

Supplementary Materials

Figure S1. IR spectrum of protolimonoids **1** and **2**.

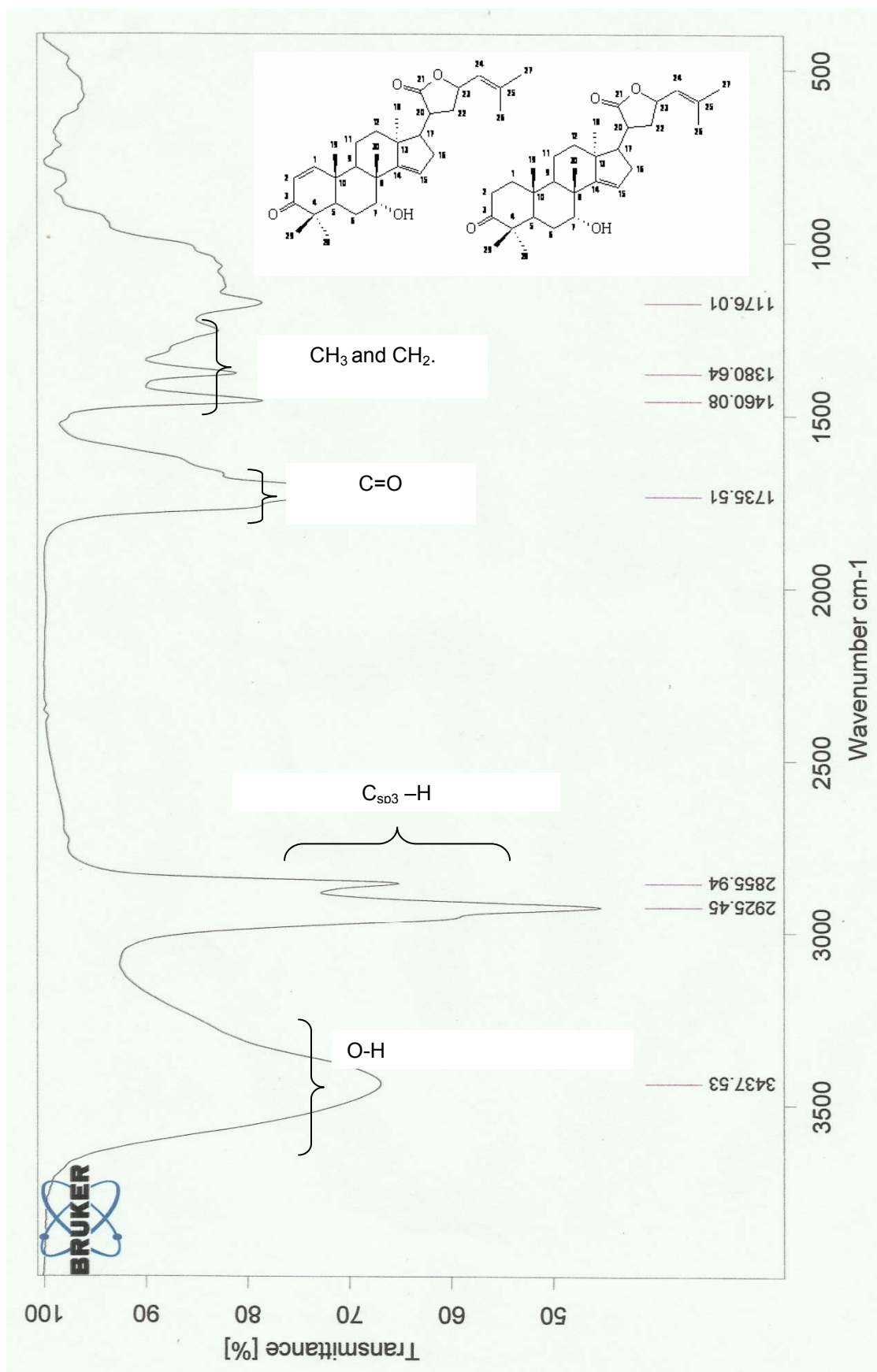


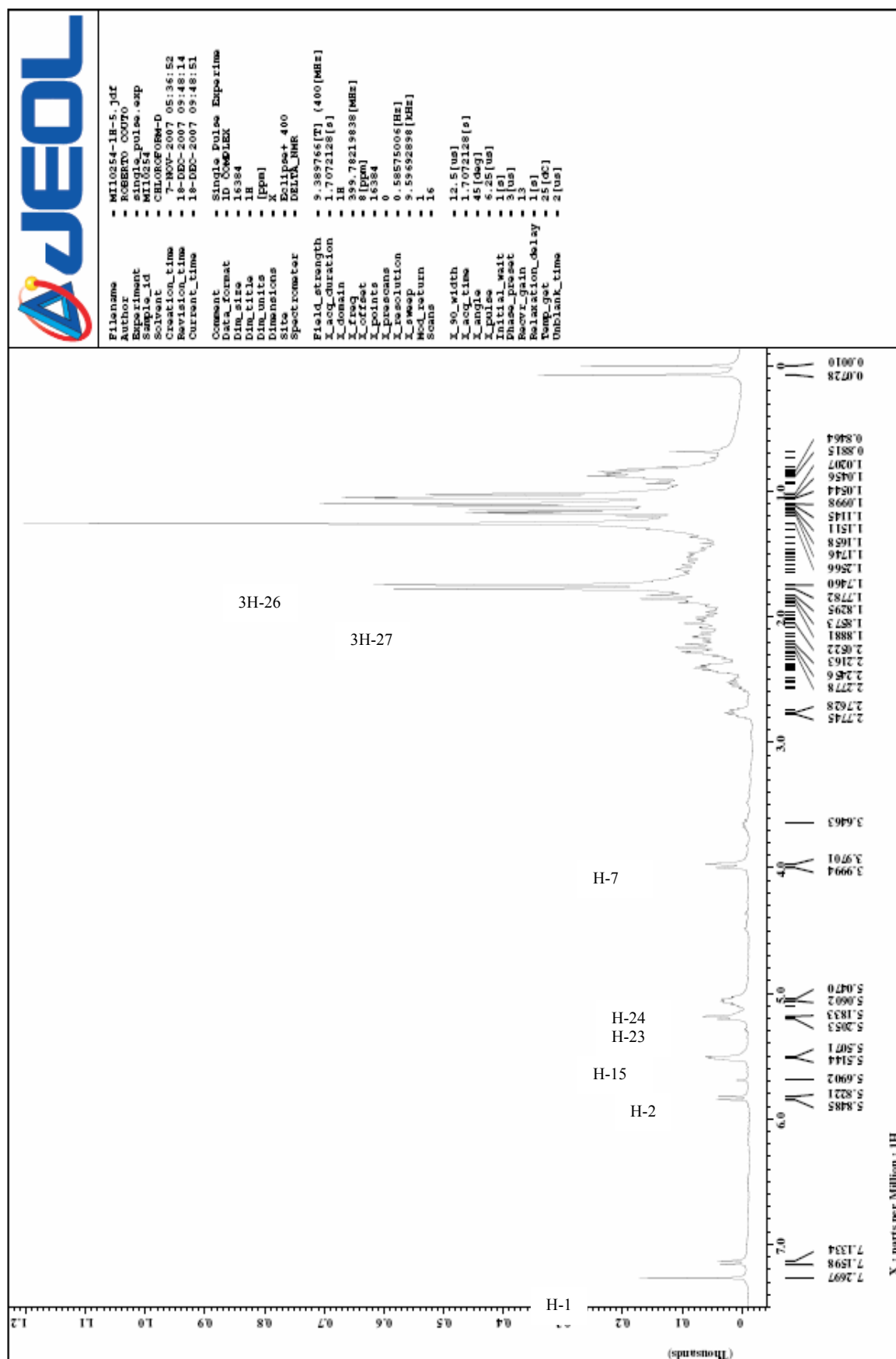
Figure S2. ^1H NMR spectrum of protolimonoids **1** and **2** (400 MHz, CDCl_3).

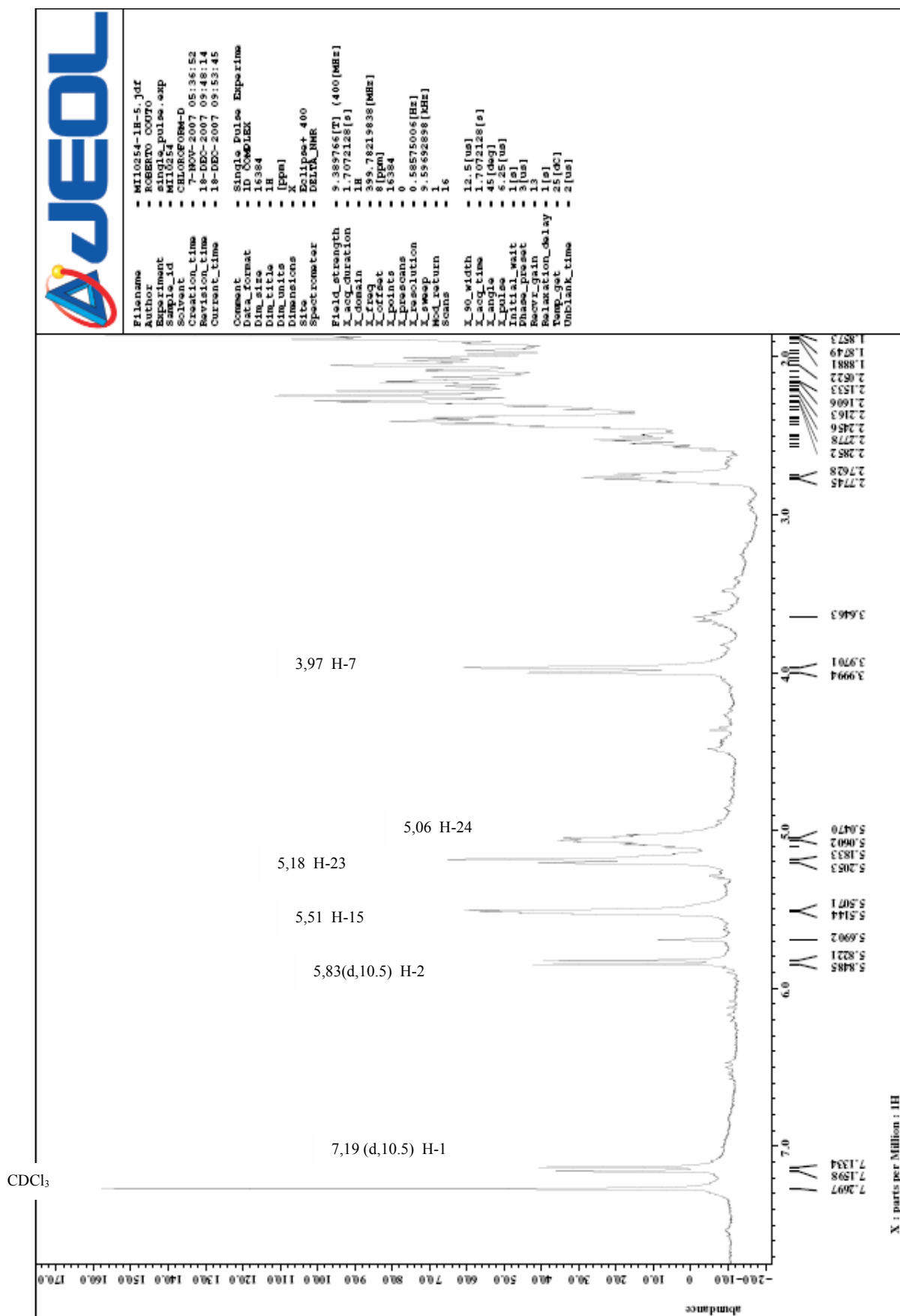
Figure S3. ^1H NMR spectrum of protolimonoids **1** and **2** (400 MHz, CDCl_3).

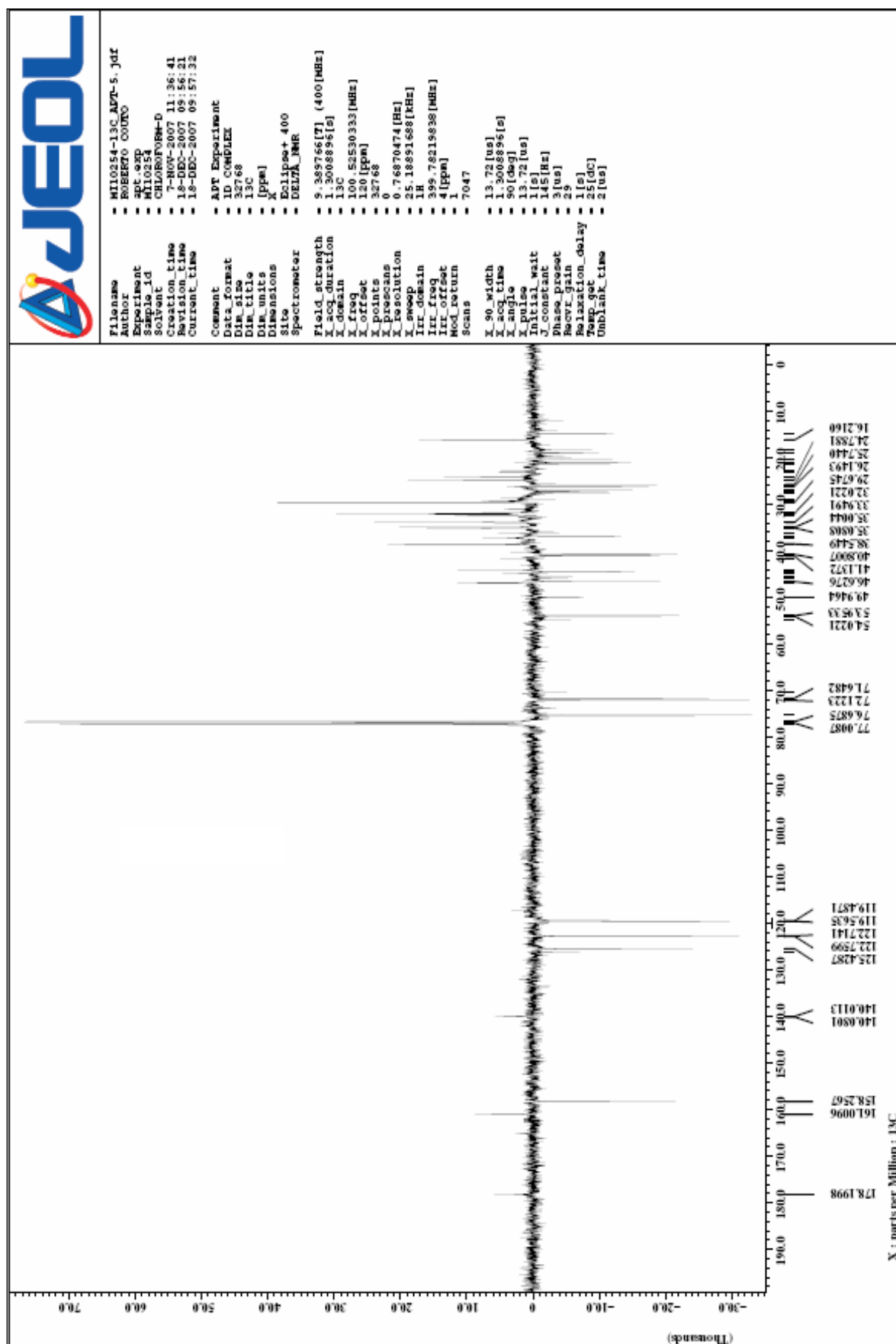
Figure S4. ^{13}C NMR-APT spectrum of protolimonoids **1** and **2** (100 MHz, CDCl_3).

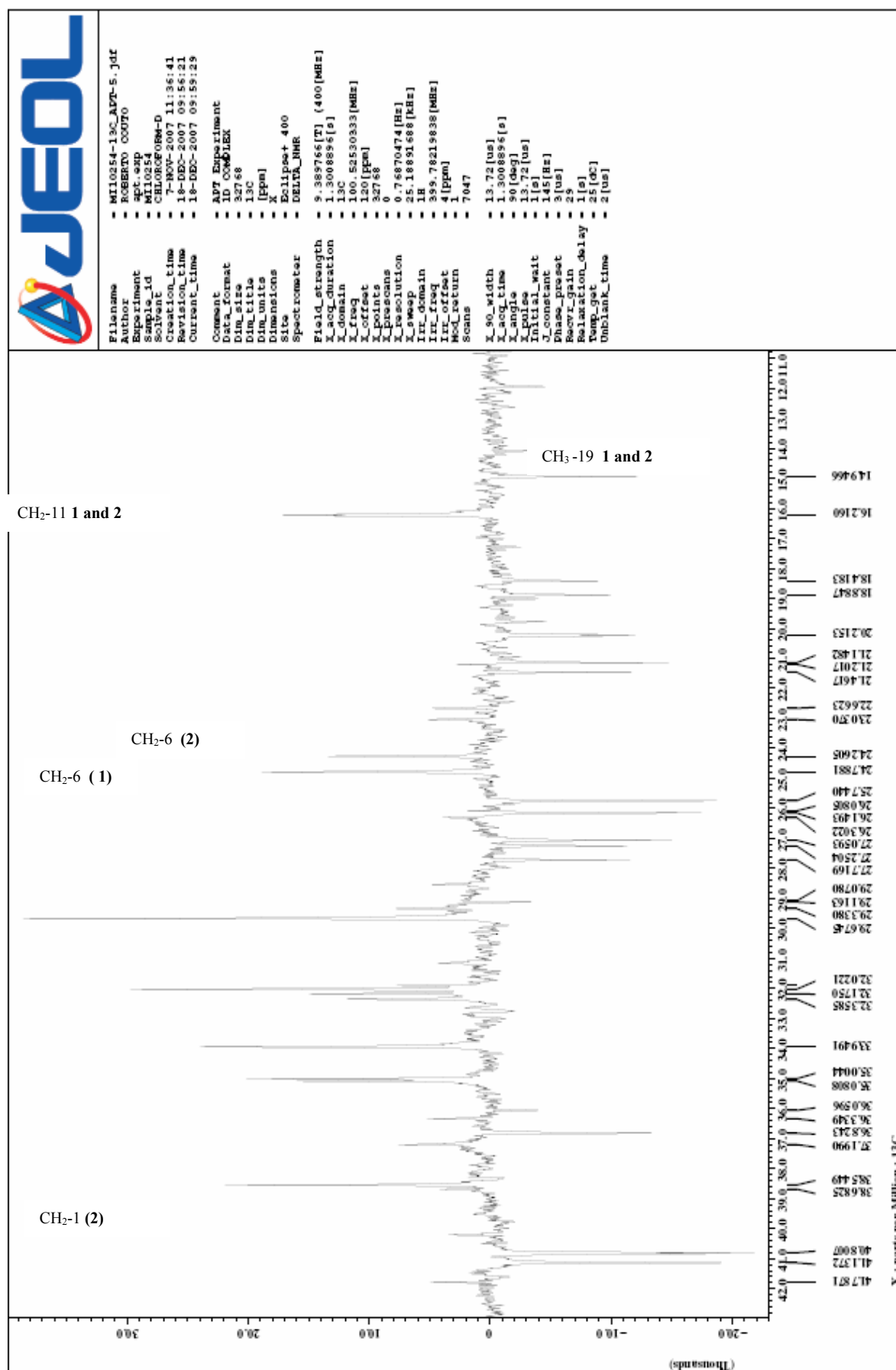
Figure S5. ^{13}C NMR-APT spectrum of protolimonoids **1** and **2** (100 MHz, CDCl_3).

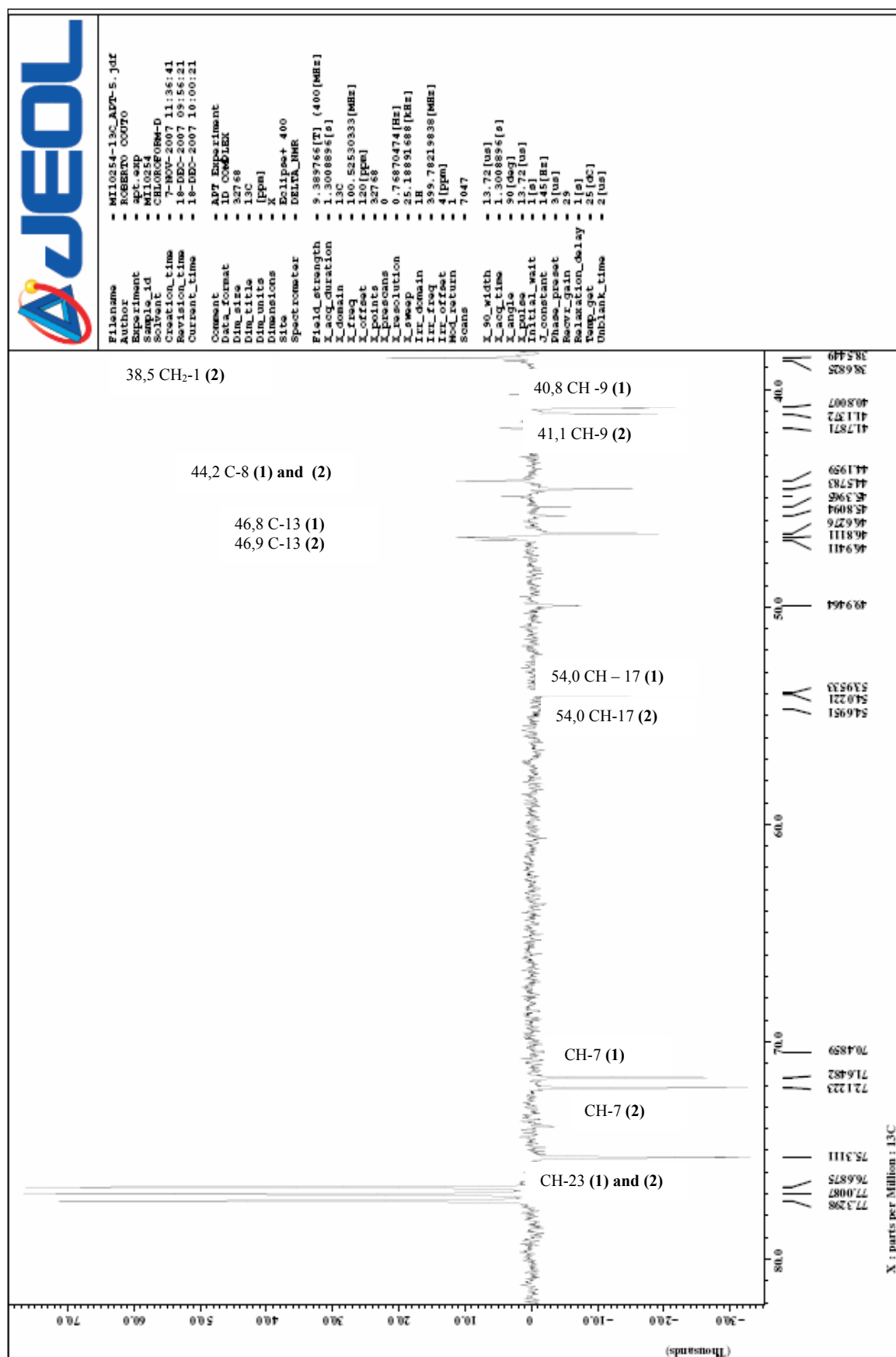
Figure S6. ^{13}C NMR-APT spectrum of protolimonoids **1** and **2** (100 MHz, CDCl_3).

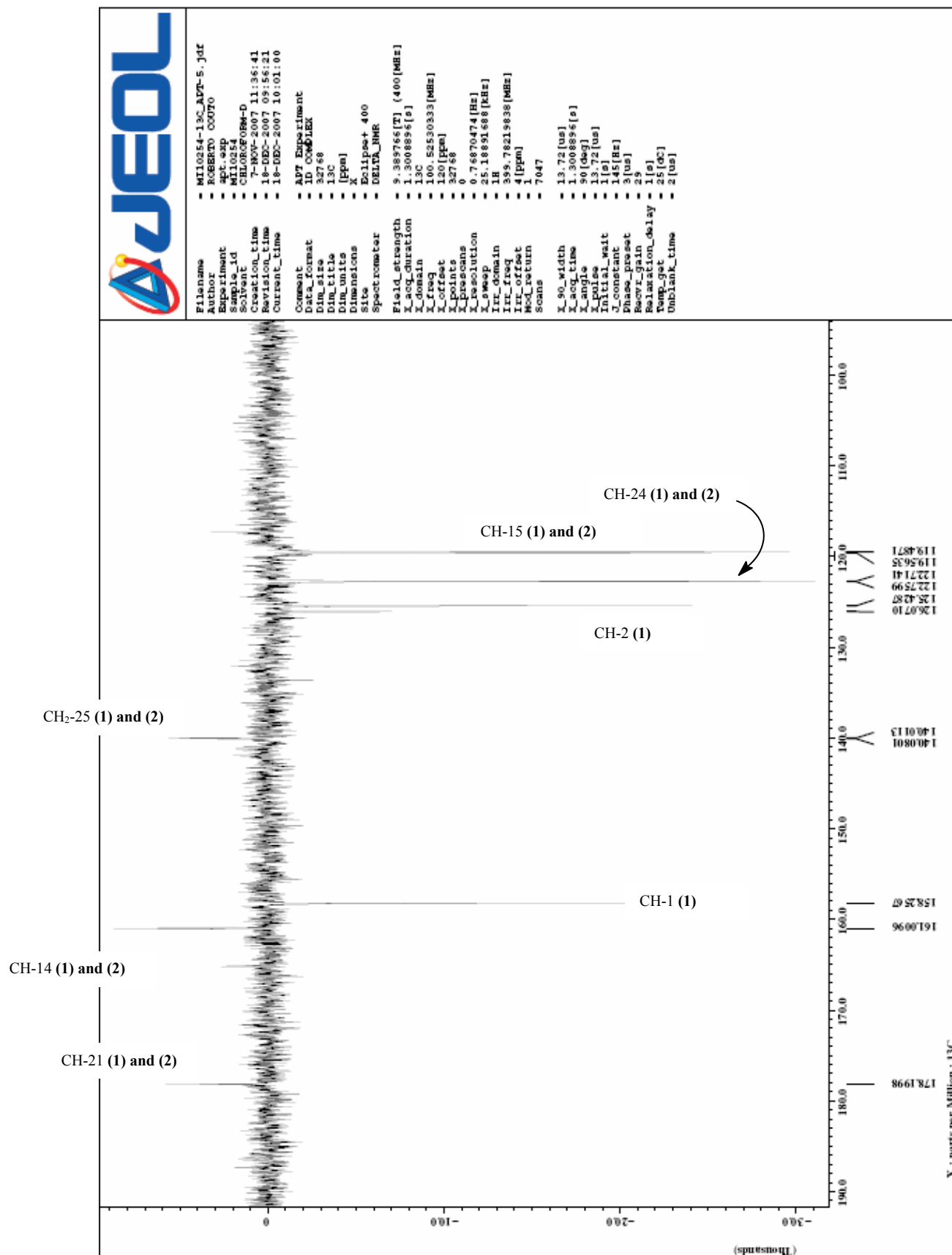
Figure S7. ^{13}C NMR-APT spectrum of protolimonoids **1** and **2** (100 MHz, CDCl_3).

Figure S8. HMBC spectrum of protolimonoids **1** and **2** (400 MHz, CDCl₃).

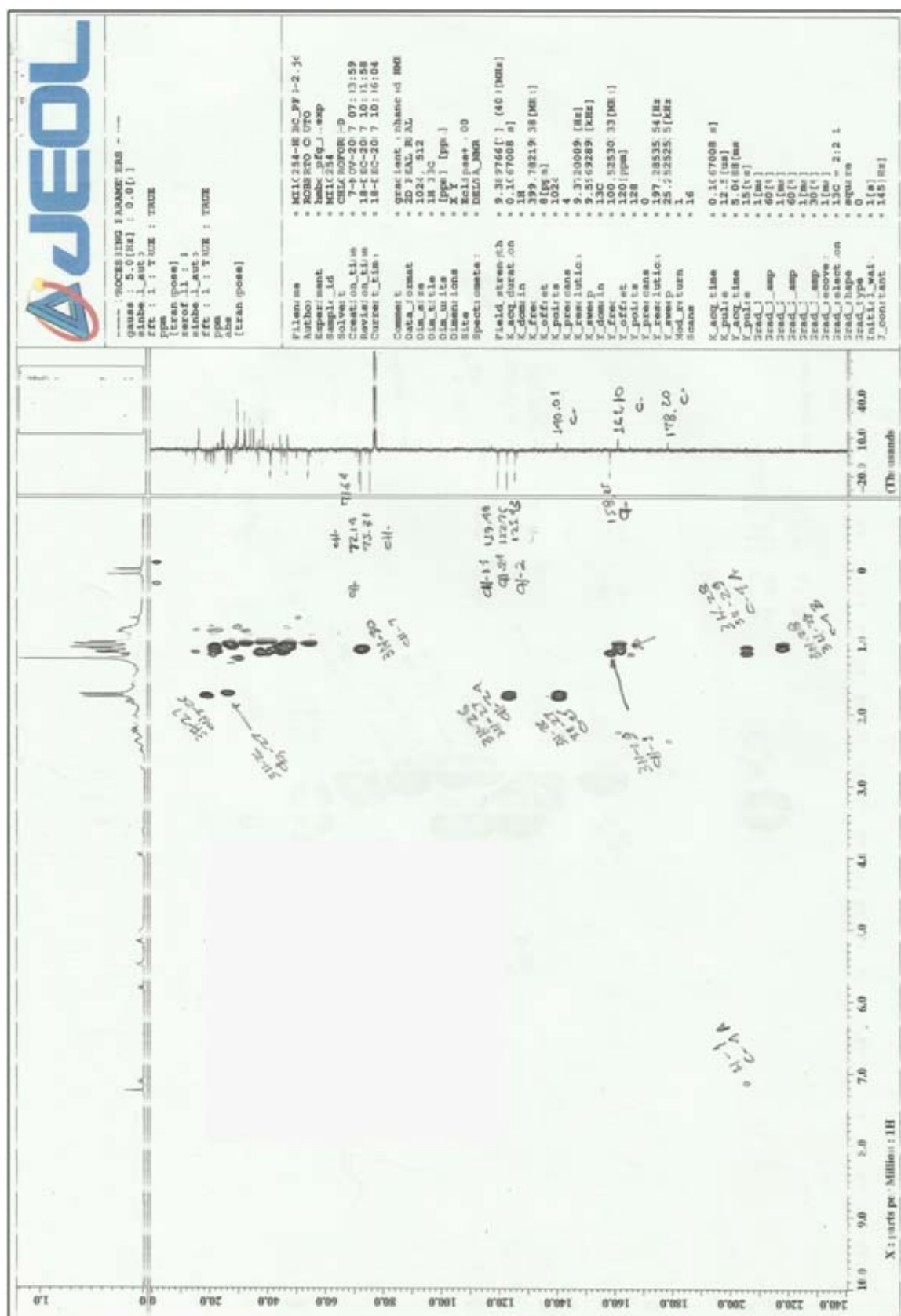


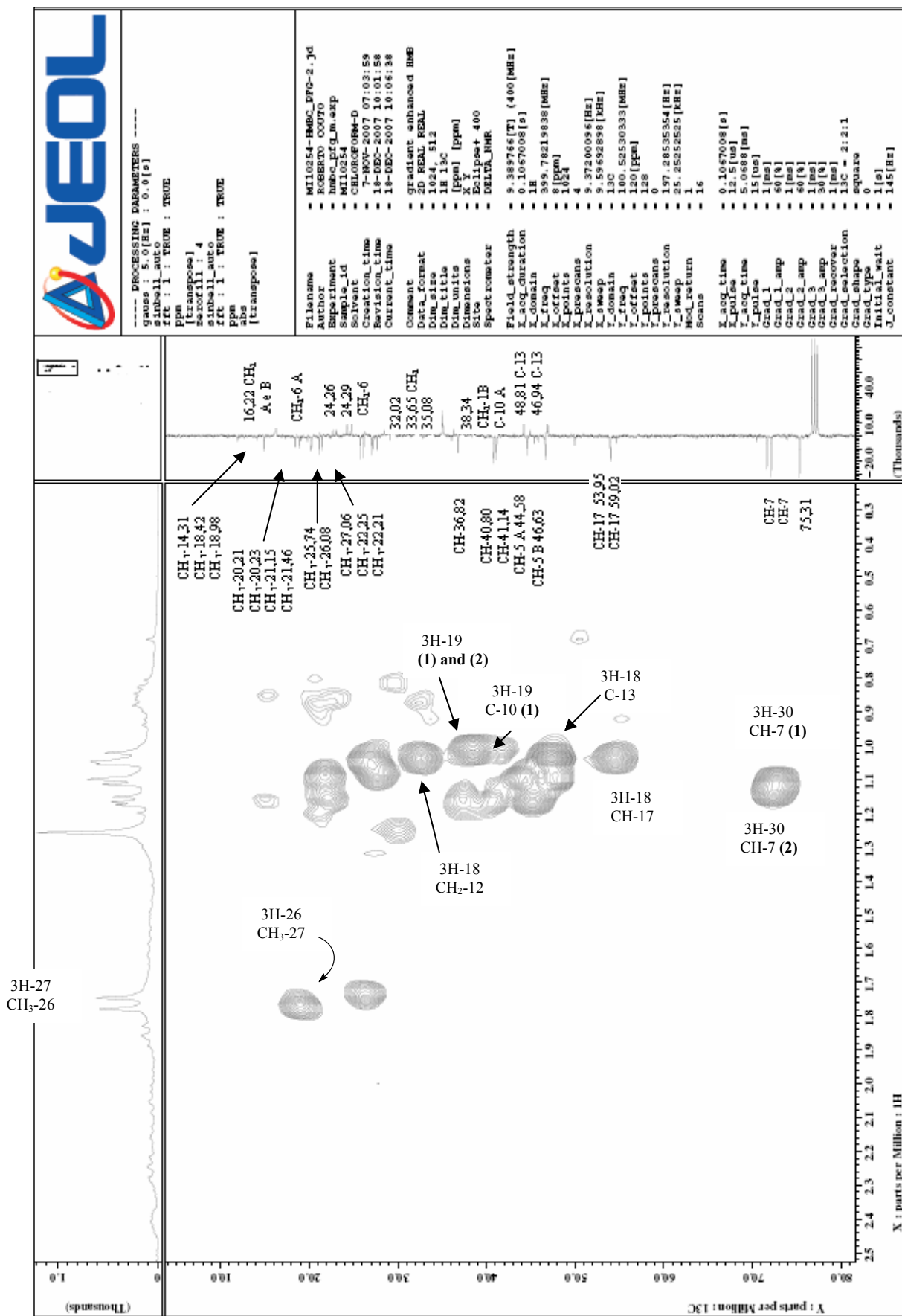
Figure S9. HMBC spectrum of protolimonoids **1** and **2** (400 MHz, CDCl₃).

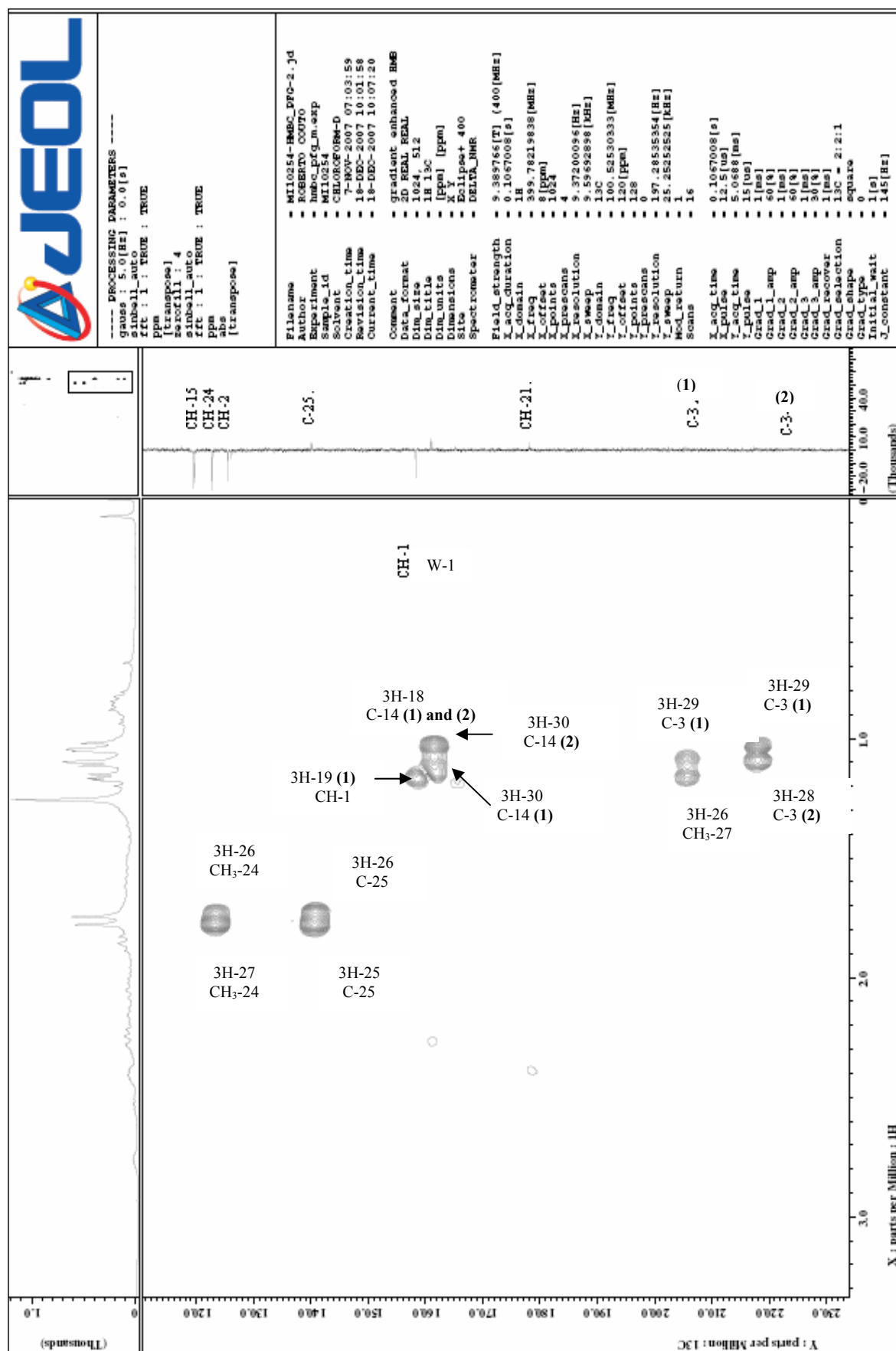
Figure S10. HMBC spectrum of protolimonoids **1** and **2** (400 MHz, CDCl₃).

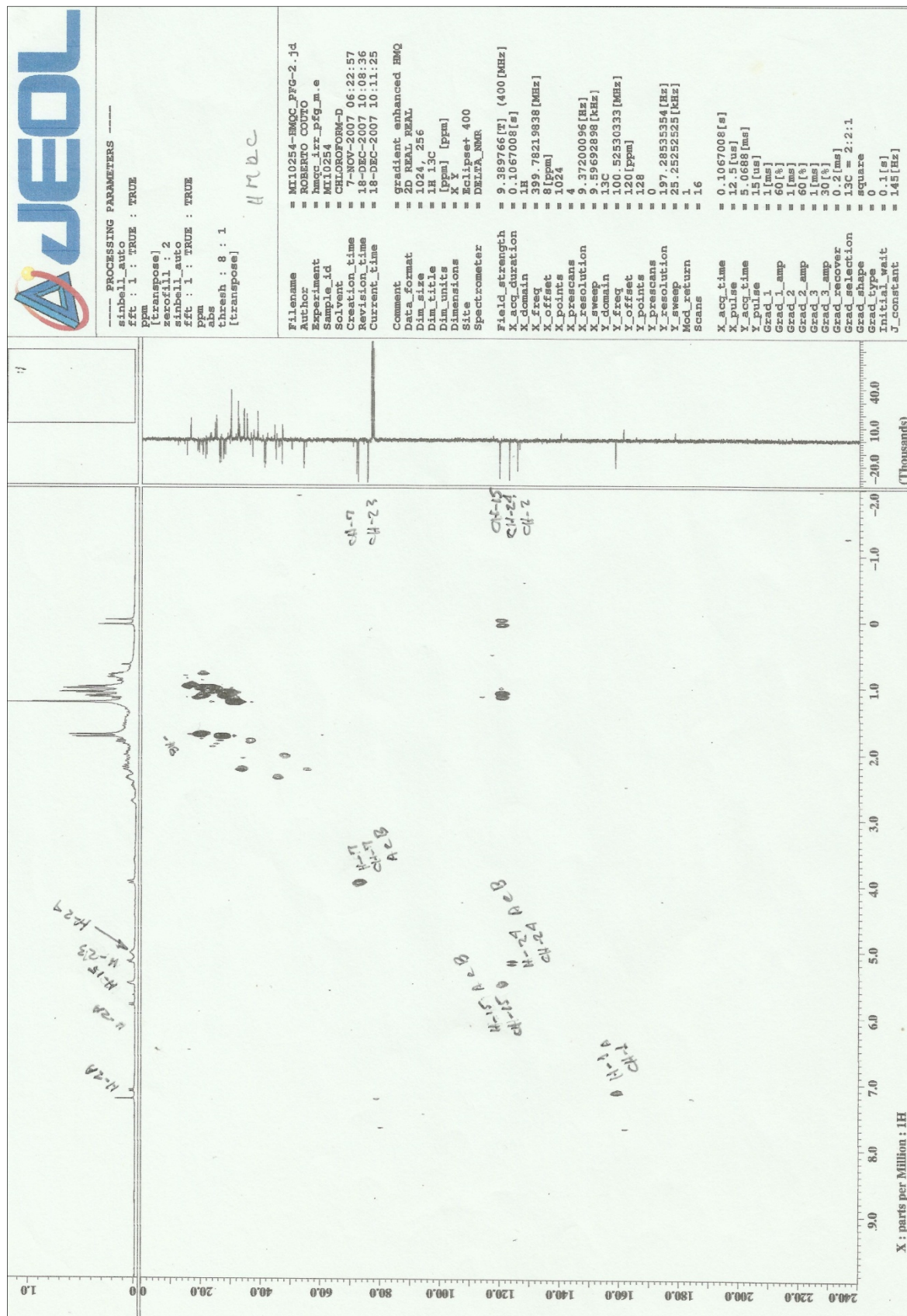
Figure S11. HMQC spectrum of protolimonoids **1** and **2** (400 MHz, CDCl₃).

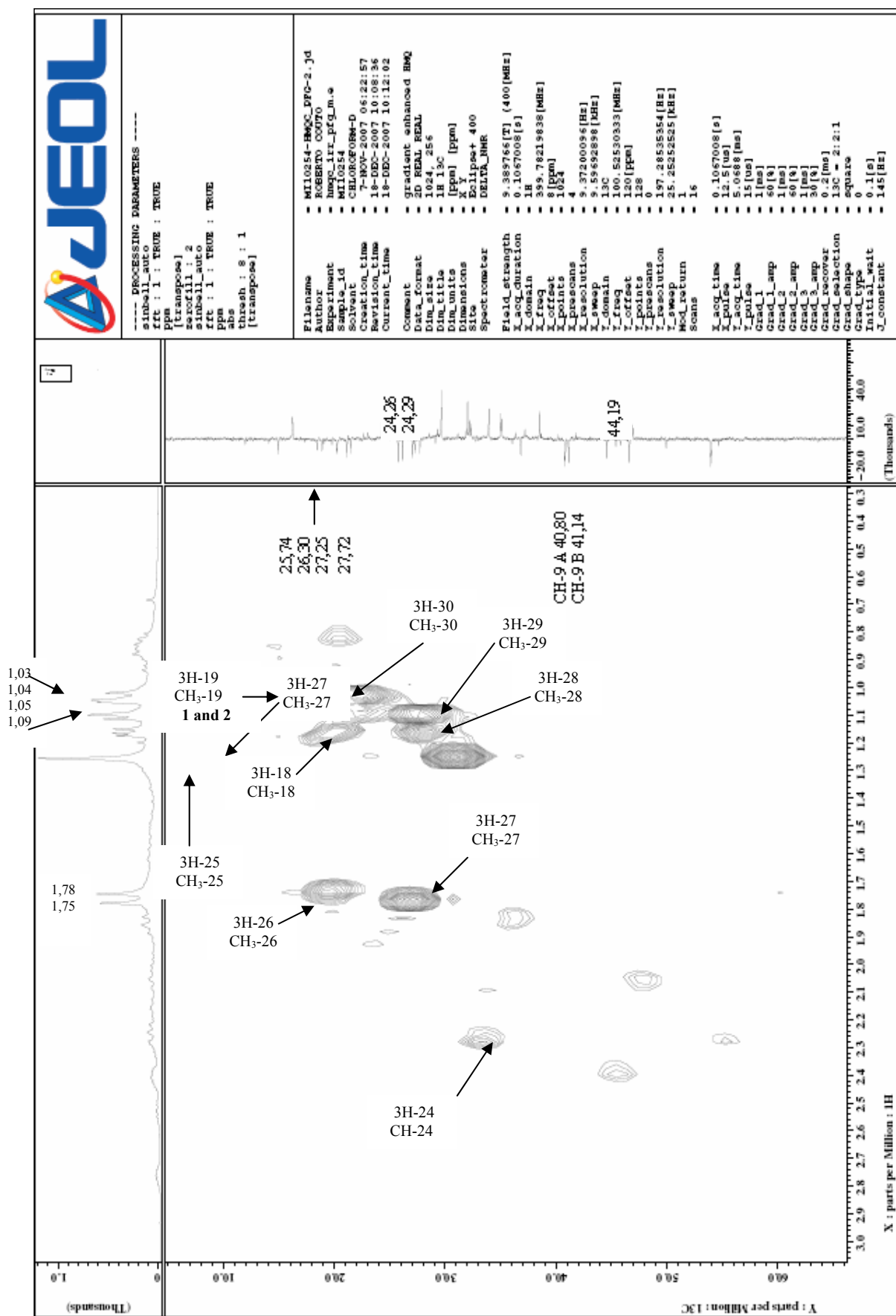
Figure S12. HMQC spectrum of protolimonoids **1** and **2** (400 MHz, CDCl₃).

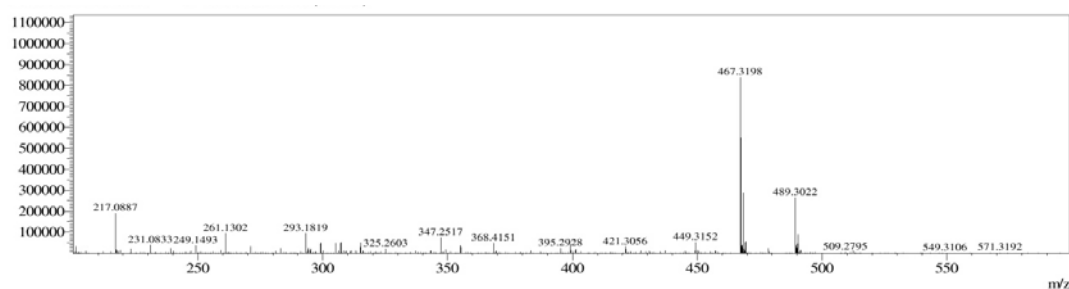
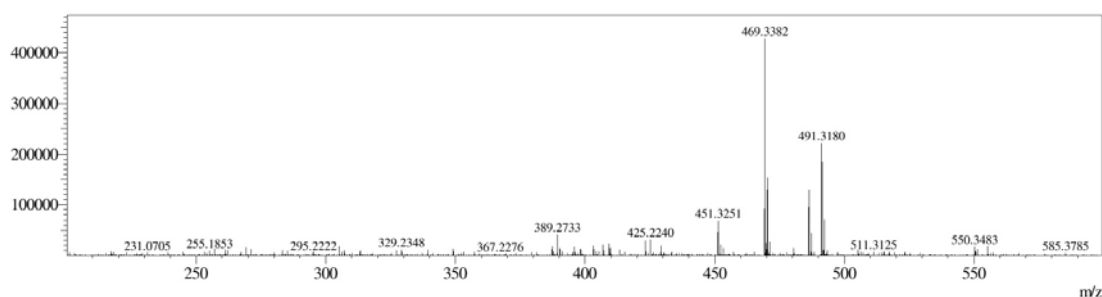
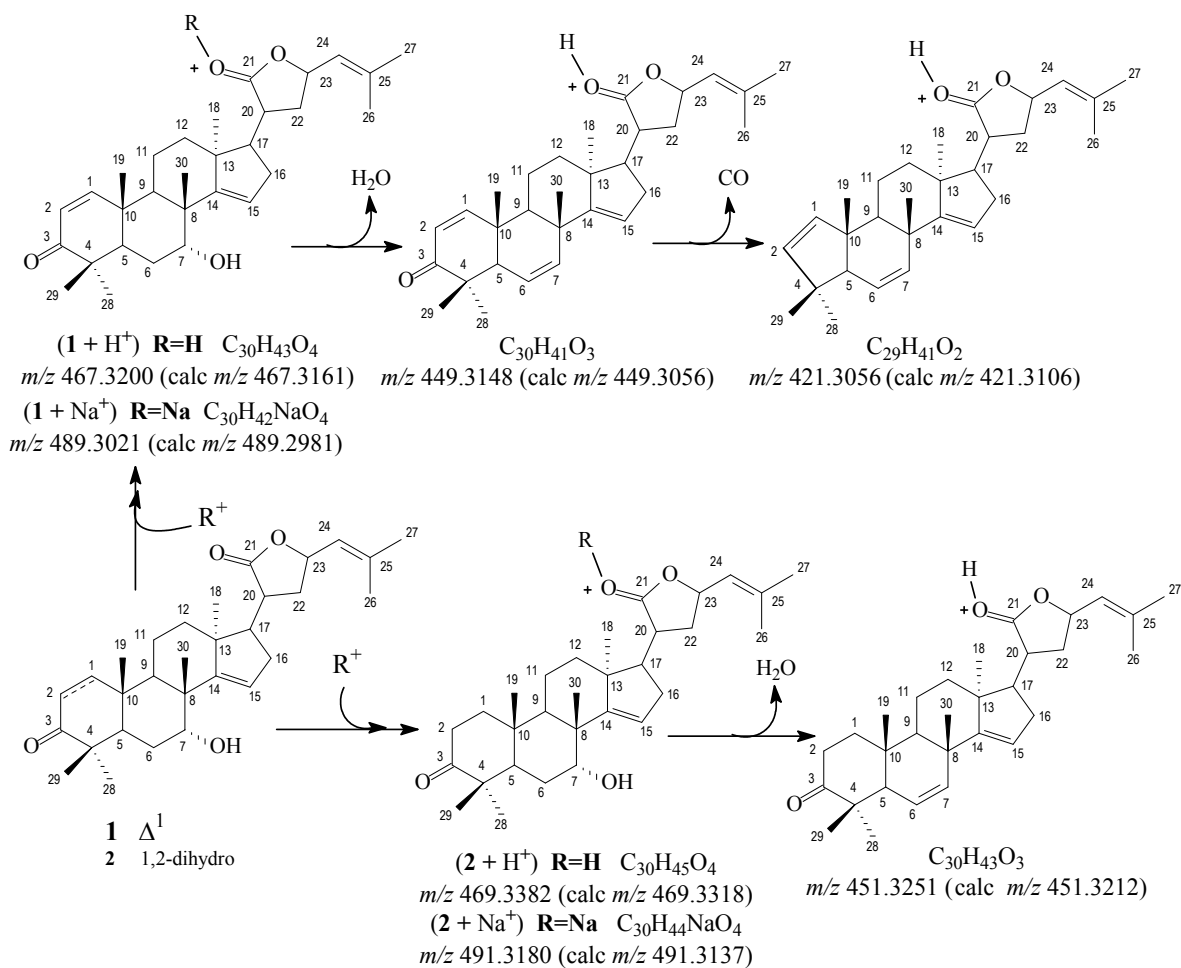
Figure S13. HR-ESI/MS spectrum of protolimonoid **1**.**Figure S14.** HR-ESI/MS spectrum of protolimonoid **2**.**Figure S15.** Proposed fragmentation mechanisms to justify the principal peaks observed in the HRESIMS (positive mode) of the mixture of **1** and **2**.

Figure S16. Cellular viability after the treatment with the purified compounds and plant extracts. Leukemia cell lineages U937 and MOLT-4 were incubated for 48 hours at 37°C with different concentration of samples and the cellular viability was evaluated by MTT assay. A- Mixture of the protolimonoids 1 and 2; B- Protolimonoid 6; C- Methanol extract; D- Hexane extract.

