

Type of the Paper (Article)

Spectroscopic Characterization and Cytotoxicity Assessment towards Human Colon Cancer Cell Lines of Acylated cycloartane glycosides from *Astragalus boeticus* L.

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Supplementary material

Figure S1: ^1H NMR spectrum of compound **1**

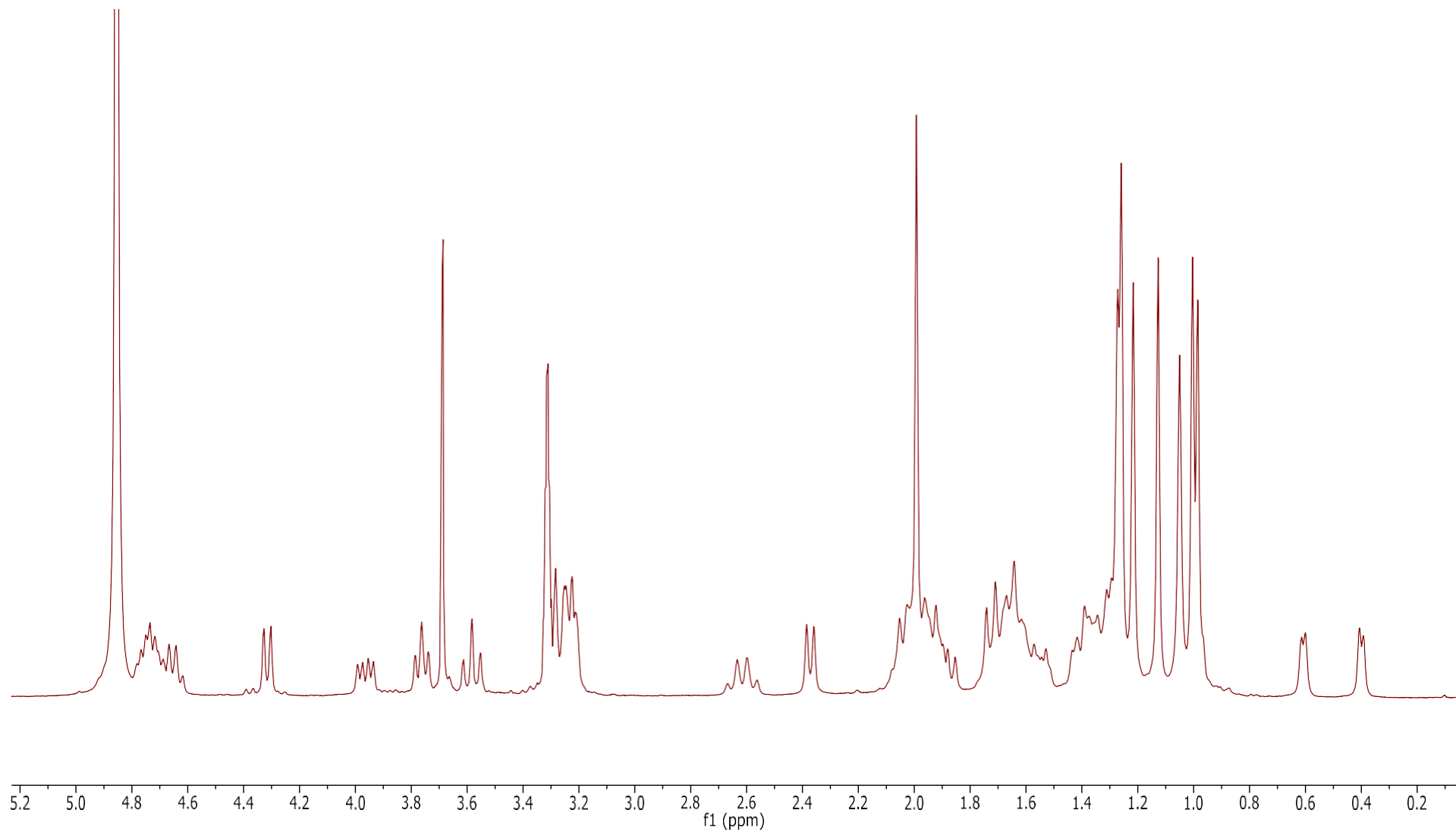


Figure S2: ^{13}C NMR spectrum of compound **1**

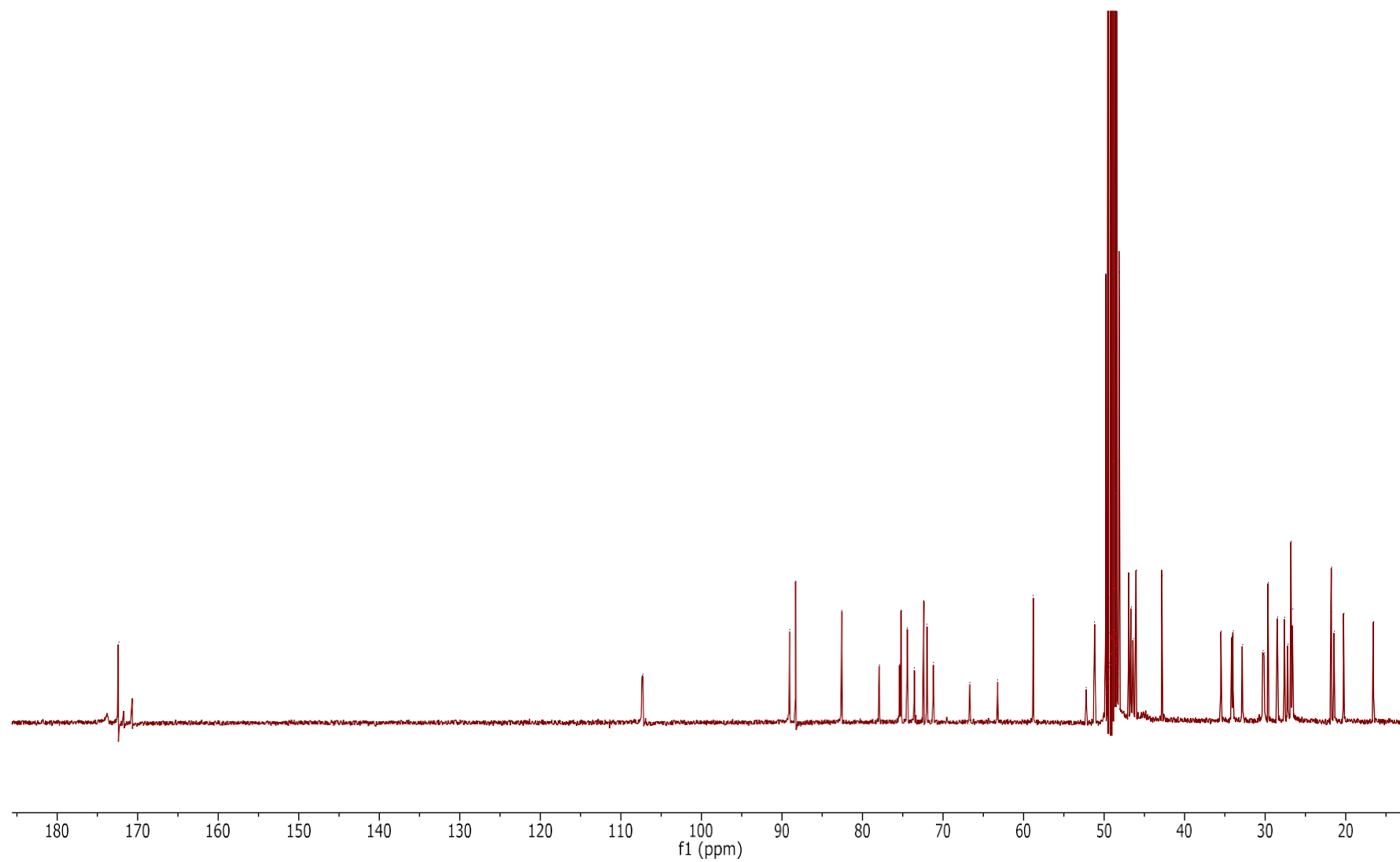


Figure S3: COSY spectrum of compound 1

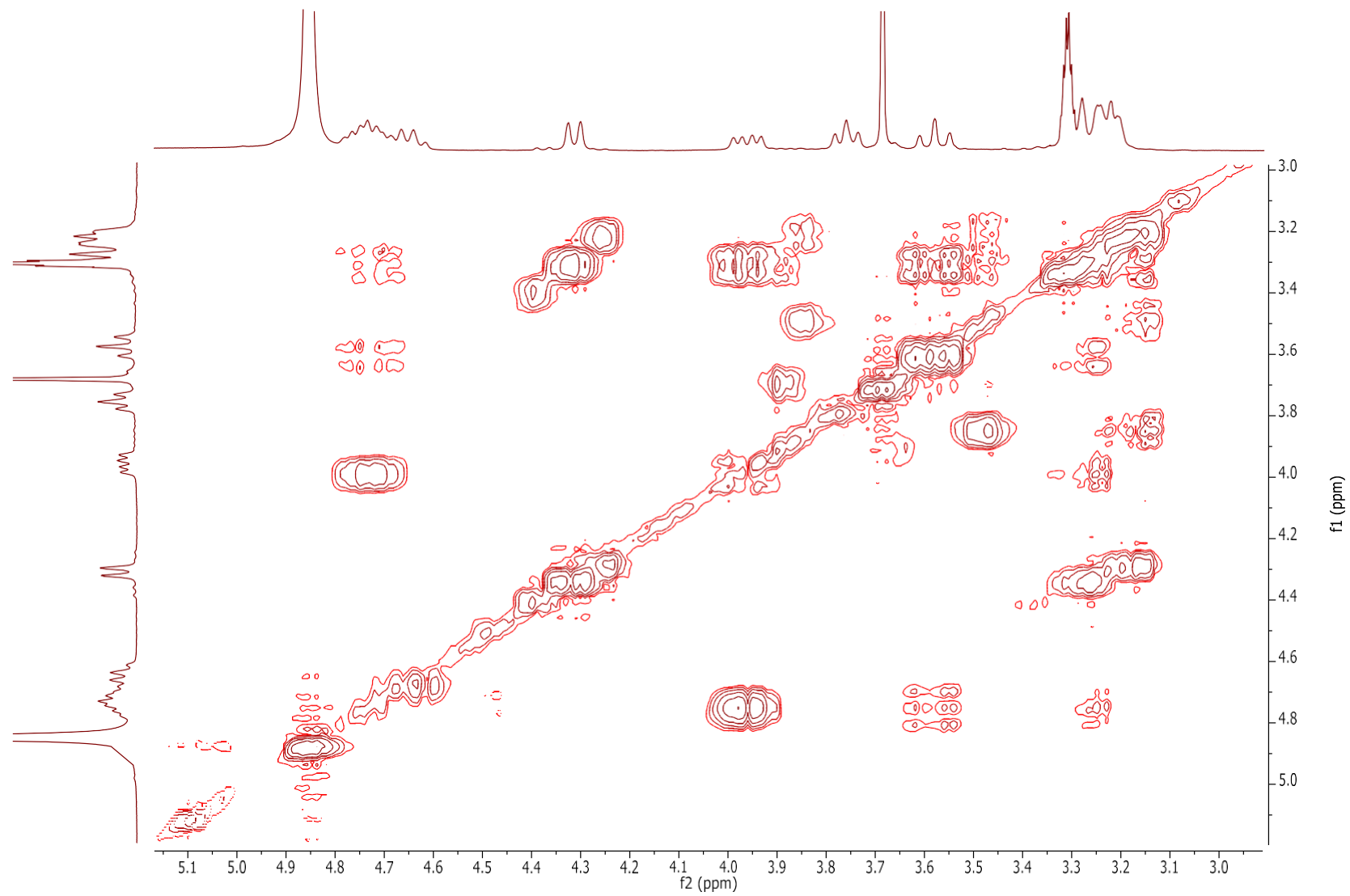


Figure S4: HSQC spectrum of compound **1**

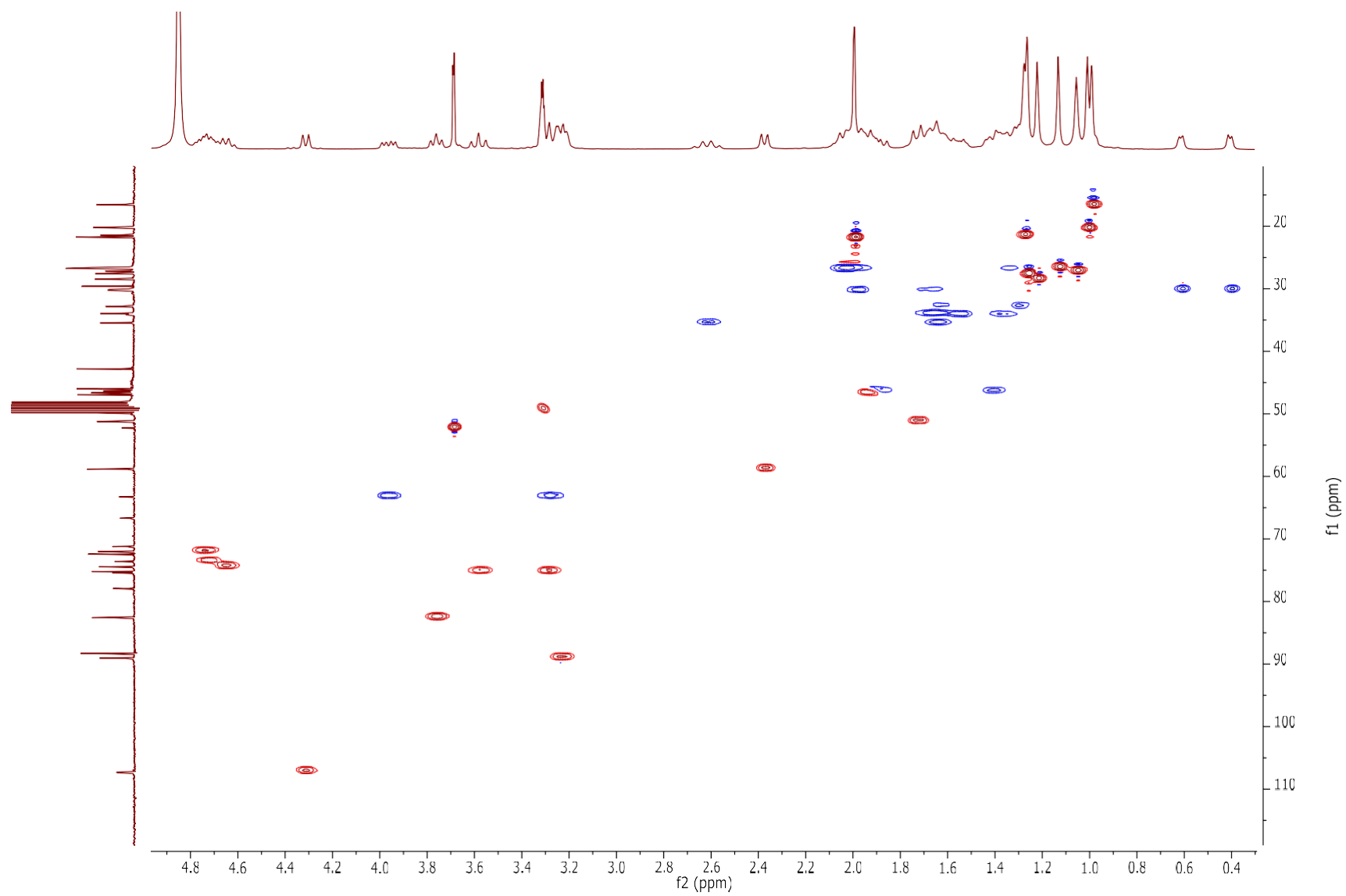


Figure S5: CIGAR-HMBC spectrum of compound **1**

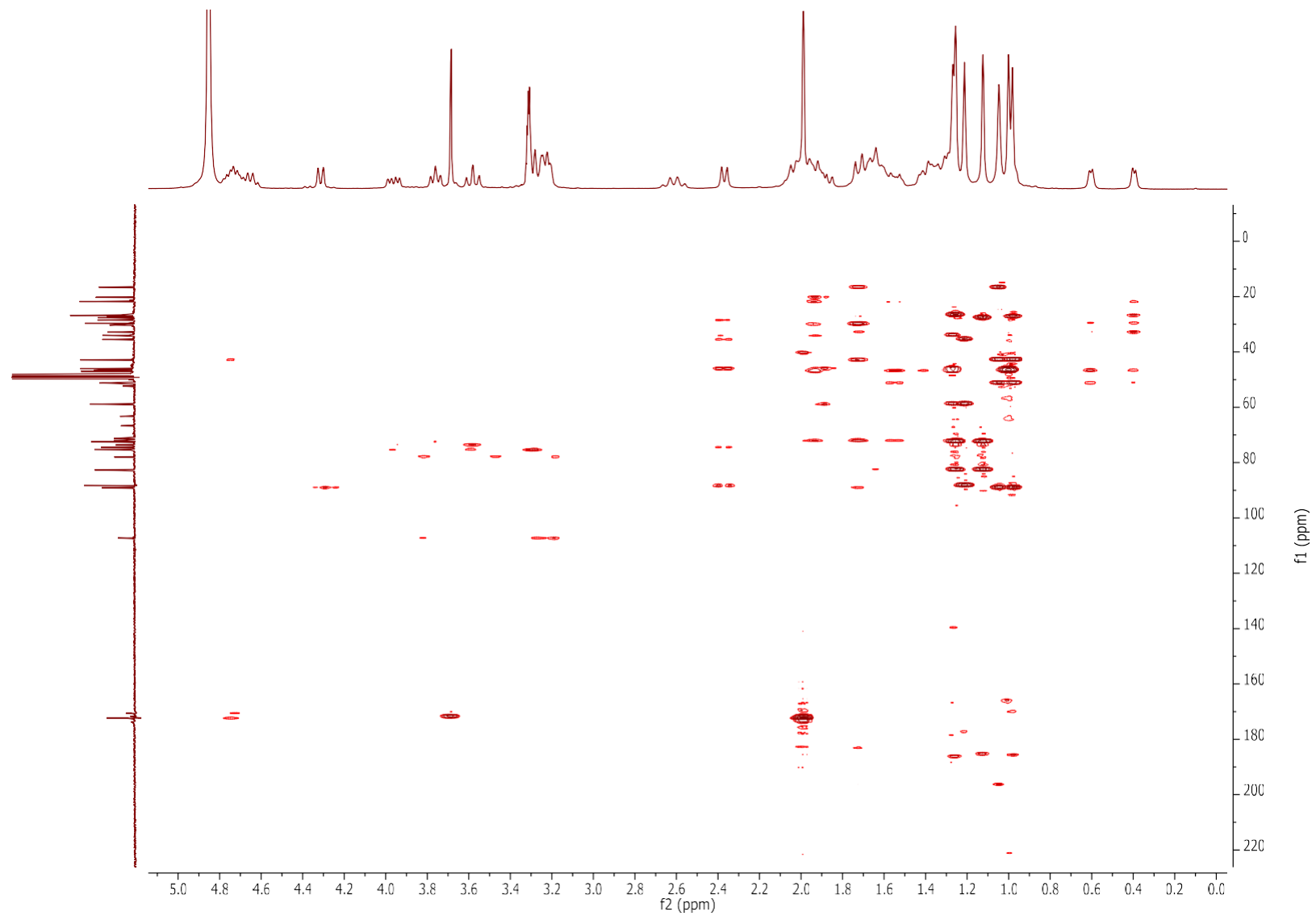


Figure S6: H2BC spectrum of compound **1**

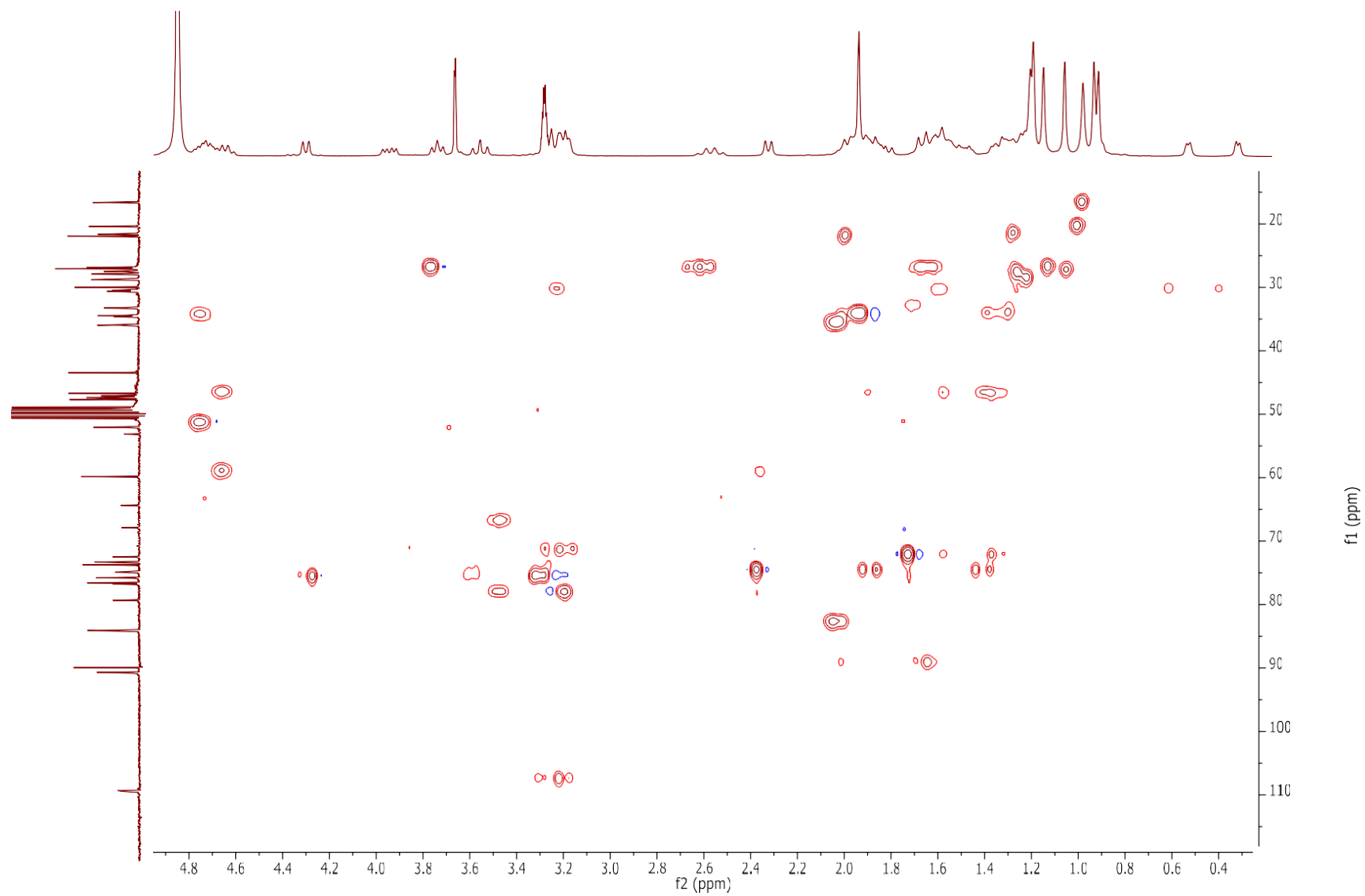


Figure S7: HSQCTOCSY spectrum of compound **1**

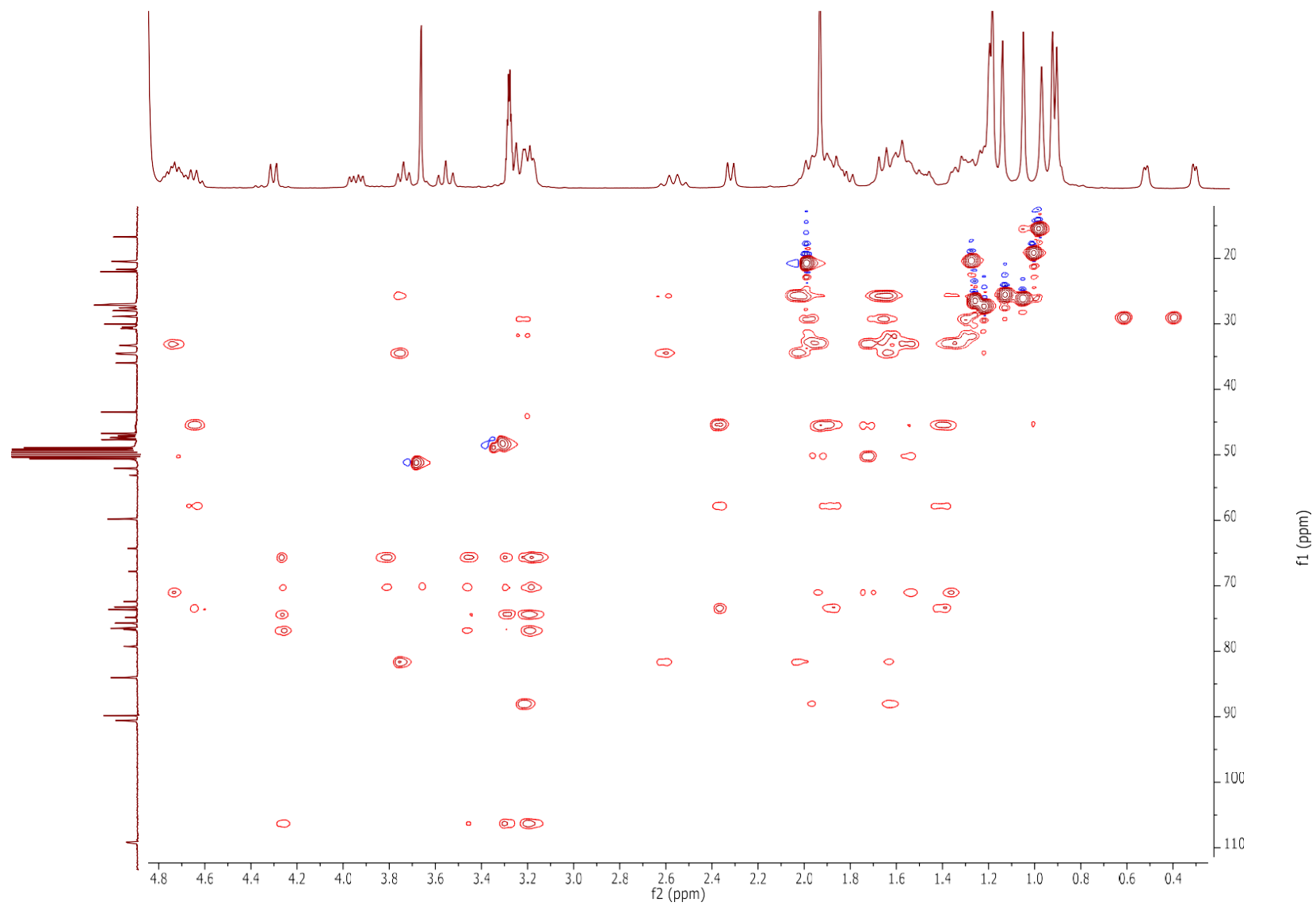


Figure S8: ESI QTOF spectrum of compound 1

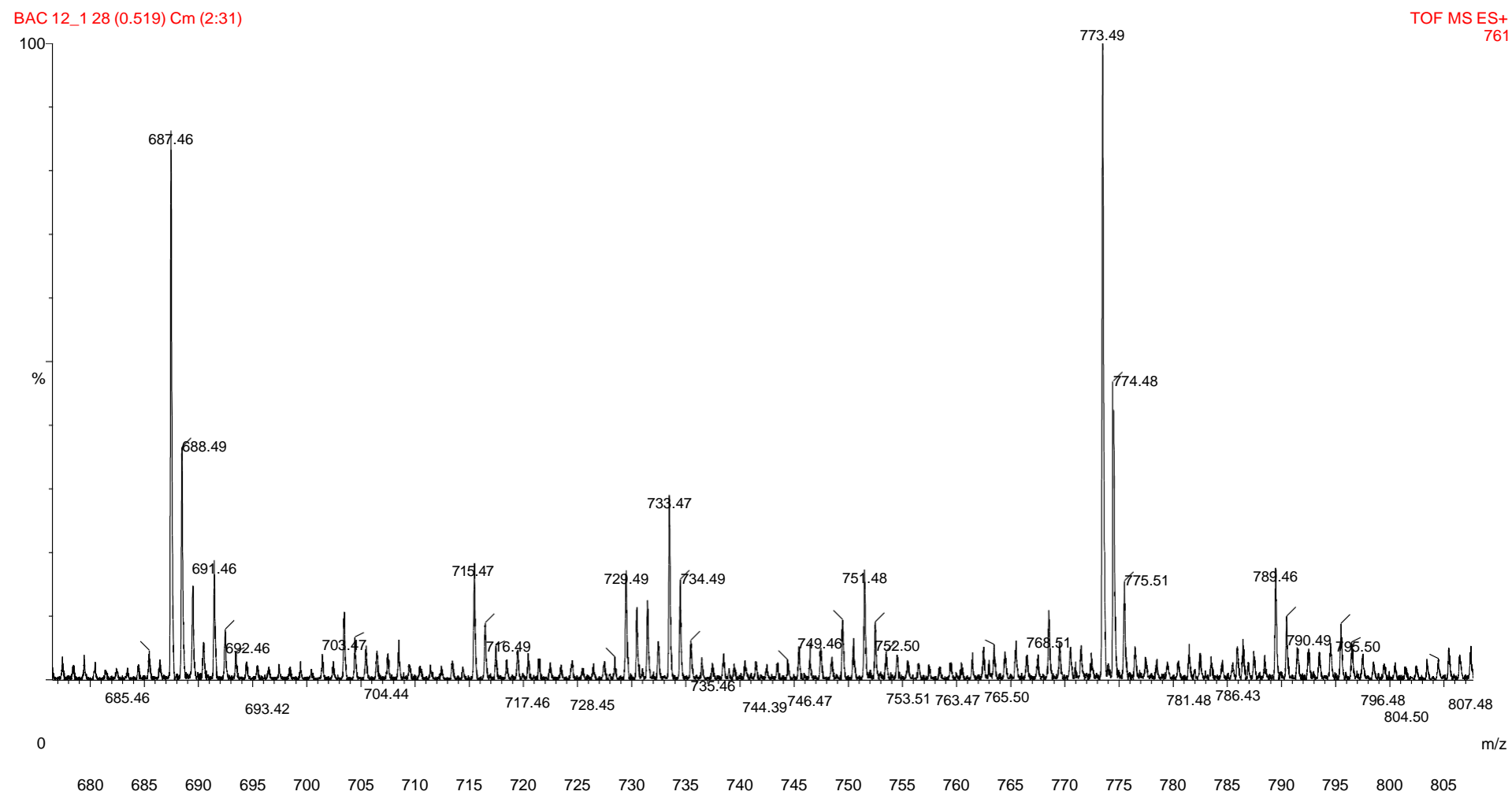
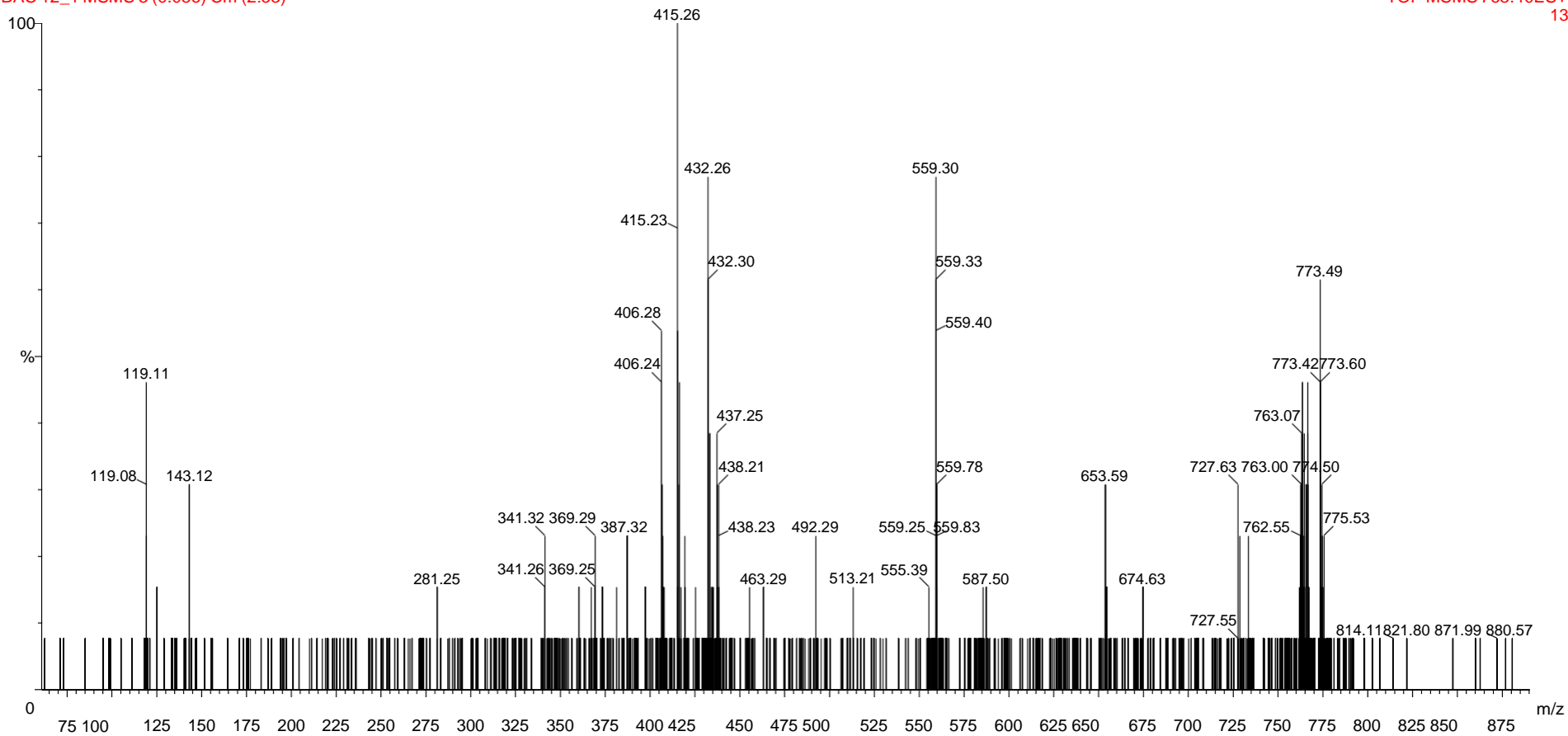
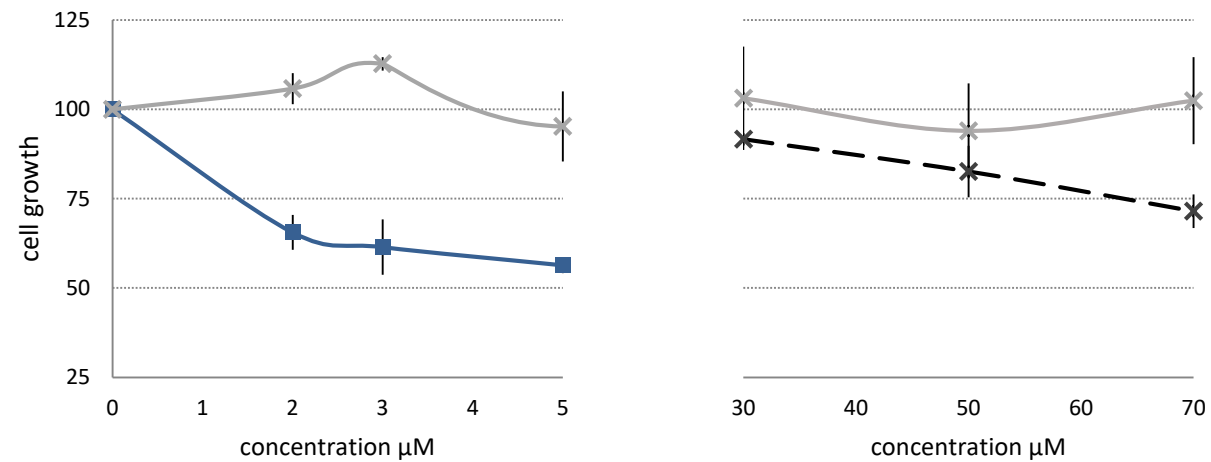


Figure S9: ESI TOF MS/MS spectrum of compound 1

BAC 12_1 MSMS 3 (0.056) Cm (2:53)

TOF MSMS 763.40ES+
13



A*HT-29*Figure S10: cytotoxicity of AS-IV in comparison with compound **3** and **4**

A Cytotoxic activity of AS-IV and the active compound **4** at 2, 3 and 5 μM (graph on the left) in HT-29 cell line. Cytotoxic activity of AS-IV and the inactive compound **3** at 30, 50 and 70 μM (graph on the right) in HT-29 cell line.

B Cytotoxic activity of AS-IV, compound **3** and **4** at 30, 50 and 70 μM in Caco-2 cell line (graph on the left). Figure legend on the right.

B*Caco 2*