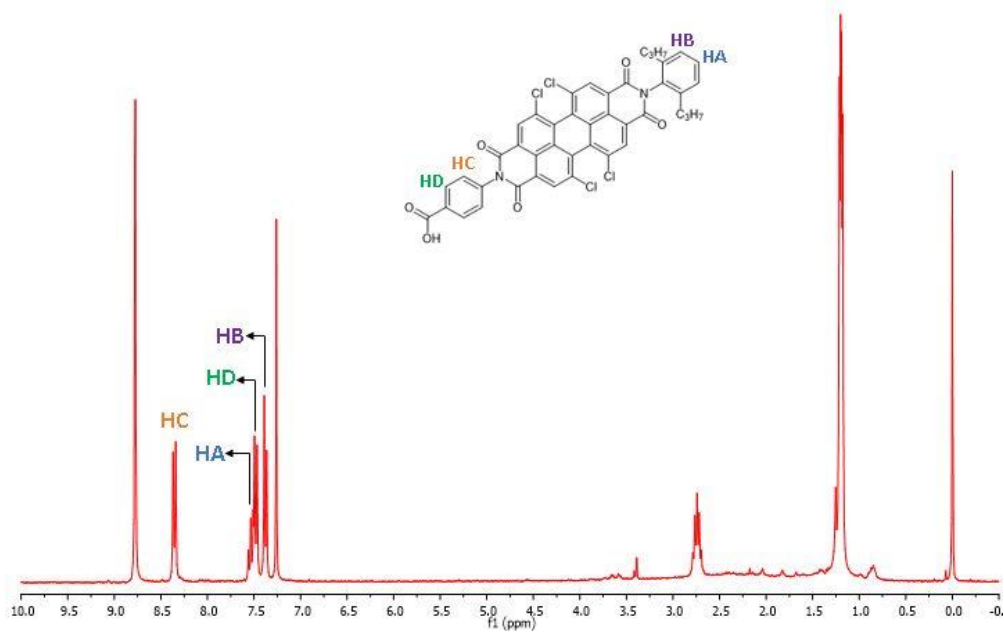


Figura 7. Espectro de  $^1\text{H-RMN}$  de PDICO<sub>2</sub>H 4 (300 MHz, CDCl<sub>3</sub>, 25 °C).

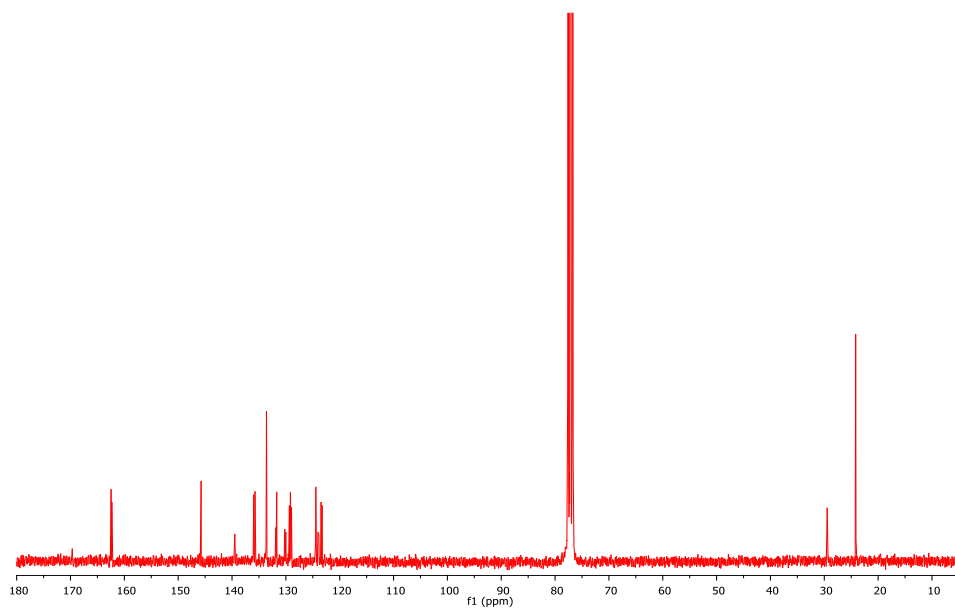


Figura 8. Espectro de  $^{13}\text{C-RMN}$  de PDICO<sub>2</sub>H 4 (75 MHz, CDCl<sub>3</sub>, 25 °C).

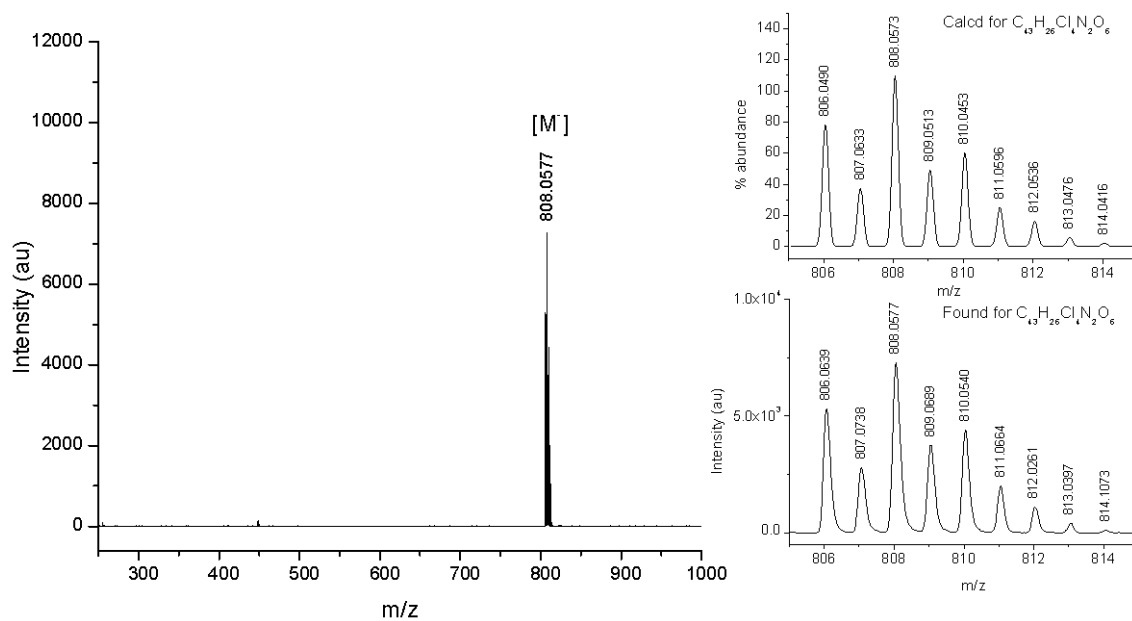


Figura 9. Espectro de HR-MALDI-TOF de PDICO<sub>2</sub>H 4 (modo negativo).

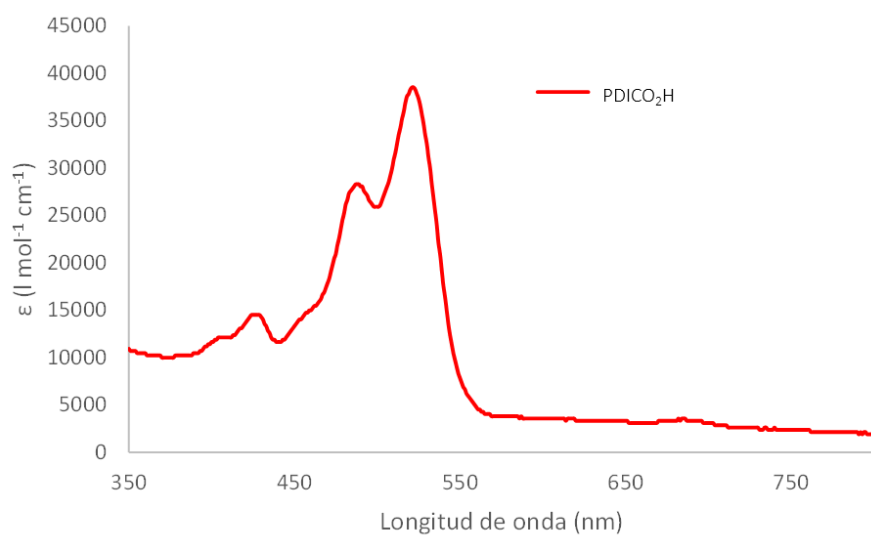


Figura 10. Espectro de UV-vis de PDICO<sub>2</sub>H 4 (CHCl<sub>3</sub>).

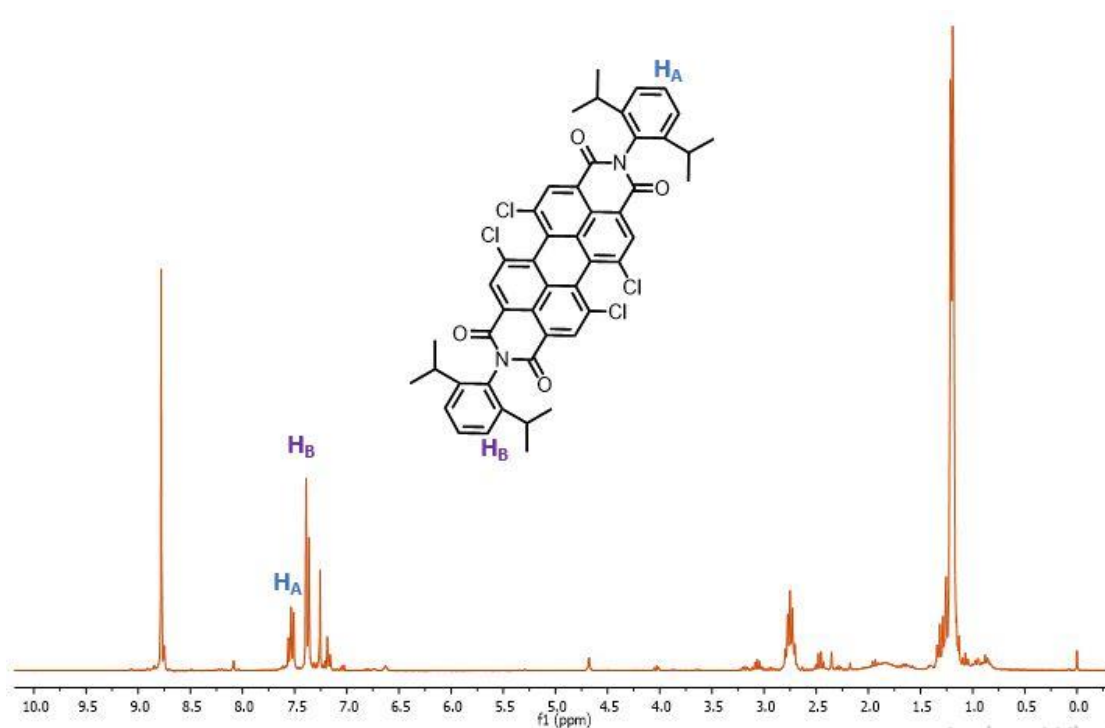


Figura 11. Espectro de  $^1\text{H-RMN}$  de PDI 6 (300 MHz,  $\text{CDCl}_3$ , 25 °C).

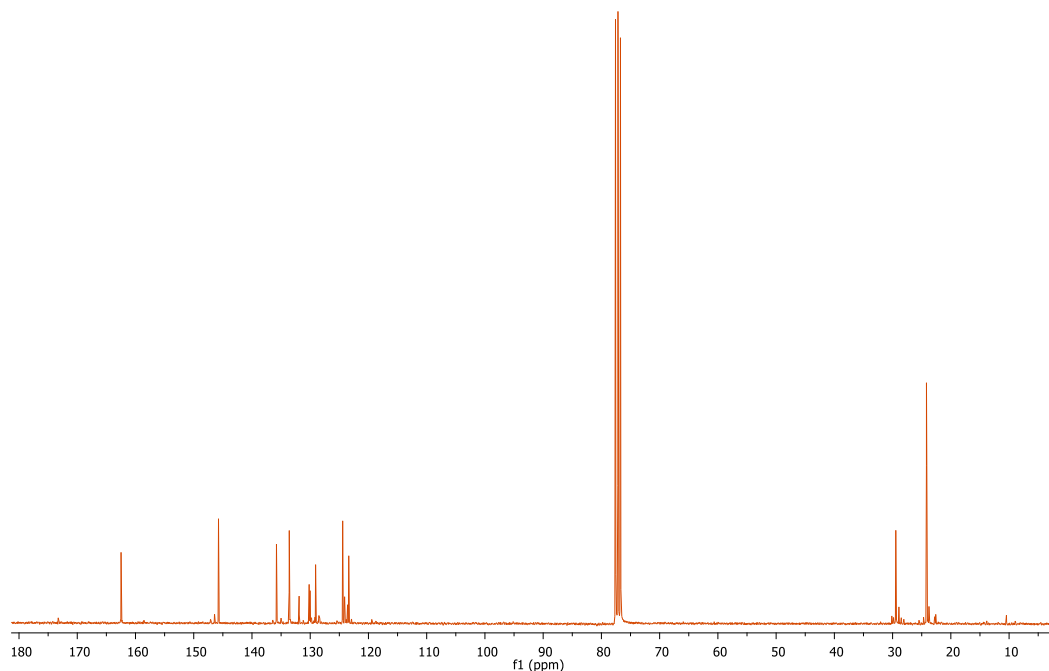


Figura 12. Espectro de  $^{13}\text{C-RMN}$  de PDI 6 (75 MHz,  $\text{CDCl}_3$ , 25 °C).

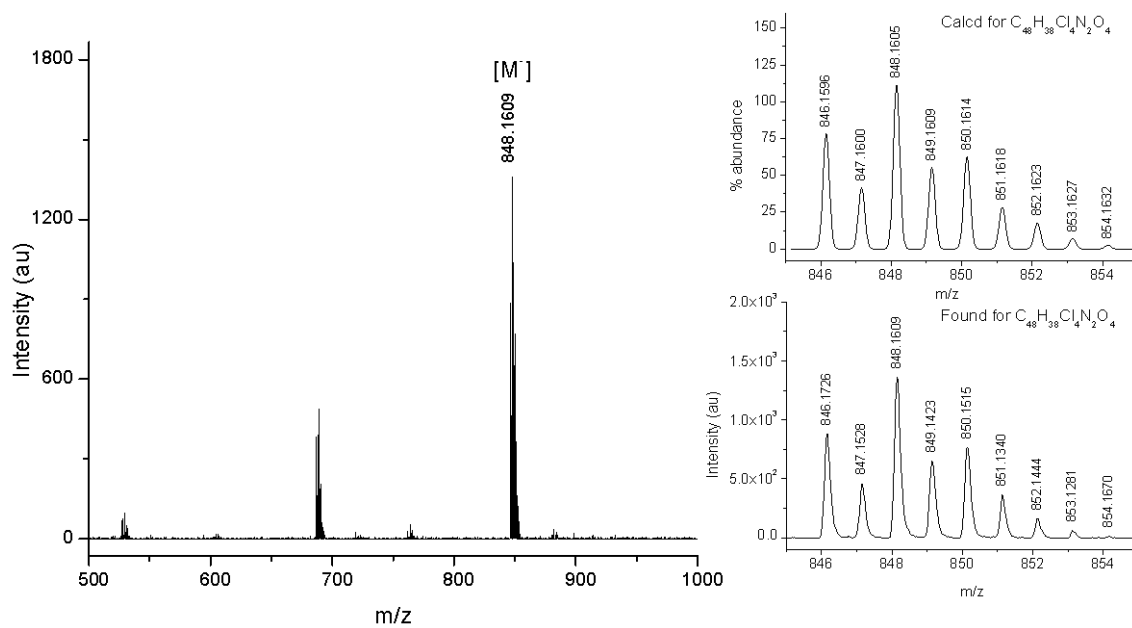
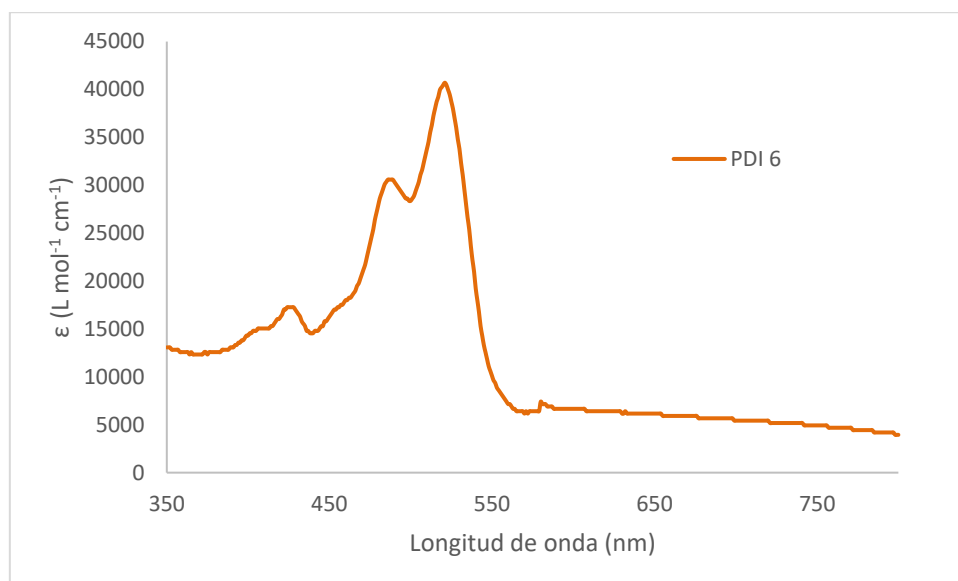


Figura 13. Espectro de HR-MALDI-TOF de PDI 6 (modo negativo).

Figura 14. Espectro de UV-vis de PDI 6 (CHCl<sub>3</sub>).



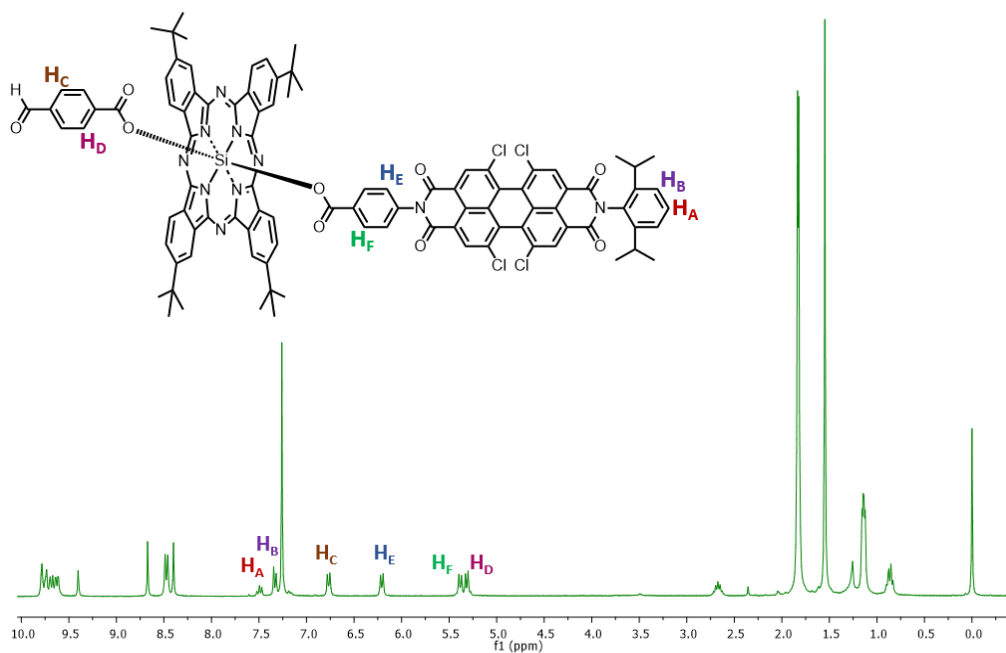


Figura 15. Espectro de  $^1\text{H}$ -RMN de PDI-SiPc 5 (300 MHz,  $\text{CDCl}_3$ , 25  $^\circ\text{C}$ ).

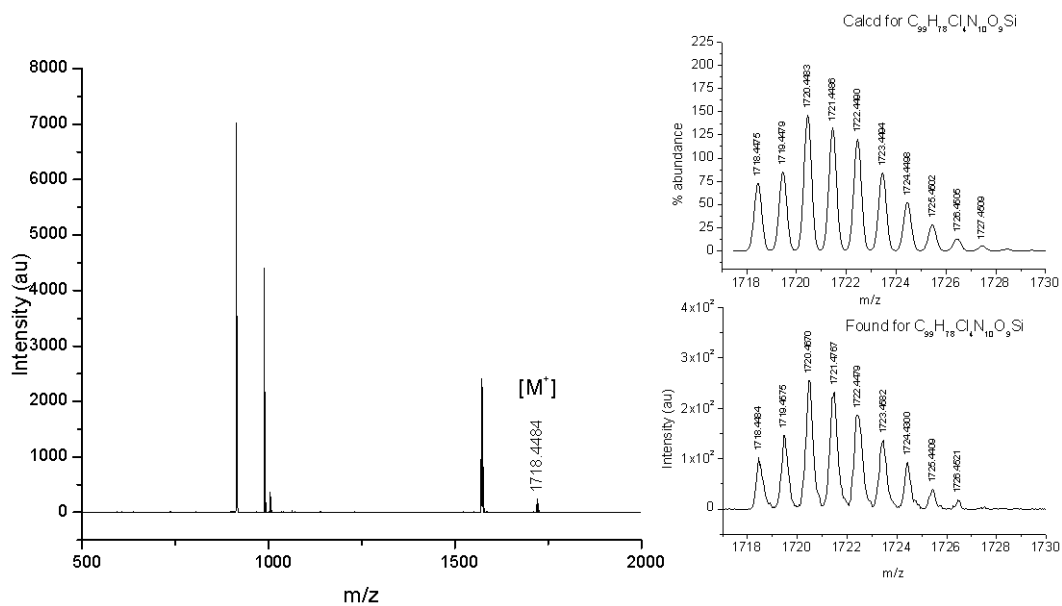


Figura 16. Espectro de HR-MALDI-TOF de PDI-SiPc 5 (modo positivo).

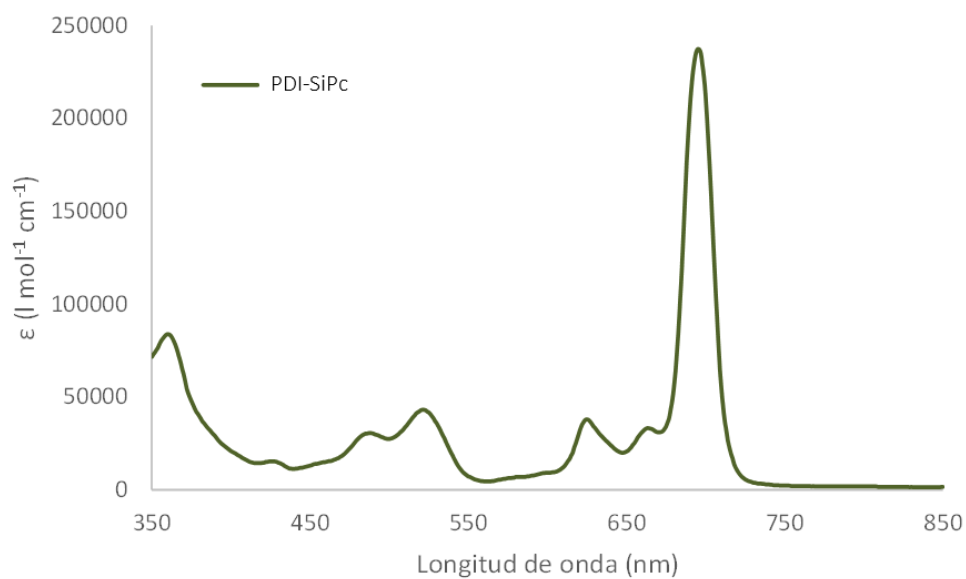


Figura 17. Espectro de UV-vis de PDI-SiPc 5 (CHCl<sub>3</sub>).

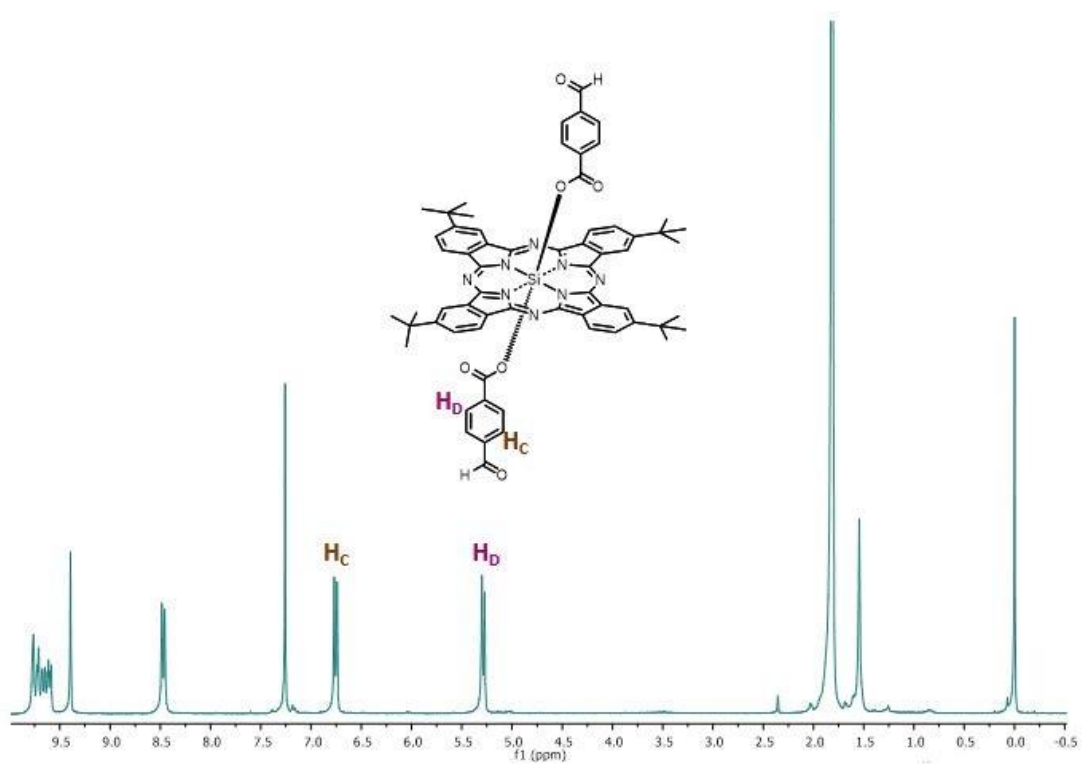


Figura 18. Espectro de <sup>1</sup>H-RMN de SiPc 8 (300 MHz, CDCl<sub>3</sub>, 25 °C).

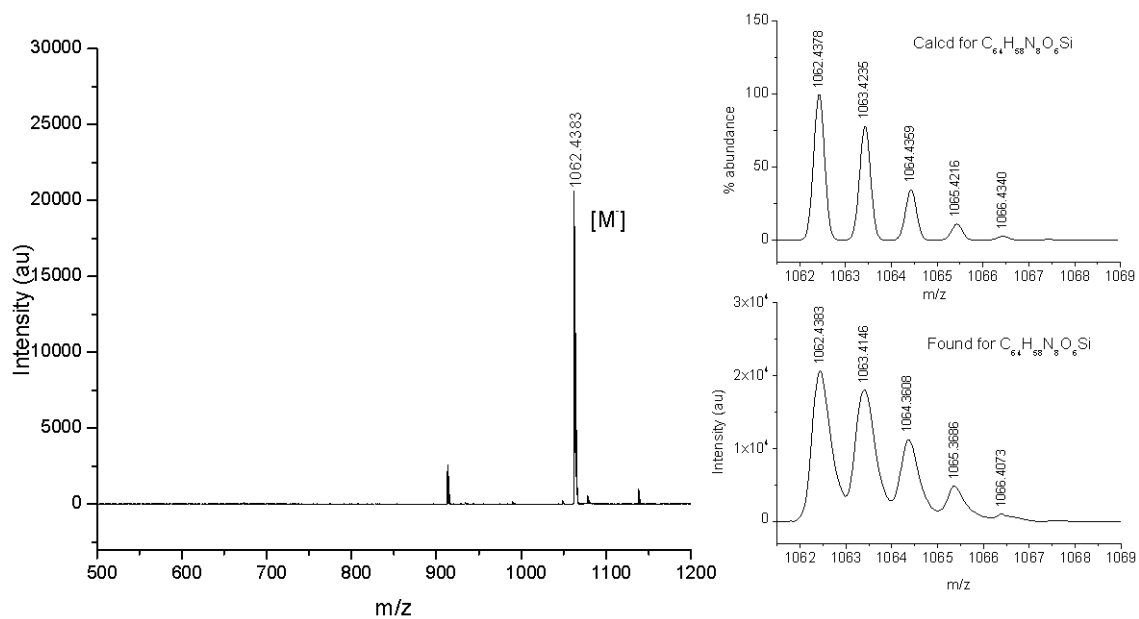
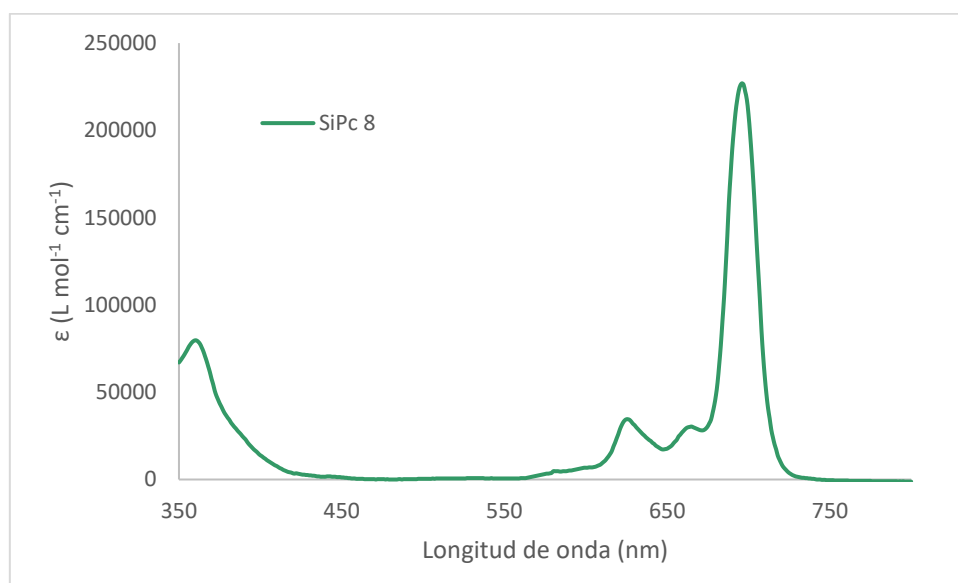


Figura 19. Espectro de HR-MALDI-TOF de SiPc 8 (modo negativo).

Figura 20. Espectro de UV-vis de SiPc 8 (CHCl<sub>3</sub>).

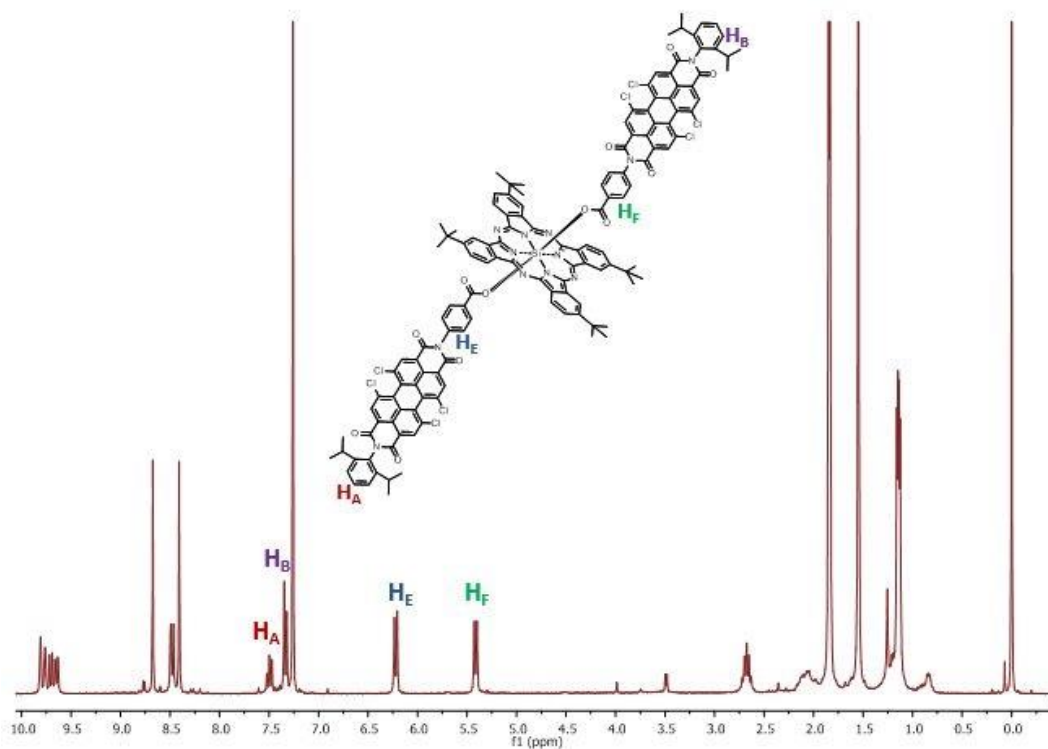


Figura 21. Espectro de  $^1\text{H}$ -RMN de SiPc 9 (300 MHz,  $\text{CDCl}_3$ , 25 °C).

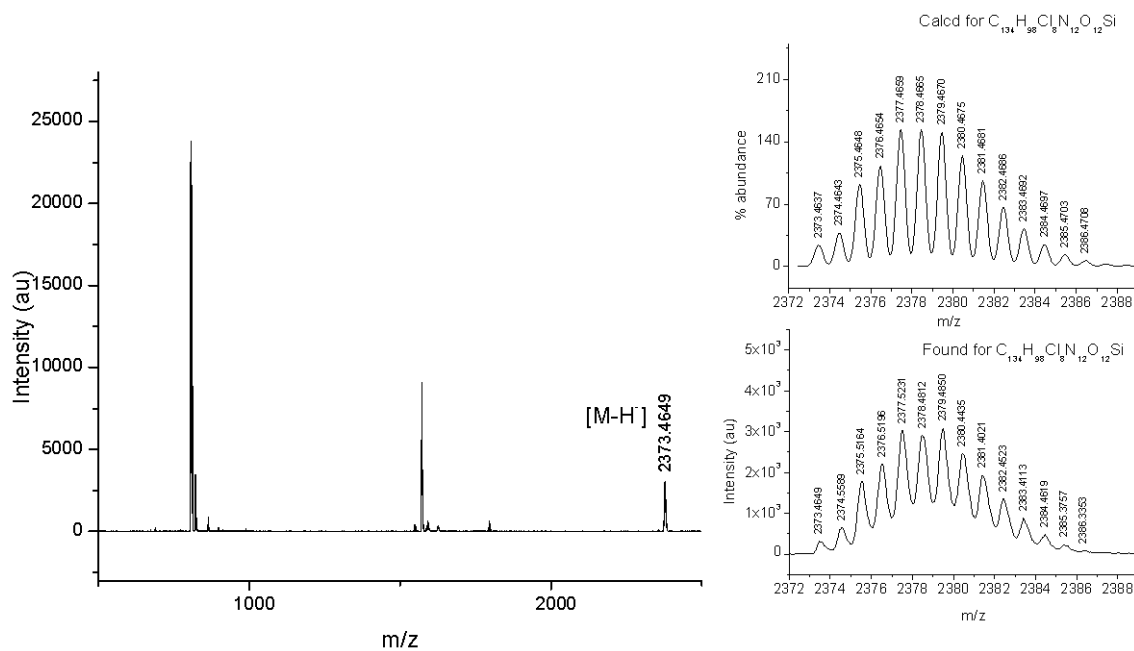


Figura 22. Espectro de HR-MALDI-TOF de SiPc 9 (modo negativo).

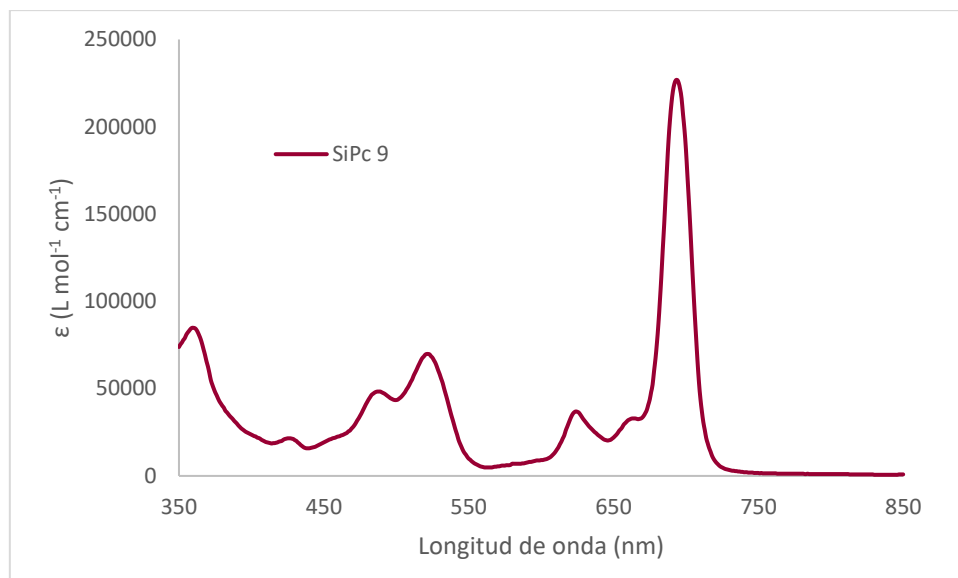


Figura 23. Espectro de UV-vis de SiPc 9 ( $\text{CHCl}_3$ ).

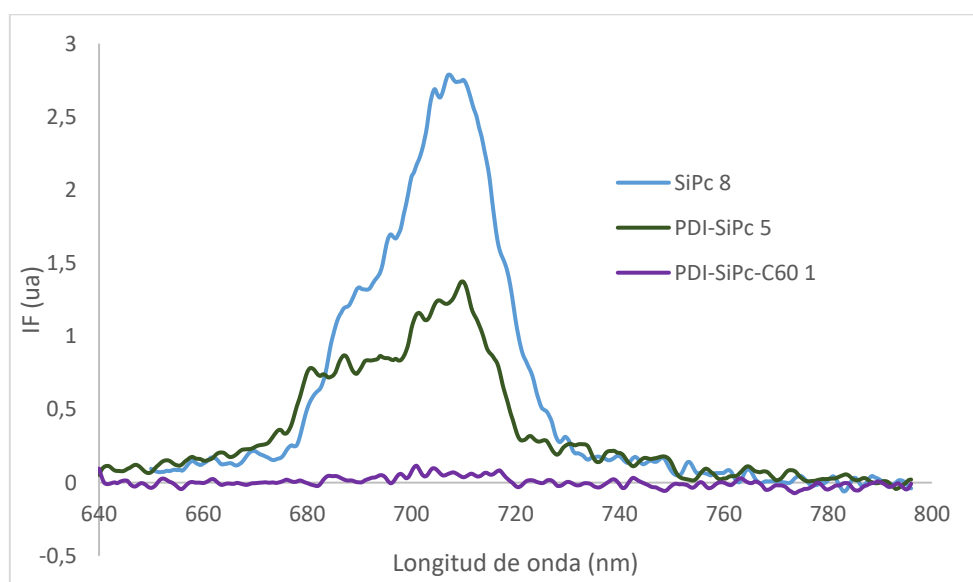


Figura 24. Espectro de fluorescencia ( $\text{CHCl}_3$ ) al irradiar a 625 nm de SiPc 8, PDI-SiPc 5 y PDI-SiPc-C<sub>60</sub> 1.

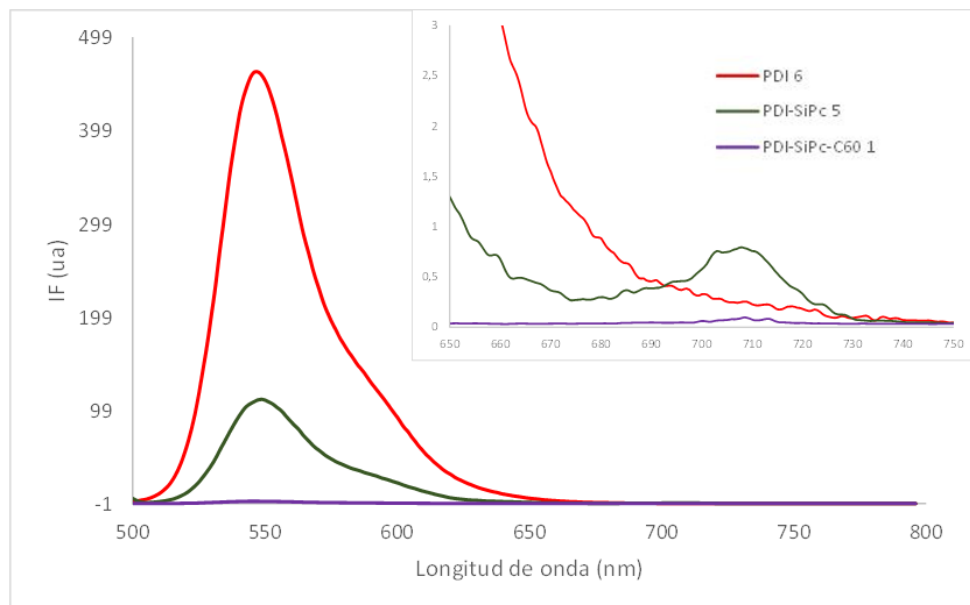


Figura 25. Espectro de fluorescencia ( $\text{CHCl}_3$ ) al irradiar a 487 nm de PDI 6, PDI-SiPc 5 y PDI-SiPc- $\text{C}_{60}$  1.

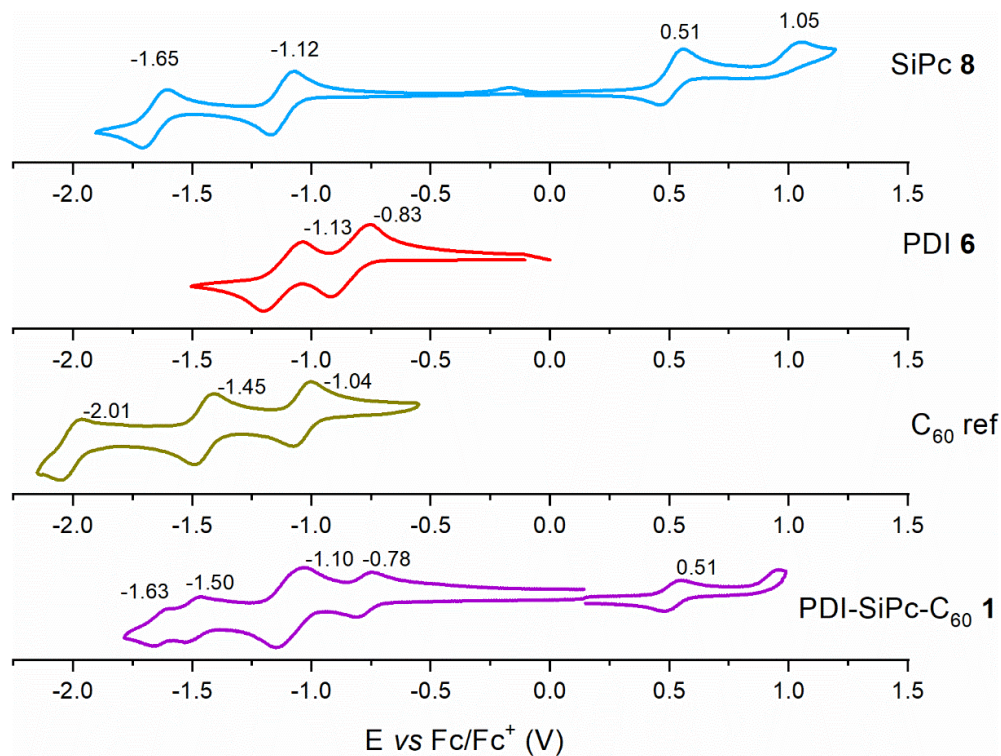


Figura 26. Voltamograma cíclico de SiPc 8, PDI 6,  $\text{C}_{60}$  ref y PDI-SiPc- $\text{C}_{60}$  1.