

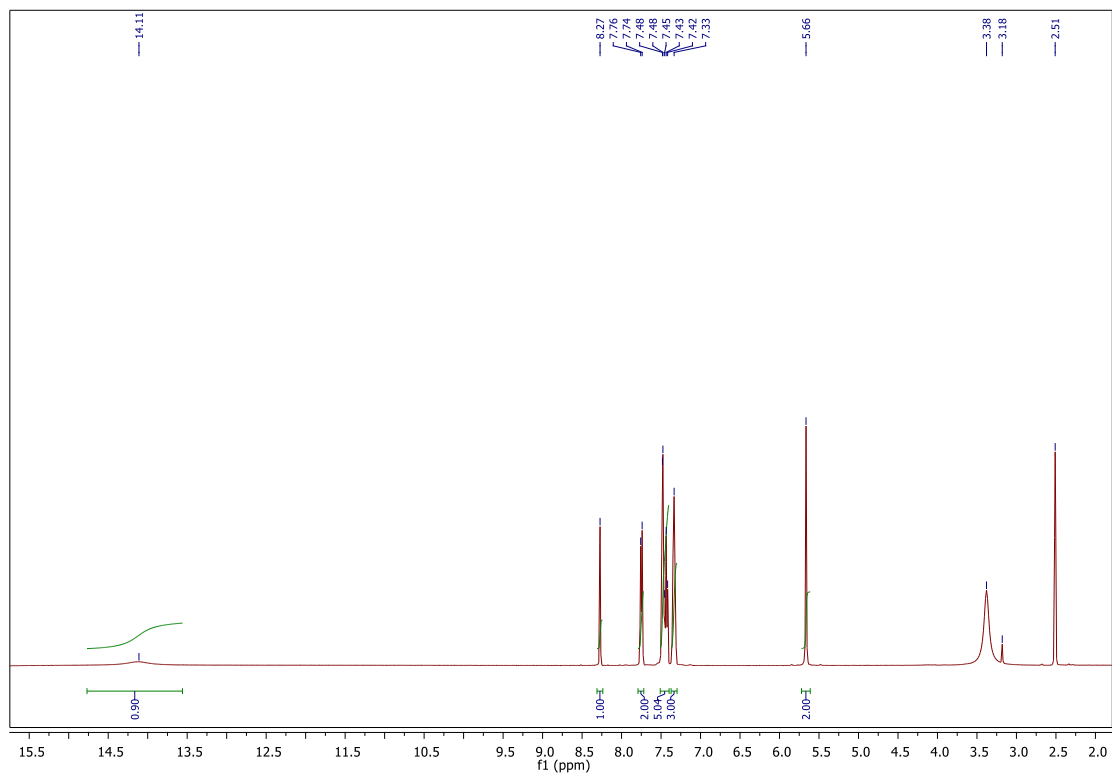
# *Supplementary Information*

## **Halting tumor progression *via* novel non-hydroxamate triazole-based Mannich bases MMP-2/9 inhibitors; rationale design, microwave assisted synthesis and biological evaluation**

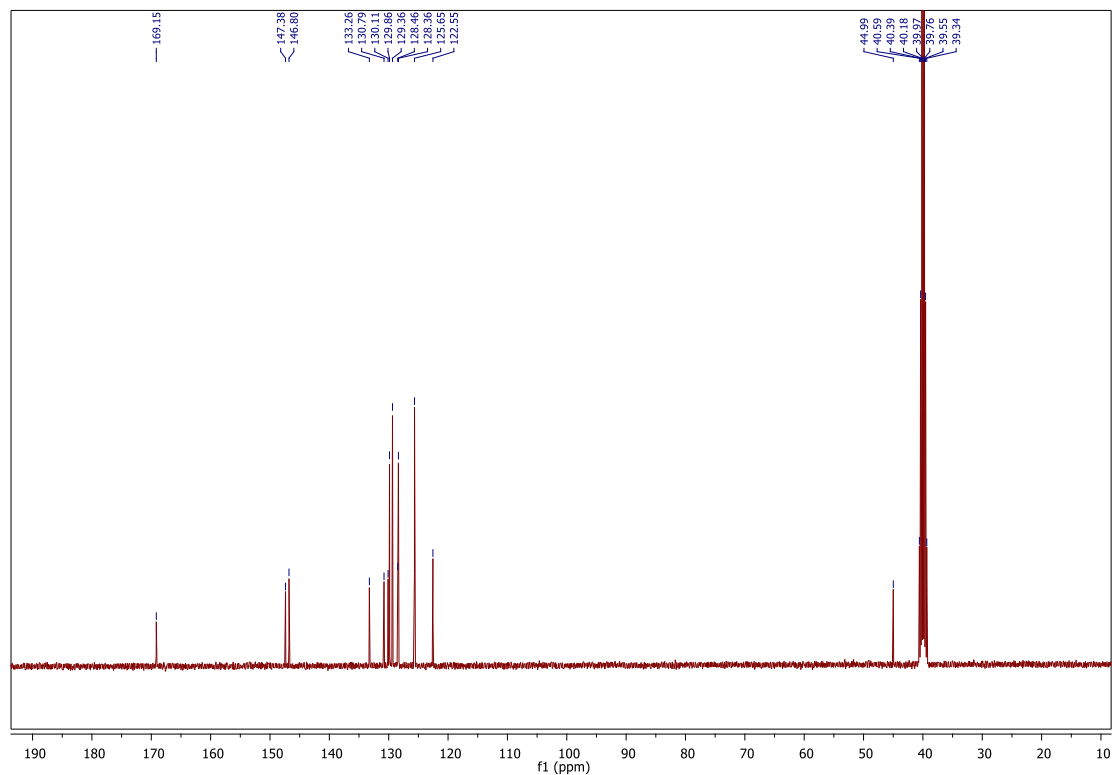
Fawzia Faleh Albelwi<sup>1</sup>, Mohamed Teleb<sup>2</sup>, Marwa M. Abu-Serie<sup>3</sup>, Mohamed Nabil Abd Al Moaty<sup>4</sup>, Mai S. Alsubaie<sup>4</sup>, Mohamed A. Zakaria<sup>4</sup>, Yeldey El Kilany<sup>4</sup>, Mohamed Reda Aouad<sup>1</sup>, Mohamed Hagar<sup>4,\*</sup> and Nadjat Rezki<sup>1,\*</sup>

- <sup>1.</sup> Department of Chemistry, Faculty of Science, Taibah University, Al-Madinah Al-Munawwarah 30002, Saudi Arabia
- <sup>2.</sup> Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Alexandria University, Alexandria, 21521, Egypt.
- <sup>3.</sup> Medical Biotechnology Department, Genetic Engineering and Biotechnology Research Institute, City of Scientific Research and Technological Applications (SRTA-City), Egypt
- <sup>4.</sup> Chemistry Department, Faculty of Science, Alexandria University, Alexandria 21321, Egypt

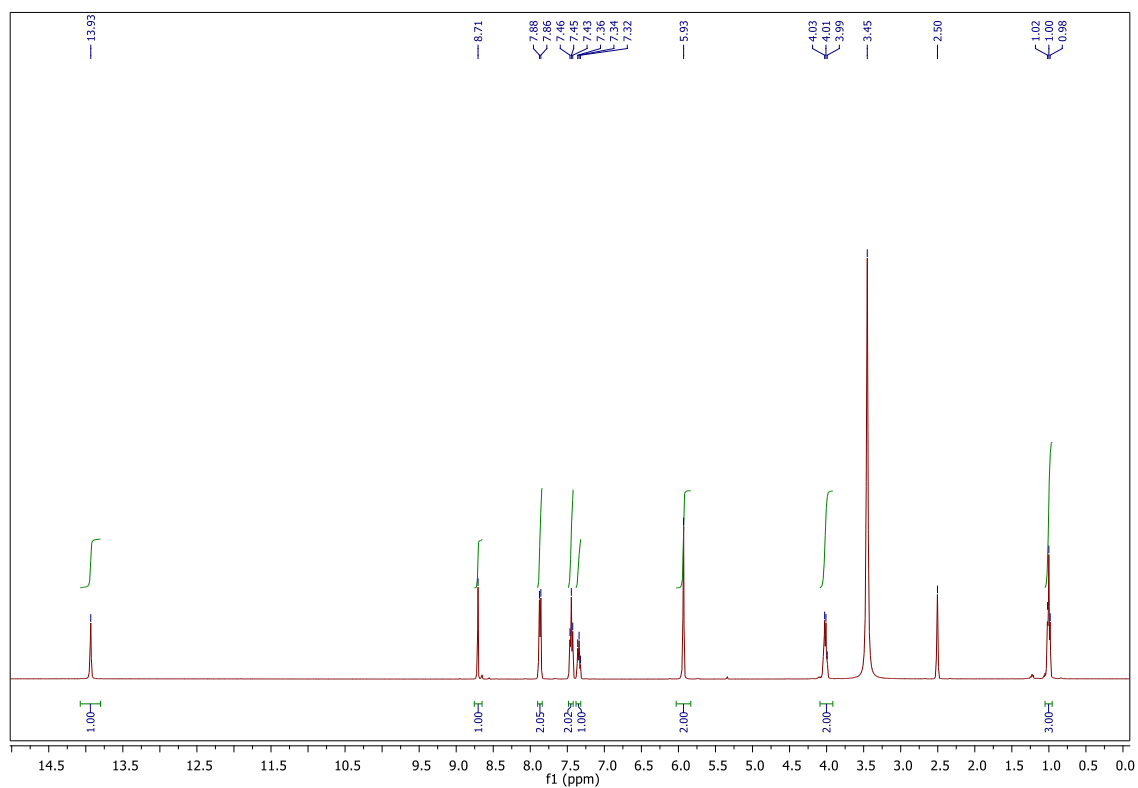
\*Correspondence: M.H.: [mohamedhaggar@gmail.com](mailto:mohamedhaggar@gmail.com); N.R.: [nadjetrezki@yahoo.fr](mailto:nadjetrezki@yahoo.fr)



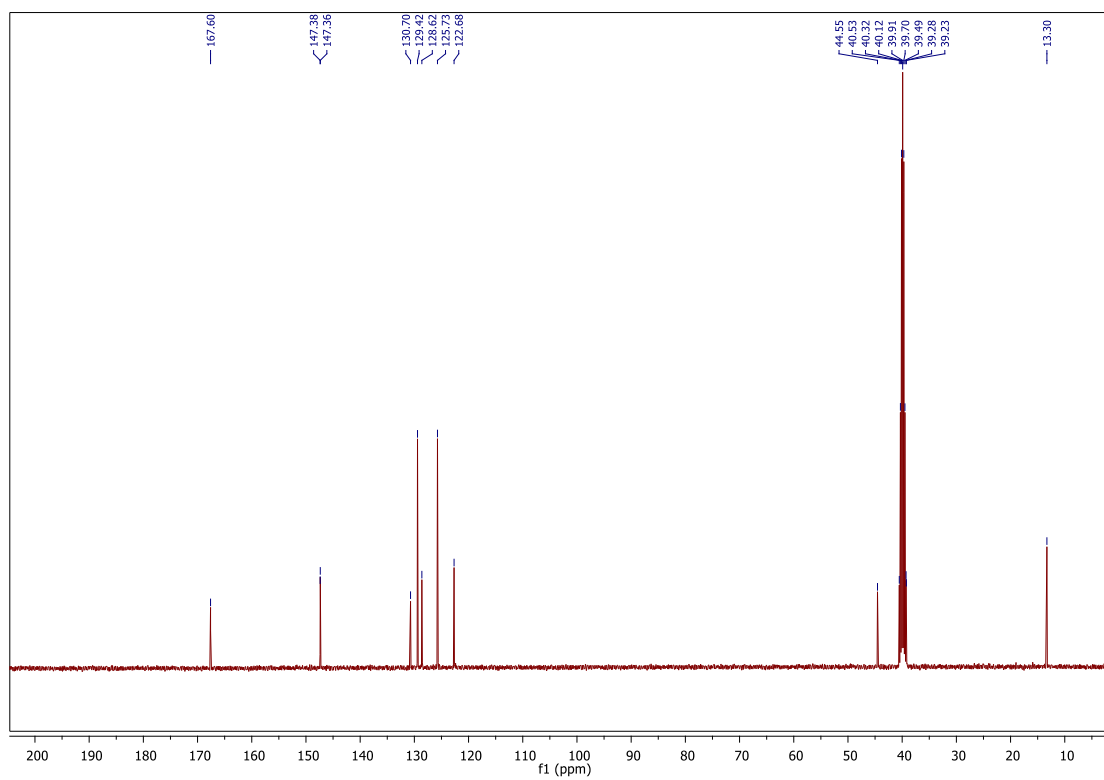
**Figure S1.** <sup>1</sup>H-NMR Spectrum of compound **7** (DMSO-*d*<sub>6</sub>, 400 MHz).



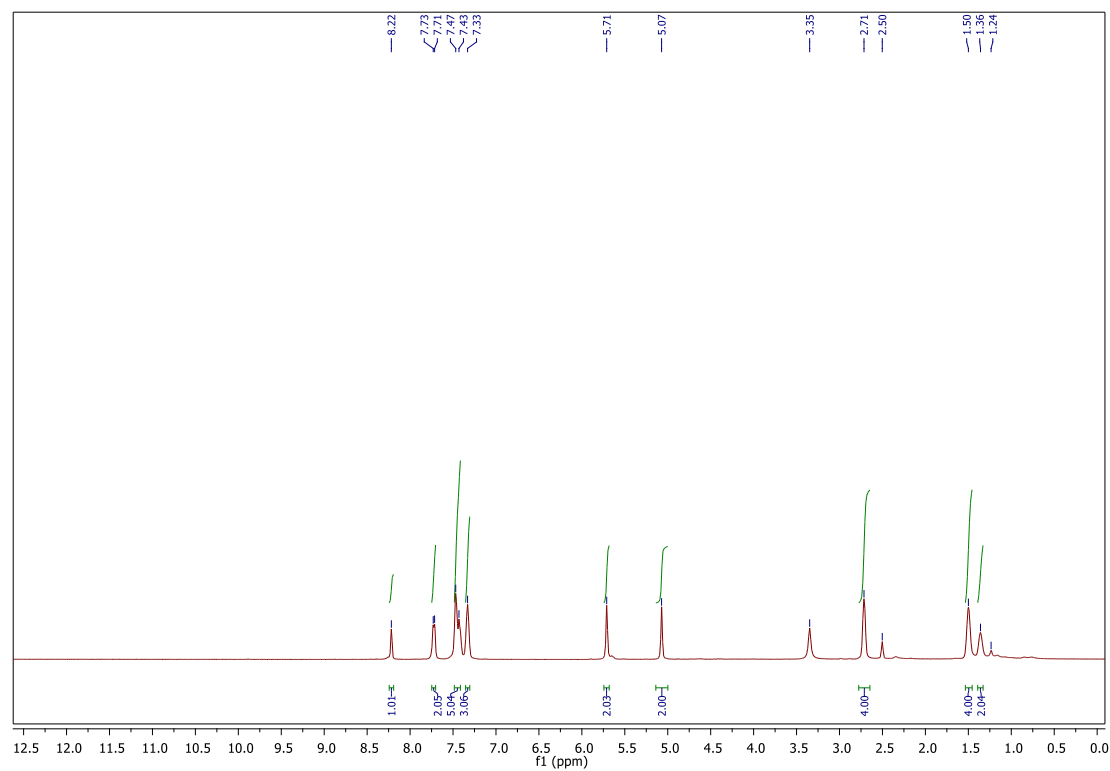
**Figure S2.** <sup>13</sup>C-NMR Spectrum of compound **7** (DMSO-*d*<sub>6</sub>, 100 MHz).



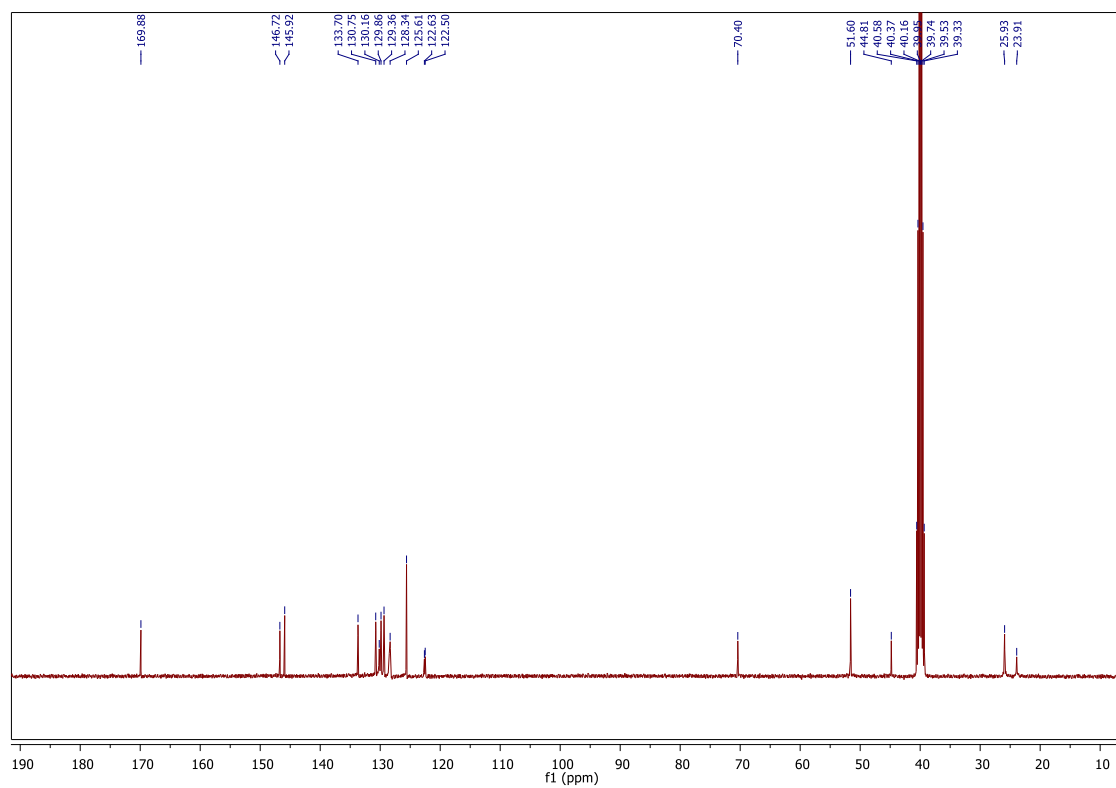
**Figure S3.** <sup>1</sup>H-NMR Spectrum of compound **8** (DMSO-*d*<sub>6</sub>, 400 MHz).



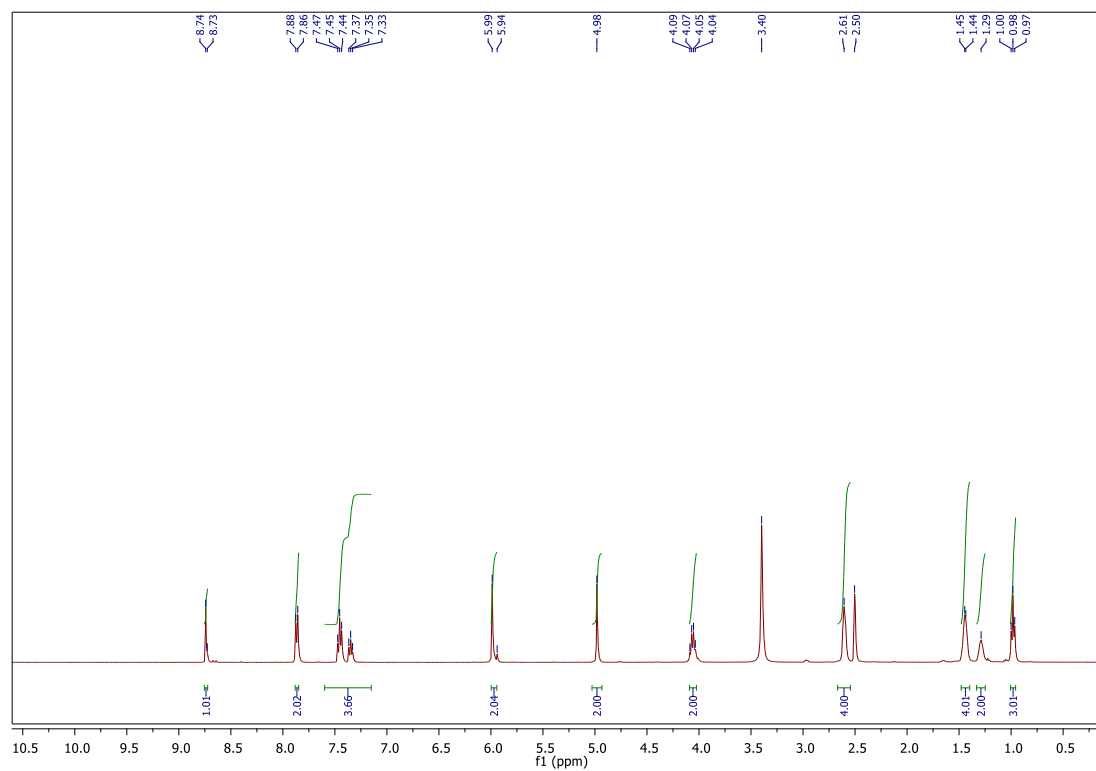
**Figure S4.** <sup>13</sup>C-NMR Spectrum of compound **8** (DMSO-*d*<sub>6</sub>, 100 MHz).



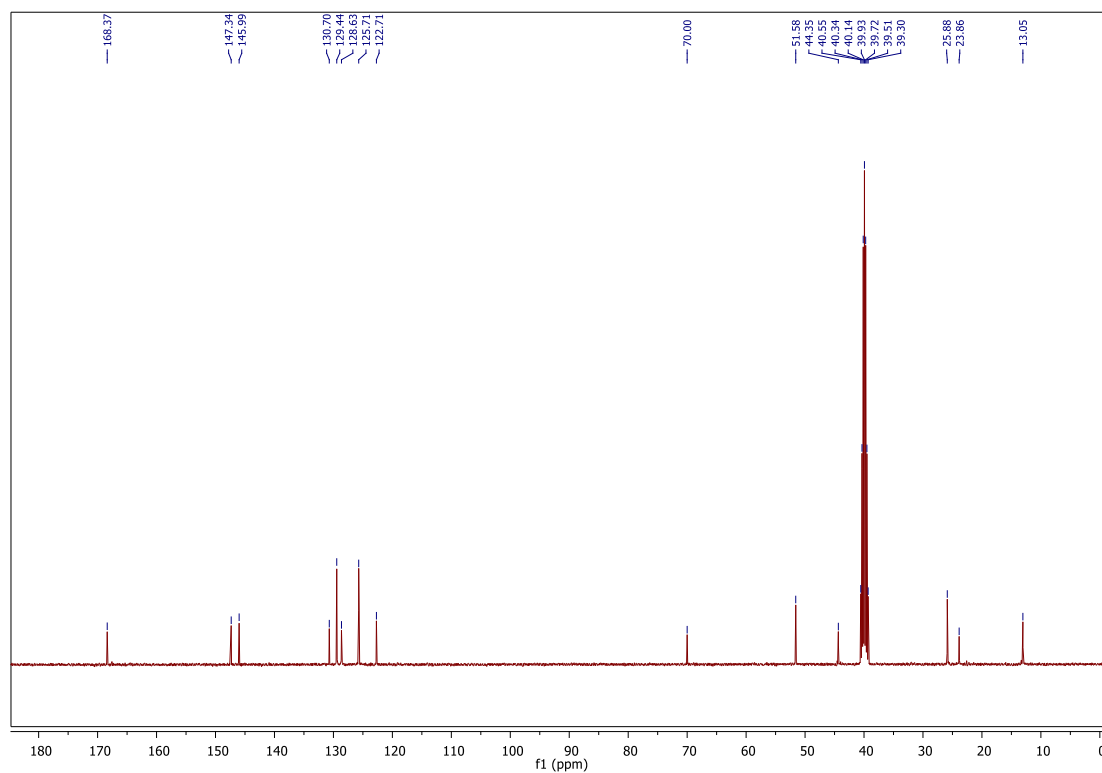
**Figure S5.** <sup>1</sup>H-NMR Spectrum of compound **9** (DMSO-*d*<sub>6</sub>, 400 MHz).



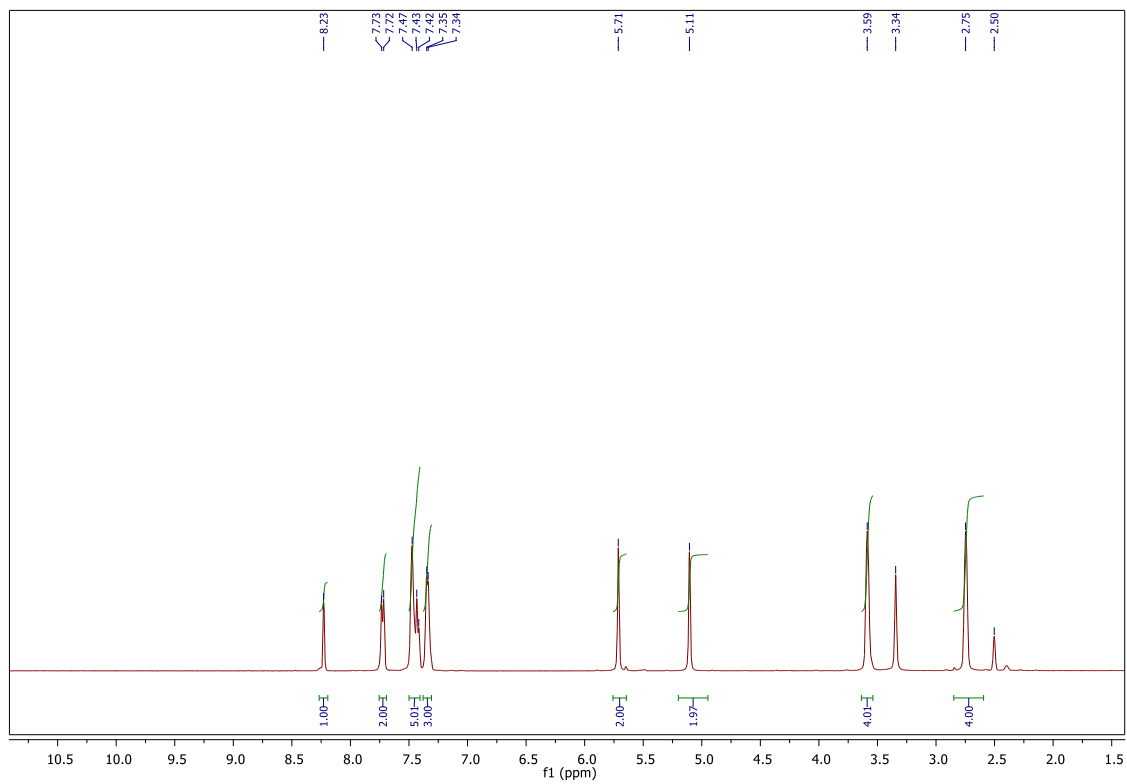
**Figure S6.** <sup>13</sup>C-NMR Spectrum of compound **9** (DMSO-*d*<sub>6</sub>, 100 MHz).



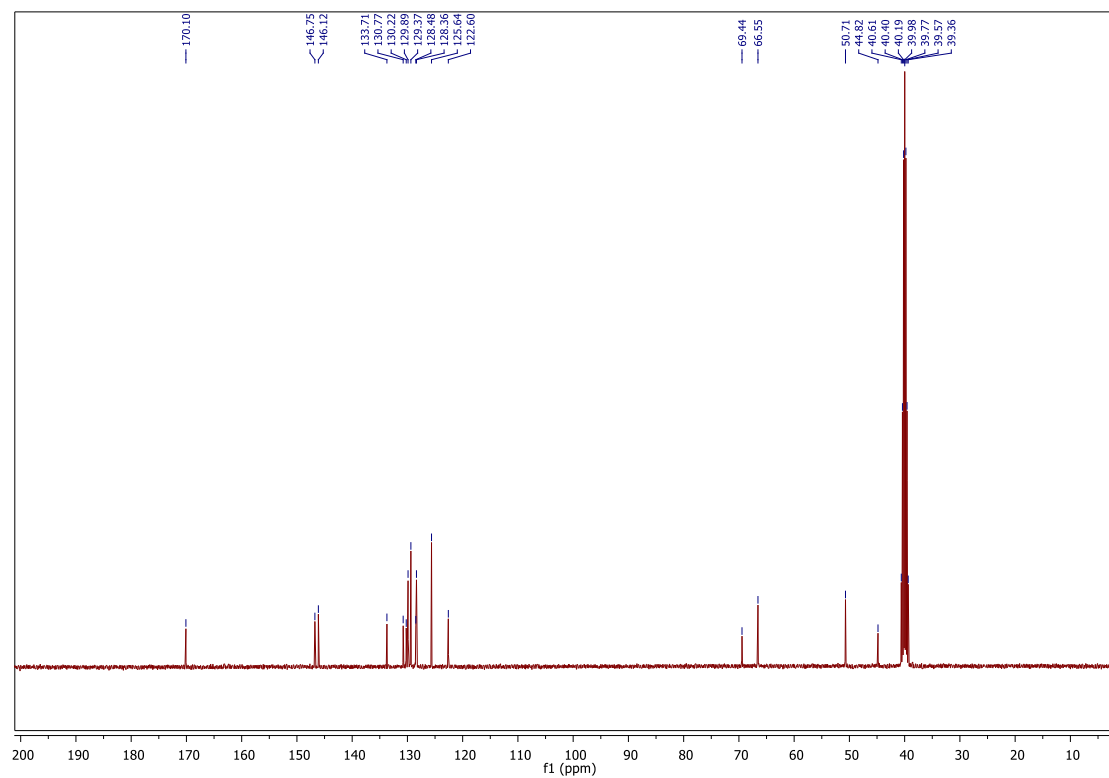
**Figure S7.** <sup>1</sup>H-NMR Spectrum of compound **10** (DMSO-*d*<sub>6</sub>, 400 MHz).



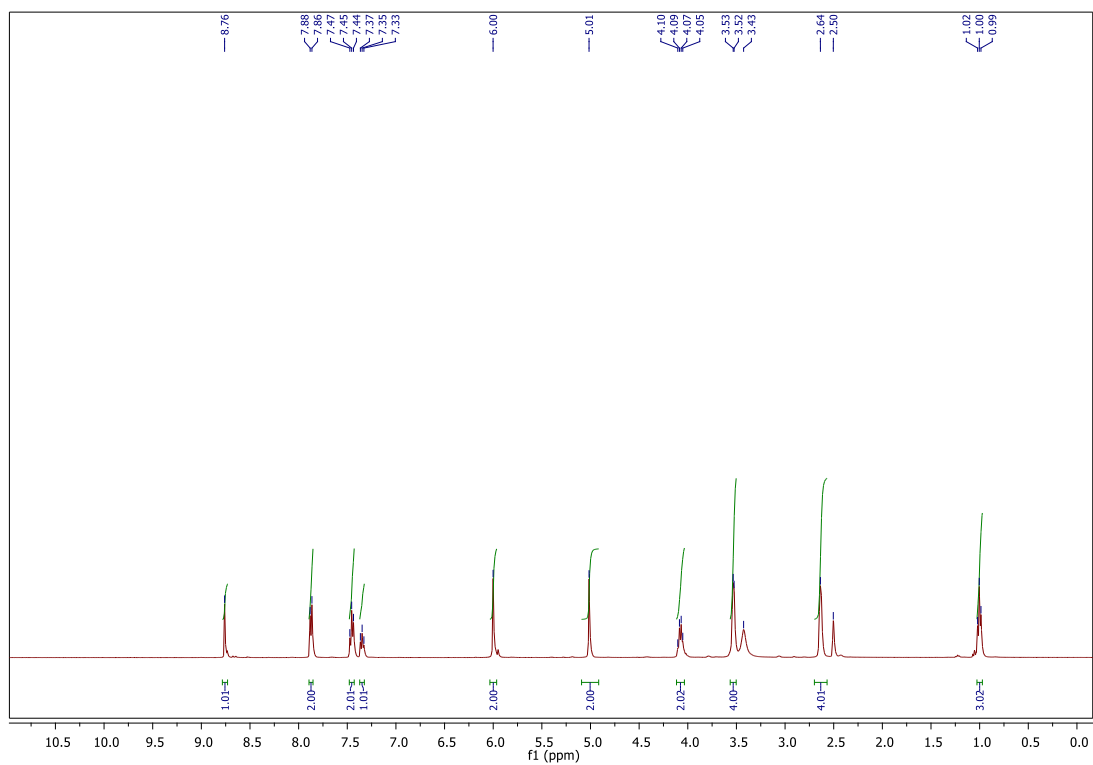
**Figure S8.** <sup>13</sup>C-NMR Spectrum of compound **10** (DMSO-*d*<sub>6</sub>, 100 MHz).



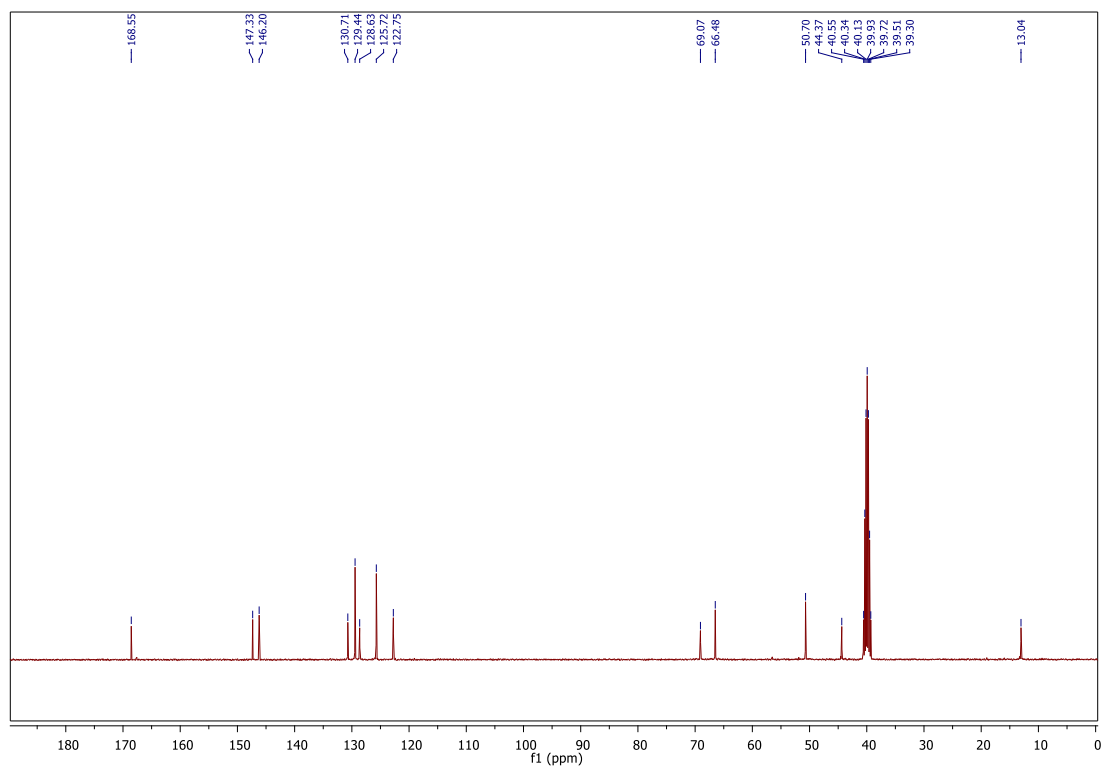
**Figure S9.**  $^1\text{H}$ -NMR Spectrum of compound **11** ( $\text{DMSO}-d_6$ , 400 MHz).



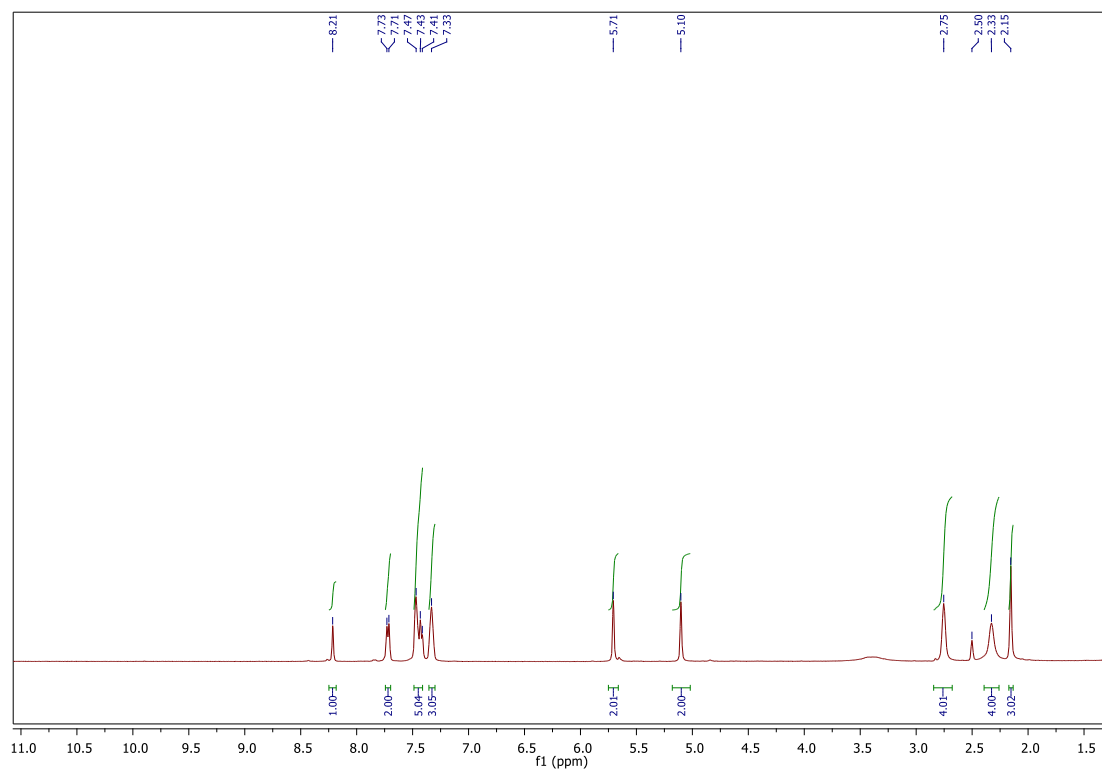
**Figure S10.**  $^{13}\text{C}$ -NMR Spectrum of compound **11** ( $\text{DMSO}-d_6$ , 100 MHz).



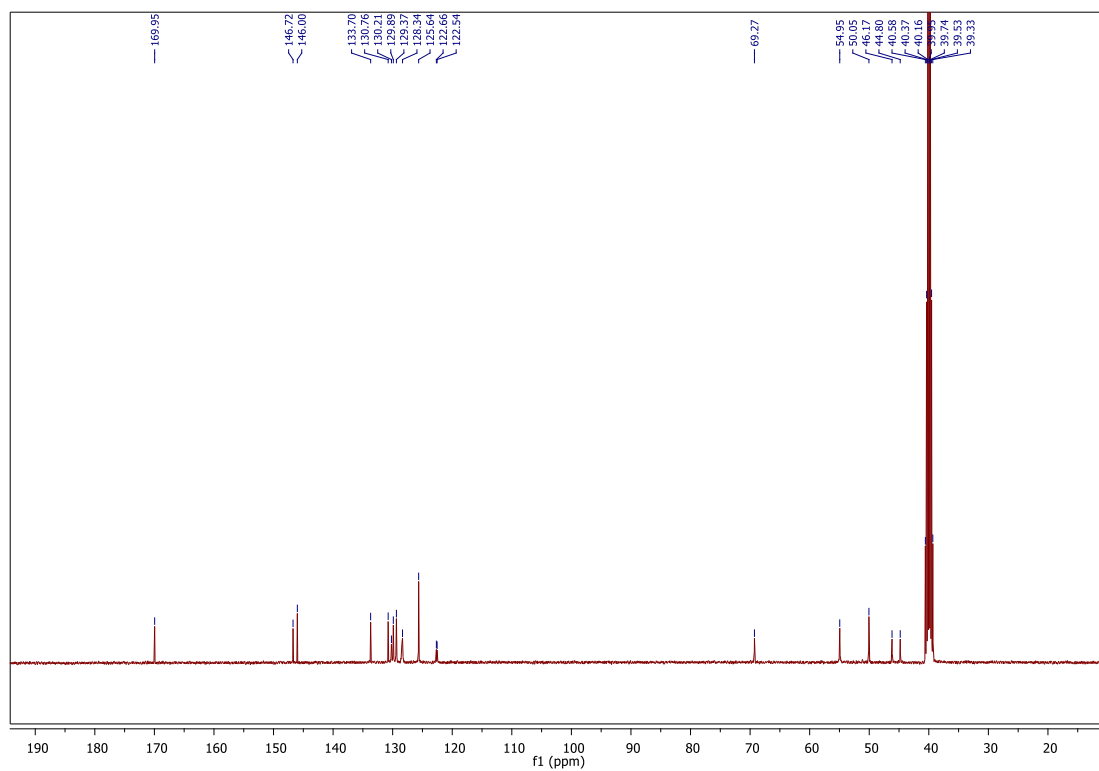
**Figure S11.** <sup>1</sup>H-NMR Spectrum of compound **12** (DMSO-*d*<sub>6</sub>, 400 MHz).



**Figure S12.** <sup>13</sup>C-NMR Spectrum of compound **12** (DMSO-*d*<sub>6</sub>, 100 MHz).

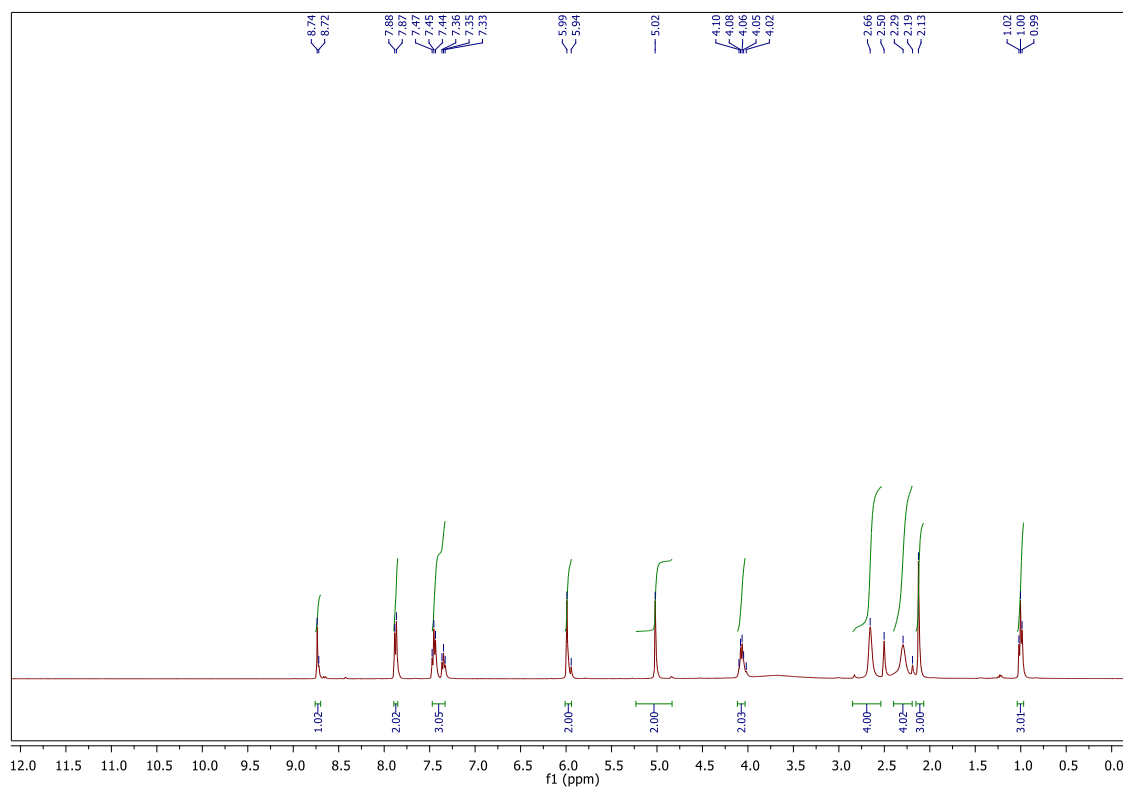


**Figure S13.** <sup>1</sup>H-NMR Spectrum of compound **13** (DMSO-*d*<sub>6</sub>, 400 MHz).

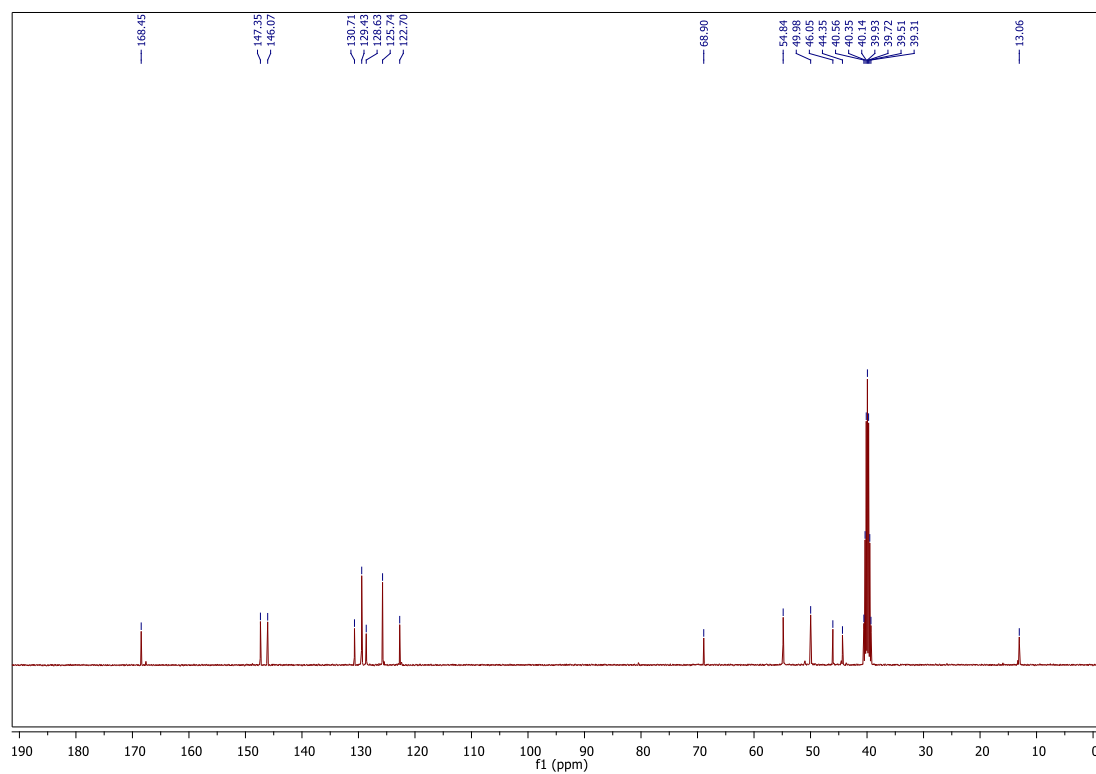


**Figure S14.** <sup>13</sup>C-NMR Spectrum of compound **13** (DMSO-*d*<sub>6</sub>, 100 MHz).

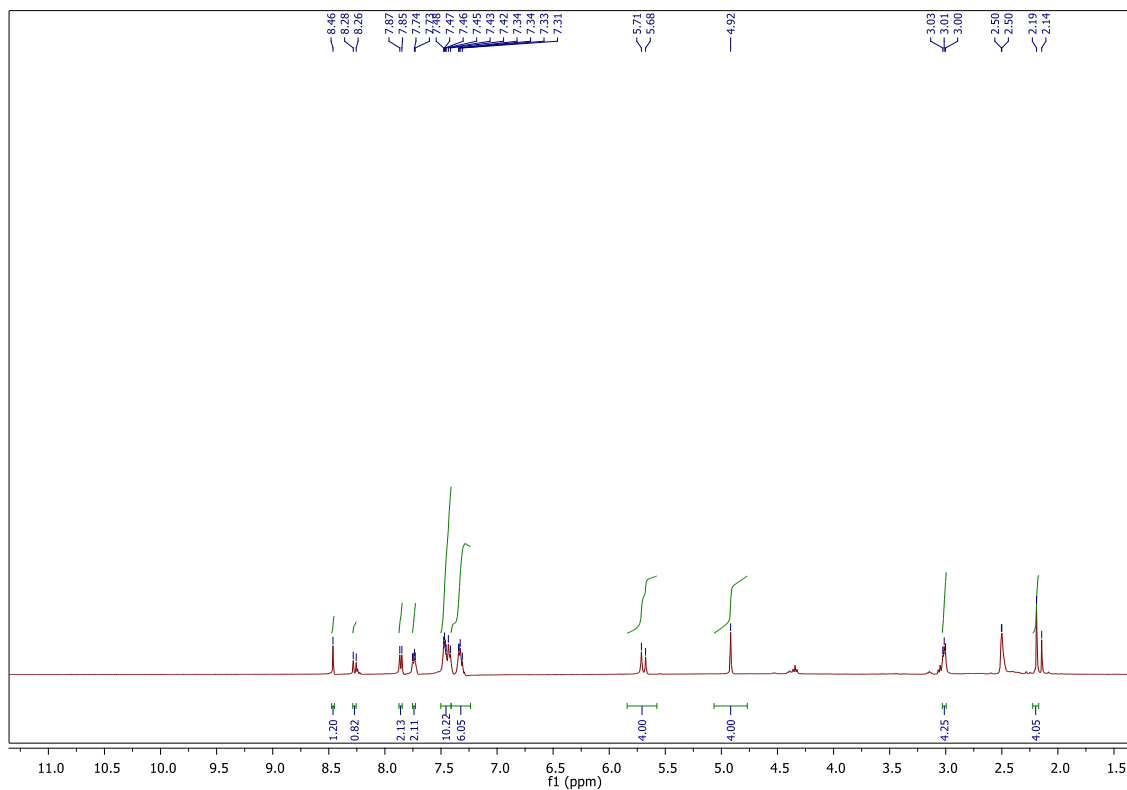




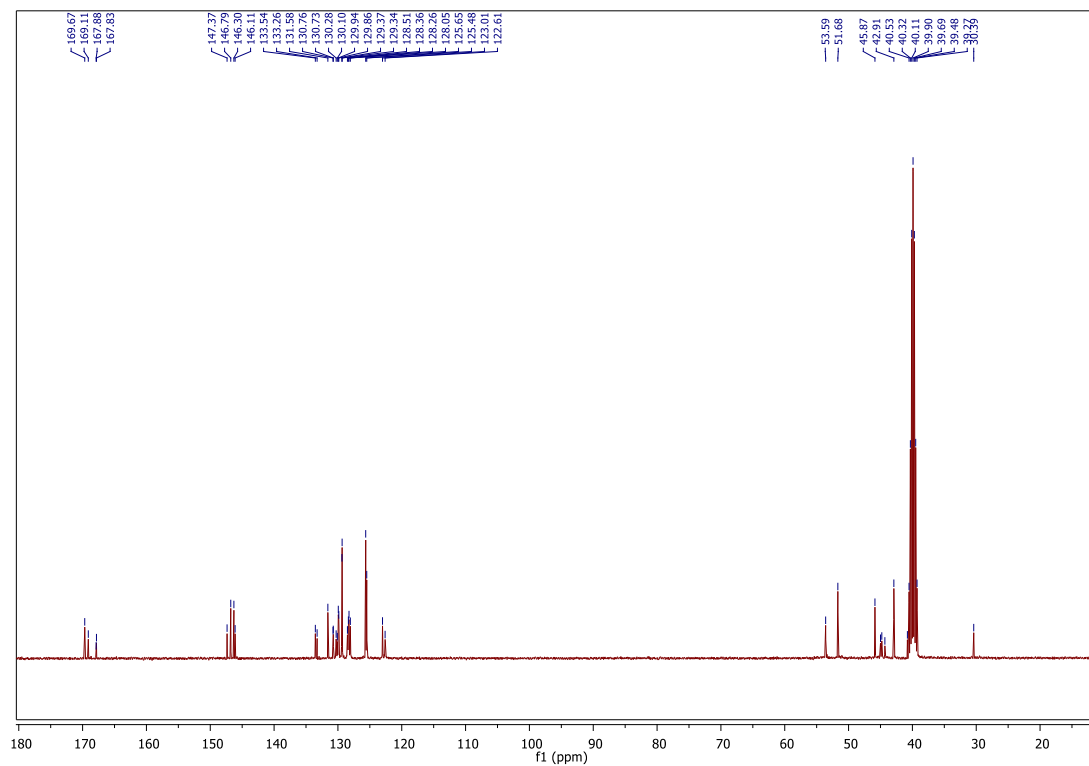
**Figure S15.** <sup>1</sup>H-NMR Spectrum of compound **14** (DMSO-*d*<sub>6</sub>, 400 MHz).



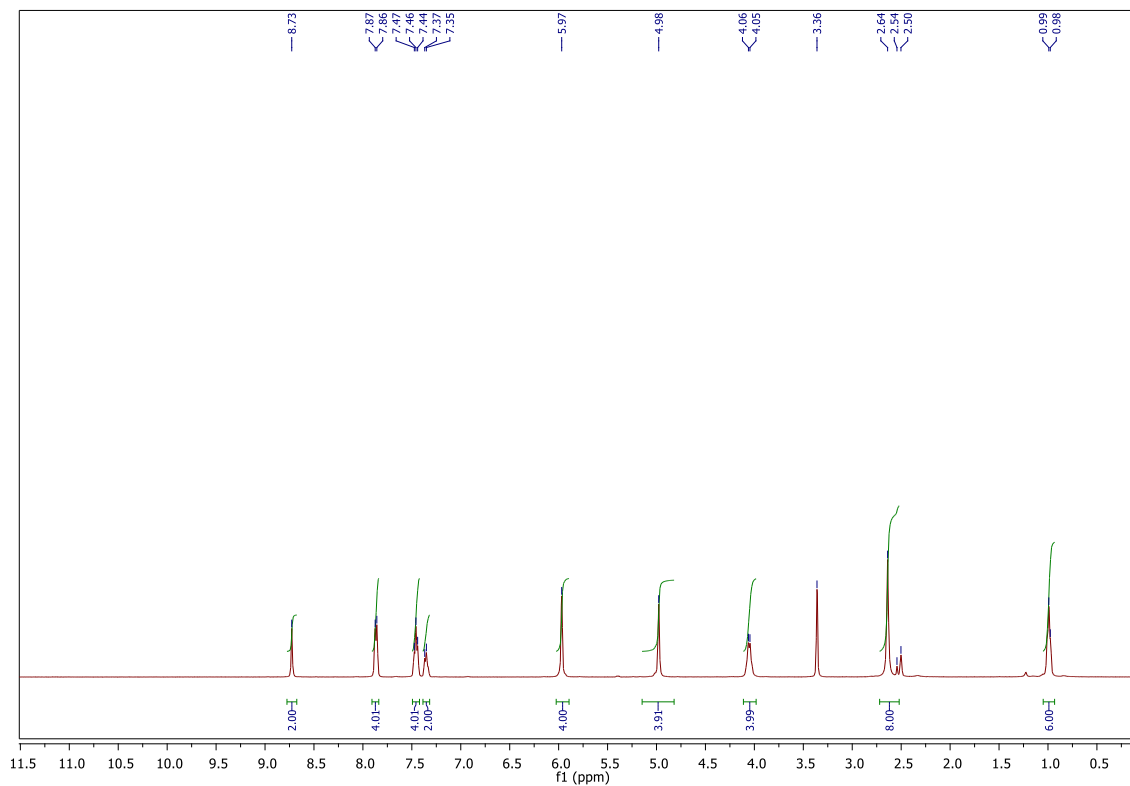
**Figure S16.** <sup>13</sup>C-NMR Spectrum of compound **14** (DMSO-*d*<sub>6</sub>, 100 MHz).



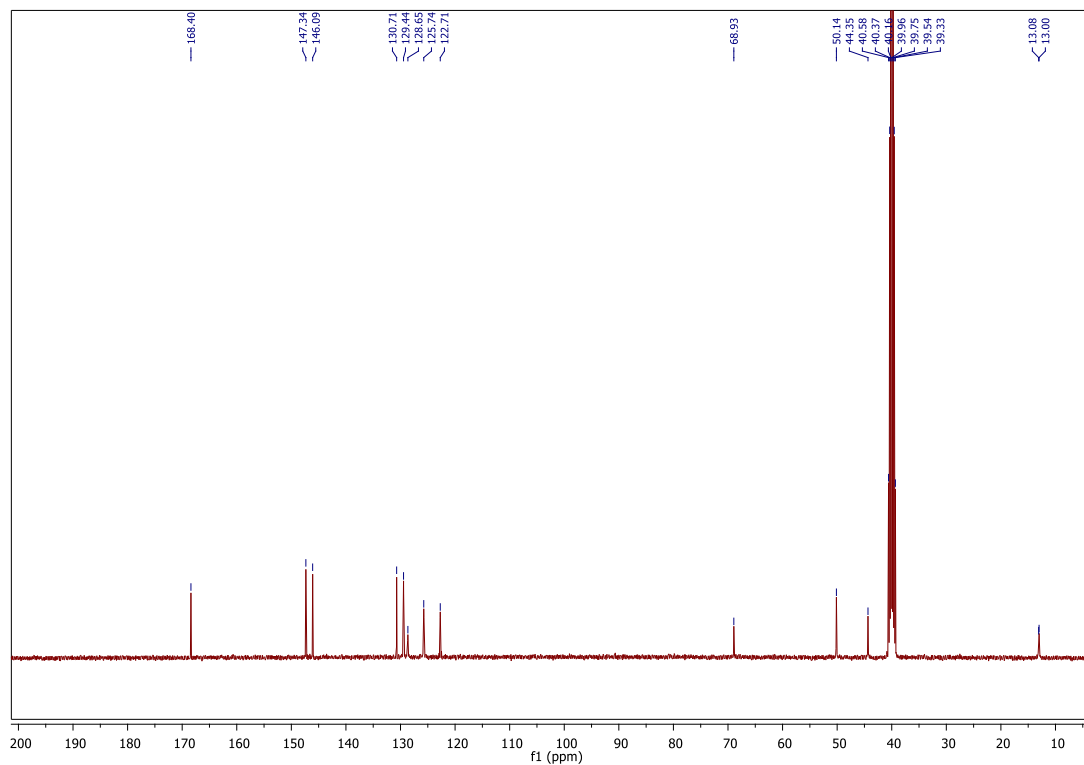
**Figure S17.** <sup>1</sup>H-NMR Spectrum of compound **15** (DMSO-*d*<sub>6</sub>, 400 MHz).



**Figure S18.** <sup>13</sup>C-NMR Spectrum of compound **15** (DMSO-*d*<sub>6</sub>, 100 MHz).



**Figure S19.** <sup>1</sup>H-NMR Spectrum of compound **16** (DMSO-*d*<sub>6</sub>, 400 MHz).



**Figure S20.** <sup>13</sup>C-NMR Spectrum of compound **16** (DMSO-*d*<sub>6</sub>, 100 MHz).

