

Supplementary Information

A Hinge-Sugar-Based Proton Selective Sensor

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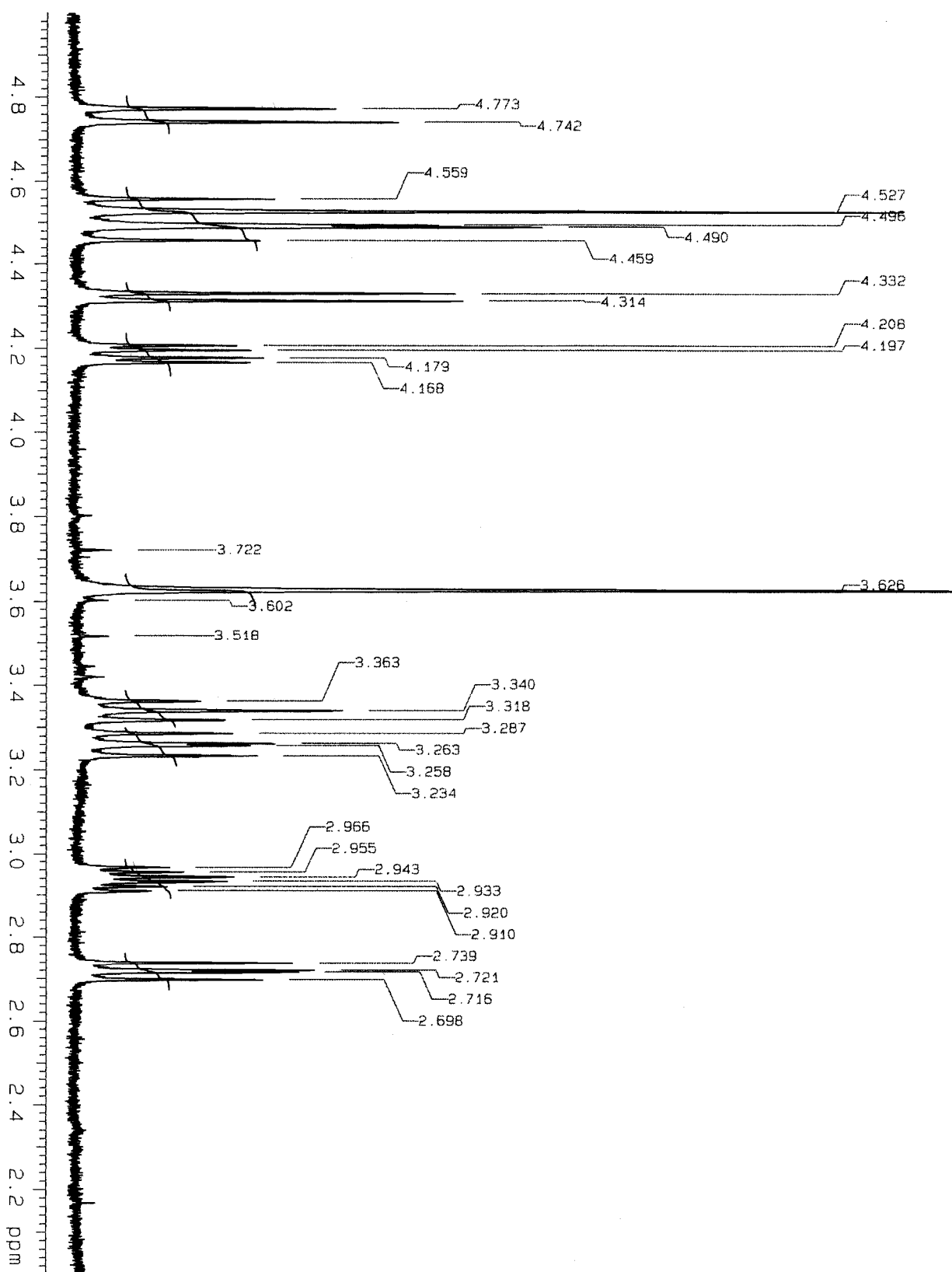


Fig S1. ^1H NMR of compound **3** in CDCl_3 .

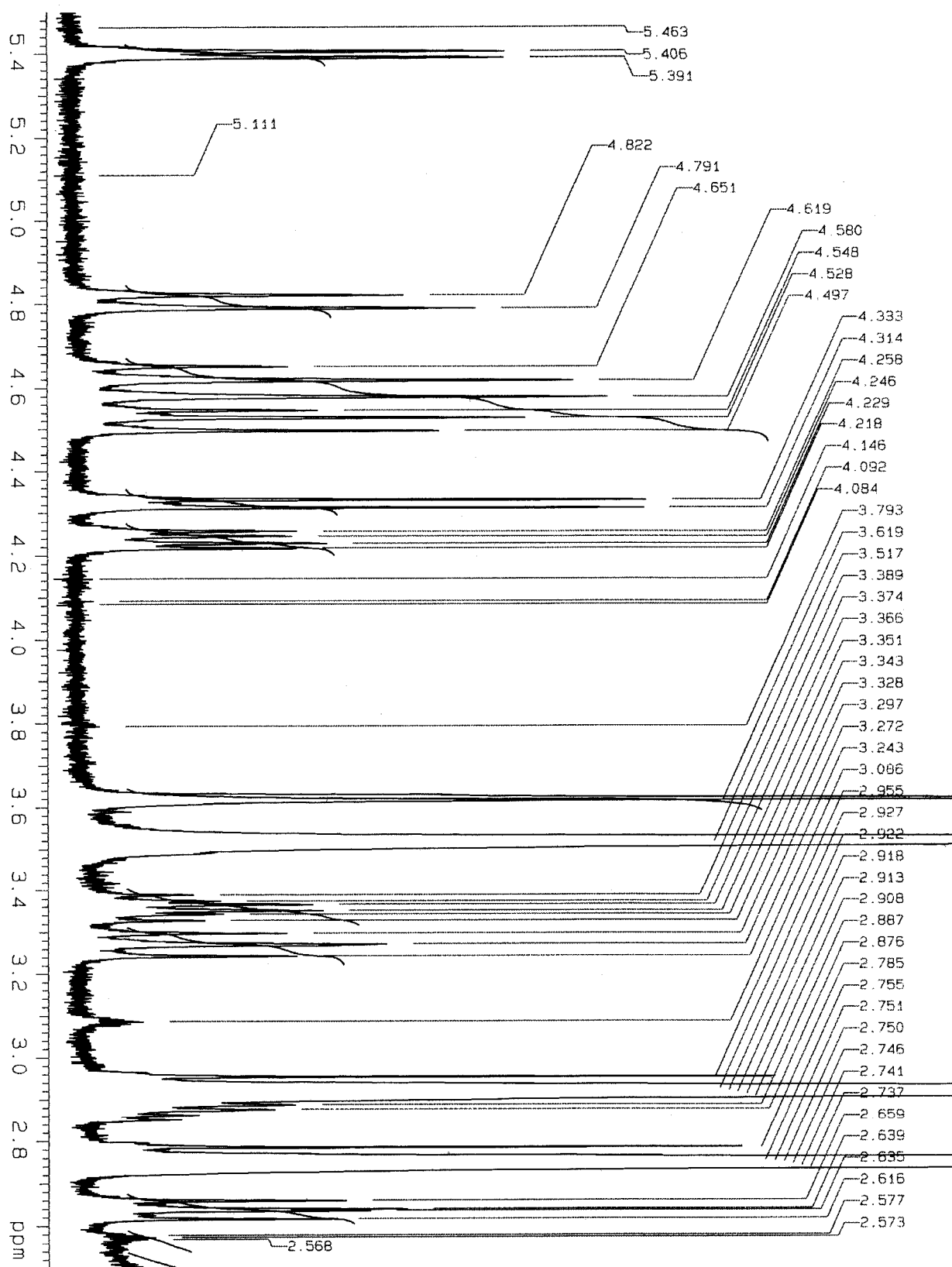


Fig S2. ^1H NMR of compound **3** in $\text{DMF-}d_7$.

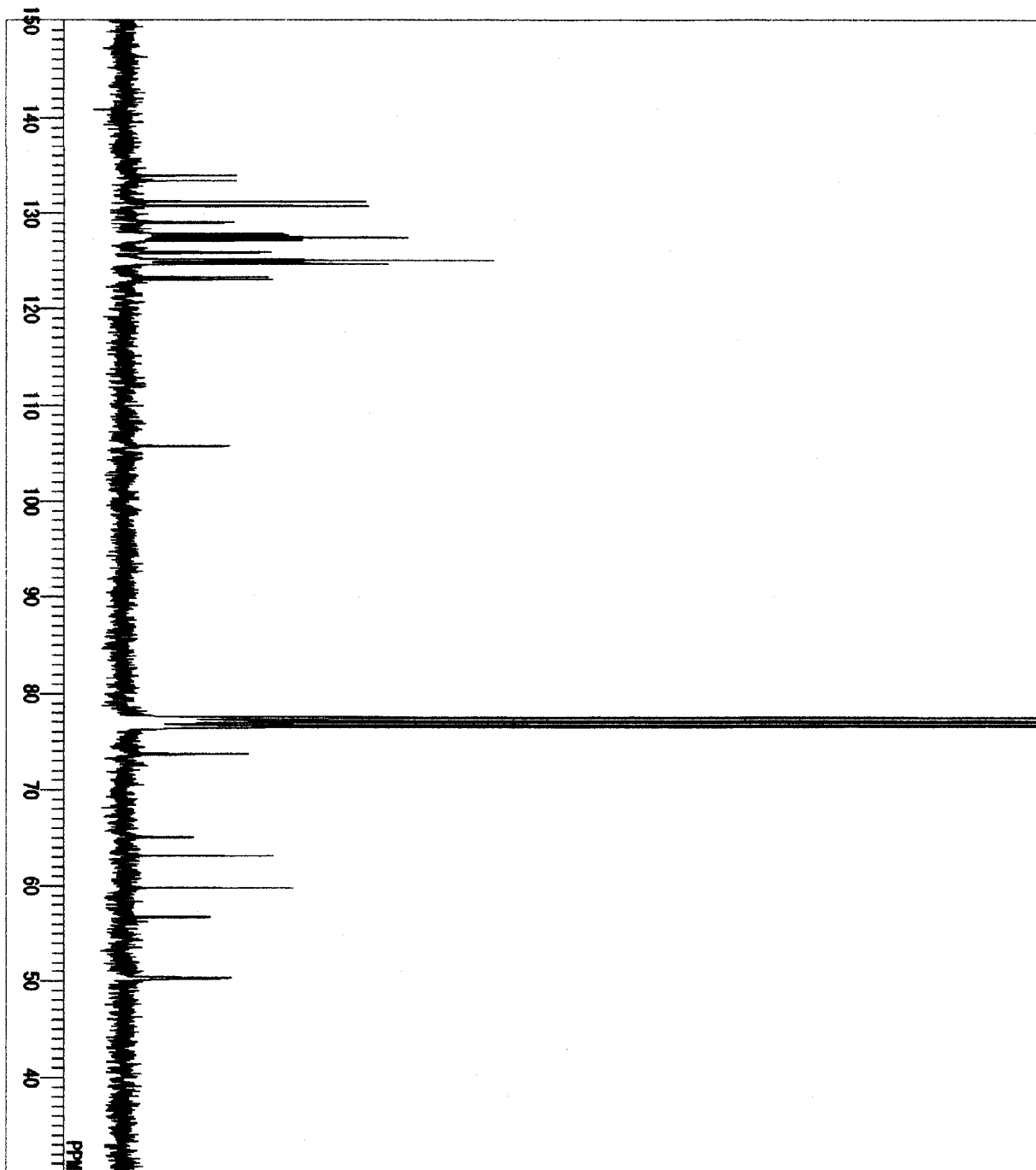


Fig S3. ^{13}C NMR of compound **3** in CDCl_3 .

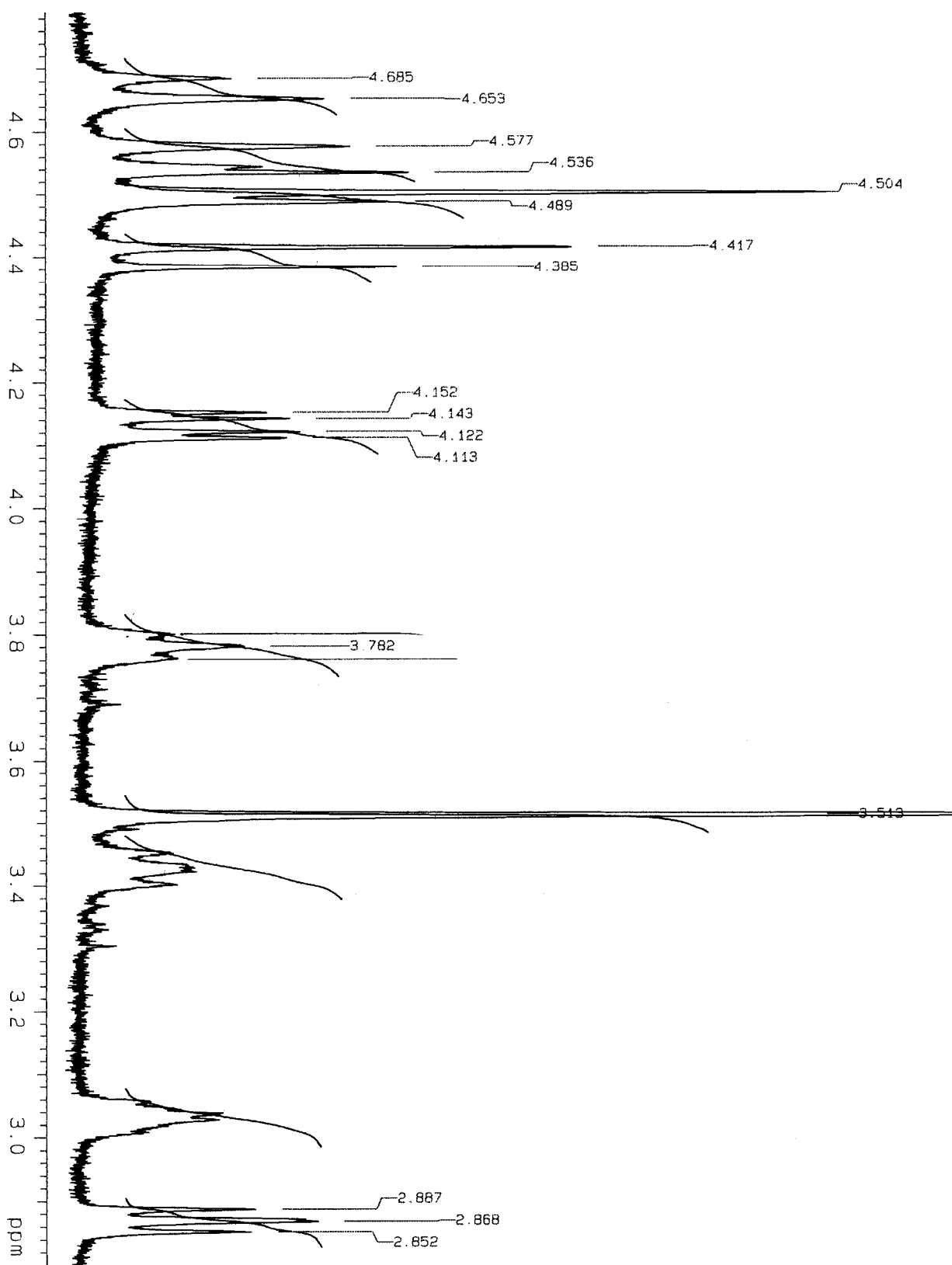


Fig S4. ^1H NMR of compound **3** in CDCl_3 in the presence of CF_3COOD (0.5 equiv).

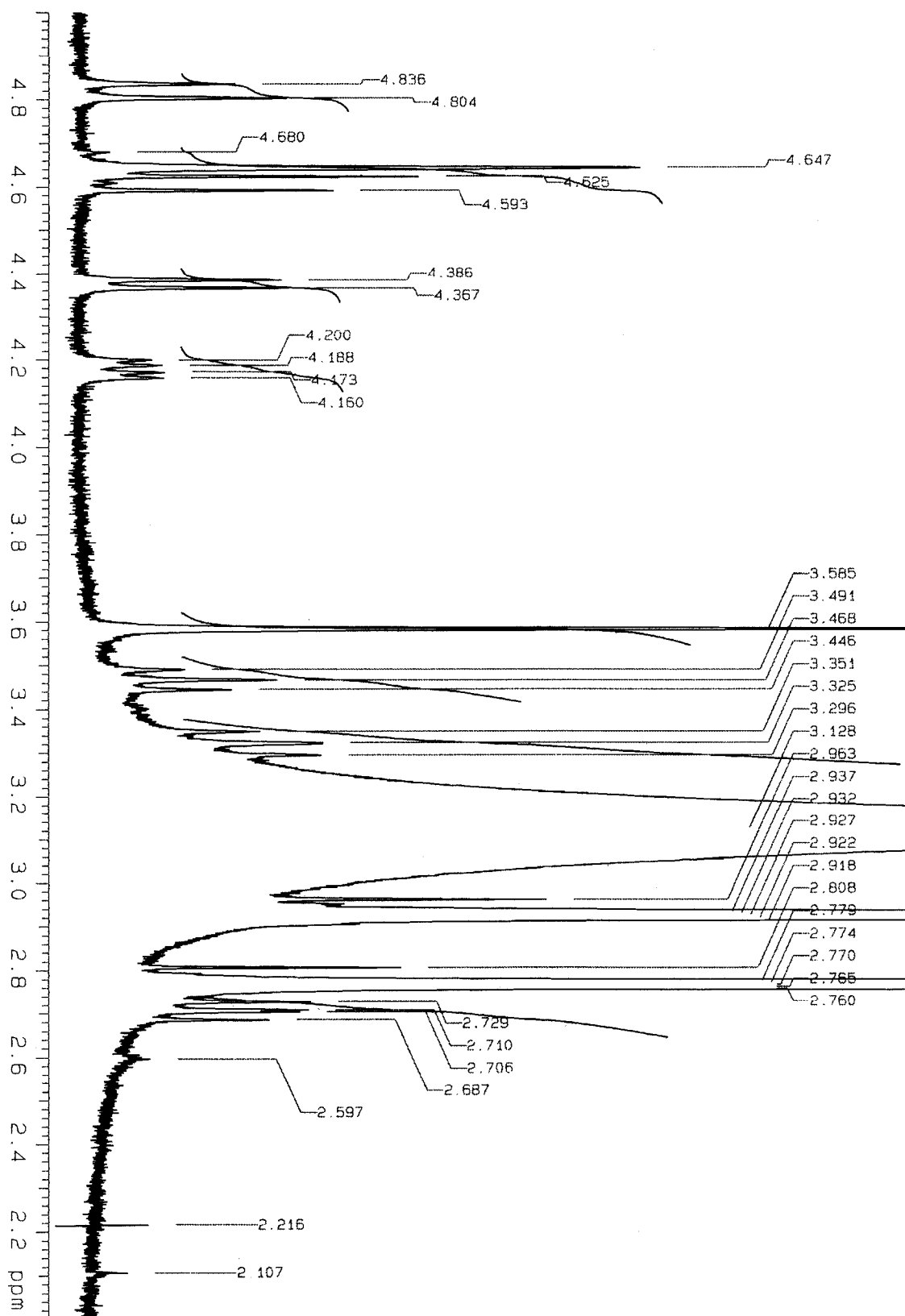


Fig S5. ^1H NMR of compound **3** in $\text{DMF-}d_7$ in the presence of $\text{Zn}(\text{OAc})_2$ (2.0 equiv) at $80\text{ }^\circ\text{C}$.

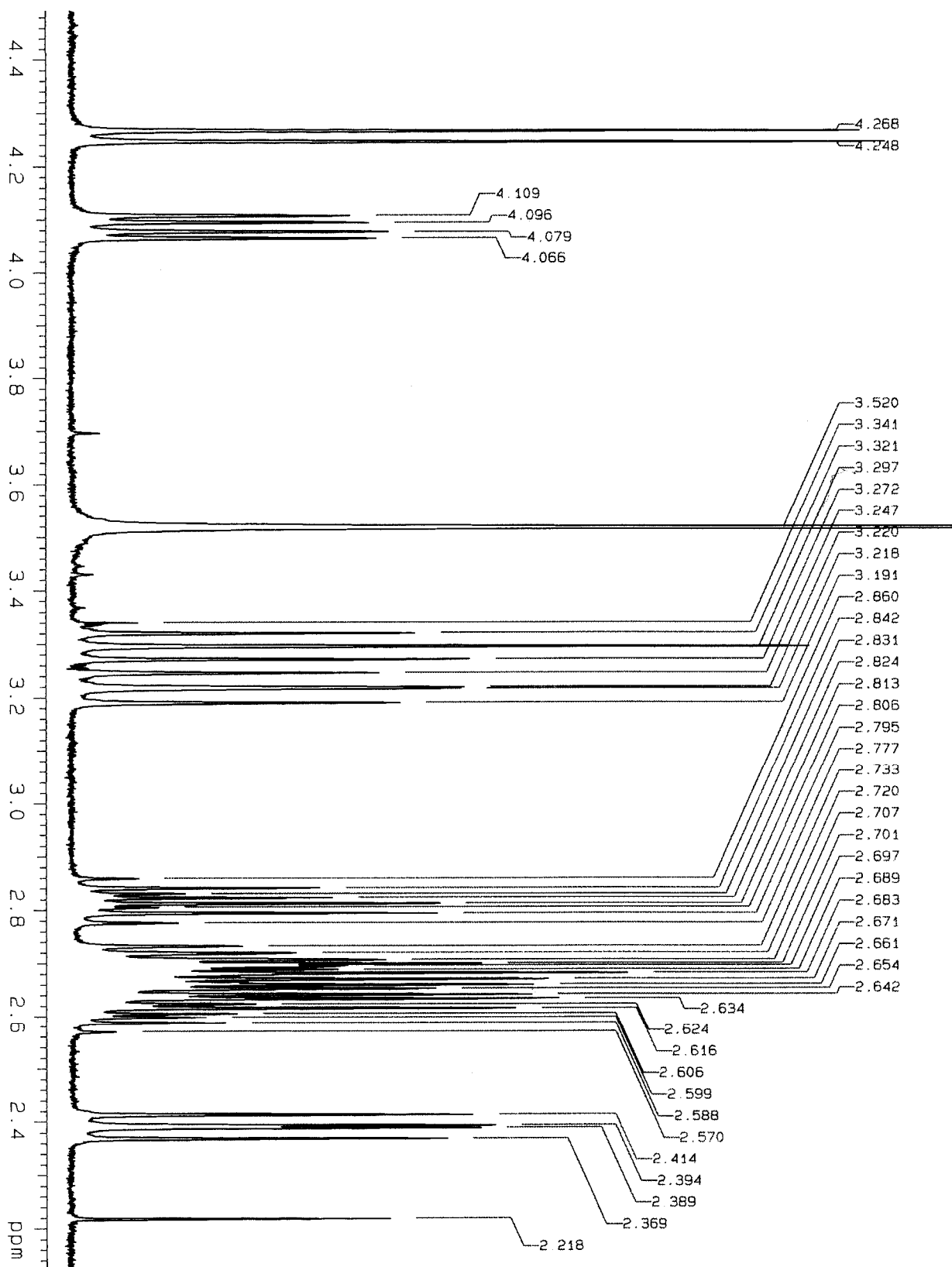


Fig S6. ^1H NMR of compound **4** in 50 mM AcONa- d_3 (pH 7.0).

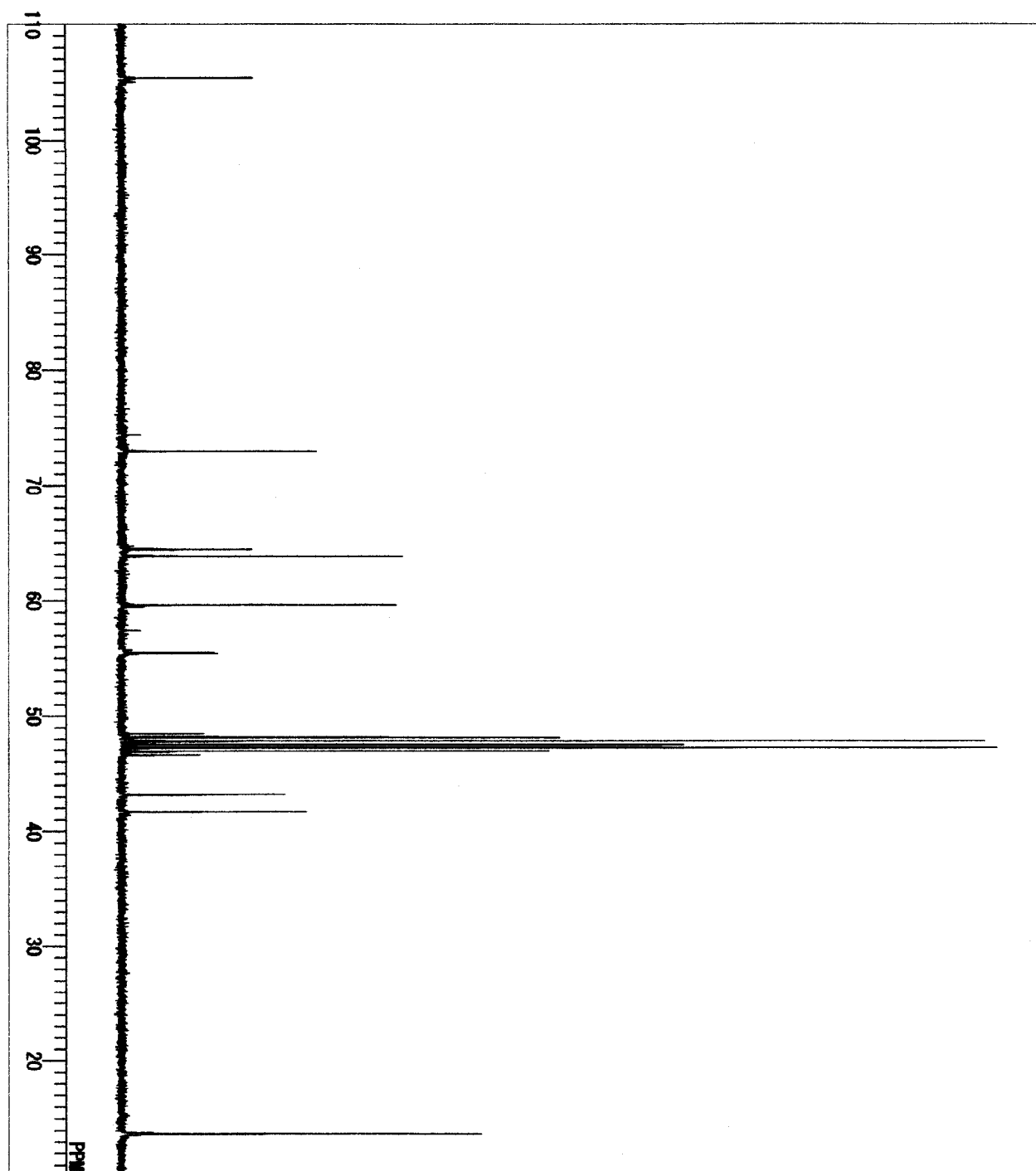


Fig S7. ^{13}C NMR of compound **4** in CD_3OD .

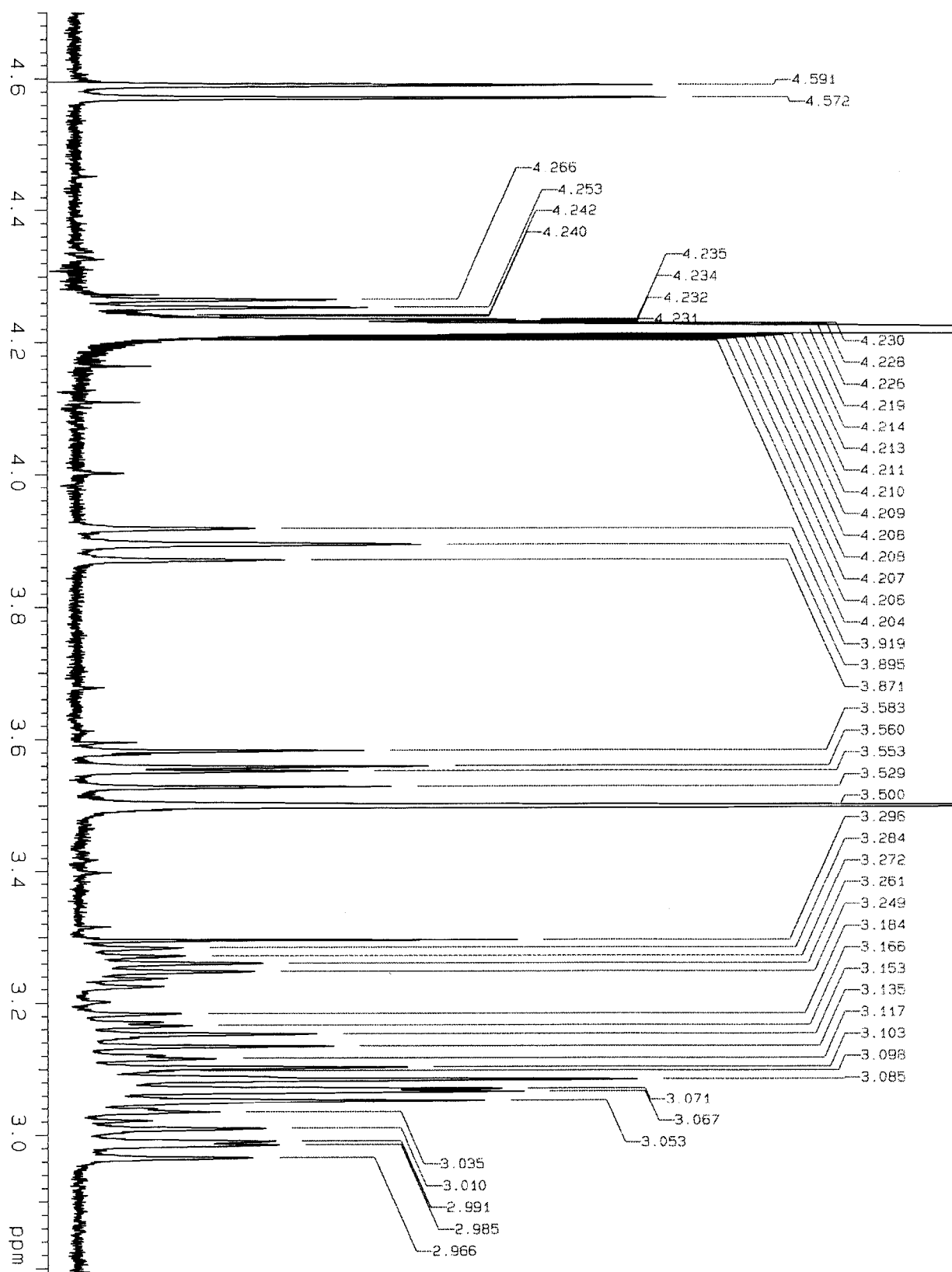


Fig S8. ^1H NMR of compound **4** in D_2O in the presence of CF_3COOD (1.0 equiv) at 70°C .

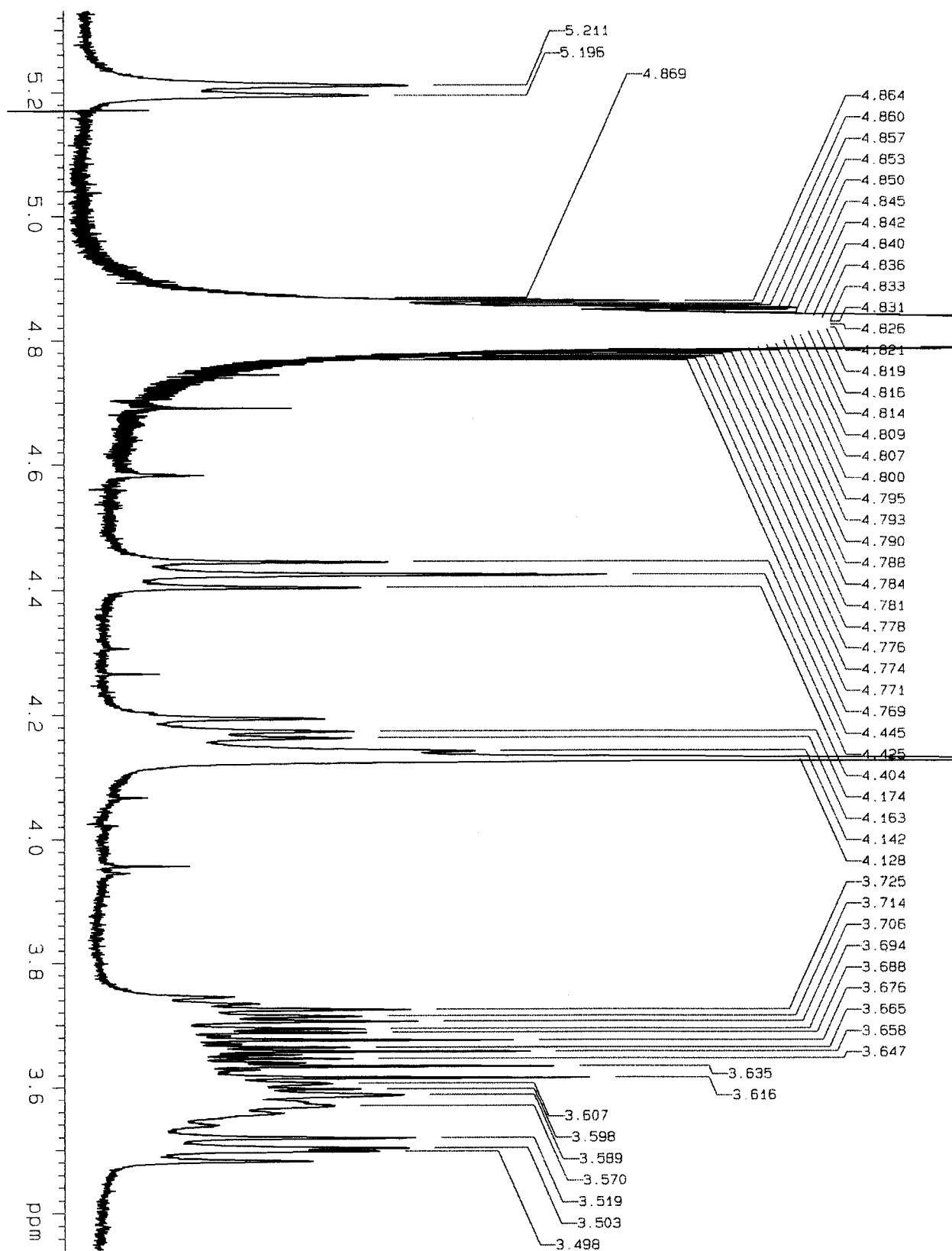


Fig S9. ^1H NMR of compound **4** in 50 mM AcONa- d_3 (pH 7.0) in the presence of $\text{Zn}(\text{OAc})_2$ (2.0 equiv) at 80 °C.

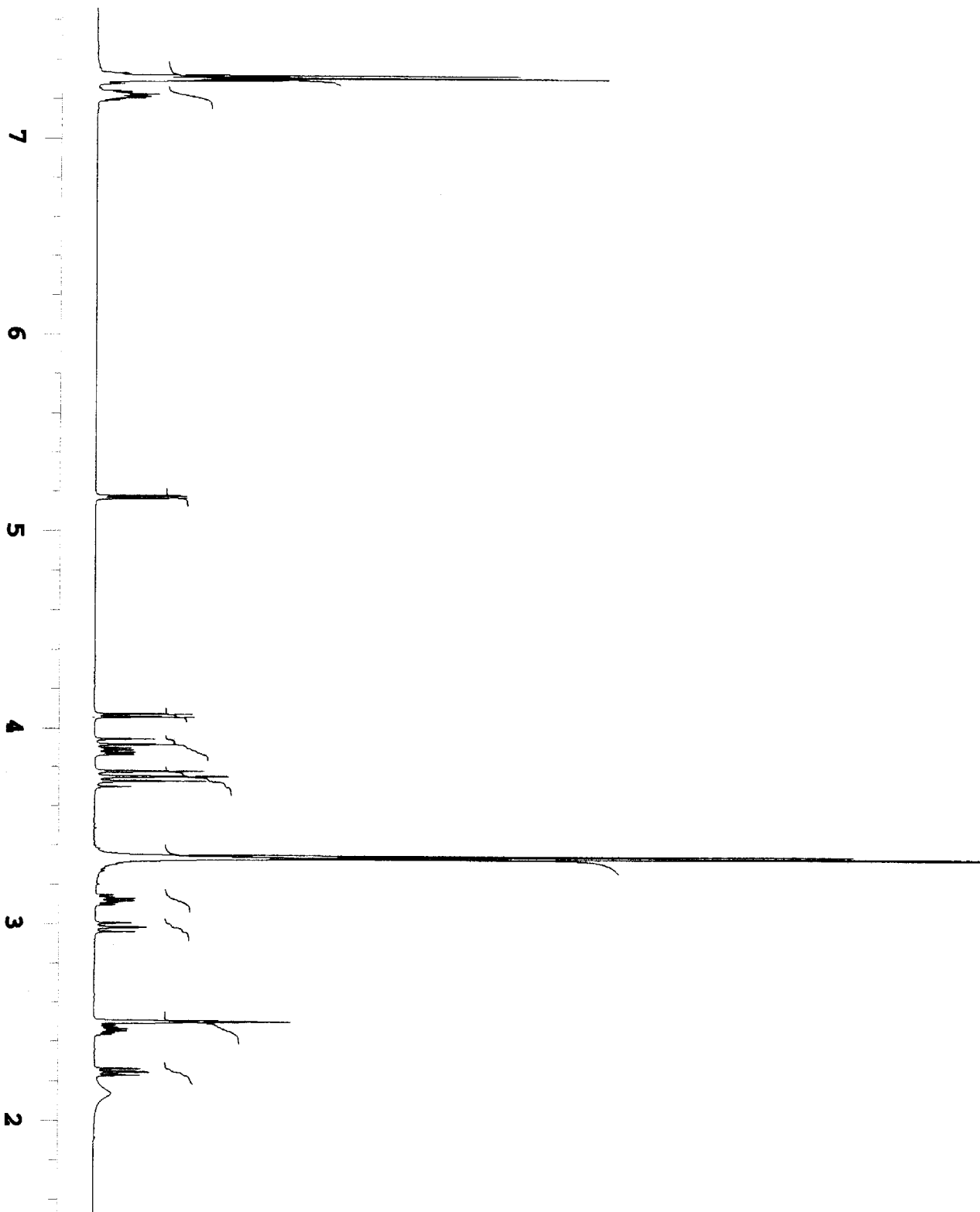


Fig S10. ^1H NMR of compound **5** in $\text{DMSO-}d_6$.

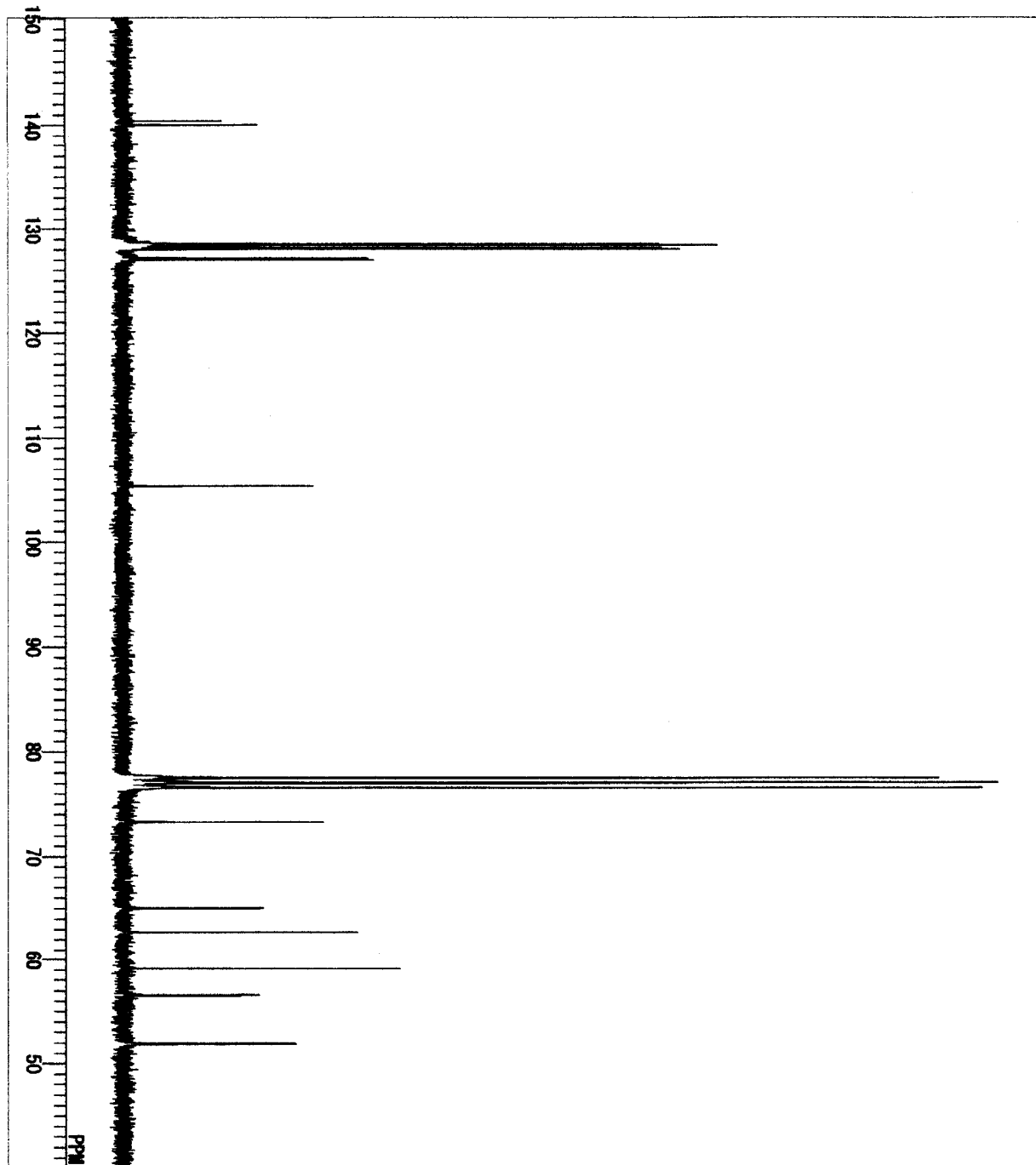


Fig S11. ^{13}C NMR of compound **5** in CDCl_3 .

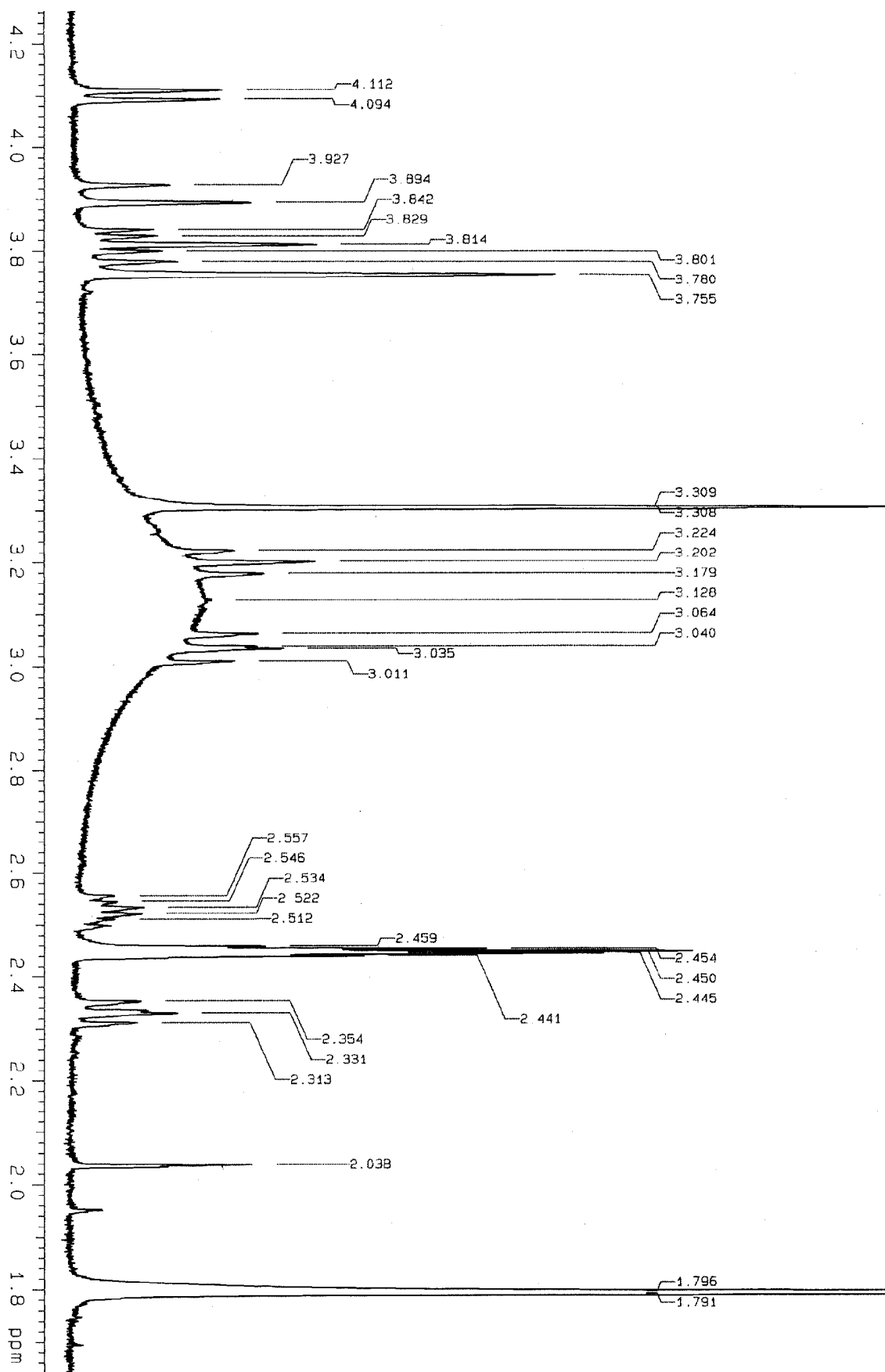


Fig S12. ¹H NMR of compound **5** in DMSO-*d*₆ in the presence of Zn(OAc)₂ (2.0 equiv) at 120 °C.

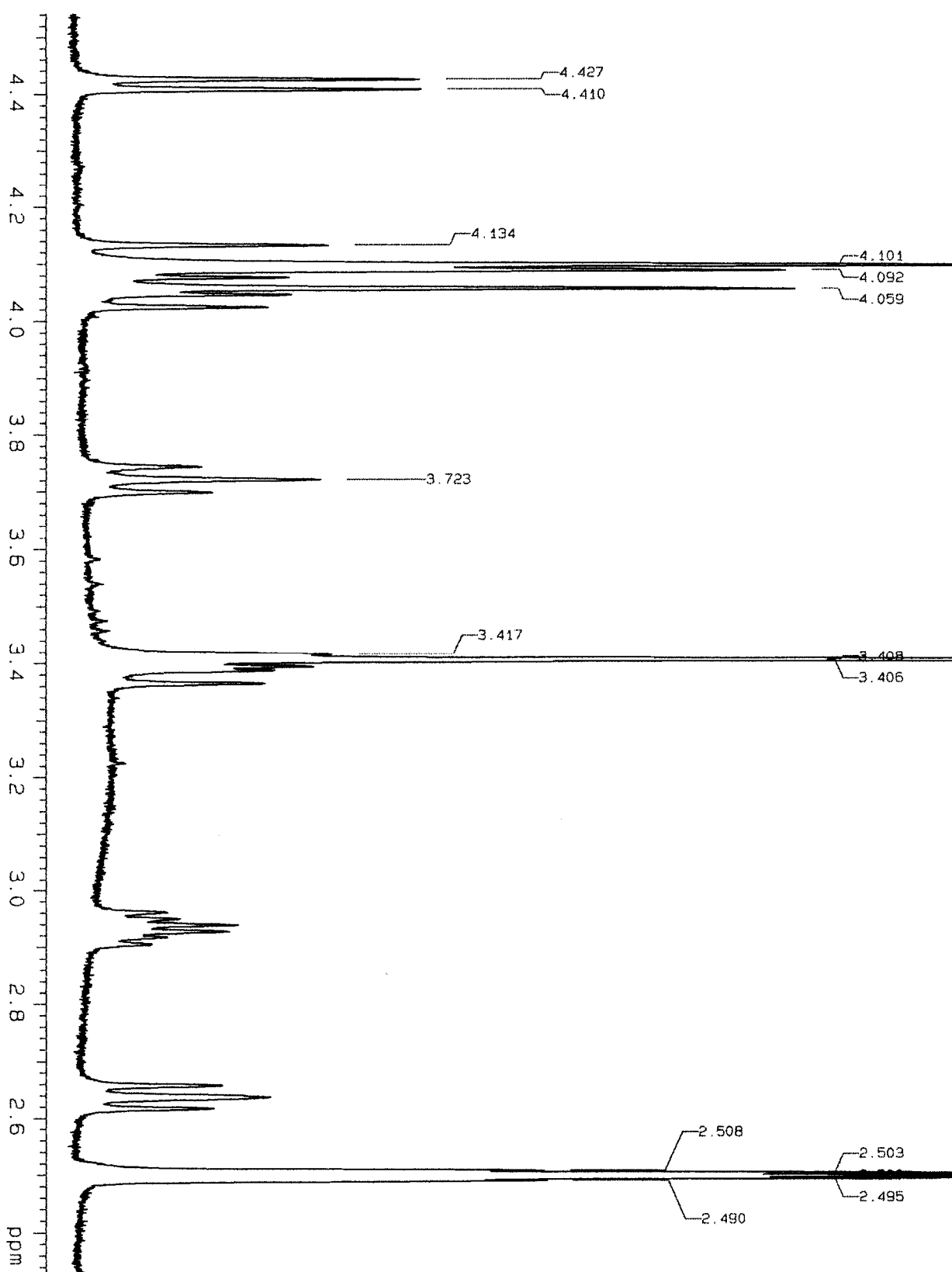


Fig S13. ¹H NMR of compound **5** in DMSO-*d*₆ in the presence of CF₃COOD (1.0 equiv) at 80 °C.

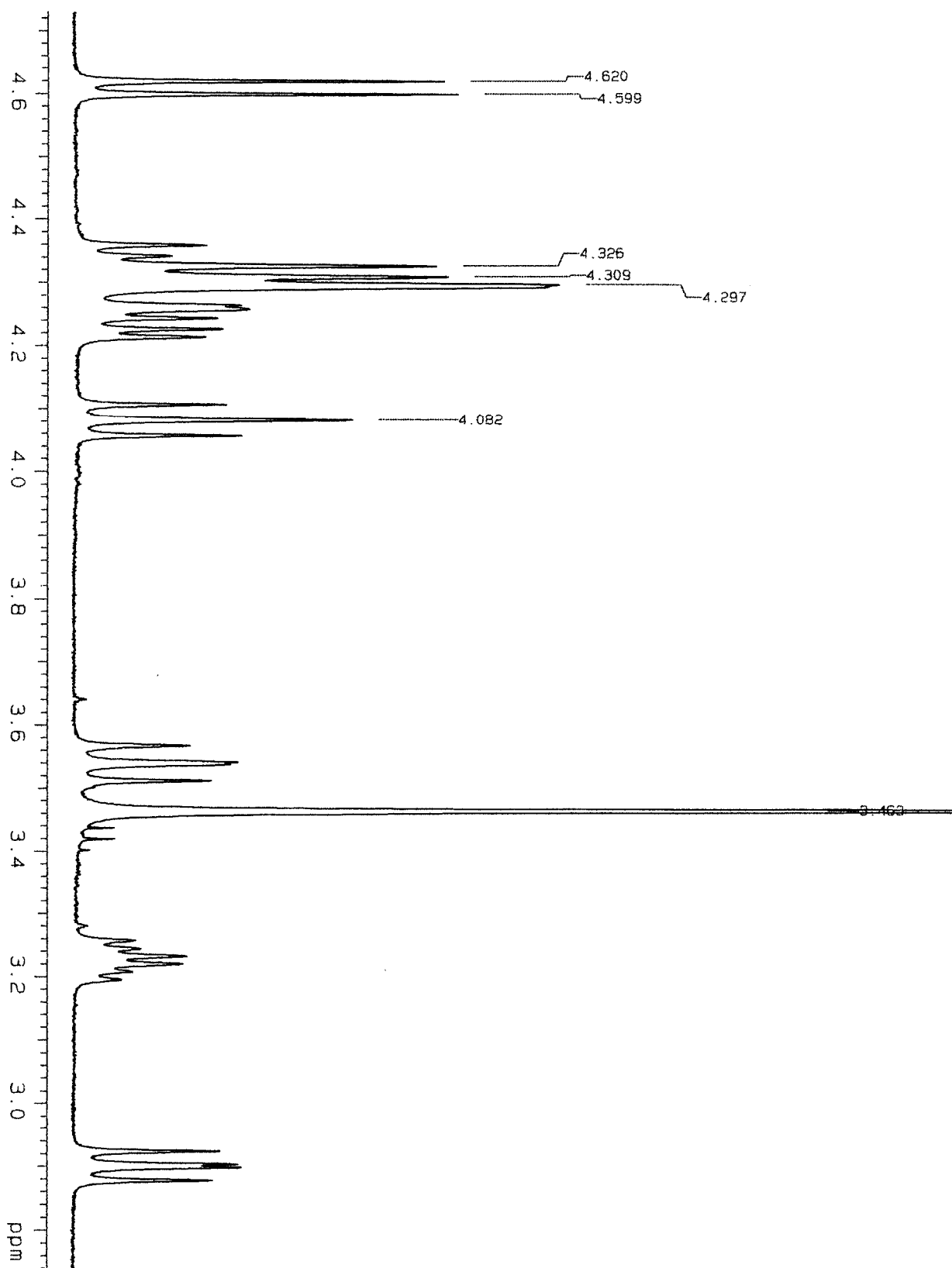


Fig S14. ^1H NMR of compound **5** in $\text{DMSO-}d_6$ in the presence of CF_3COOD (10 equiv) at room temperature.