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Supporting Information for

Mannose-Coated Polydiacetylene (PDA)-Based Nanomicelles: Synthesis, Interaction with Concanavalin A and Application in the Water Solubilization and Delivery of Hydrophobic Molecules

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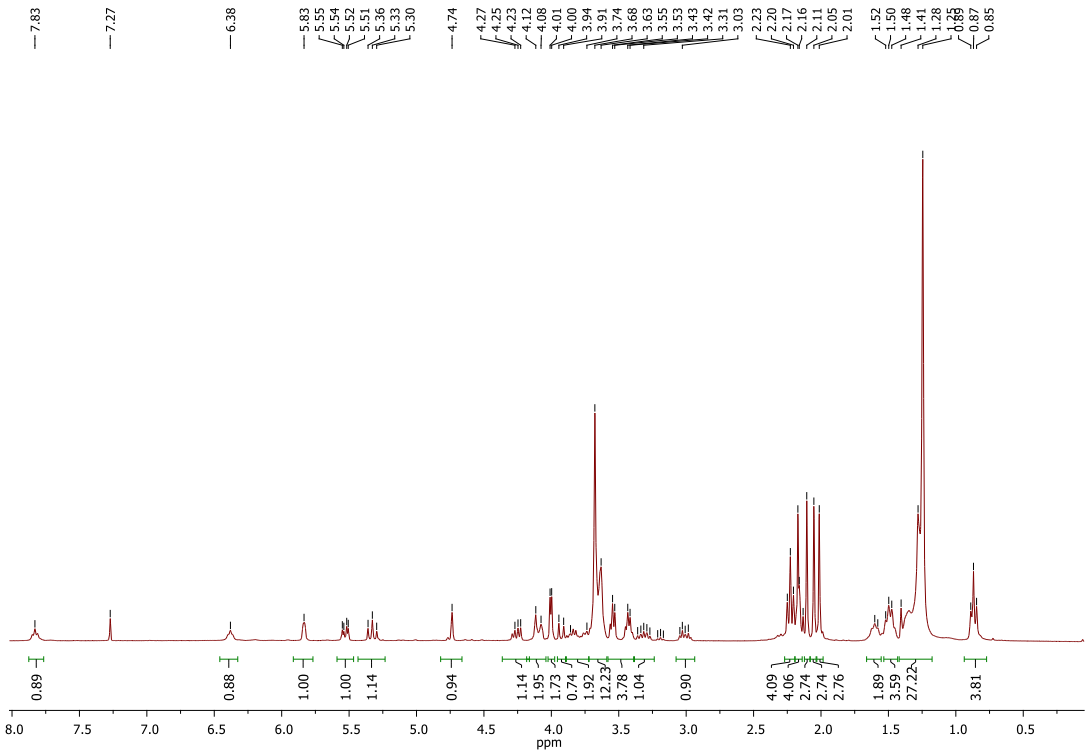
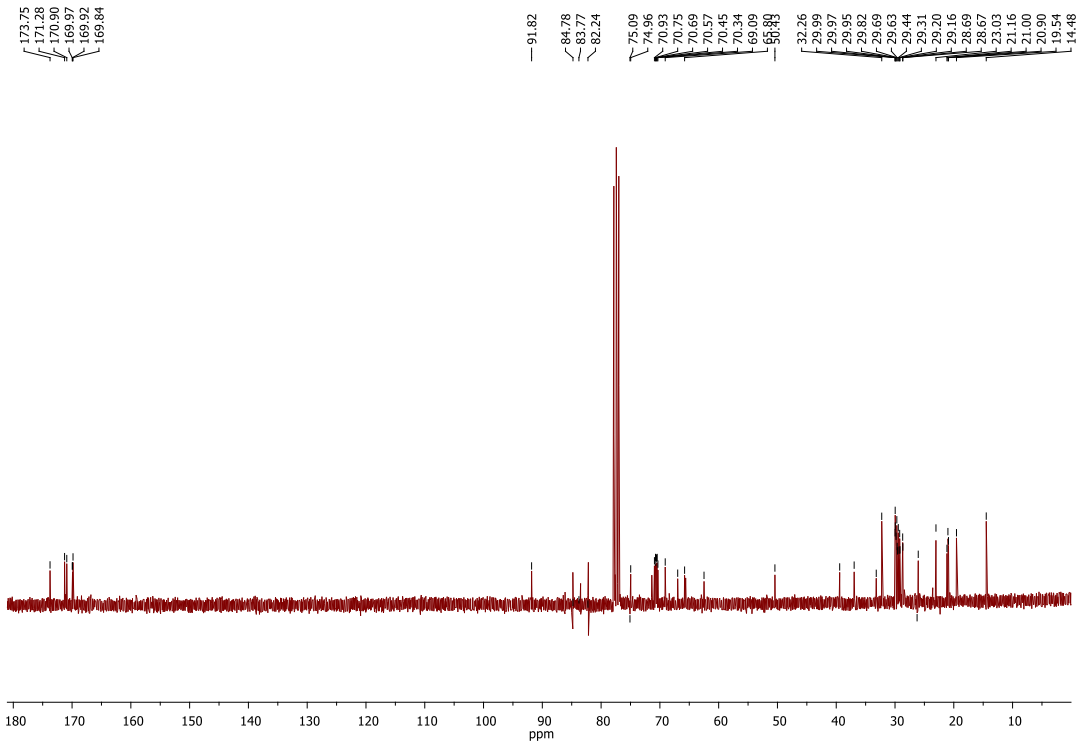
^{1}H-NMR, ^{13}C-NMR spectra of compound 17

^{1}H-NMR of 17

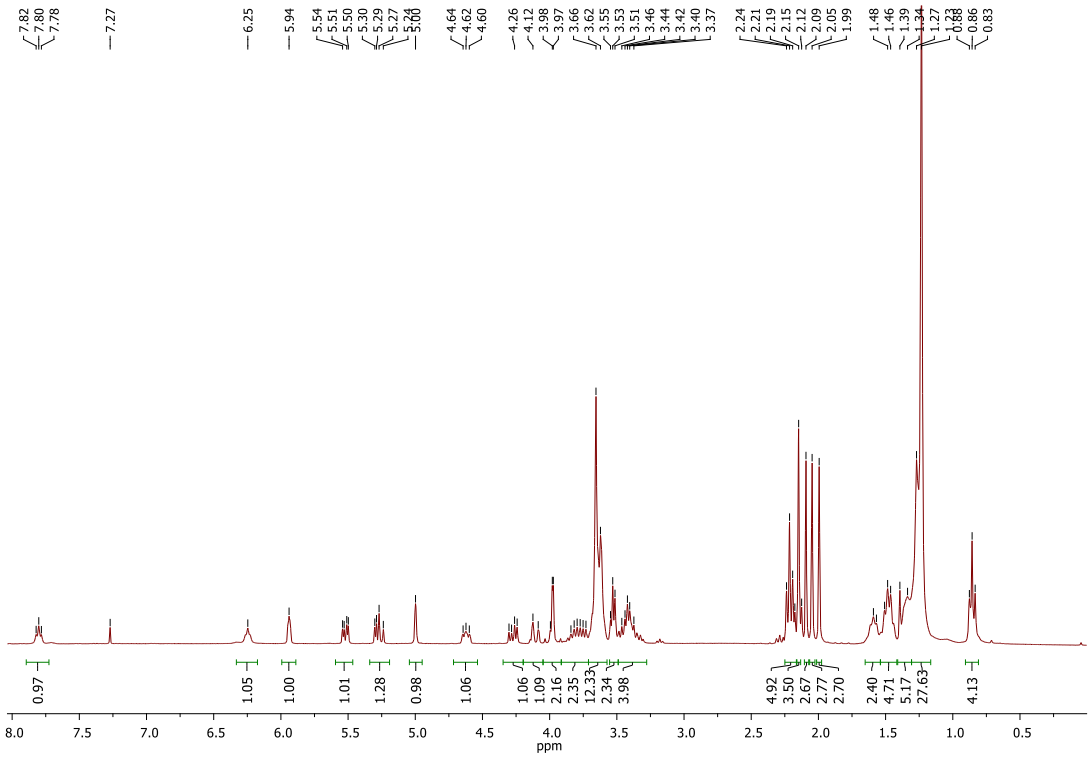


^{13}C-NMR of 17

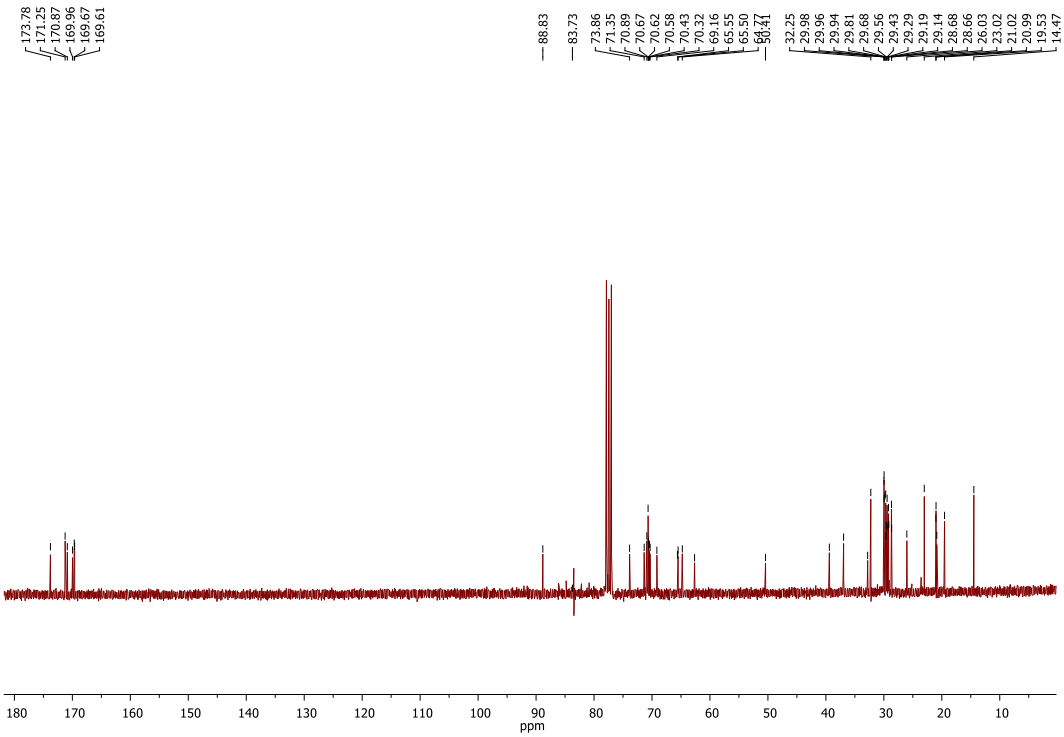


^{1}H-NMR, ^{13}C-NMR spectra of compound 18

^{1}H-NMR of 18

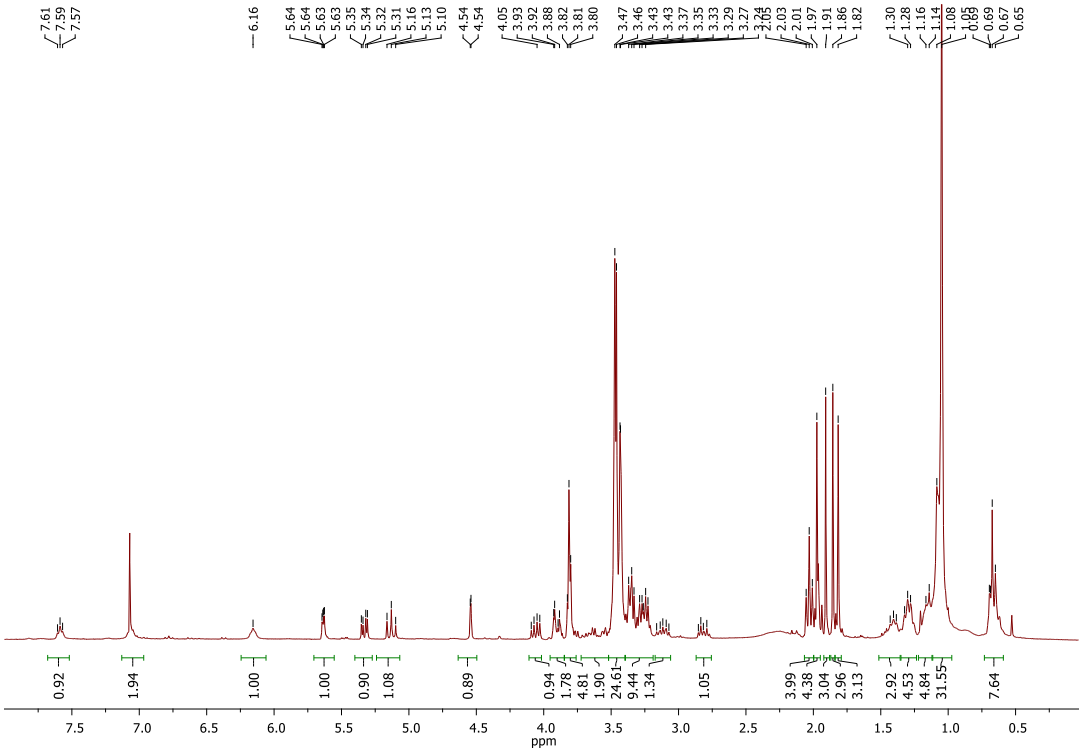


^{13}C-NMR of 18

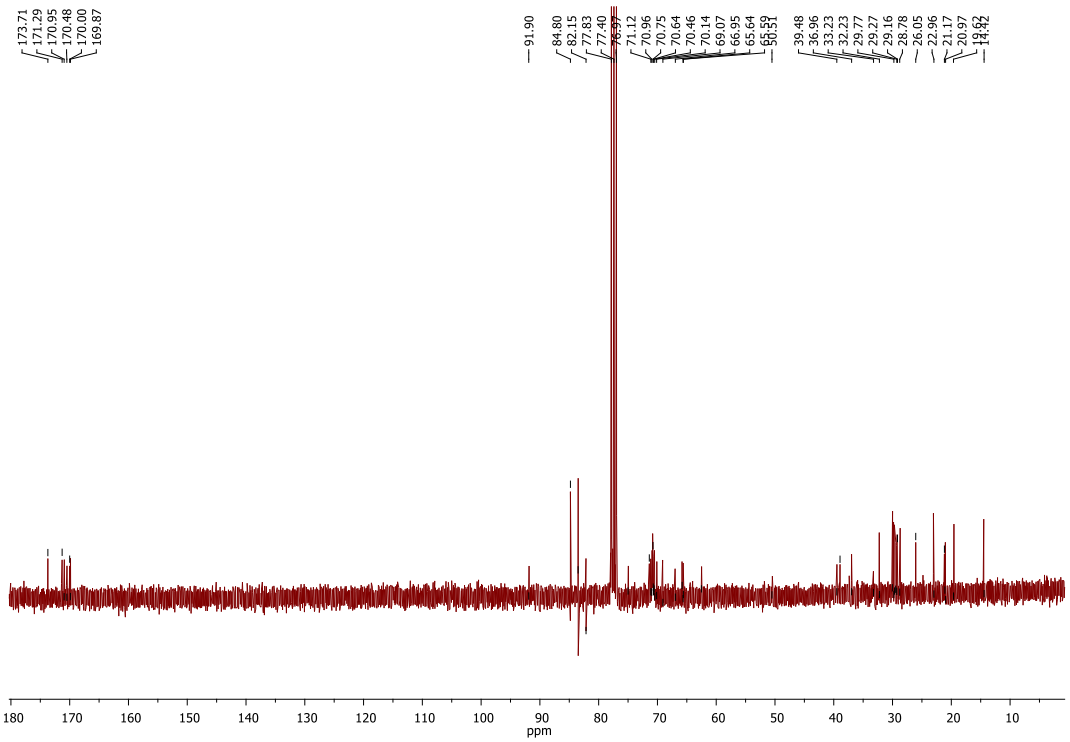


^{1}H-NMR, ^{13}C-NMR spectra of compound 19

^{1}H-NMR of 19

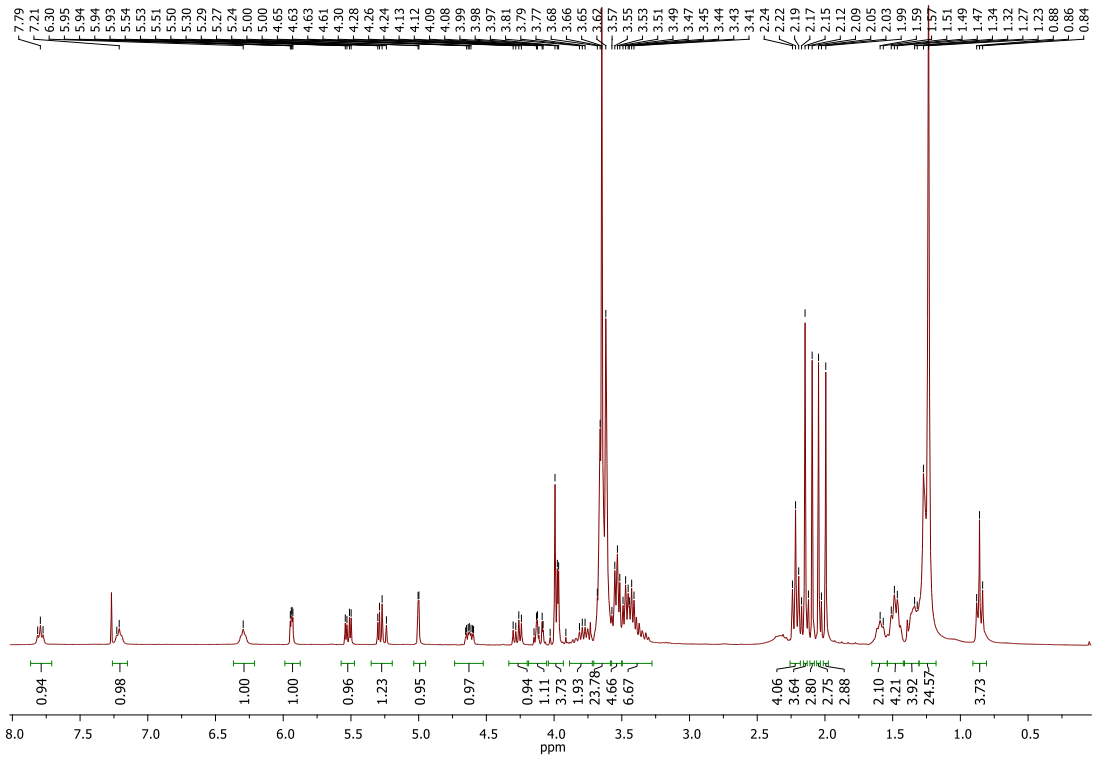


^{13}C-NMR of 19

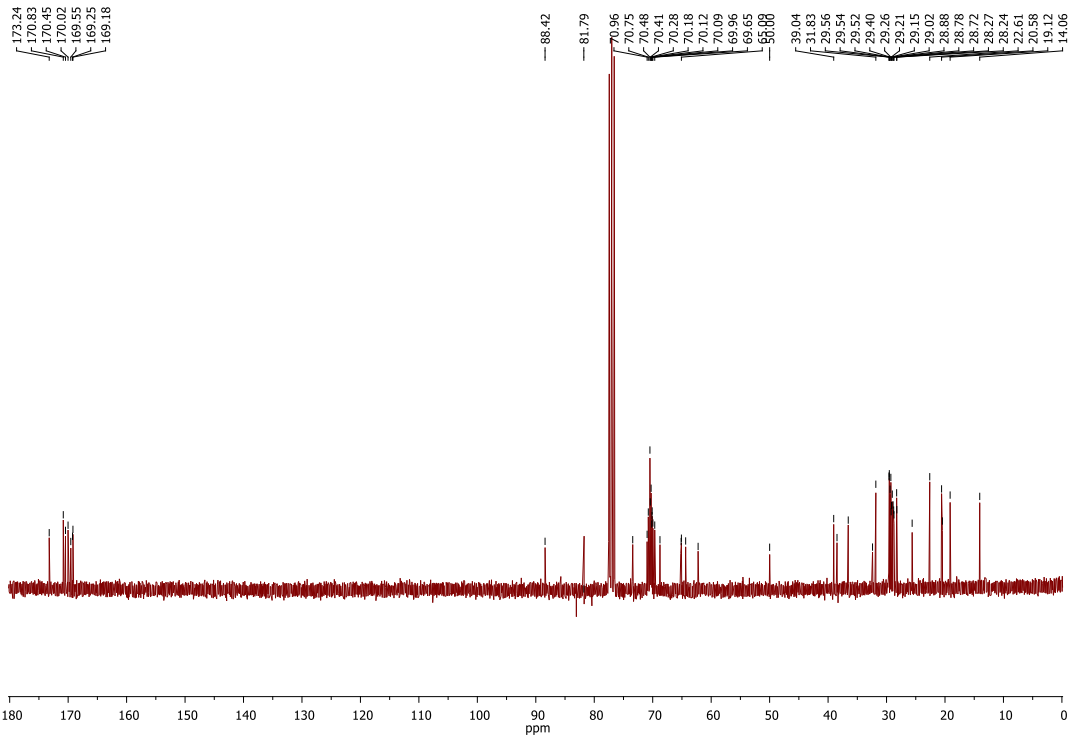


^{1}H-NMR, ^{13}C-NMR spectra of compound 20

^{1}H-NMR of 20

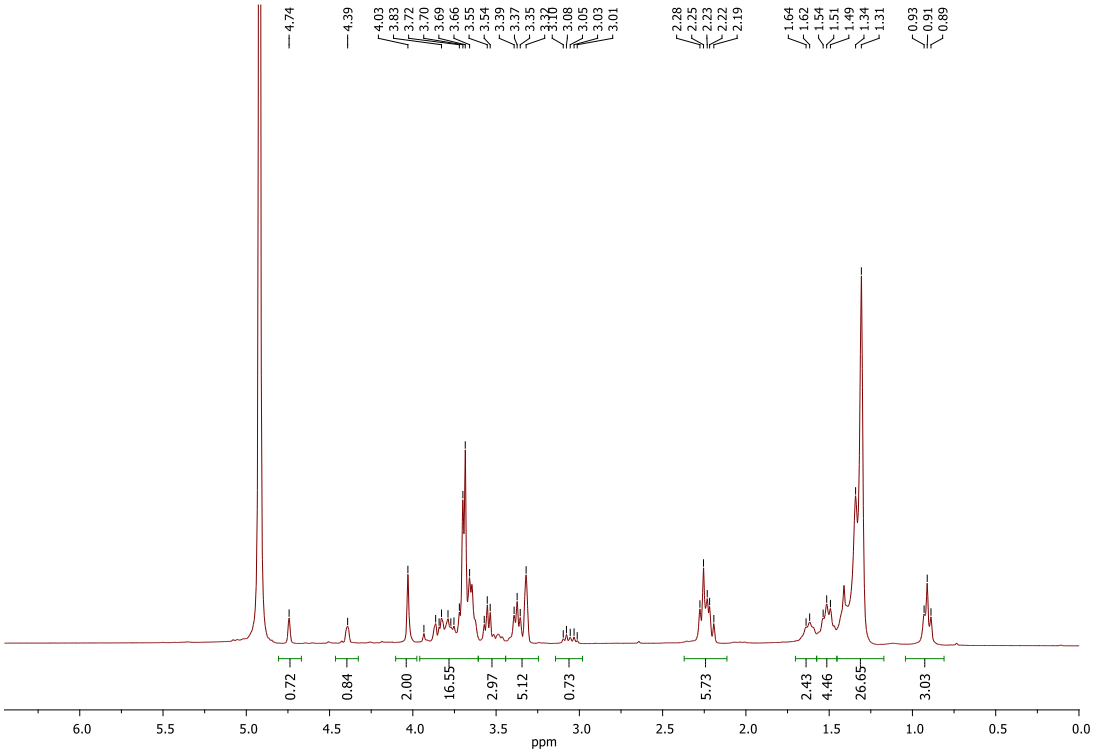


^{13}C-NMR of 20

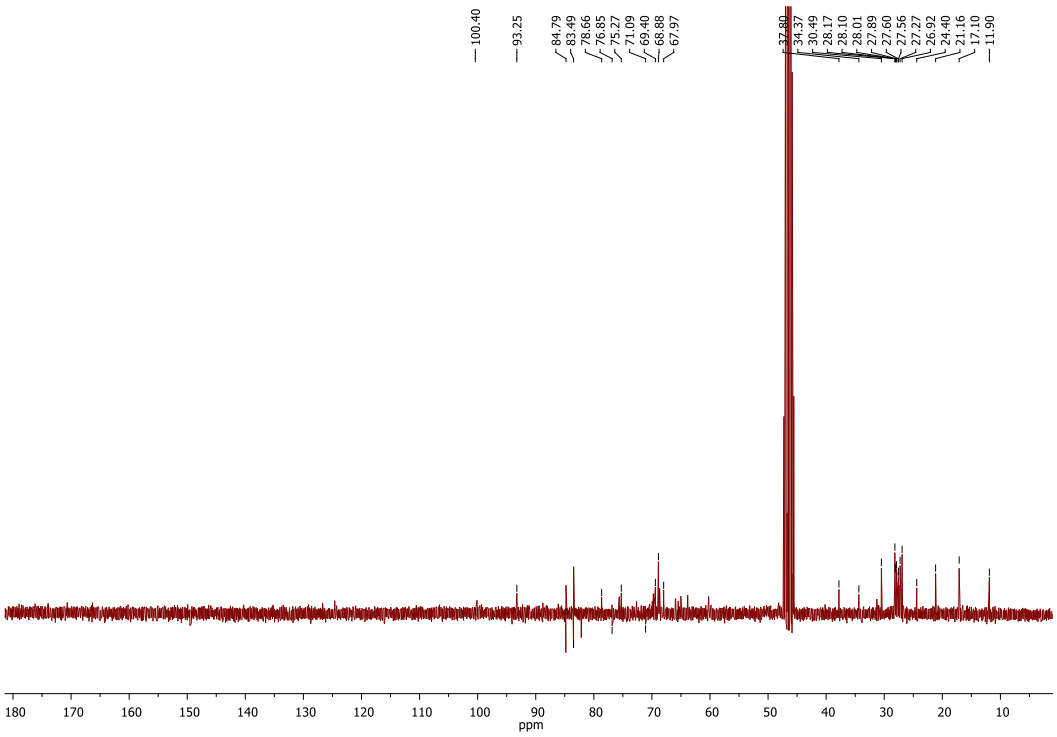


^{1}H-NMR, ^{13}C-NMR and HRMS spectra of compound 3

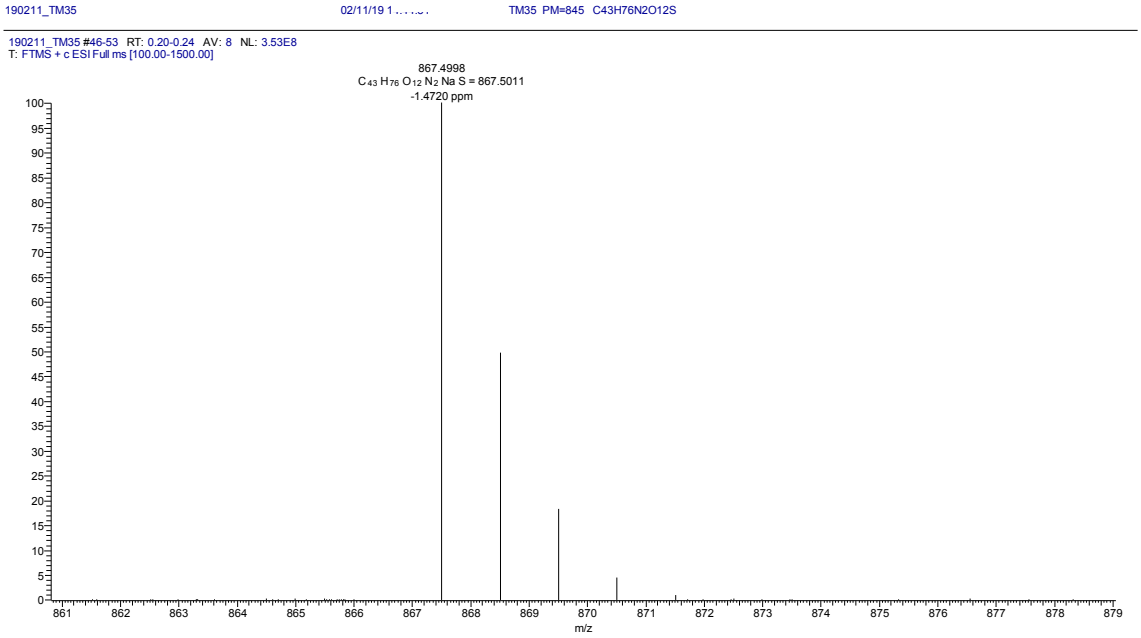
^{1}H-NMR of 3



^{13}C-NMR of 3

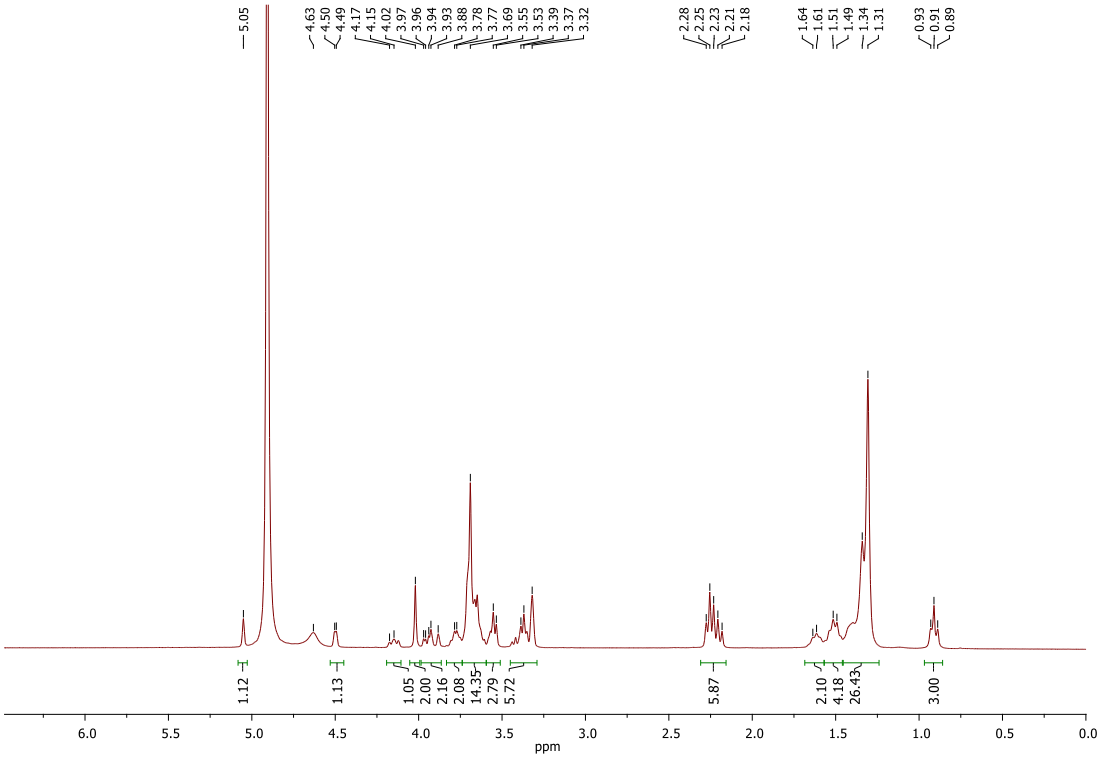


HRMS of 3

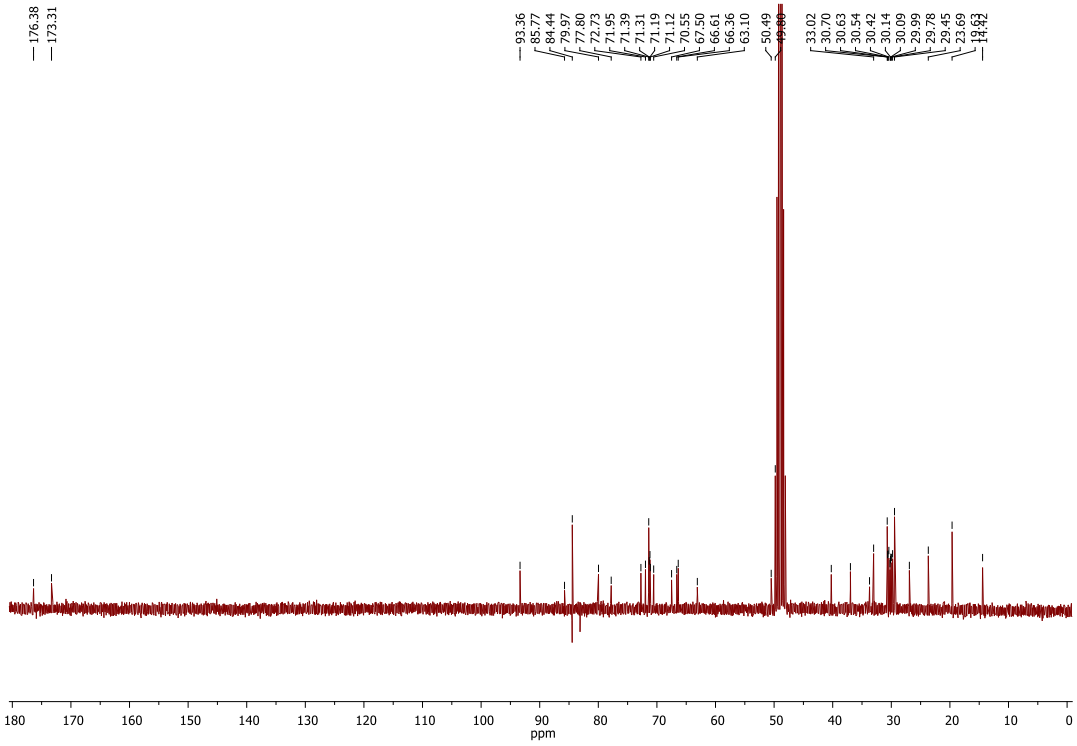


^{1}H-NMR, ^{13}C-NMR and HRMS spectra of compound 4

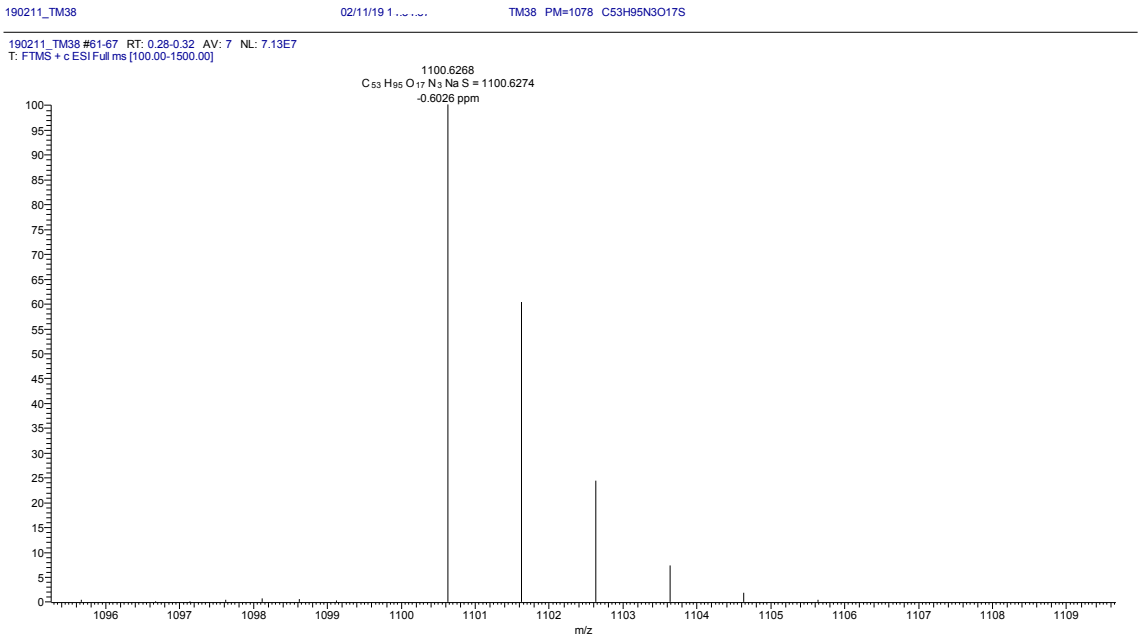
^{1}H-NMR of 4



^{13}C-NMR of 4

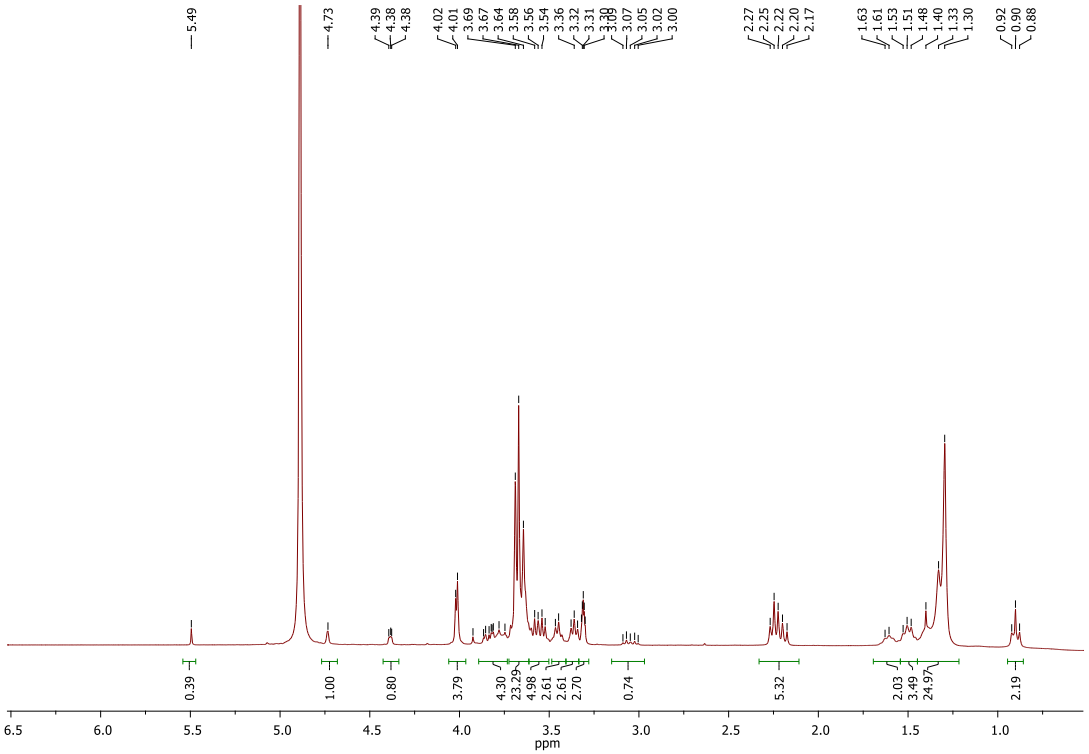


HRMS of 4

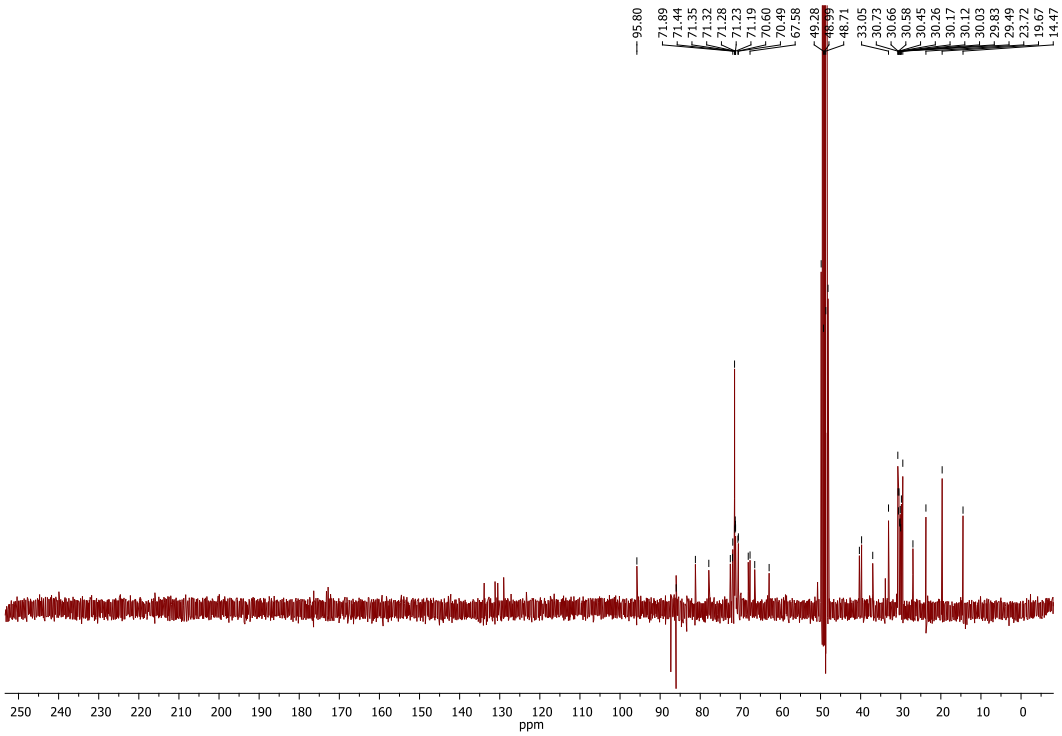


^{1}H-NMR, ^{13}C-NMR and HRMS spectra of compound 5

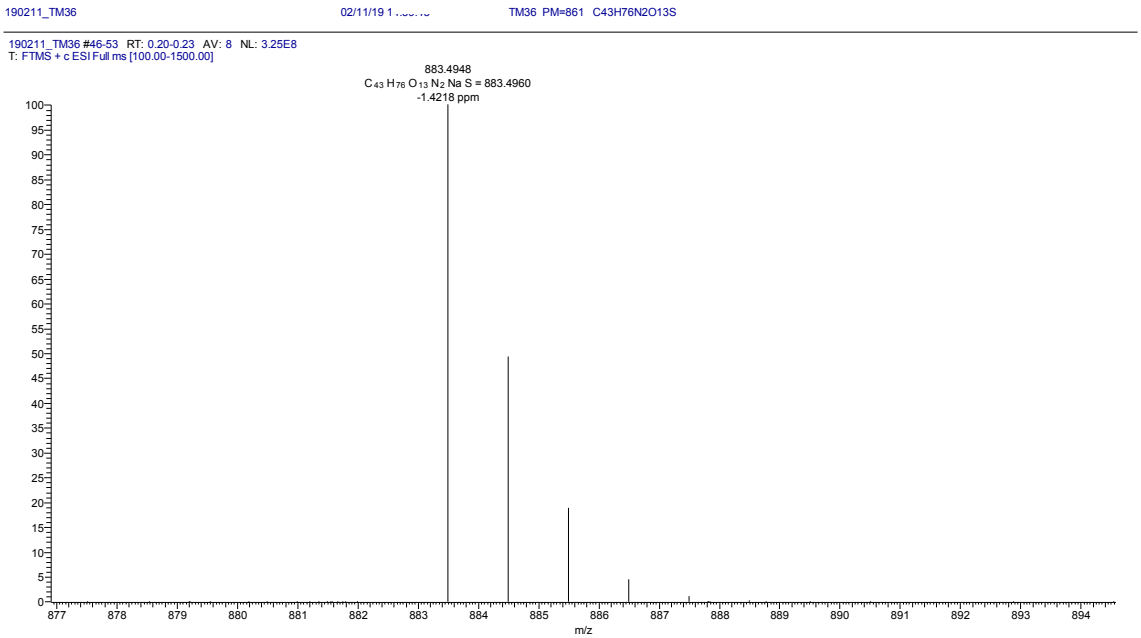
^{1}H-NMR of 5



^{13}C-NMR of 5

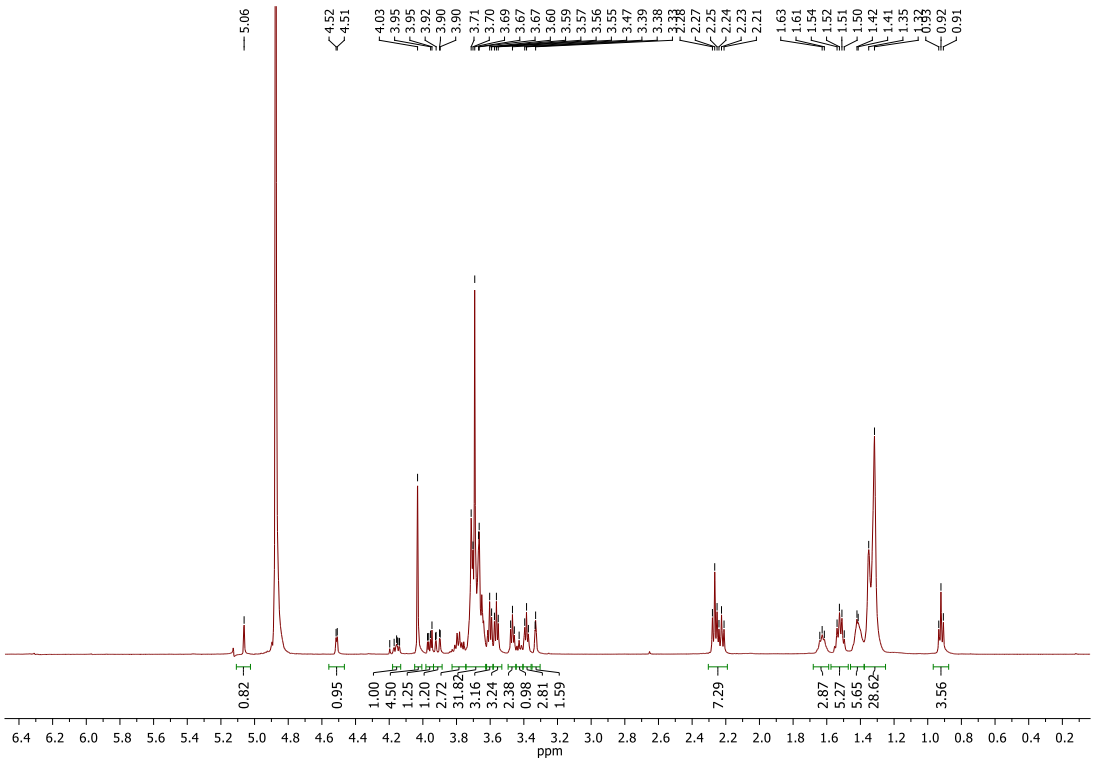


HRMS of 5

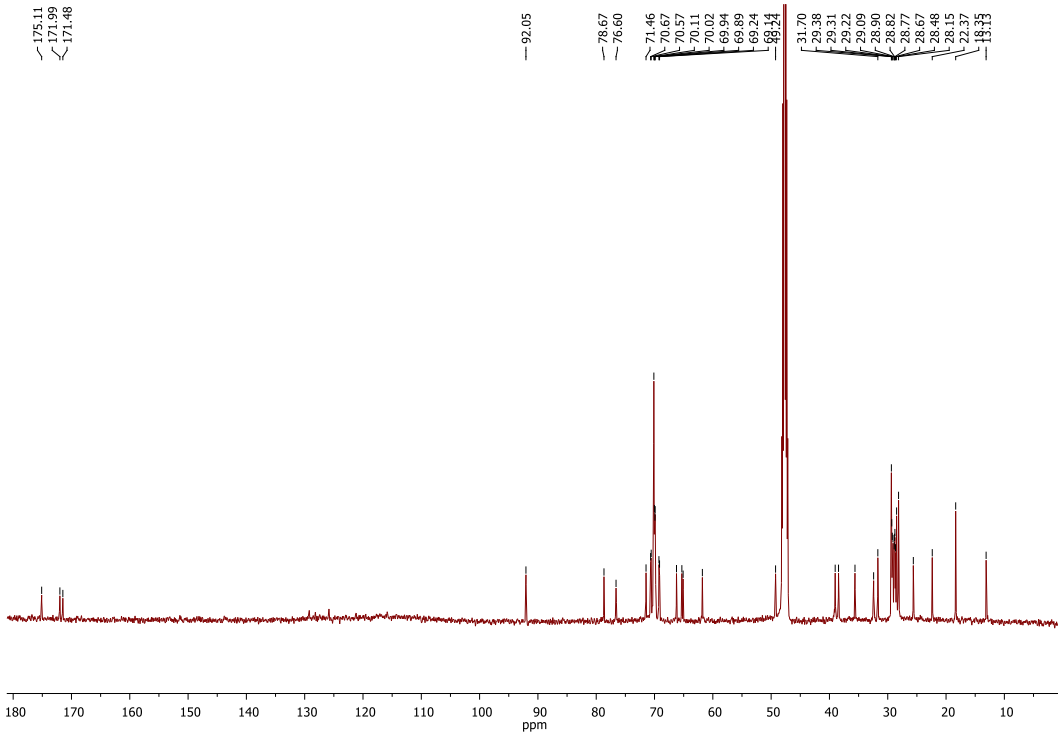


^{1}H-NMR, ^{13}C-NMR and HRMS spectra of compound 6

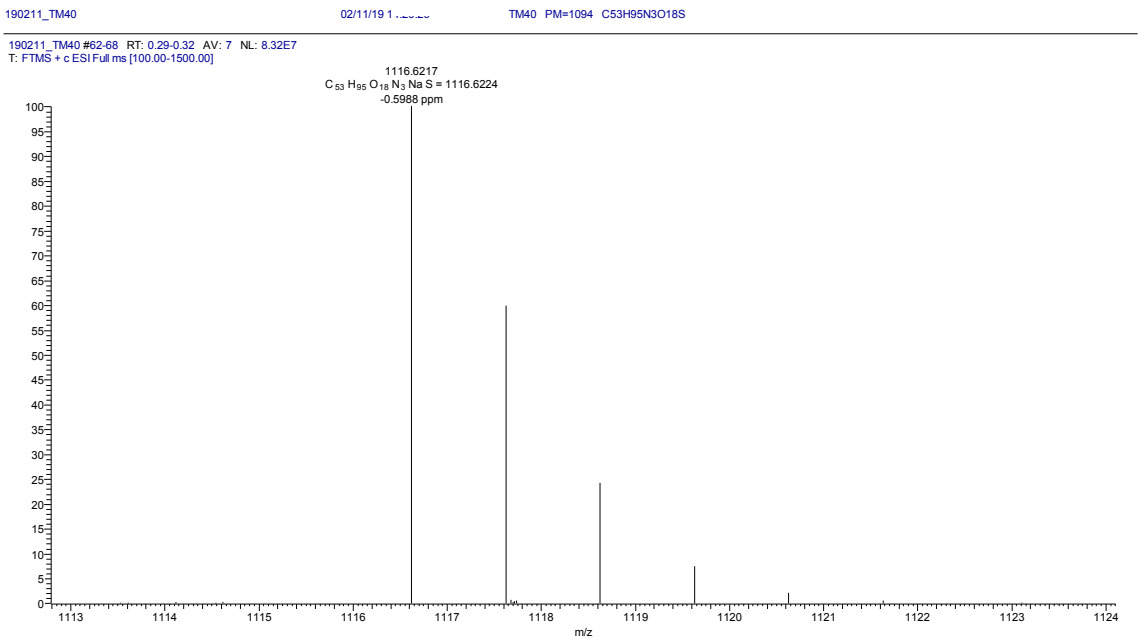
^{1}H-NMR of 6



^{13}C-NMR of 6



HRMS of 6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TM40 PM=1094 C53H95N3O18S
190211_TM40 #62-68 RT: 0.29-0.32 AV: 7 NL: 8.32E7
T: FTMS + c ESI Full ms [100.00-1500.00]
1116.6217
C 53 H 95 O 18 N 3 Na S = 1116.6224
-0.5988 ppm
m/z

Stability studies of photopolymerized PMIC1

A- Stability over time test

Once the **pMic1** micelles were formed in water, aliquots were taken at 1day, 3 days and one week and analysed by DLS and TEM (Figure S1, A and B).

B- Dilution stability Test.

Once the **pMic1** micelles were formed in water at concentration higher tan their CMC, they were lyophilized and then diluted to a final concentration 8 times lower that its CMC. DLS and TEM analyses (Figure S1, C and D), gave fairly uniform result and show no change in the size of the micelles.

C- Stability test in physiological medium:

Once the **pMic1** micelles were formed in water, they were lyophilized, re-suspended in physiological medium (DMEM 10% FBS) and analysed by DLS and TEM (Figure S1, E and F).

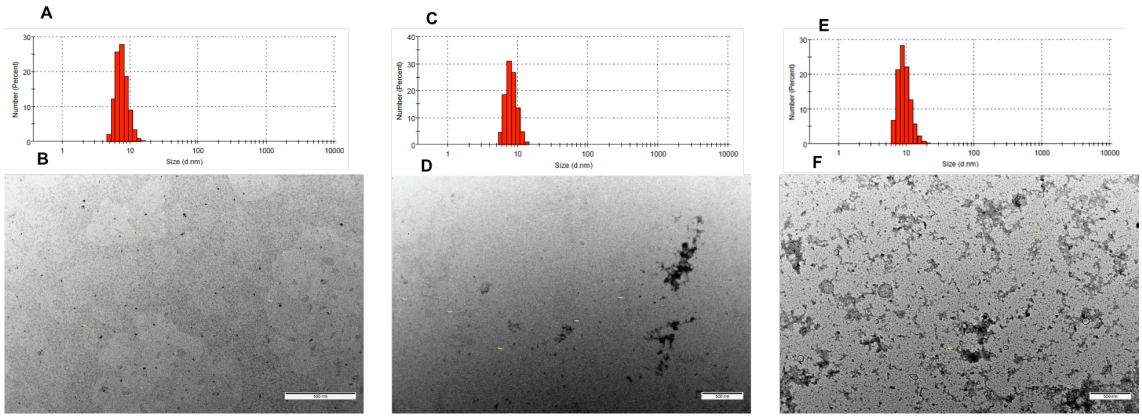


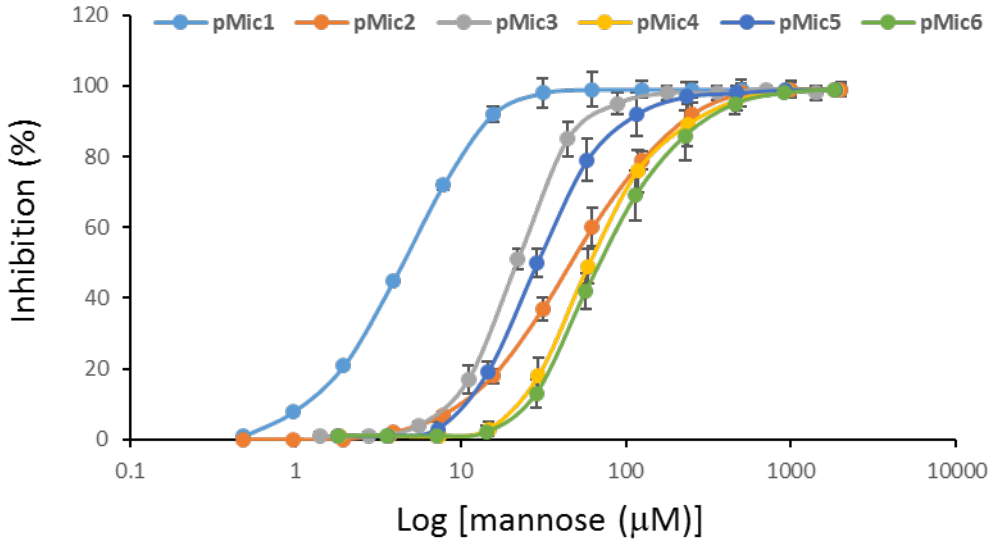
Figure S1: DLS (A) and TEM image (B) of **pMic1** after one week in water; DLS (C) and TEM image (D) of **pMic1** after lyophilisation and dilution at concentration 8 time lower than its CMC; DLS (E) and TEM image of **pMic1** in physiological medium.

ELLA Raw Data

PMIC1			PMIC2		
CONC. (μM)	Inh. (%)	SD (n = 3)	**CONC. (μM)**	Inh. (%)	SD (n = 3)
2000	99		**2000**	99	1.7
1000	99		**1000**	99	2.1
500	99		**500**	98	3.2
250	99		**250**	92	3.3
125	99		**125**	79	5.8
62.5	99		**62.5**	60	6.2
31.25	98		**31.25**	37	3.2
15.62	92		**15.62**	18	3
7.81	72		**7.81**	7	0.8
3.9	45		**3.9**	2	0.2
1.95	21		**1.95**	0	0
0.97	8		**0.97**	0	0
0.48	1		**0.48**	0	0

PMIC3			PMIC4		
CONC. (μM)	Inh. (%)	SD (n = 3)	**CONC. (μM)**	Inh. (%)	SD (n = 3)
1421.00	98	2	**1885**	99	1
710.50	99	1	**942.5**	99	1
355.25	98	2	**471.25**	96	3
177.62	98	2	**235.62**	89	6
88.80	95	3	**117.81**	76	6
44.40	85	5	**58.91**	49	5
22.20	51	3	**29.45**	18	5
11.10	17	4	**14.73**	3	2
5.55	4	1	**7.36**	1	1
2.77	1	1	**3.68**	1	1
1.39	1	1	**1.84**	1	1

PMIC5			PMIC6		
CONC. (µM)	Inh. (%)	SD (n = 3)	**CONC. (µM)**	Inh. (%)	SD (n = 3)
1858	99	1	**1829**	99	1
929	99	1	**914.5**	98	1
464.5	98	2	**457.25**	95	3
232.25	97	4	**228.62**	86	7
116.12	92	6	**114.31**	69	7
58.06	79	6	**57.16**	42	5
29.03	50	4	**28.58**	13	4
14.51	19	3	**14.29**	2	2
7.26	3	2	**7.14**	1	1
3.62	1	1	**3.57**	1	1
1.81	1	1	**1.79**	1	1



	IC_{50} (µM)	Rel. Potency
***MEMAN* (CONTROL)**	1170	1
PMIC1	4	292
PMIC2	46	25
PMIC3	22	53
PMIC4	59	20
PMIC5	29	40
PMIC6	69	17

Cytotoxicity. MTT Assay Data

	% CELL VIABILITY (NM ± SEM)					IC_{50} (NM ± SEM)
	1 nM	10 nM	100 nM	1000 nM	10000 nM	
DOCETAXEL	100,10±1,13	89,43±2,09	45,00±3,46	0,02±0,01	0,02±0,01	79,5±11,8
DOCETAXEL-PMIC1	98,52±1,53	0,05±0,01	0,03±0,01	0,02±0,01	0,02±0,01	3,1±0,1
PMIC1*	90,12±1,93	83,67±3,44	89,65±2,16	87,39±1,64	0,06±0,01	2680±70
DOCETAXEL-PMIC2	92,87±0,88	91,14±0,63	0,05±0,01	0,02±0,01	0,02±0,01	28,3±0,2
PMIC2*	76,03±1,23	81,04±4,78	81,42±1,71	104,57±1,47	84,18±0,20	>4600