

Supporting information

Triterpenoids from *Protorhus longifolia* exhibit hypocholesterolemic potential via regulation of cholesterol biosynthesis and stimulation of LDL uptake in HepG2 cells.

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Schematic diagram for the isolation procedure

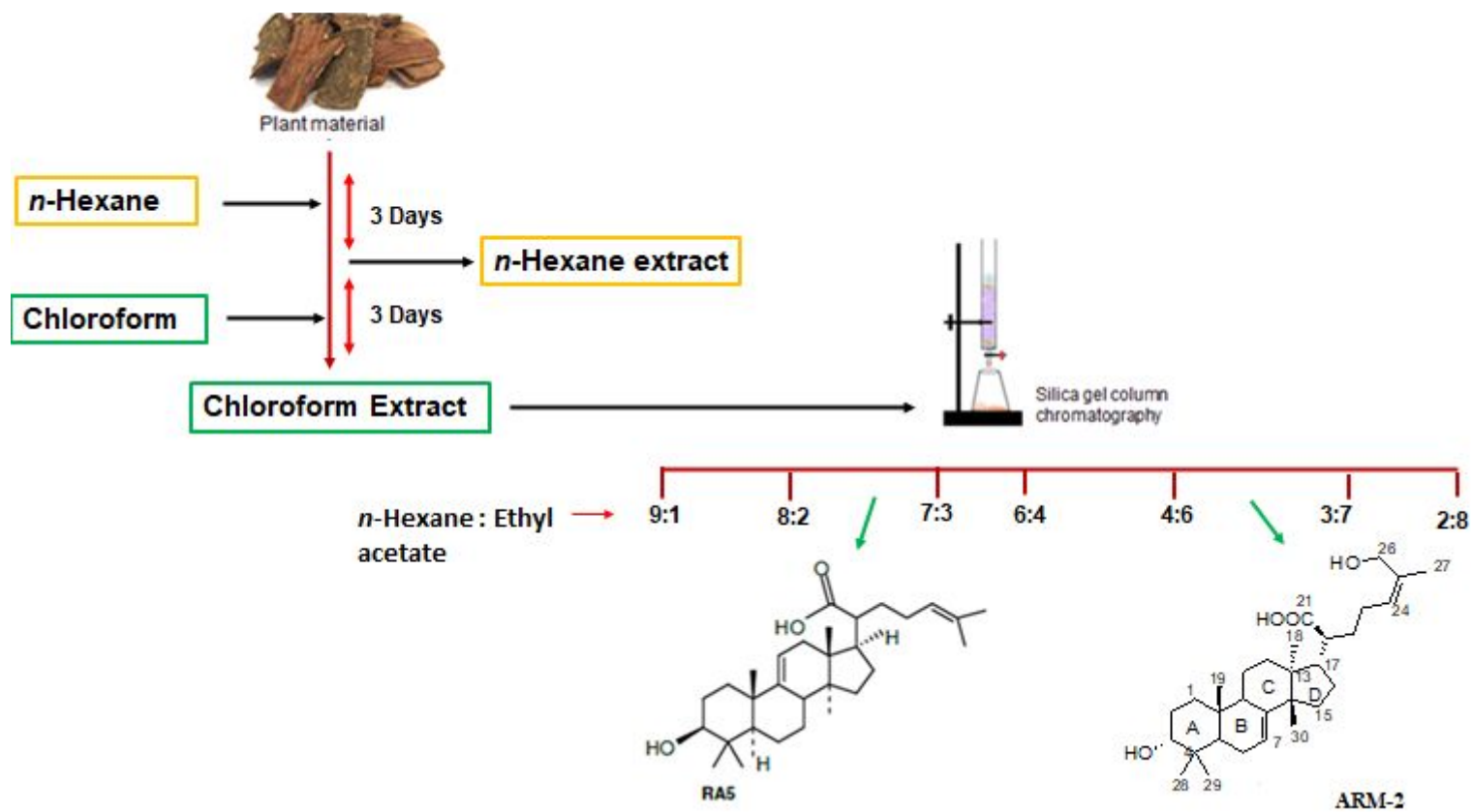


Figure S1. Procedure for extraction and isolation of the triterpenoids from *P. longifolia*

NMR and MS spectra for new compound (ARM-2)

Figure S2. ^1H NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$

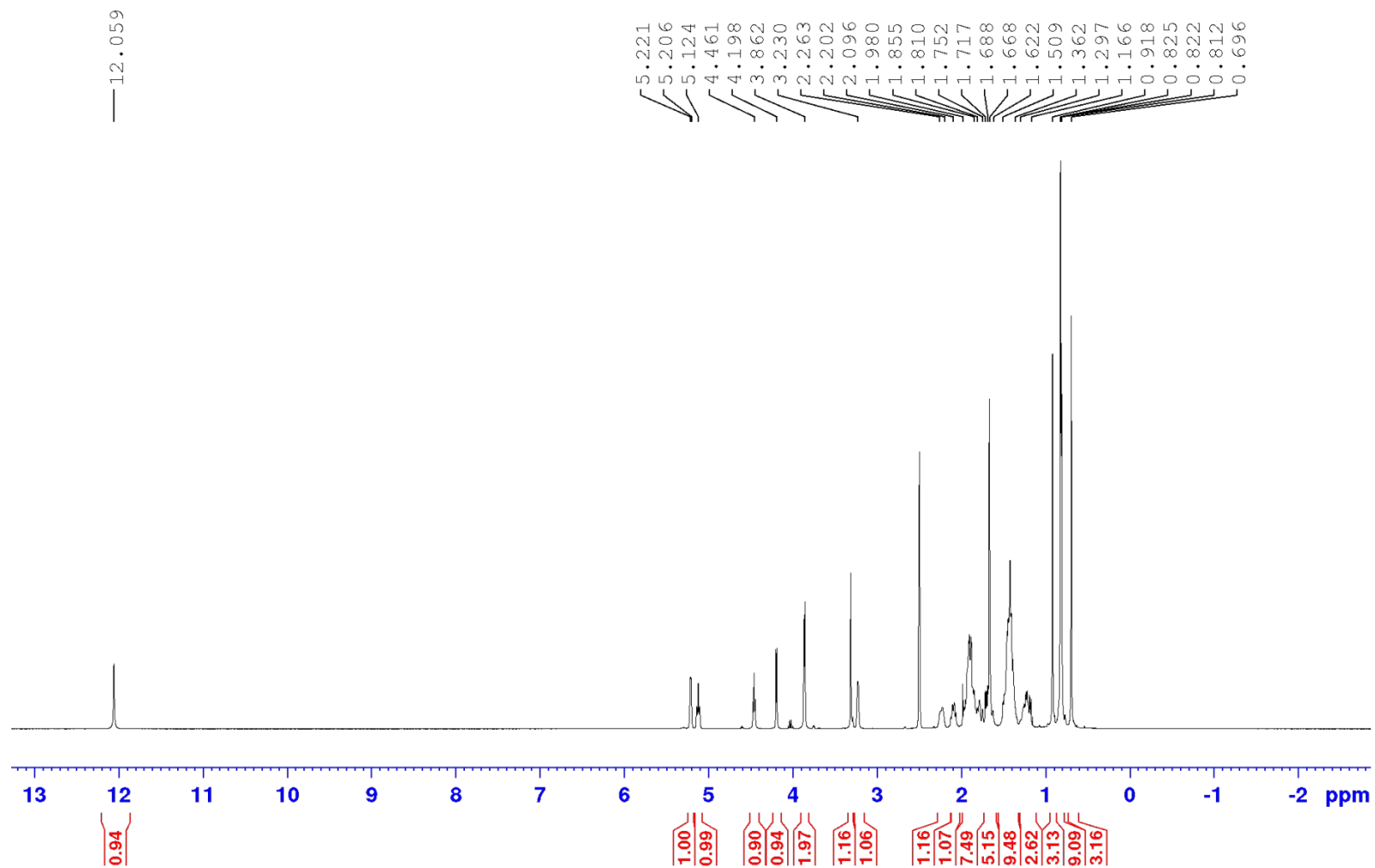


Figure S3. ^{13}C NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$

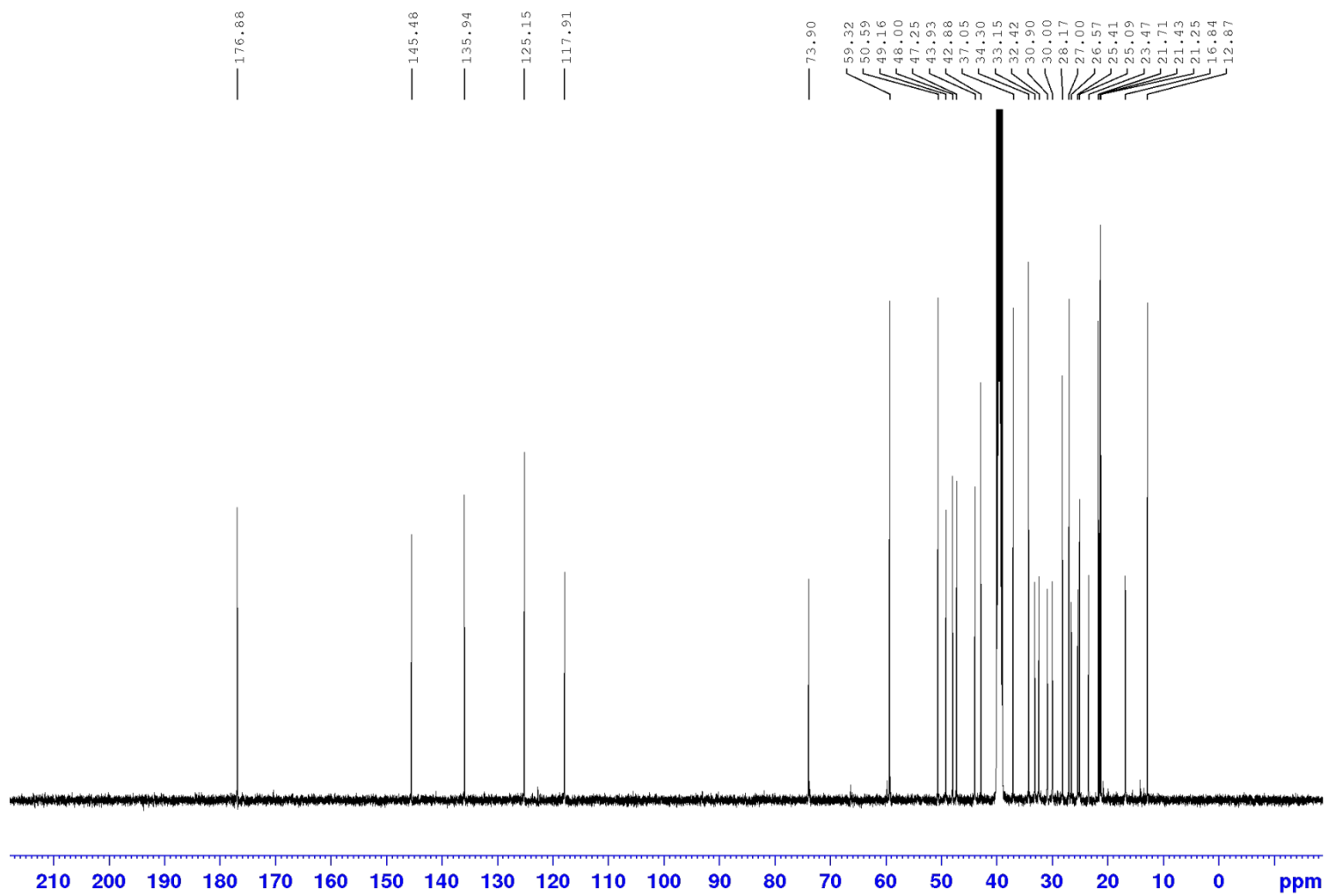


Figure S4. Dept-135 NMR spectrum of ARM-2 in (CD₃)₂SO

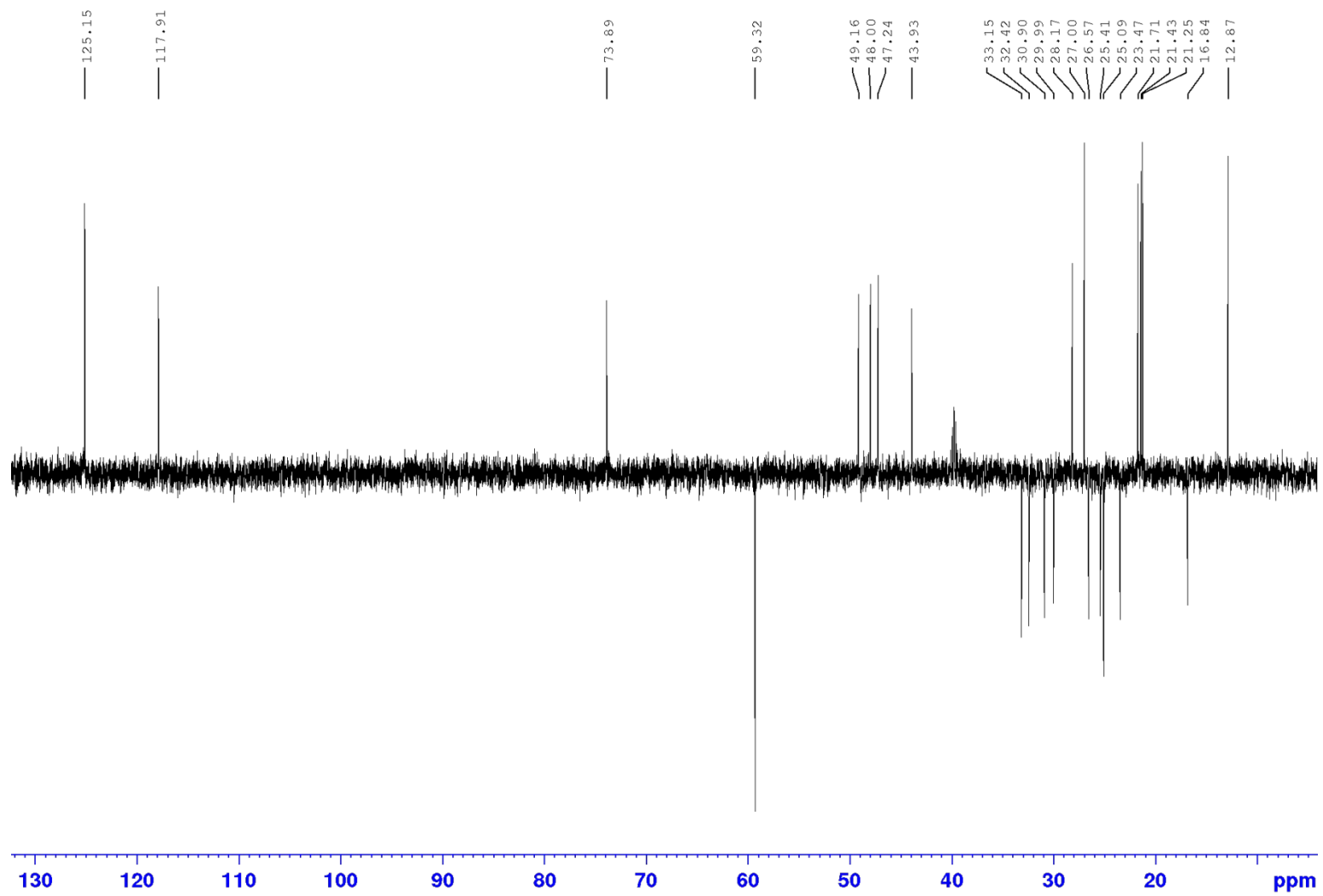


Figure S5. Dept-90 NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$

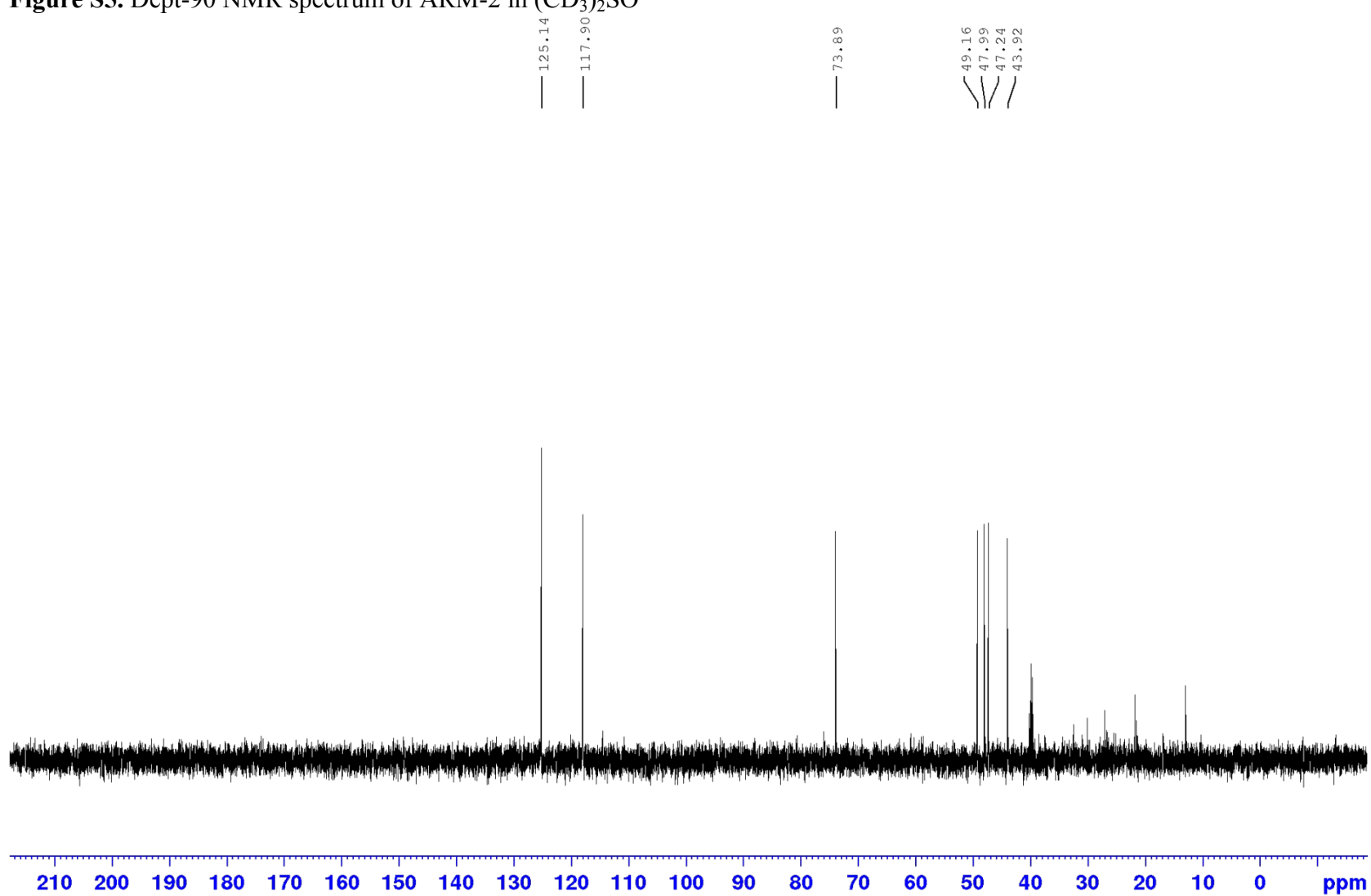


Figure S6. HSQC NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$

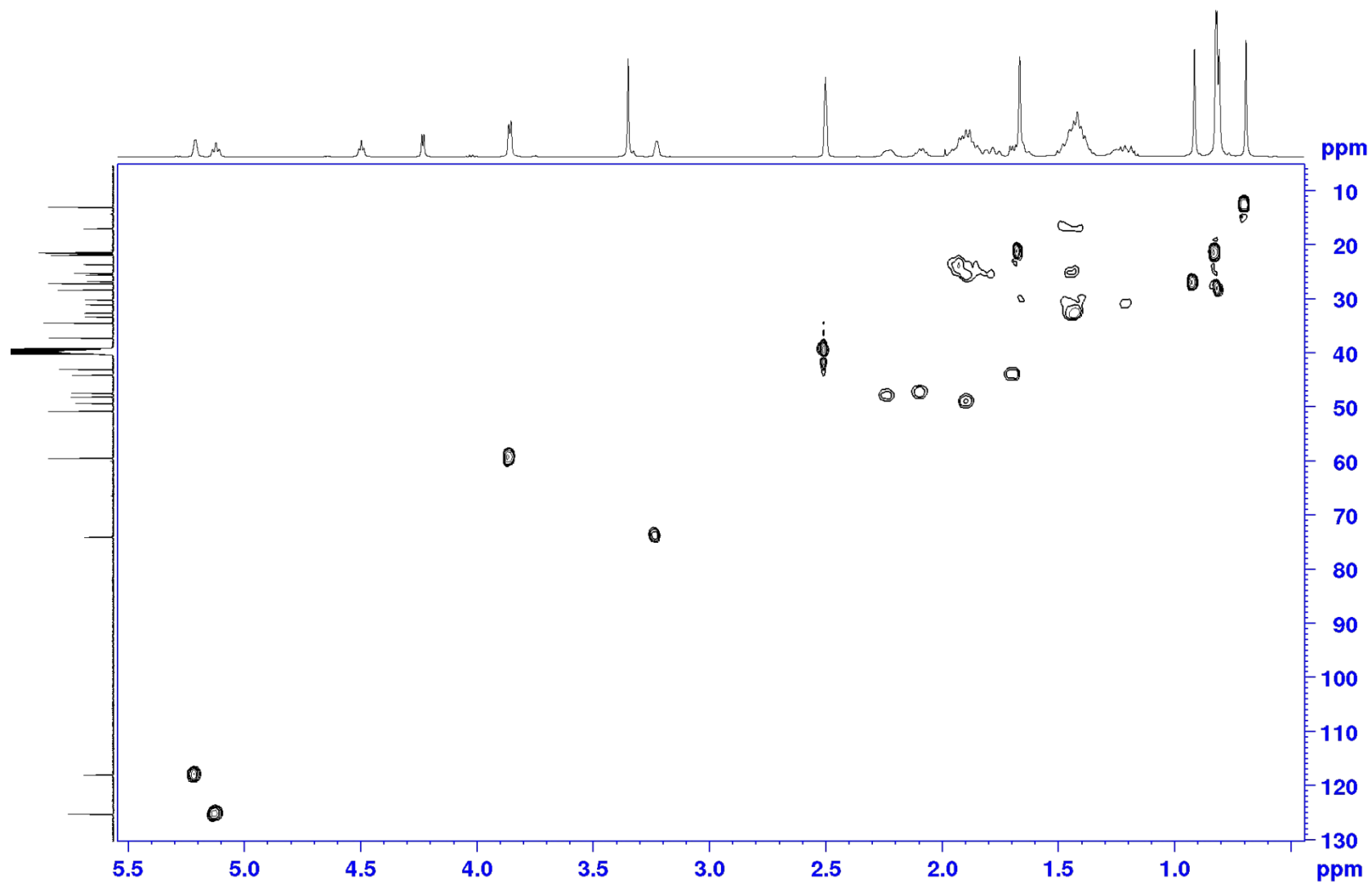


Figure S7. HSQC NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$ (expanded)

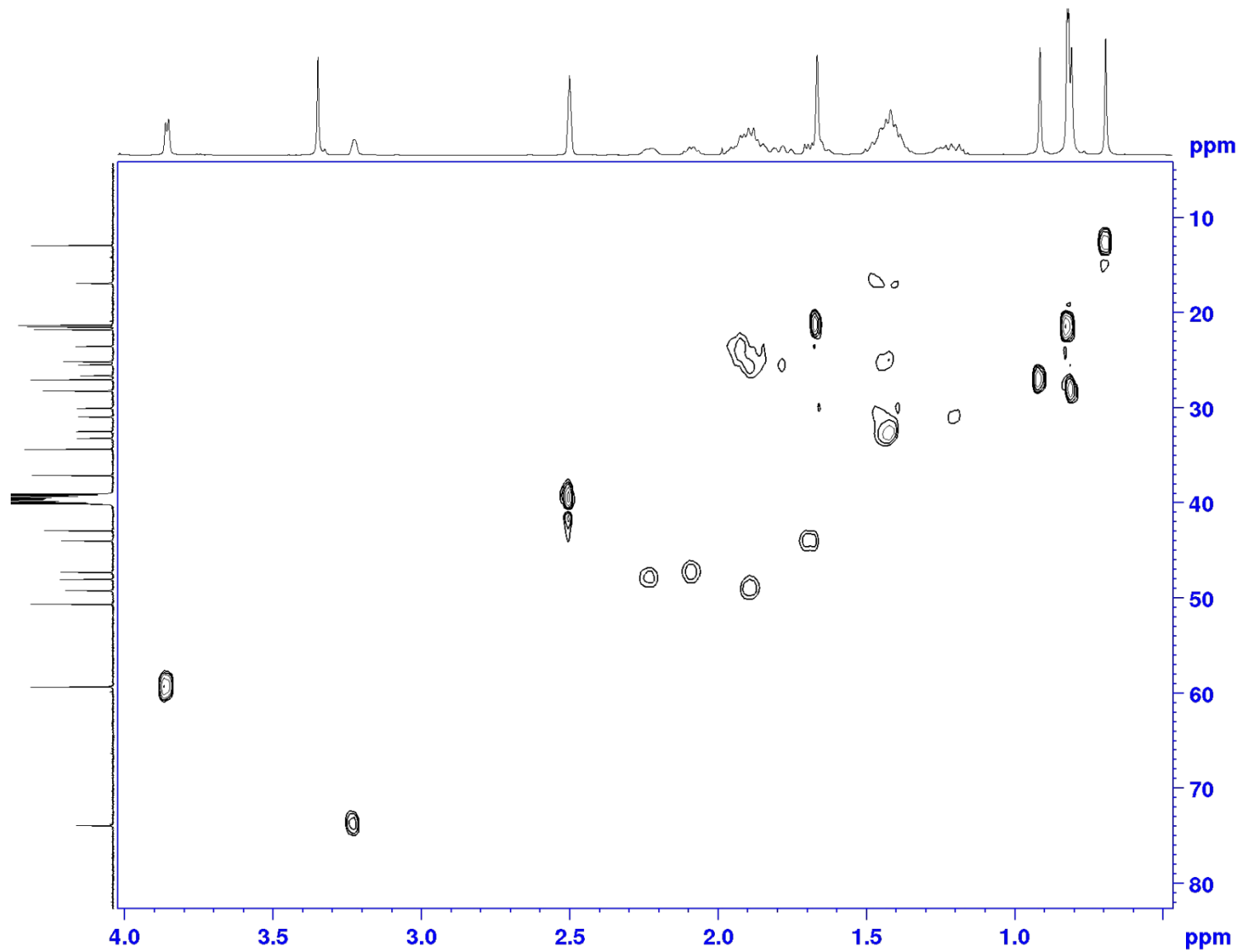


Figure S8. HMBC NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$

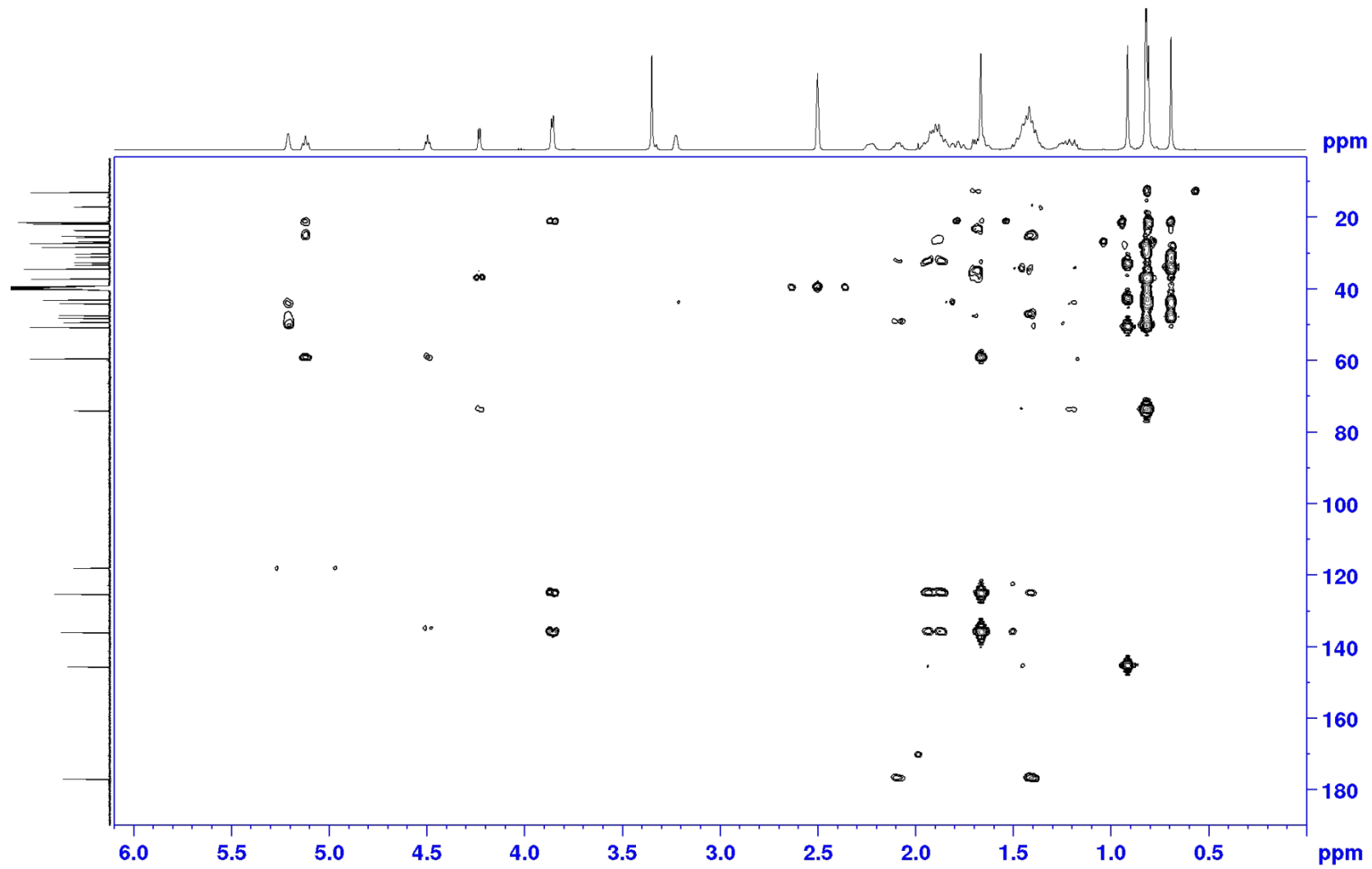


Figure S9. HMBC NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$ (expanded 1)

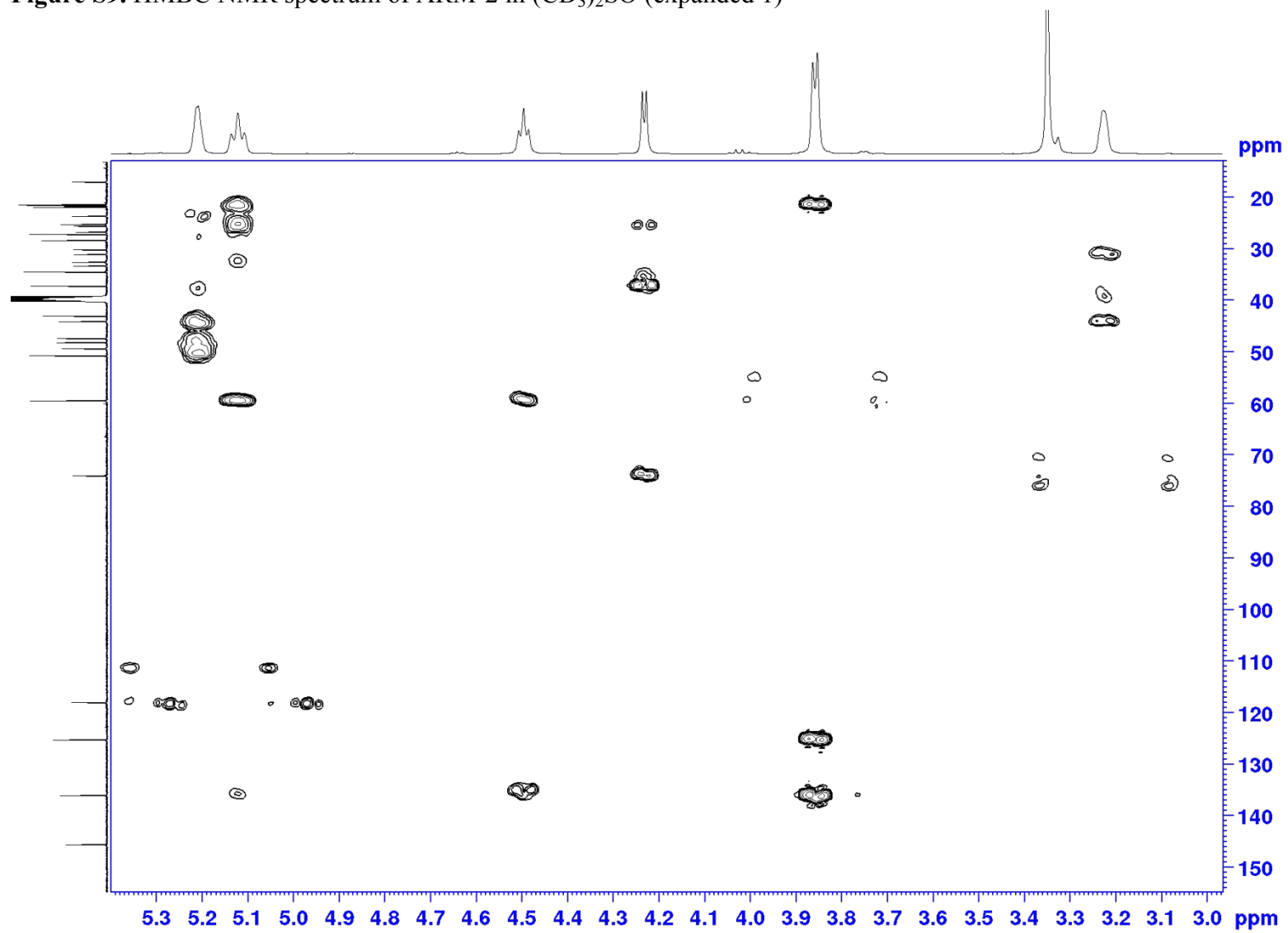


Figure S10. HMBC NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$ (expanded 2)

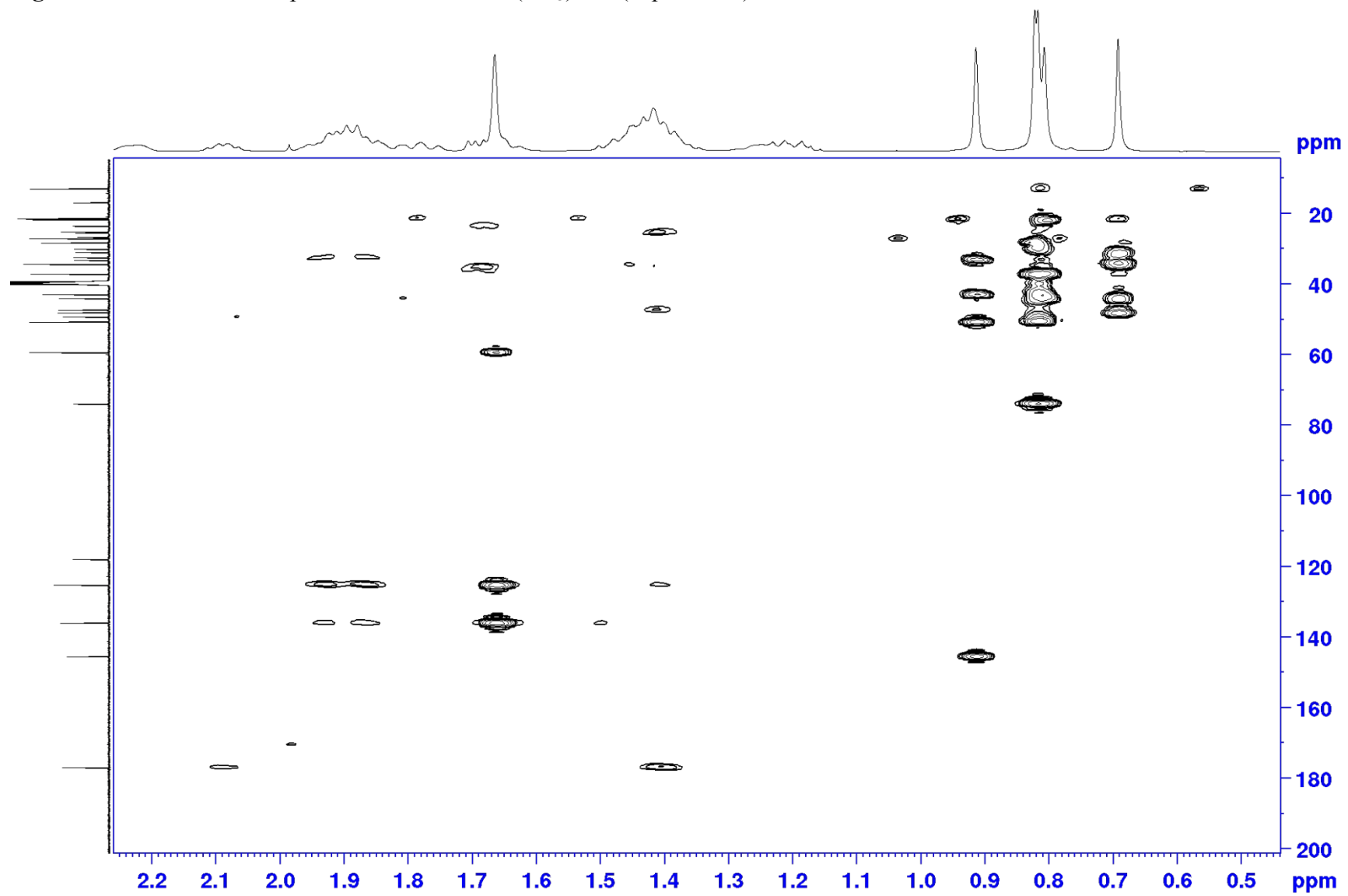


Figure S11. COSY NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$

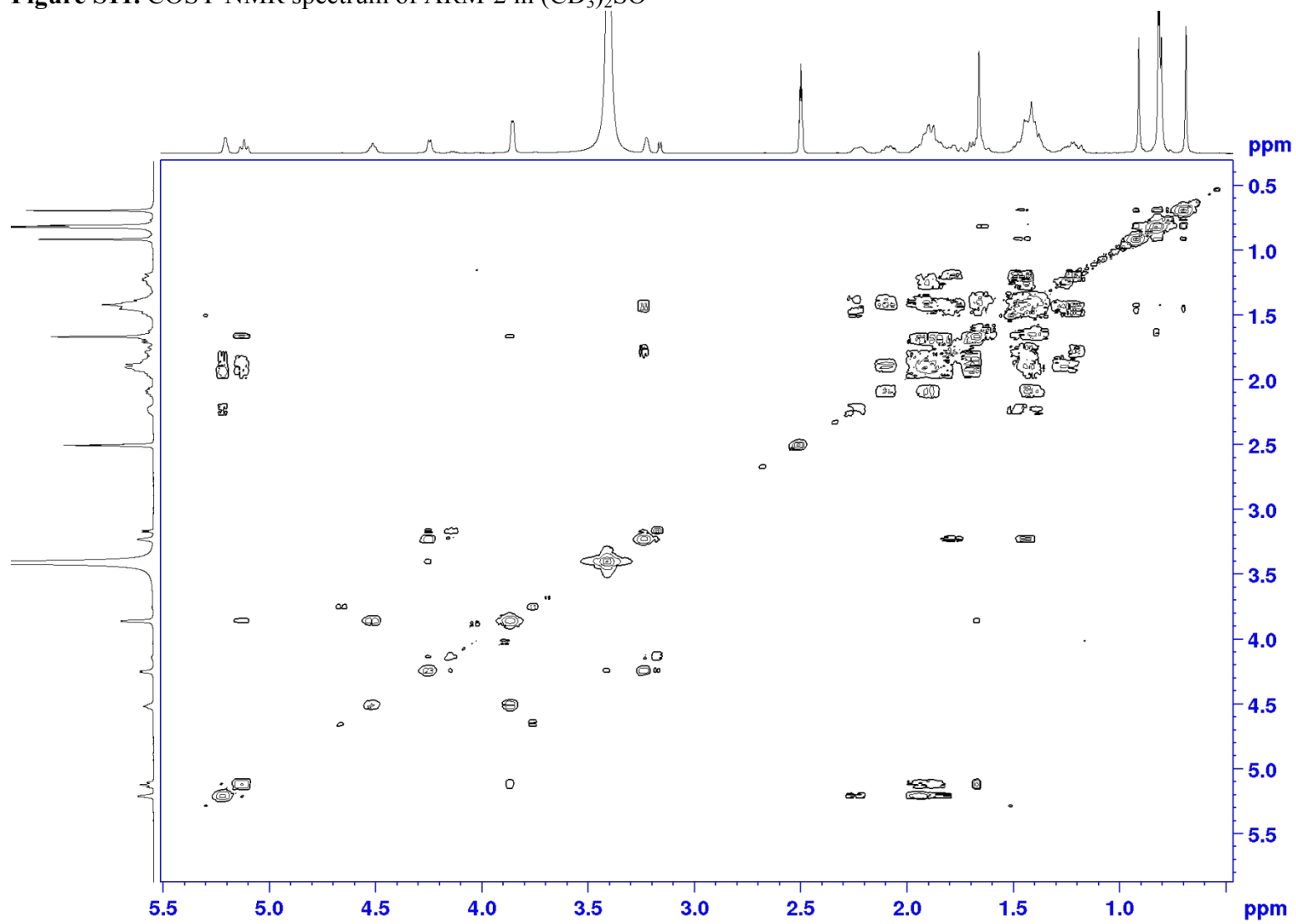


Figure S12. COSY NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$ (expanded)

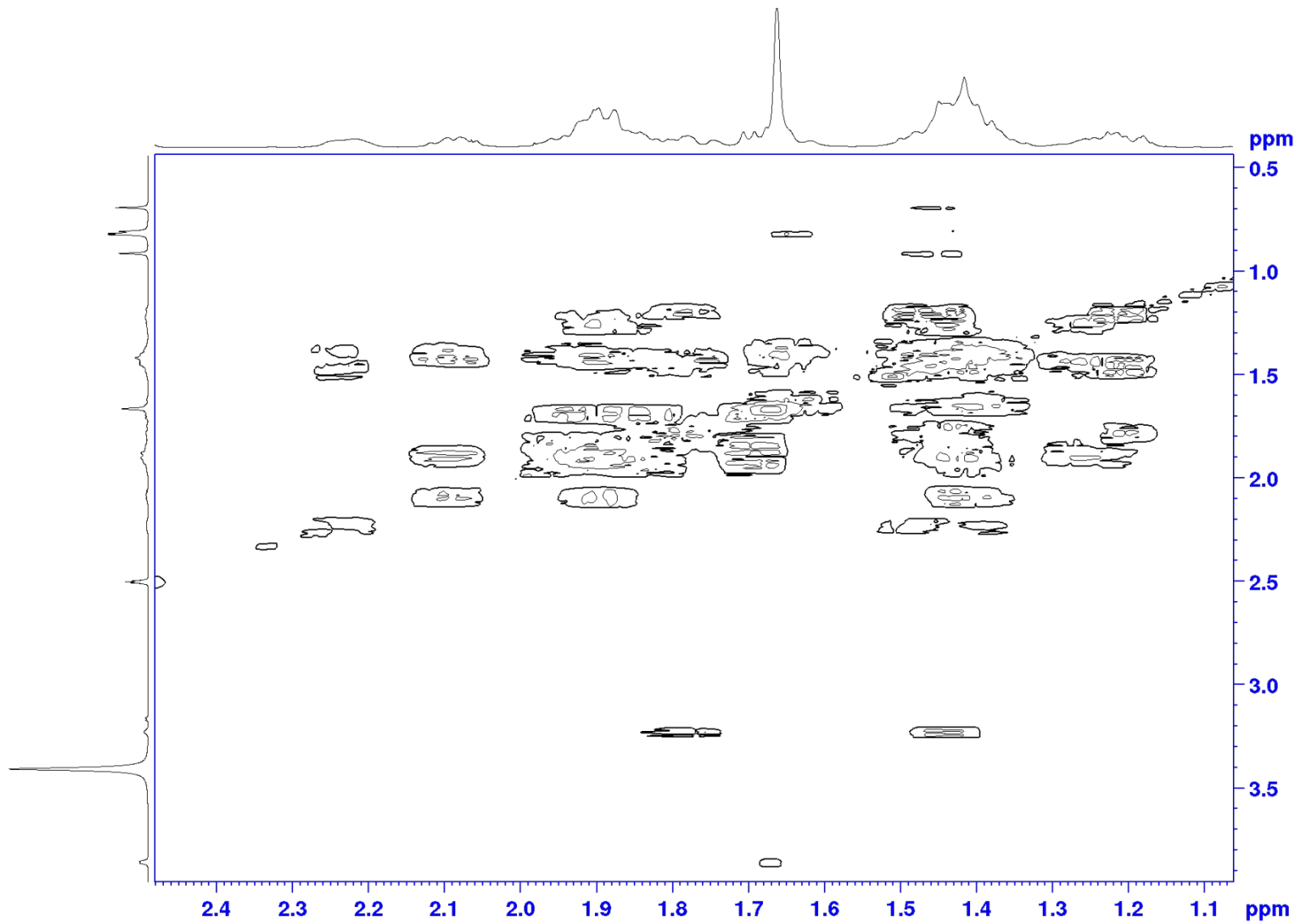


Figure S13. ROESY NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$

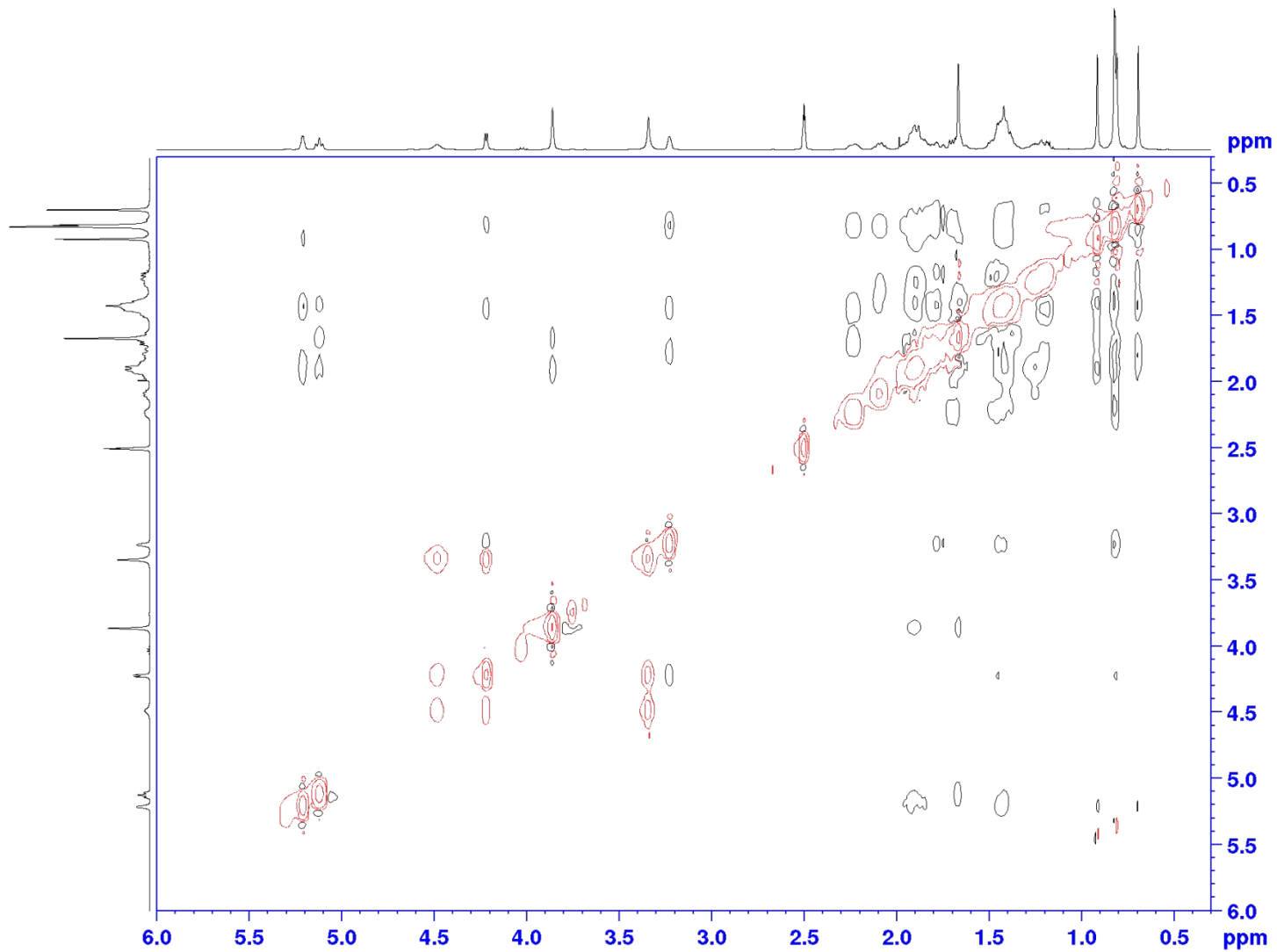


Figure S14. ROESY NMR spectrum of ARM-2 in $(\text{CD}_3)_2\text{SO}$ (expanded)

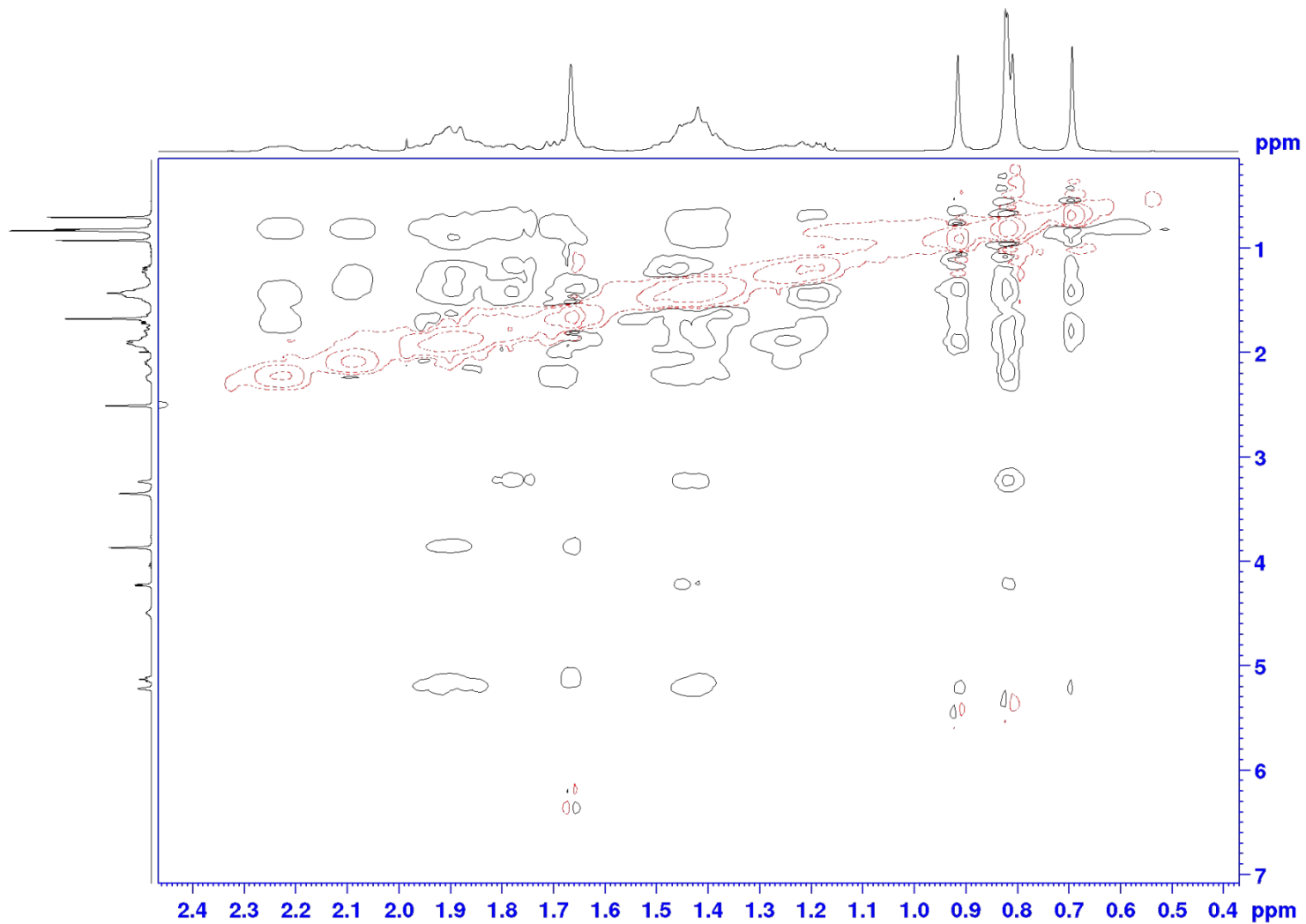
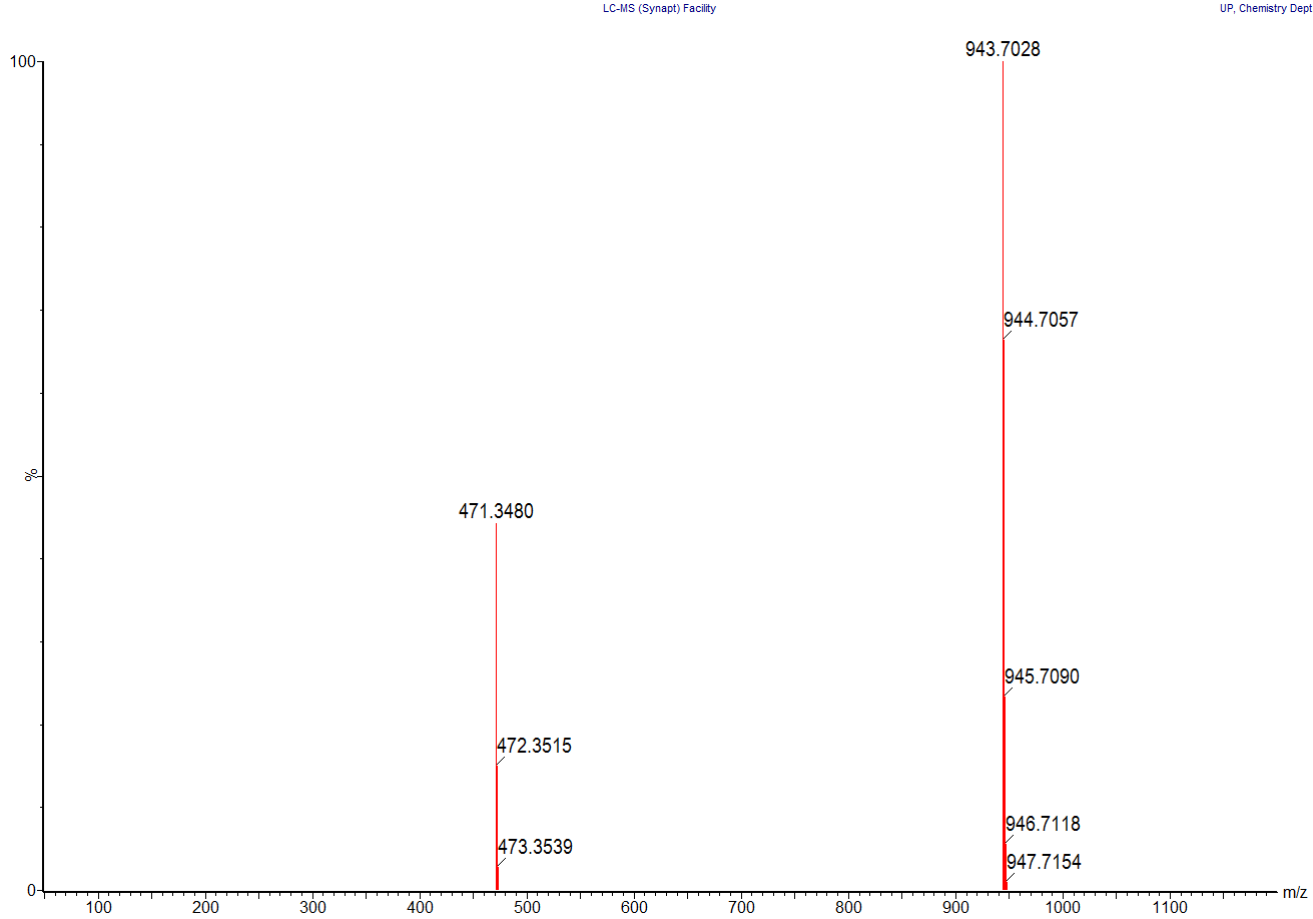


Figure S15. HRESIMS of ARM-2 in negative mode



The supplementary information provides some contents regarding the extraction, isolation, and characterization of the newly isolated (3 α ,26-dihydroxytirucalla-7,24-dien-21-oic acid, ARM-2) that were not added in the main manuscript including:

- Graphic demonstrating the extraction and isolation procedure.
- NMR spectra of ARM-2 (^1H , ^{13}C , Dept-135, Dept-90, HSQC, HMBC, COSY and ROESY)
- HRESIMS

References

1. Verhoff, M.; Seitz, S.; Paul, M.; Noha, S. M.; Jauch, J.; Schuster, D.; Werz, O. *J. Nat. Prod.* **2014**, *77*, 1445–1451.

doi.org/10.1021/np500198g