

SUPPLEMENTARY INFORMATION

Design and Synthesis of a Novel ICT Bichromophoric pH Sensing System Based on 1,8-Naphthalimide Fluorophores as a Two-Input Logic Gate and Its Antibacterial Evaluation

Table S1. Photophysical characteristics of compound **5** in solvents of different polarity.

	Chloroform				Acetonitrile			Ethanol			DMF	
	λ_A (nm)	λ_F (nm)	Q_F		λ_A (nm)	λ_F (nm)		λ_A (nm)	λ_F (nm)		λ_A (nm)	λ_F (nm)
5	340	360	0.35		342	375		342	380		342	395
	378	496			390	498		402	500		404	516

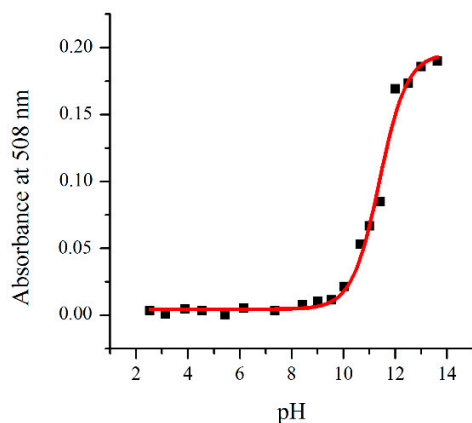


Figure S1. Titration plot of dyad **5** at $\lambda_A = 508$ nm in a pH range ca. 2-14.

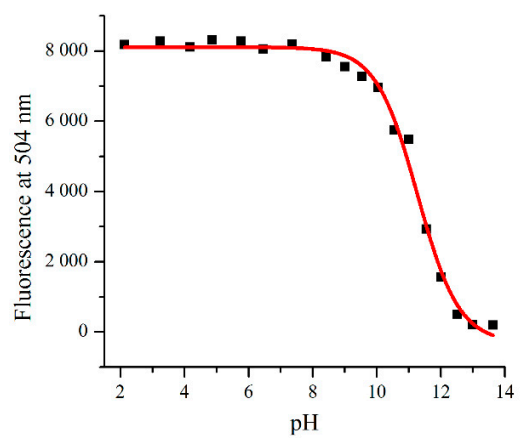


Figure S2. Titration plot of dyad **5** at $\lambda_F = 504$ nm in a pH range ca. 2-14 ($\lambda_{EX} = 400$ nm).

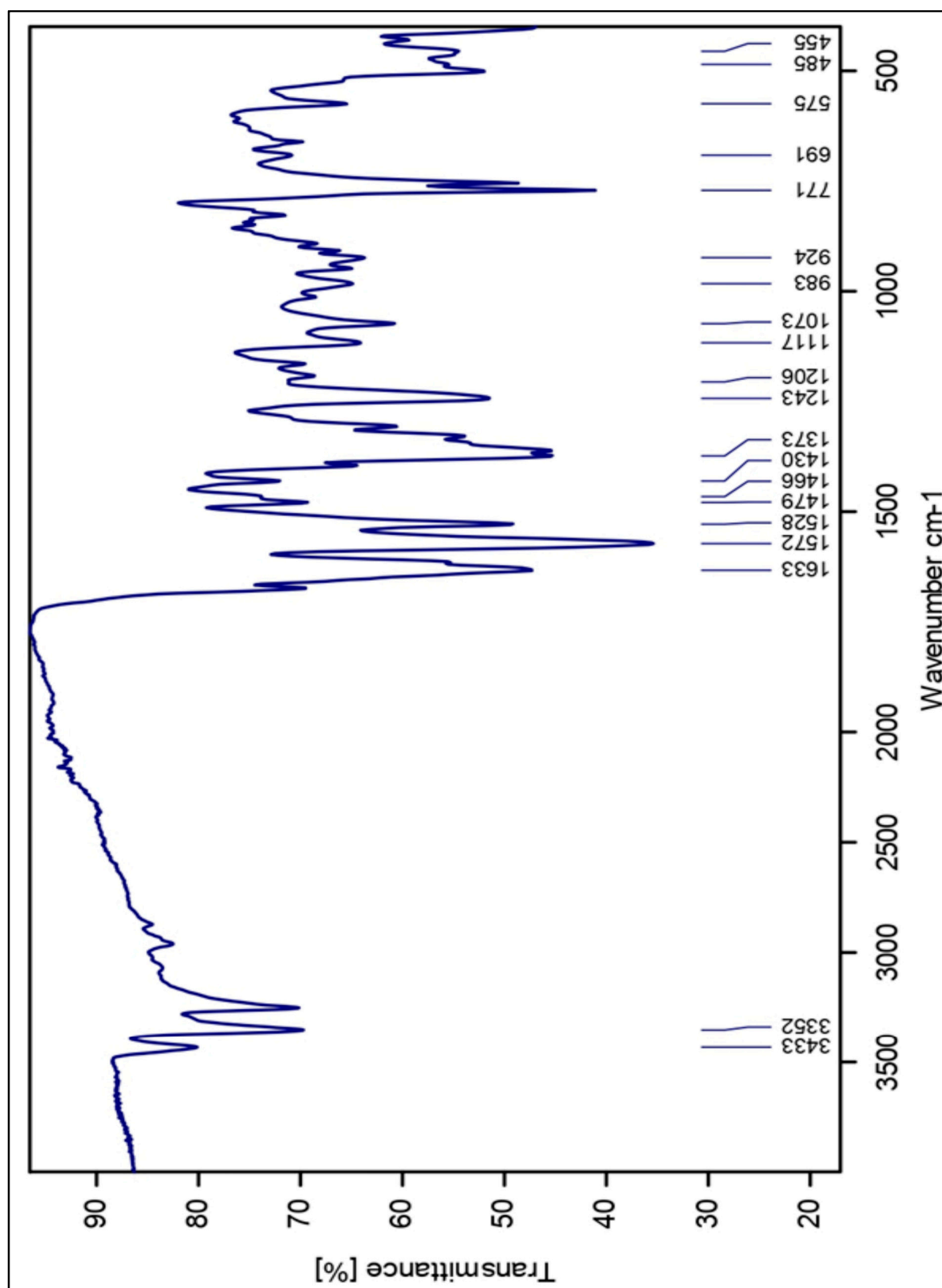


Figure S3: IR spectrum of compound 3.

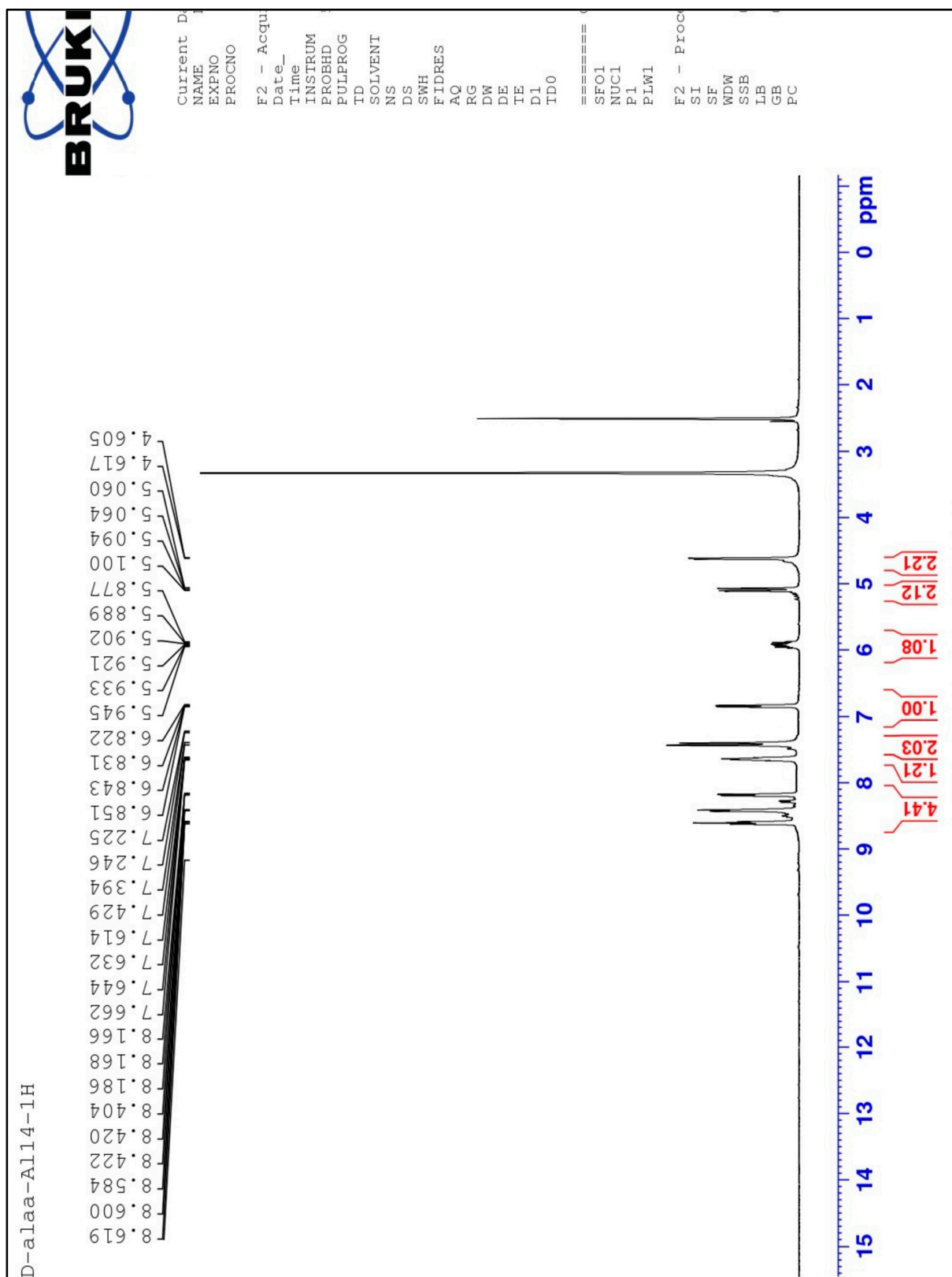


Figure S4. ^1H NMR Spectrum of compound 3.

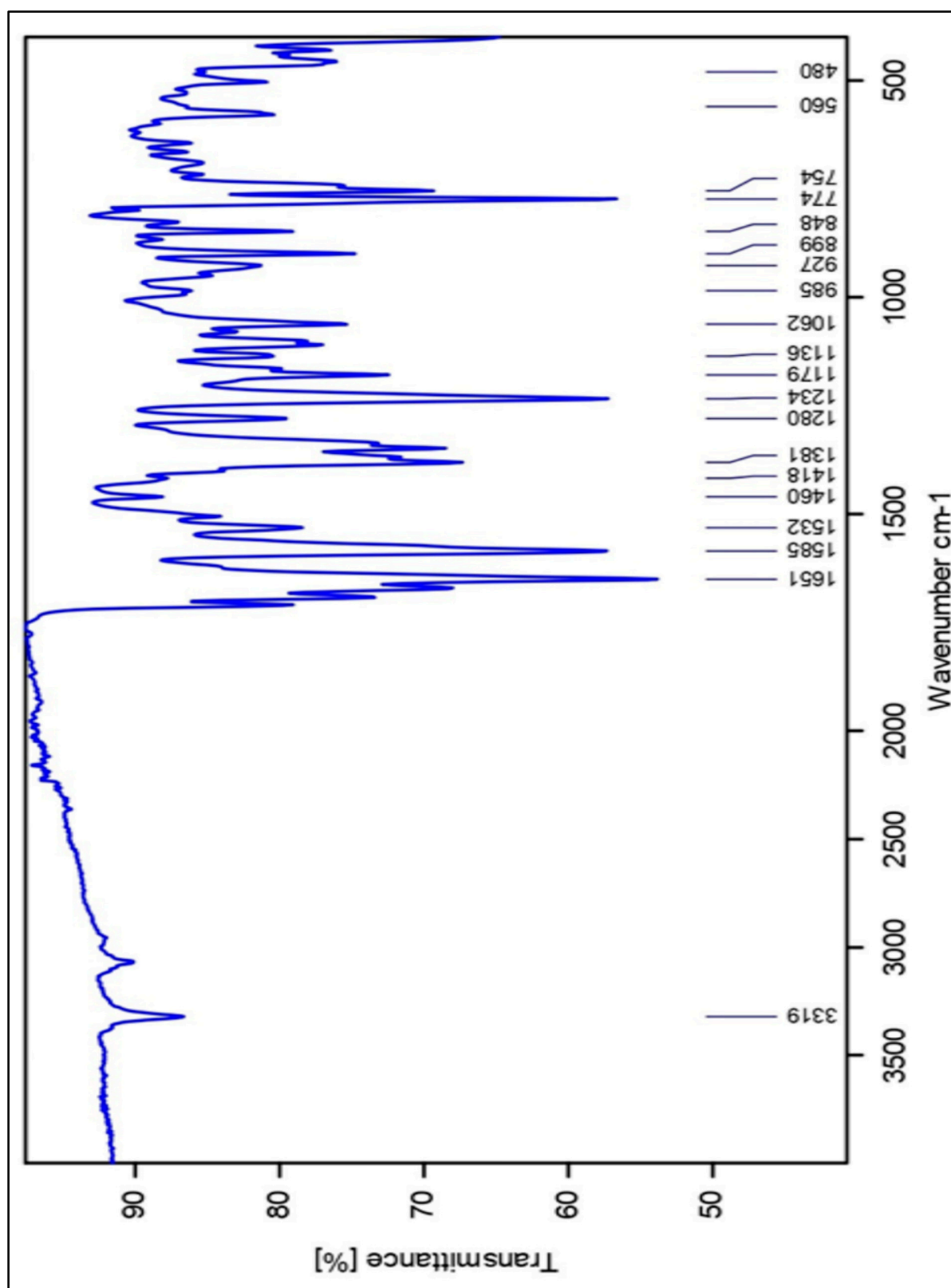


Figure S5: IR spectrum of dyad 5.

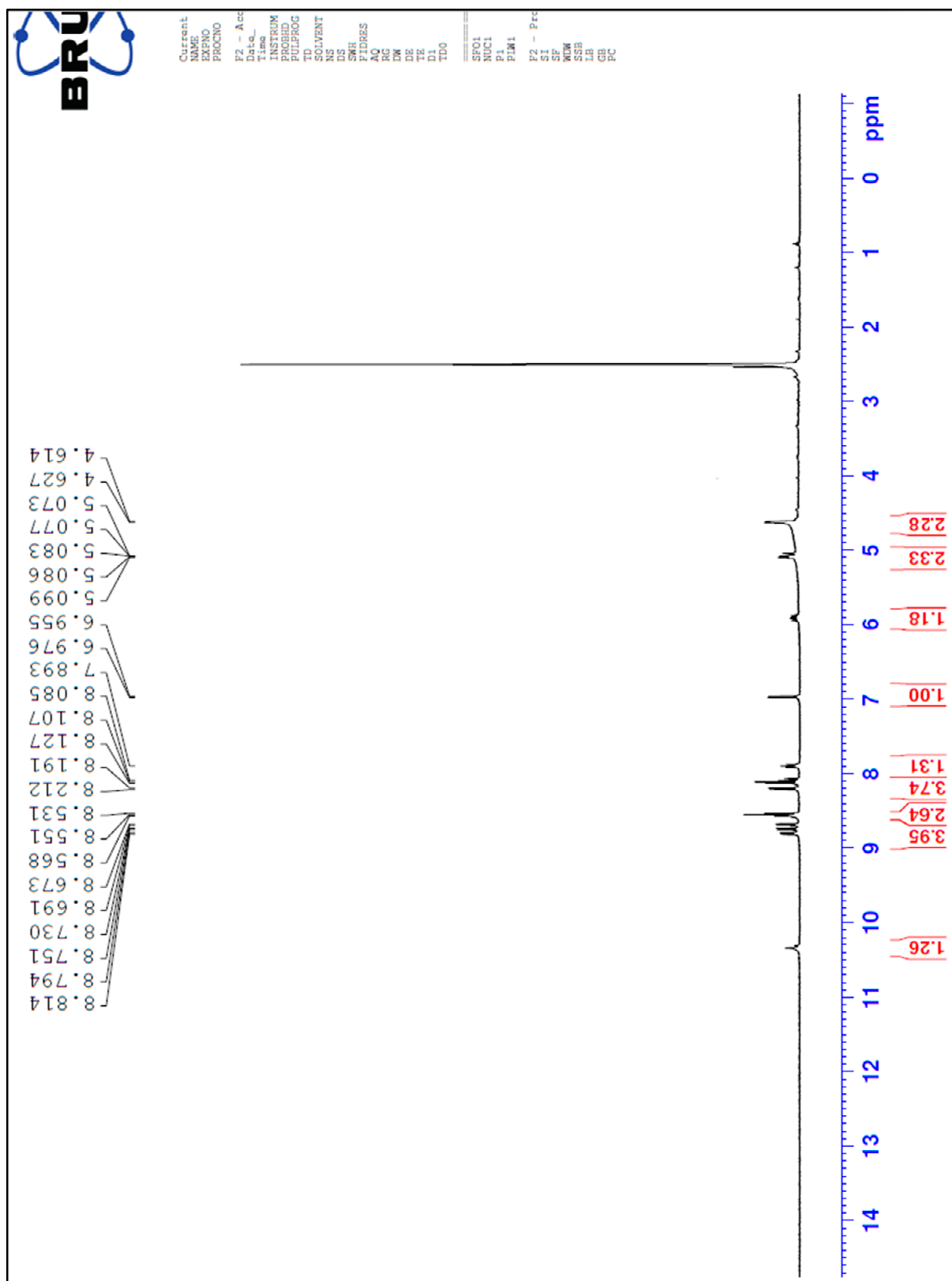


Figure S6. ^1H NMR Spectrum of dyad **5**.

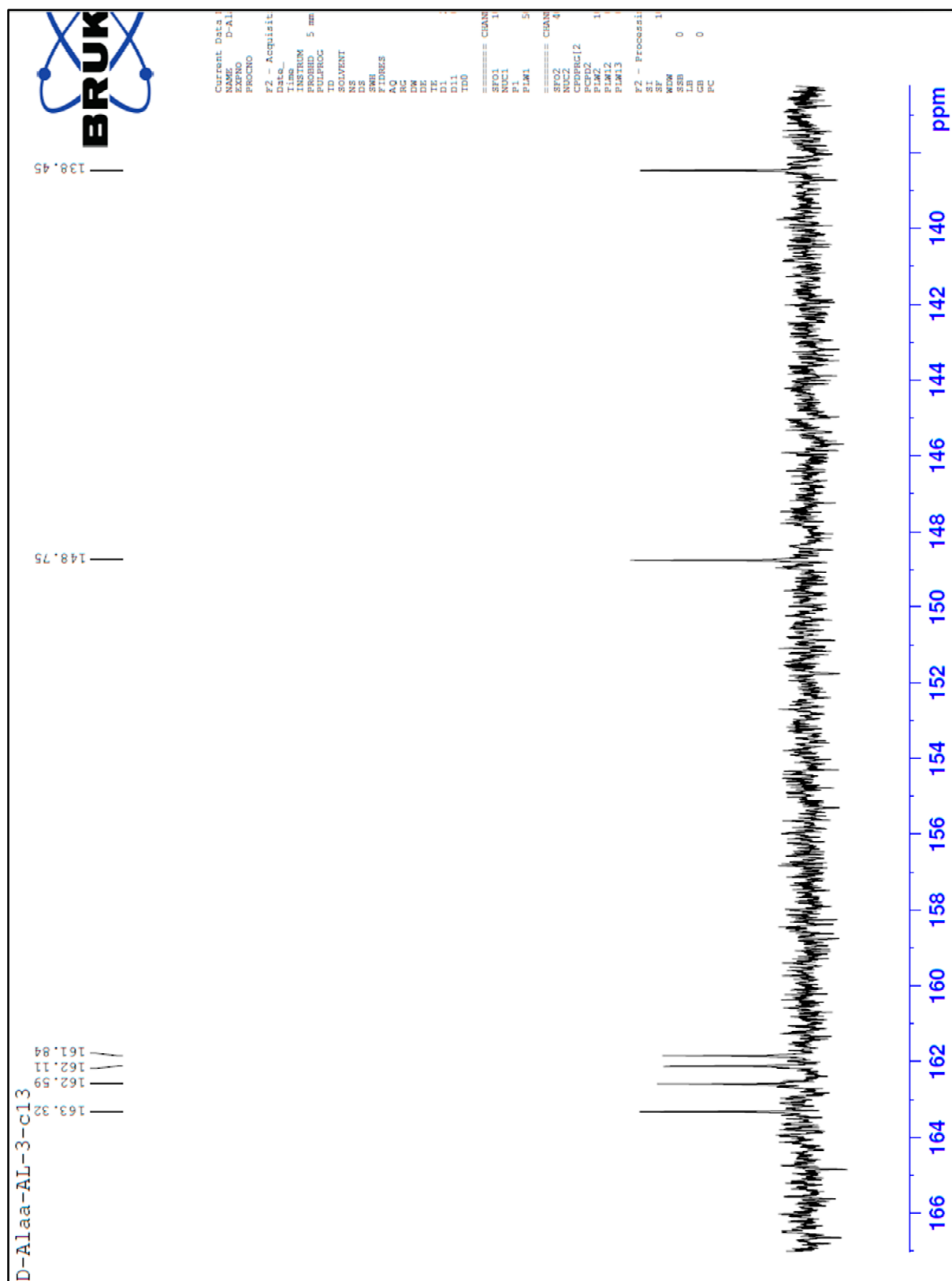


Figure S8. ^{13}C NMR Spectrum of dyad **5** in a range of 164-138 ppm.

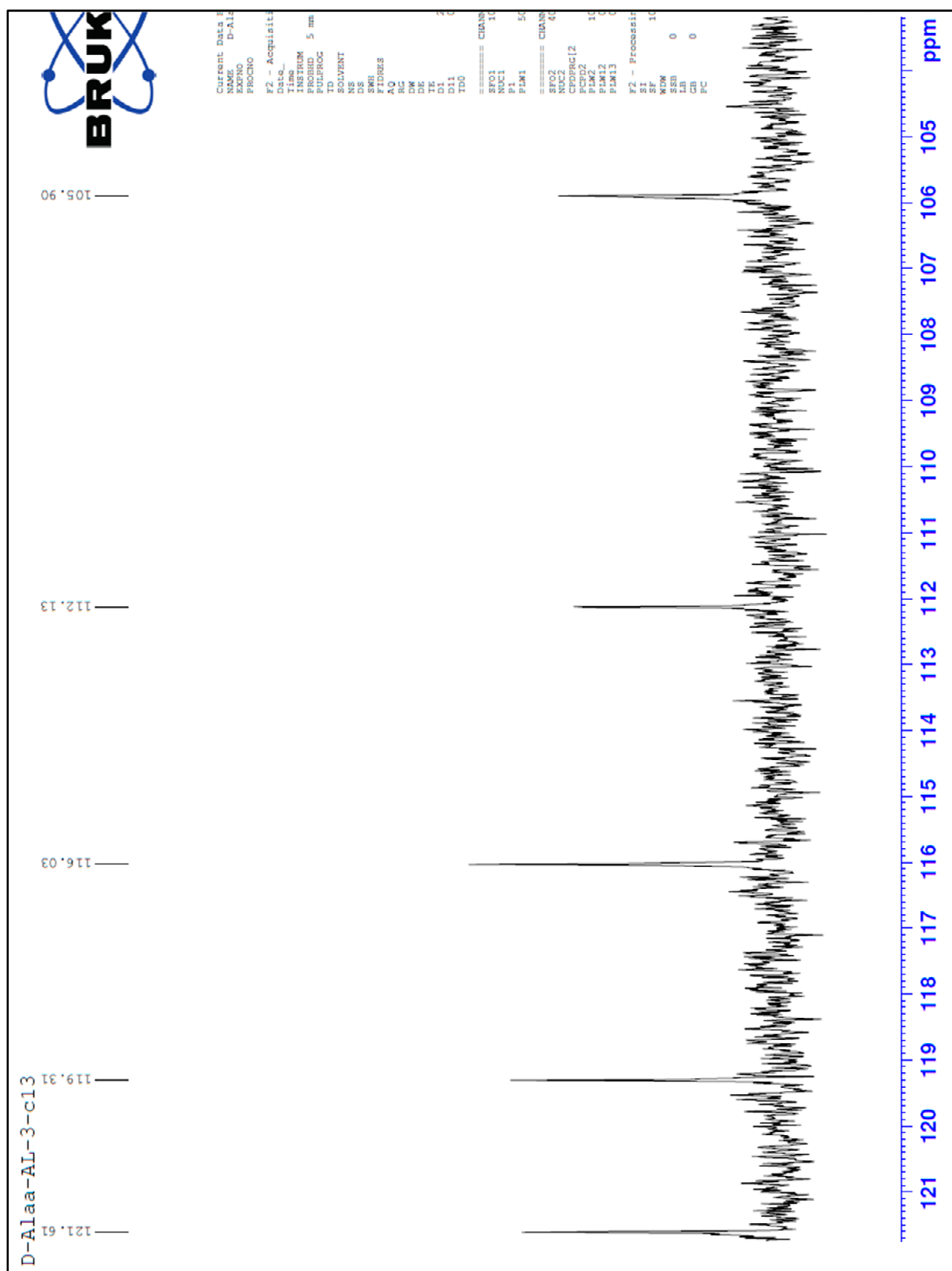


Figure S10. ^{13}C NMR Spectrum of dyad **5** in a range of 122-105 ppm.