

Table S1. ¹H and ¹³C (300 & 600 MHz) NMR data for Compounds **1a** & **1b** in DMSO

	1a (Stigmasterol glucoside) (Rosli et al., ⁴⁰ 2020)			1b (β -sitosterol glucoside) (Khatun et al., ³⁸ 2012)		
	δ_C	δ_H	δ_C	δ_C	δ_H	δ_C
1	2.12, 2.35*	38.8	38.38	*	36.7	36.85
2	*	—	33.41	1.23*	29.0	29.12
3	3.45 <i>m</i>	77.4	77.05	3.45 <i>m</i>	77.3	78.61
4	1.79*	37.3	36.90	0.98, 1.79*	42.3	42.12
5	—	140.9	140.53	—	140.9	139.98
6	5.33 <i>t</i>	121.7	121.29	5.33 <i>t</i>	121.7	121.54
7	1.91*	31.8	31.45	1.91*	31.8	31.41
8	1.43*	31.8	31.49	1.43*	31.8	31.46
9	0.88*	50.1	49.68	0.88*	50.1	49.83
10	—	36.7	36.29	—	36.7	36.27
11	1.38, 1.45*	21.1	22.68	1.38, 1.45*	21.1	20.21
12	*	40.4	39.16	0.98, 1.79*	37.3	38.20
13	—	42.2	41.93	—	42.2	41.88
14	0.99 <i>m</i>	56.7	56.7	0.99 <i>m</i>	56.6	56.36
15	*	25.4	24.95	1.38*	25.4	23.79
16	1.79*	29.7	29.33	1.78*	28.3	27.76
17	1.13 <i>m</i>	55.8	55.50	1.13 <i>m</i>	55.9	55.66

18	0.66 s	12.3	12.20	0.66 s	12.2	11.27
19	0.95 s	19.6	19.01	0.80 s	20.2	19.10
20	2.01 m	37.3	35.55	1.33*	36.0	35.70
21	0.99 d, 6.48 Hz	21.6	18.69	0.95*	19.4	18.69
22	5.15 m	138.5	138.11	1.00, 1.29*	33.8	33.51
23	5.02 m	129.3	128.91	1.14 m	25.9	25.64
24	1.50*	51.1	45.22	0.91*	45.6	45.49
25	1.34*	31.9	31.41	*	29.2	28.74
26	0.82*	21.4	19.17	0.95*	19.4	18.69
27	0.78 d, 2.32 Hz	19.3	18.92	0.90 d, 6.22 Hz	19.1	18.35
28	1.00, 1.50*	24.3	23.94	1.21*	23.1	22.60
29	0.77*	12.6	11.74	0.81*	12.3	12.29
1'	4.20 d, 7.84 Hz	101.2	100.85	4.20 d, 7.84 Hz	101.1	100.74
2'	2.88 *	73.9	70.17	2.88*	73.9	73.21
3'	3.08 *	77.2	76.82	3.08*	77.2	76.18
4'	3.00 *	70.5	73.53	3.00*	70.5	69.90
5'	3.04 *	77.2	76.78	3.04*	77.2	75.62
6'	3.39, 3.63*	61.5	61.16	3.39, 3.63*	61.5	61.36

Assignments were based on DEPTQ, HSQC and HMBC experiments. *: Overlapped signals.



Figure S1. Thin layer chromatogram of compounds 1a and 1b in ethyl acetate/methanol 9.5/0.5 (sprayed with conc. H_2SO_4 and developed in the oven at 110°C for 10 minutes)

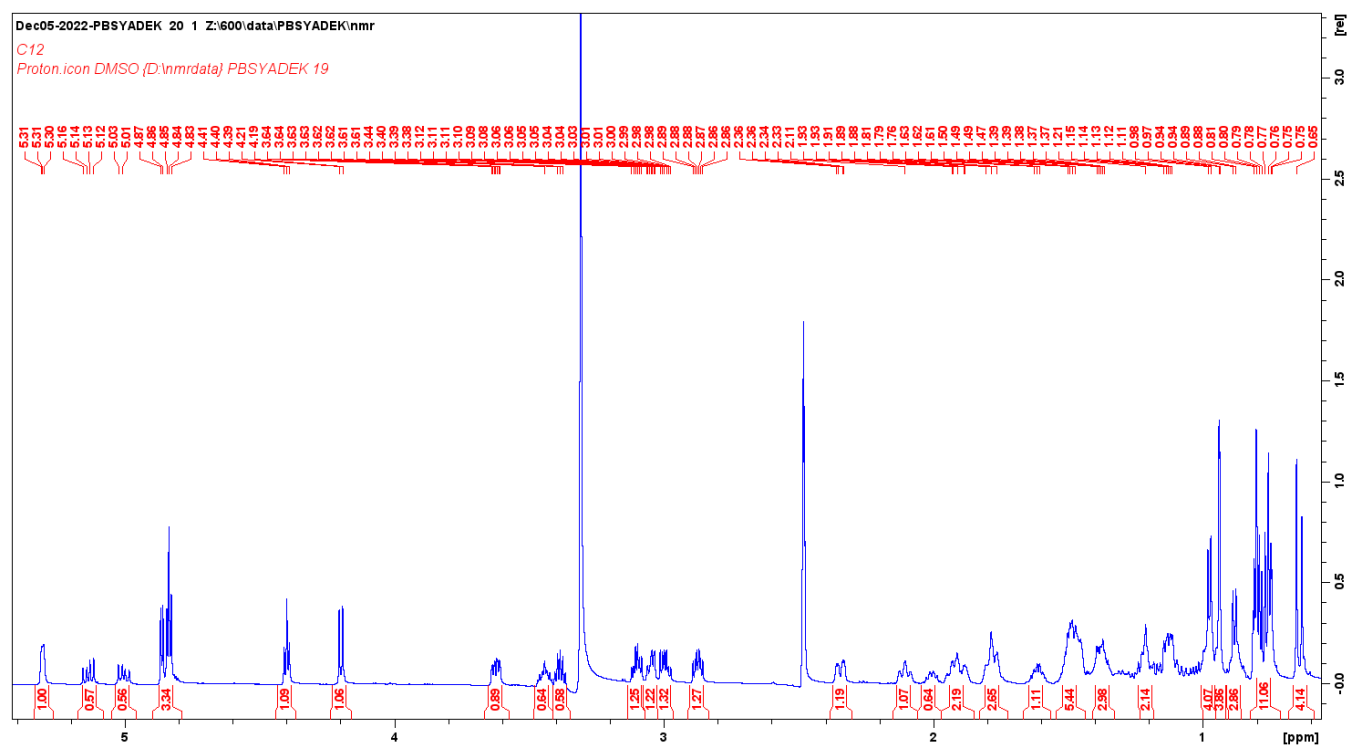


Figure S2. ^1H NMR spectrum of compounds 1a and 1b

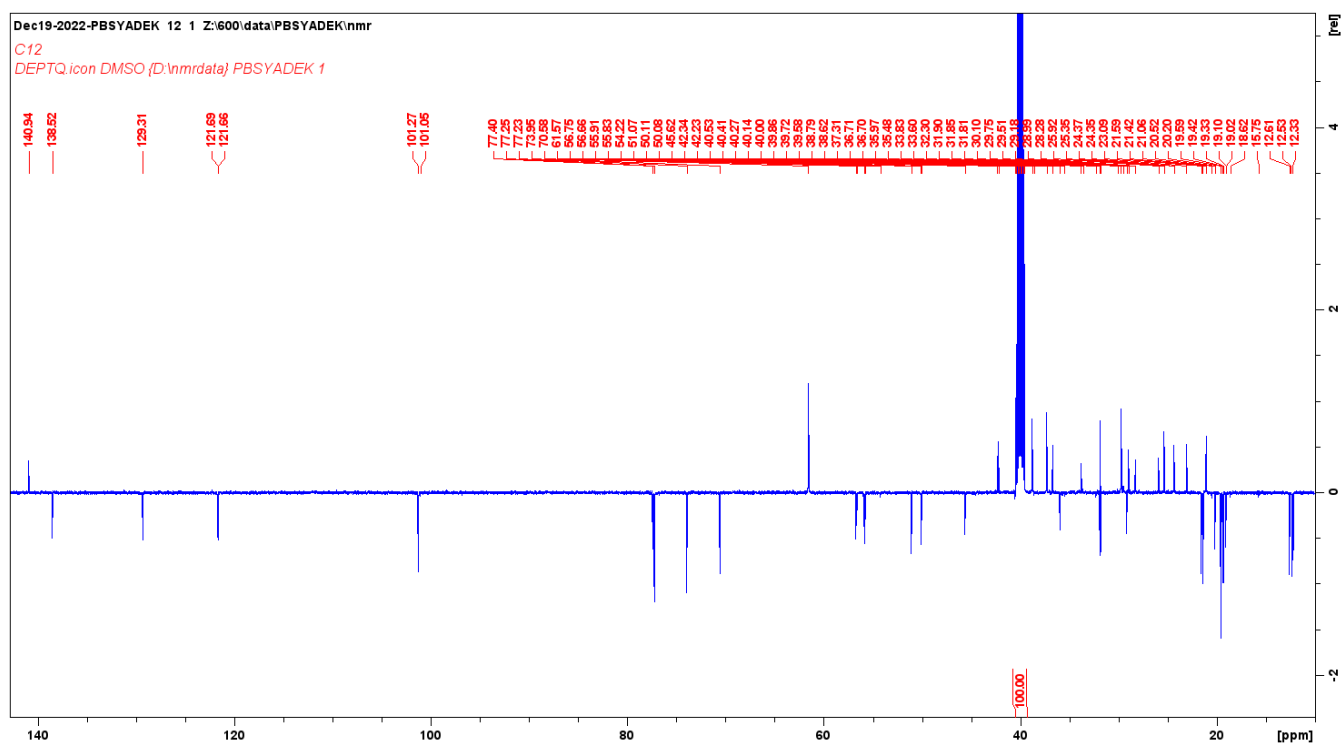


Figure S3. ^{13}C -DEPT-Q spectrum of compounds 1a and 1b

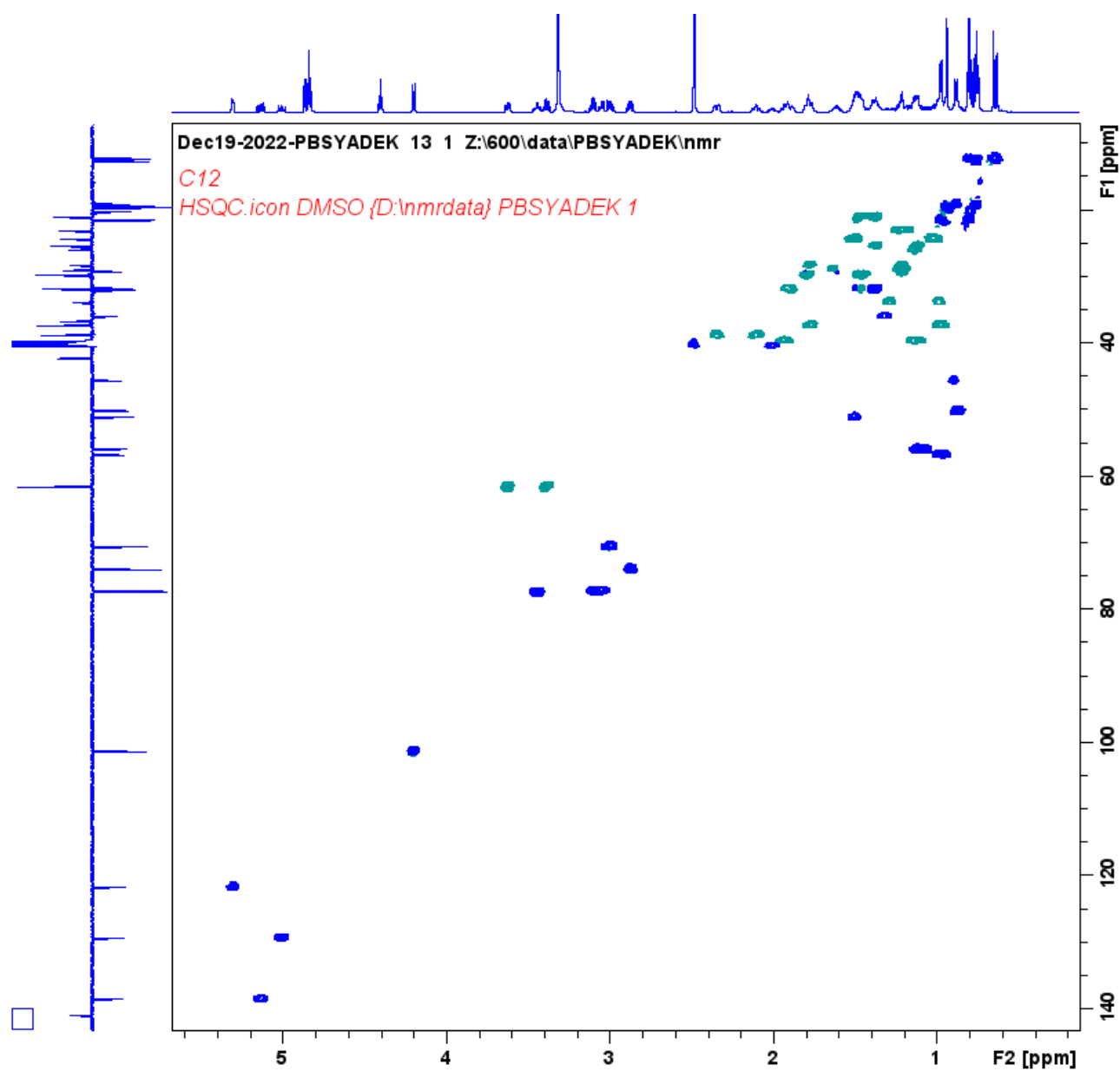


Figure S4. HSQC spectrum of compounds 1a and 1b

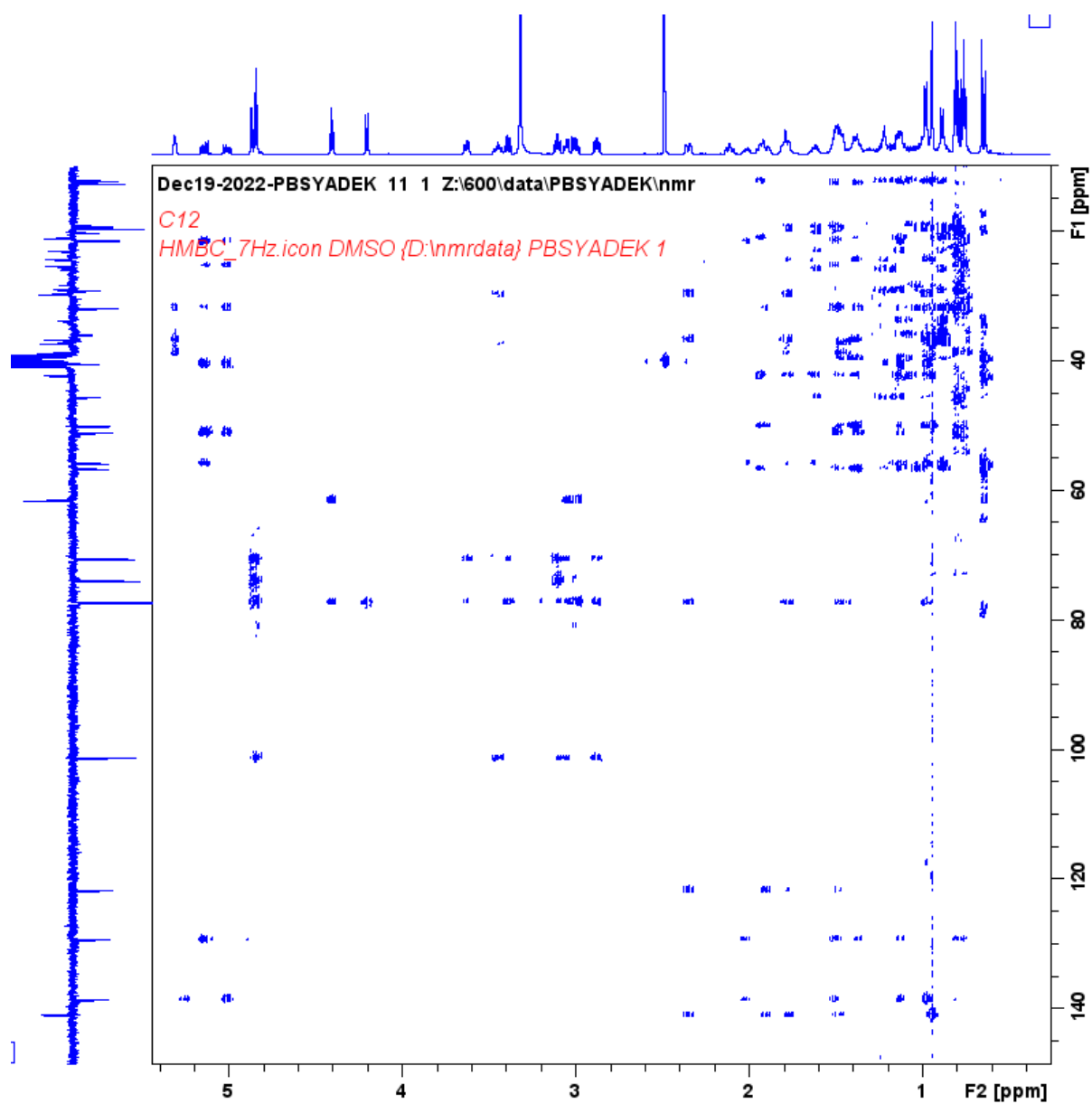


Figure S5. HMBC spectrum of compounds 1a and 1b

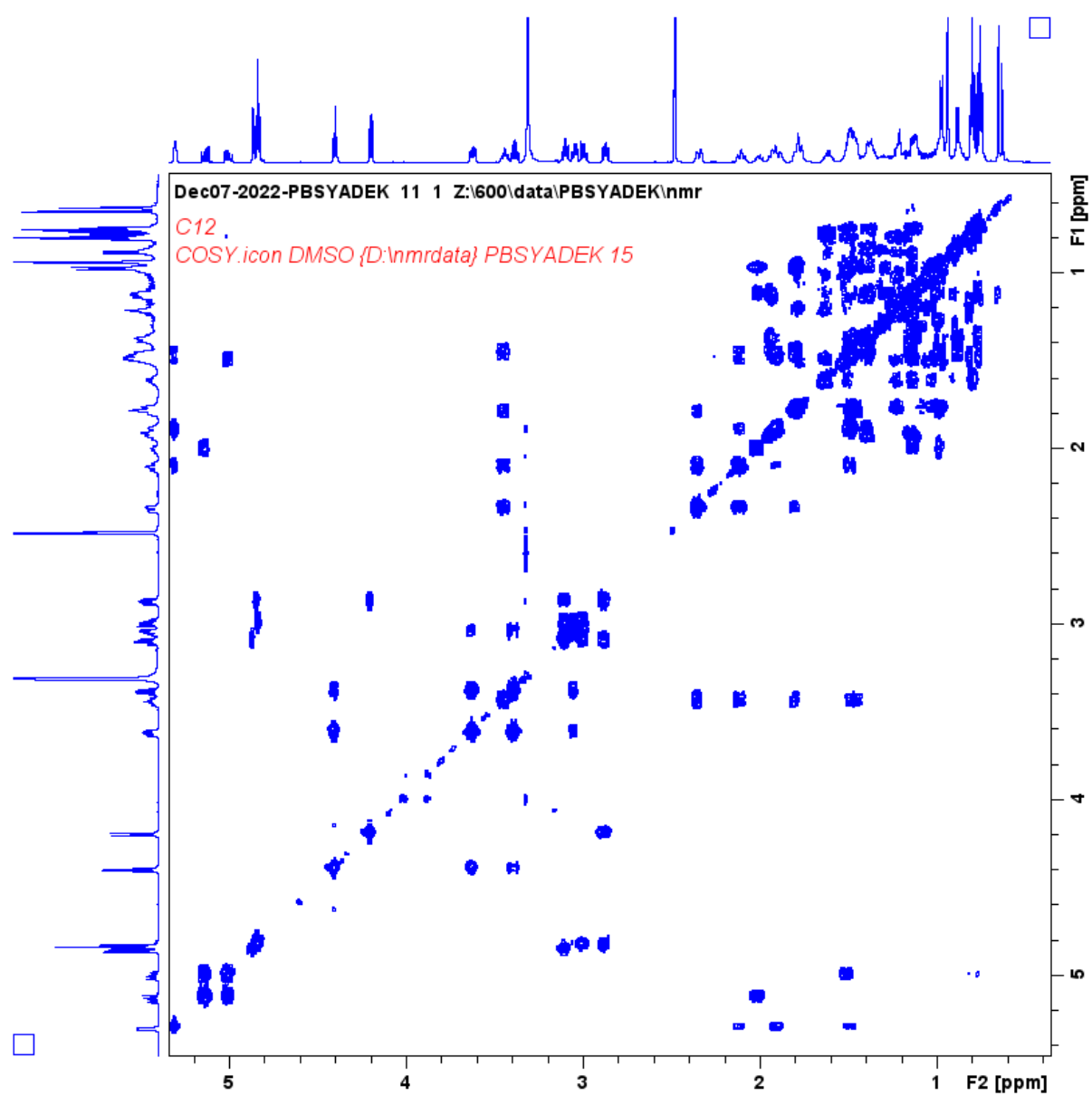


Figure S6. COSY spectrum of compounds 1a and 1b

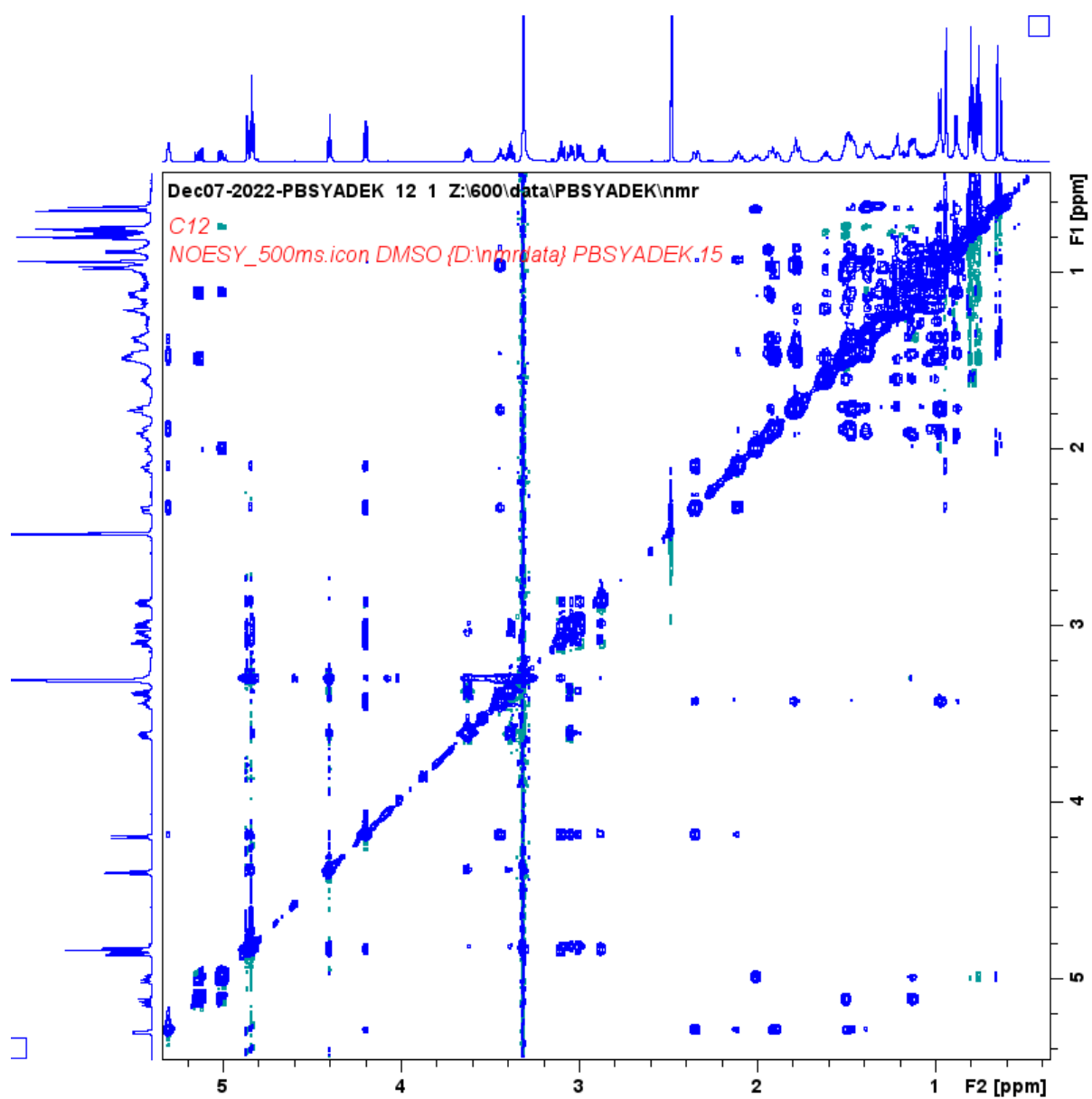


Figure S7. NOESY spectrum of compounds 1a and 1b

Sample ID:C12	Method Name:ATR_Transmittance
Sample Scans:32	User:pbs
Background Scans:8	Date/Time:02/14/2023 11:06:51 AM
Resolution:2	Range:4000 - 650
System Status:Good	Apodization:Happ-Genzel
File Location:C:\Users\Public\Documents\Agilent\MicroLab\Results\C12_2023-02-14T11-06-51.a2r	

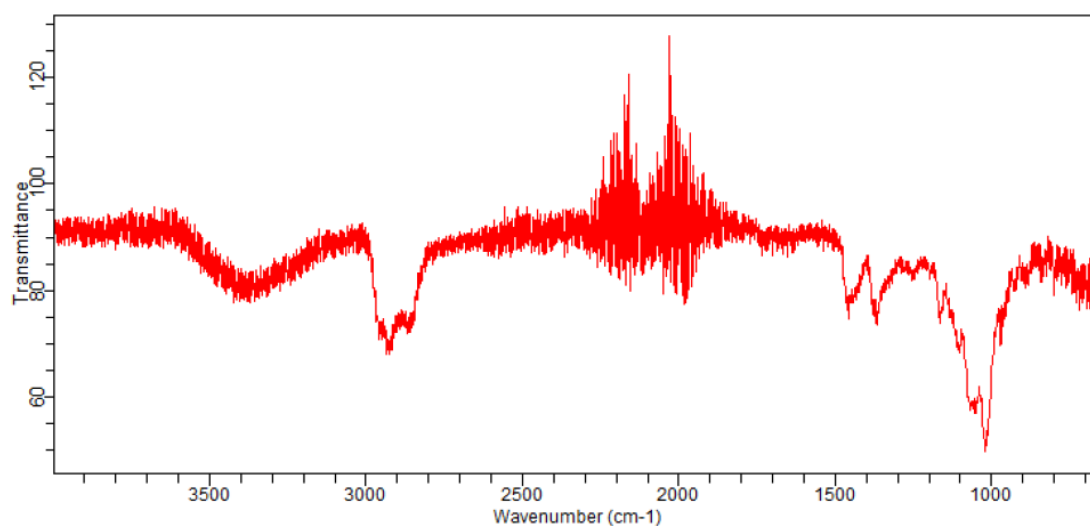


Figure S8. FTIR Spectrum of compounds 1a and 1b