# Phenolics from *Eugenia jambolana* Seeds with Advanced Glycation Endproducts Formation and Alpha-Glucosidase Inhibitory Activities

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# Qualitative Analysis Report

| | | | |
|---|---|---|---|
| **Data Filename** | N-MS-74-NEG.d | **Sample Name** | |
| **Sample Type** | Sample | **Position** | P1-B8 |
| **Instrument Name** | Instrument 1 | **User Name** | |
| **Acq Method** | default-20170301-neg.m | **Acquired Time** | 9/15/2017 4:36:58 PM |
| **IRM Calibration Status** | Some Ions Missed | **DA Method** | analysis-default.m |
| **Comment** | | | |

**Sample Group** **Info.**

**User Spectra**

**Fragmentor Voltage** 75 **Collision Energy** 0 **Ionization Mode** ESI

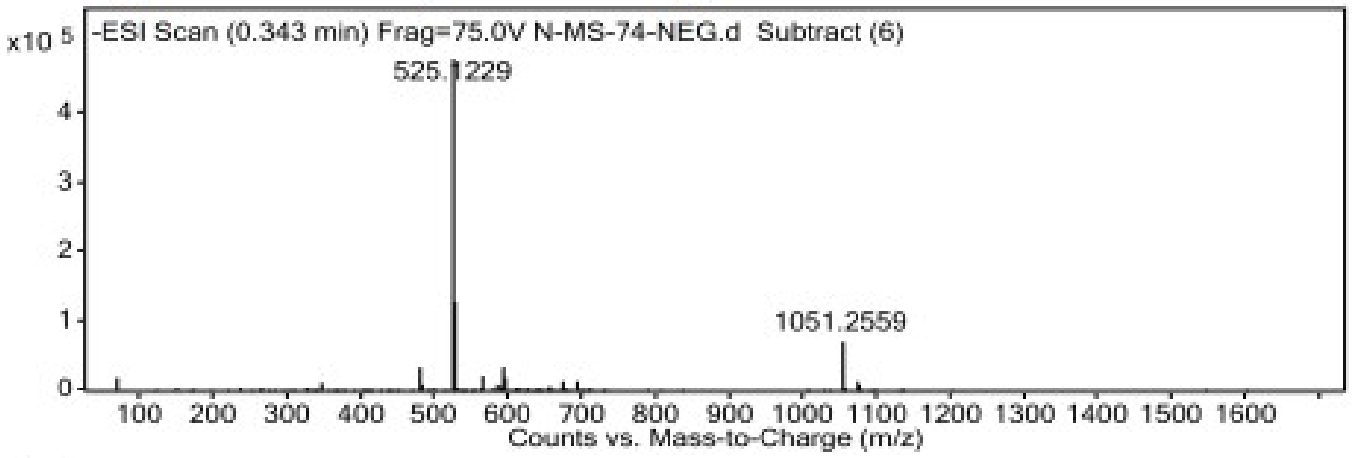


Figure S1. HRESI-MS spectrum of the new compound **1**

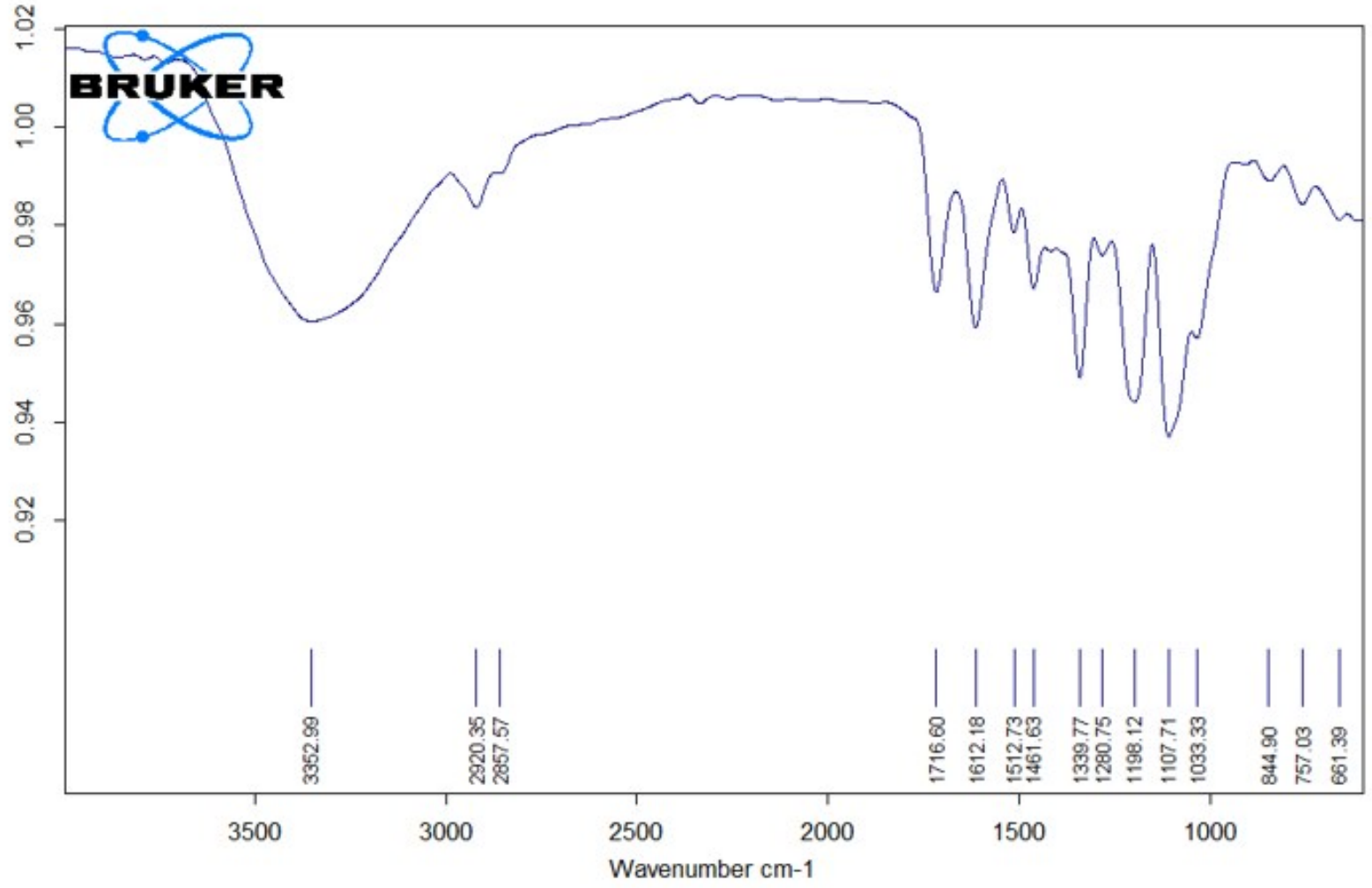


Figure S2. IR spectrum of the new compound **1**

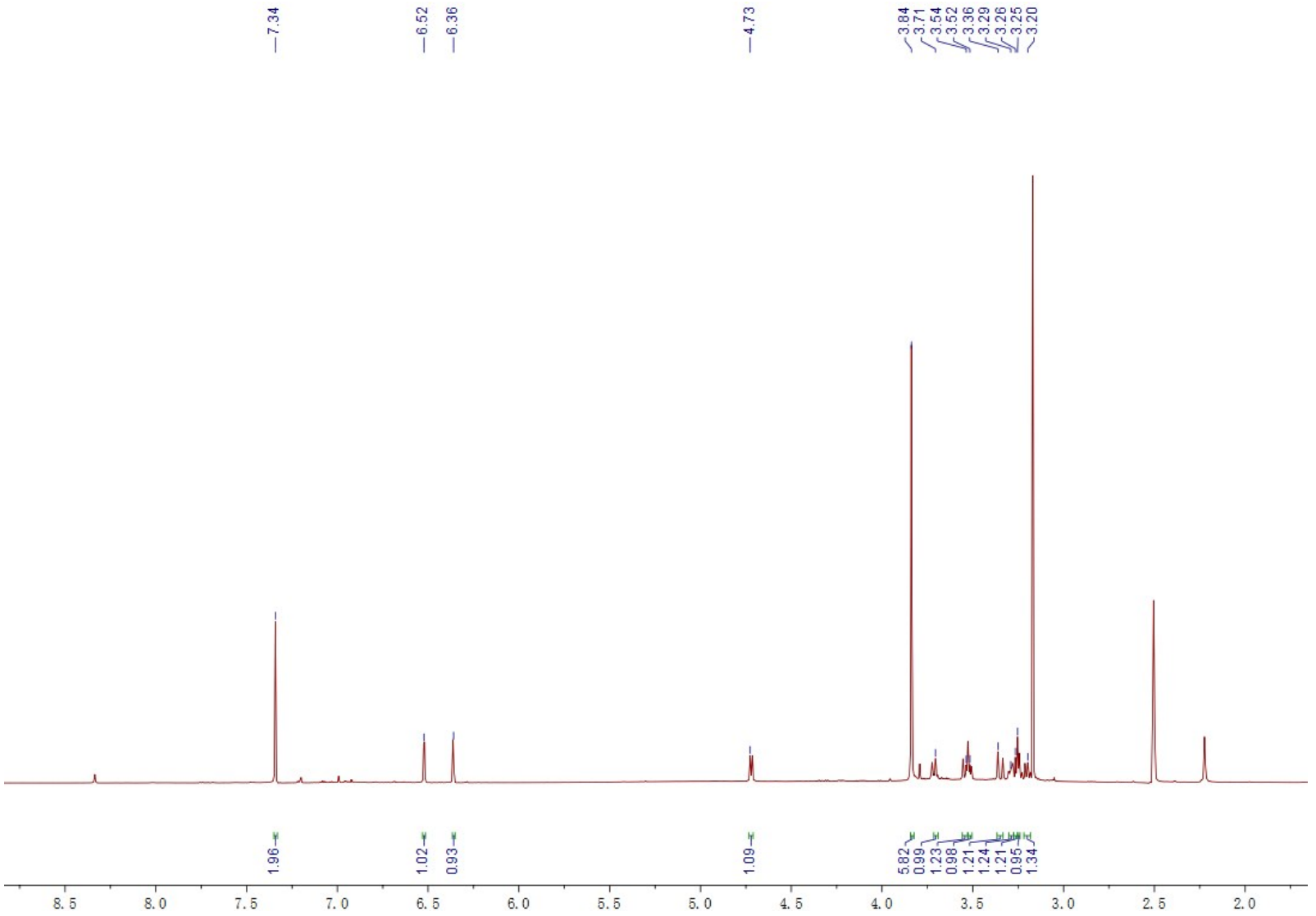


Figure S3. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the new compound **1**

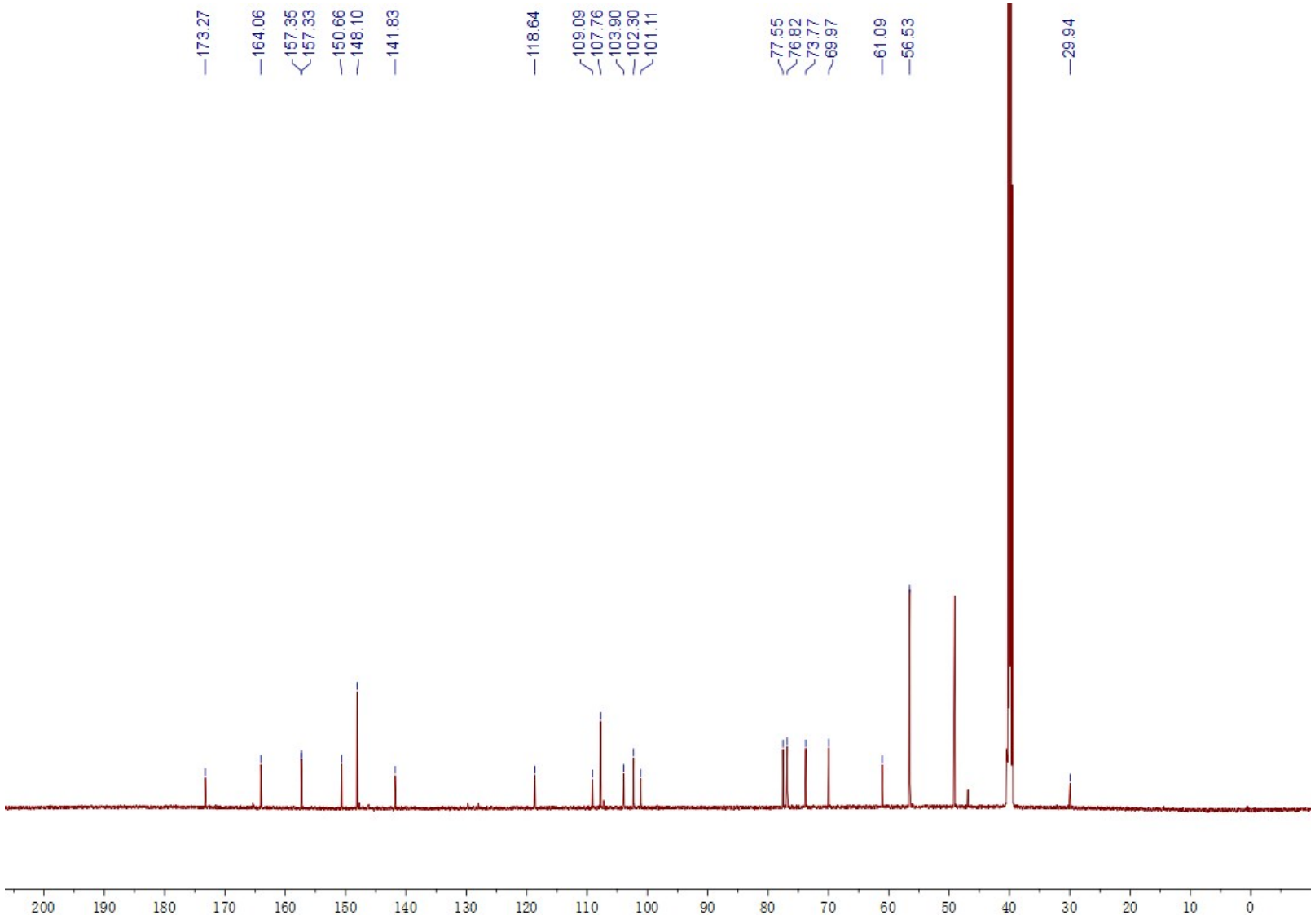


Figure S4. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the new compound **1**

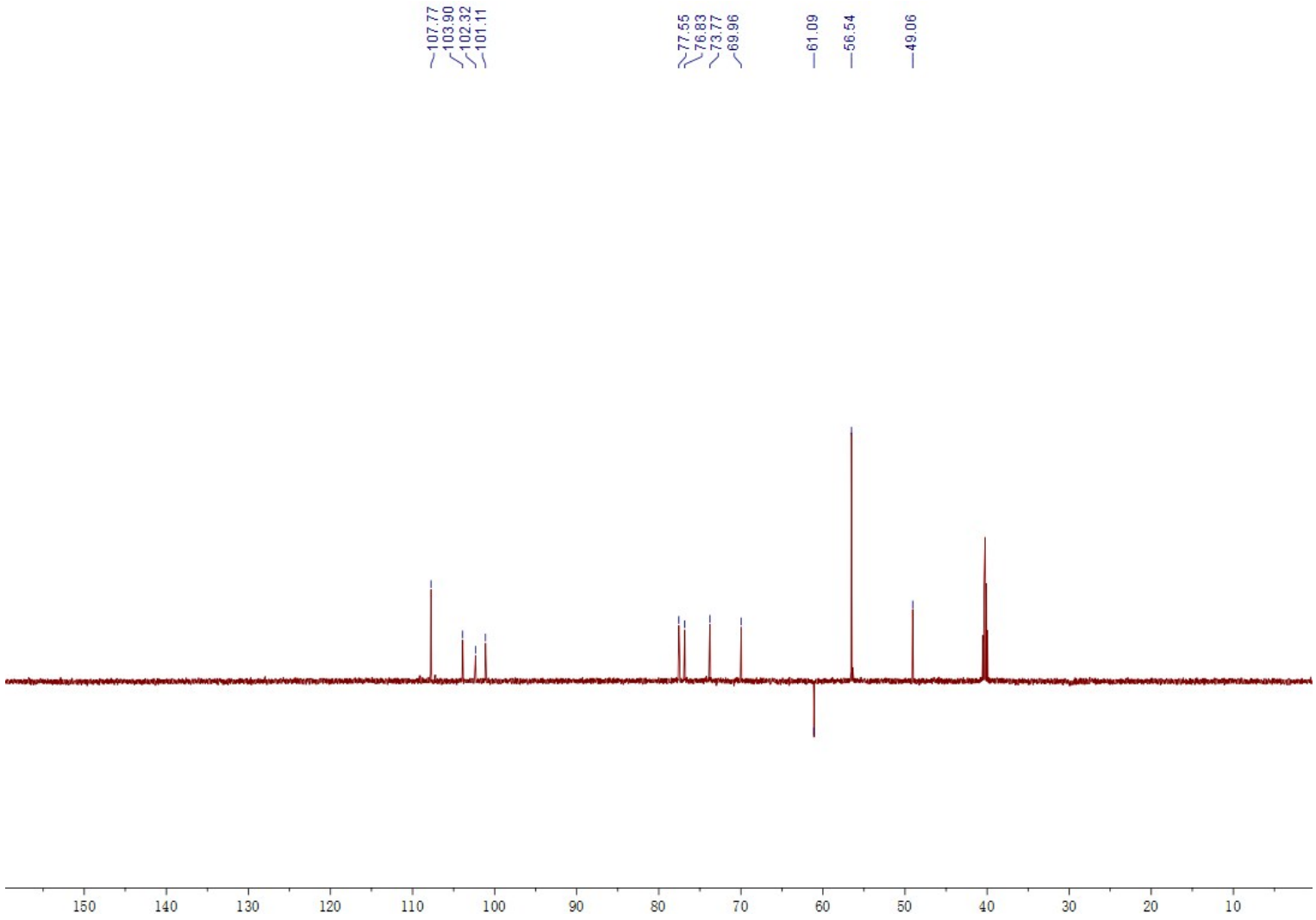


Figure S5. DEPT-135 (150 MHz, DMSO-$d_6$) spectrum of the new compound **1**

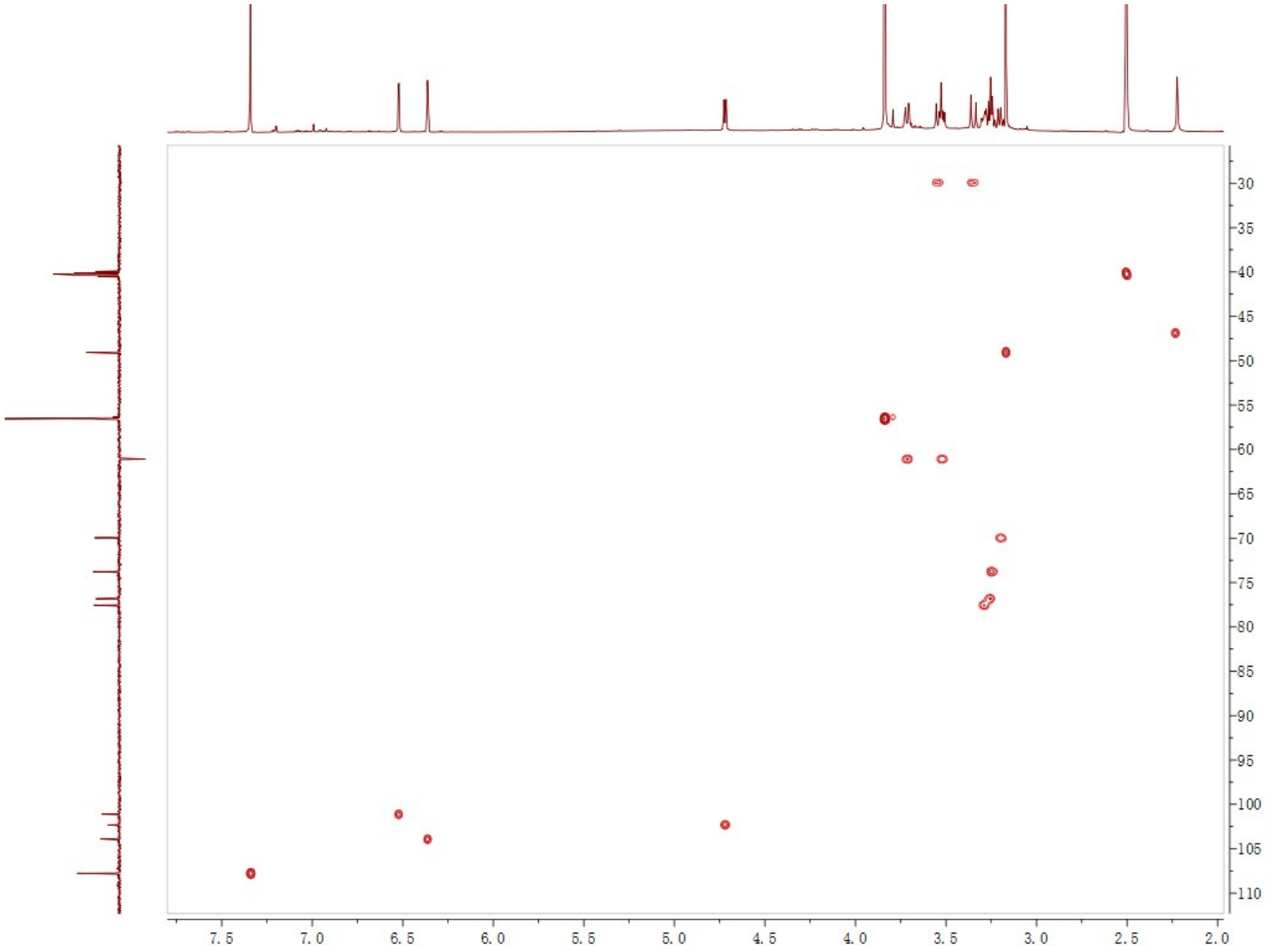


Figure S6. HMQC spectrum of the new compound **1**

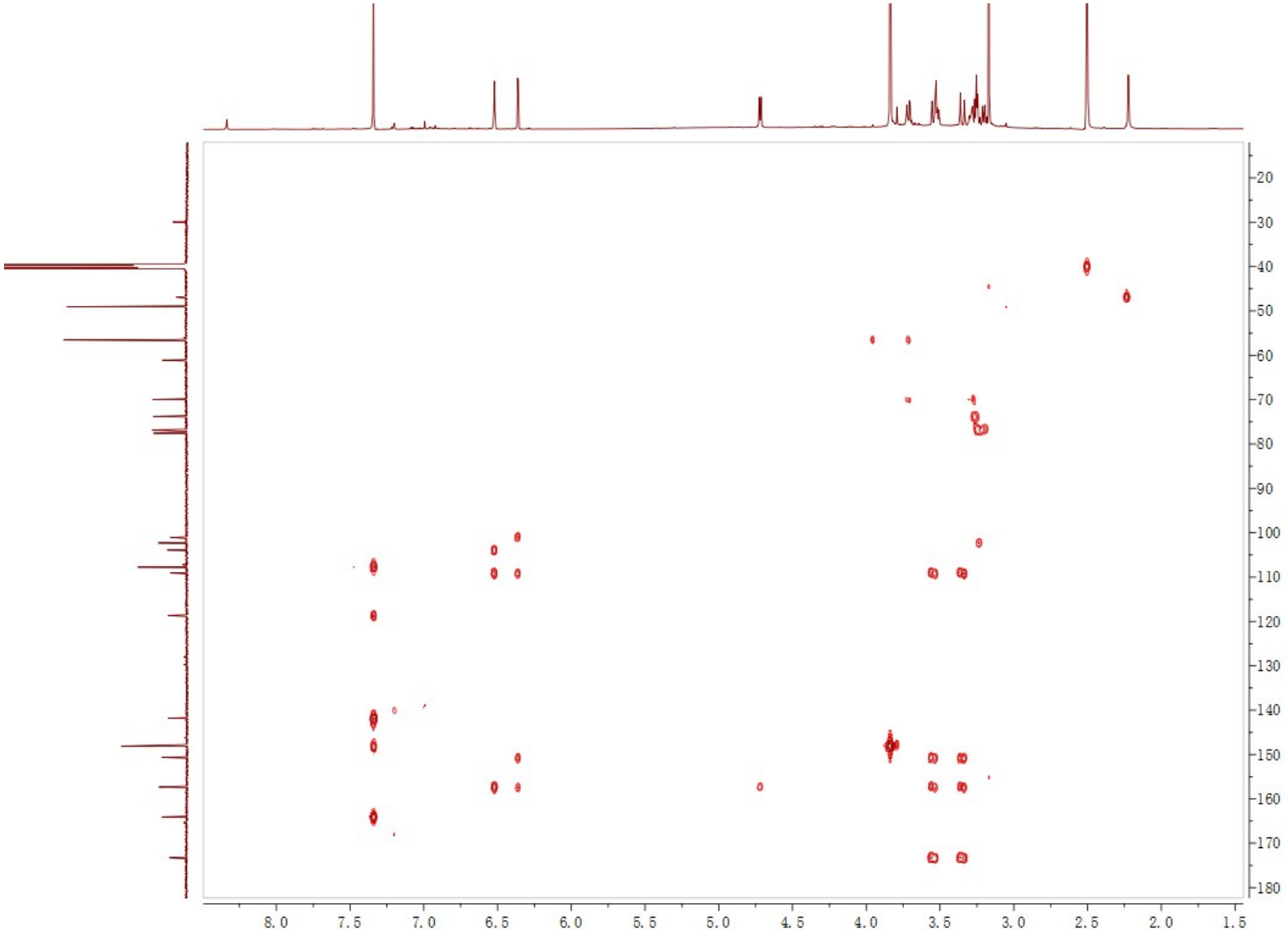


Figure S7. HMBC spectrum of the new compound **1**

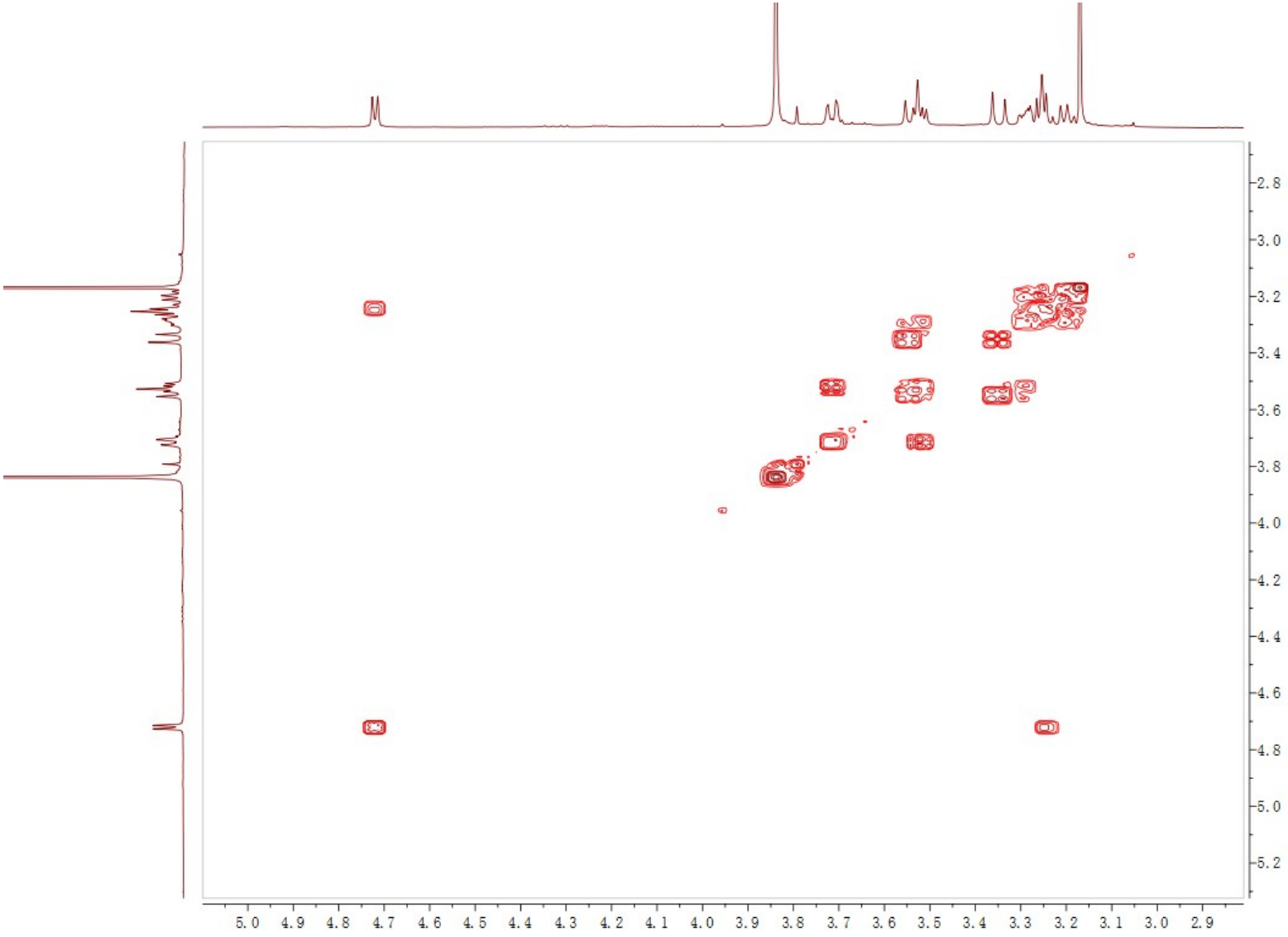


Figure S8. COSY spectrum of the new compound **1**

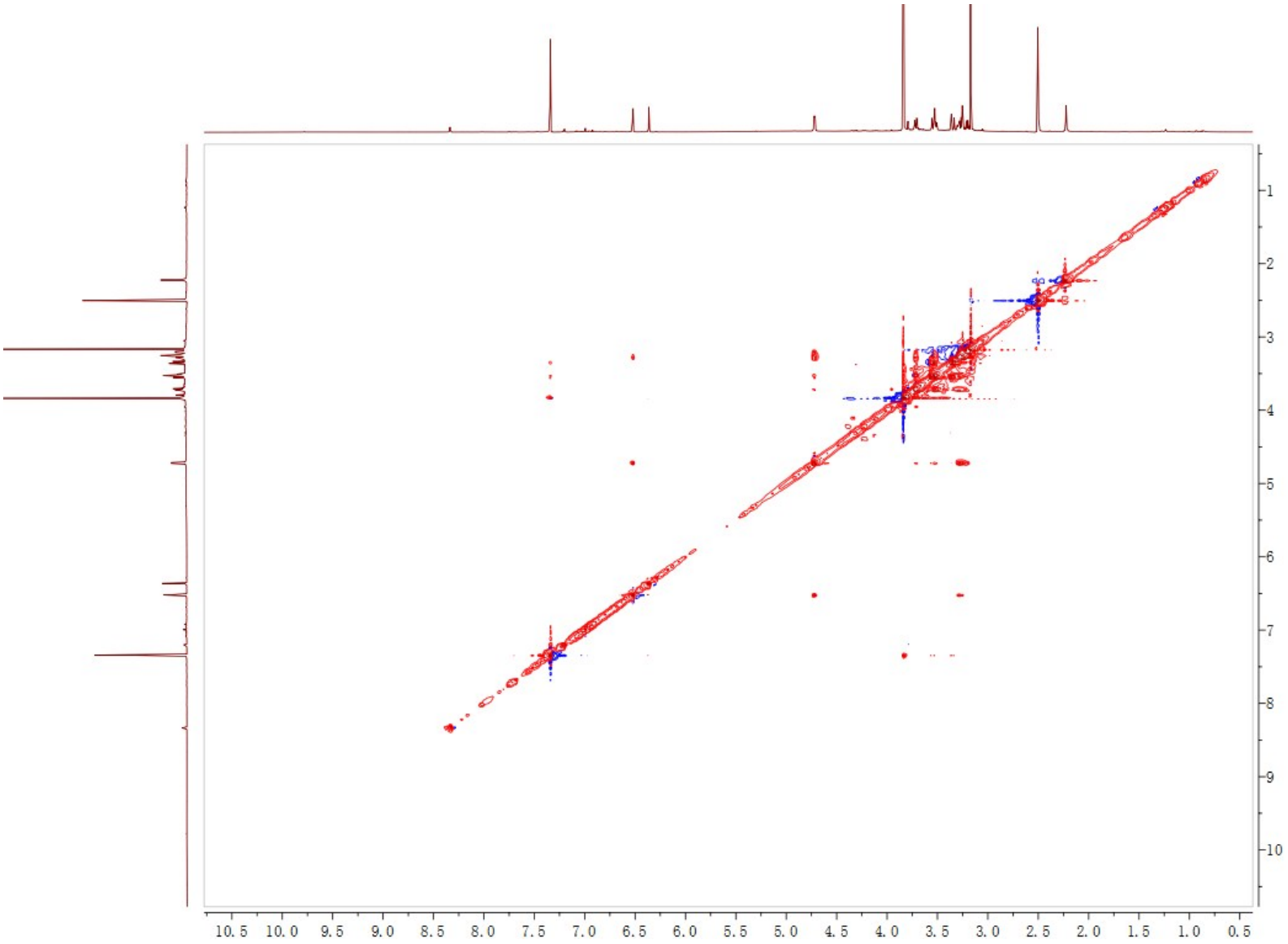


Figure S9. NOESY spectrum of the new compound **1**

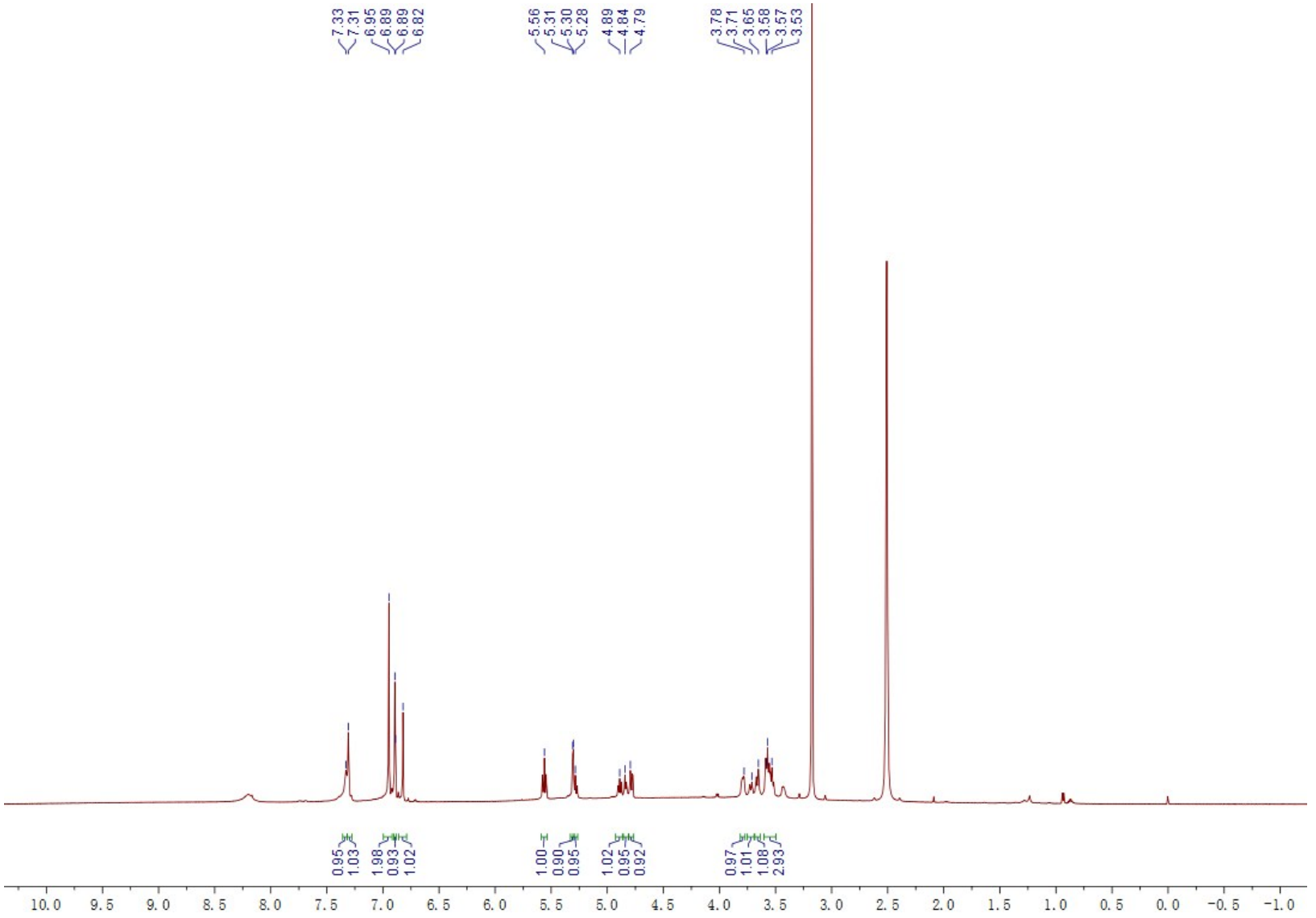


Figure S10. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **2**

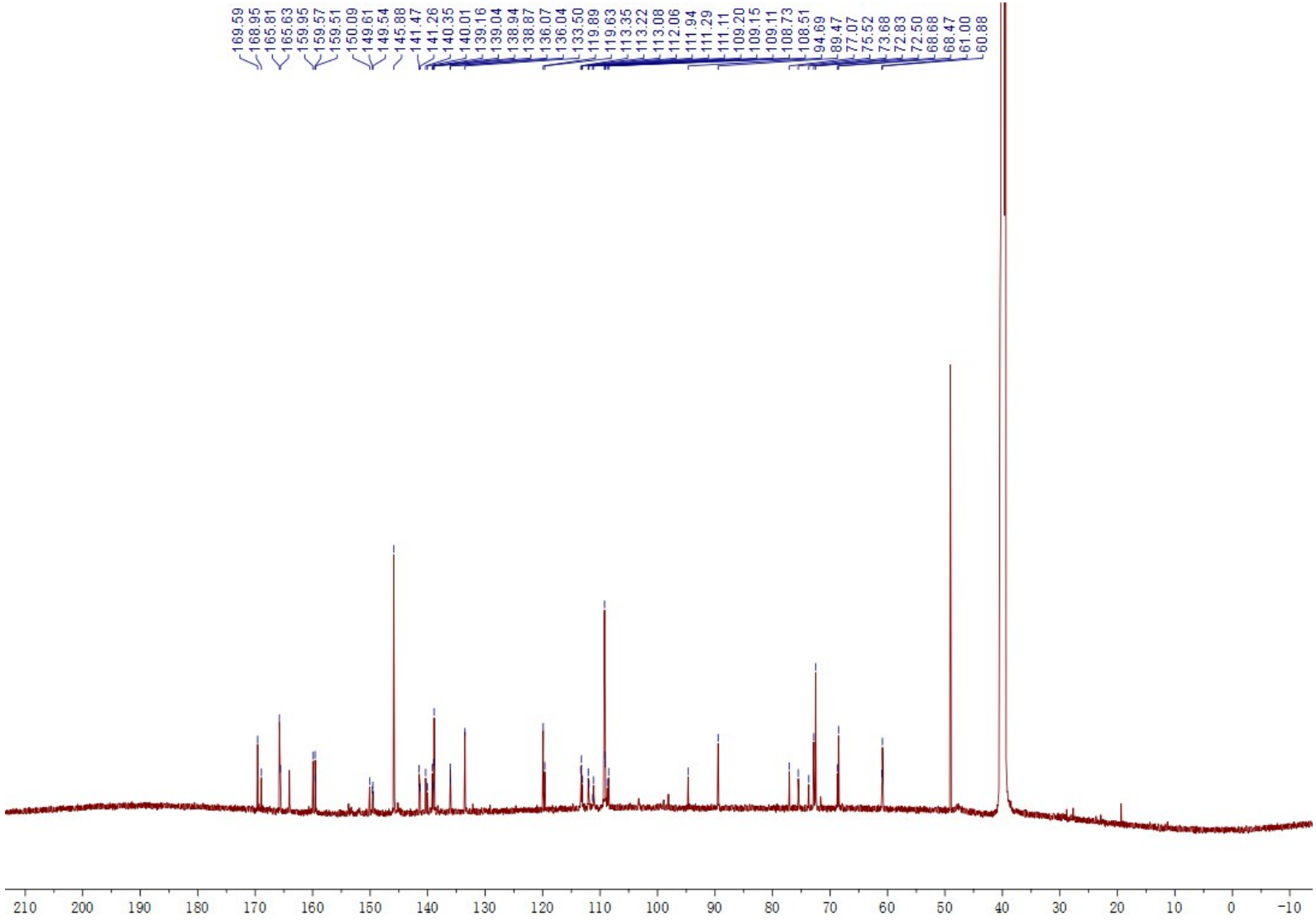


Figure S11. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **2**

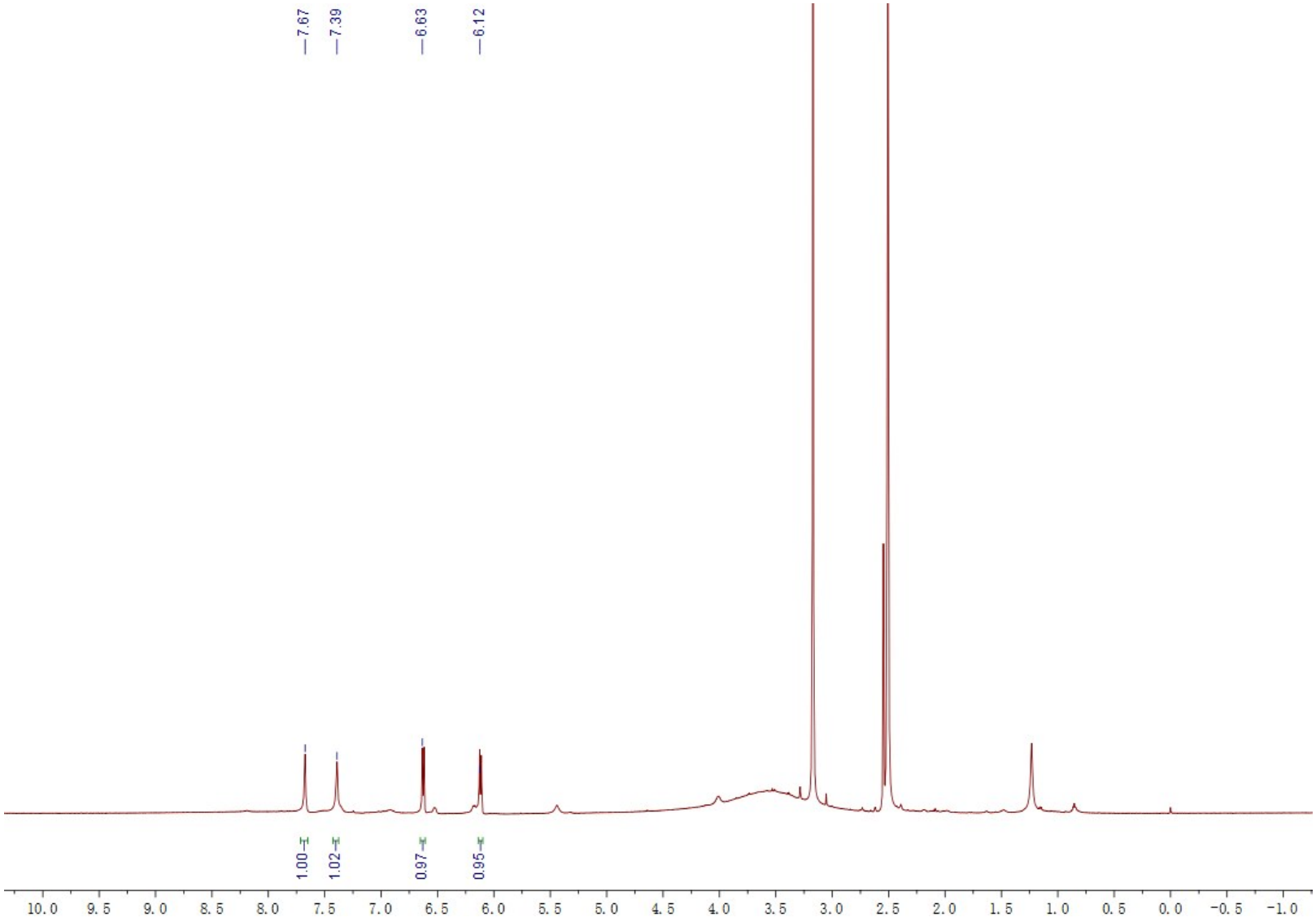


Figure S12. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **3**

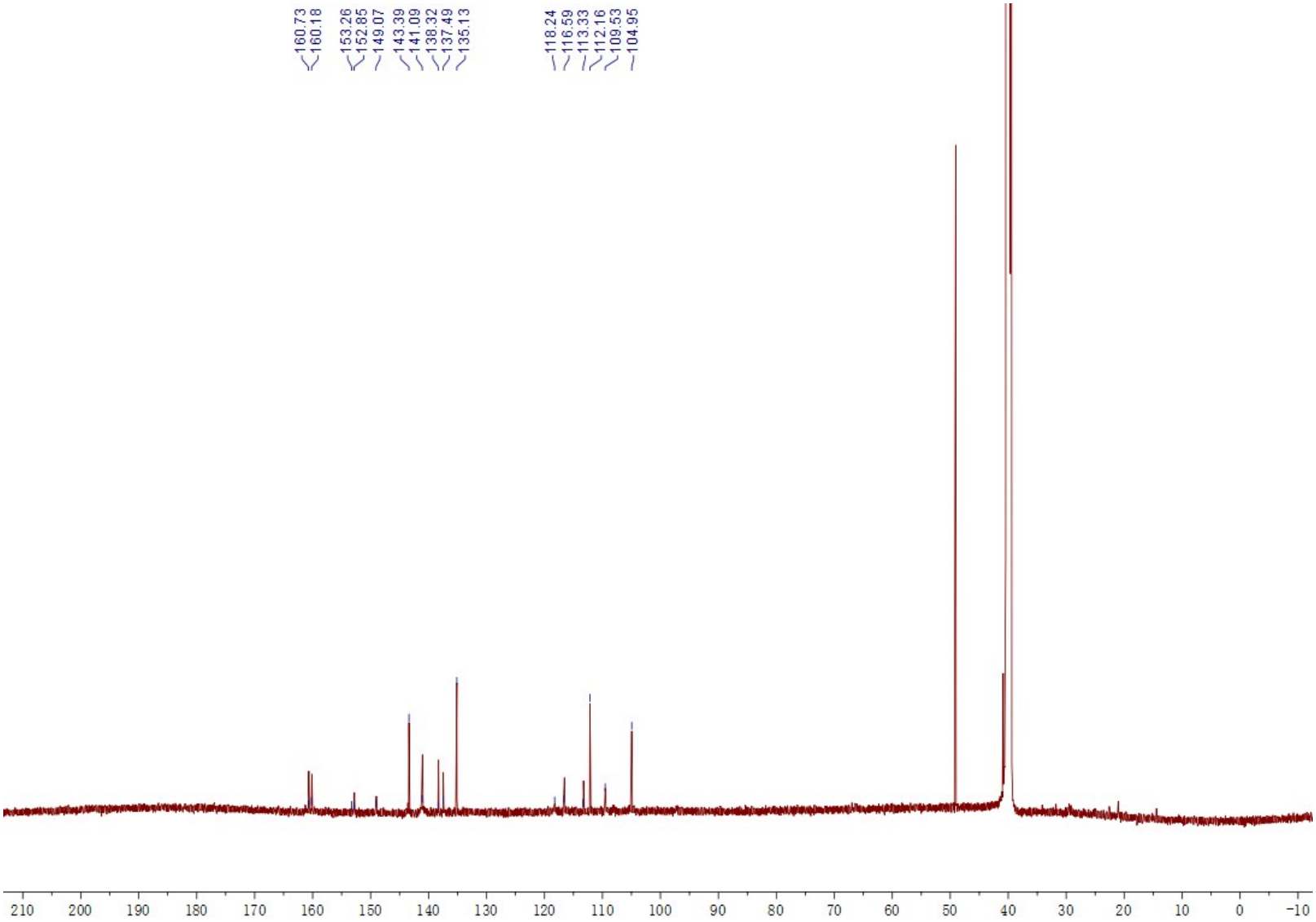


Figure S13. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **3**

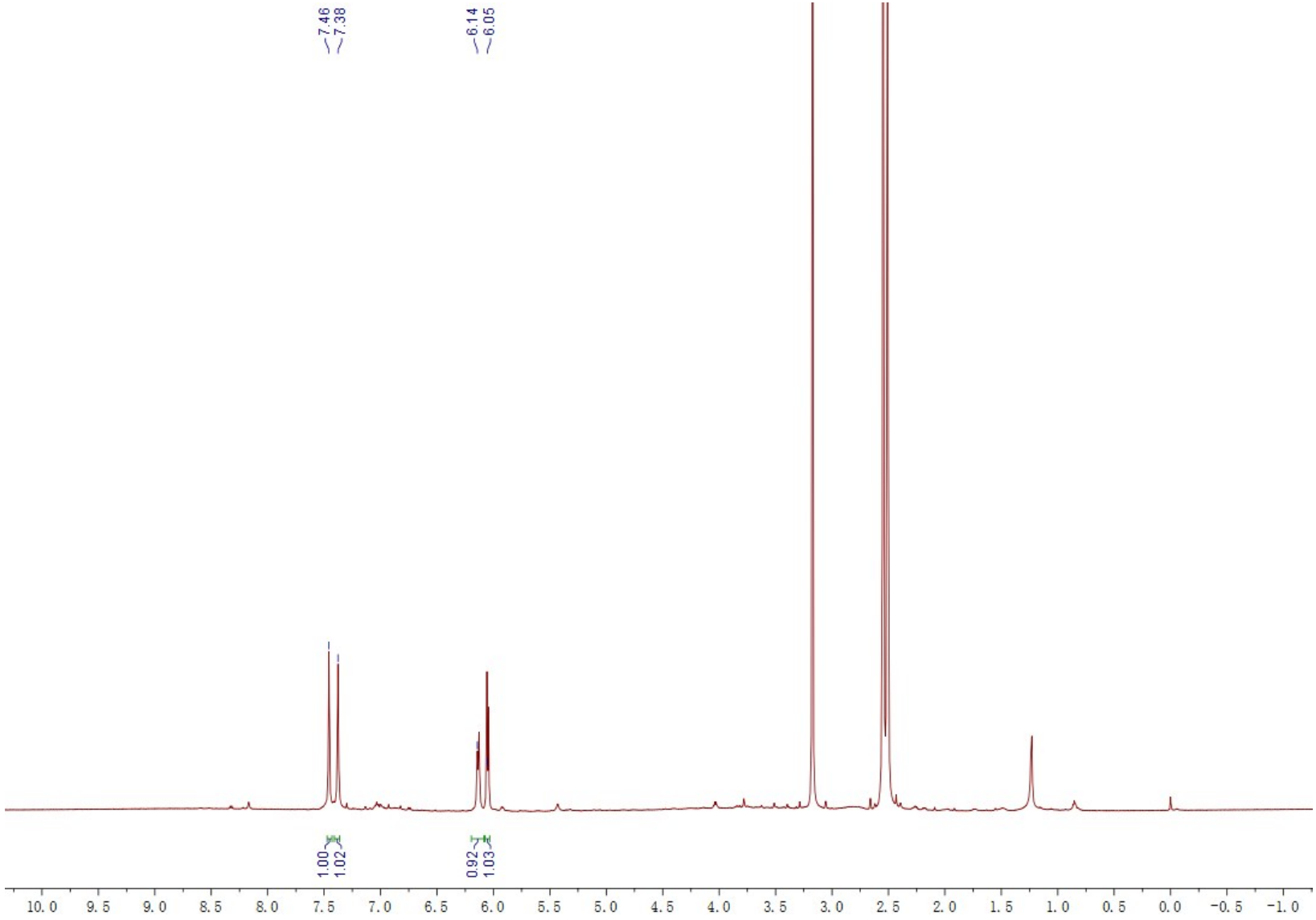


Figure S14. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **4**

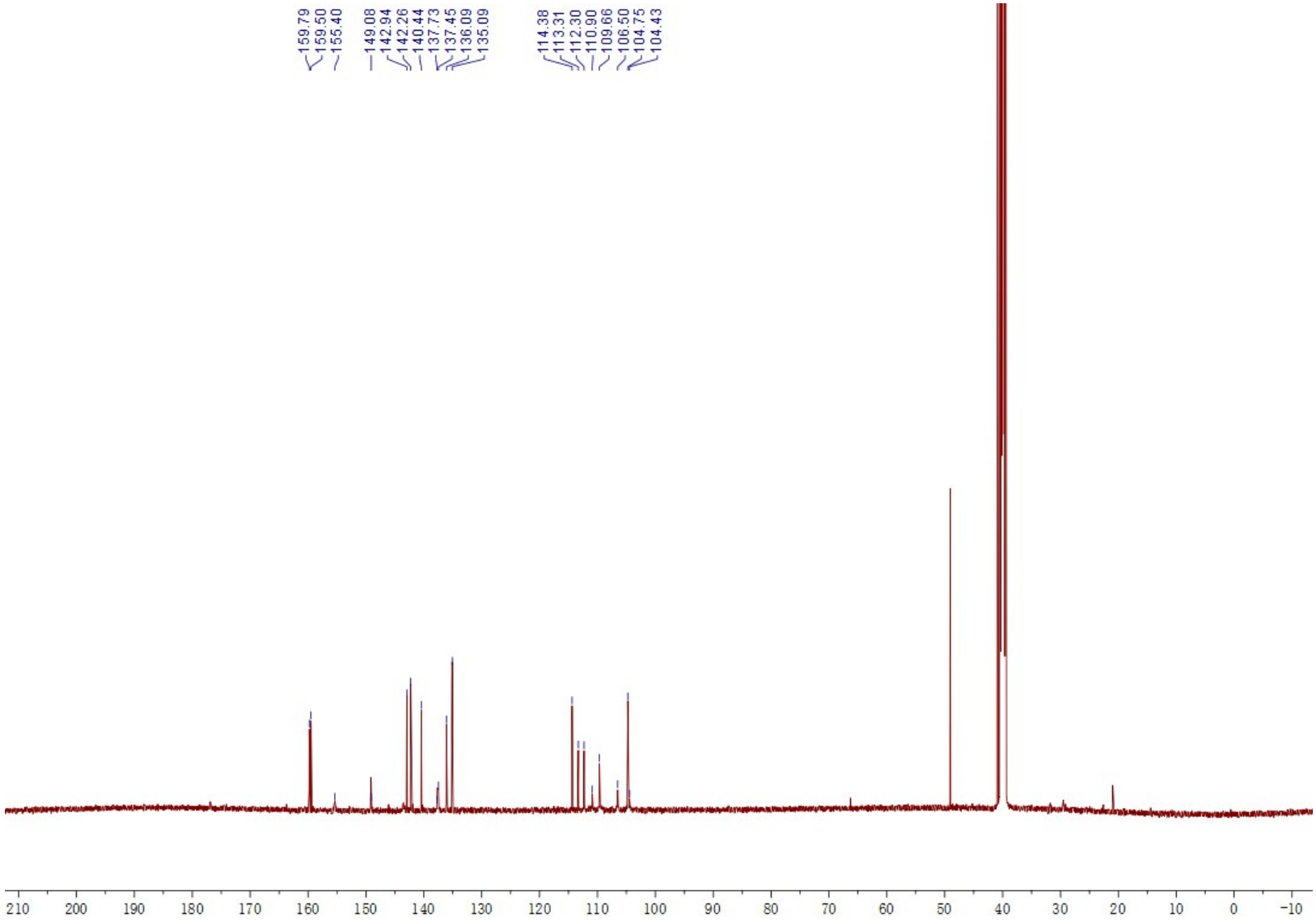


Figure S15. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **4**

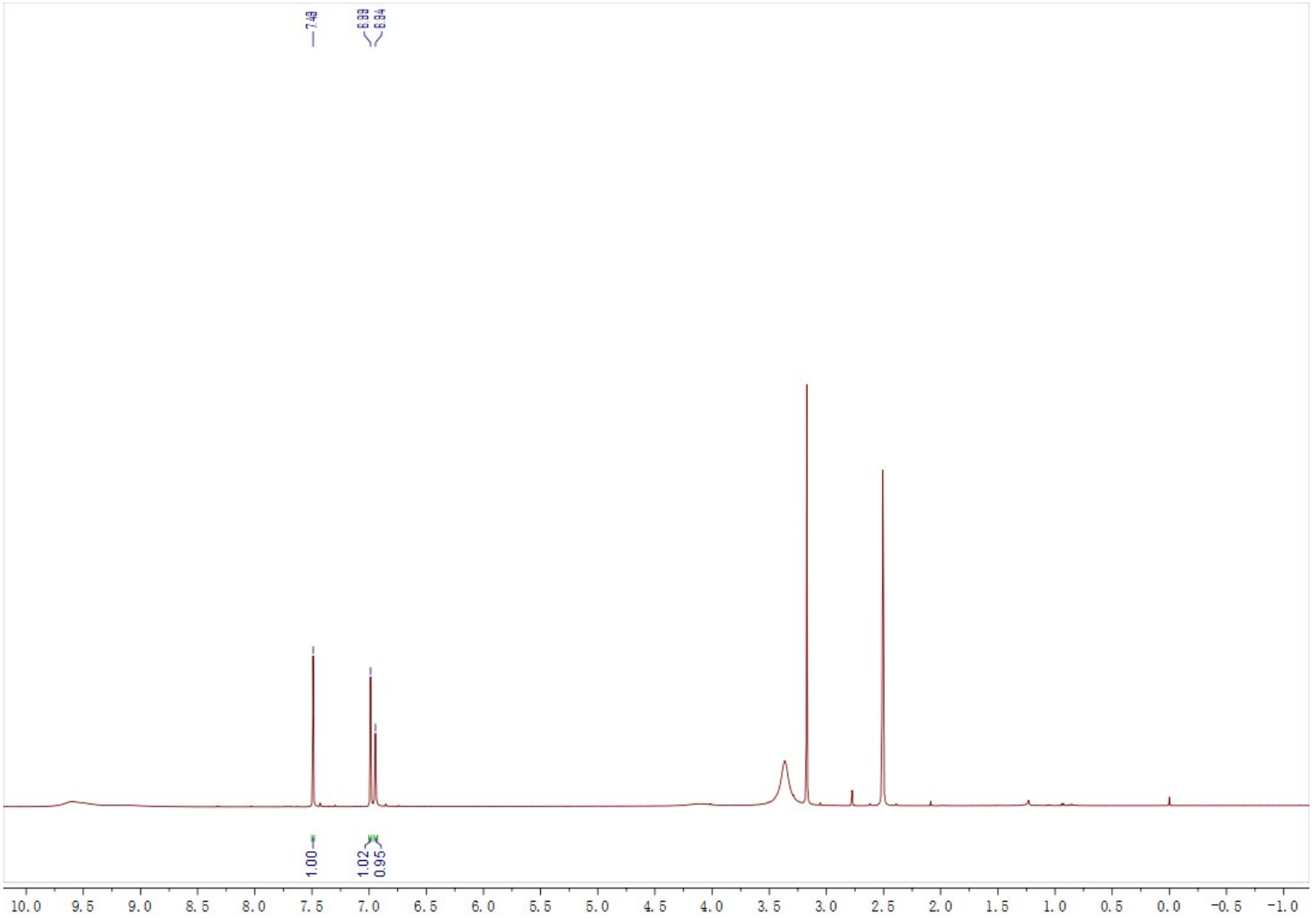


Figure S16. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **5**

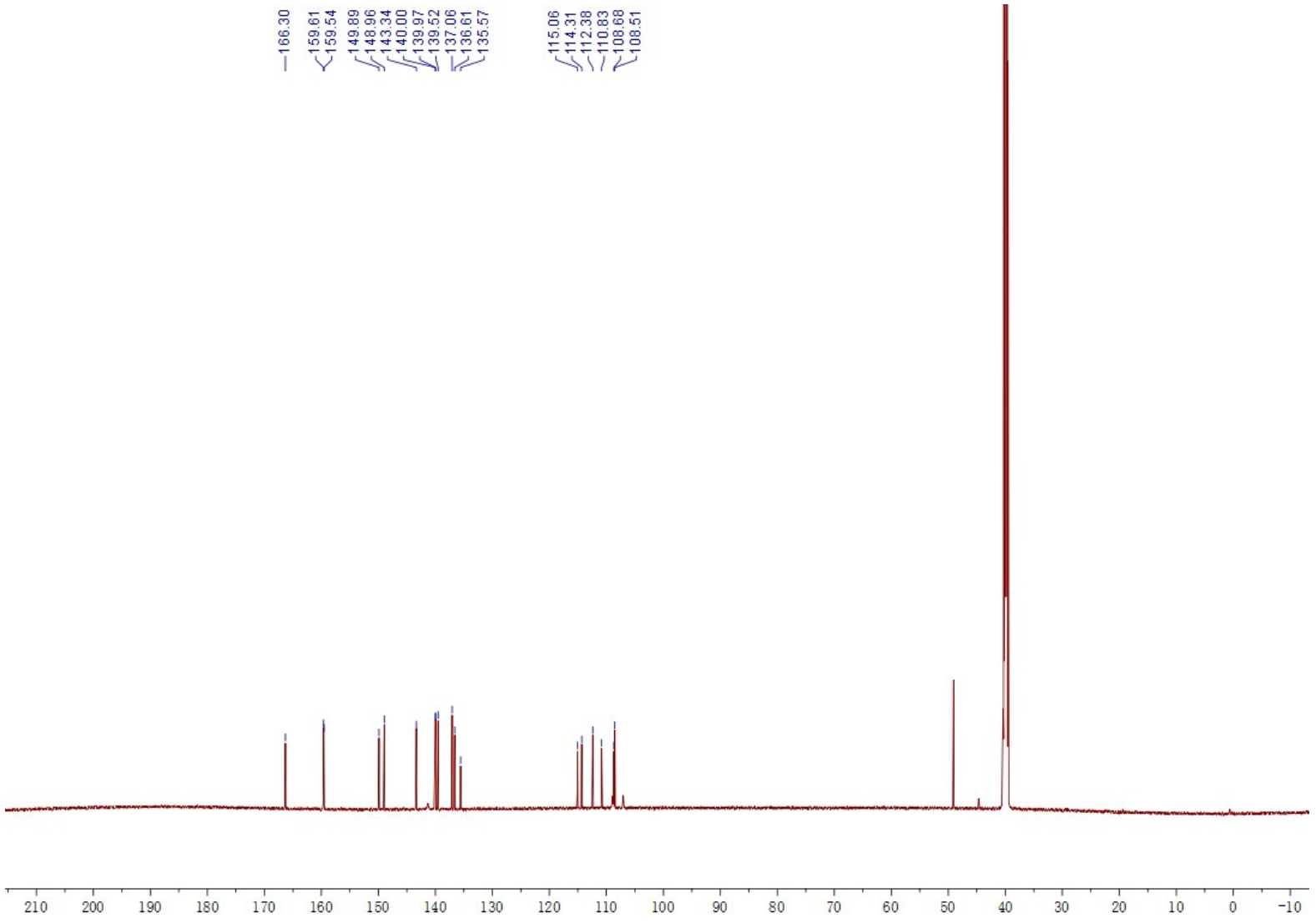


Figure S17. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **5**

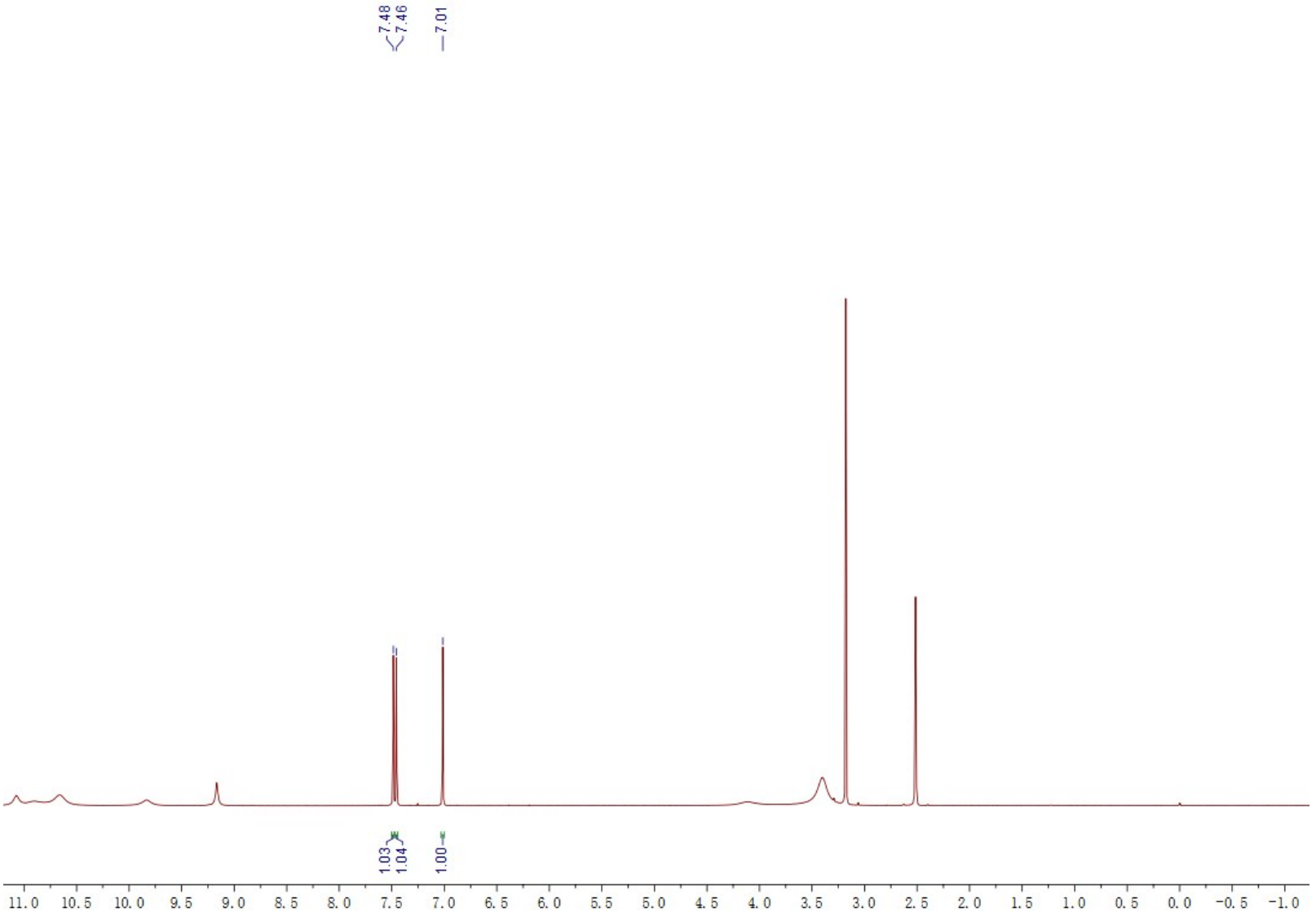


Figure S18. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **6**

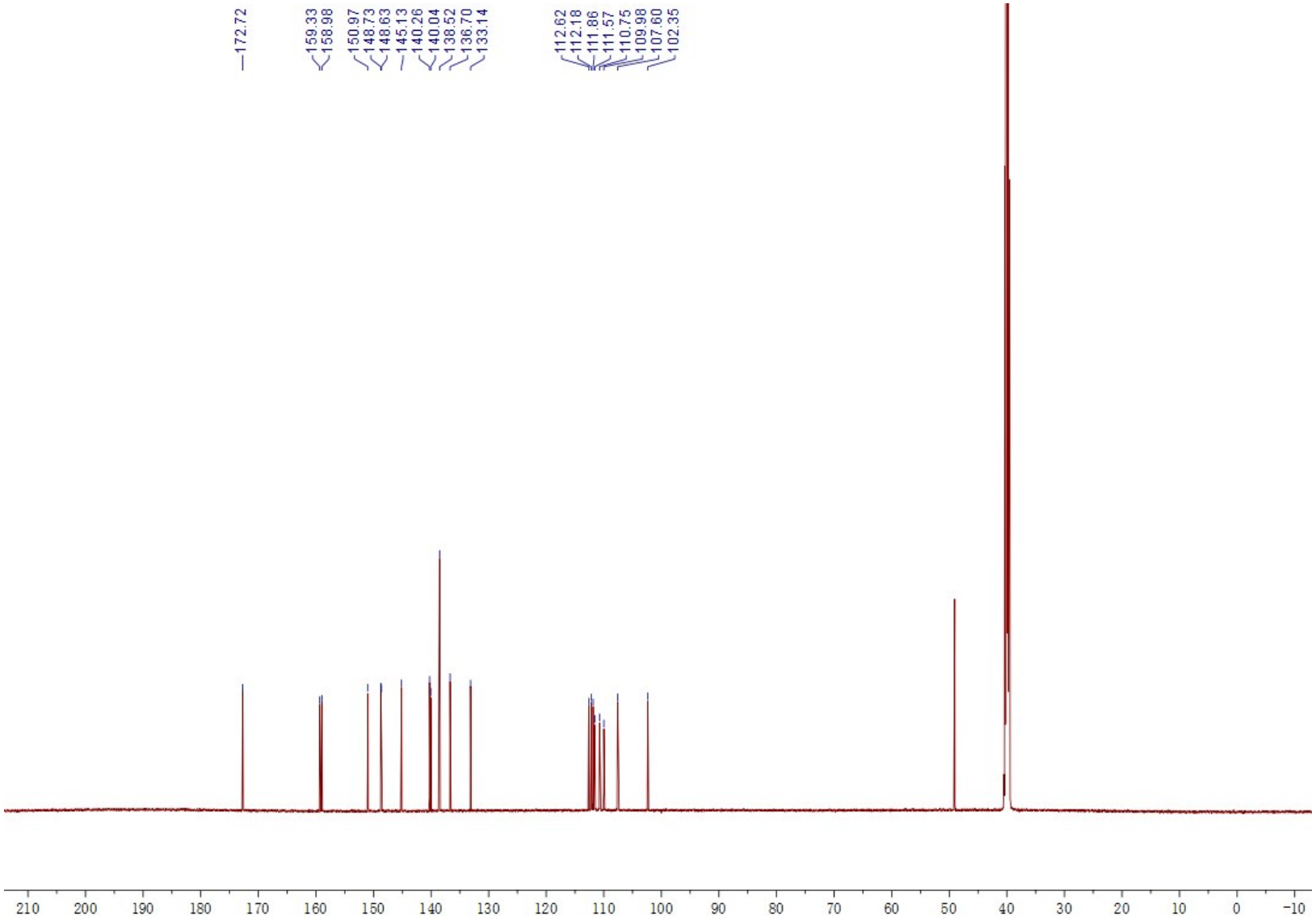


Figure S19. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **6**

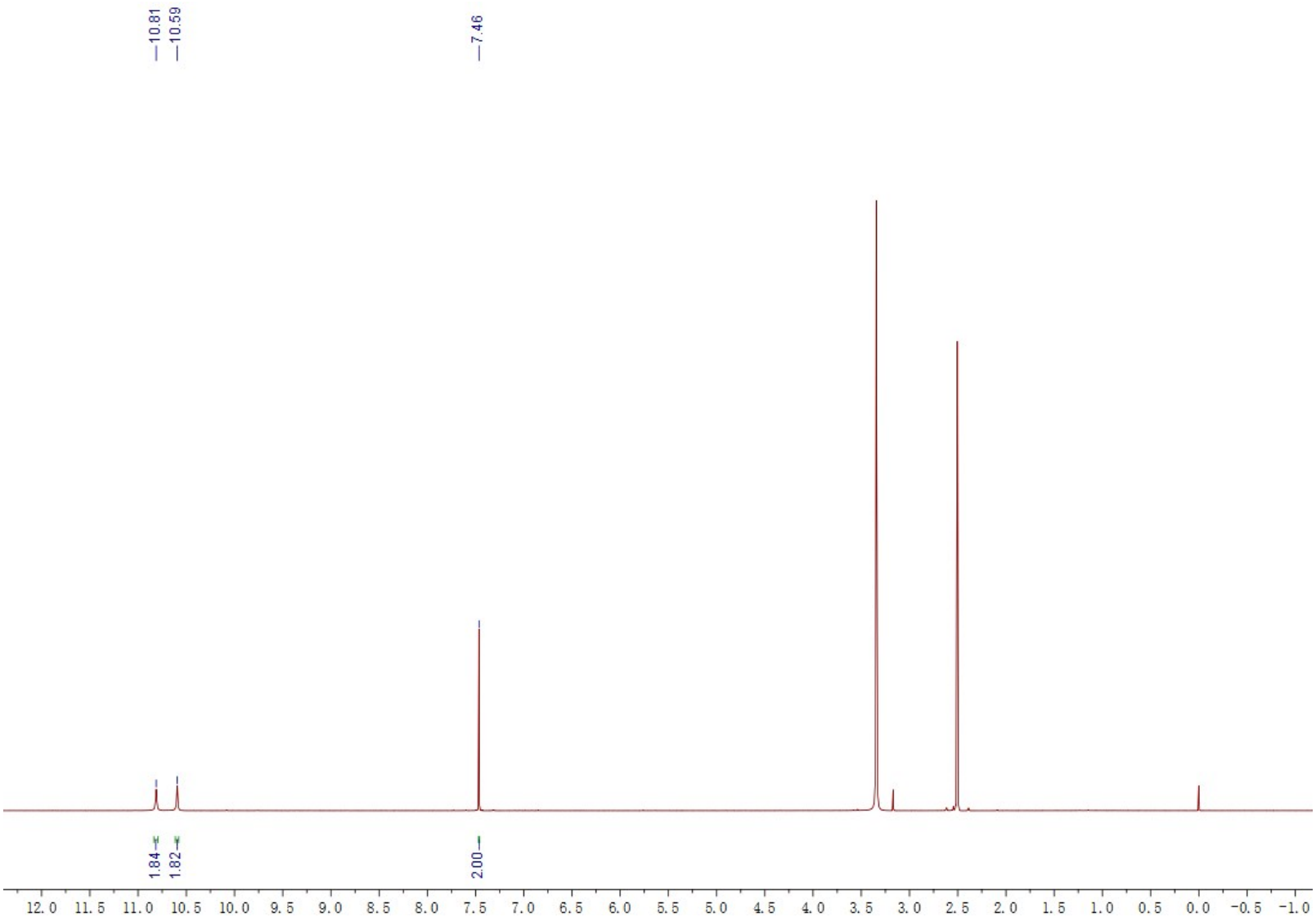


Figure S20. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **7**

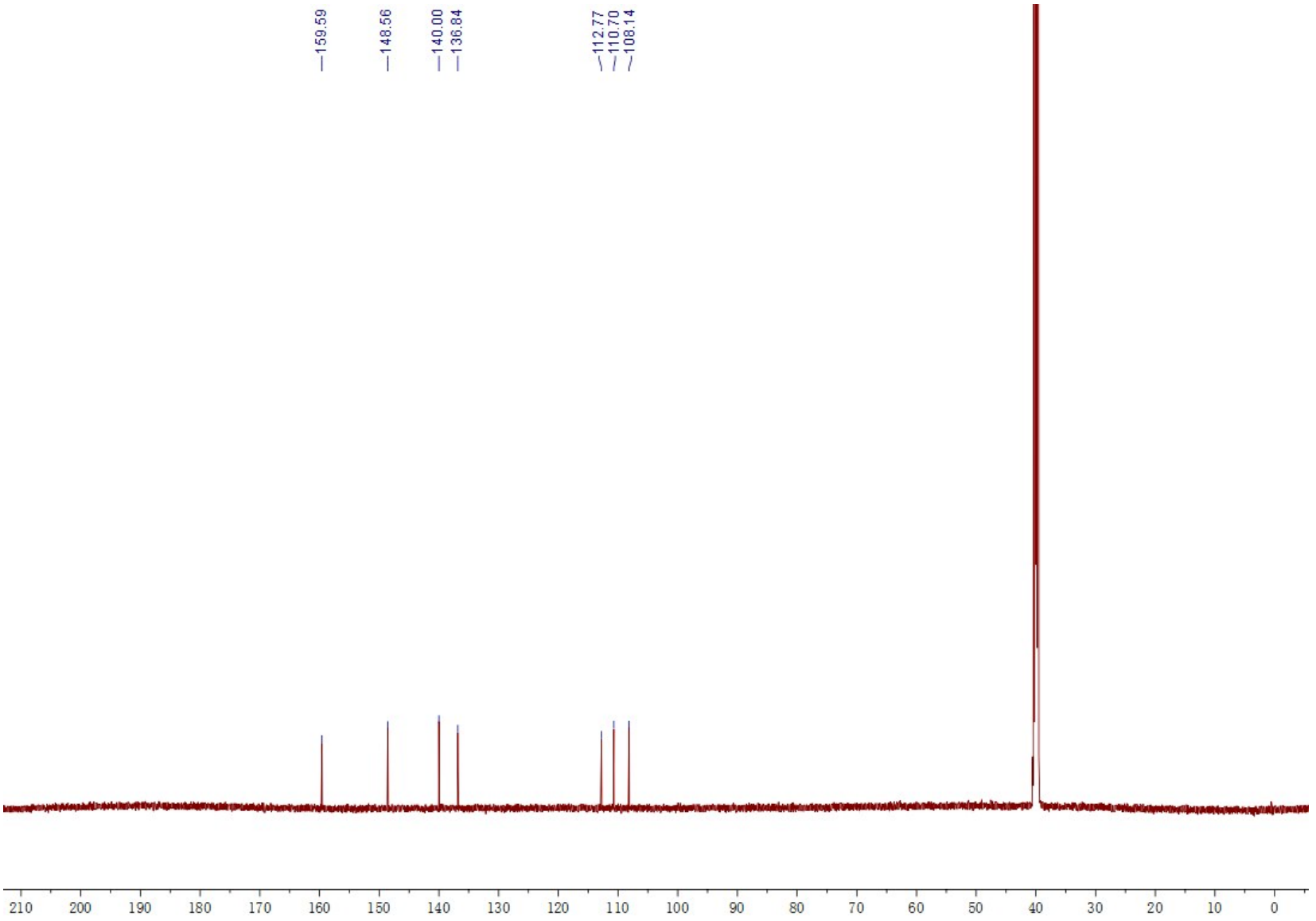


Figure S21. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **7**

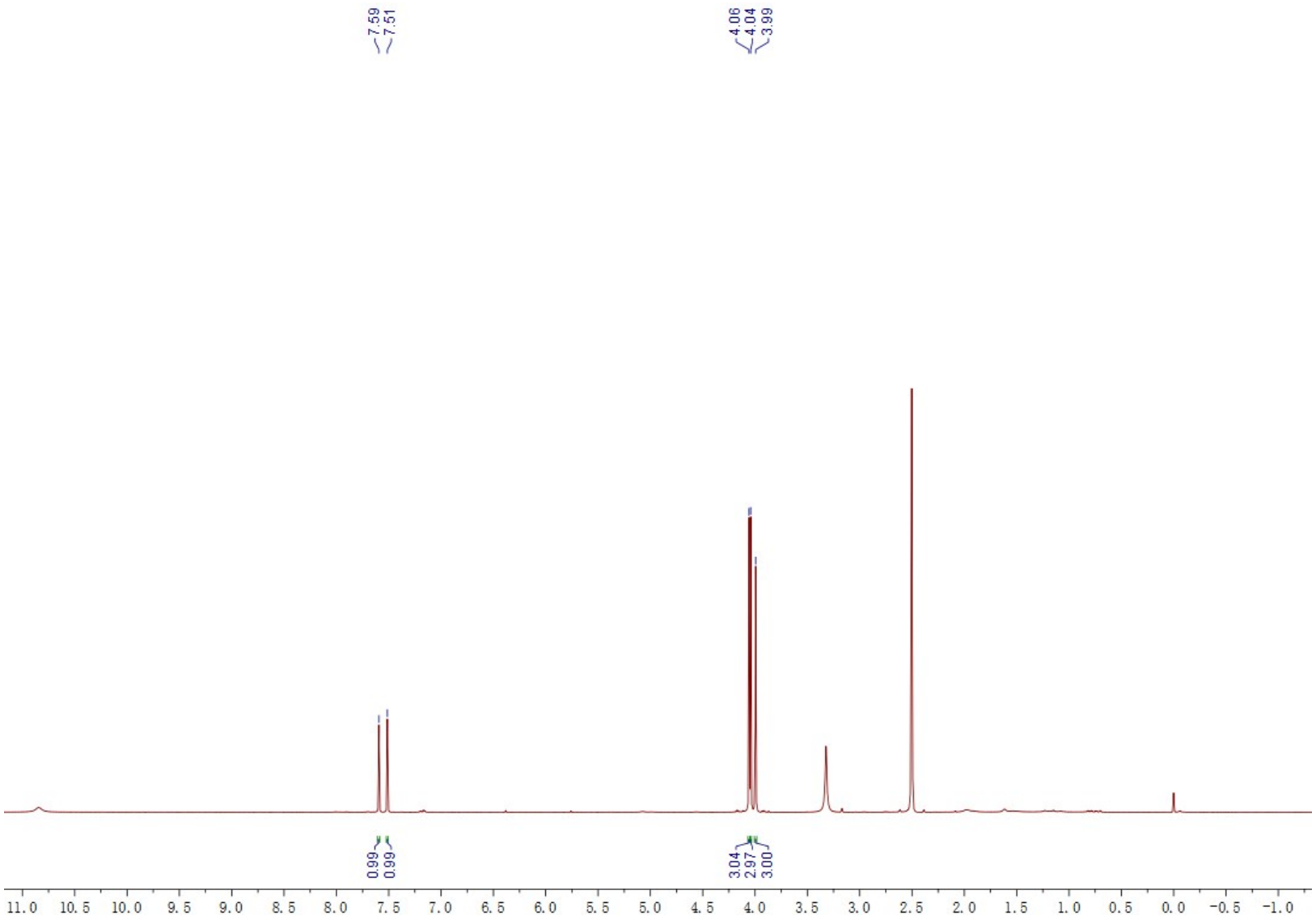


Figure S22. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **8**

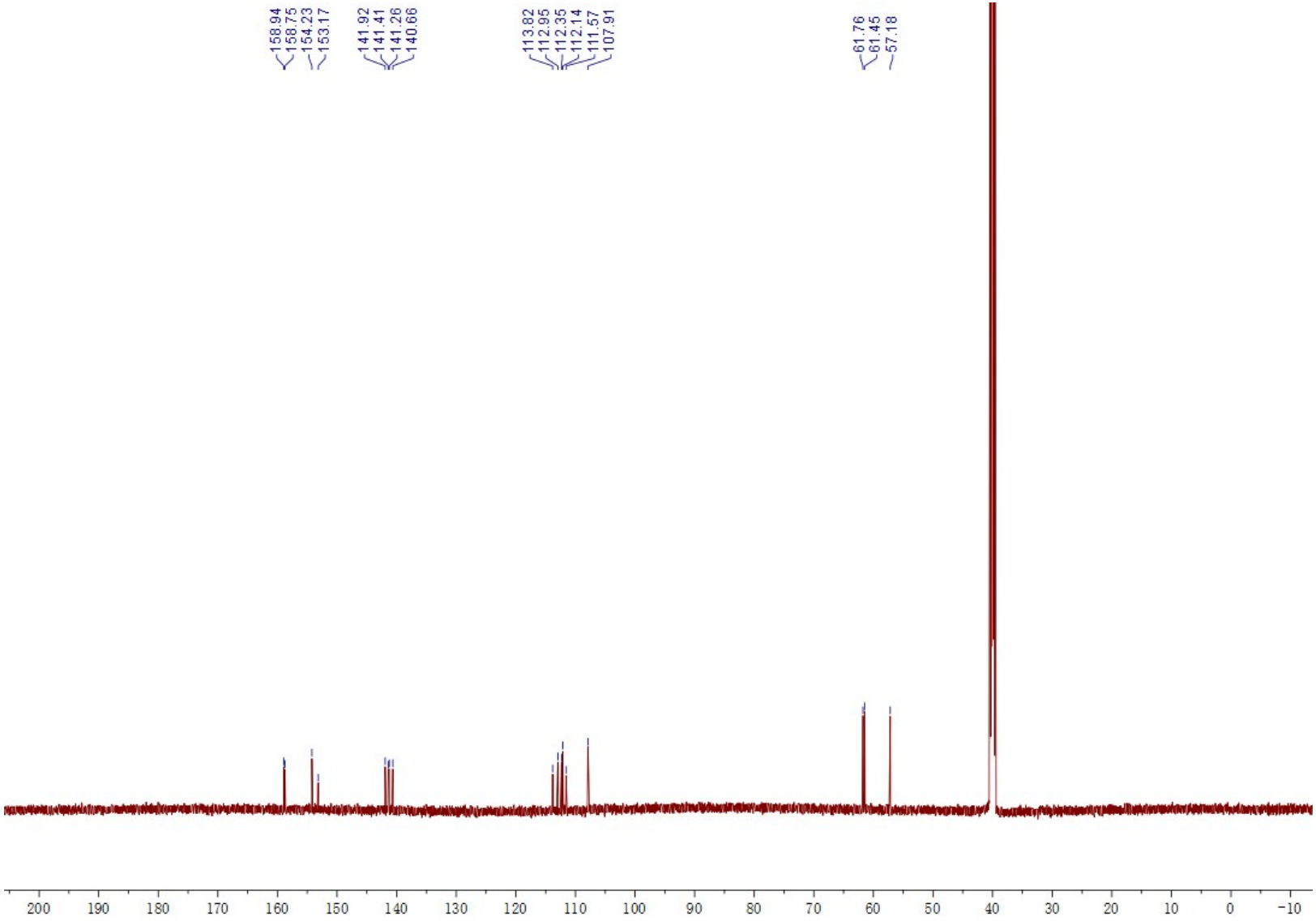


Figure S23. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **8**

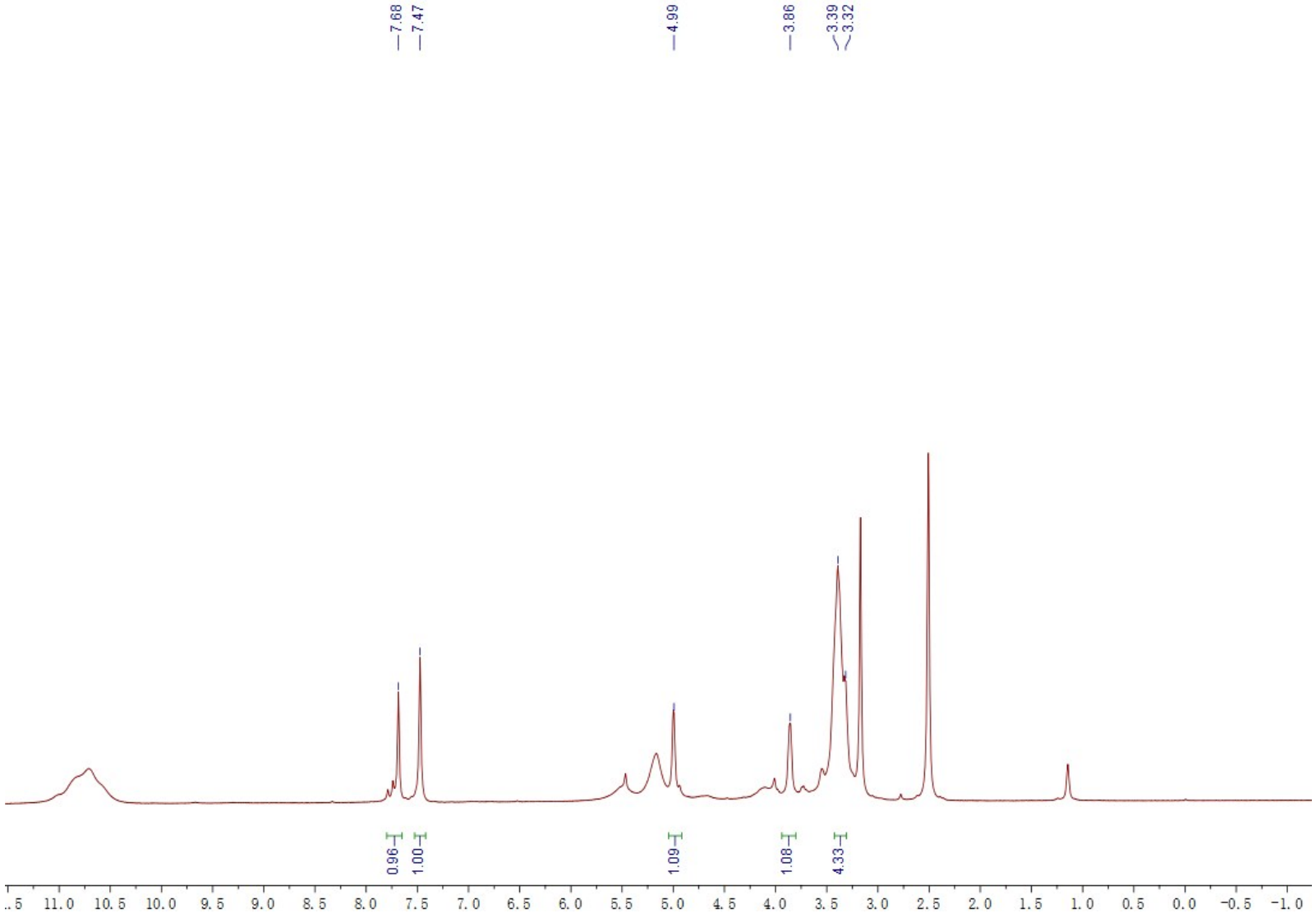


Figure S24. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **9**

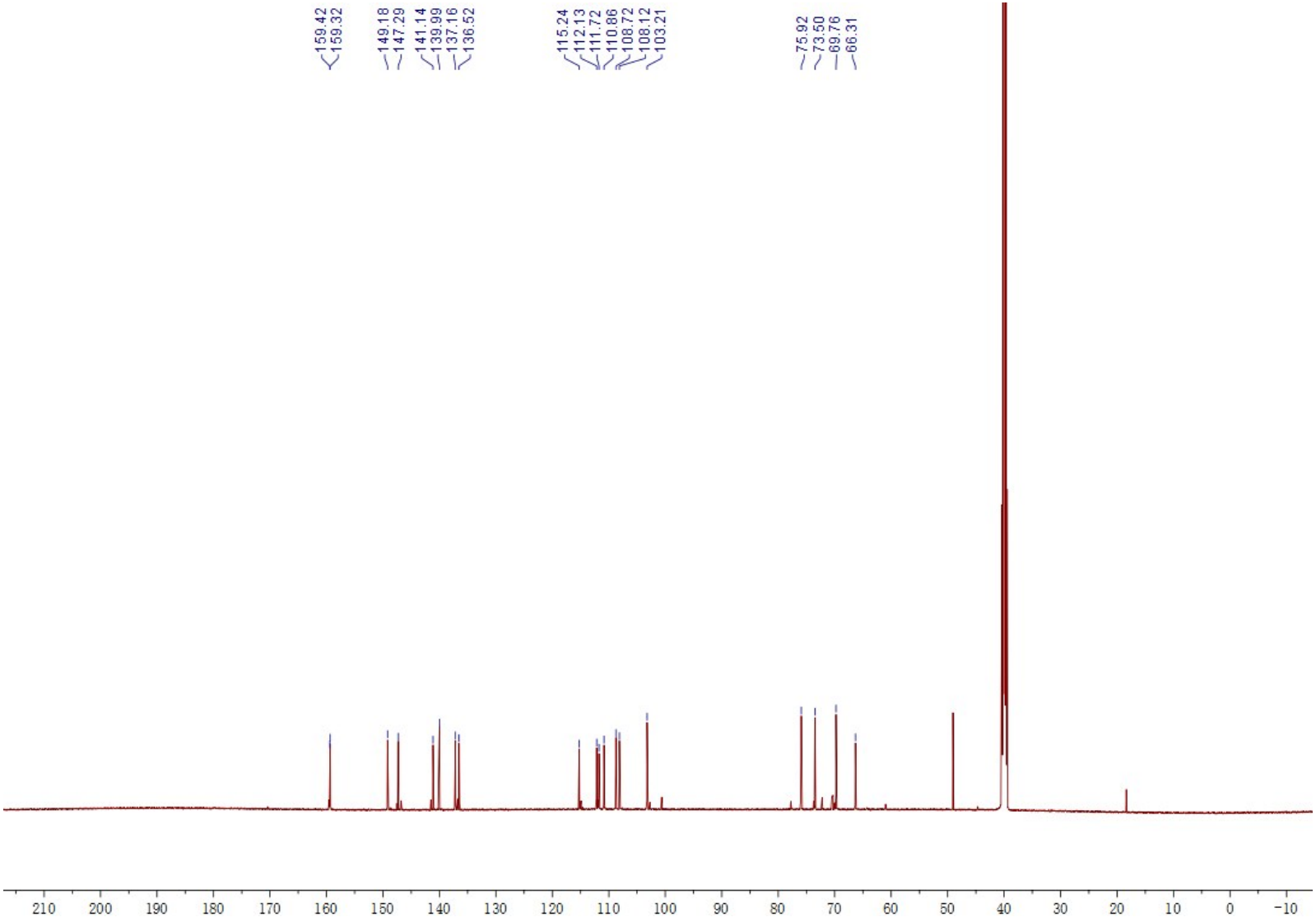


Figure S25. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **9**

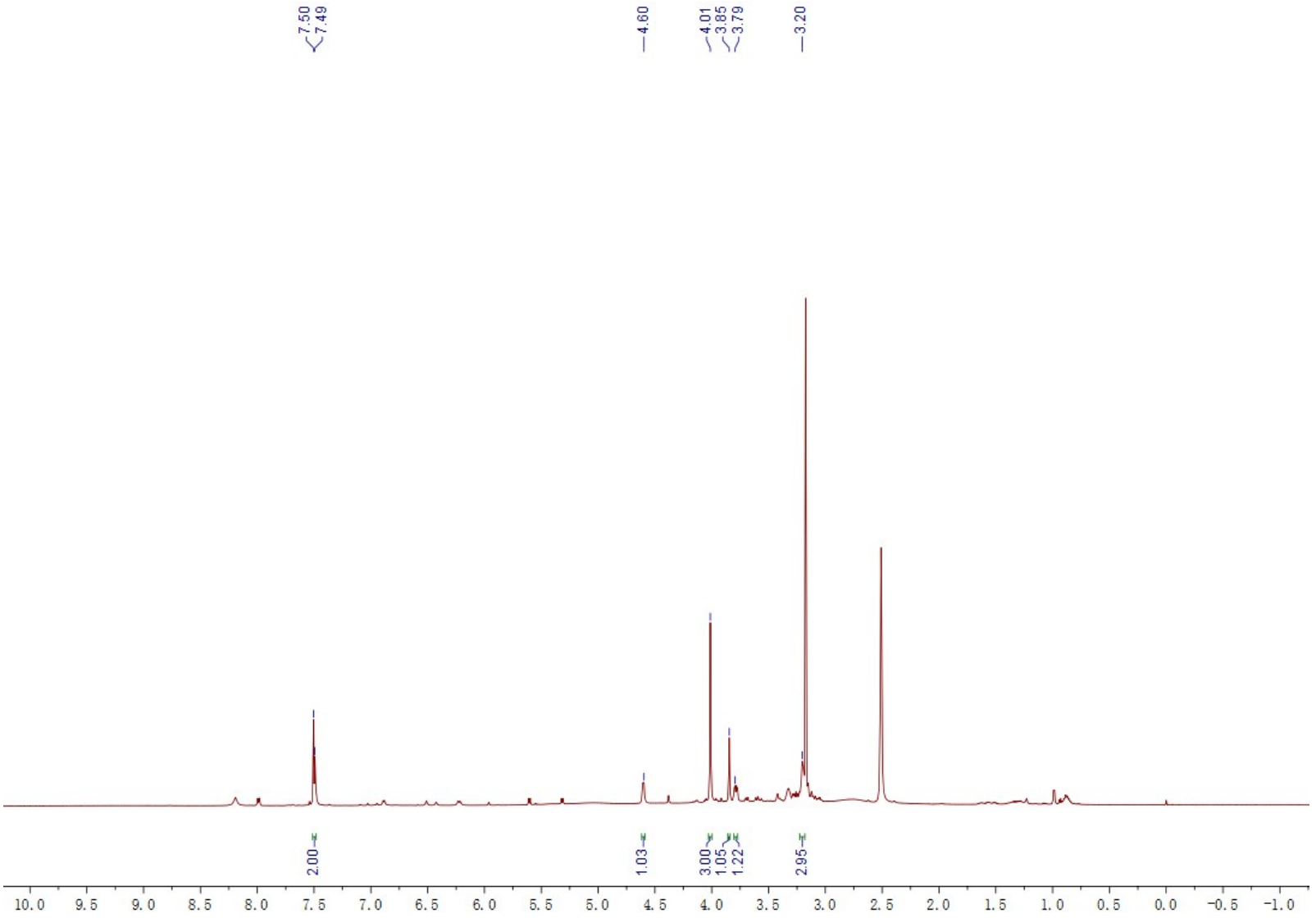


Figure S26. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **10**

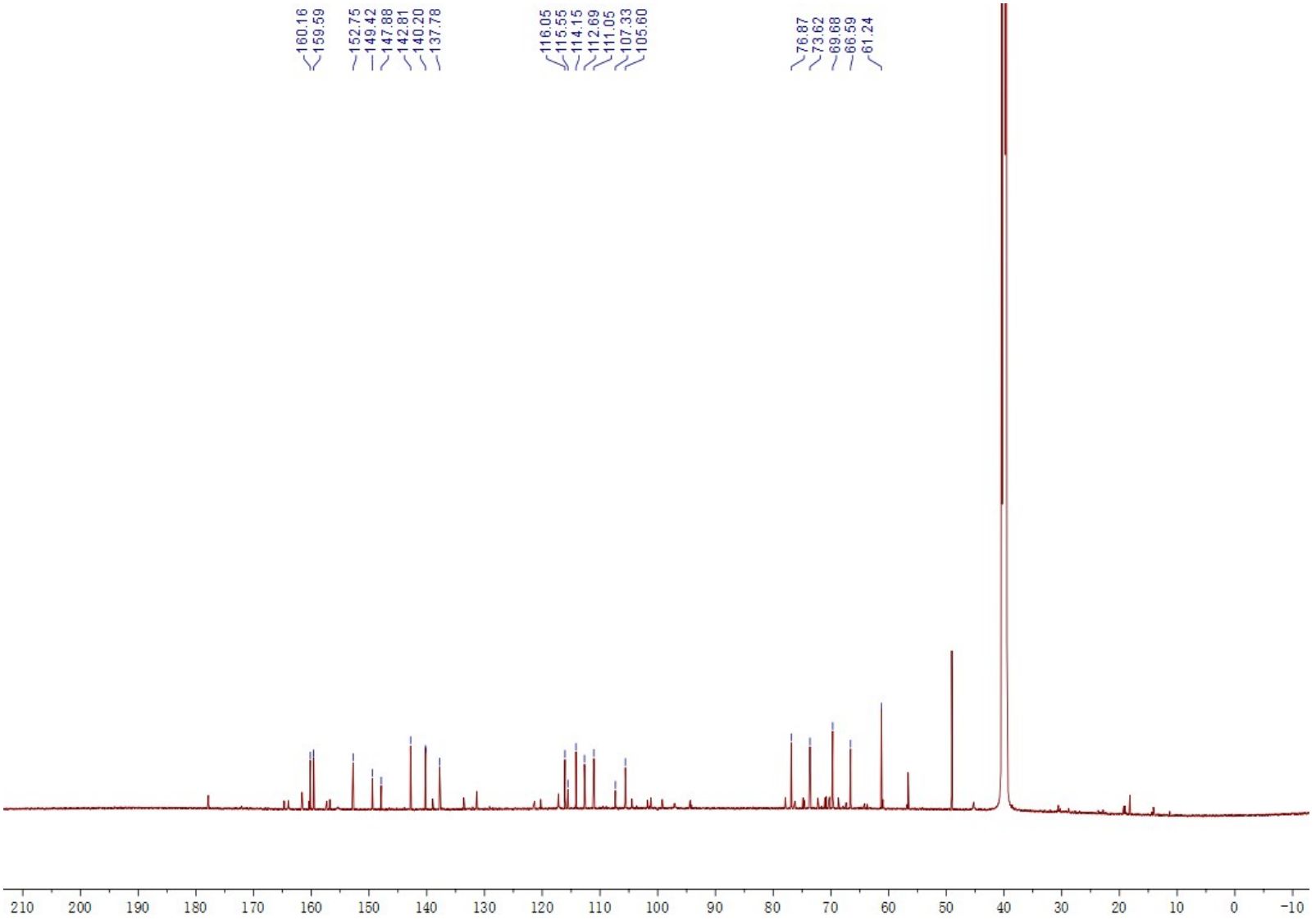


Figure S27. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **10**

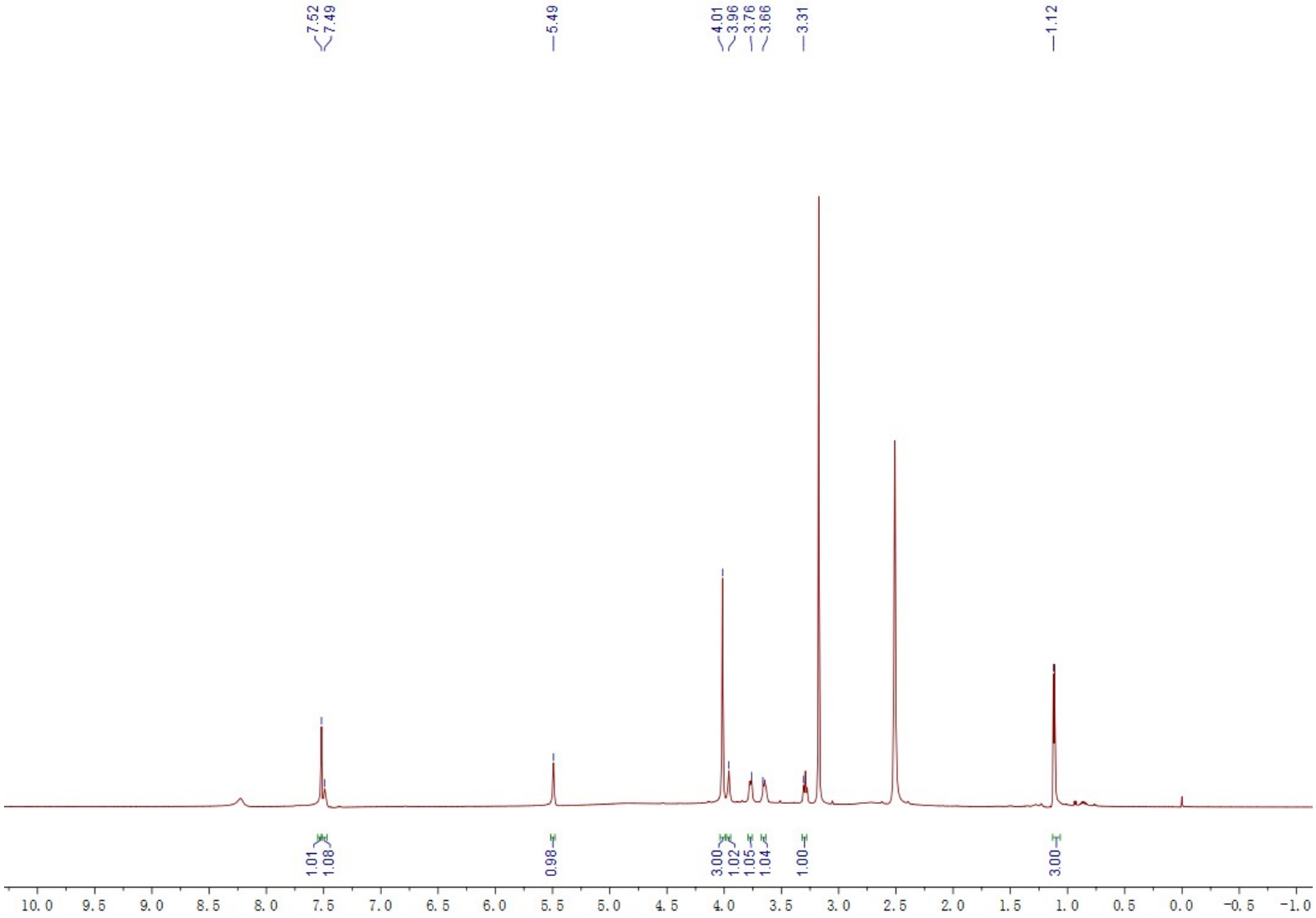


Figure S28. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **11**

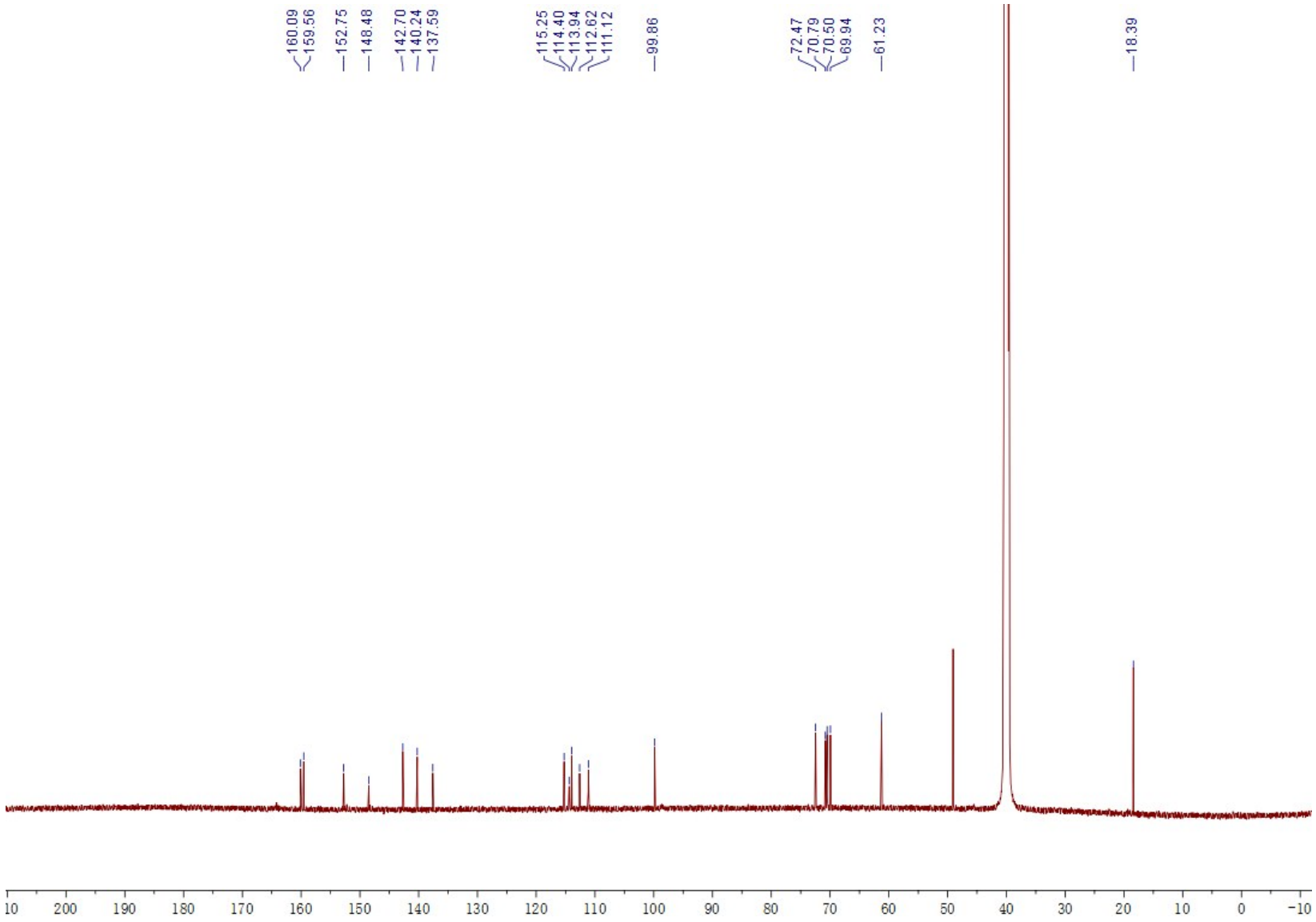


Figure S29. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **11**

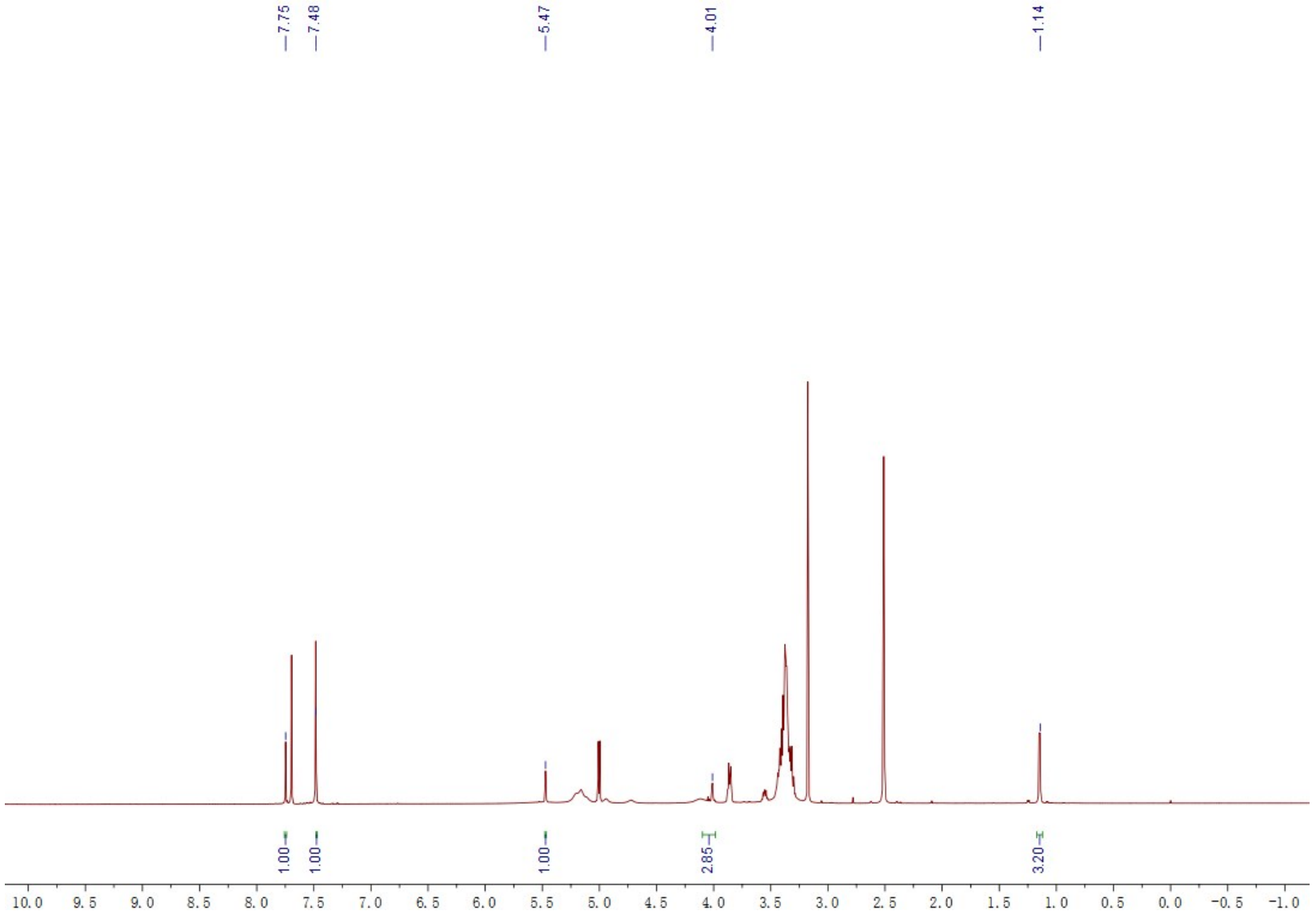


Figure S30. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **12**

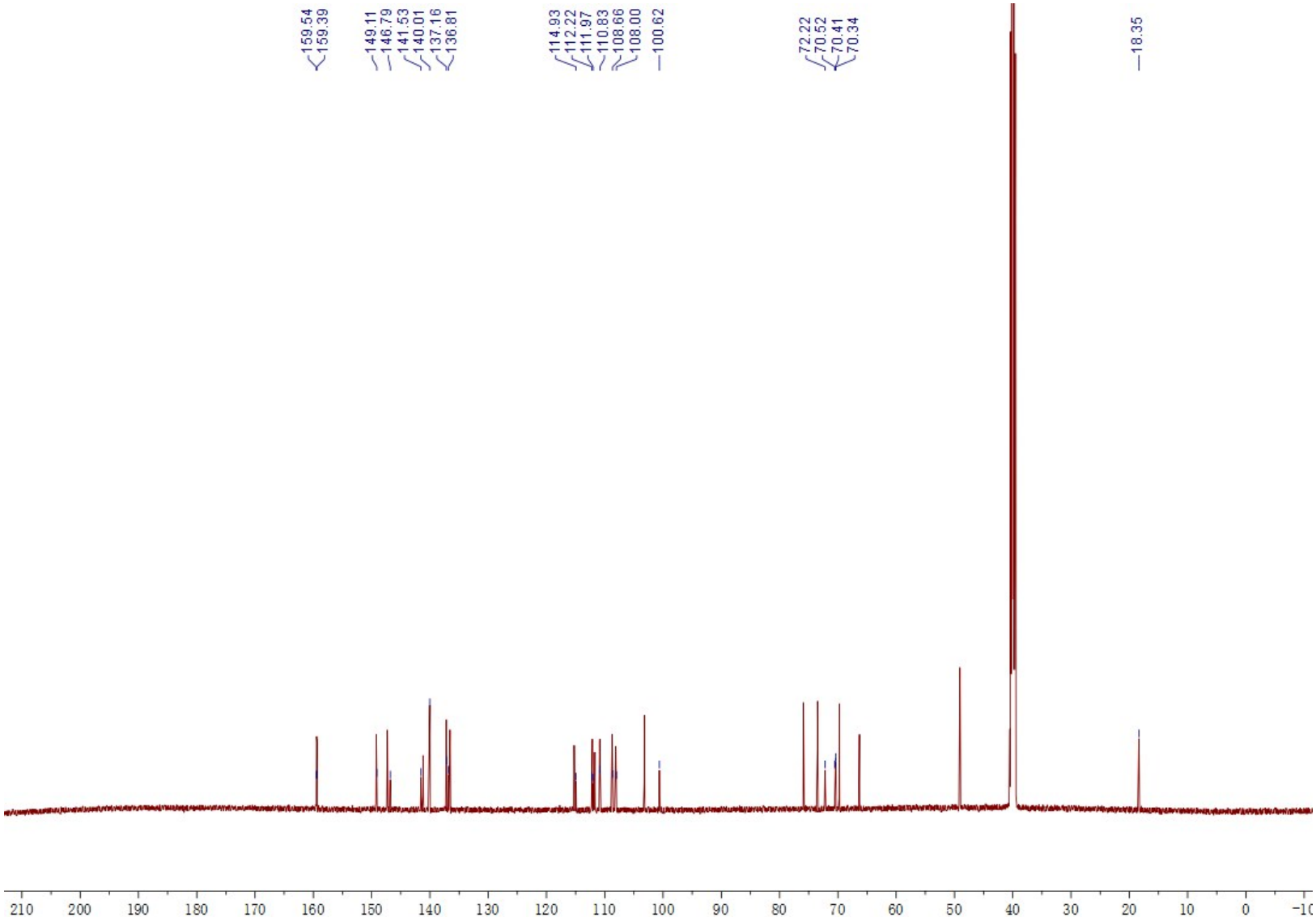


Figure S31. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **12**

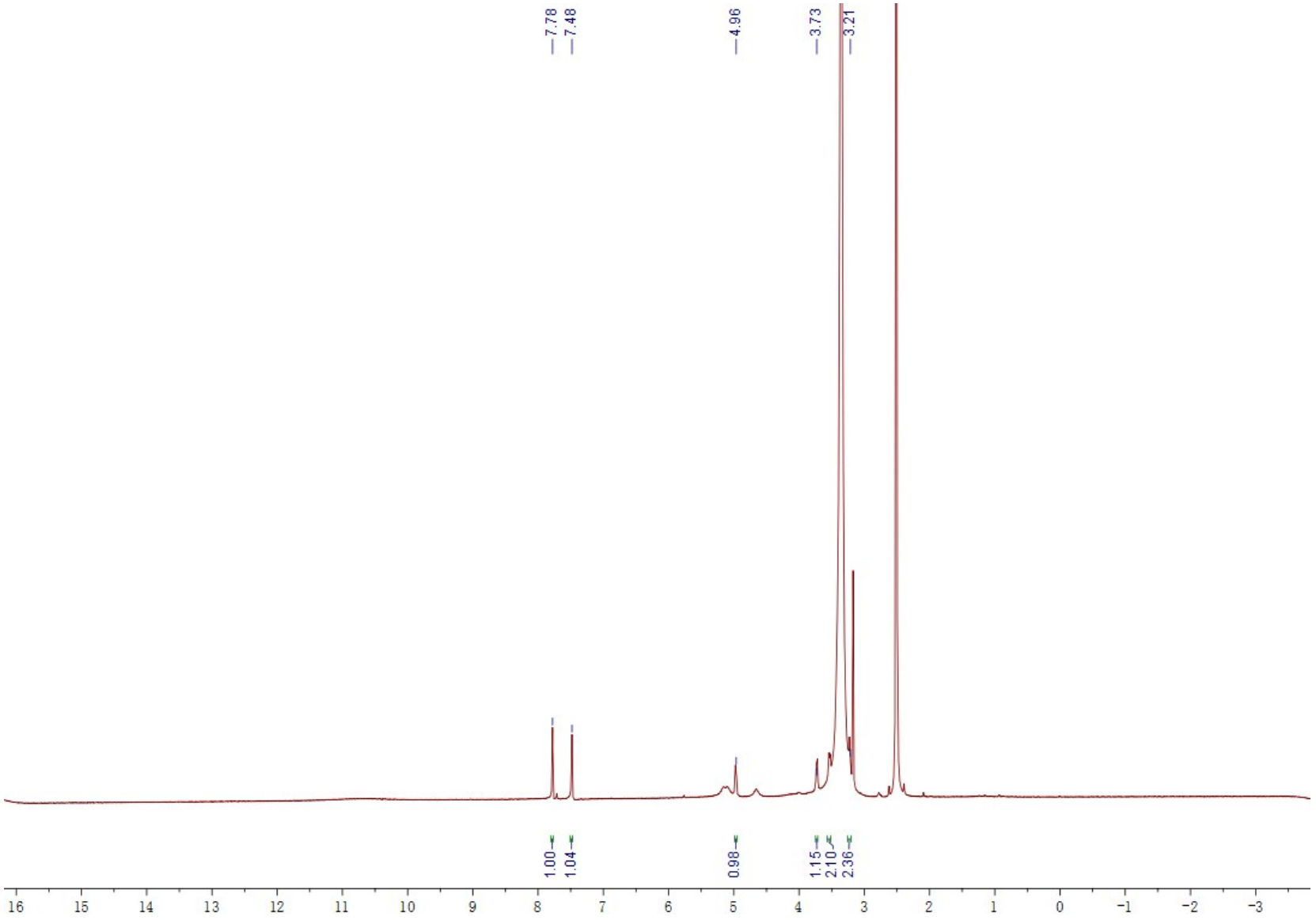


Figure S32. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **13**

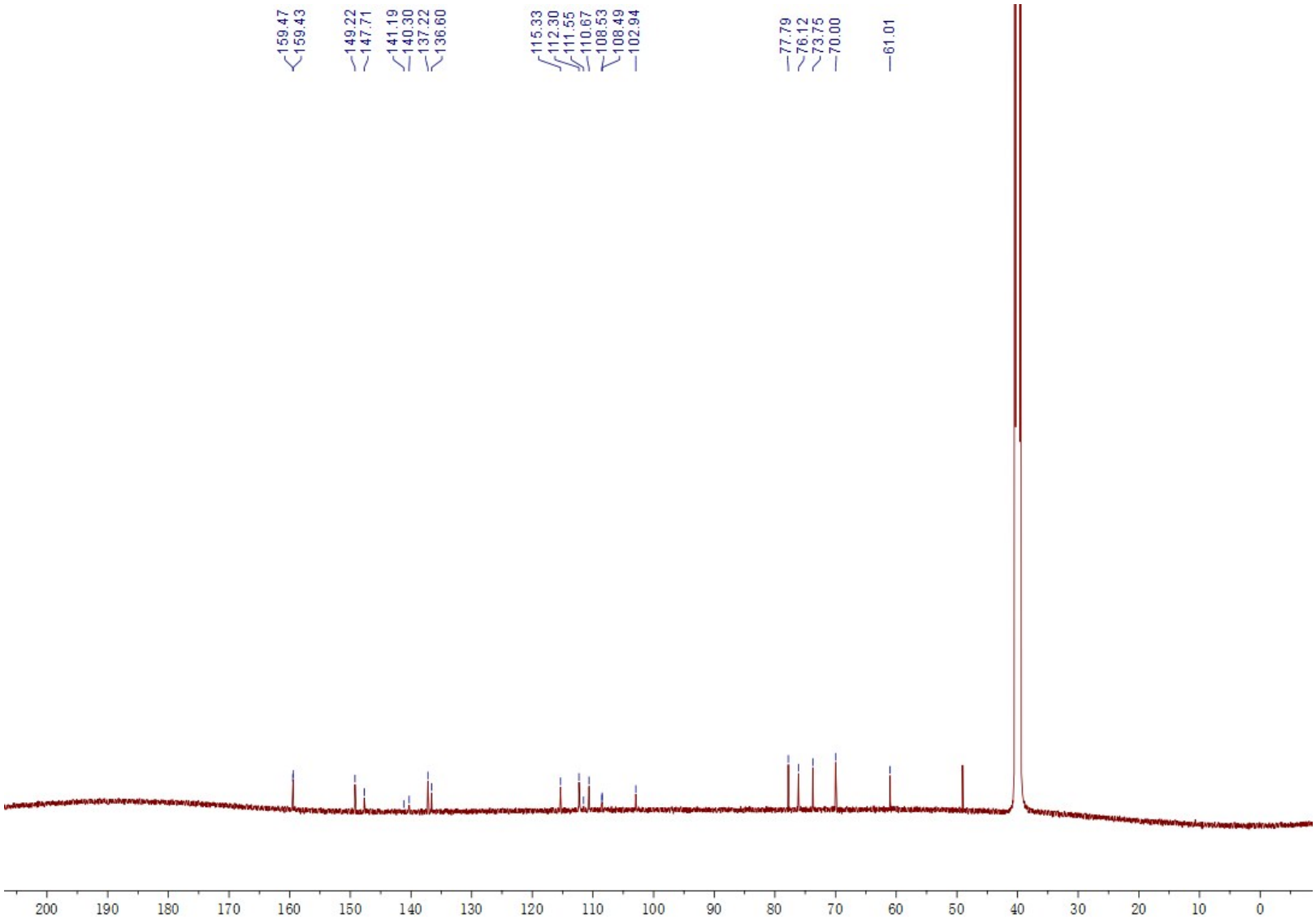


Figure S33. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **13**

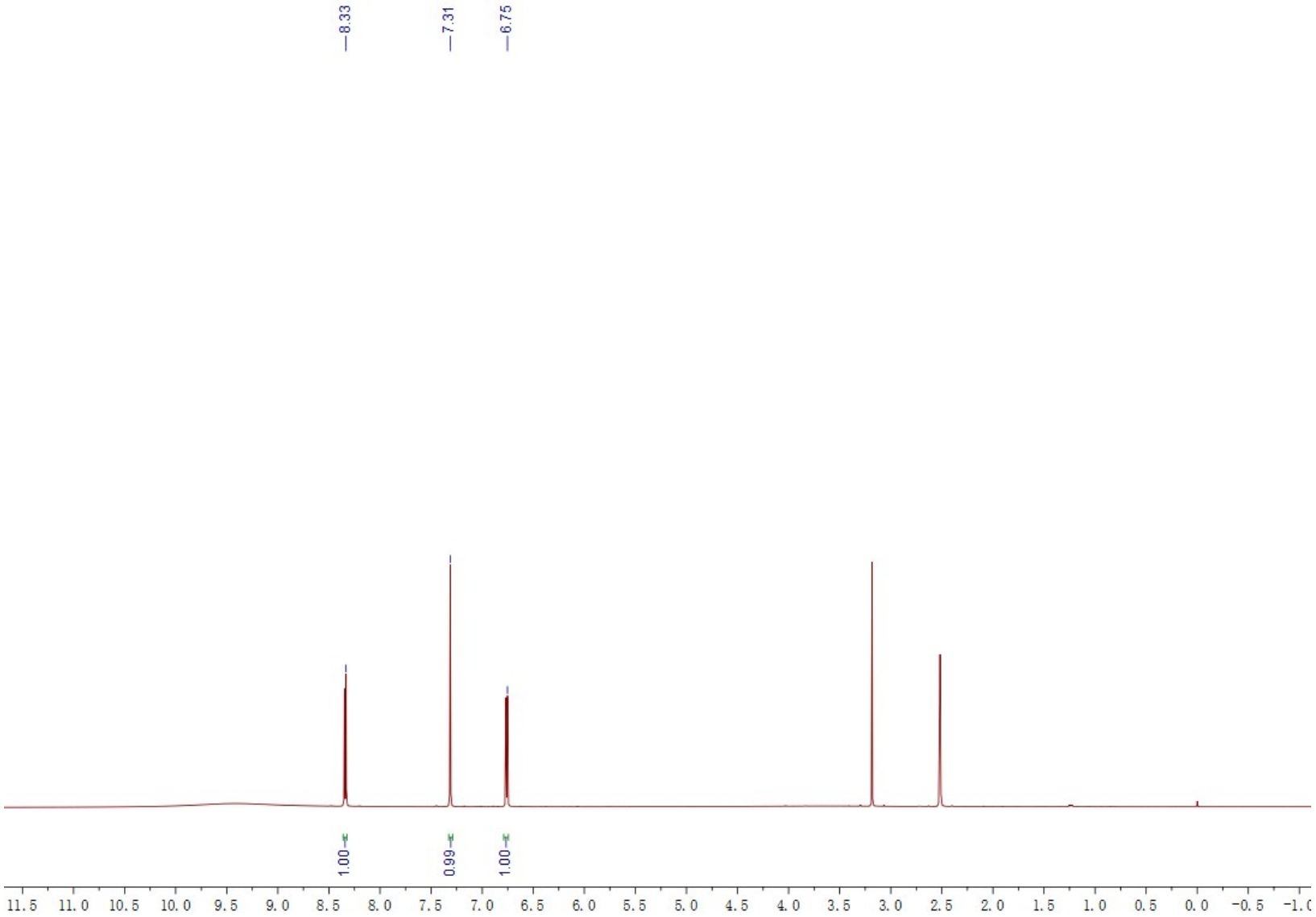


Figure S34. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **14**

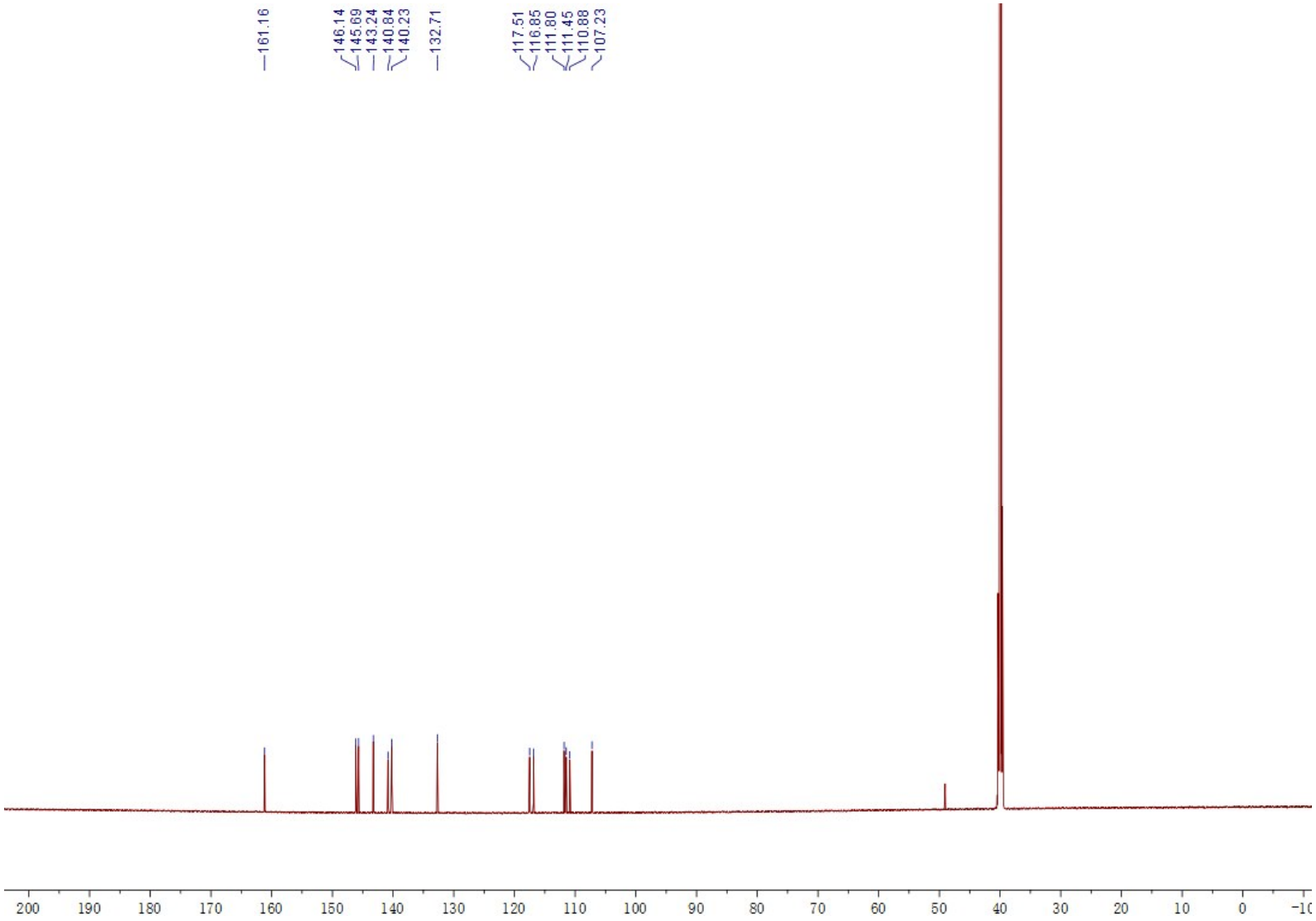


Figure S35. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **14**

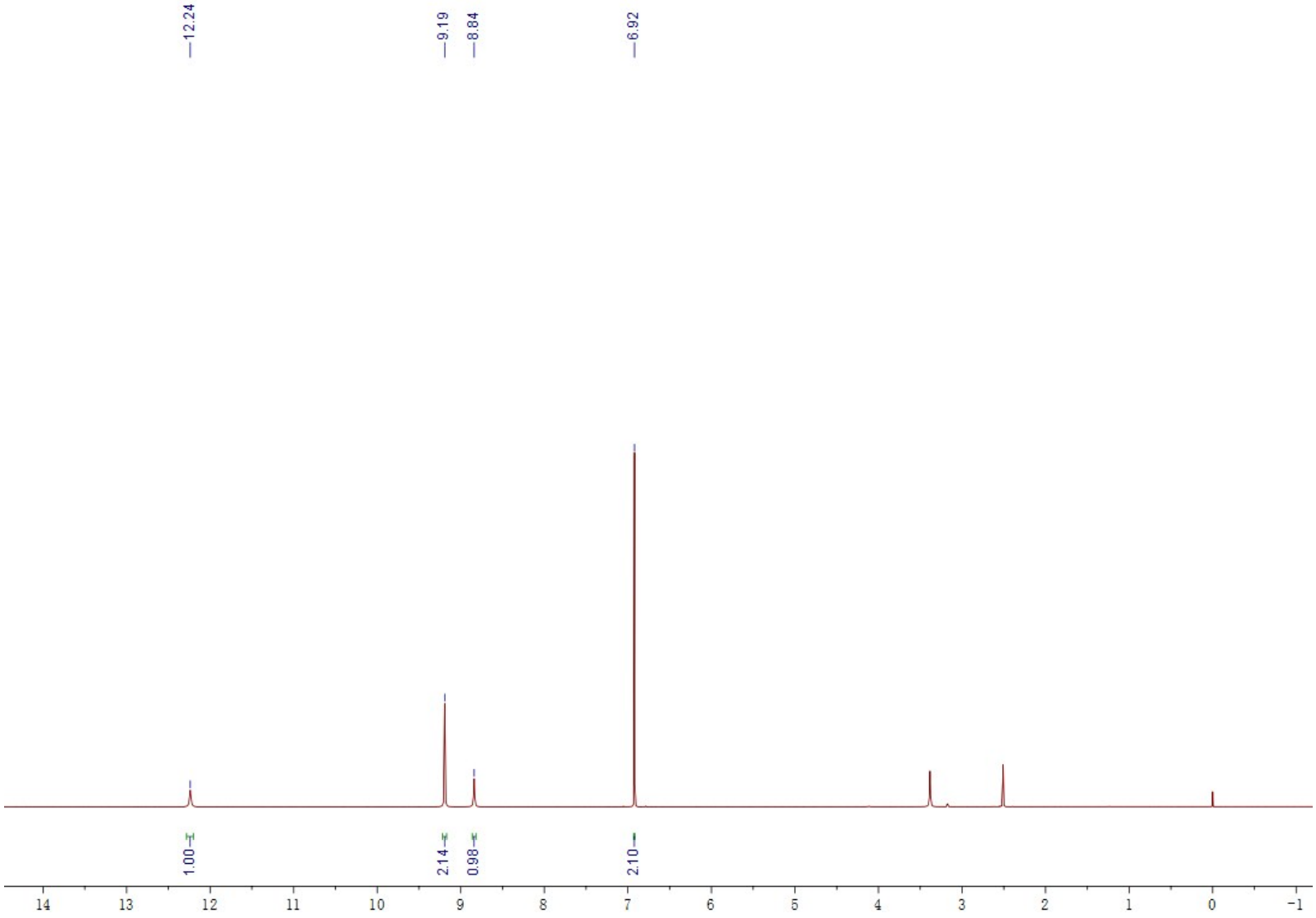


Figure S36. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **15**

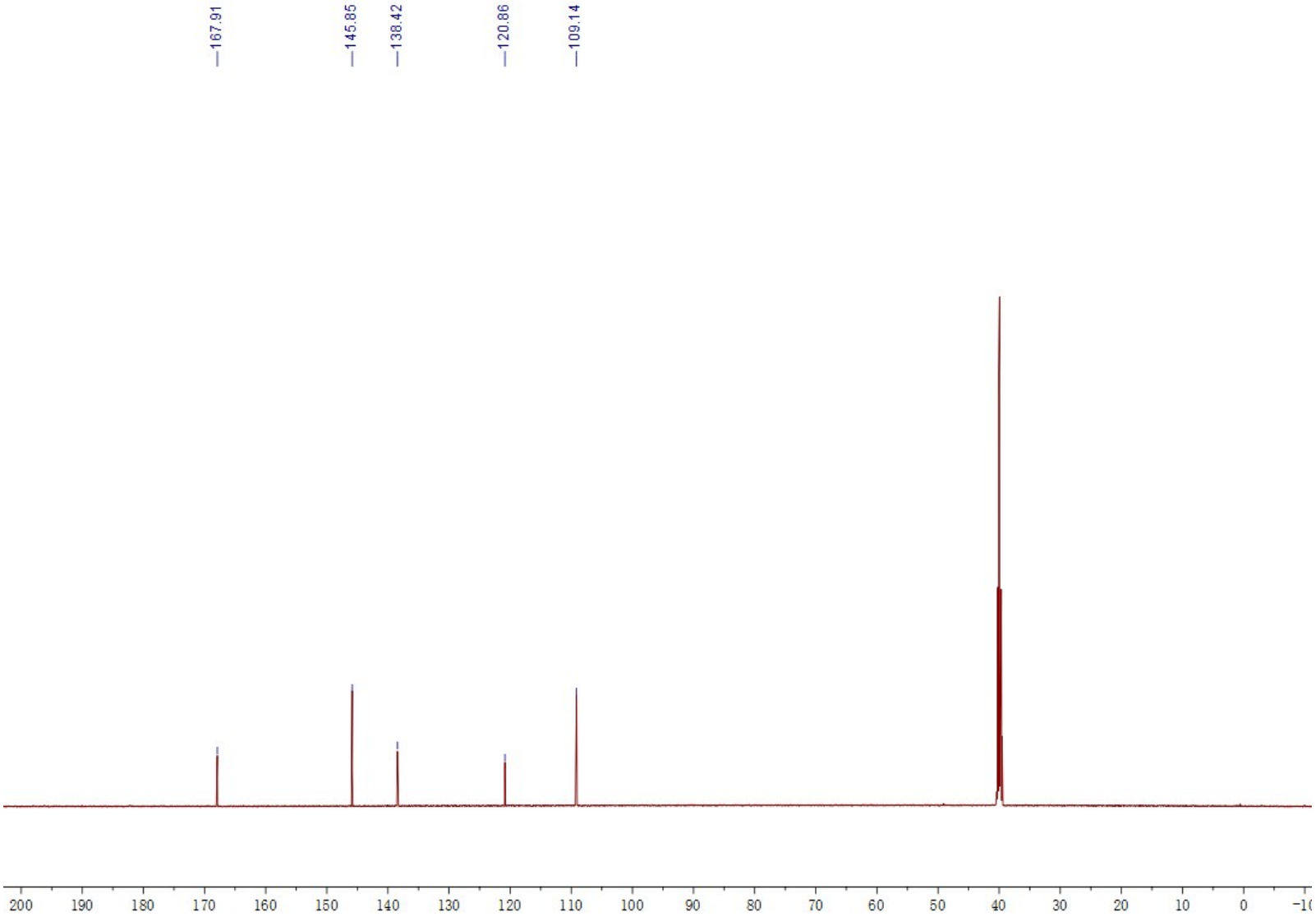


Figure S37. $^{13}$C NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **15**

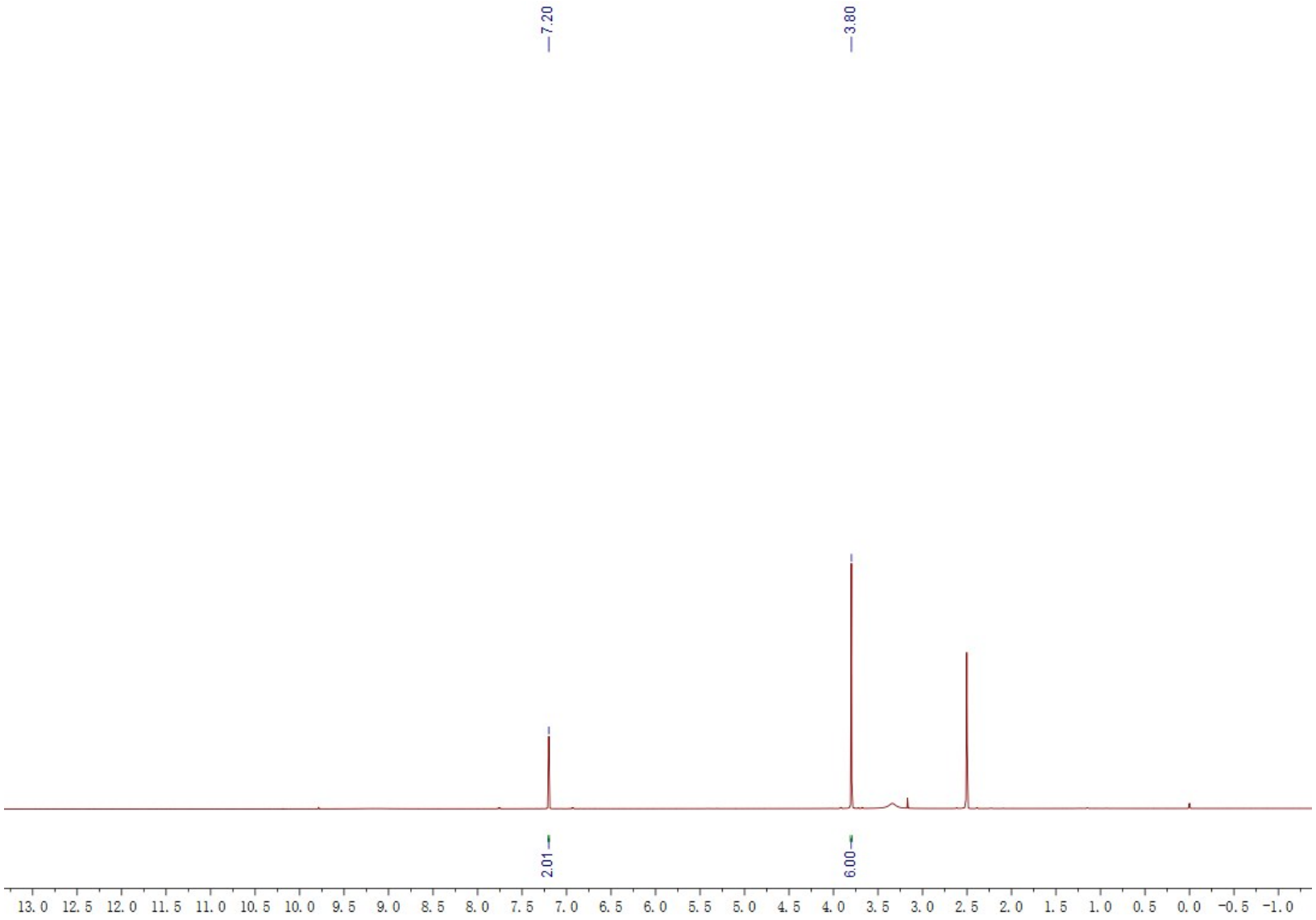


Figure S38. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **16**

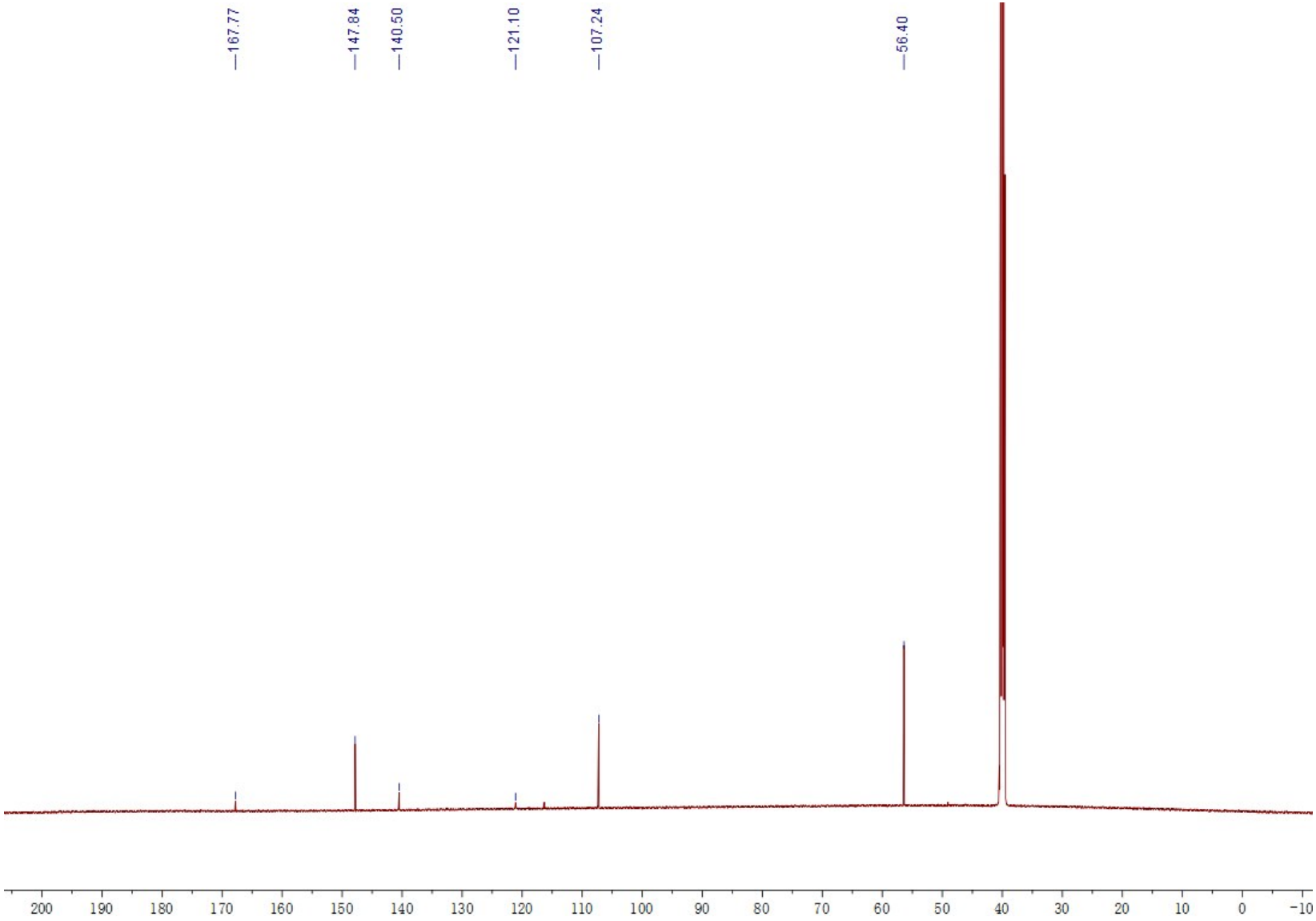


Figure S39. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **16**

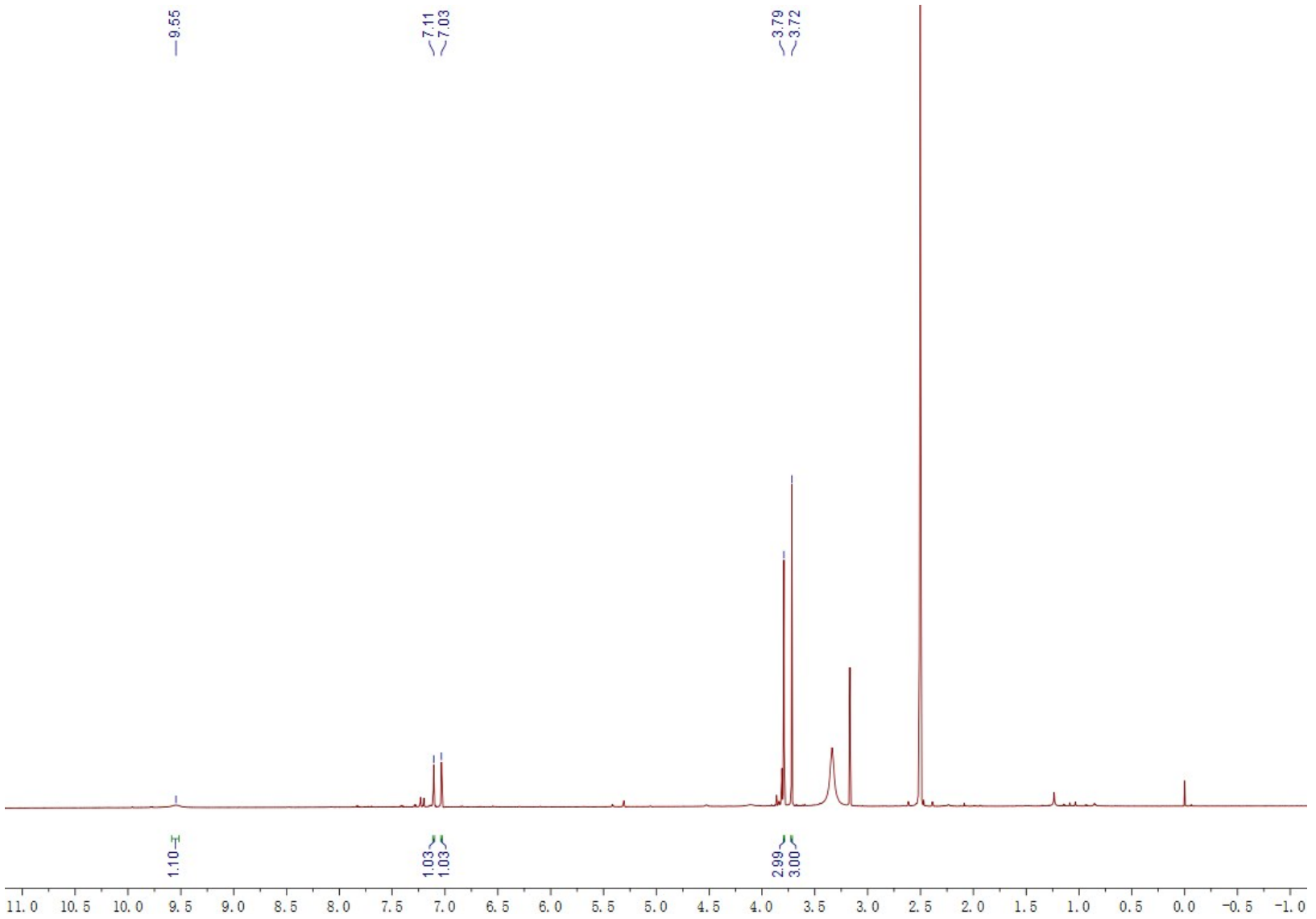


Figure S40. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **17**

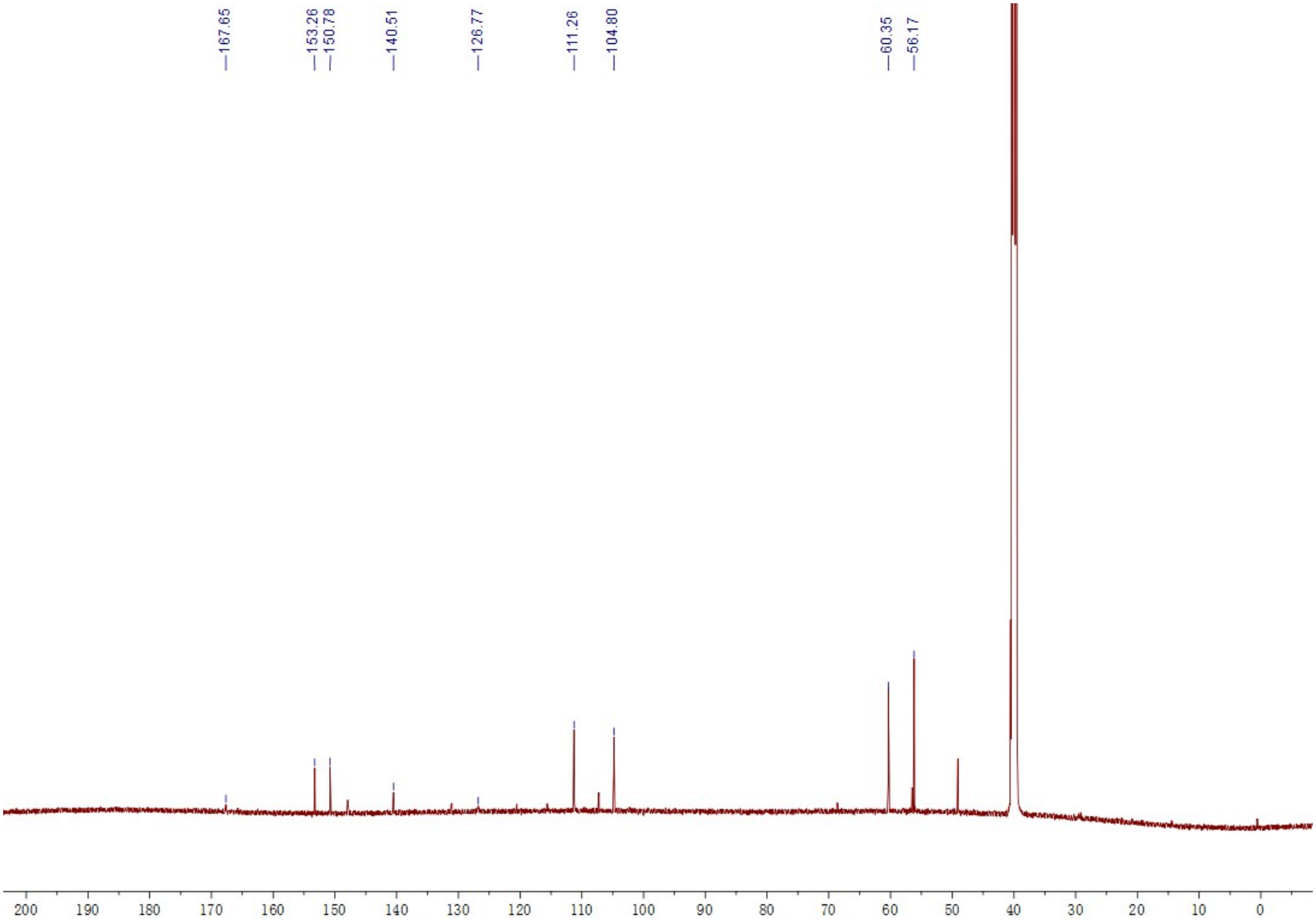


Figure S41. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **17**

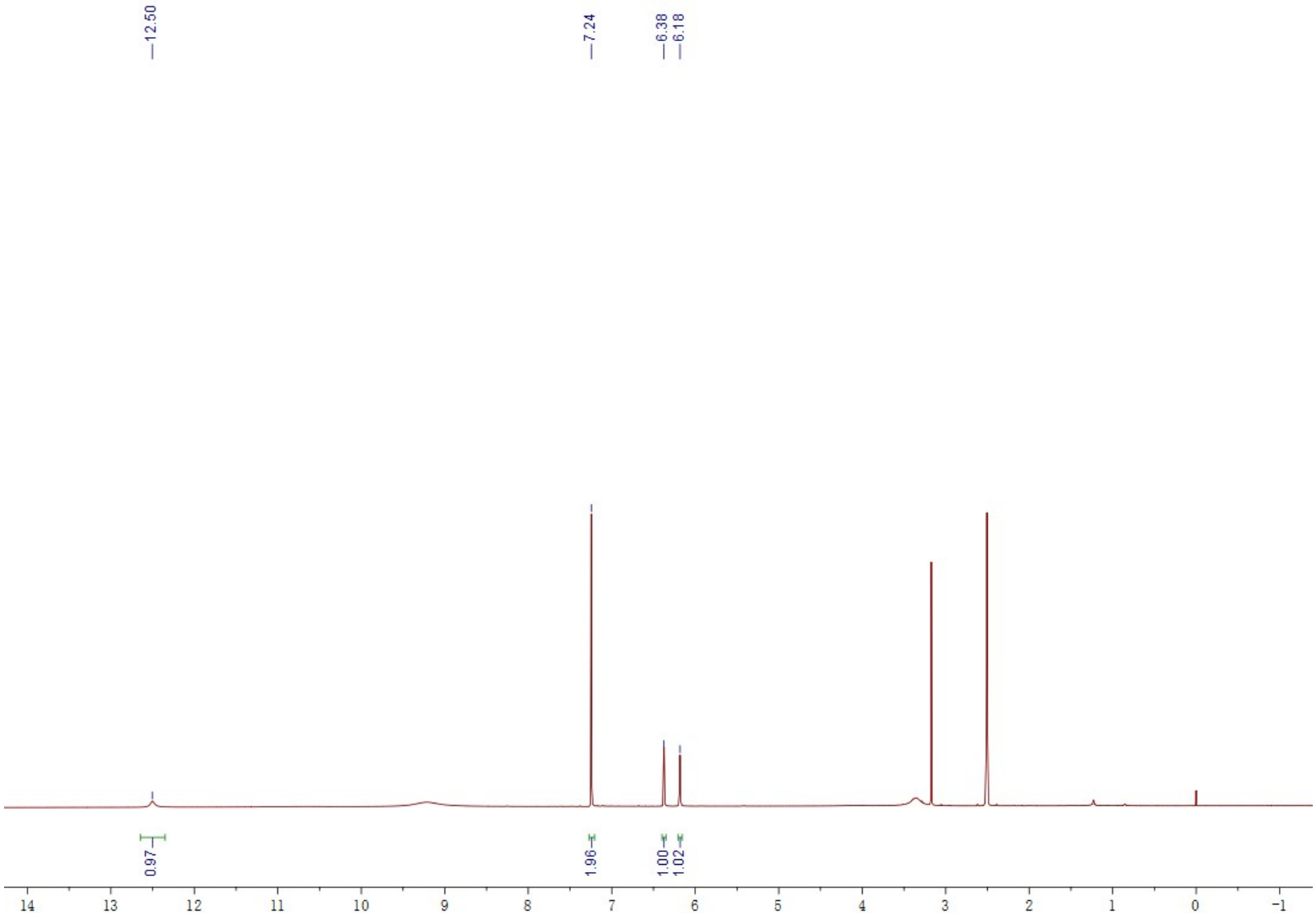


Figure S42. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **18**

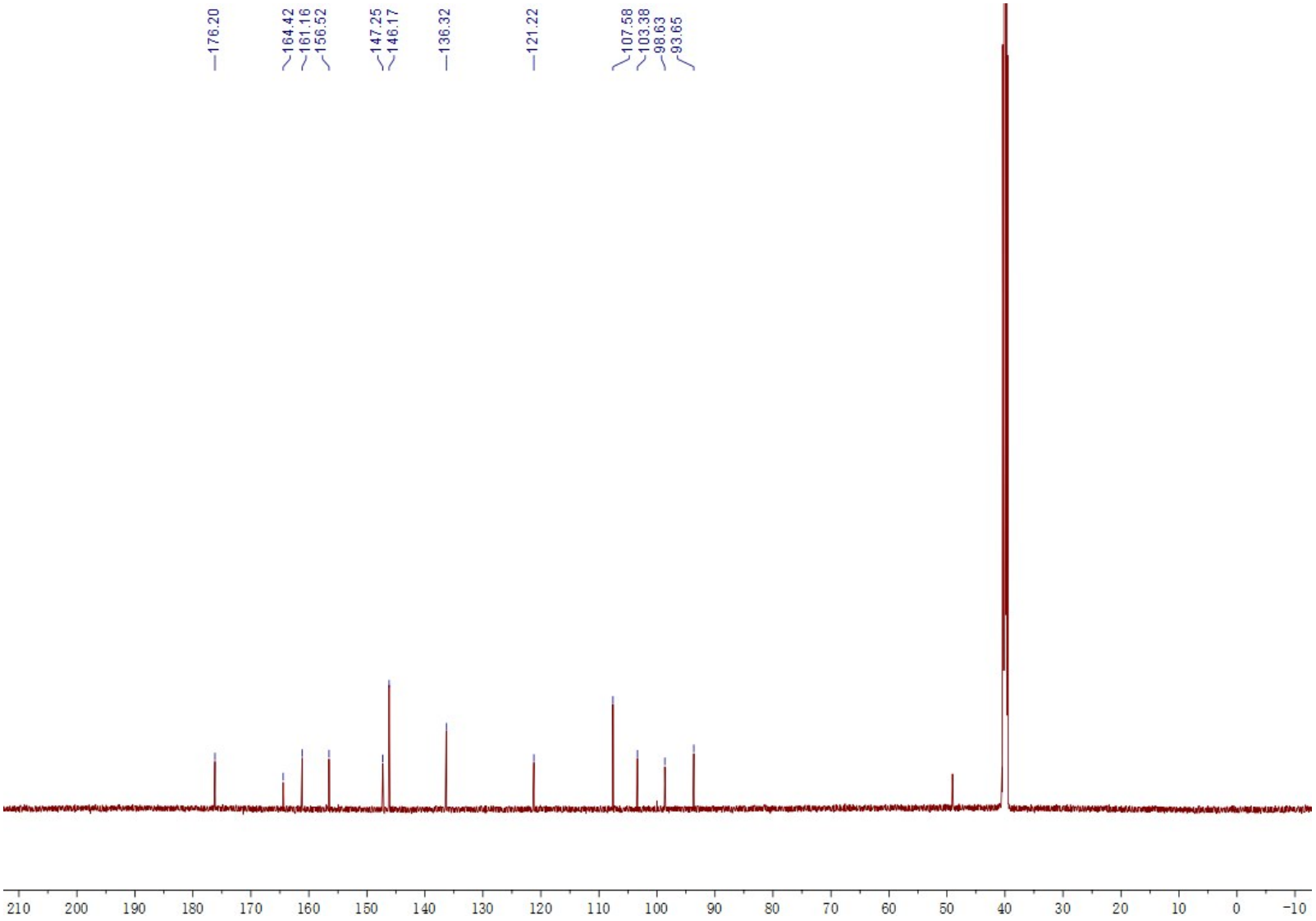


Figure S43. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **18**

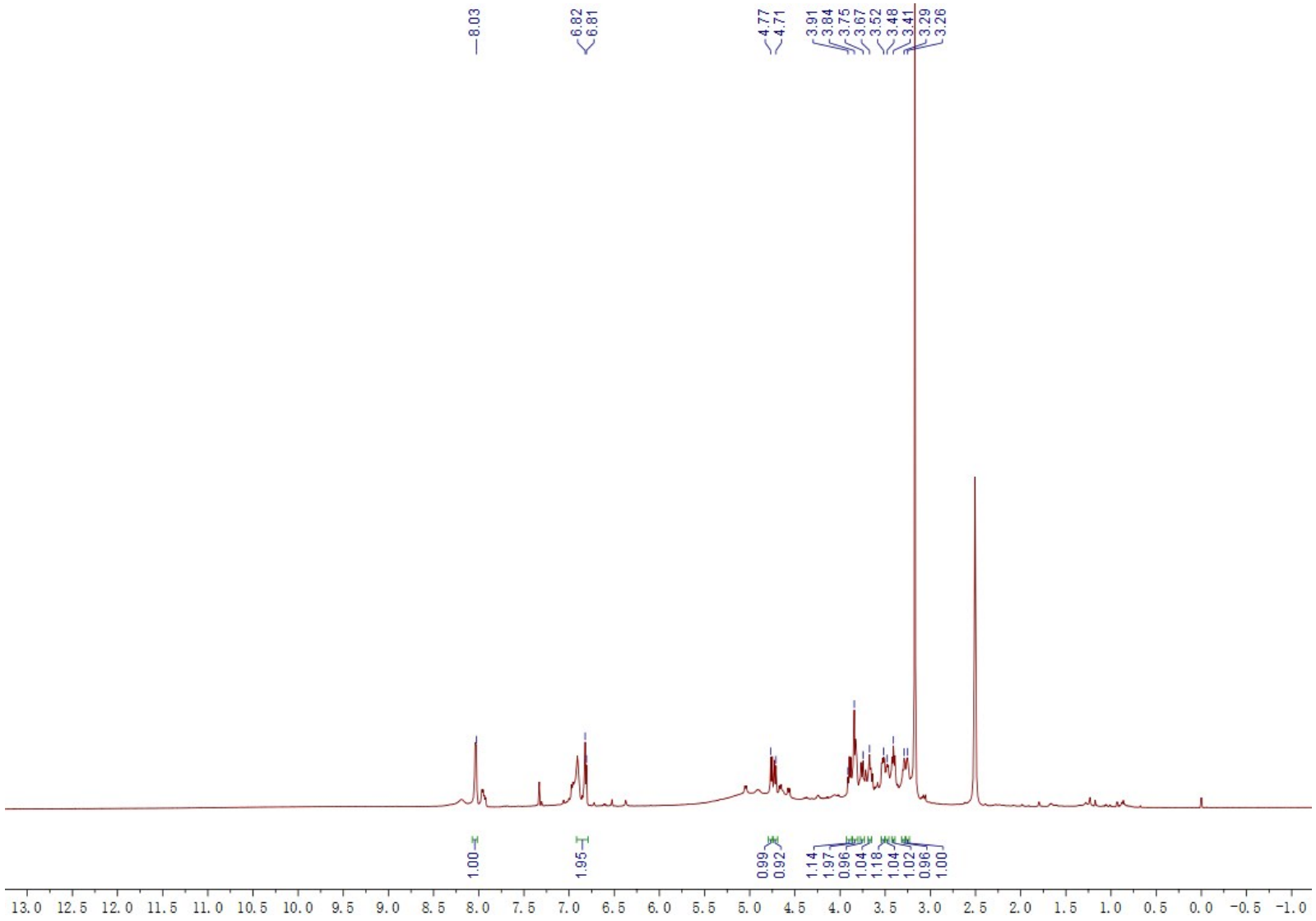


Figure S44. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **19**

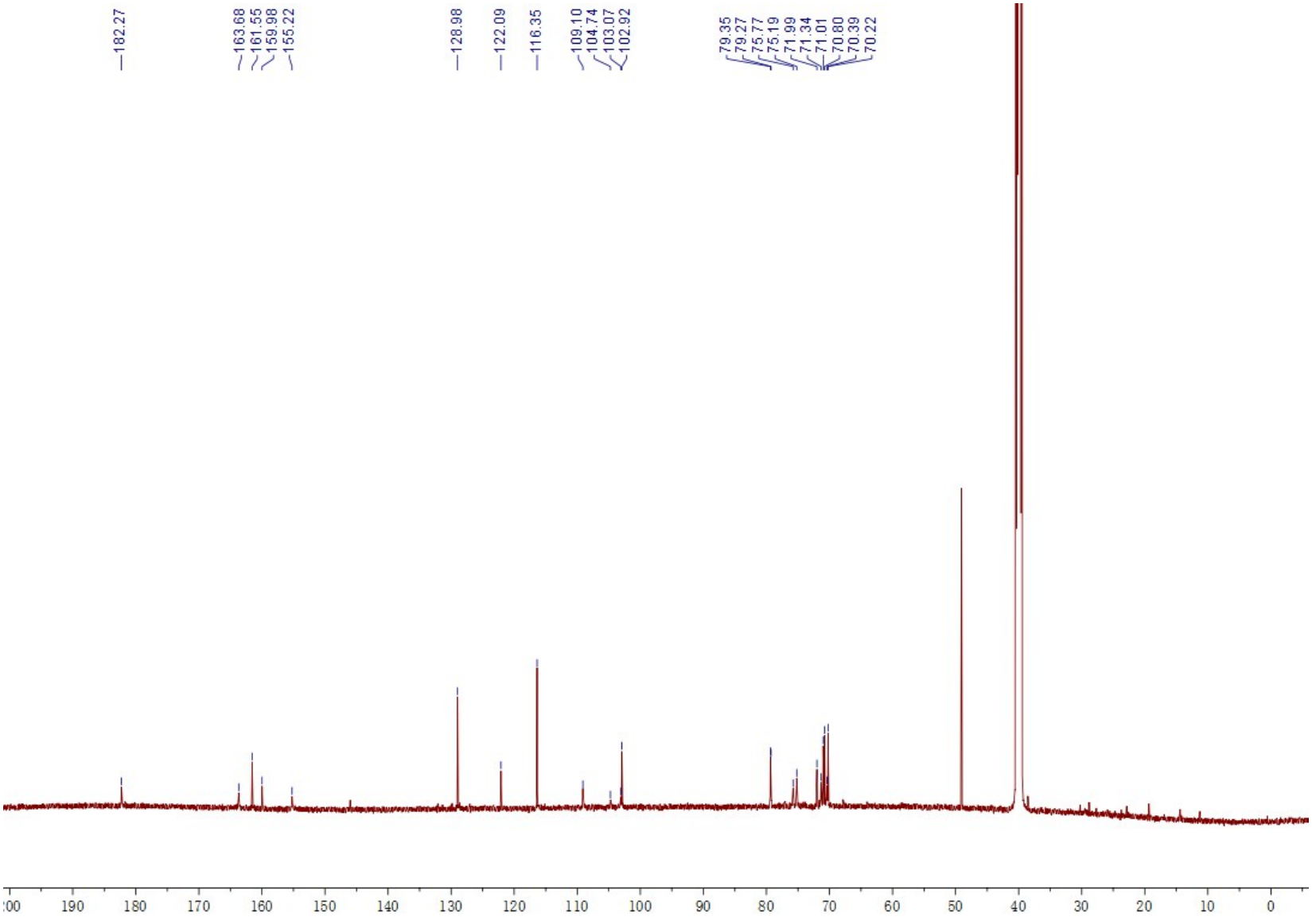


Figure S45. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **19**

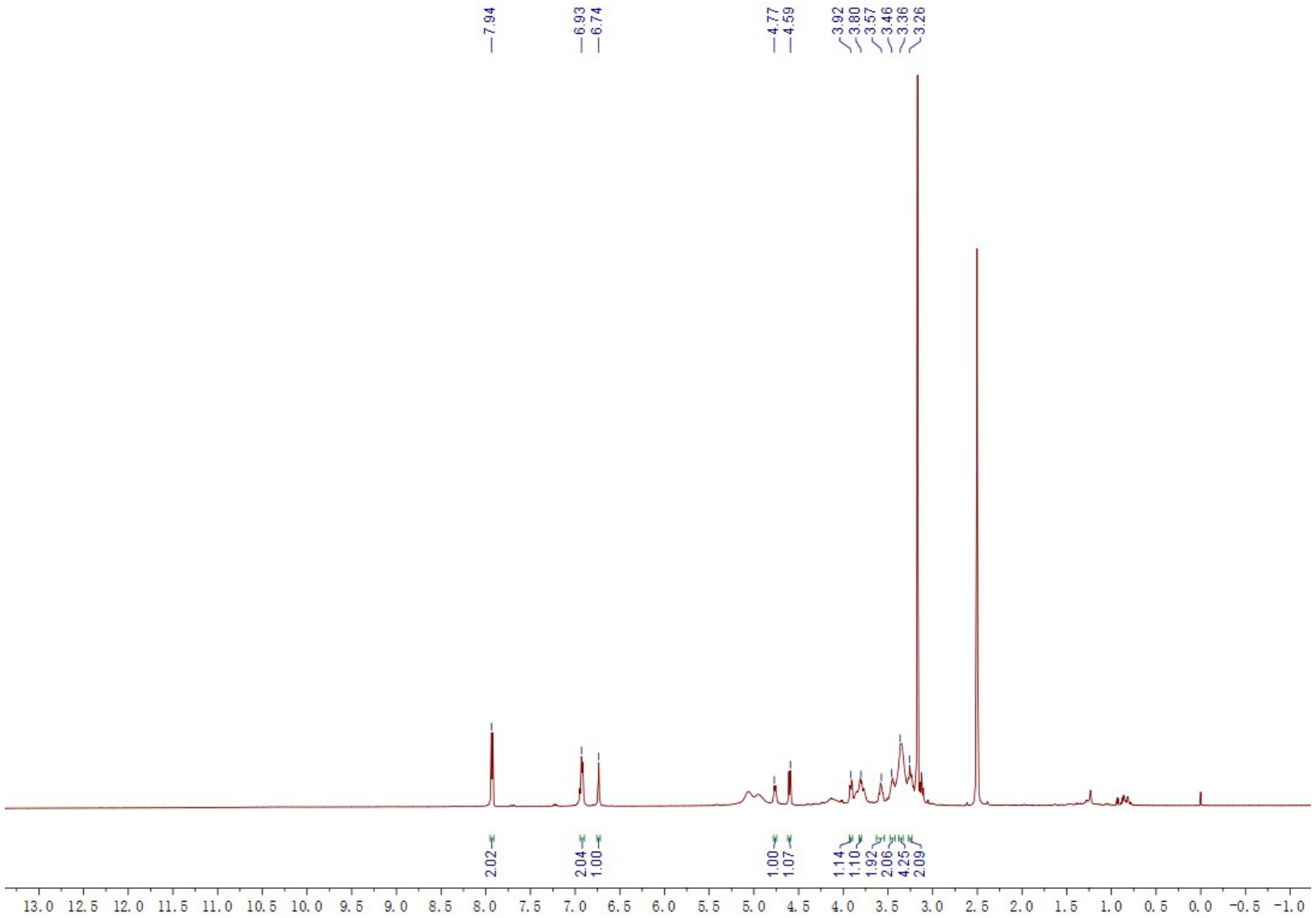


Figure S46. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **20**

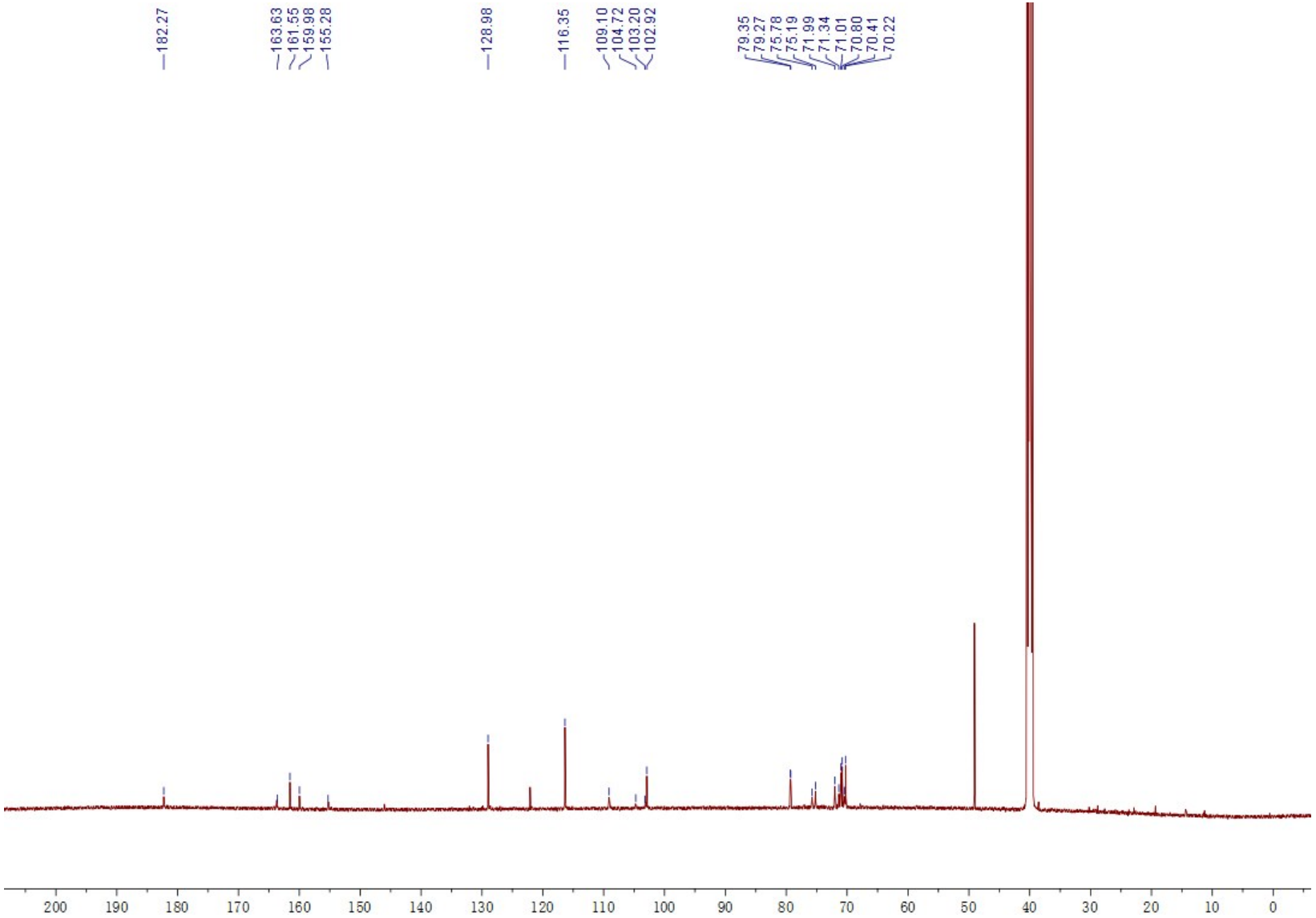


Figure S47. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **20**

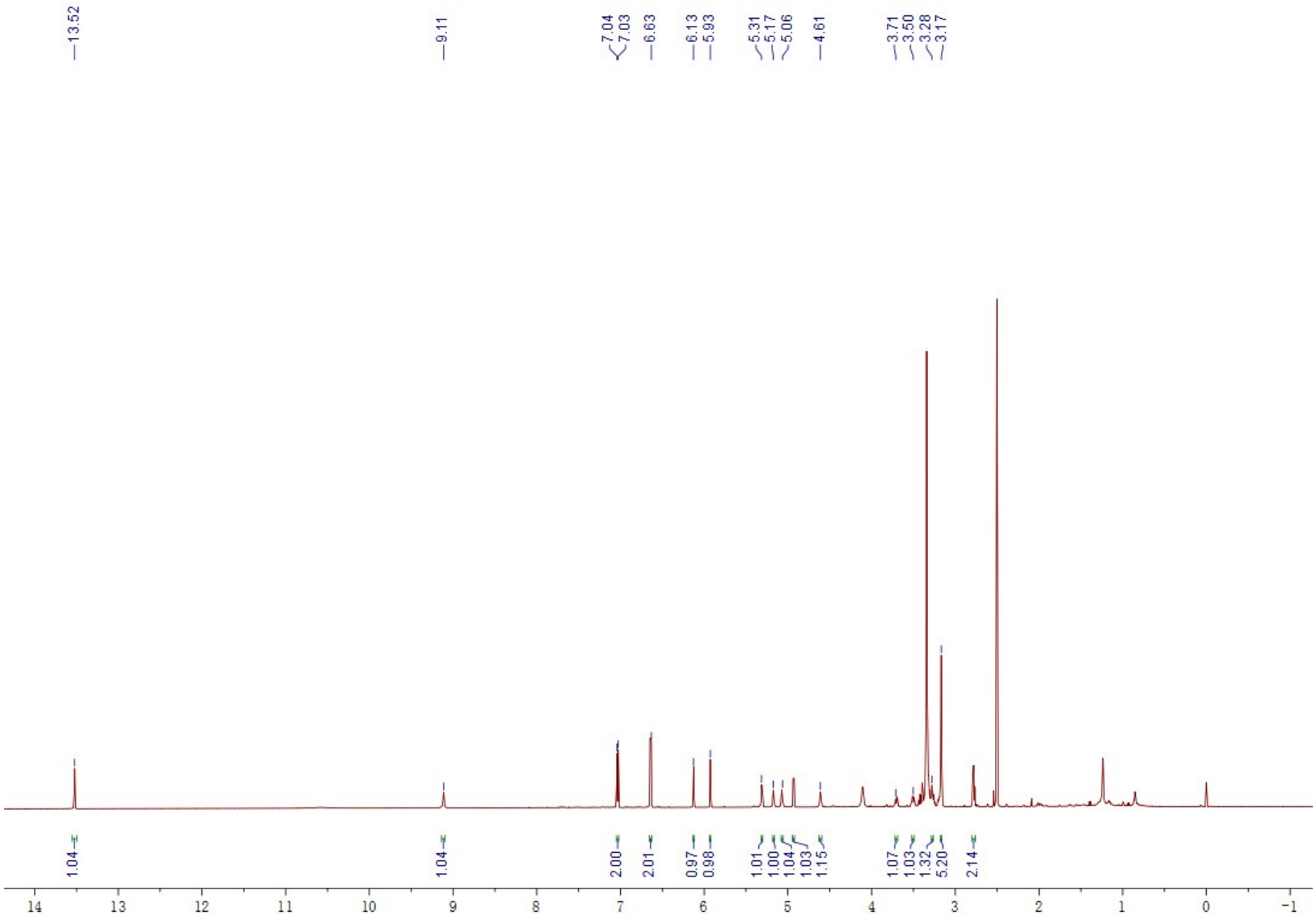


Figure S48. $^{1}$H NMR (600 MHz, DMSO-$d_6$) spectrum of the compound **21**

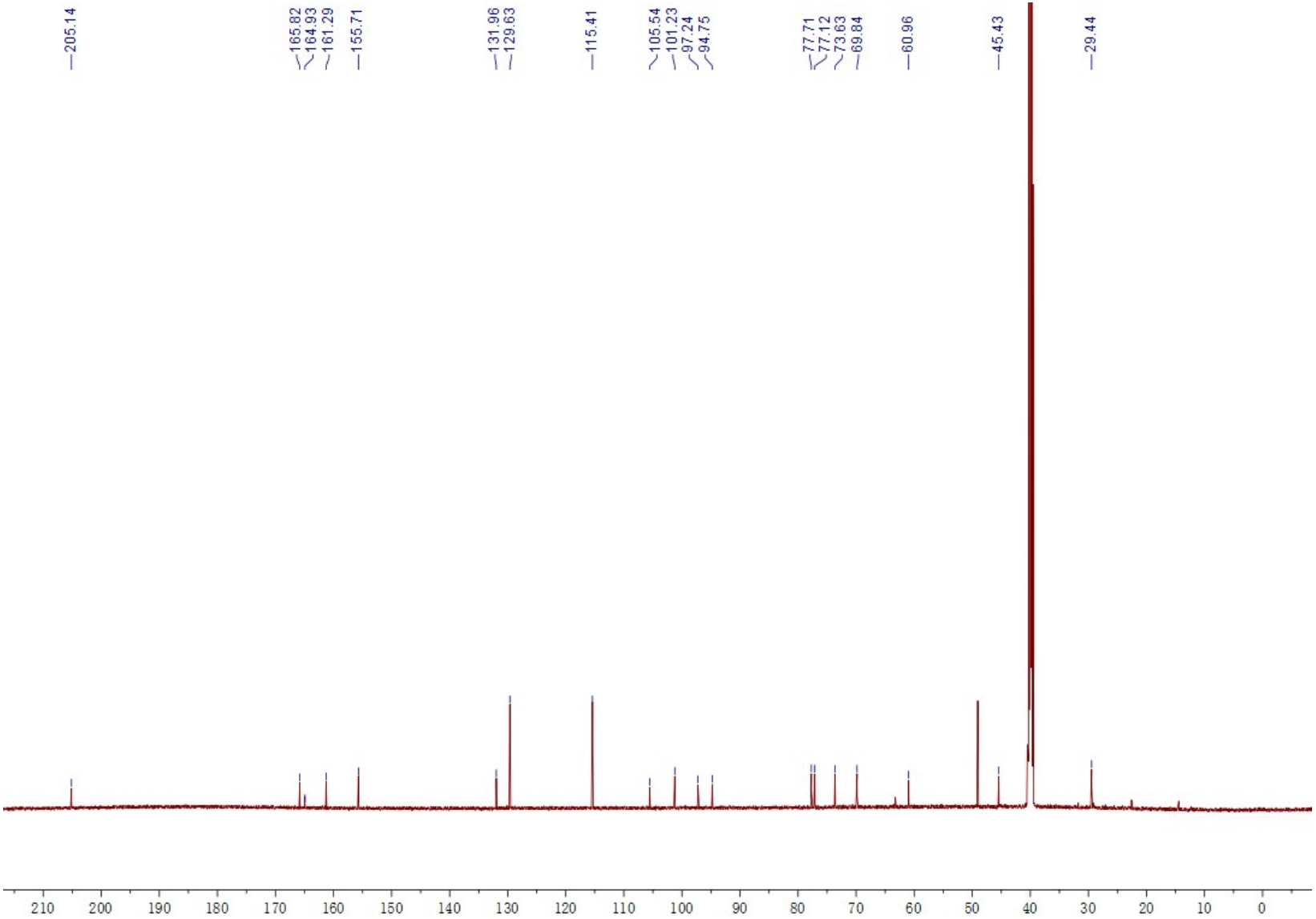


Figure S49. $^{13}C$ NMR (150 MHz, DMSO-$d_6$) spectrum of the compound **21**

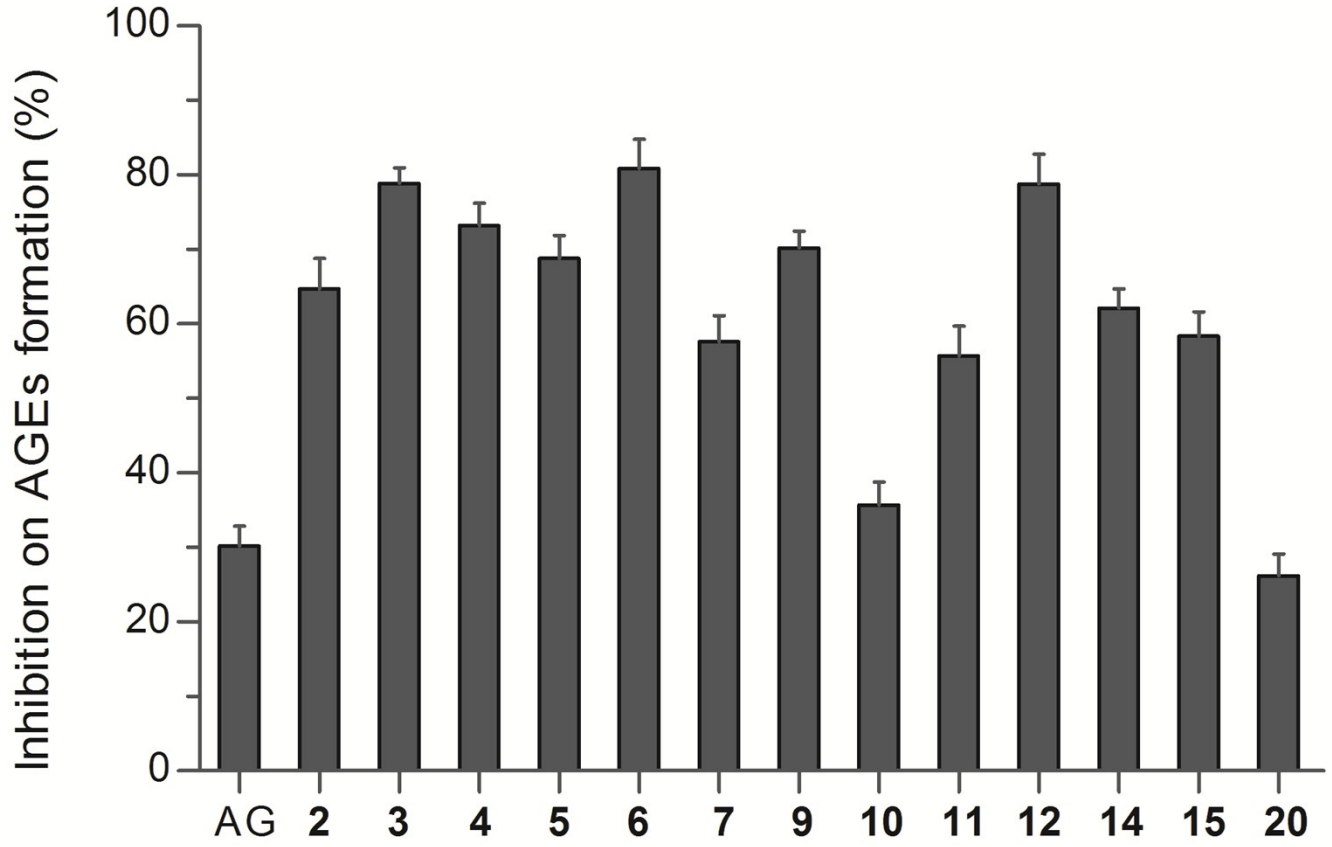


Figure S50. Percent inhibition of purified phenolics (at the concentration of 100 μM) on the formation of AGEs in the BSA-fructose assay after 21 days incubation

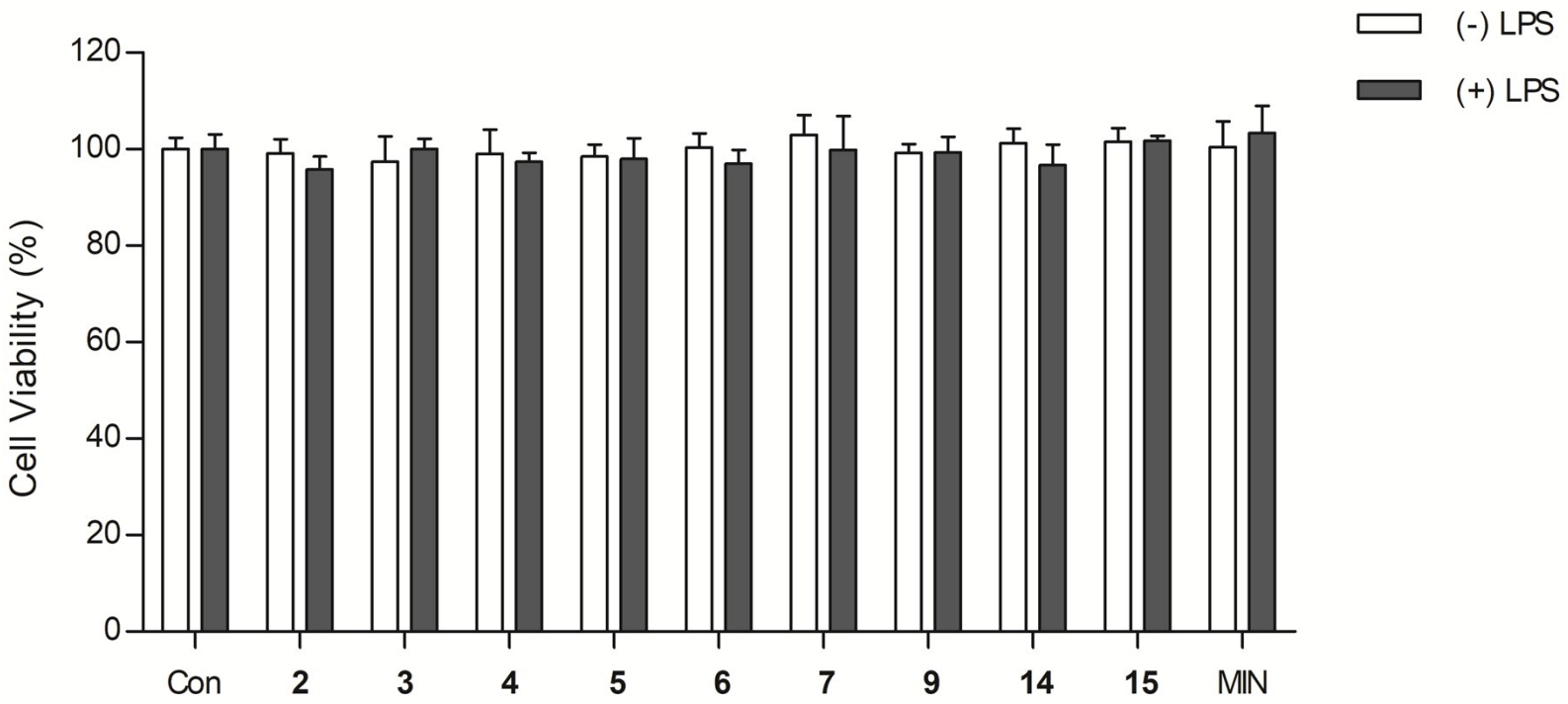


Figure S51. Effects of Jamun phenolics on cell viability of RAW264.7 macrophages with LPS stimulation. RAW264.7 cells were co-treated with compounds **2**-**7**, **9**, **14** and **15** (20 μM) with LPS (1 μg/mL) for 24 h. Cell viability was determined by MTT assay. MIN = Minocycline. Data for DMSO-treated group without LPS administration was considered as 100% for each compound treatment, respectively. Data presented as mean ± SD, n = 5.

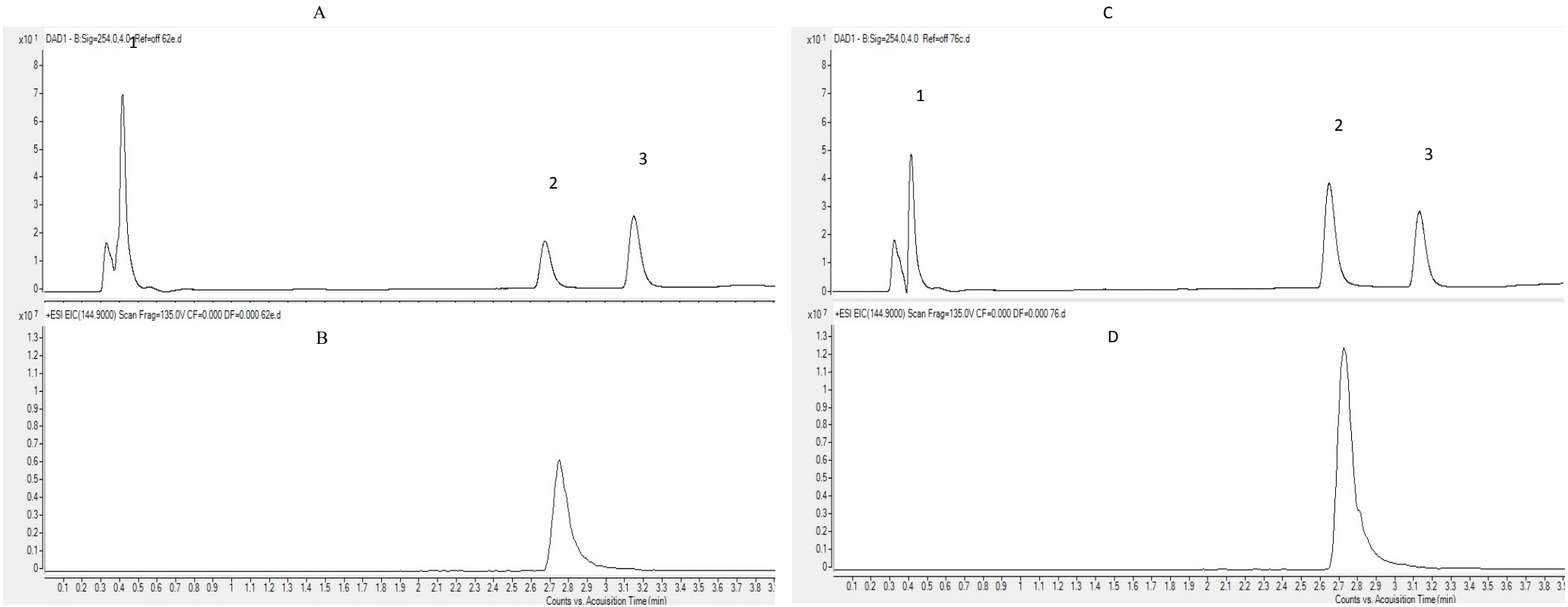


Figure S52. UPLC-DAD-MS profiles of MGO derivatives with (A/B) or without (C/D) aminoguanidine. Detect wavelength was set at 254 nm; ESIMS was in positive model; Peaks 1, 2 and 3 represent PD, 2-MQ and DQ, respectively.