

Supporting Information

for

Zanthoxoaporphines A–C: Three new larvicidal dibenzo[*de,g*]quinolin-7-one alkaloids from *Zanthoxylum paracanthum* (Rutaceae)

Fidelis N. Samita^{1,2}, Louis P. Sandjo^{3*}, Isaiah O. Ndiege^{2‡*}, Ahmed Hassanali², Wilber Lwande⁴

Address: ¹Department of Chemistry, Maseno University, P.O. Private Bag Maseno, Kenya,

²Department of Chemistry, Kenyatta University, P.O. Box 43844, Nairobi 00100, Kenya,

³Department of Organic chemistry, University of Yaoundé 1, P.O. Box 812 Yaoundé

Cameroon and ⁴Behavioural and Chemical Ecology Department, International Centre for

Insect Physiology and Ecology, P.O. Box 30772, Nairobi 00100, Kenya

Email: Louis P. Sandjo - plsandjo@yahoo.fr, Isaiah O. Ndiege - indiege@yahoo.com

[‡]Tel. +254-721818654

*Corresponding author

NMR spectra of compounds

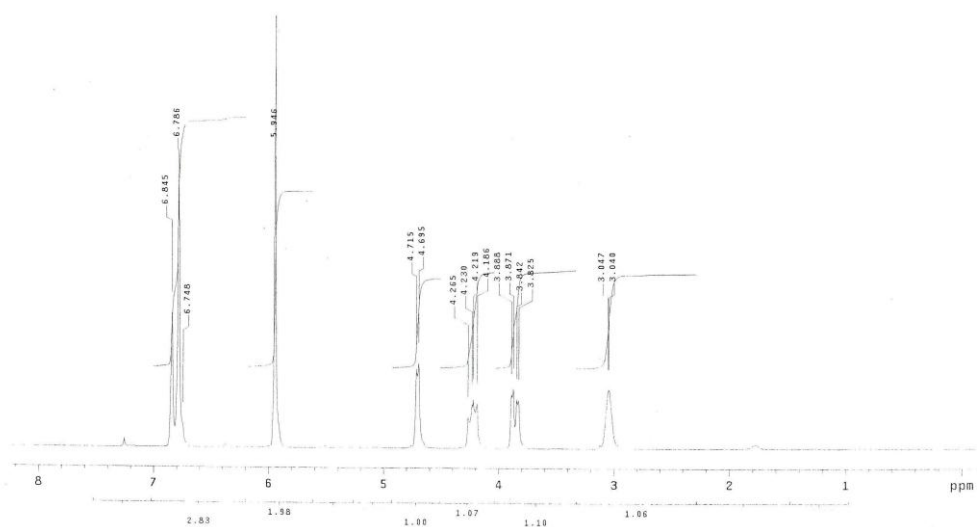


Figure 1: ¹H NMR spectrum of compound **1** (300 MHz, CDCl₃).

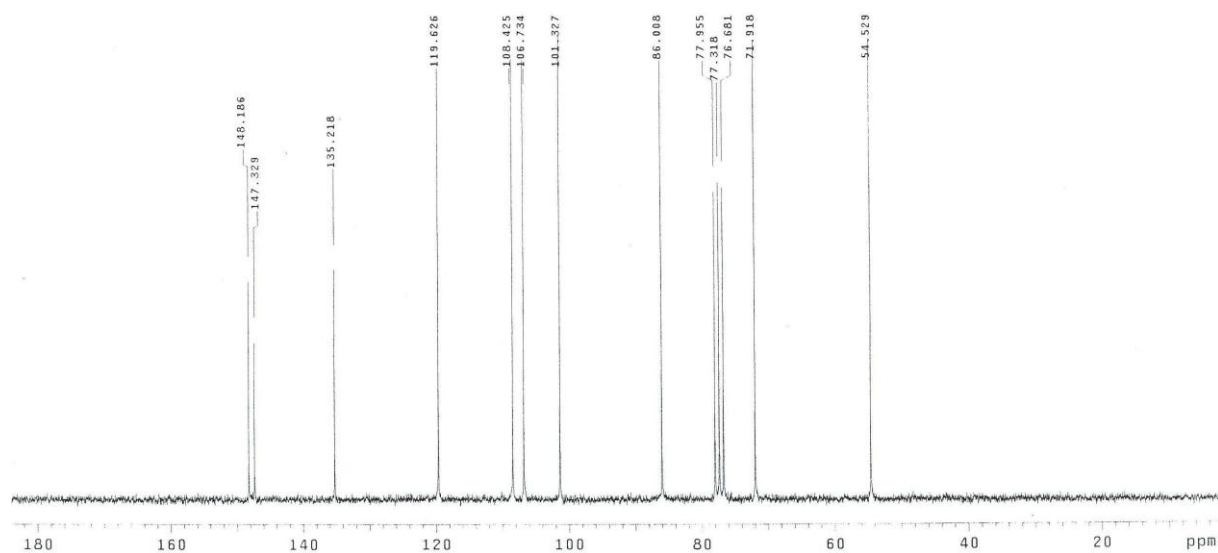


Figure 2: ¹³C NMR spectrum of compound **1** (75 MHz, CDCl₃).

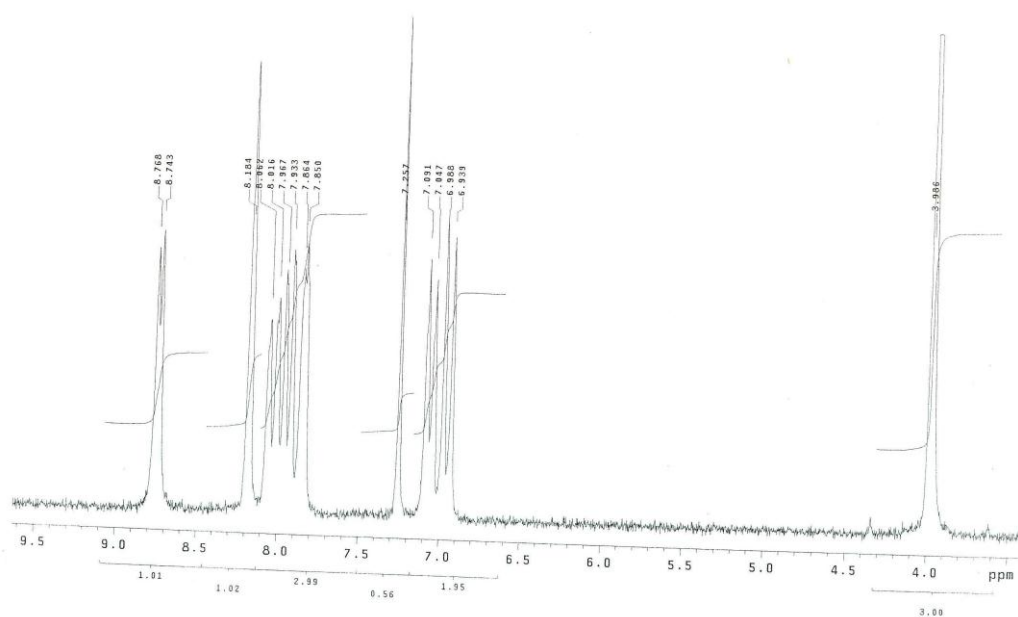


Figure 3: ¹H NMR spectrum of compound **2** (300 MHz, CDCl₃).

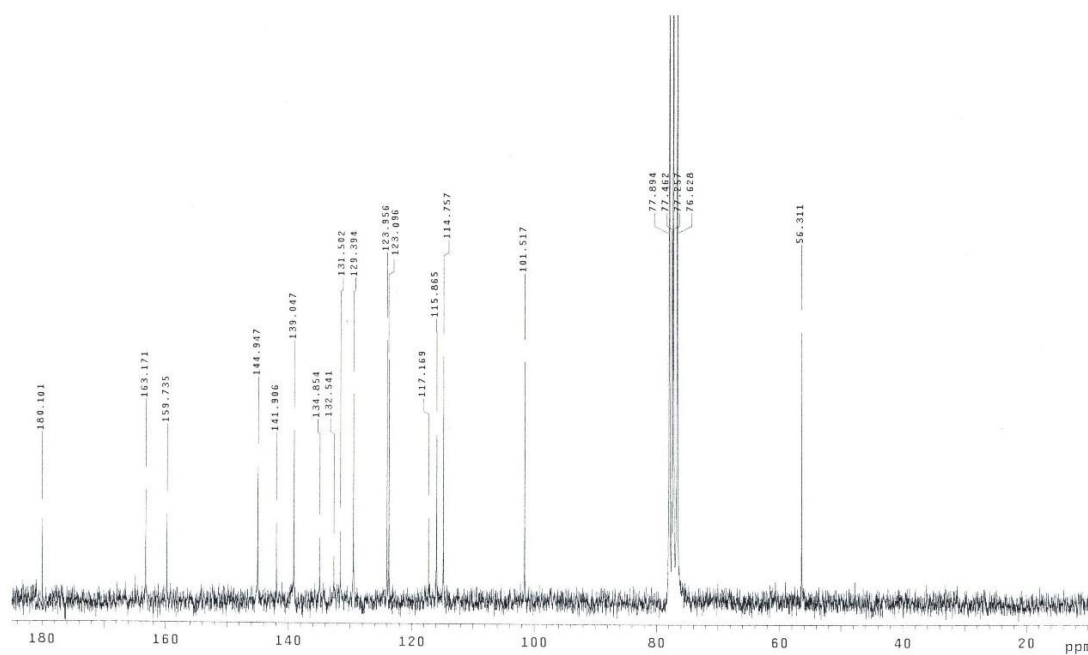


Figure 4: ¹³C NMR spectrum of compound **2** (75 MHz, CDCl₃).

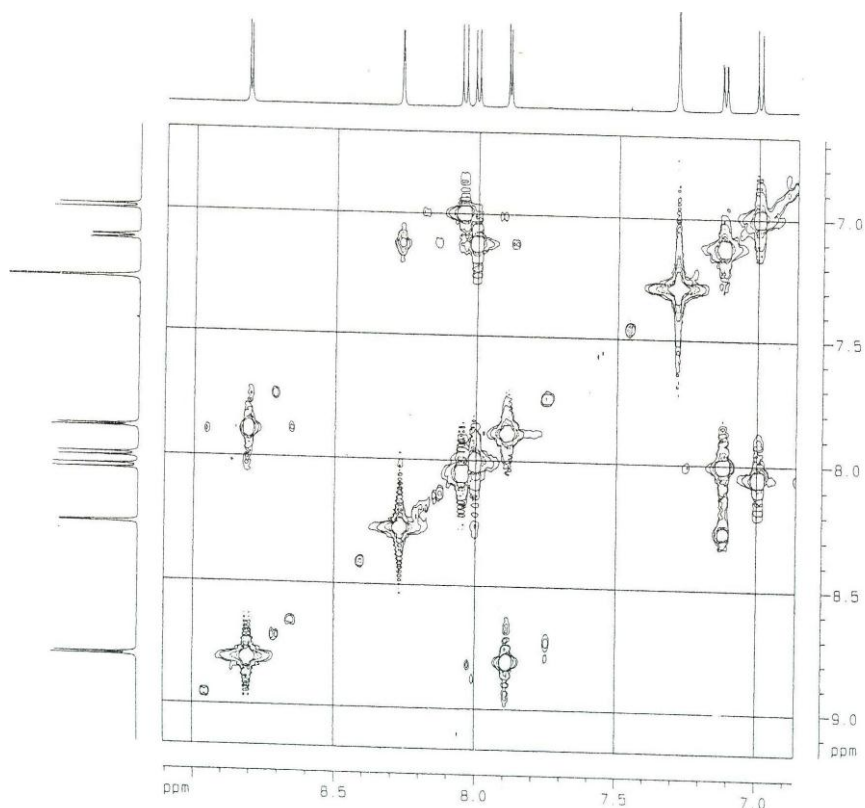


Figure 5: COSY spectrum of compound **2** (600 MHz, CDCl₃).

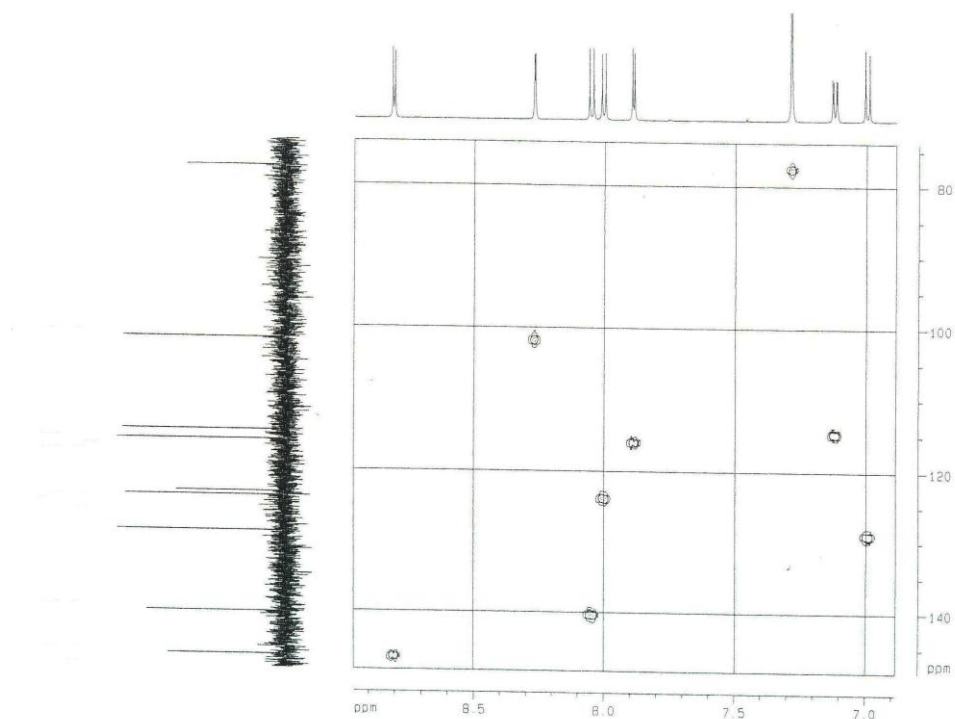


Figure 6: HMQC spectrum of compound **2** (600 MHz, CDCl₃).

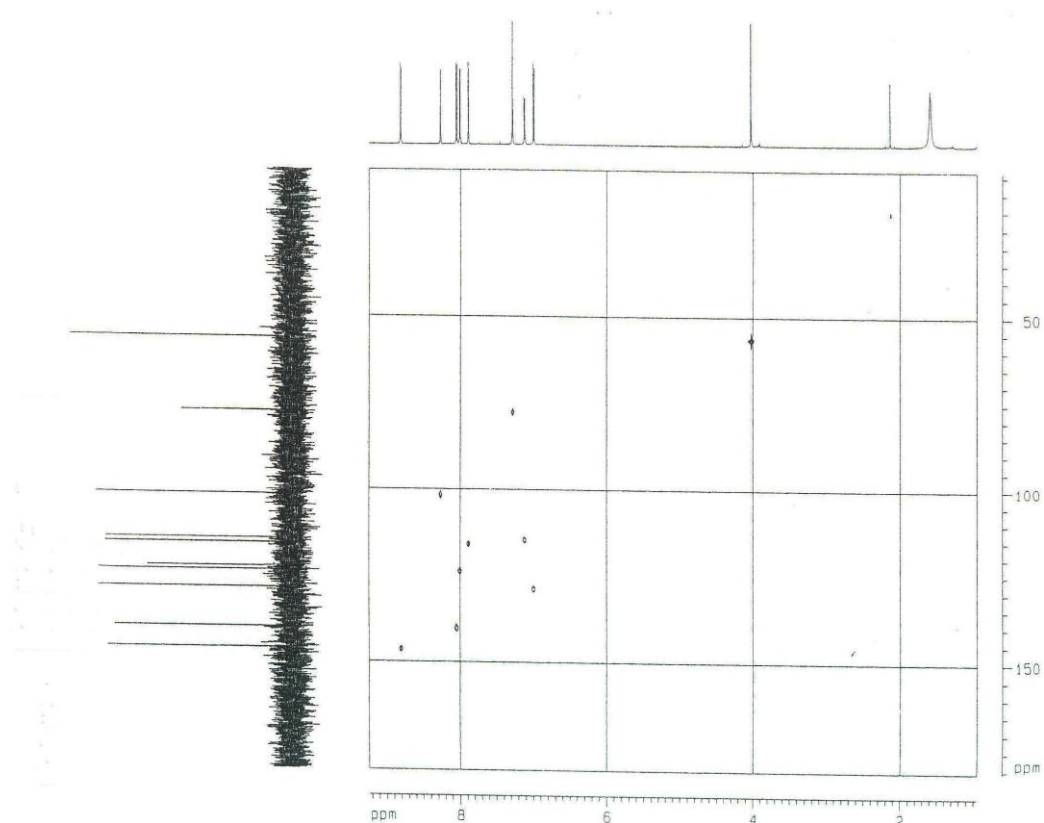


Figure 7: HMQC spectrum of compound **2** (600 MHz, CDCl₃).

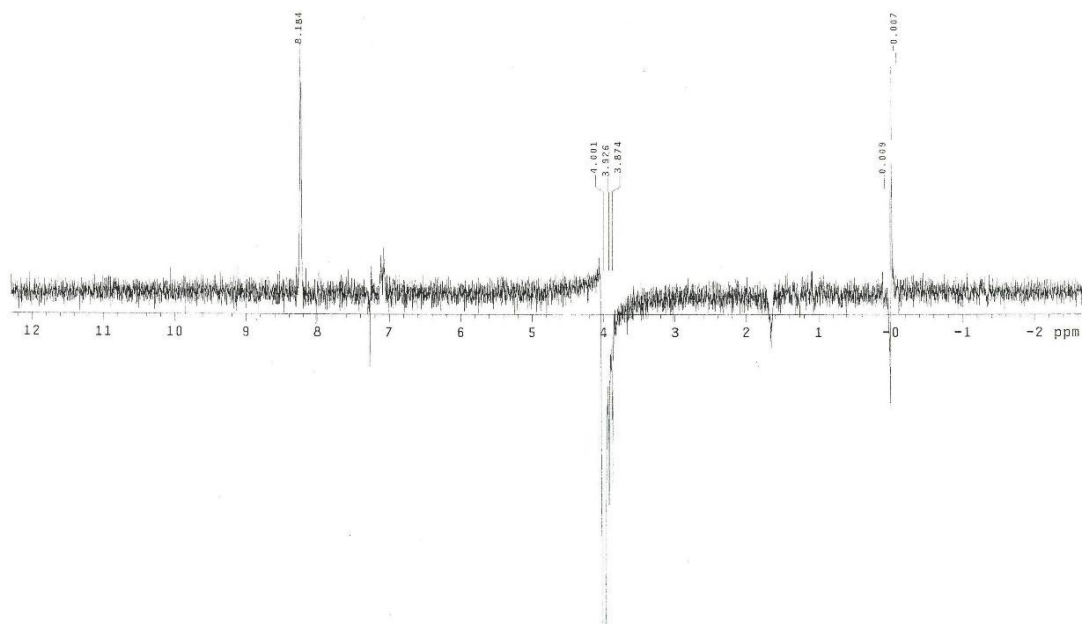


Figure 8: NOE spectrum of compound **2**.

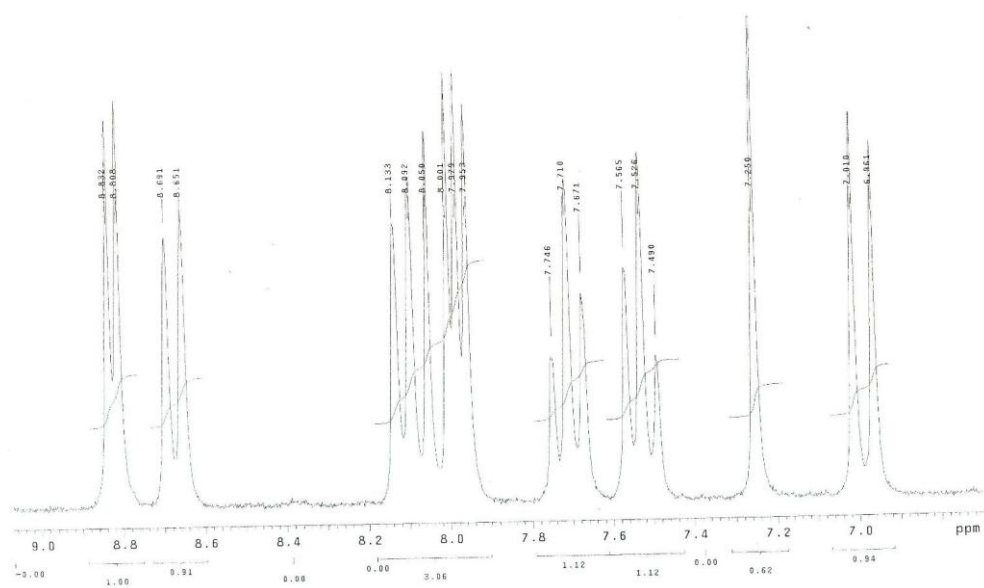


Figure 9: ¹H NMR spectrum of compound **3** (300 MHz, CDCl₃).

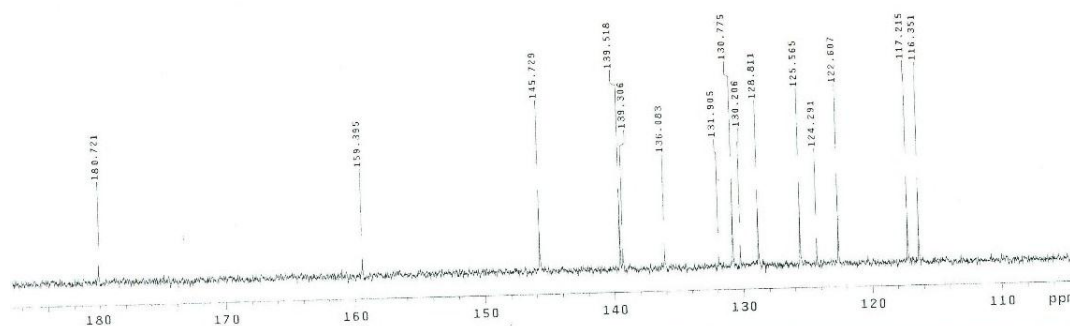


Figure 10: ¹³C NMR spectrum of compound **3** (75 MHz, CDCl₃).

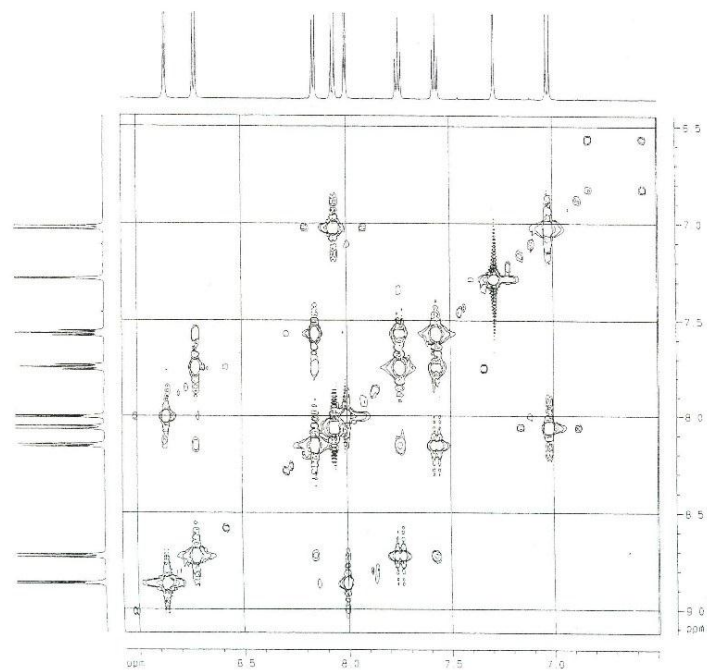


Figure 11: COSY spectrum of compound **3** (600 MHz, CDCl₃).

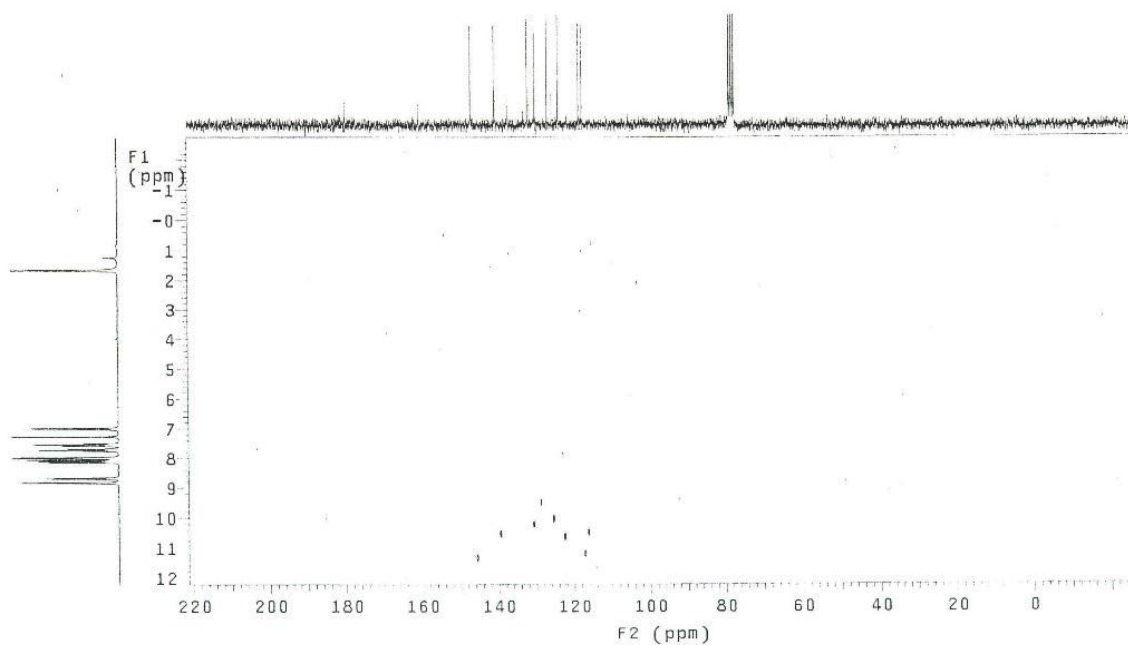


Figure 12: HETCOR spectrum of compound **3**.

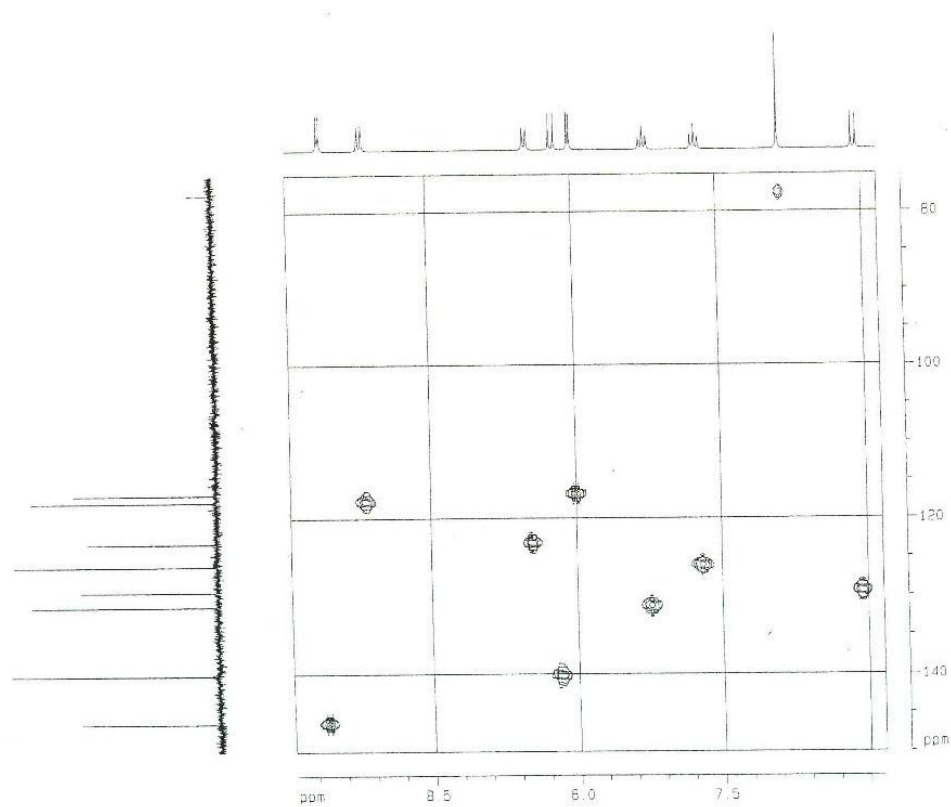


Figure 13: HMQC spectrum of compound **3**.

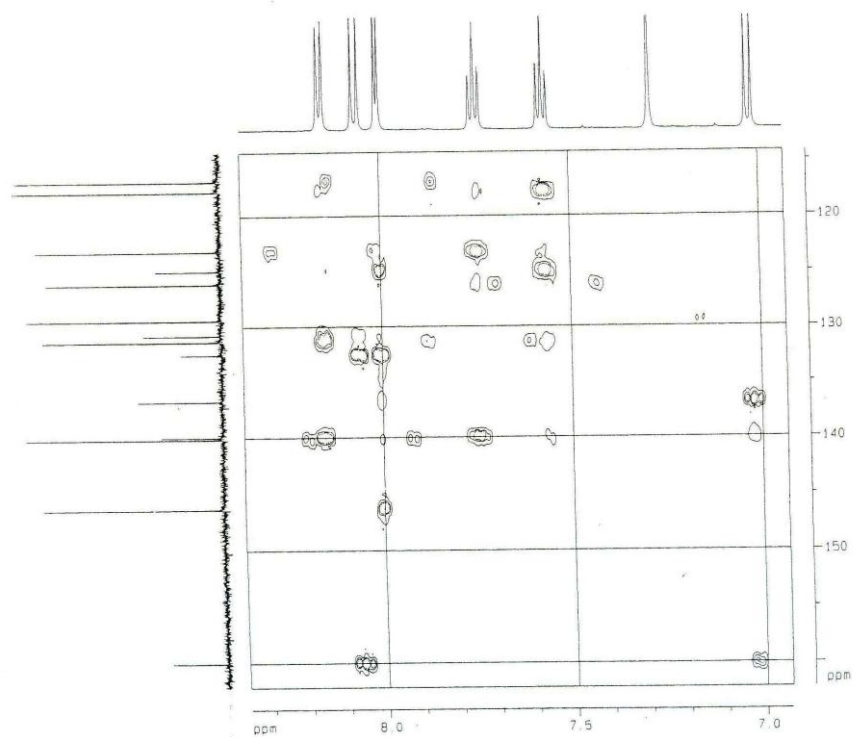


Figure 14: HMBC spectrum of compound **3**.

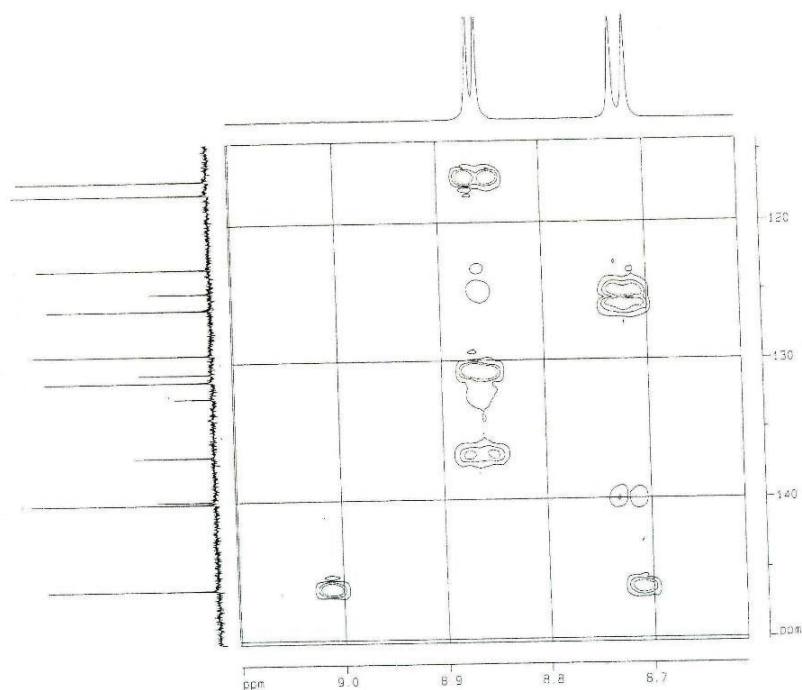


Figure 15: HMBC spectrum of compound **3**.

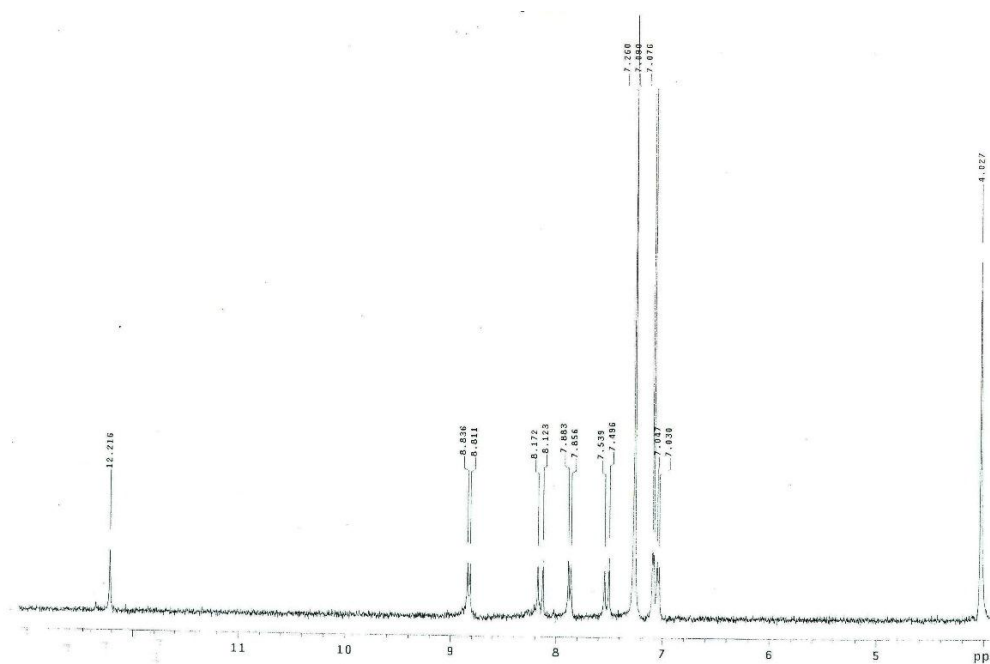


Figure 16: ^1H NMR spectrum of compound **4** (300 MHz, CDCl_3).

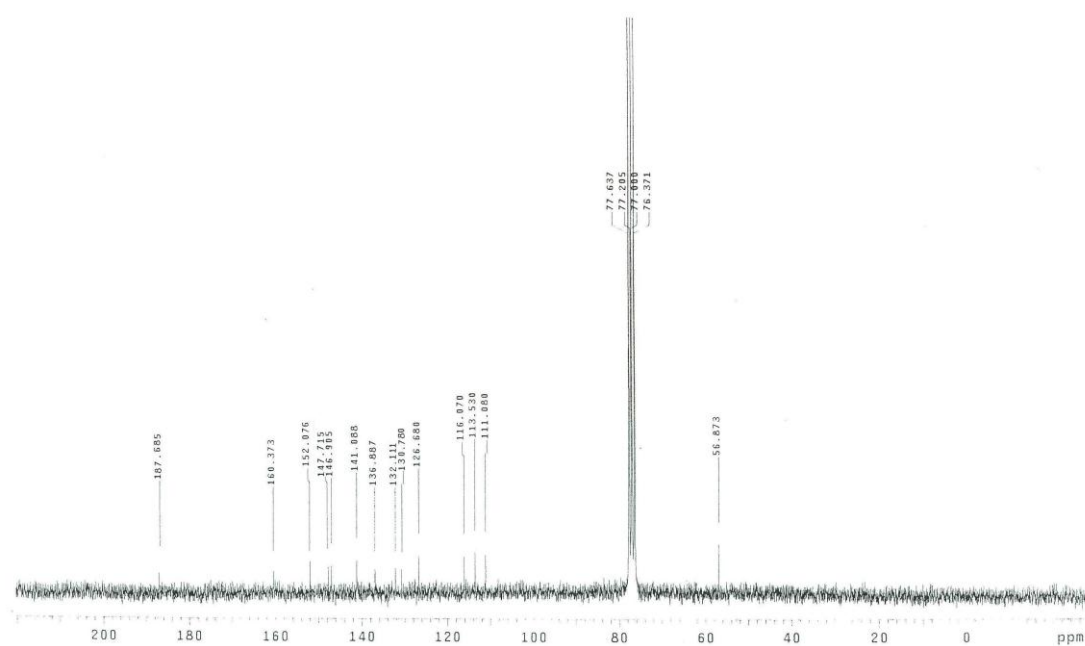


Figure 17: ¹³C NMR spectrum of compound **4** (75 MHz, CDCl₃).

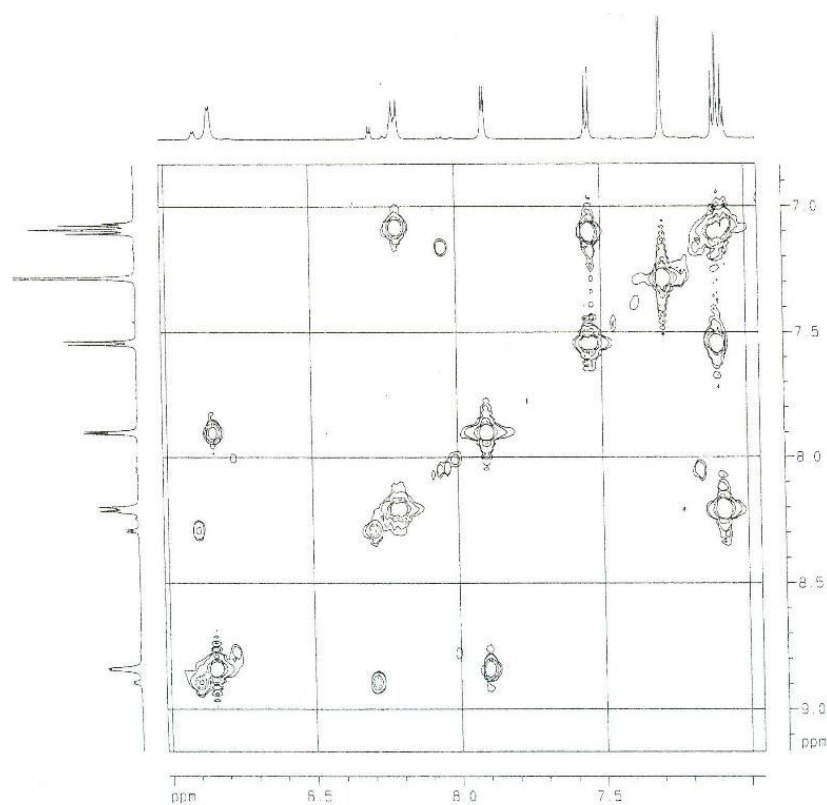


Figure 18: COSY spectrum of compound **4** (600 MHz, CDCl₃).

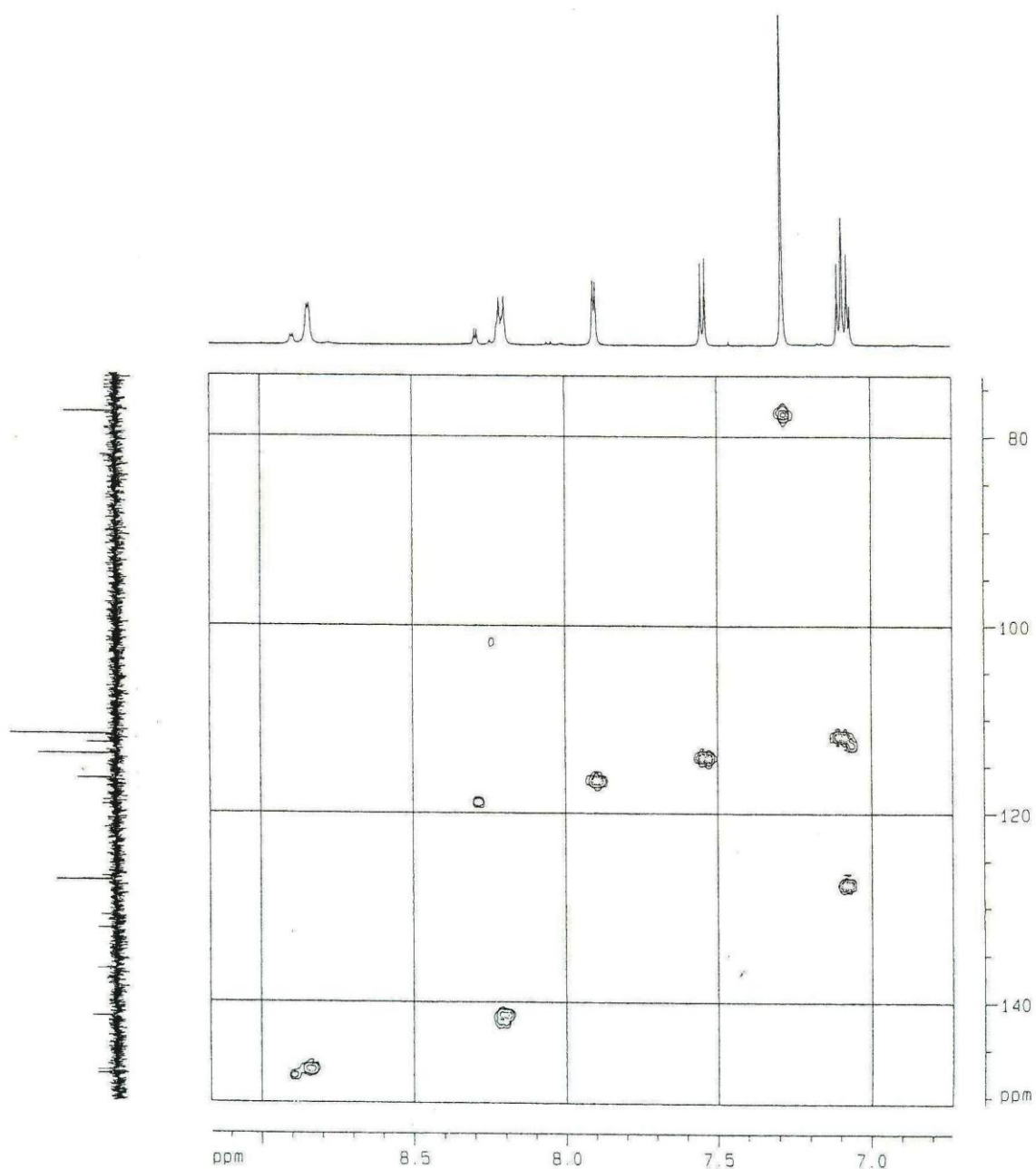


Figure 19: HMQC spectrum of compound **4** (600 MHz, CDCl_3).

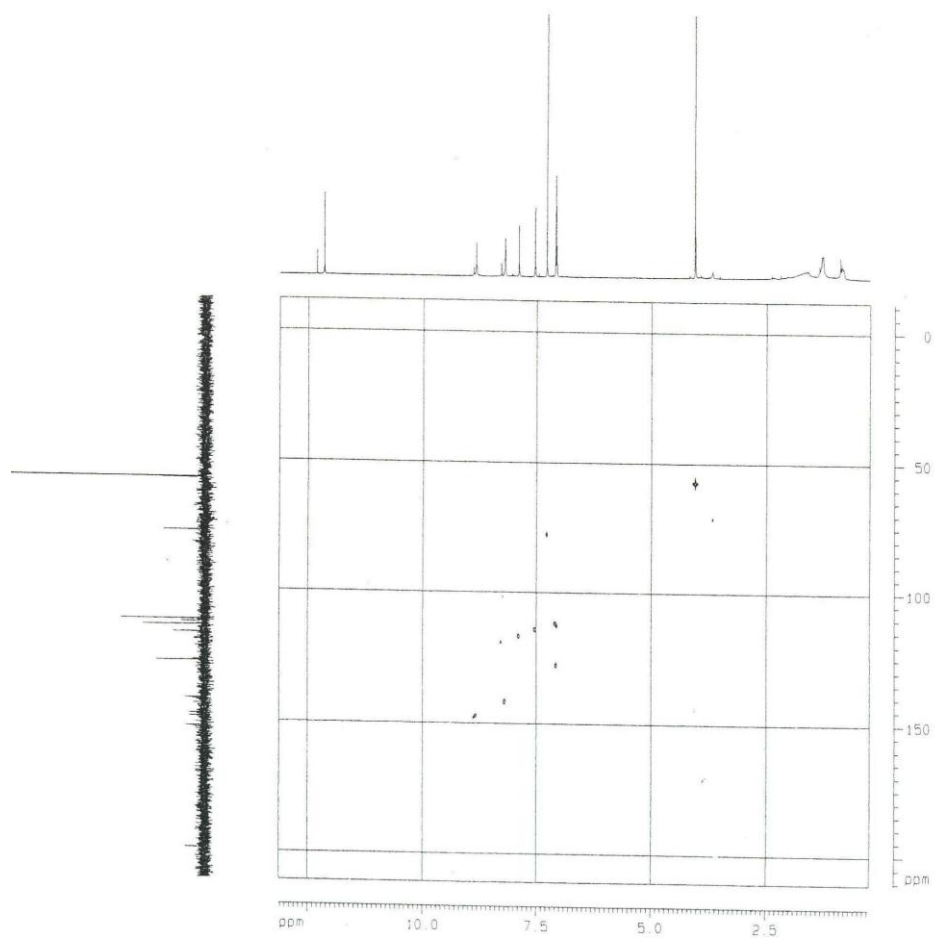


Figure 20: HMQC spectrum of compound **4** (600 MHz, CDCl₃).

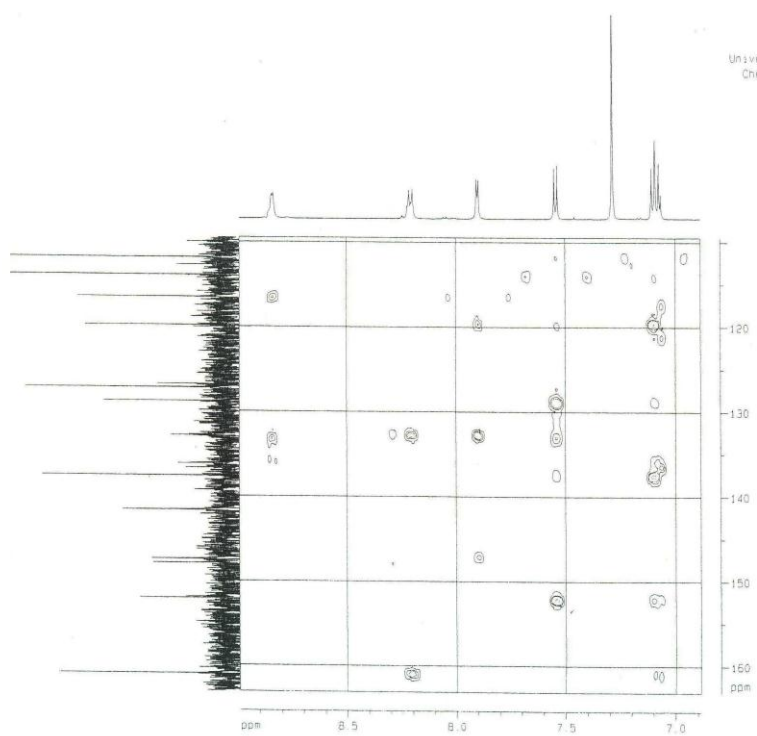


Figure 21: HMQC spectrum of compound **4** (600 MHz, CDCl₃).

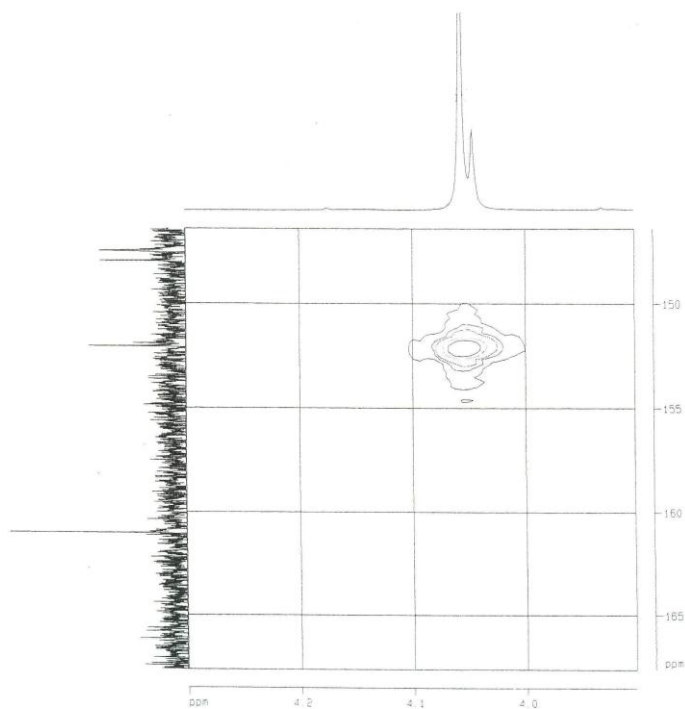


Figure 22: HMQC spectrum of compound **4** (600 MHz, CDCl_3).

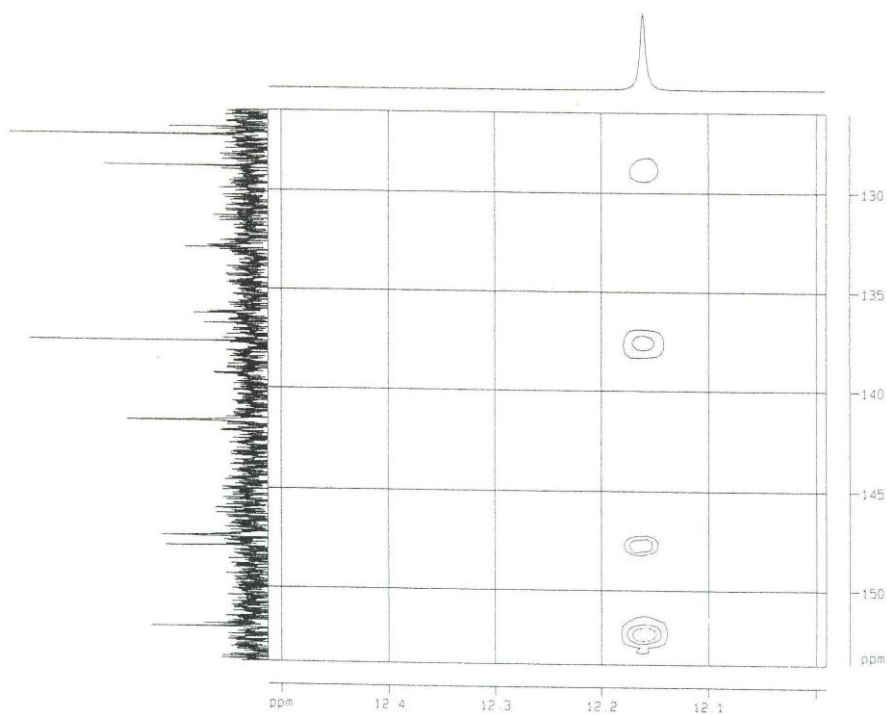


Figure 23: HMQC spectrum of compound **4** (600 MHz, CDCl_3).