

Supplementary Material

Three-component synthesis of novel spiro[4H-pyran-3,3'-oxindoles] using 5,6-dihydro-4H-pyrrolo[3,2,1-ij]quinoline-1,2-dione

Parvin Zafari,^a Bahman Ebrahimi Saatluo,^a Ahmad Rashidi,^a Mehdi M. Baradarani,^{a*} and John A. Joule^b

^aFaculty of Chemistry, University of Urmia, Urmia 57153-165, Iran

^bThe Chemistry Department, The University of Manchester, M13 9PL, UK

Email: mehdi.baradarani@gmail.com

Table of Contents

¹ H and ¹³ C NMR spectra of compounds 6a-6i	S2
--	----

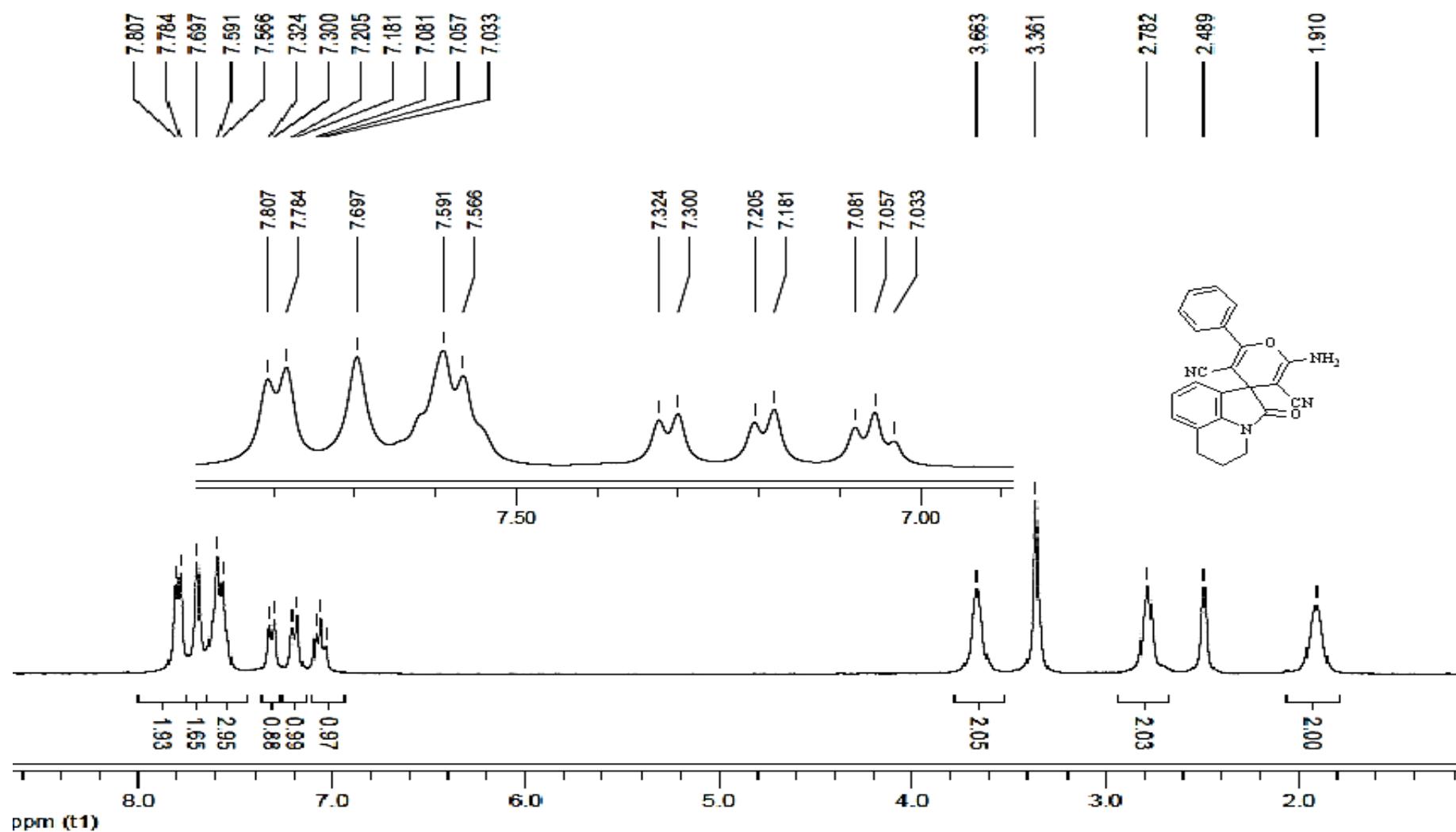


Figure 1 ^1H NMR (300 MHz, DMSO- d_6) spectrum of compound 6a.

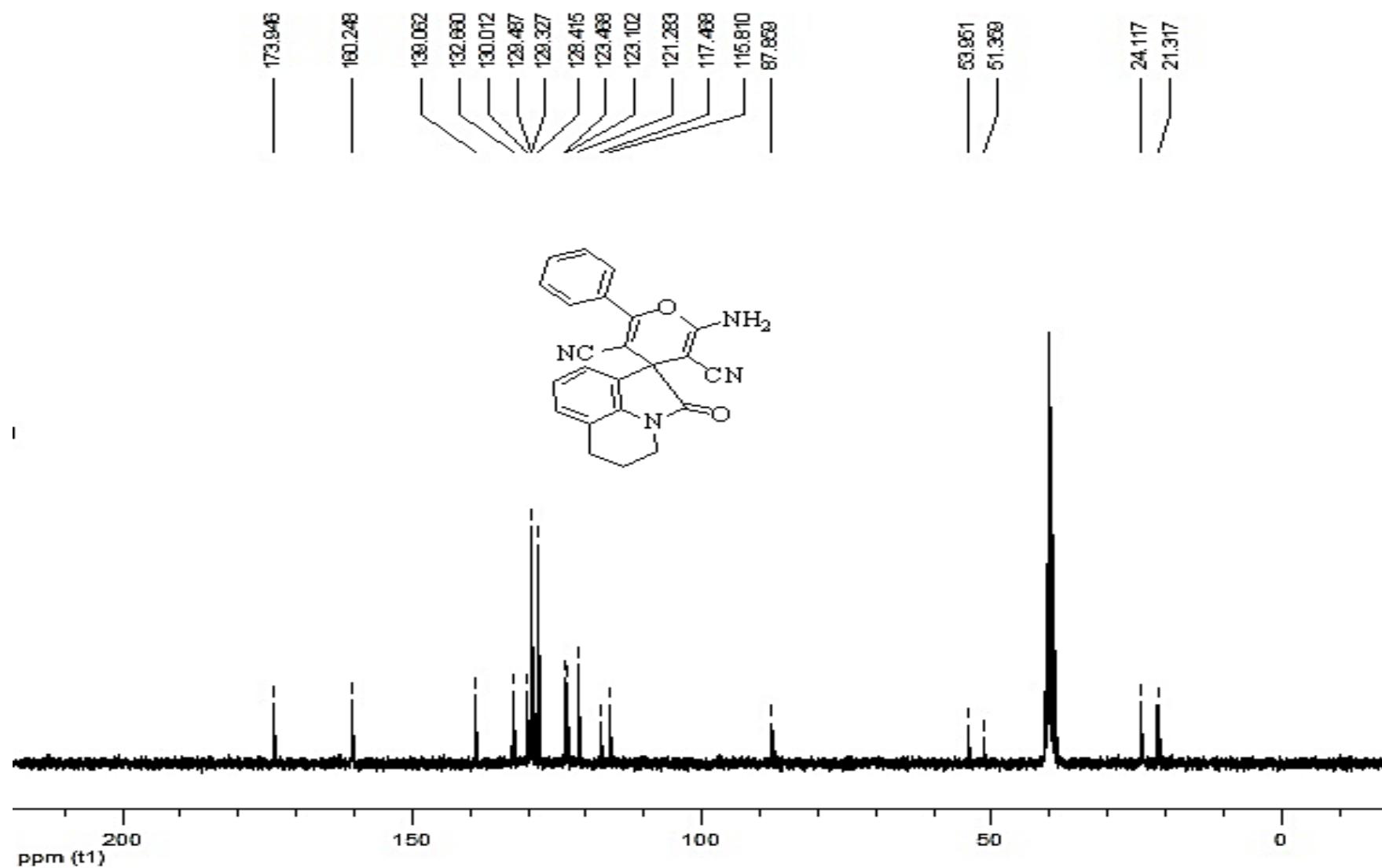


Figure 2 ^{13}C NMR (300 MHz, $\text{DMSO}-d_6$) spectrum of compound 6a.

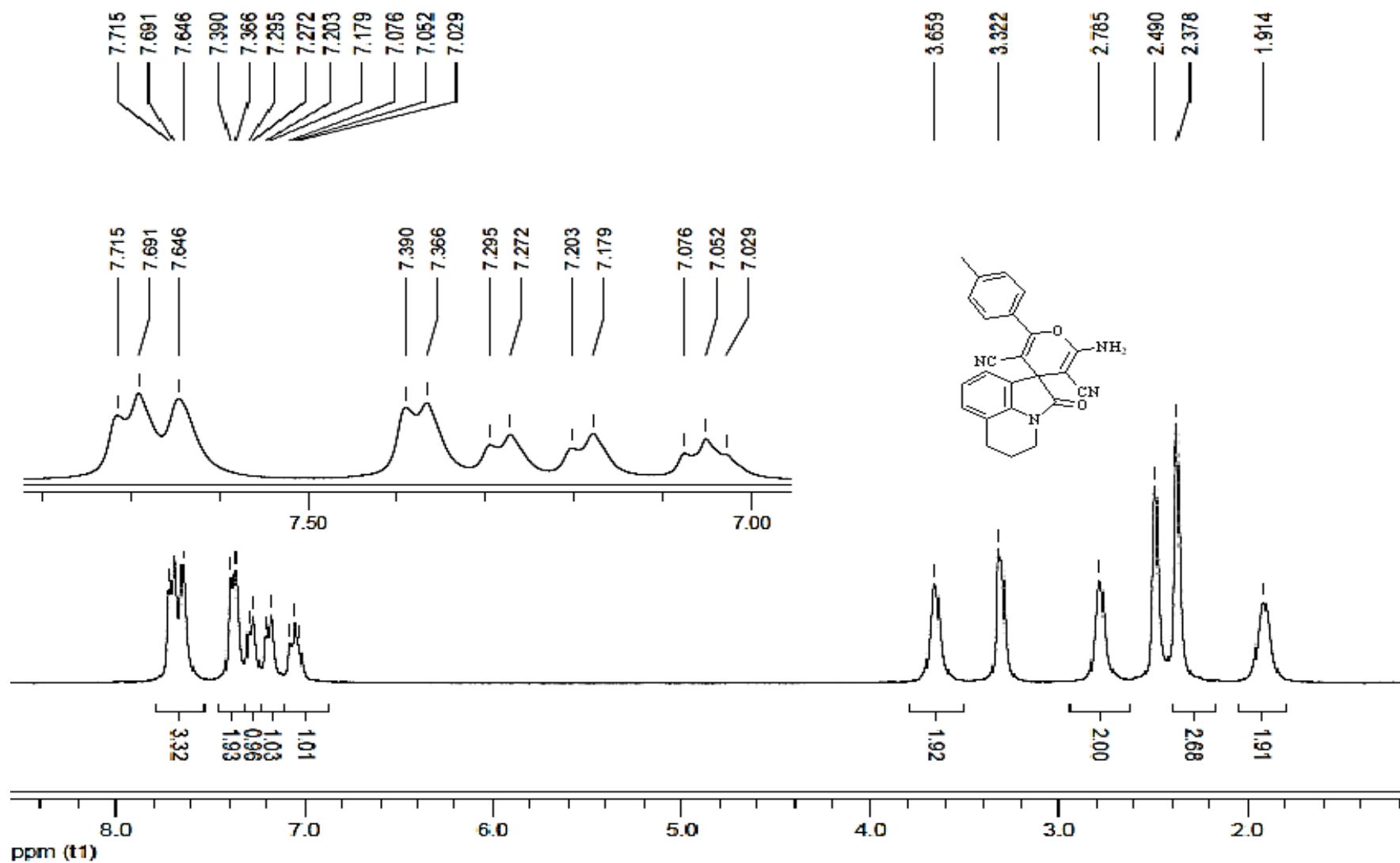


Figure 3 ^1H NMR (300 MHz, $\text{DMSO}-d_6$) spectrum of compound **6b**.

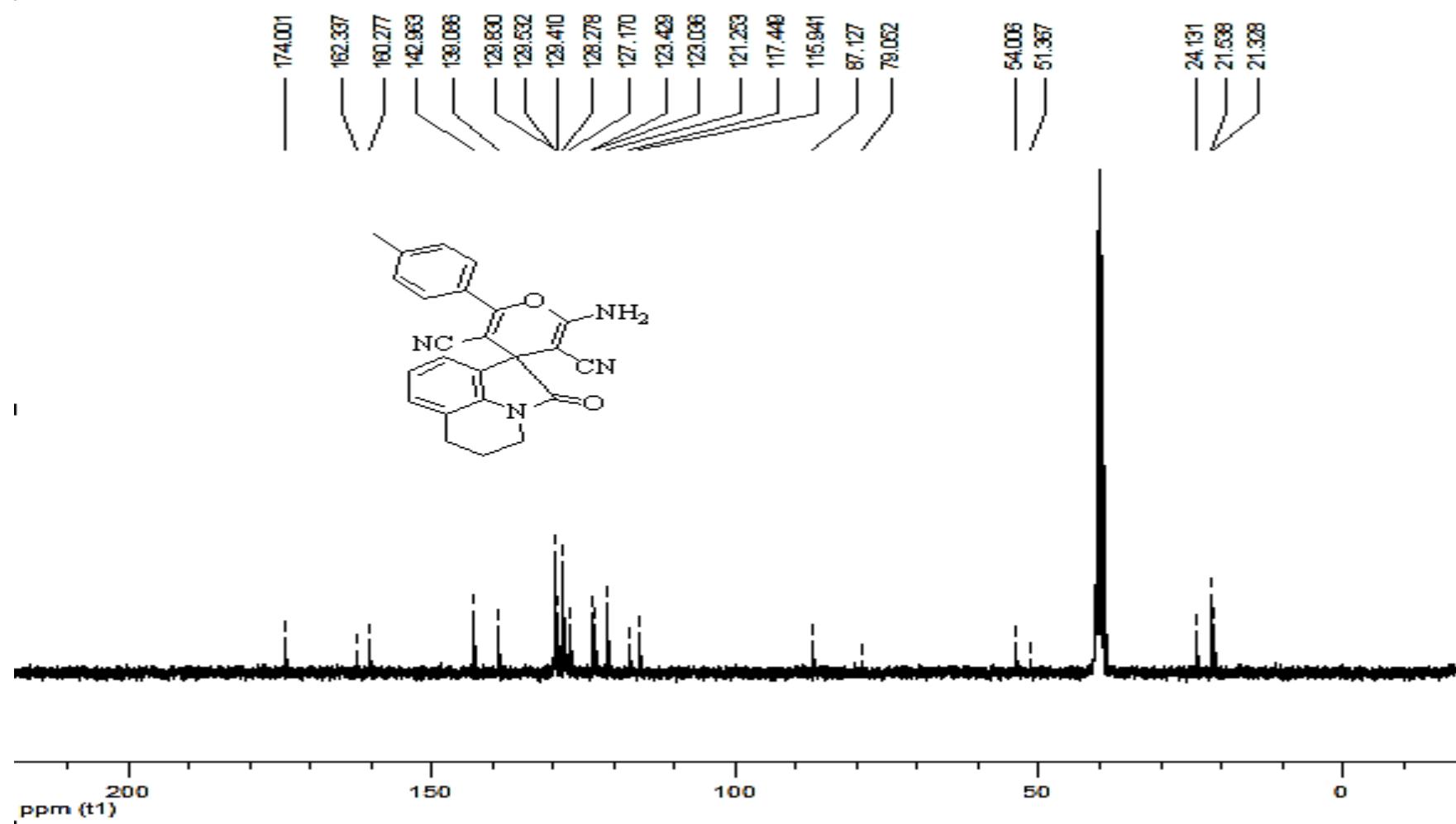


Figure 4 ^{13}C NMR (300 MHz, $\text{DMSO}-d_6$) spectrum of compound **6b**.

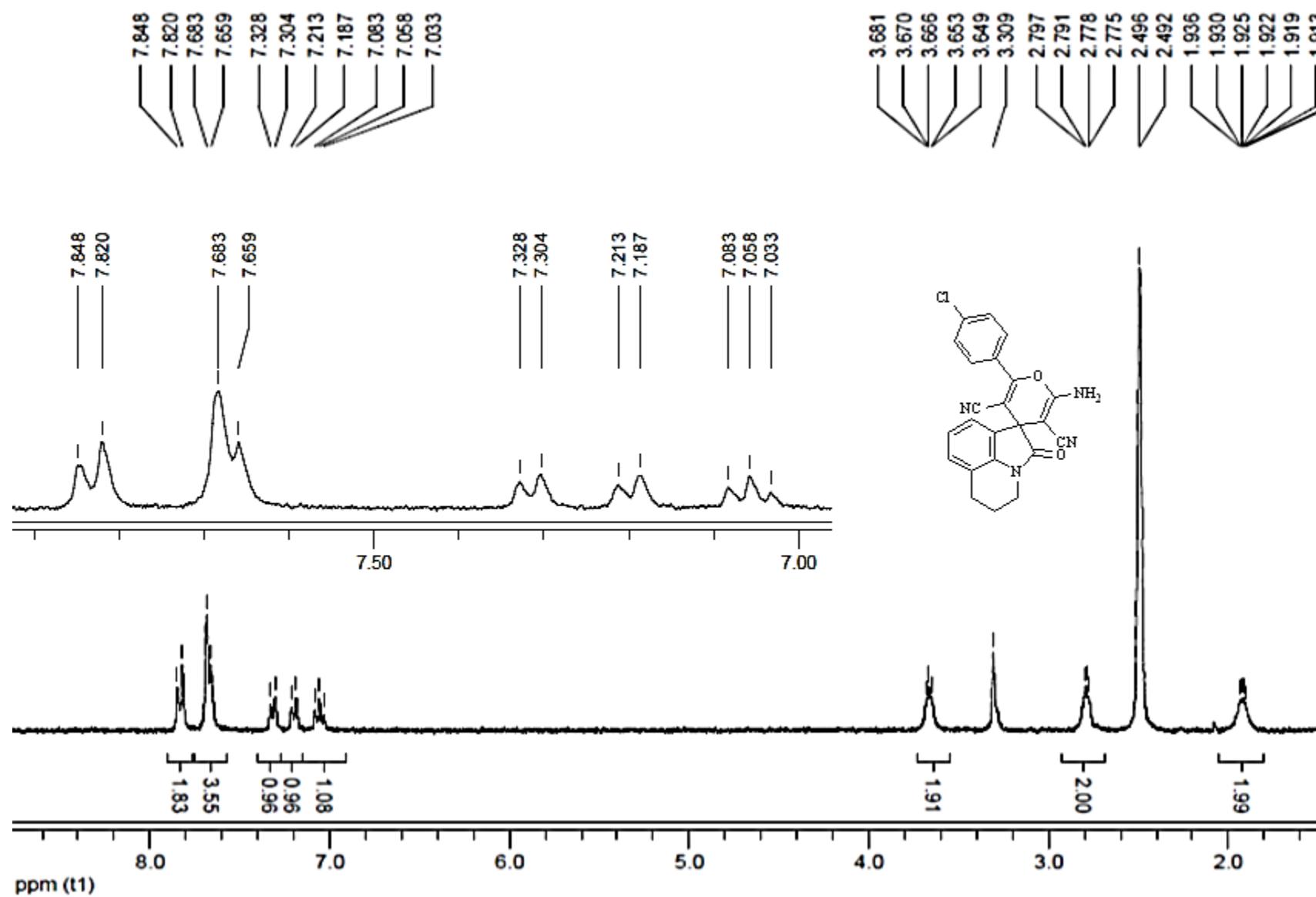


Figure 5 ¹H NMR (300 MHz, DMSO-*d*₆) spectrum of compound **6c**.

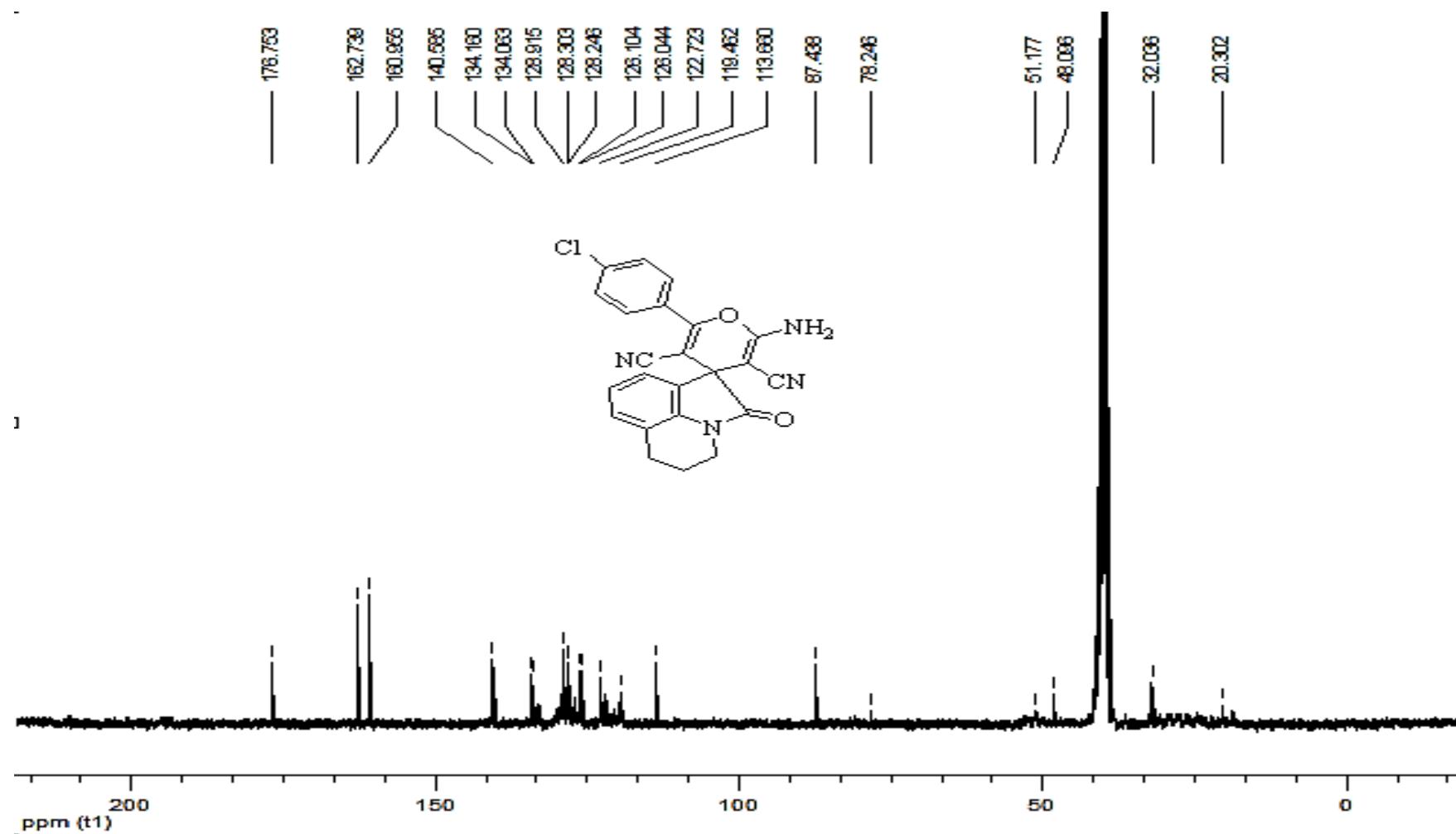


Figure 6 ^{13}C NMR (300 MHz, DMSO- d_6) spectrum of compound **6c**.

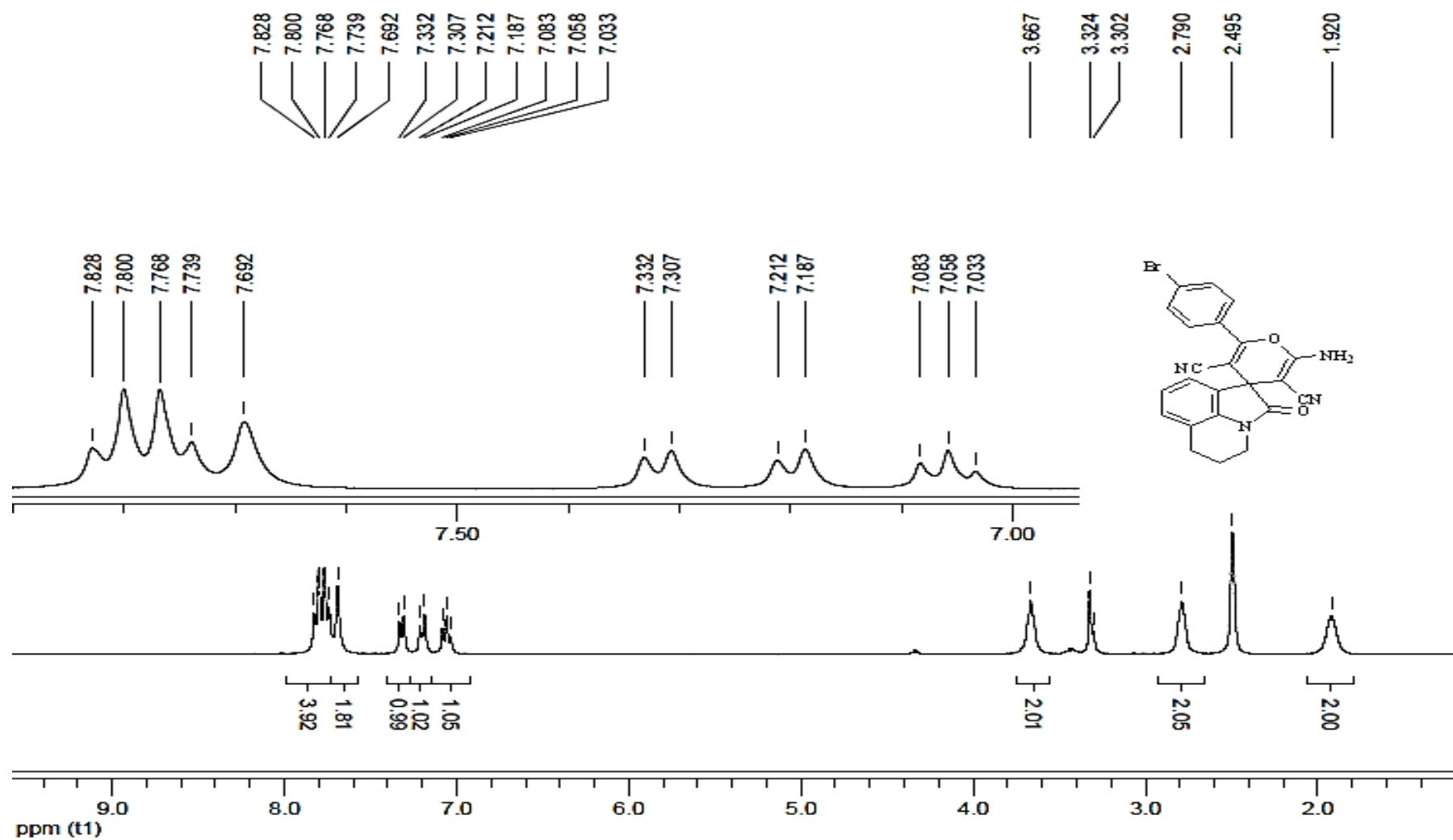


Figure 7 ^1H NMR (300 MHz, $\text{DMSO}-d_6$) spectrum of compound **6d**.

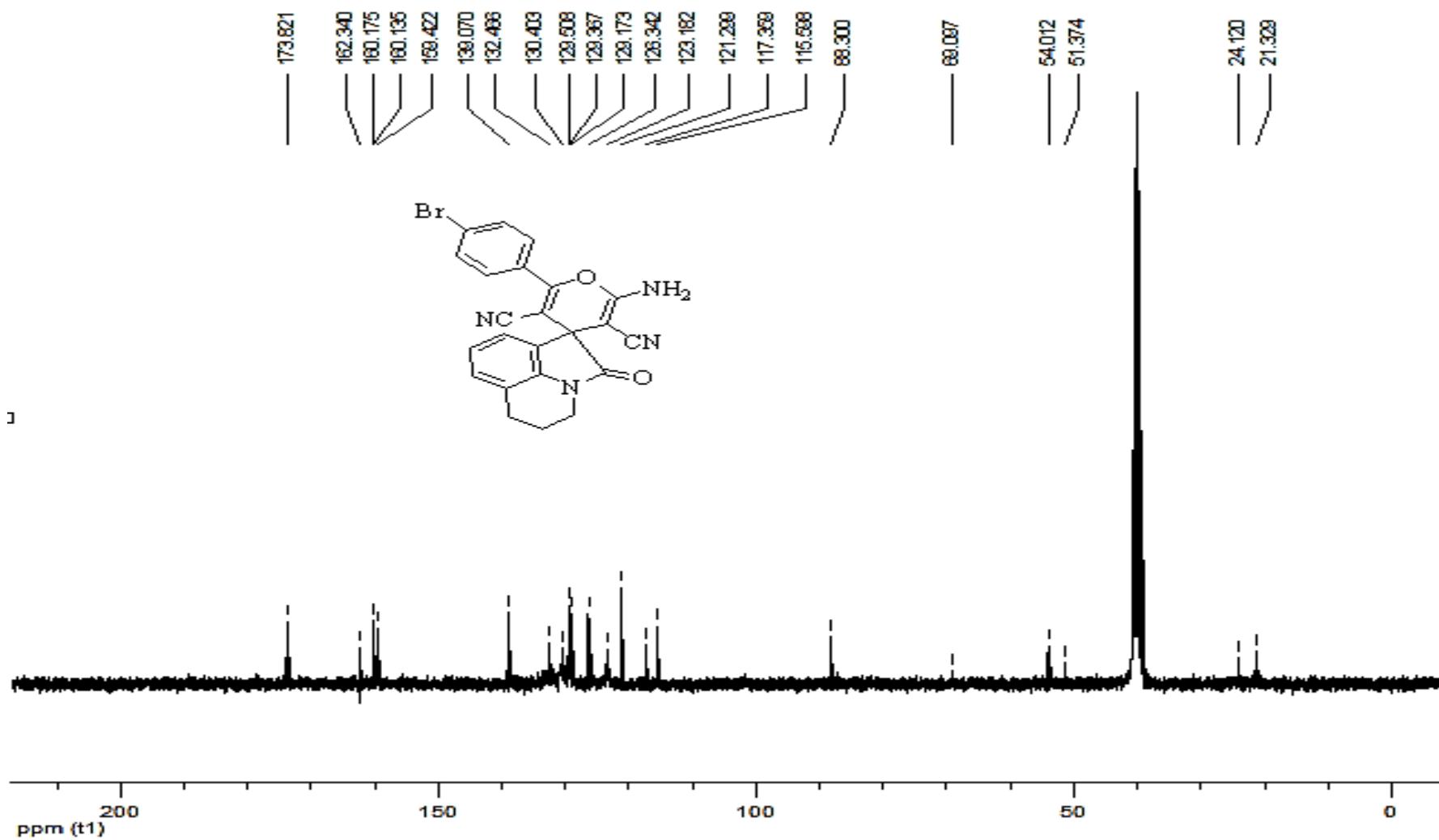


Figure 8 ^{13}C NMR (300 MHz, $\text{DMSO}-d_6$) spectrum of compound **6d**.

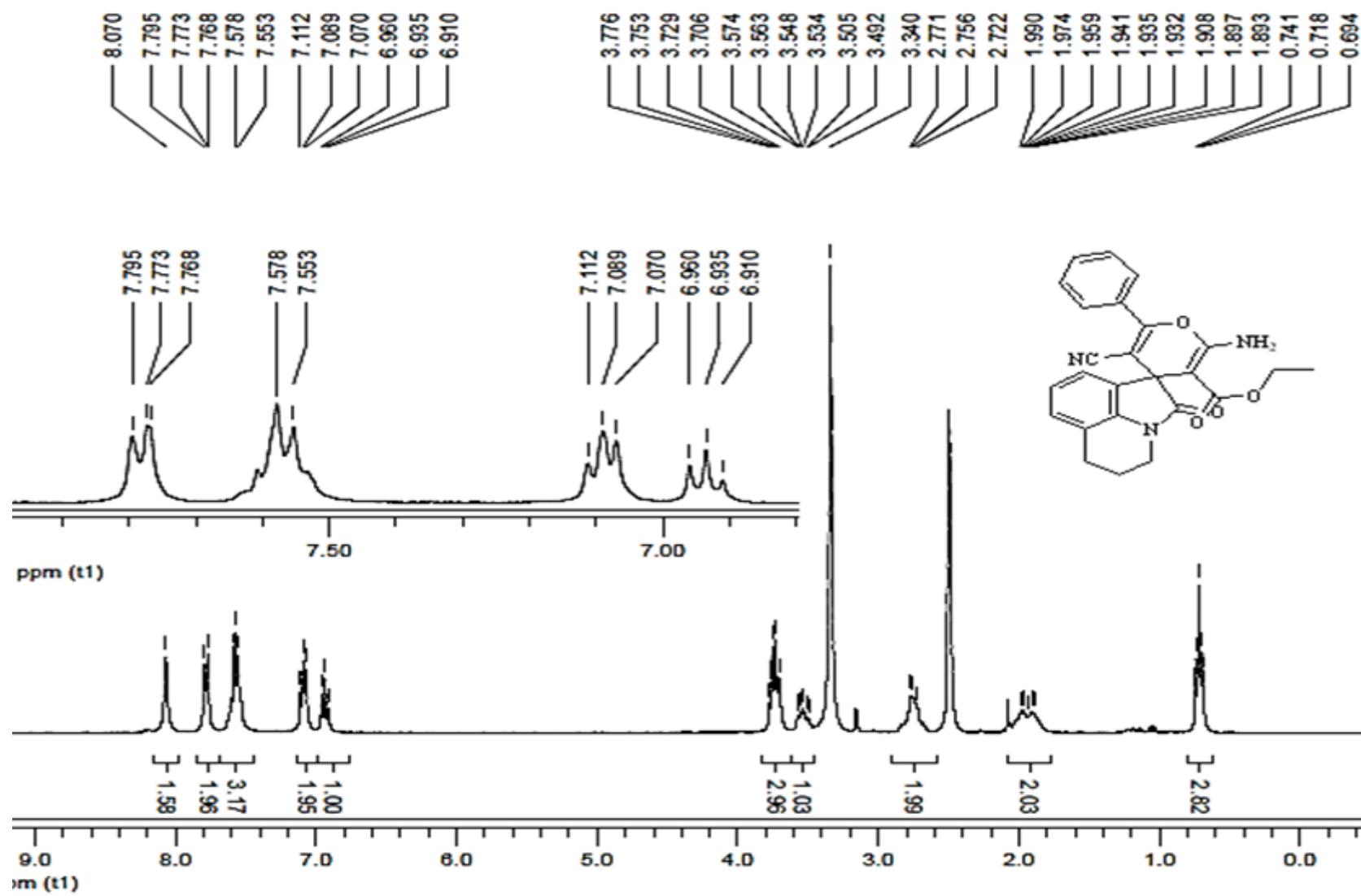


Figure 9 ^1H NMR (300 MHz, $\text{DMSO}-d_6$) spectrum of compound **6f**.

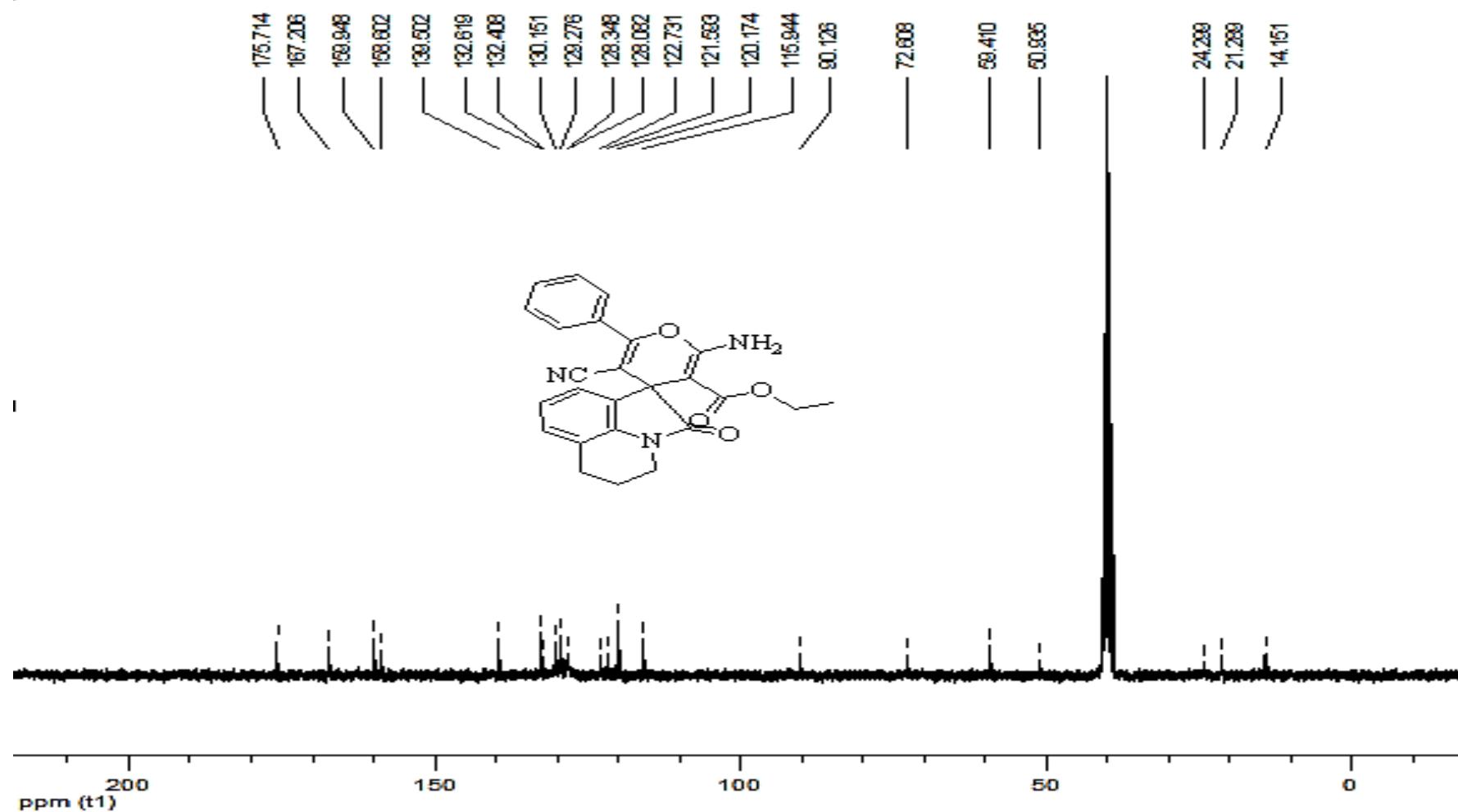


Figure 10 ^{13}C NMR (300 MHz, DMSO-*d*₆) spectrum of compound **6f**.

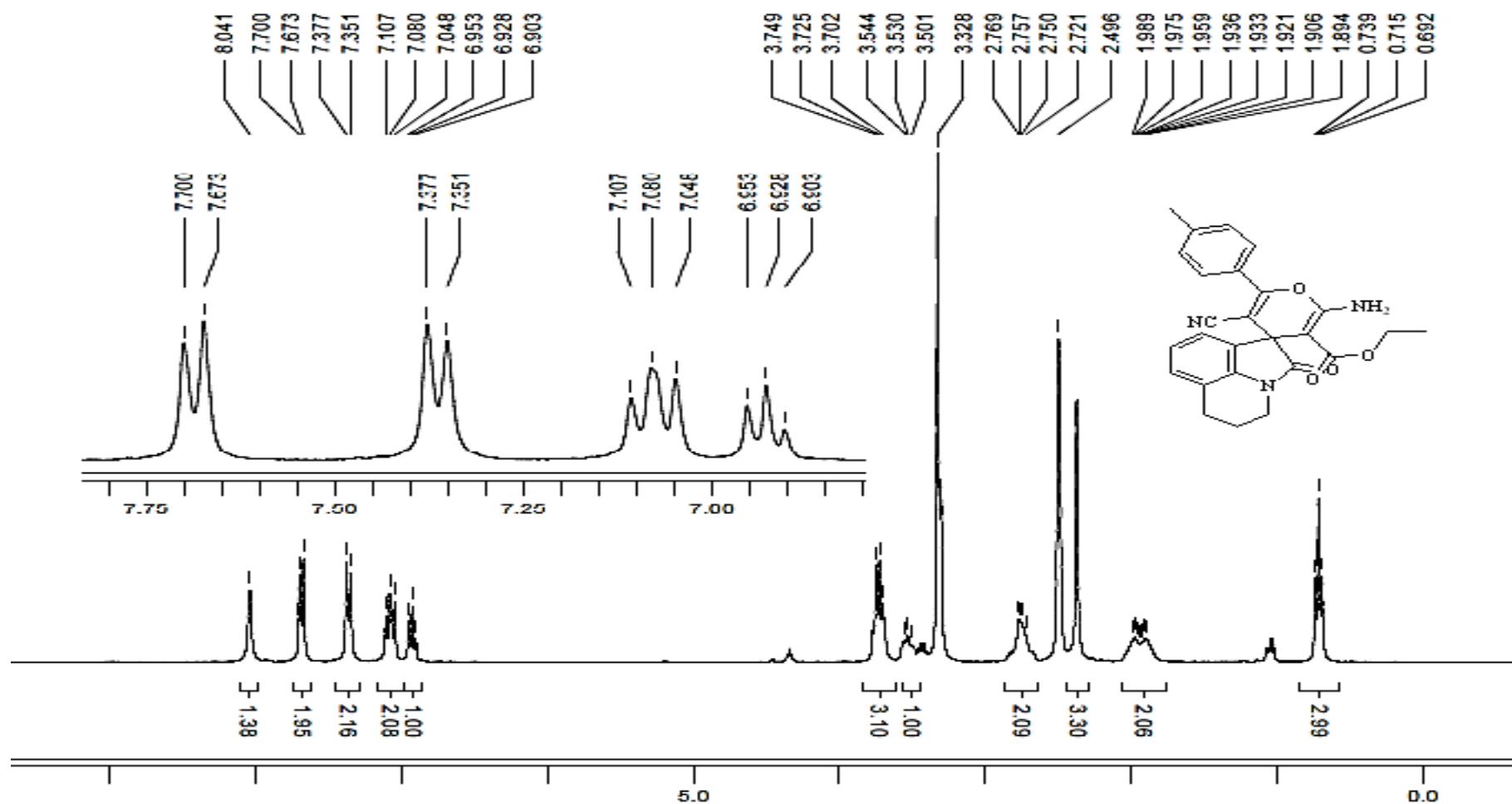


Figure 11 ¹H NMR (300 MHz, DMSO-*d*₆) spectrum of compound 6g.

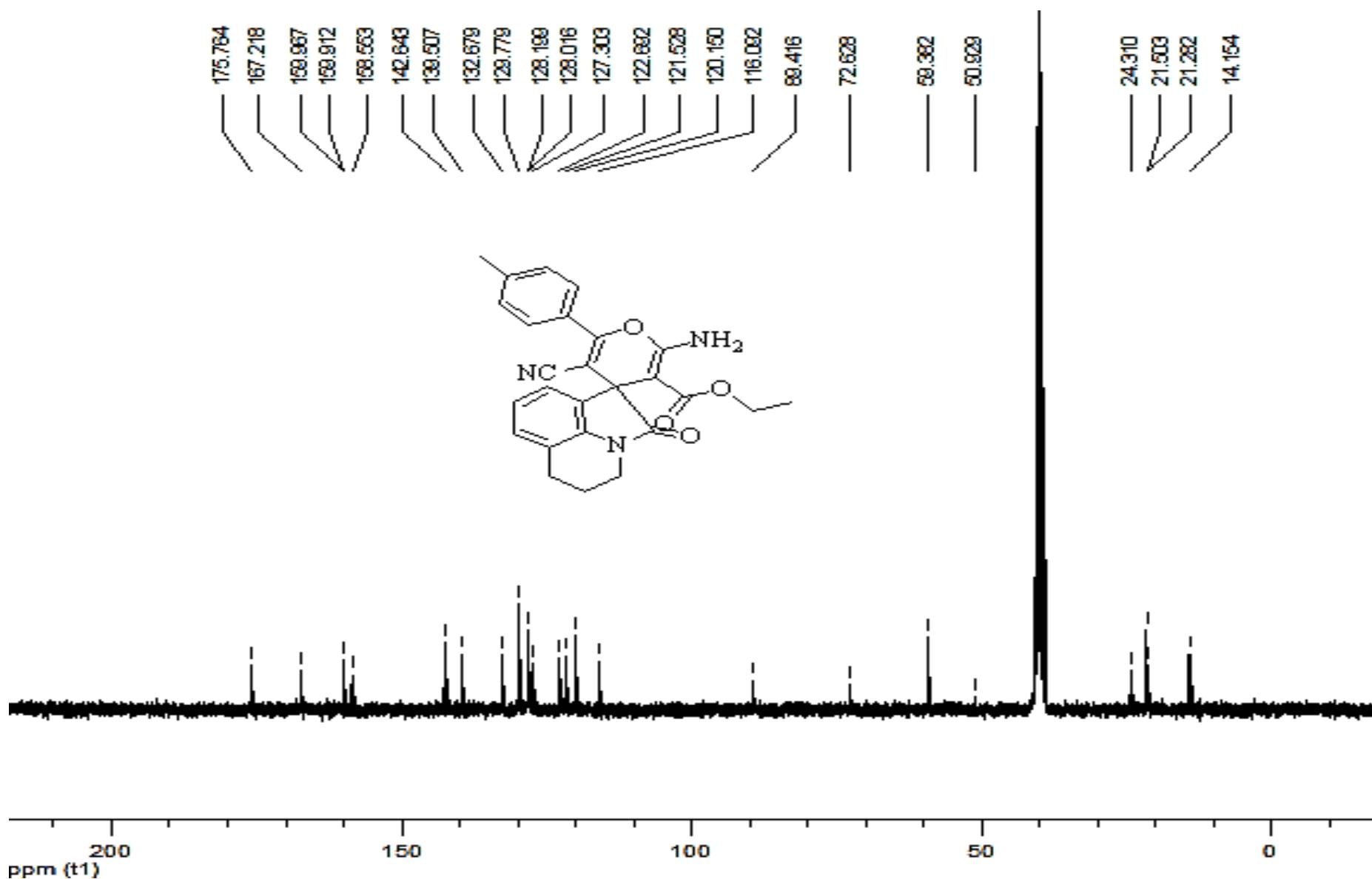


Figure 12 ^{13}C NMR (300 MHz, DMSO- d_6) spectrum of compound **6g**.

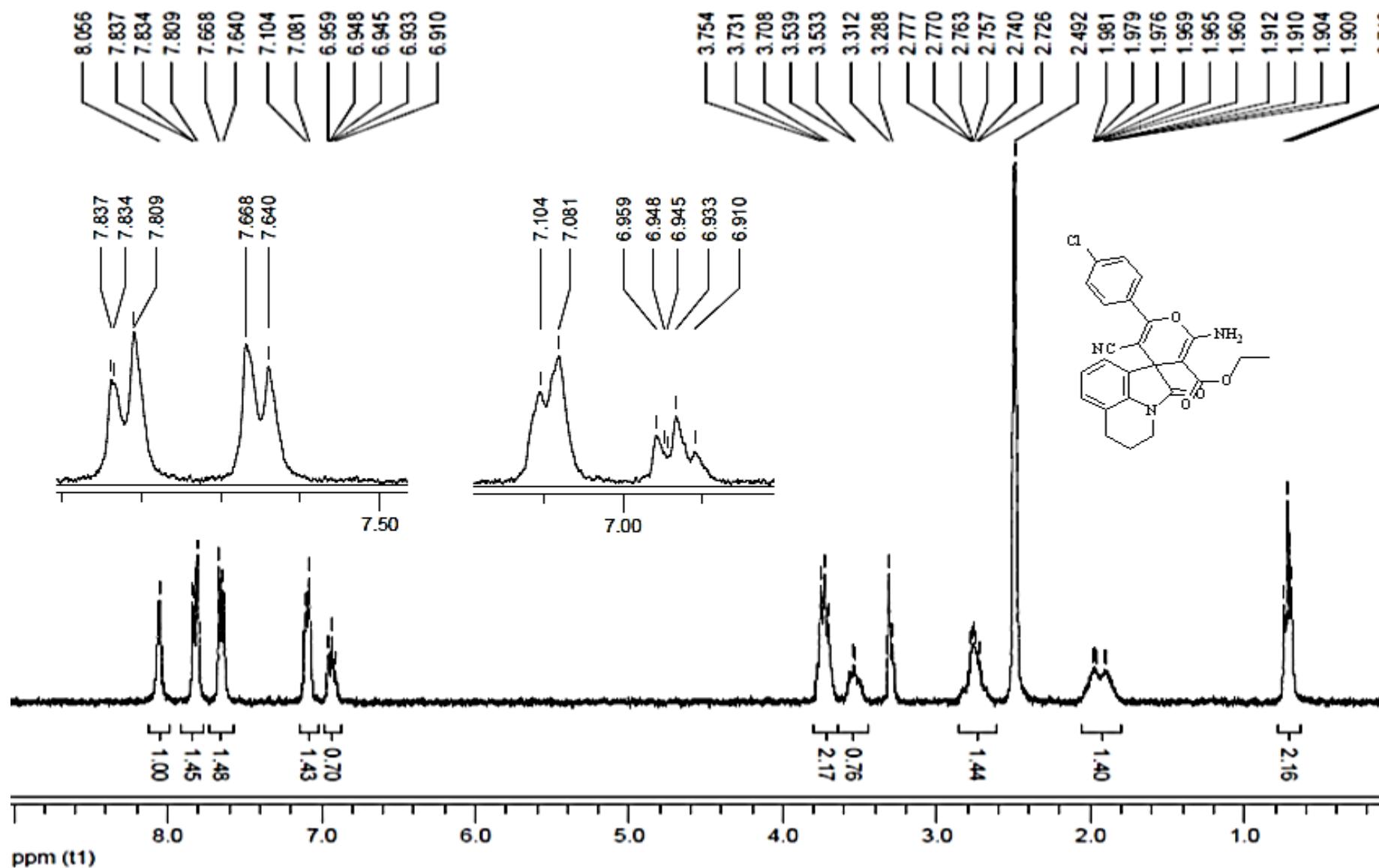


Figure 13 ¹H NMR (300 MHz, DMSO-*d*₆) spectrum of compound **6h**.

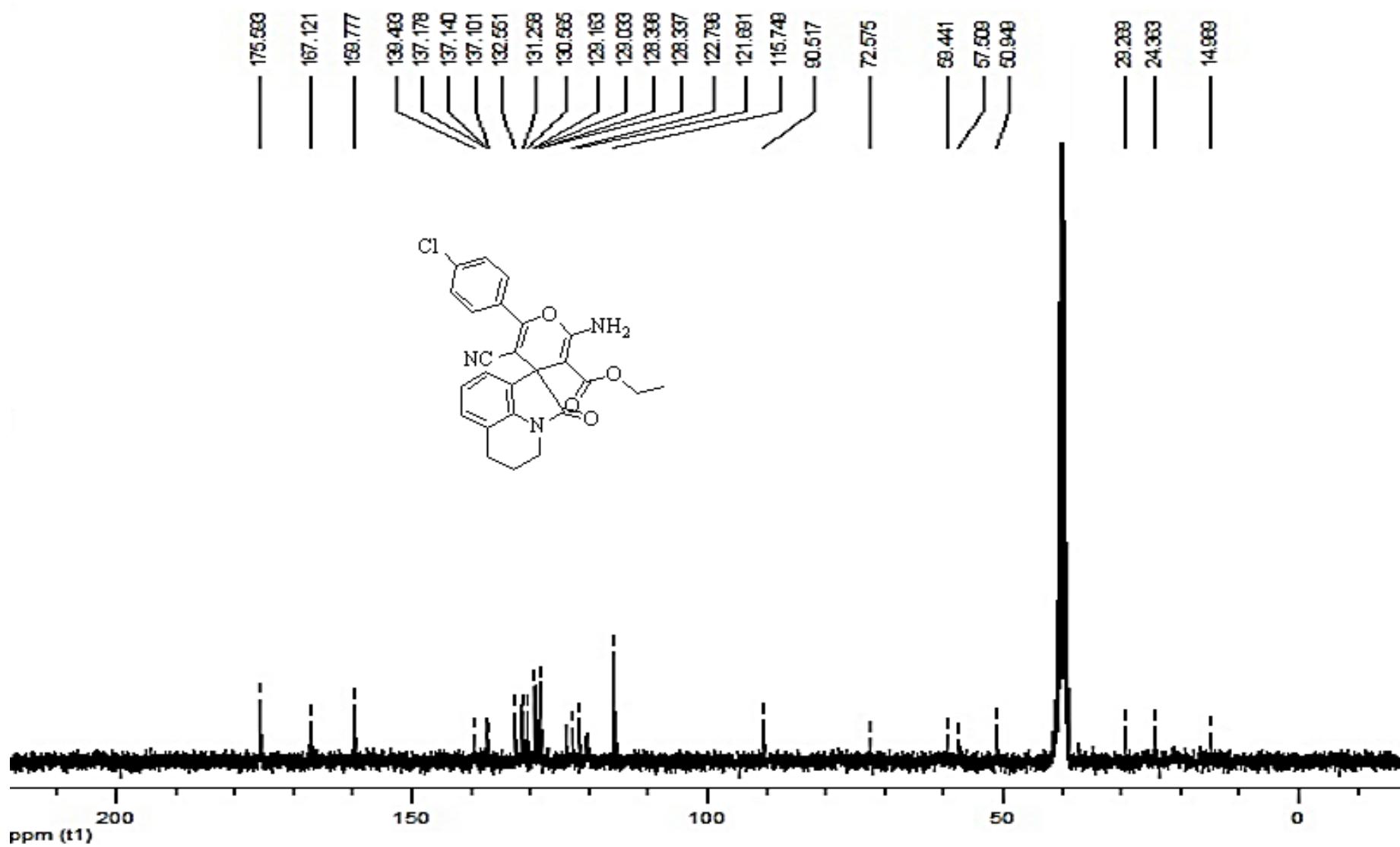


Figure 14 ^{13}C NMR (300 MHz, DMSO-*d*₆) spectrum of compound **6h**.

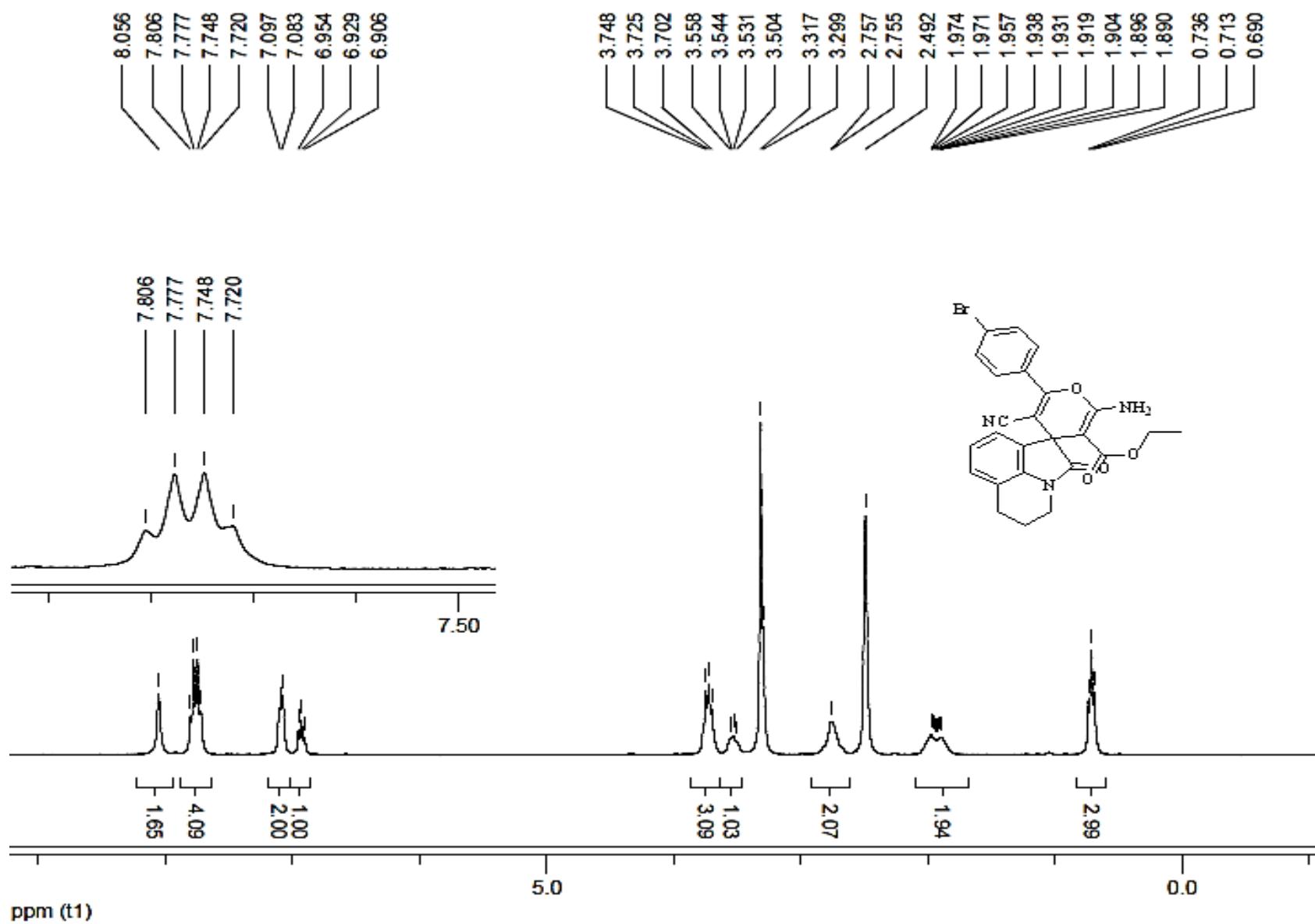


Figure 15 ^1H NMR (300 MHz, DMSO- d_6) spectrum of compound **6i**.

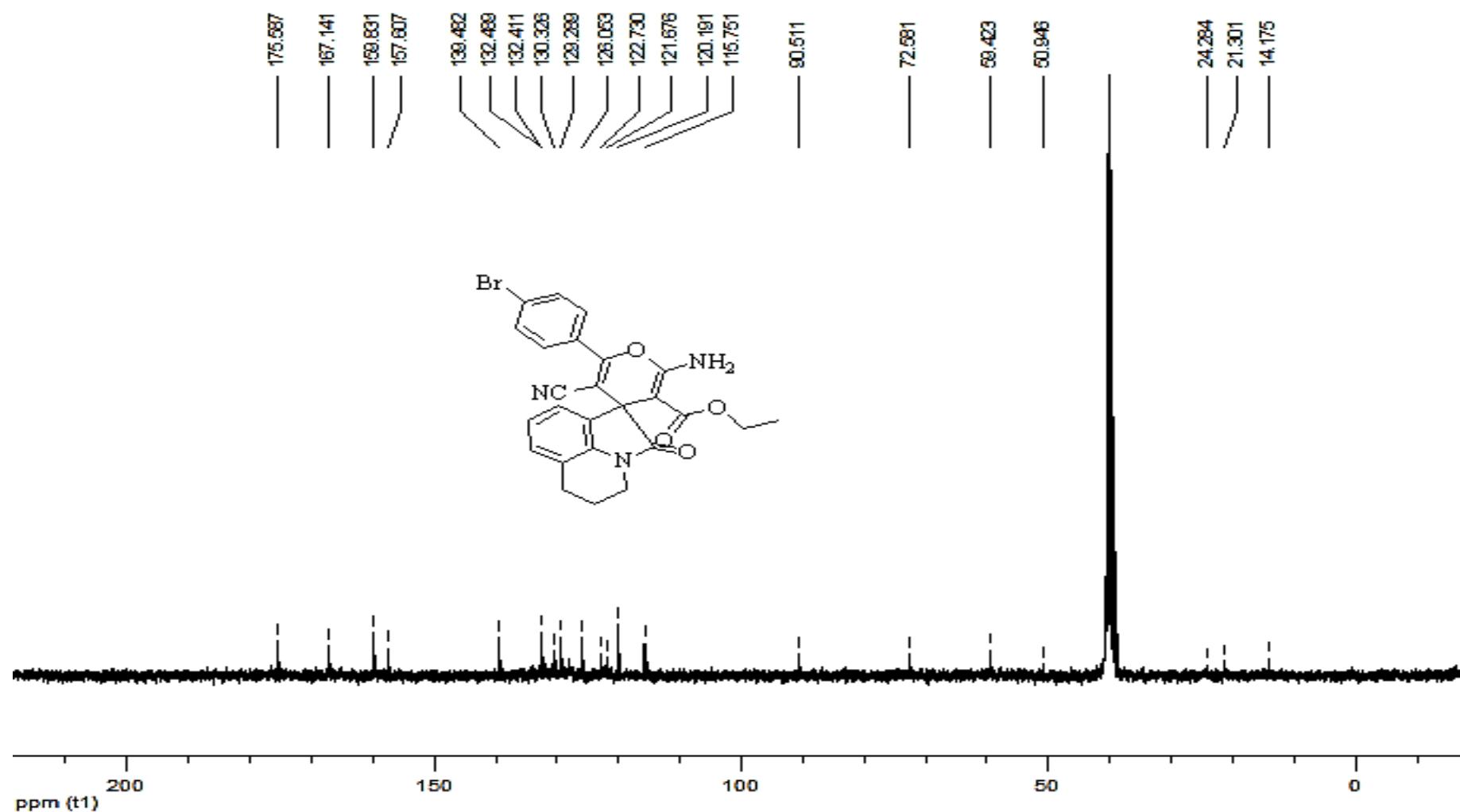


Figure 16 ^{13}C NMR (300 MHz, DMSO-*d*₆) spectrum of compound **6i**.