

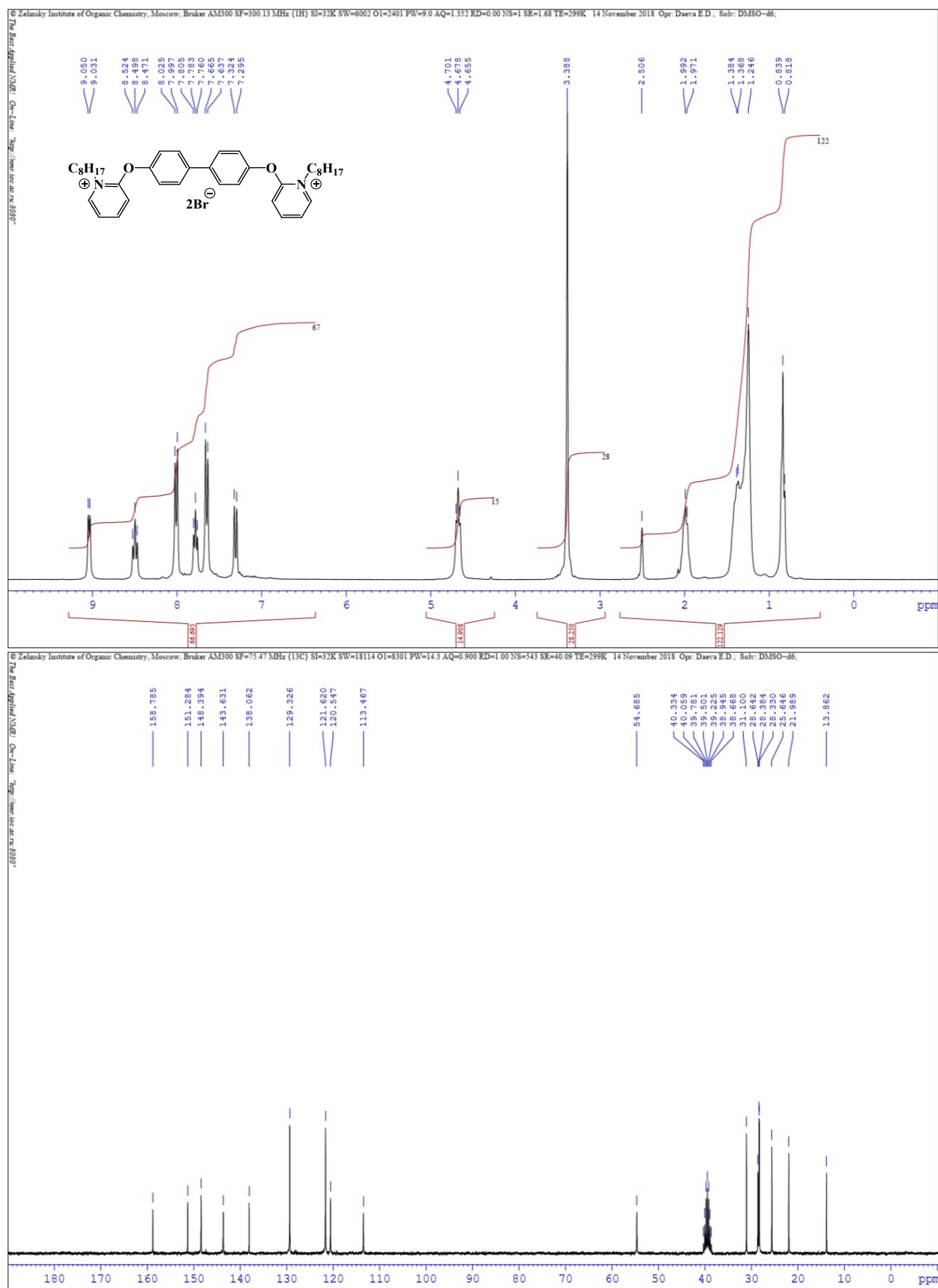
Electronic Supplementary Materials

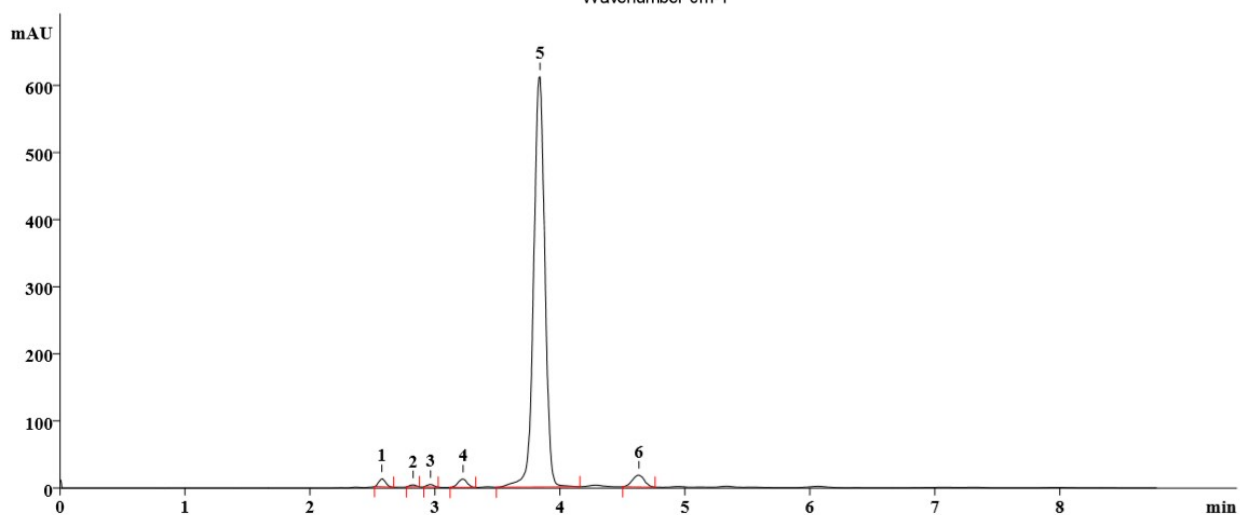
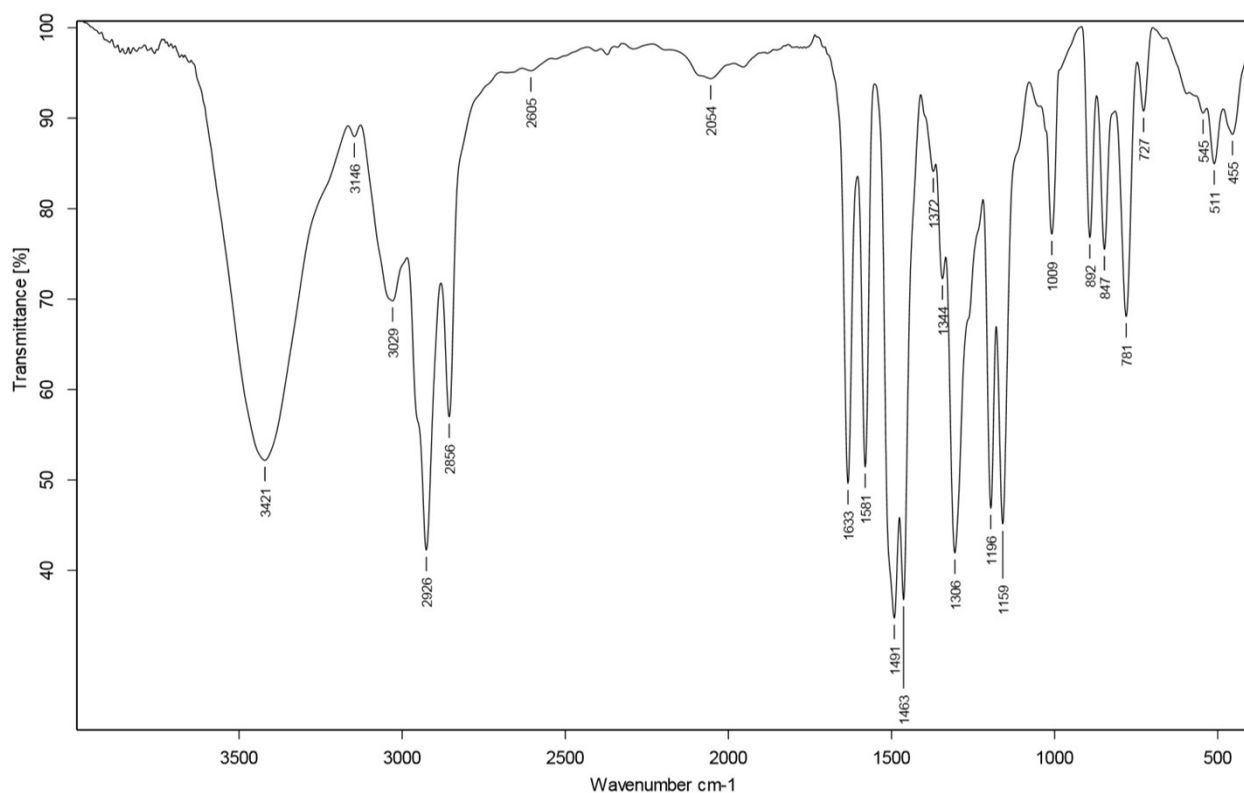
Investigations into the structure-activity relationship in gemini QACs based on biphenyl and oxydiphenyl linker

Anatoly N. Vereshchagin,* Nikita A. Frolov, Valeria Yu. Konyuhova, Ekaterina A. Kapelistaya, Karl A. Hansford, and Mikhail P. Egorov

NMR (¹H, ¹³C), FT-IR and HPLC Spectra

3, 2BP4BO-8, Br

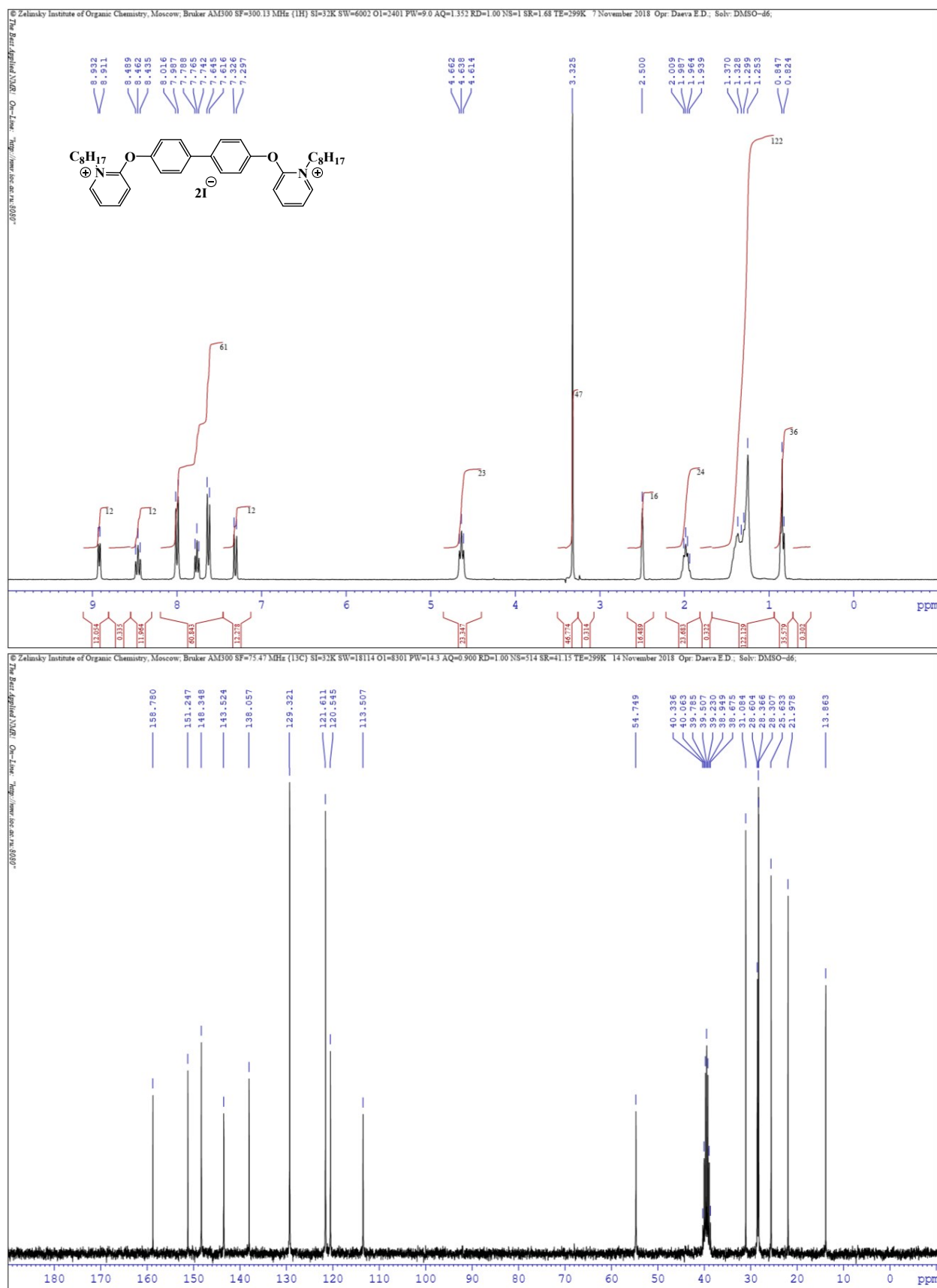


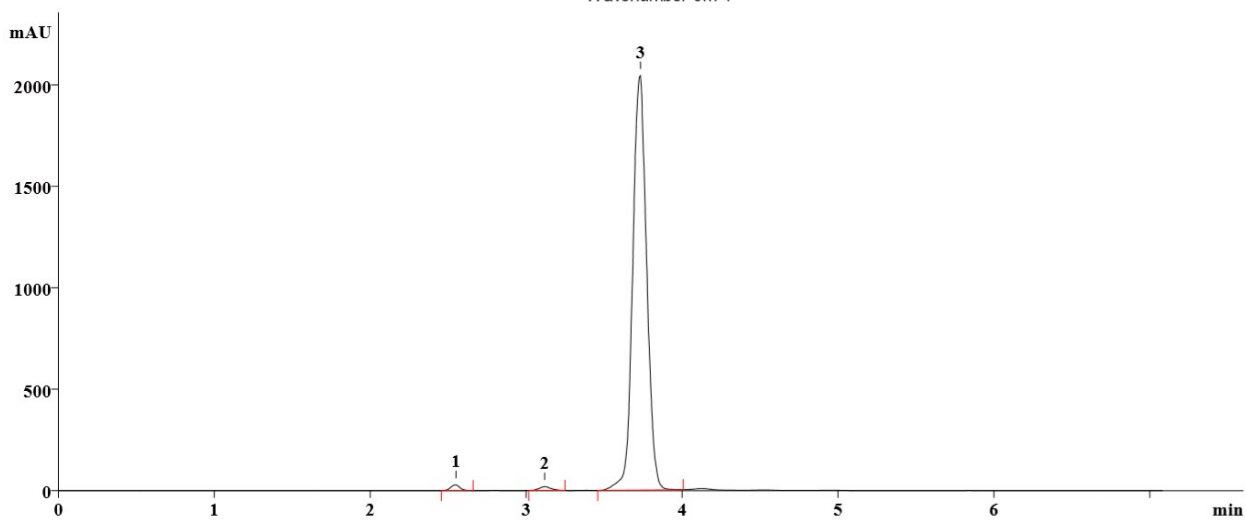
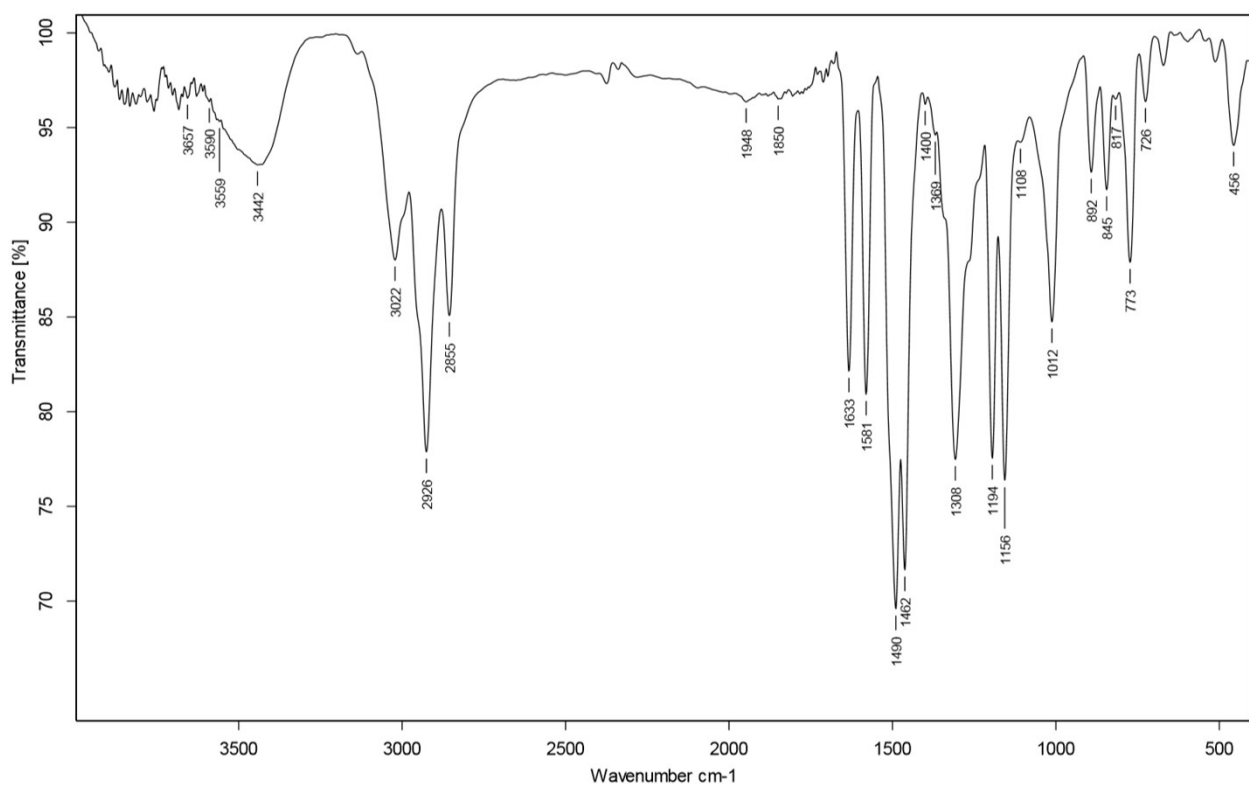


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	2,58	45,217	11,846	0,0629	1,117	BB :
2	2,82	9,683	2,747	0,0581	0,239	BB :
3	2,97	13,578	3,612	0,0625	0,335	BB :
4	3,22	63,039	12,424	0,0794	1,557	BB :
5	3,84	3799,584	611,866	0,0958	93,870	BB :
6	4,63	116,628	17,370	0,107	2,881	BB :

4, 2BP4BO-8, I

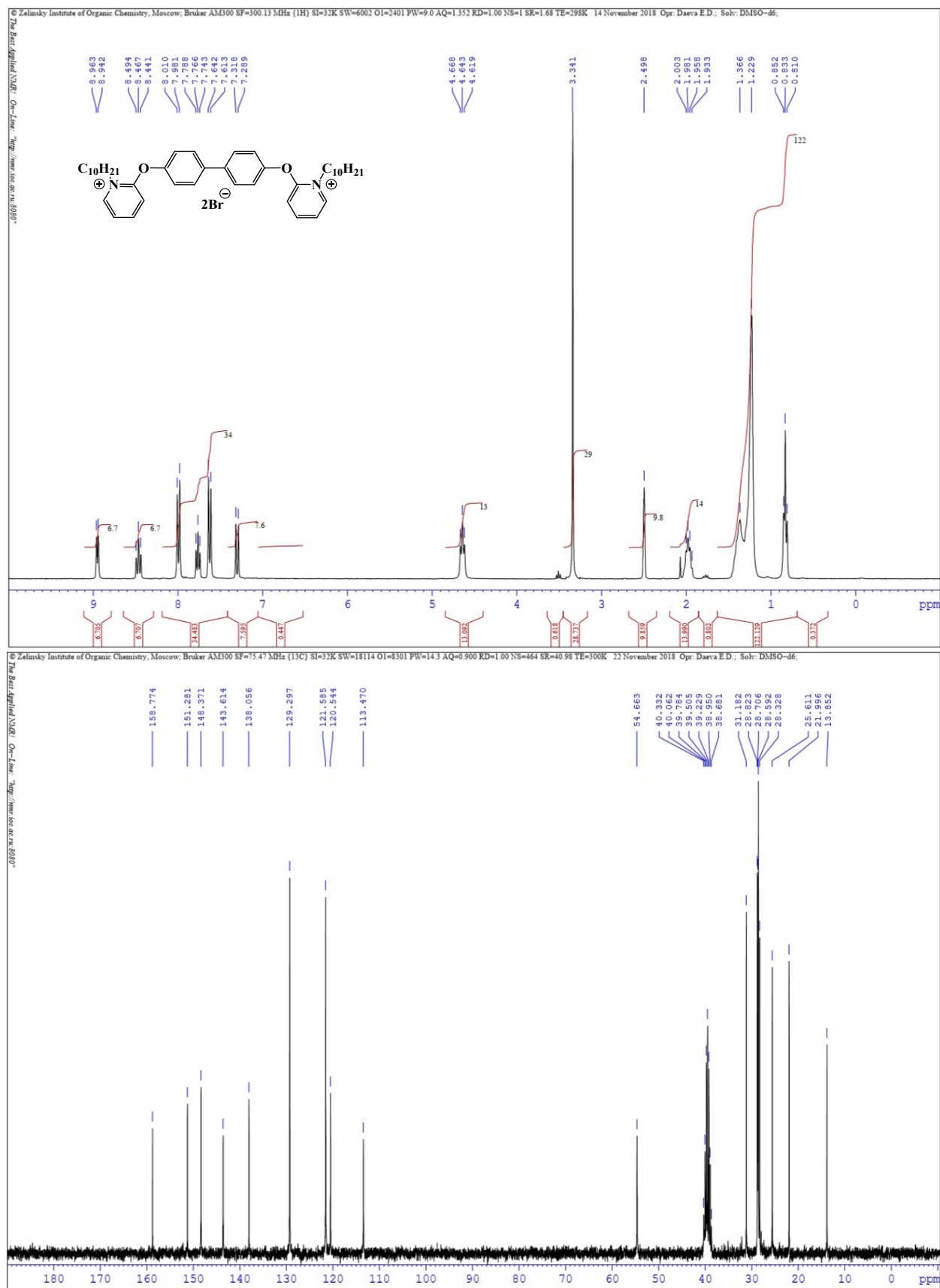


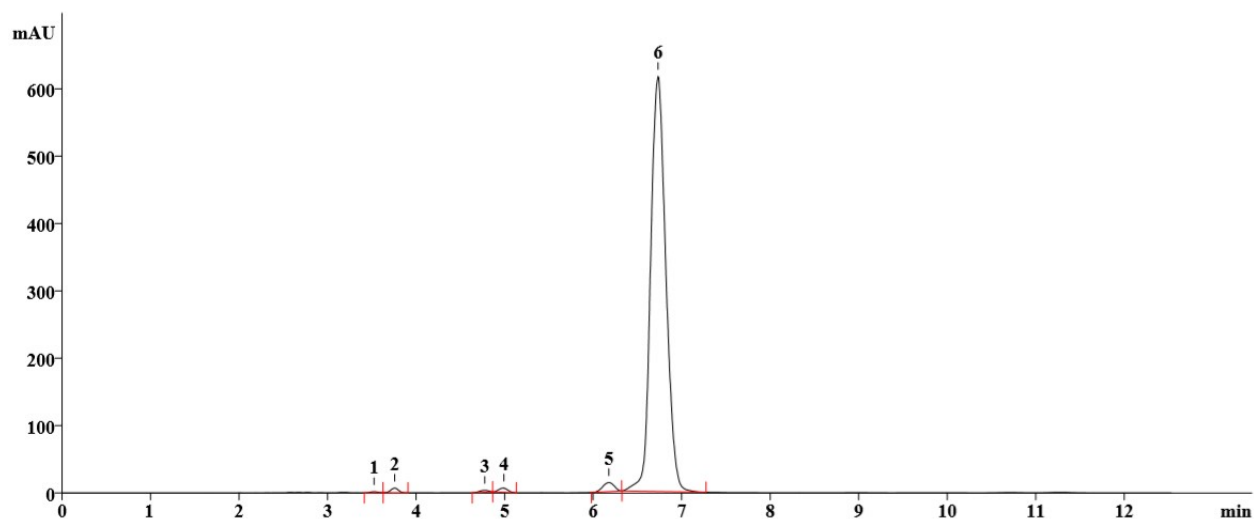
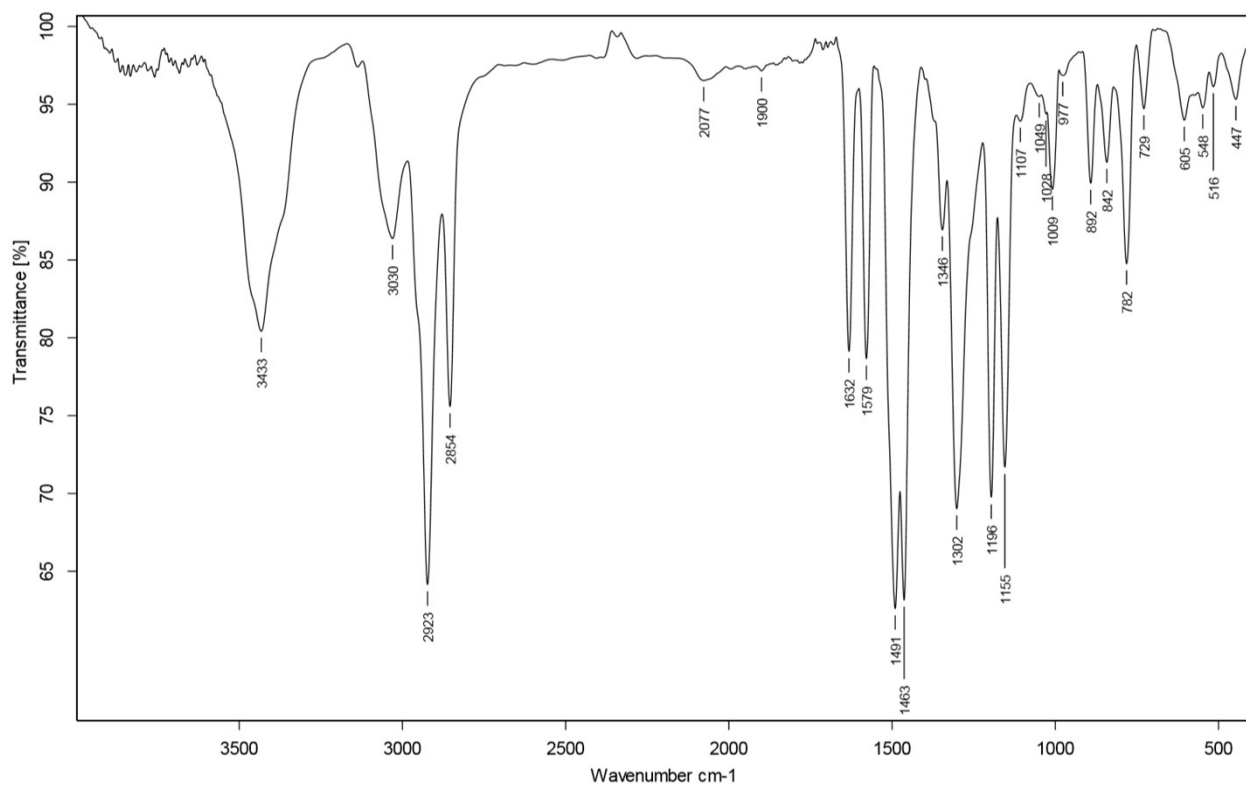


Peak table

<i>Peak</i>	<i>Retention min</i>	<i>Area</i>	<i>Height</i>	<i>Width h/2</i>	<i>Area%</i>	<i>Type</i>
1	2,55	114,127	27,770	0,0645	0,881	BB :
2	3,12	99,119	18,458	0,0818	0,765	BB :
3	3,73	12735,514	2042,445	0,0957	98,353	BB :

5, 2BP4BO-10, Br

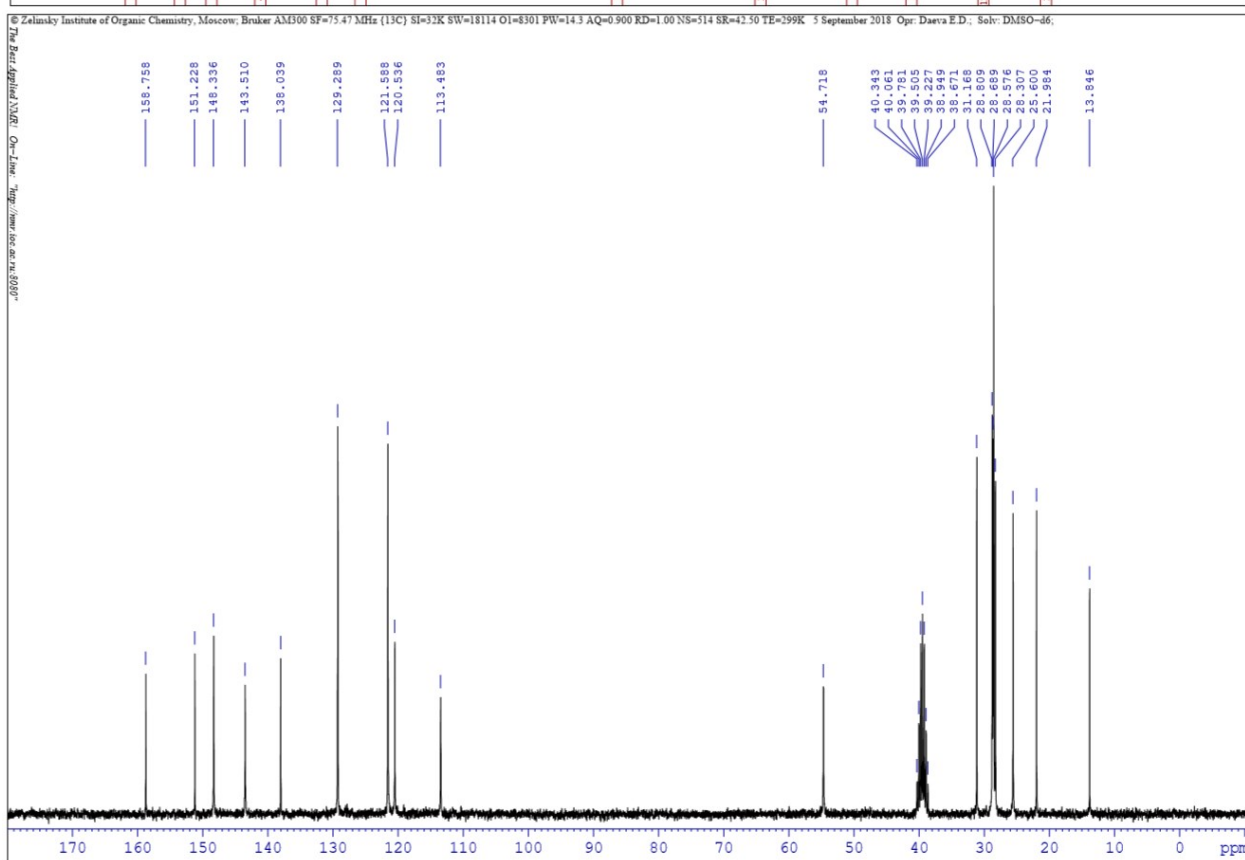
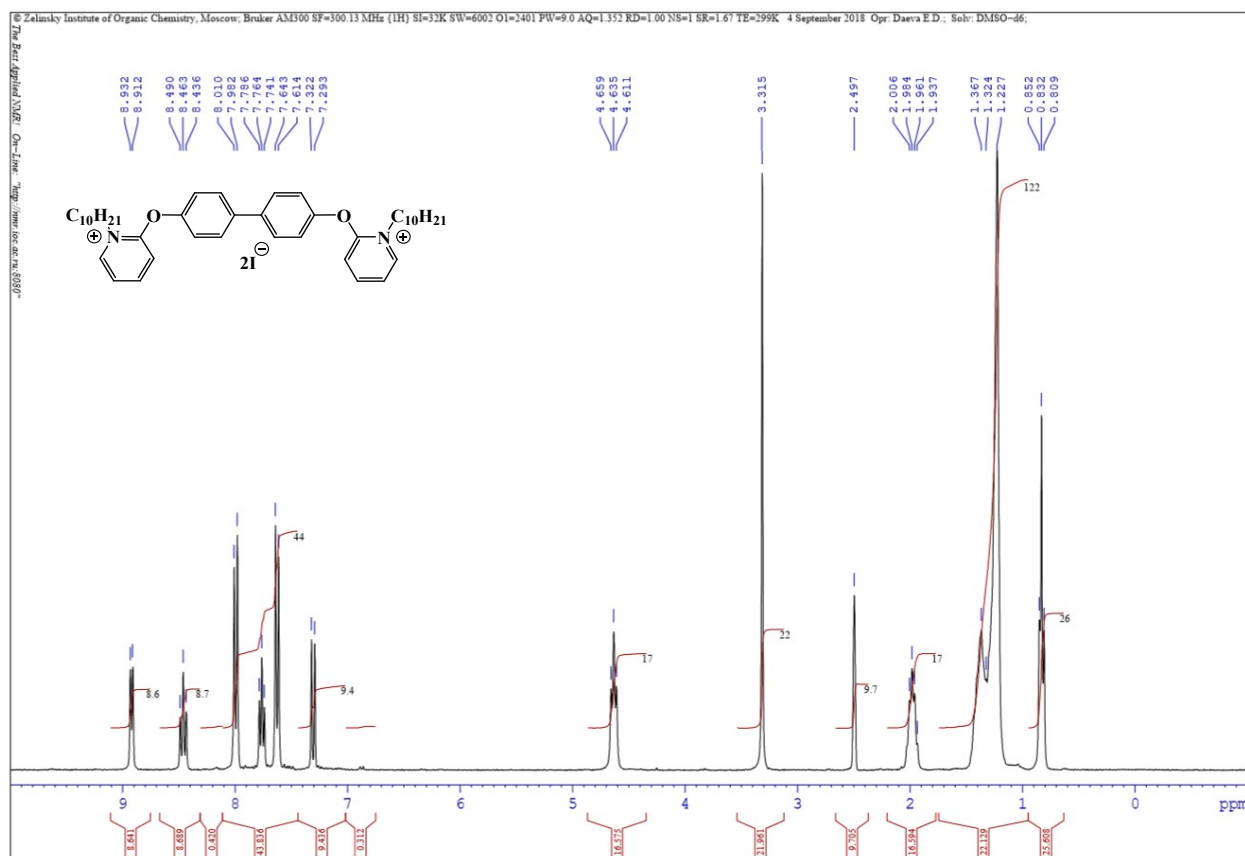


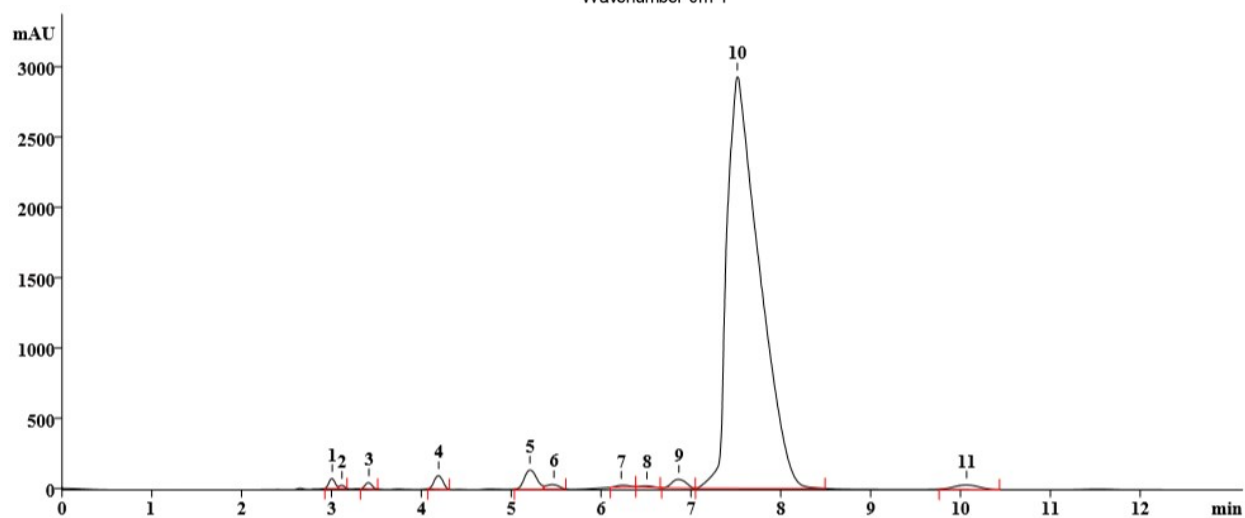
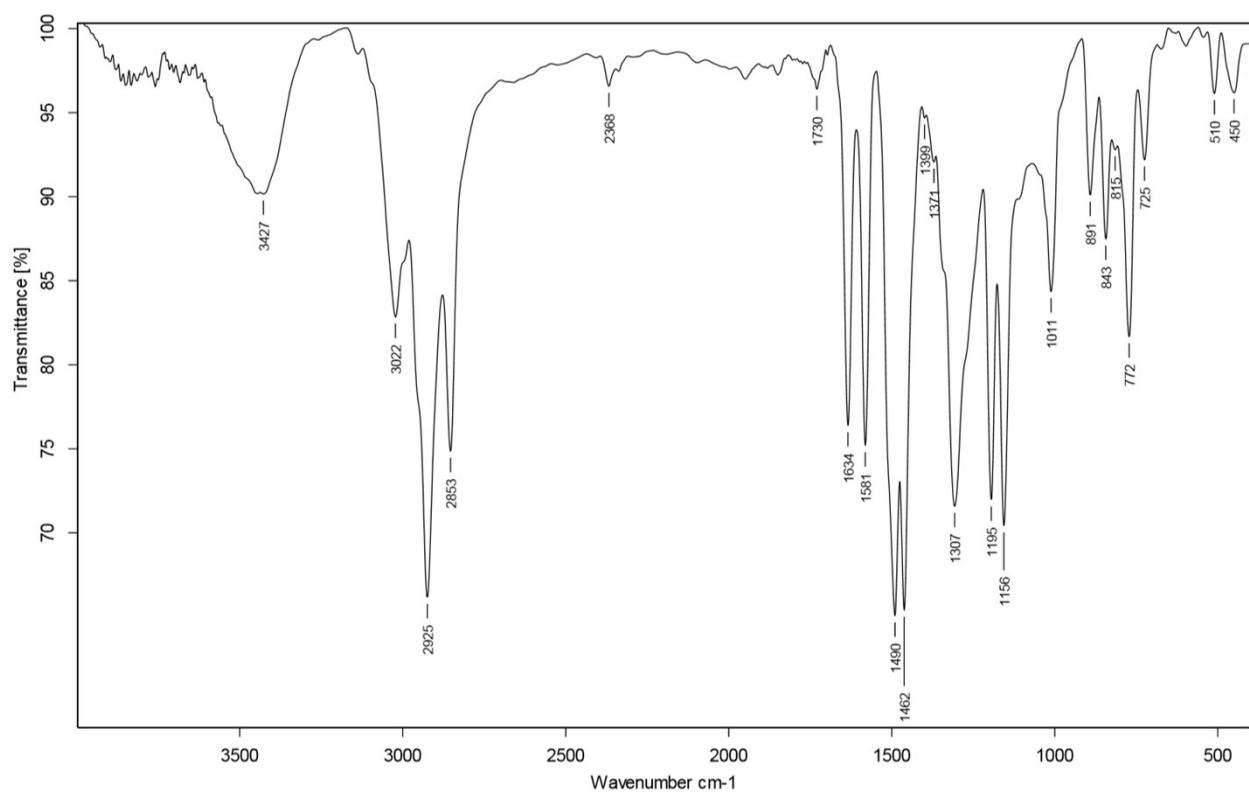


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	3,53	8,360	1,515	0,0886	0,110	BB :
2	3,76	41,018	6,836	0,0957	0,540	BB :
3	4,77	18,502	2,706	0,114	0,244	BB :
4	4,99	43,569	6,166	0,117	0,574	BB :
5	6,18	119,203	13,265	0,146	1,570	BB :
6	6,74	7361,074	615,807	0,184	96,962	BB :

6, 2BP4BO-10, I

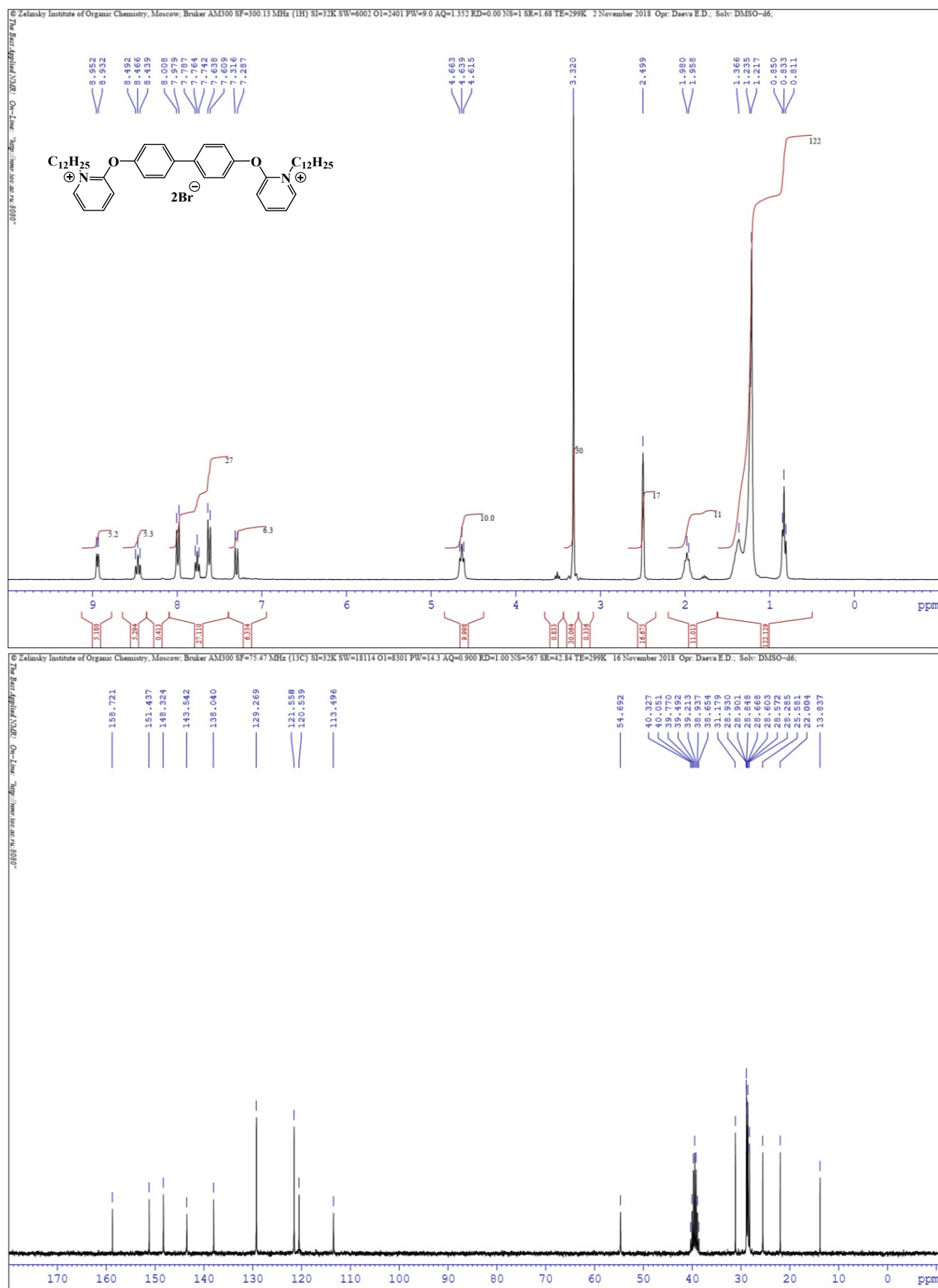


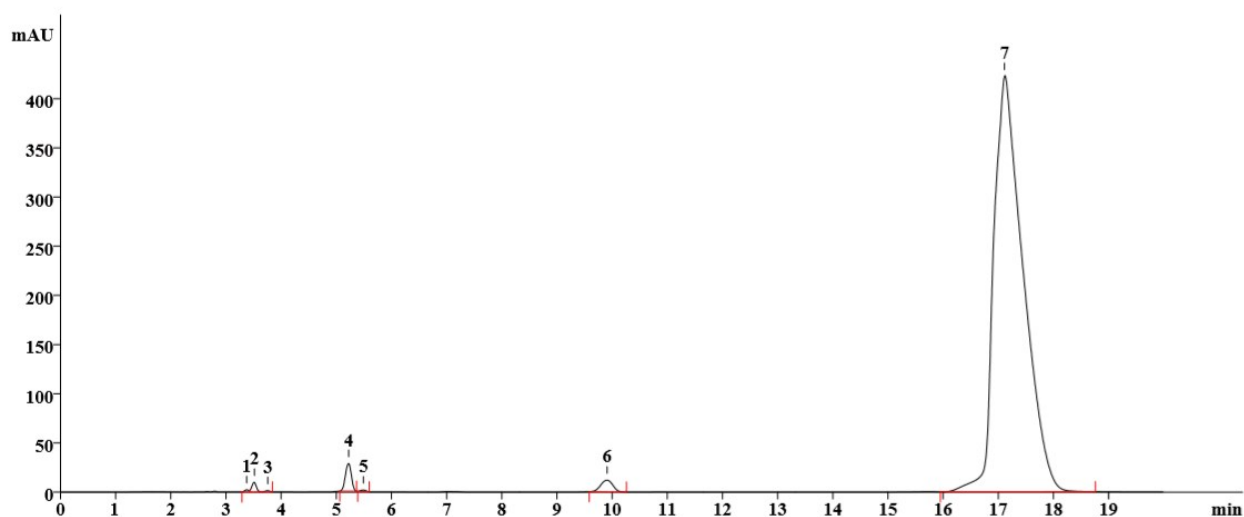
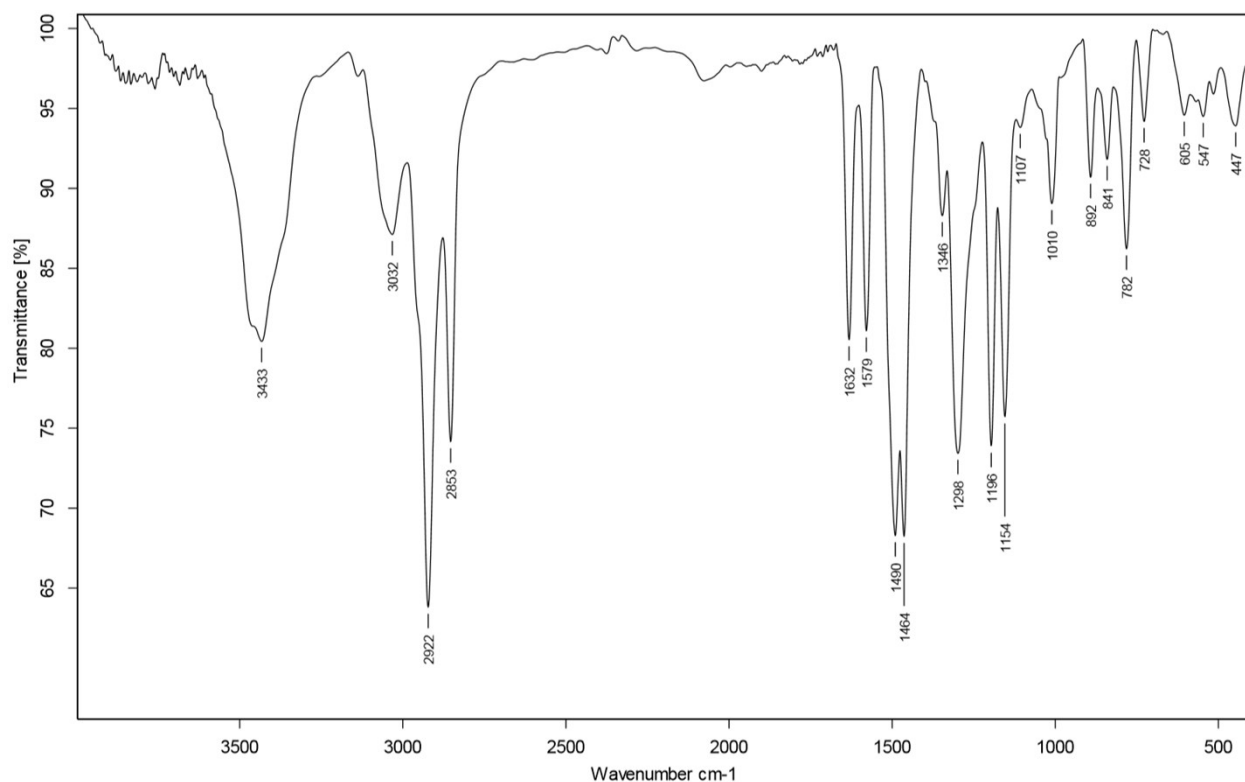


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	3,01	343,248	70,771	0,0783	0,443	BD :
2	3,12	92,594	22,236	0,0757	0,119	DB :
3	3,41	228,850	42,901	0,0860	0,295	BB :
4	4,19	648,035	94,876	0,112	0,836	BB :
5	5,21	1299,790	135,258	0,153	1,677	BD :
6	5,48	314,818	30,833	0,181	0,406	DB :
7	6,23	114,119	12,382	0,155	0,147	BB :
8	6,51	76,834	8,378	0,158	0,0991	BB :
9	6,86	672,870	61,565	0,181	0,868	BB :
10	7,52	73090,901	2925,584	0,401	94,320	BB :
11	10,07	610,738	31,747	0,315	0,788	BB :

7, 2BP4BO-12, Br

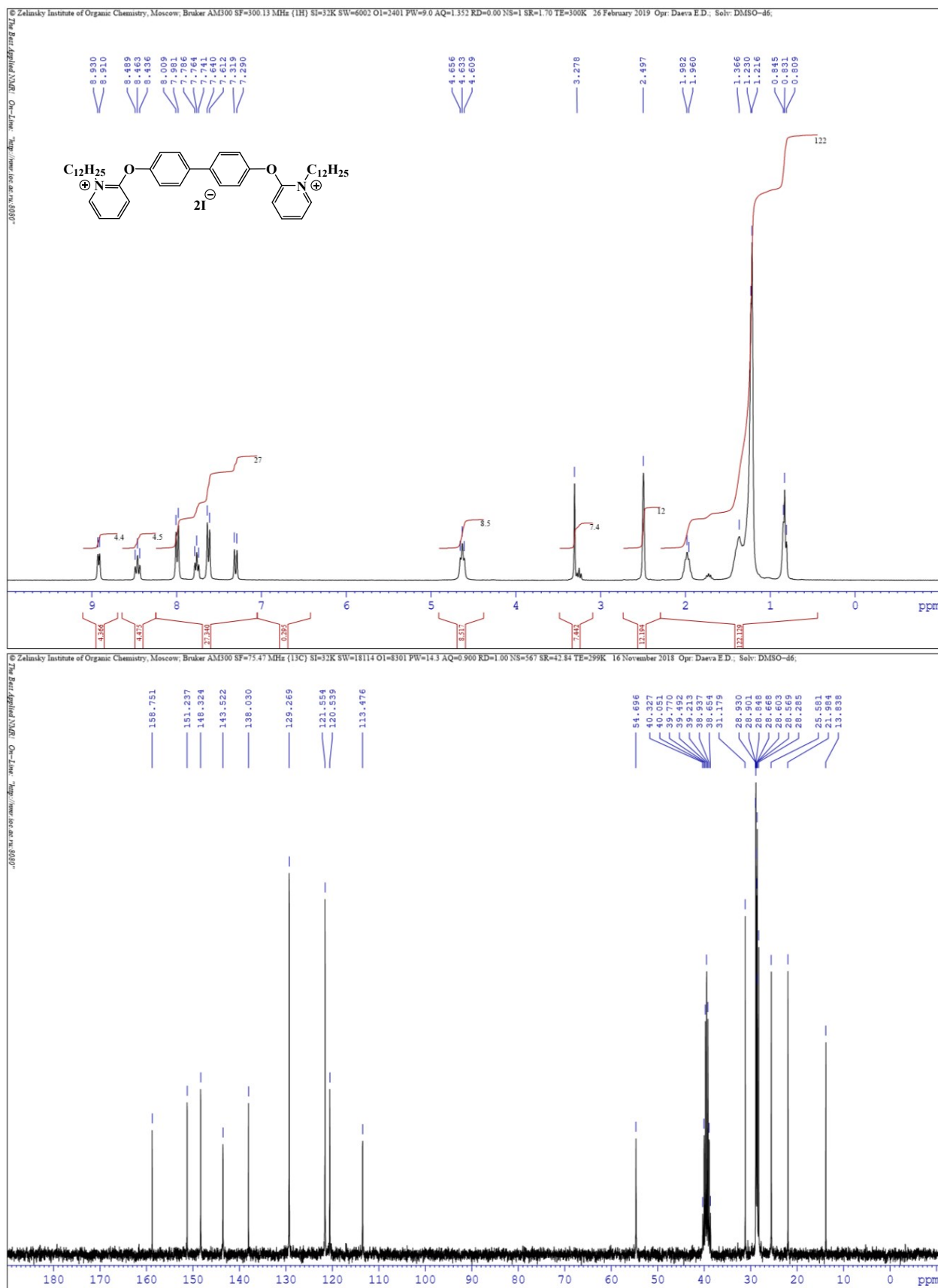


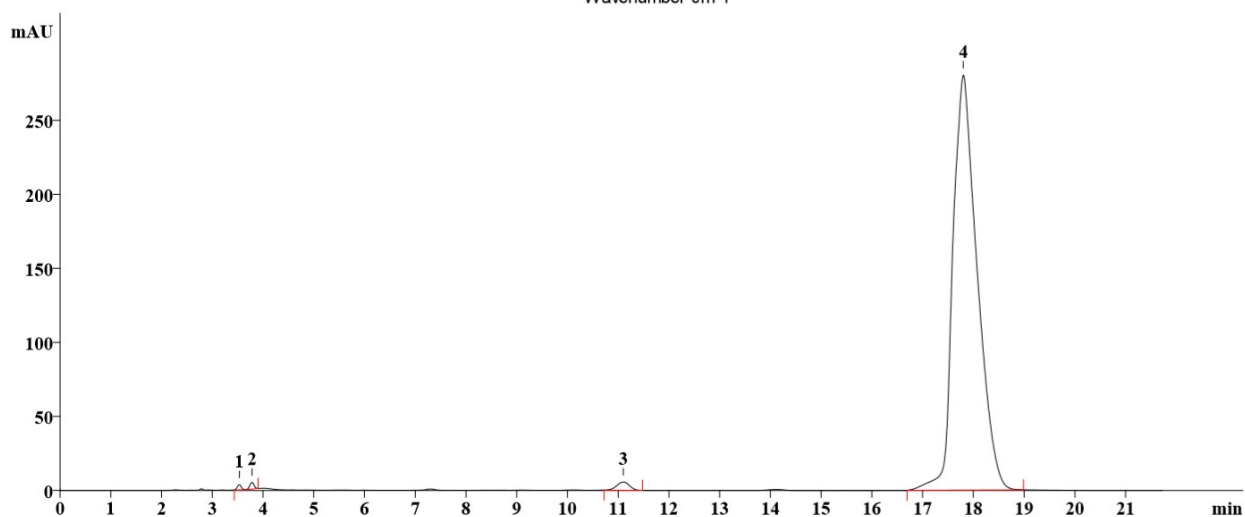
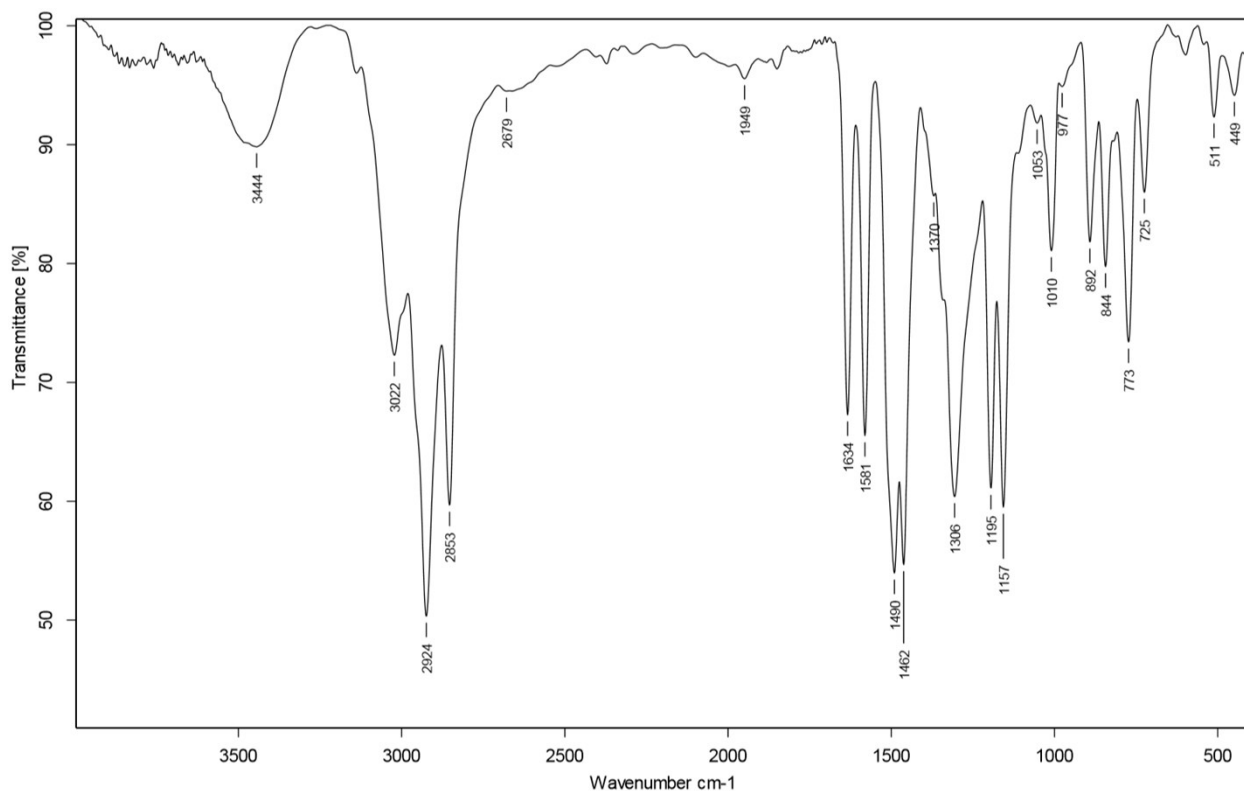


Peak table

<i>Peak</i>	<i>Retention min</i>	<i>Area</i>	<i>Height</i>	<i>Width h/2</i>	<i>Area%</i>	<i>Type</i>
1	3,38	10,884	2,093	0,0948	0,0677	BD :
2	3,51	55,463	9,714	0,0911	0,345	DD :
3	3,75	7,843	1,244	0,0942	0,0488	DB :
4	5,22	209,805	27,943	0,121	1,305	BB :
5	5,49	9,669	1,412	0,115	0,0602	BB :
6	9,91	180,969	11,854	0,244	1,126	BB :
7	17,12	15599,212	423,054	0,585	97,047	BB :

8, 2BP4BO-12, I

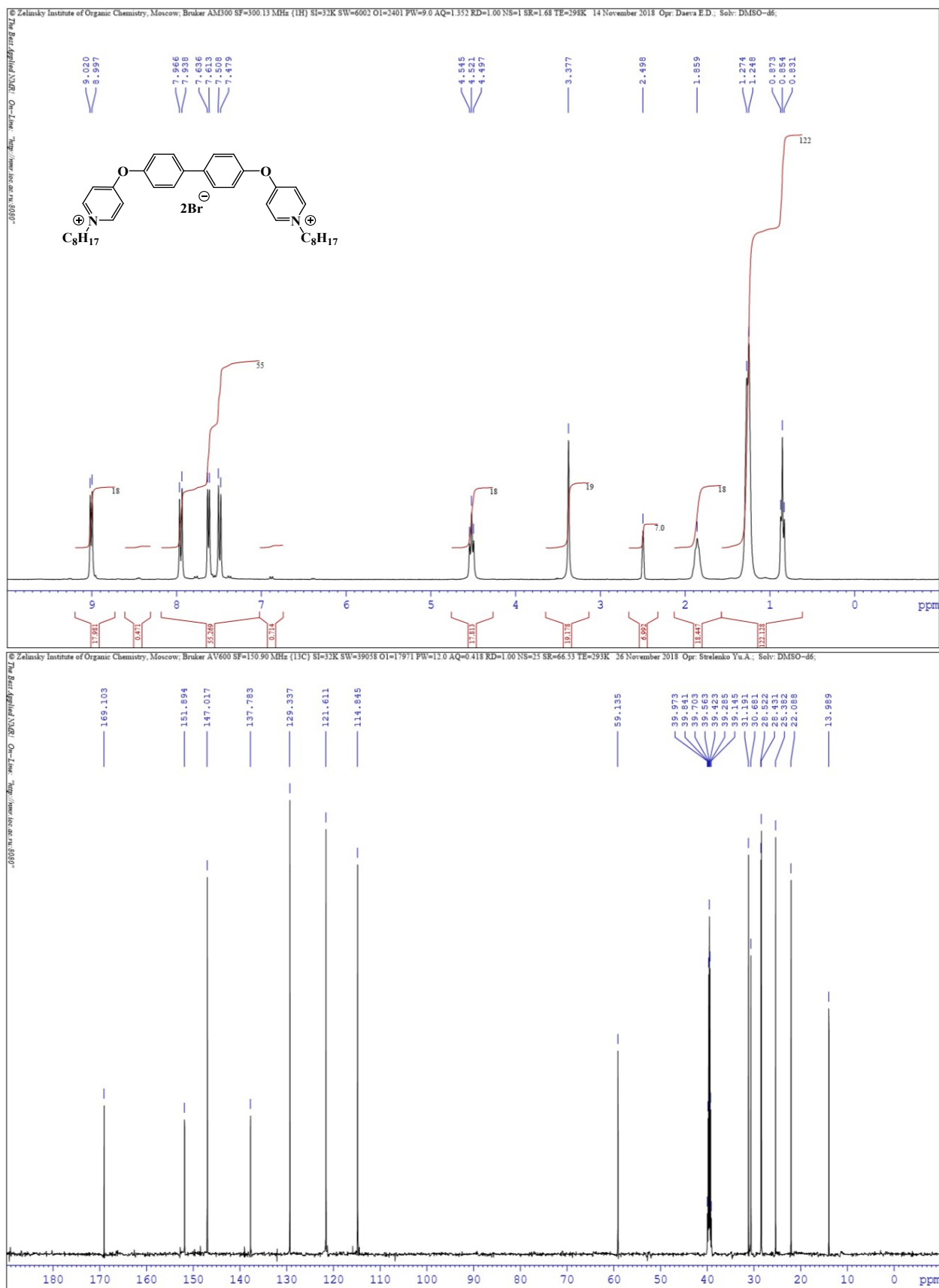


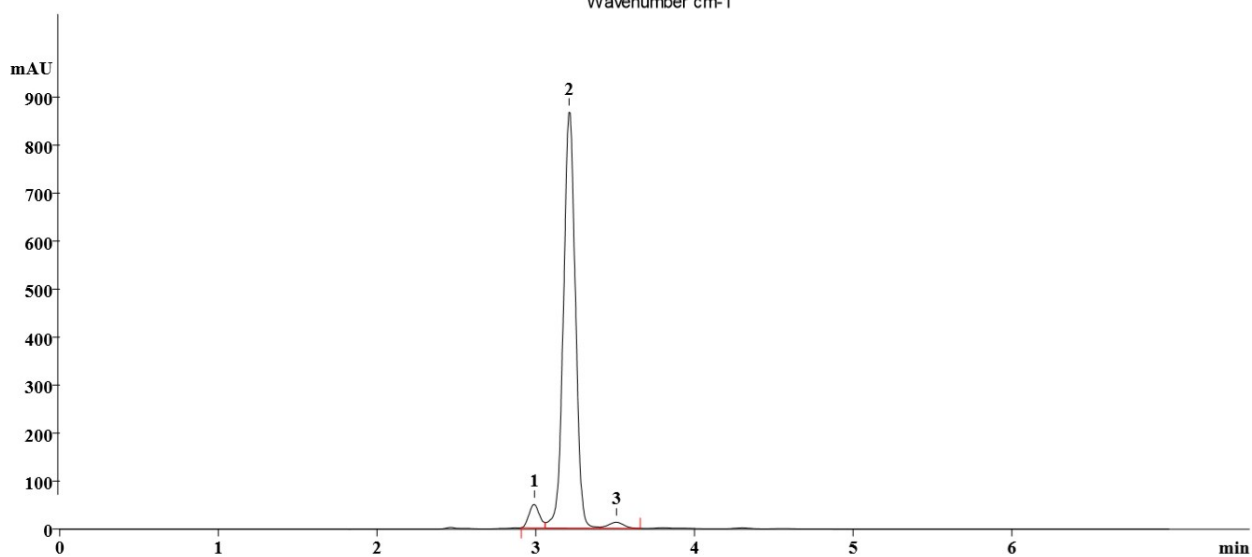
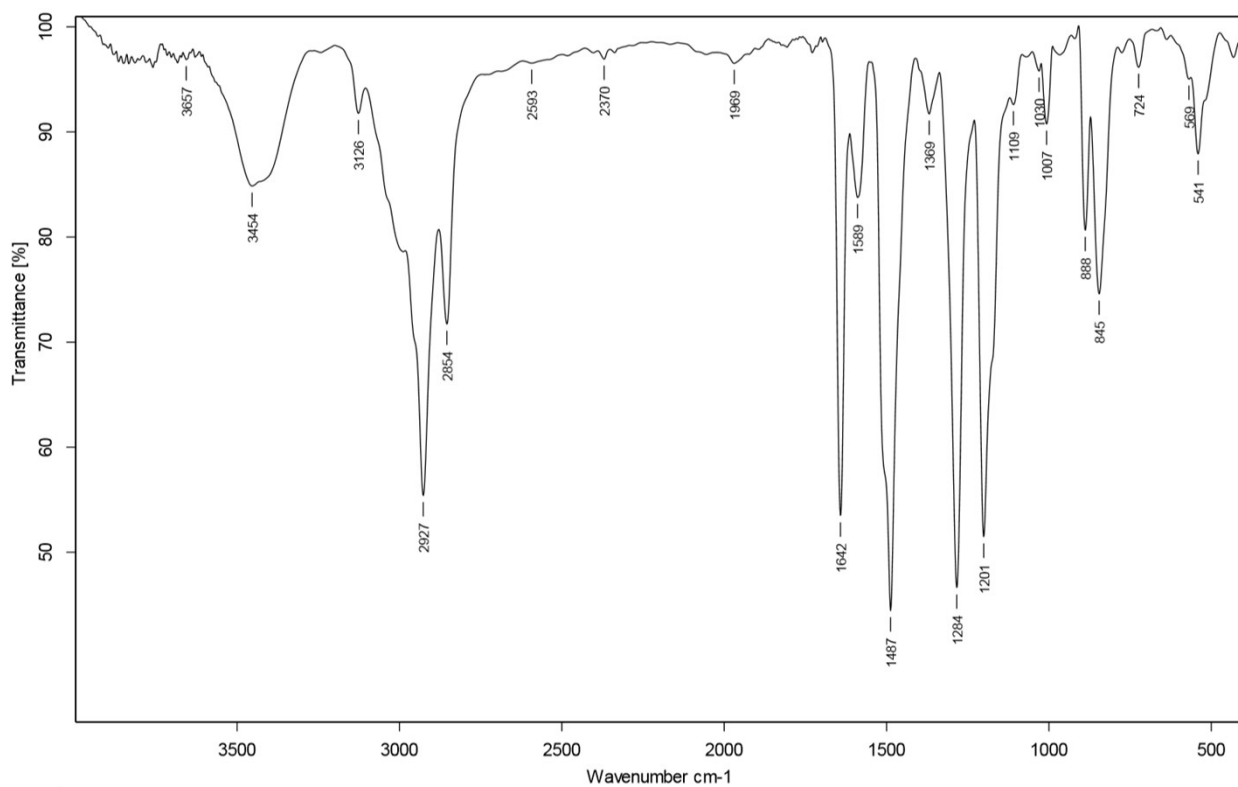


Peak table

<i>Peak</i>	<i>Retention min</i>	<i>Area</i>	<i>Height</i>	<i>Width h/2</i>	<i>Area%</i>	<i>Type</i>
1	3,53	18,673	3,433	0,0861	0,198	BD :
2	3,78	26,446	4,443	0,0936	0,280	DB :
3	11,11	95,752	5,472	0,277	1,013	BB :
4	17,80	9307,291	280,258	0,522	98,509	BB :

10, 4BP4BO-8, Br

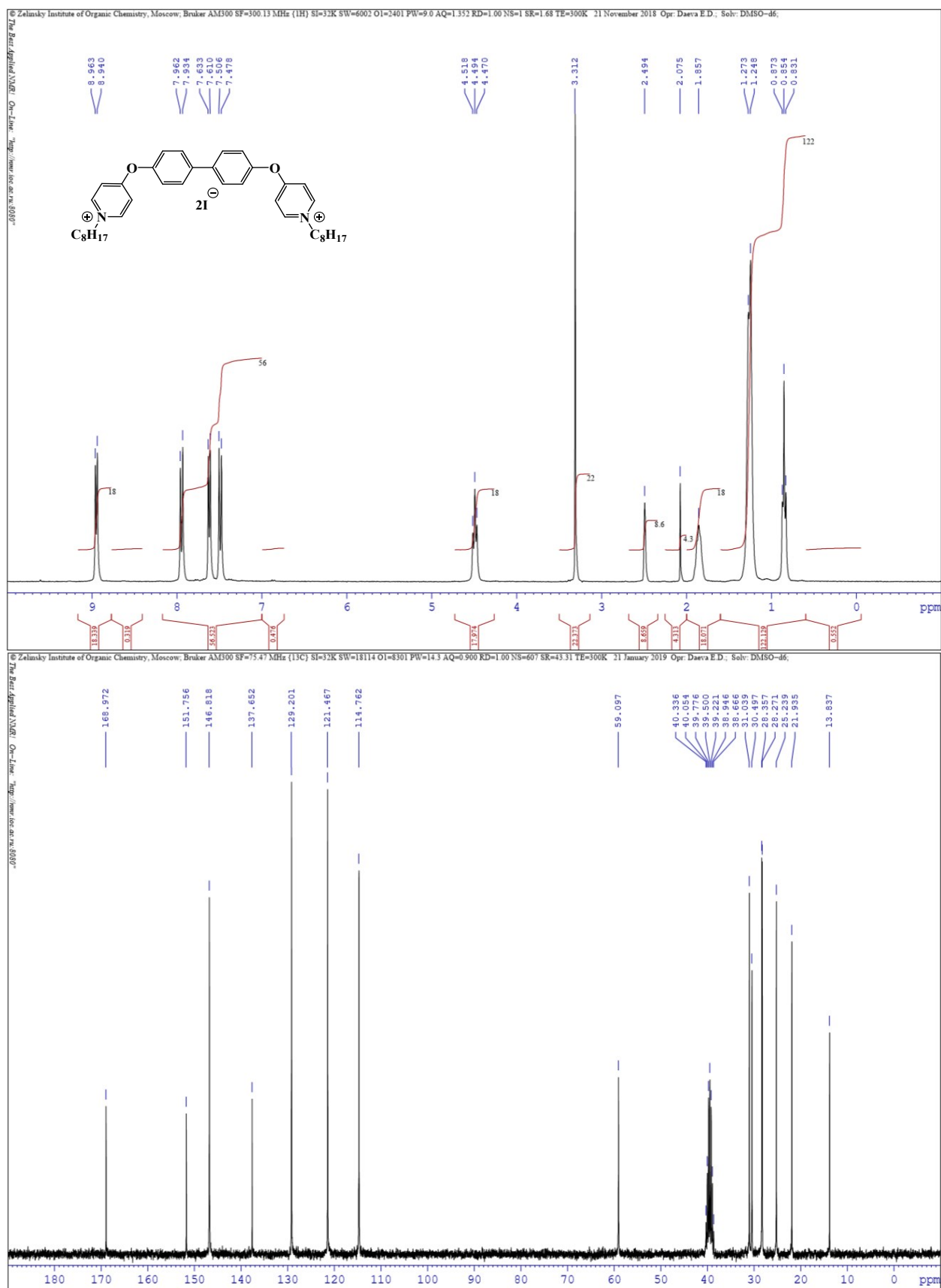


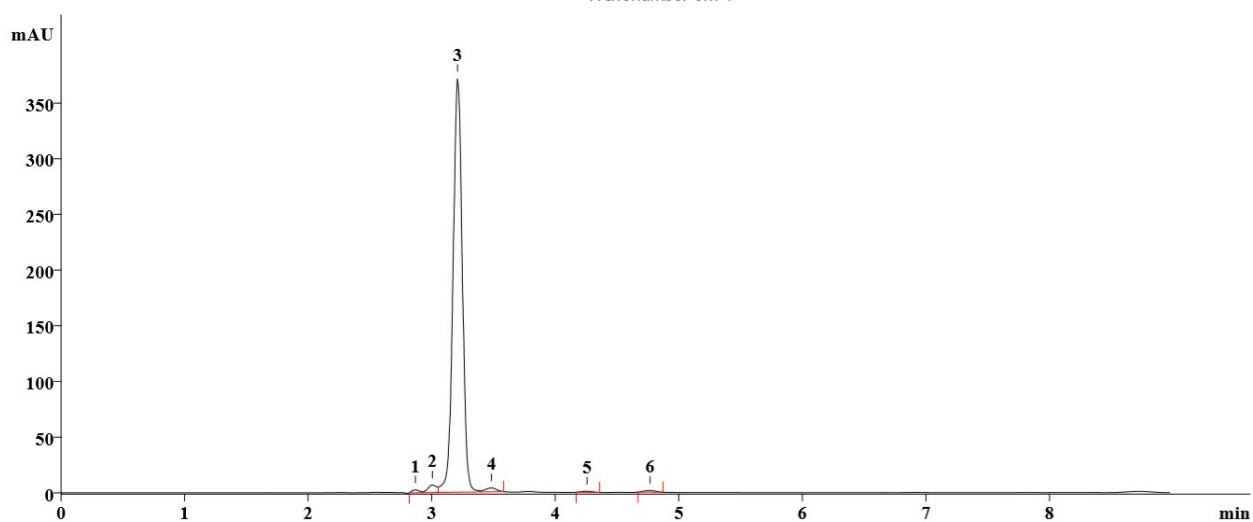
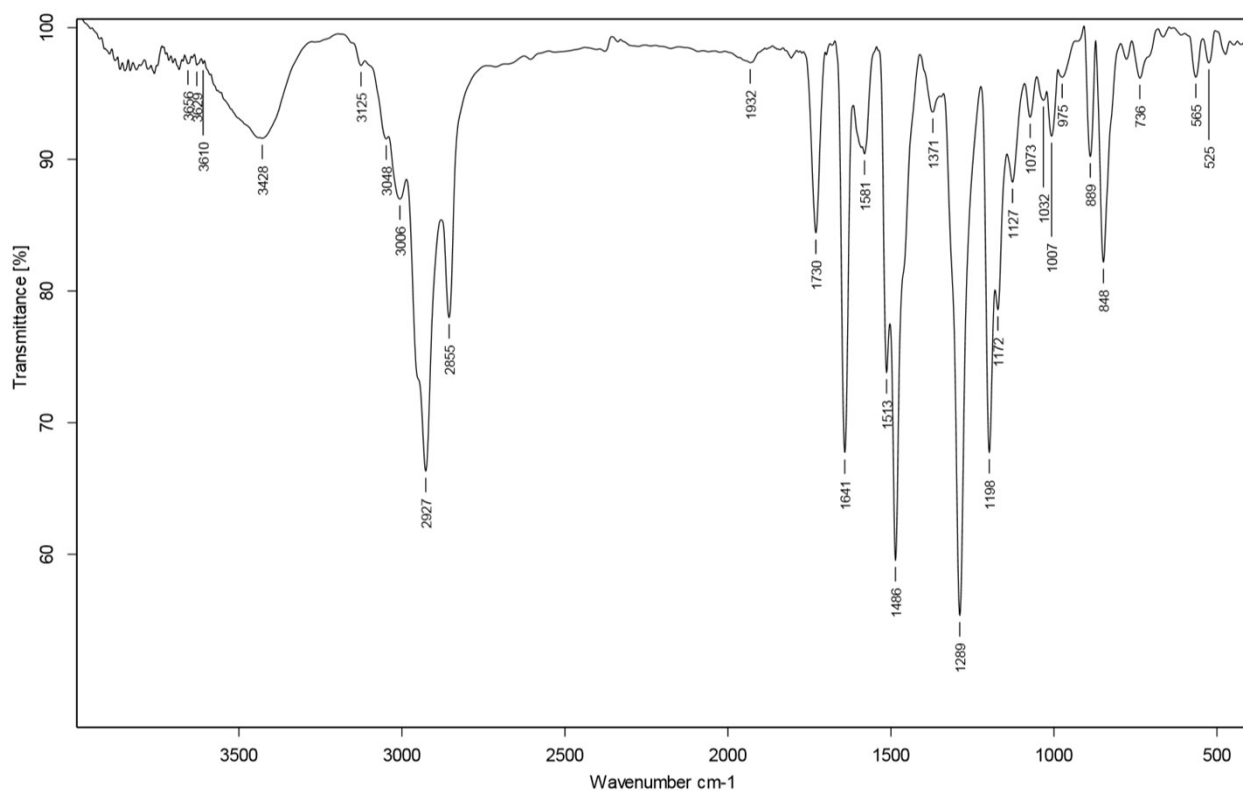


Peak table

<i>Peak</i>	<i>Retention min</i>	<i>Area</i>	<i>Height</i>	<i>Width h/2</i>	<i>Area%</i>	<i>Type</i>
1	2,99	223,788	48,496	0,0741	4,616	BD :
2	3,21	4540,737	867,161	0,0807	93,669	DD :
3	3,51	83,128	12,270	0,105	1,715	DB :

11, 4BP4BO-8, I

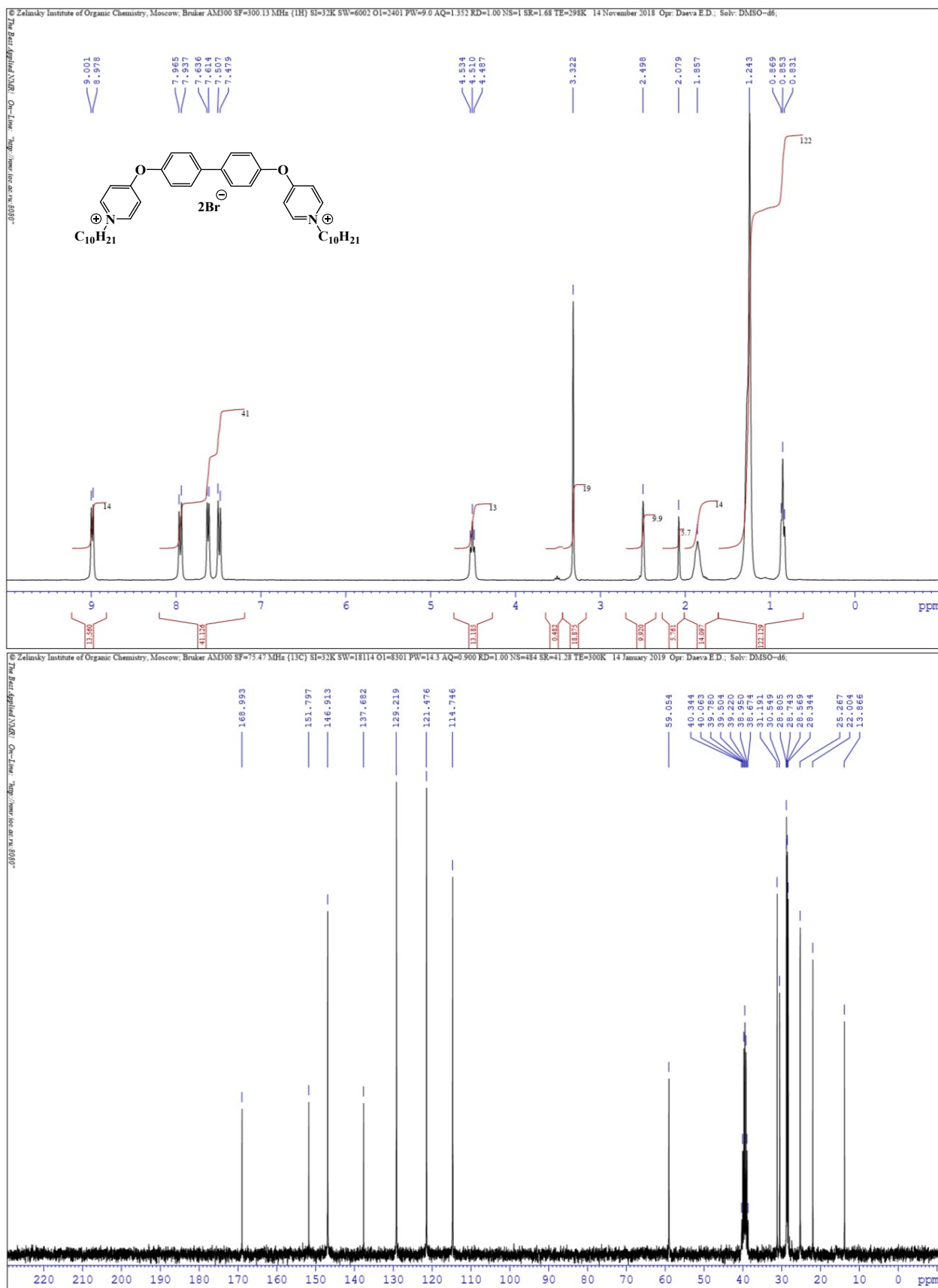


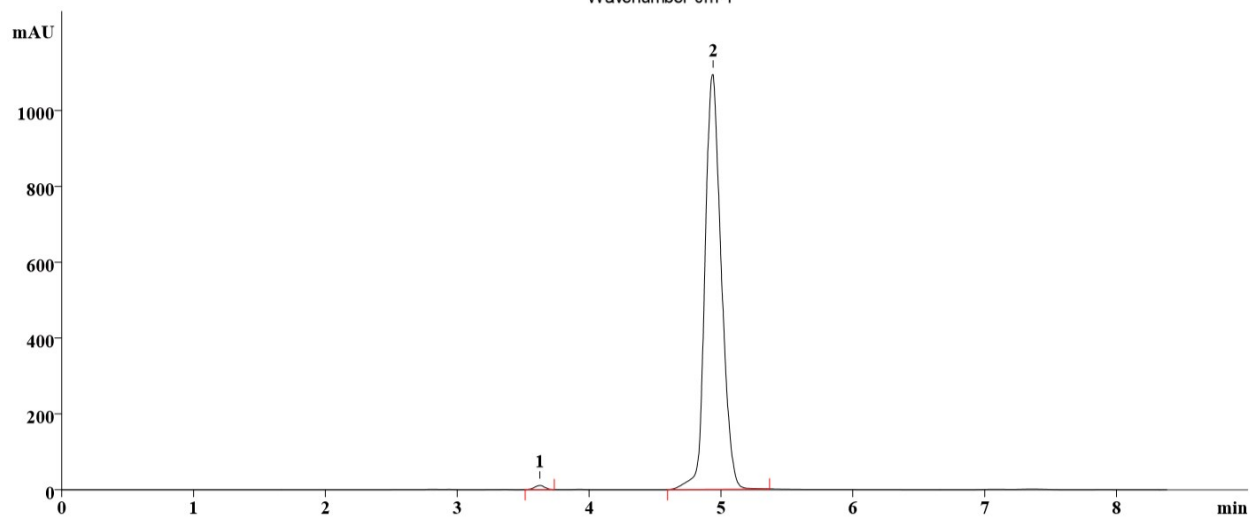
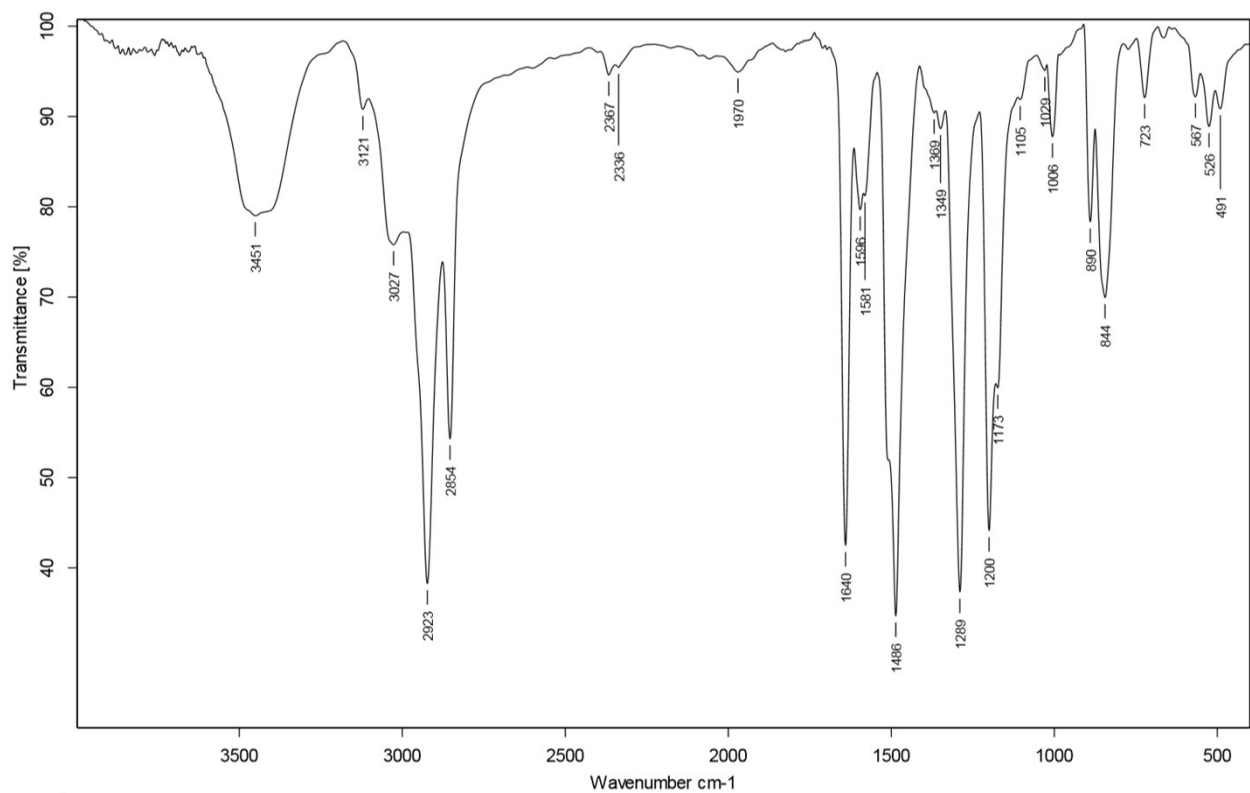


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	2,87	10,964	2,608	0,0688	0,542	BD :
2	3,01	32,860	6,752	0,0851	1,626	DD :
3	3,21	1939,650	370,315	0,0797	95,969	DD :
4	3,48	21,433	3,409	0,105	1,060	DB :
5	4,26	5,962	0,983	0,100	0,295	BB :
6	4,77	10,260	1,554	0,111	0,508	BB :

12, 4BP4BO-10, Br

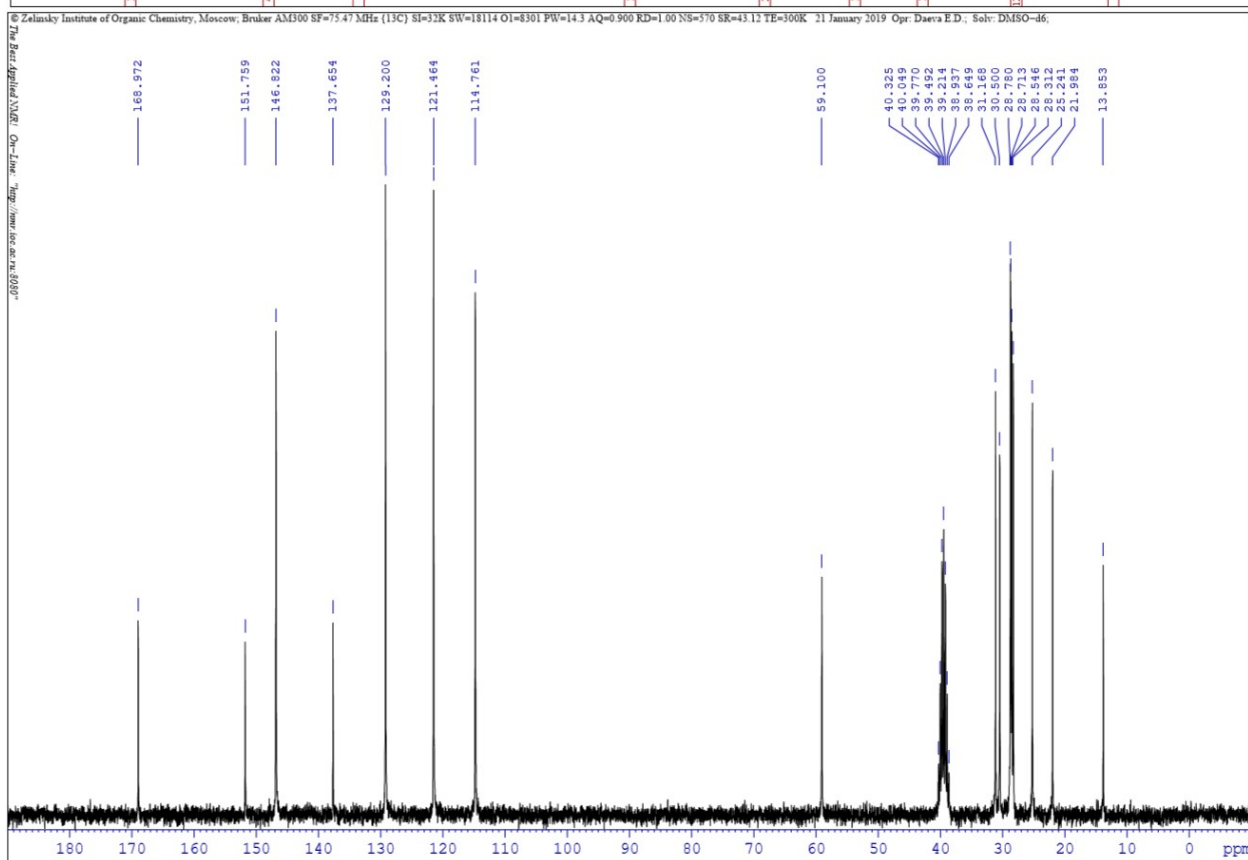
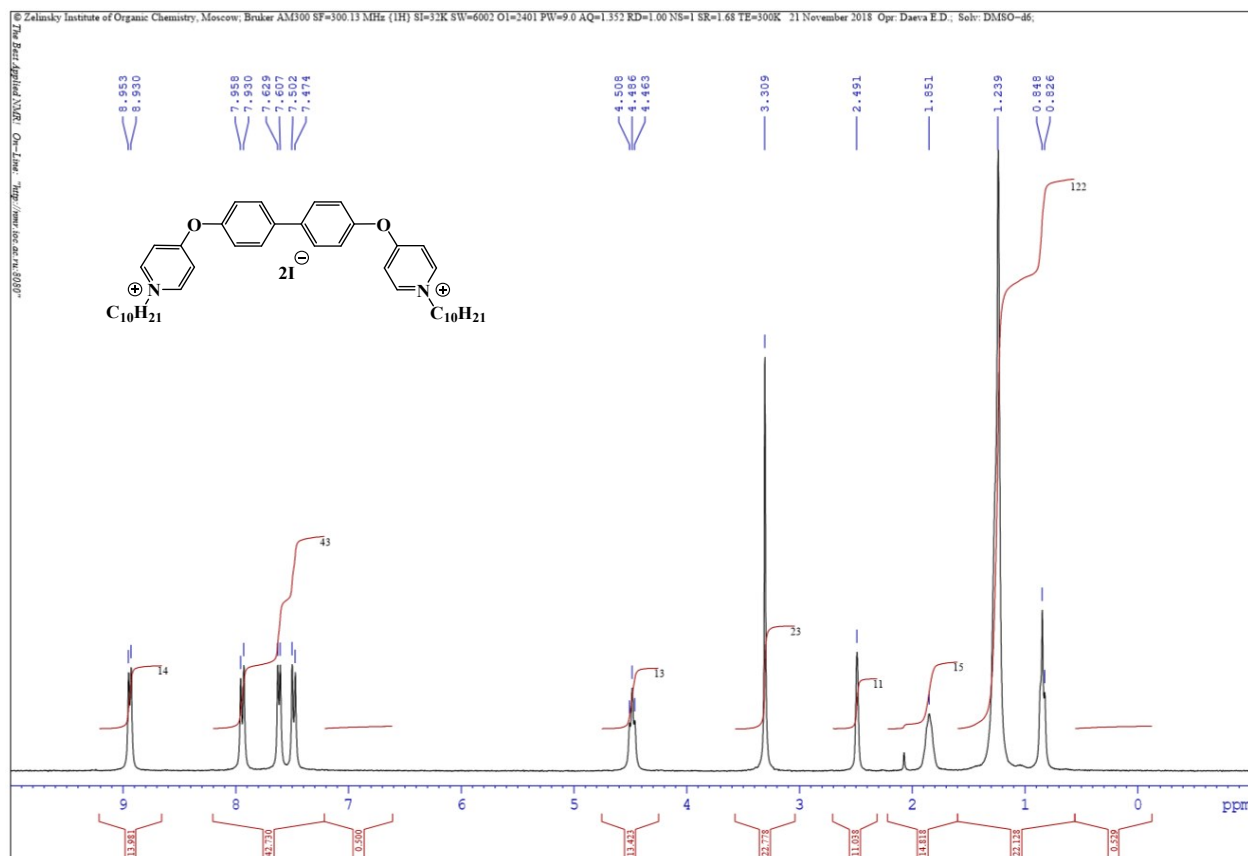


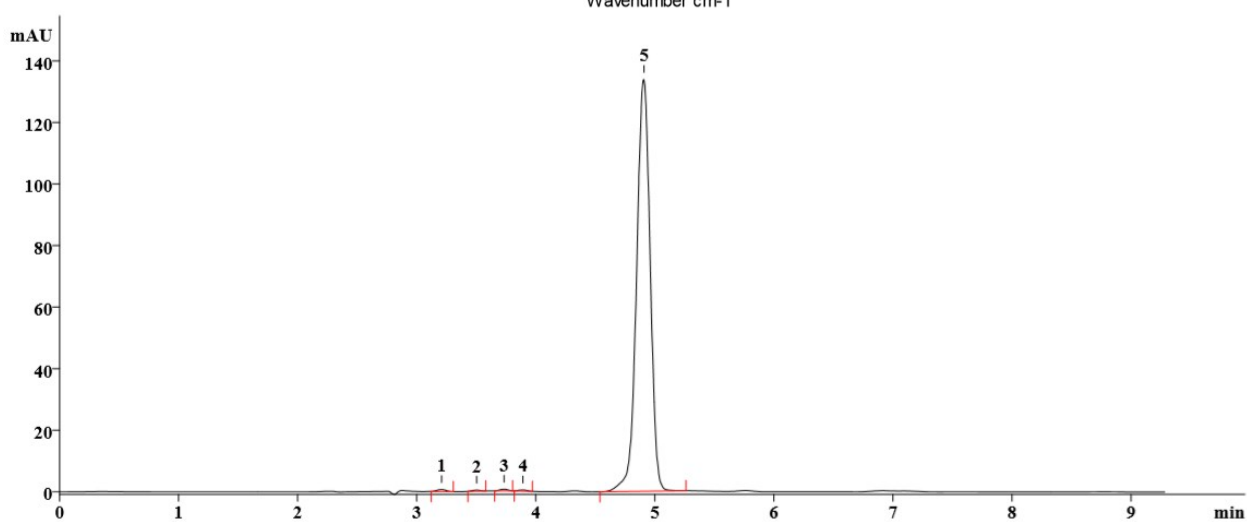
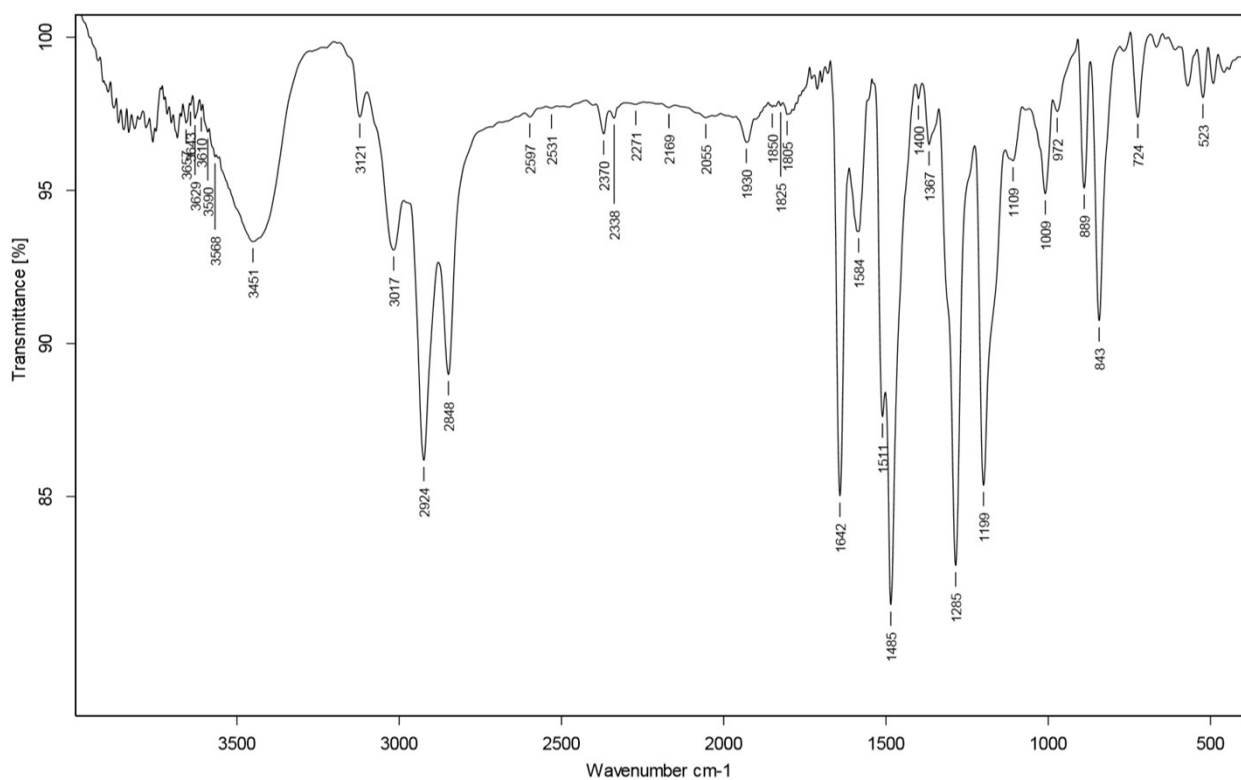


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	3,63	58,408	10,867	0,0851	0,618	BB :
2	4,94	9397,859	1094,477	0,131	99,382	BB :

13, 4BP4BO-10, I

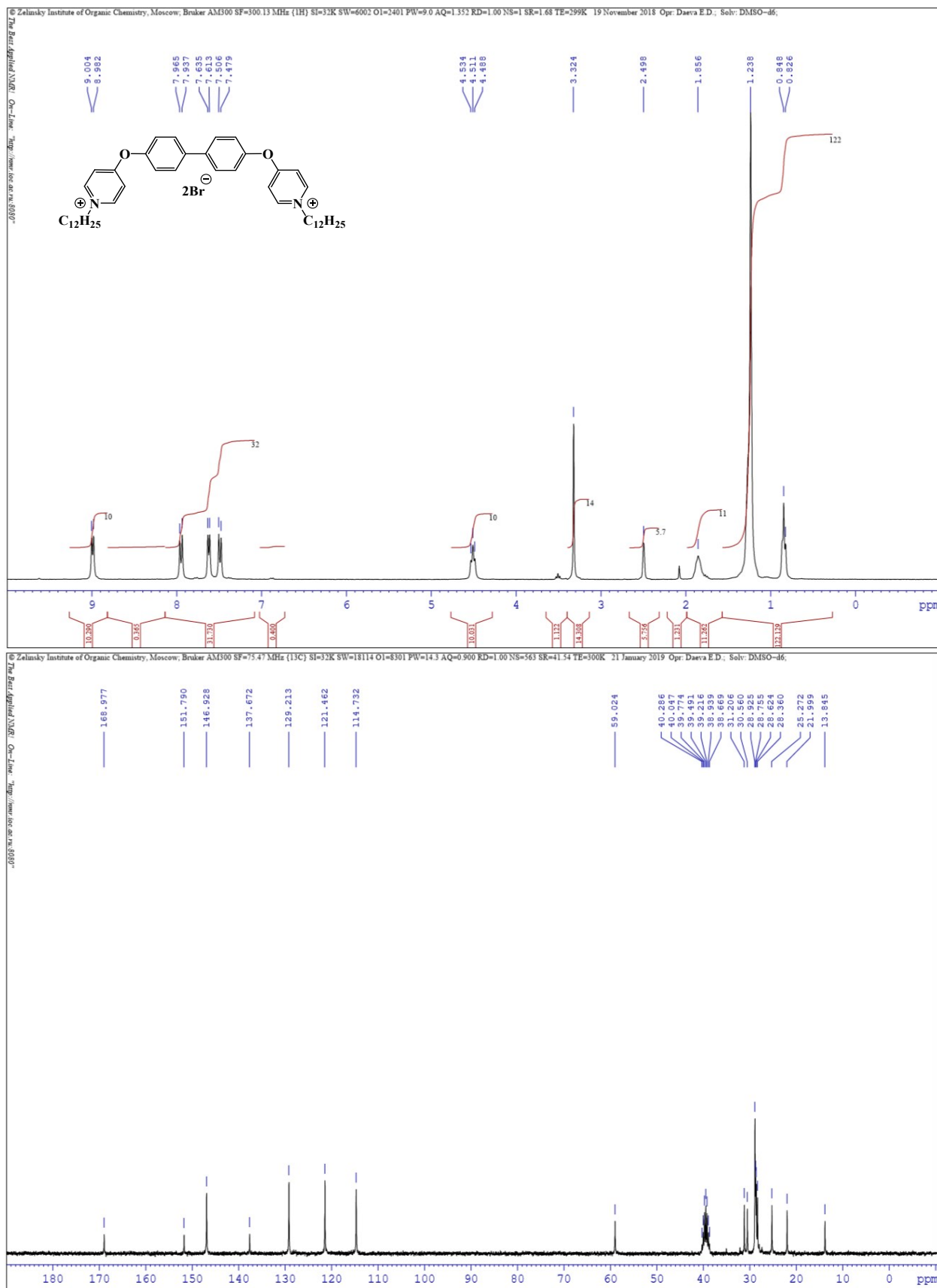


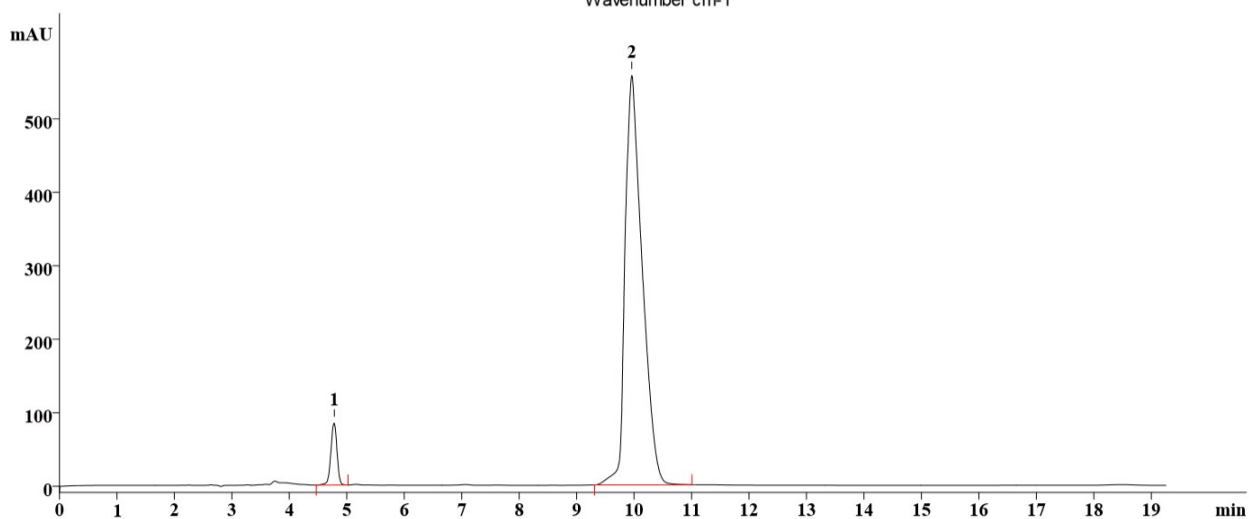
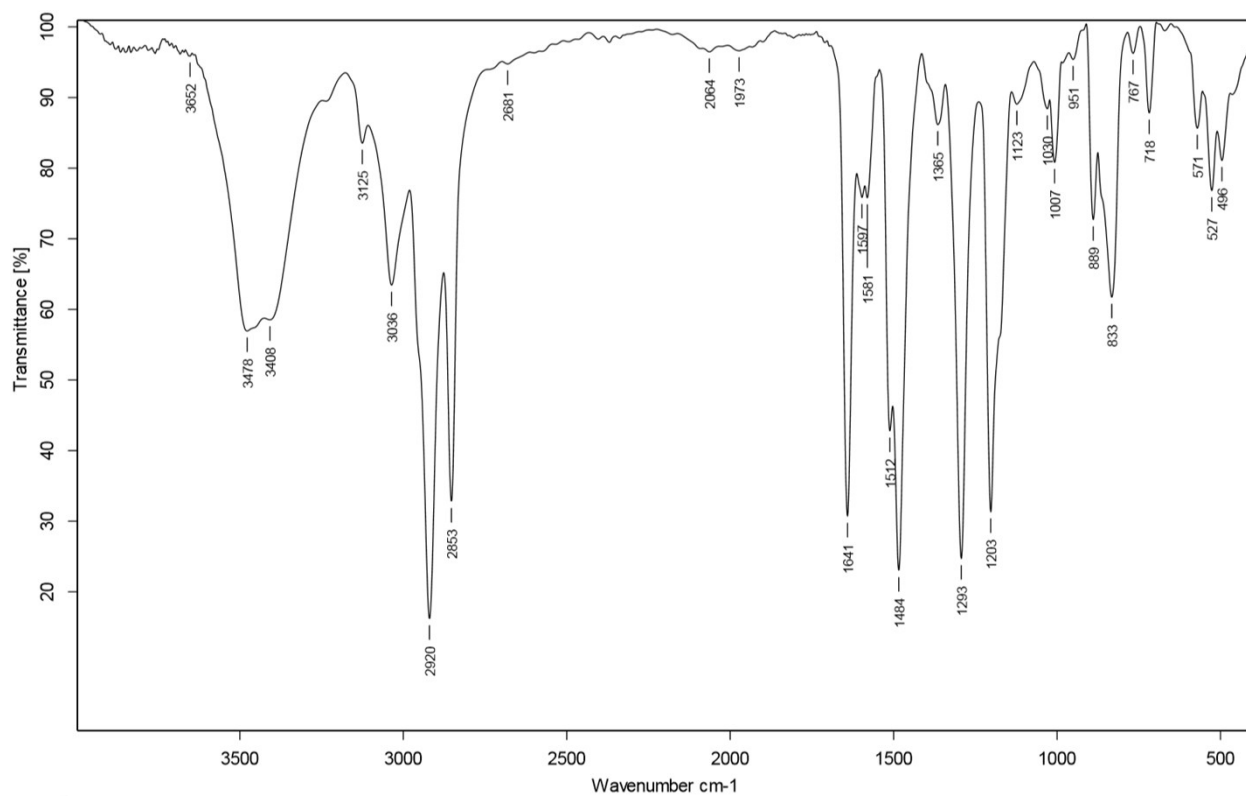


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	3,21	3,264	0,627	0,0829	0,304	BB :
2	3,50	1,587	0,325	0,0801	0,148	BB :
3	3,73	2,581	0,538	0,0792	0,241	BB :
4	3,90	1,805	0,371	0,0810	0,168	BB :
5	4,91	1063,513	133,756	0,121	99,139	BB :

14, 4BP4BO-12, Br

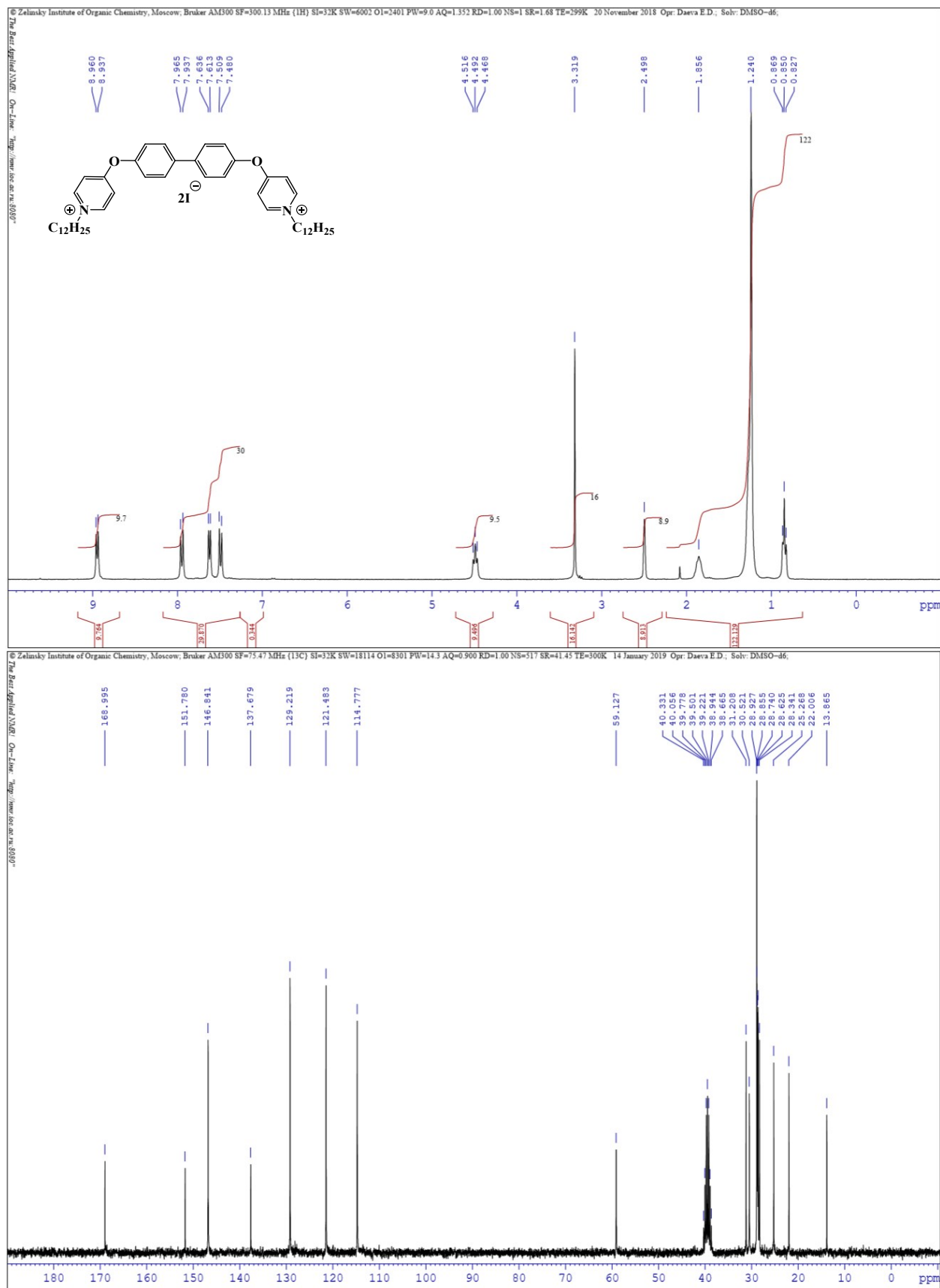


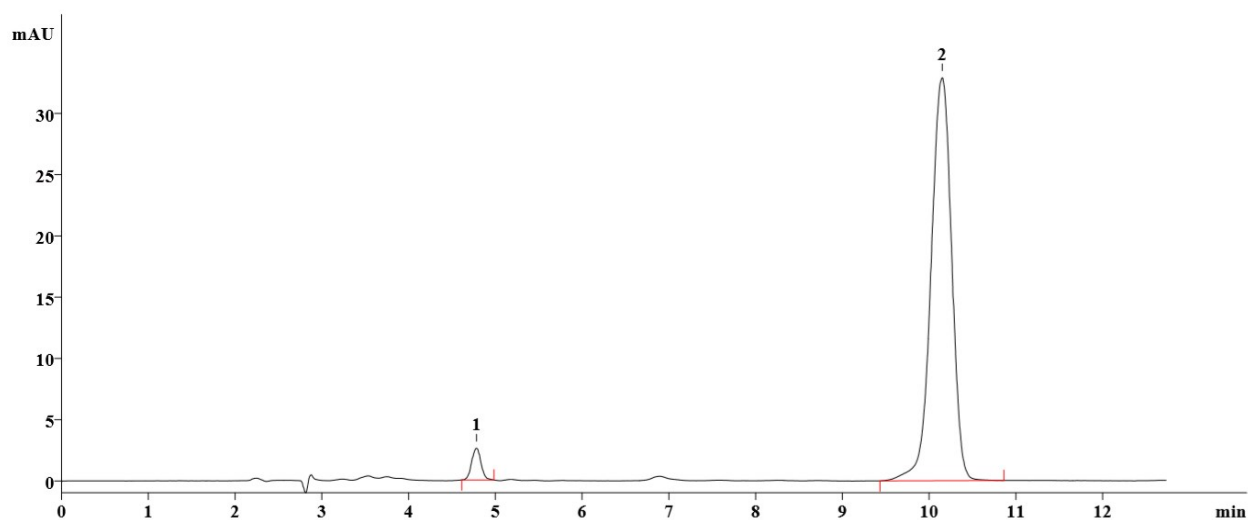
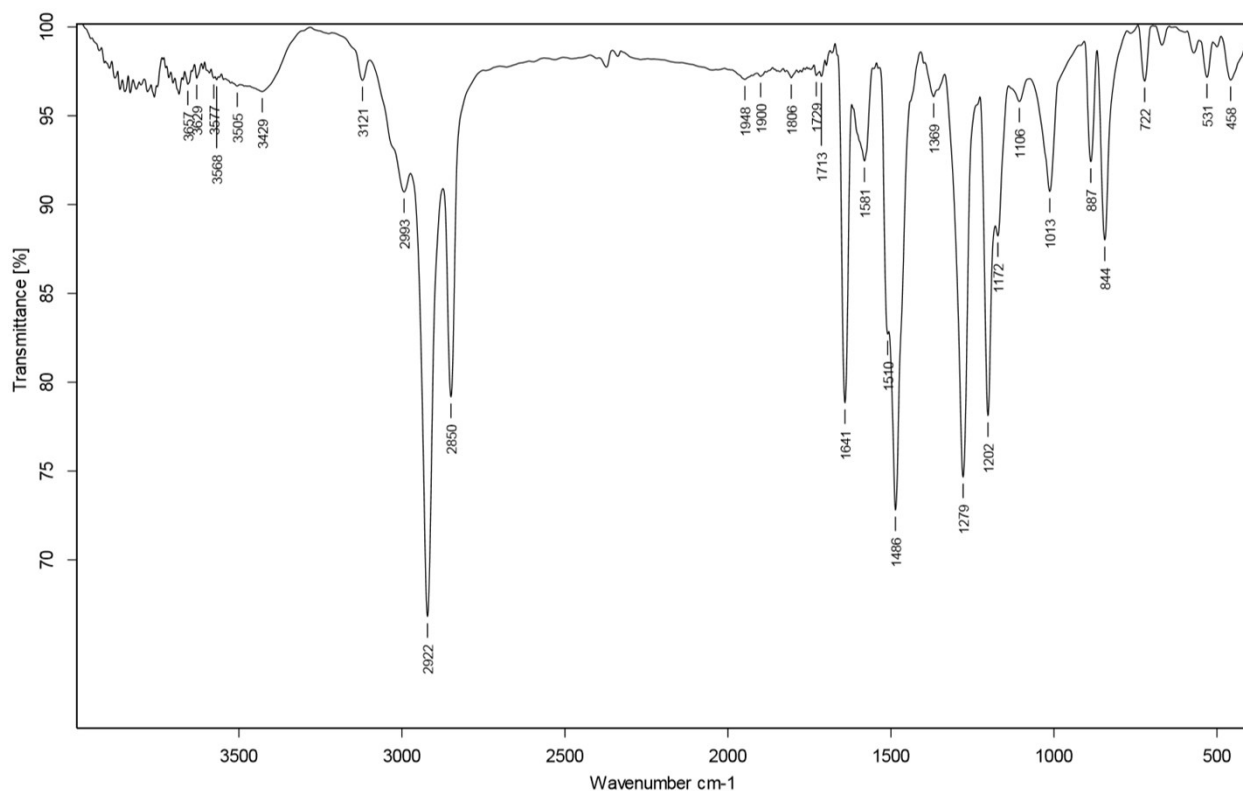


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	4,78	626,415	84,113	0,114	5,151	BB :
2	9,96	11535,600	556,792	0,325	94,849	BB :

15, 4BP4BO-12, I

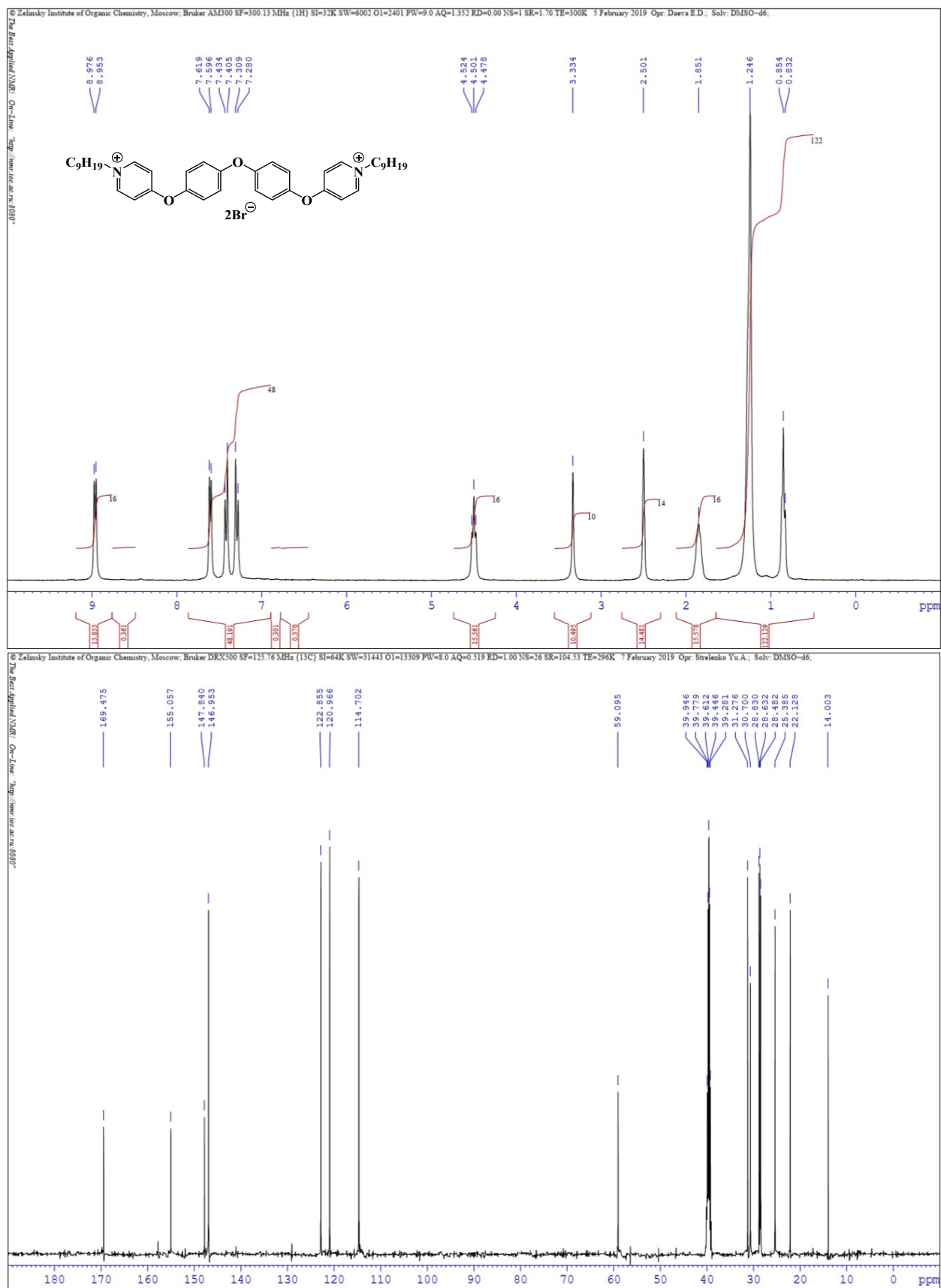


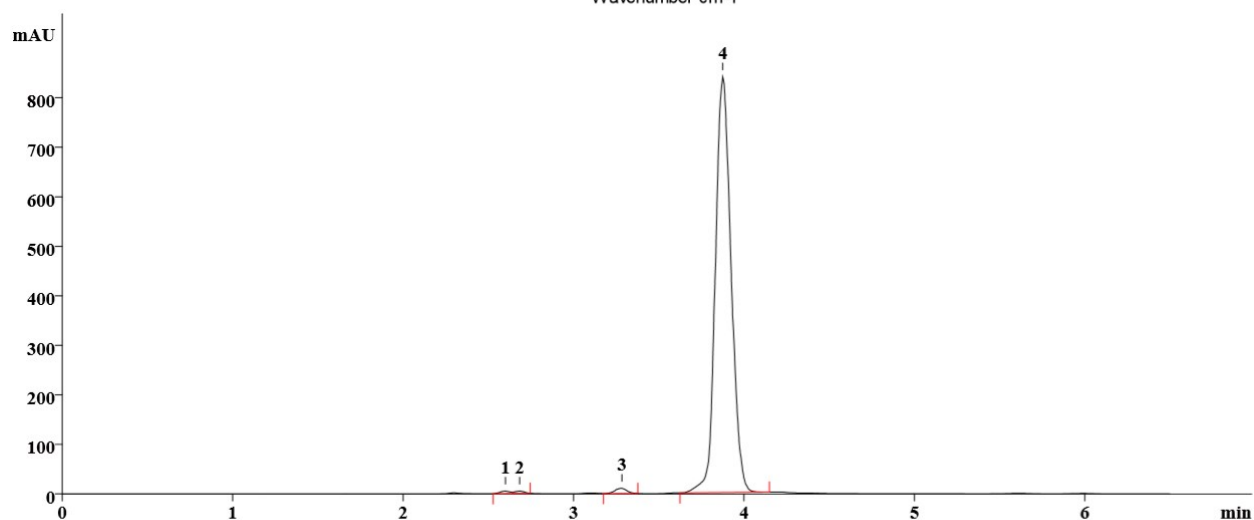
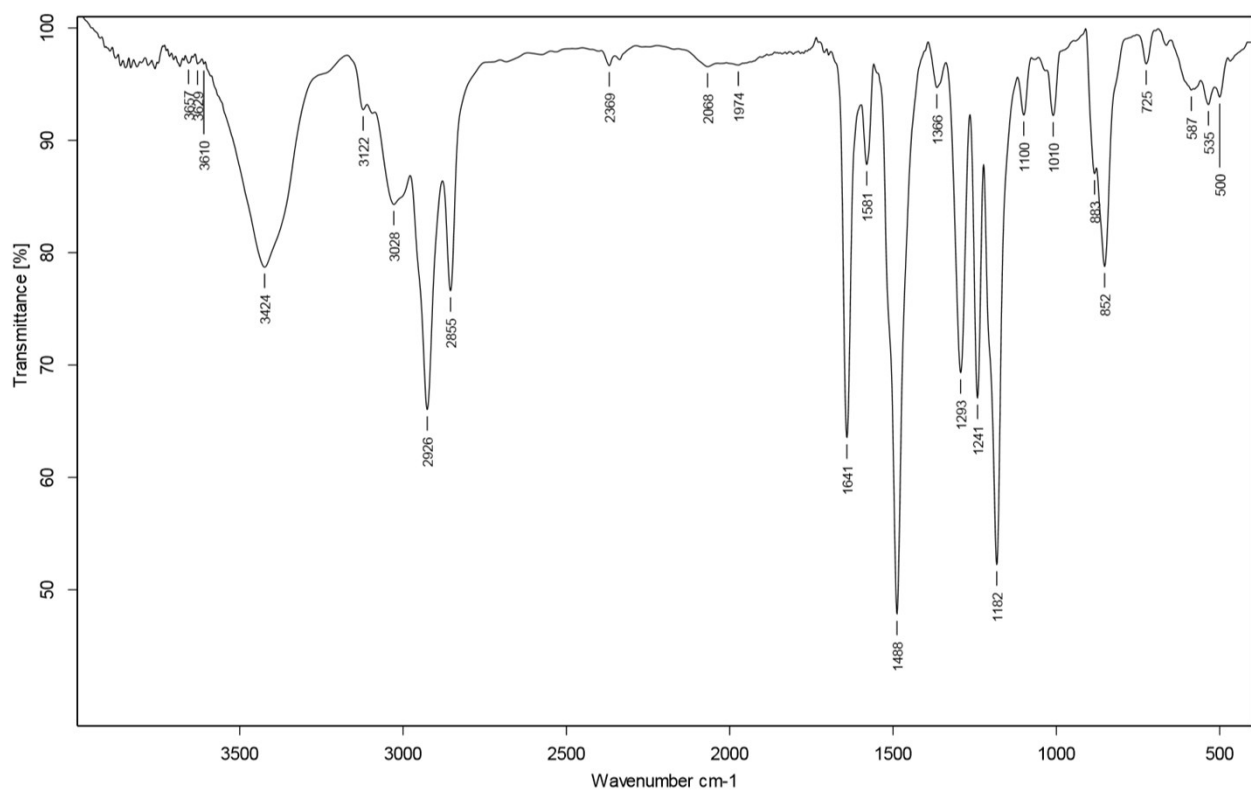


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	4,78	19,308	2,581	0,117	3,429	BB :
2	10,15	543,829	32,857	0,254	96,571	BB :

23, 4OB4POB-9, Br

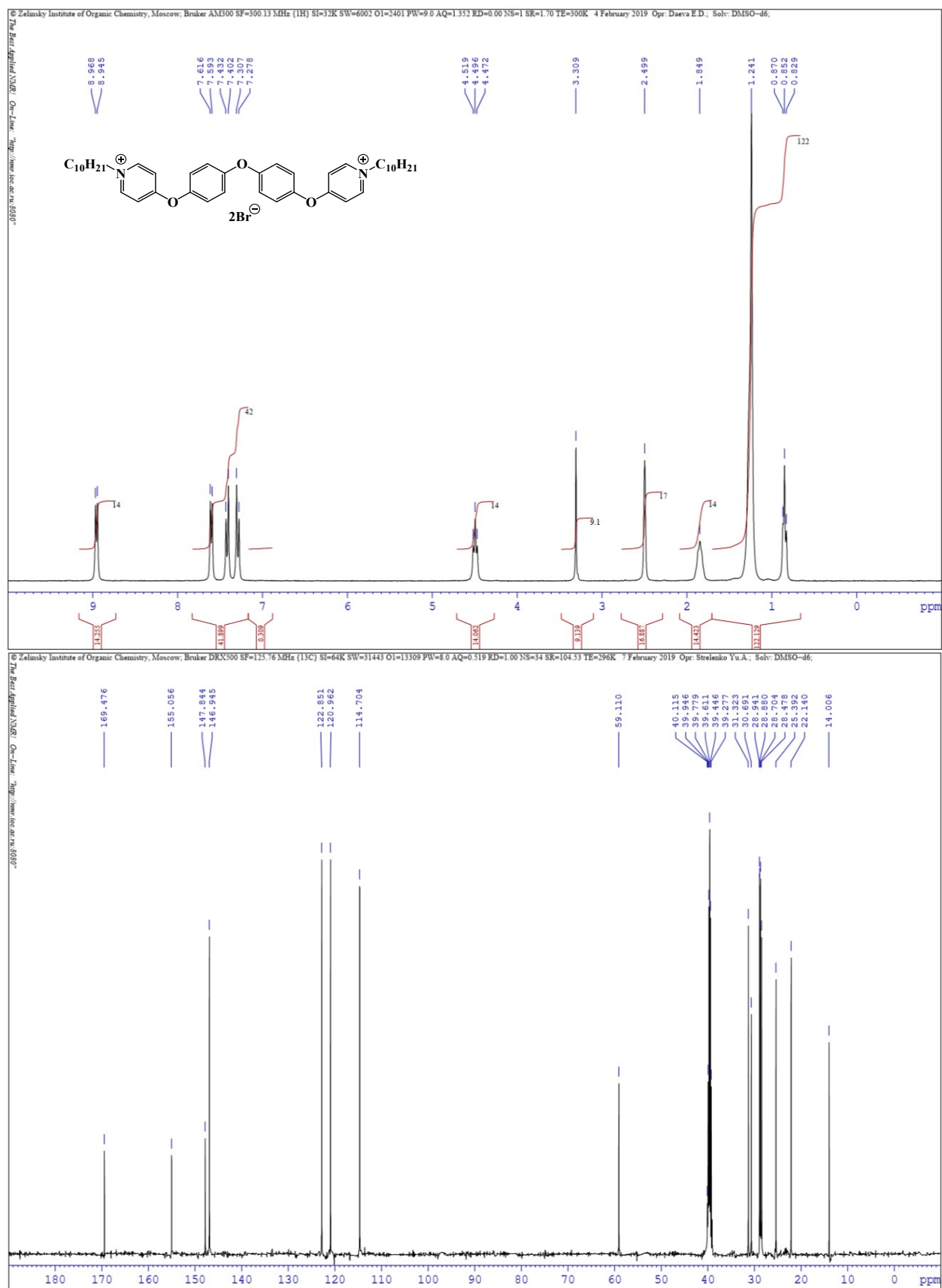


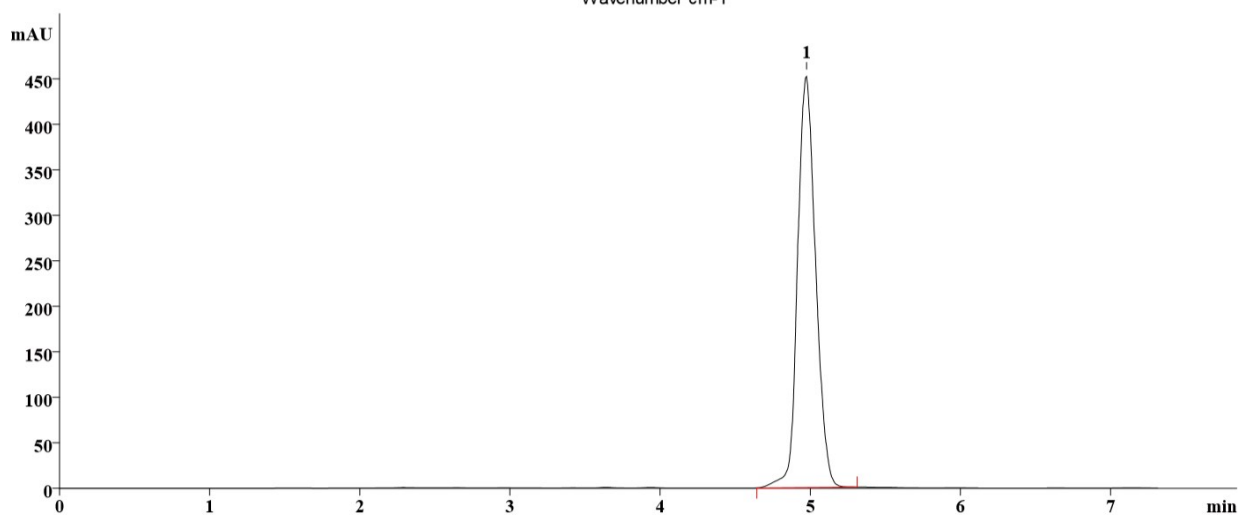
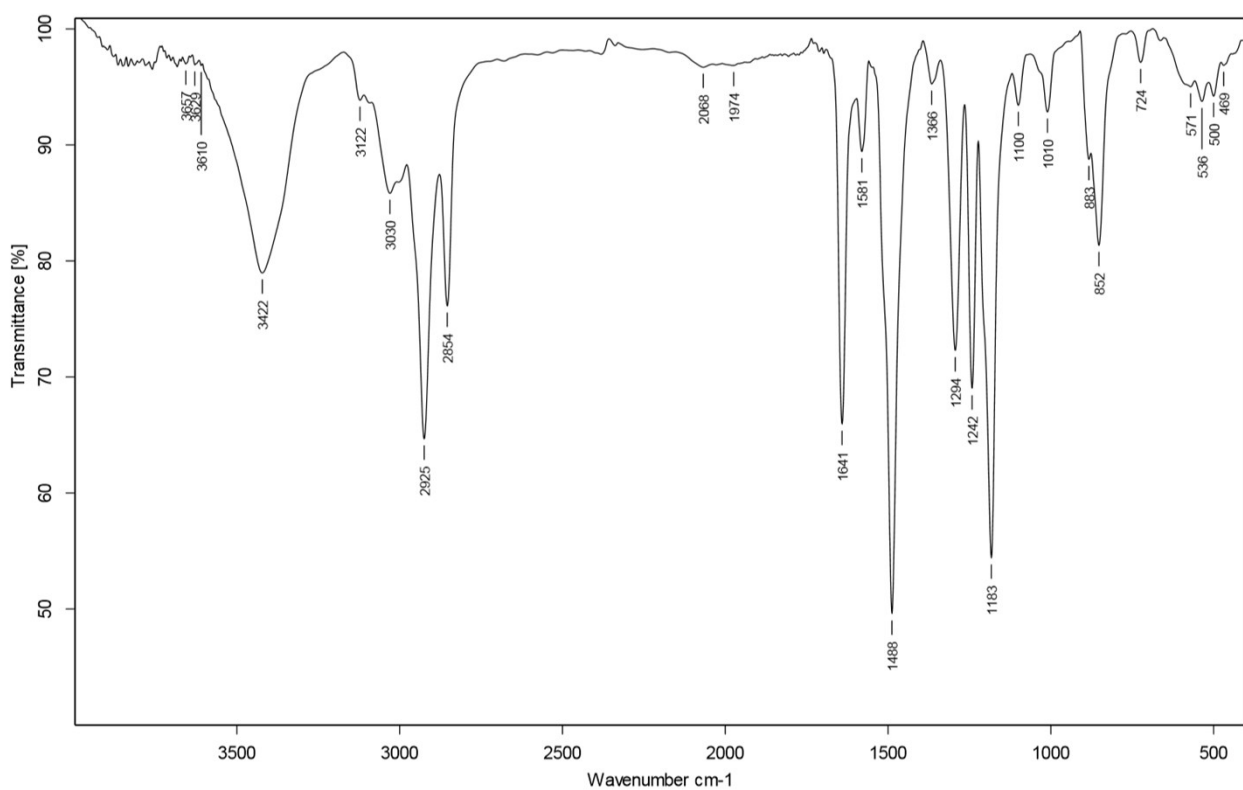


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	2,60	19,510	4,795	0,0768	0,357	BD :
2	2,68	17,560	4,507	0,0733	0,321	DB :
3	3,28	49,678	10,370	0,0747	0,908	BB :
4	3,88	5383,436	836,810	0,0985	98,414	BB :

24, 4OB4POB-10, Br

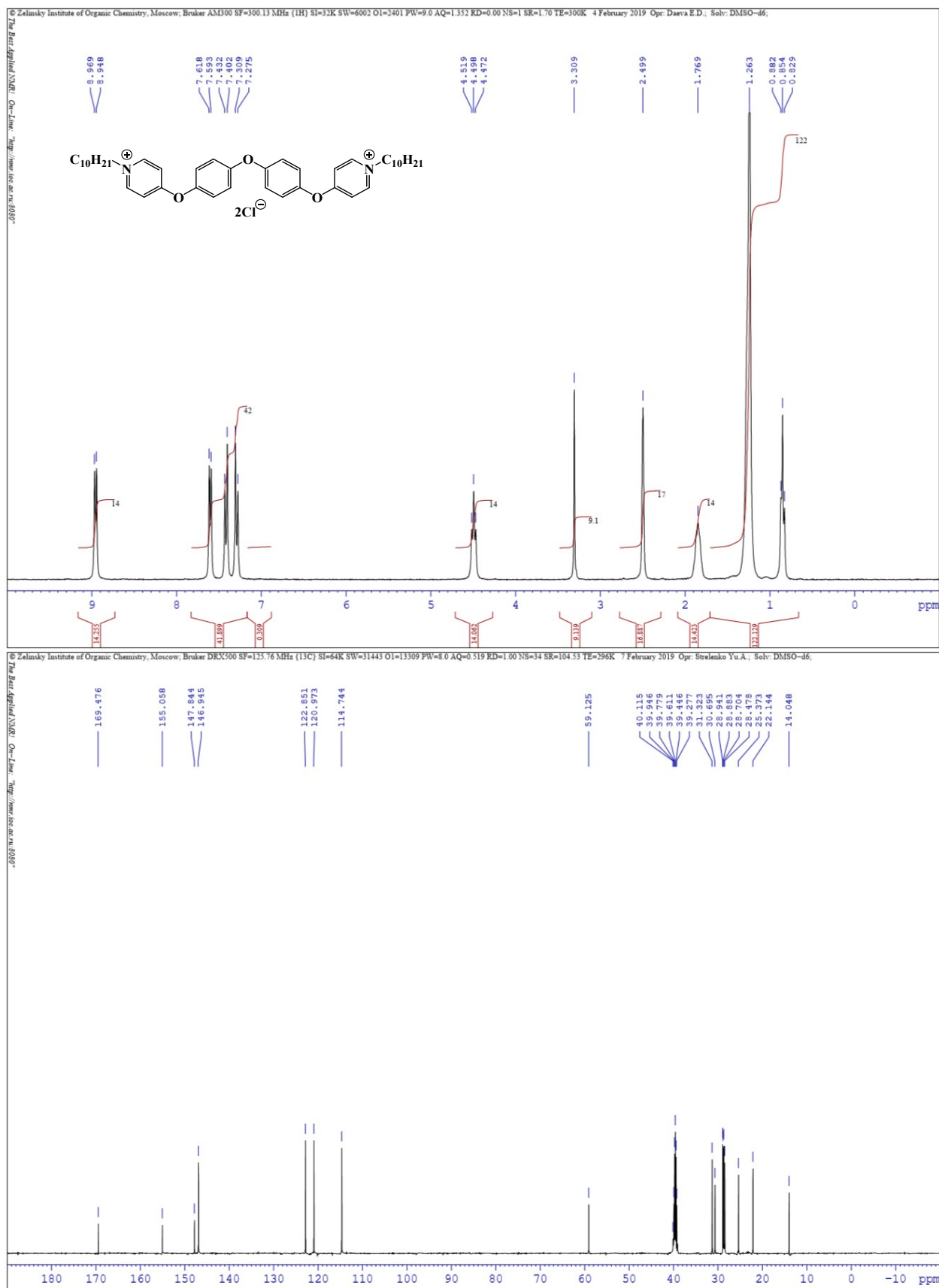


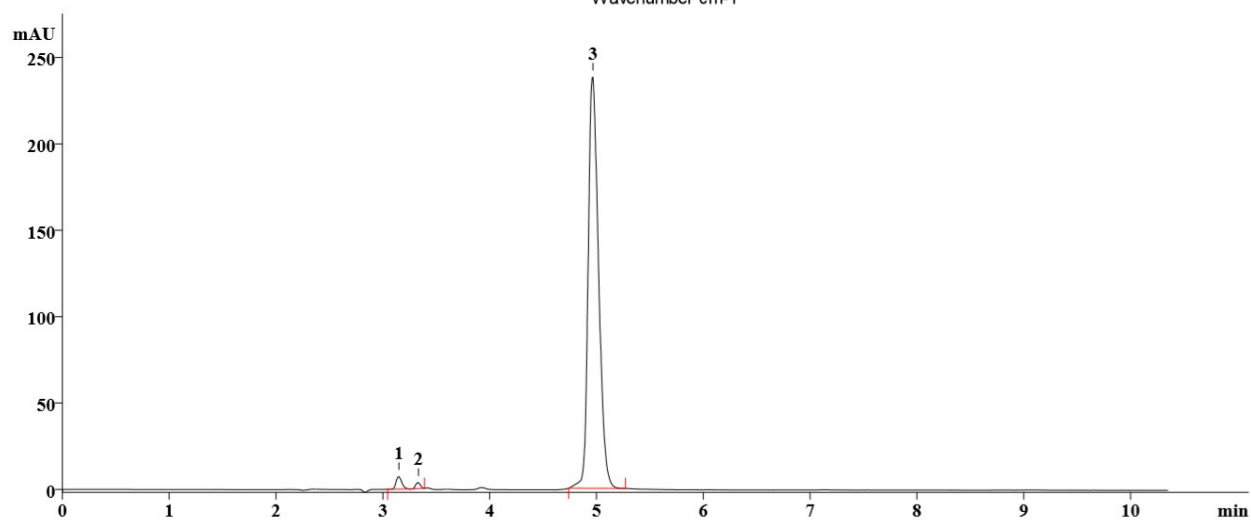
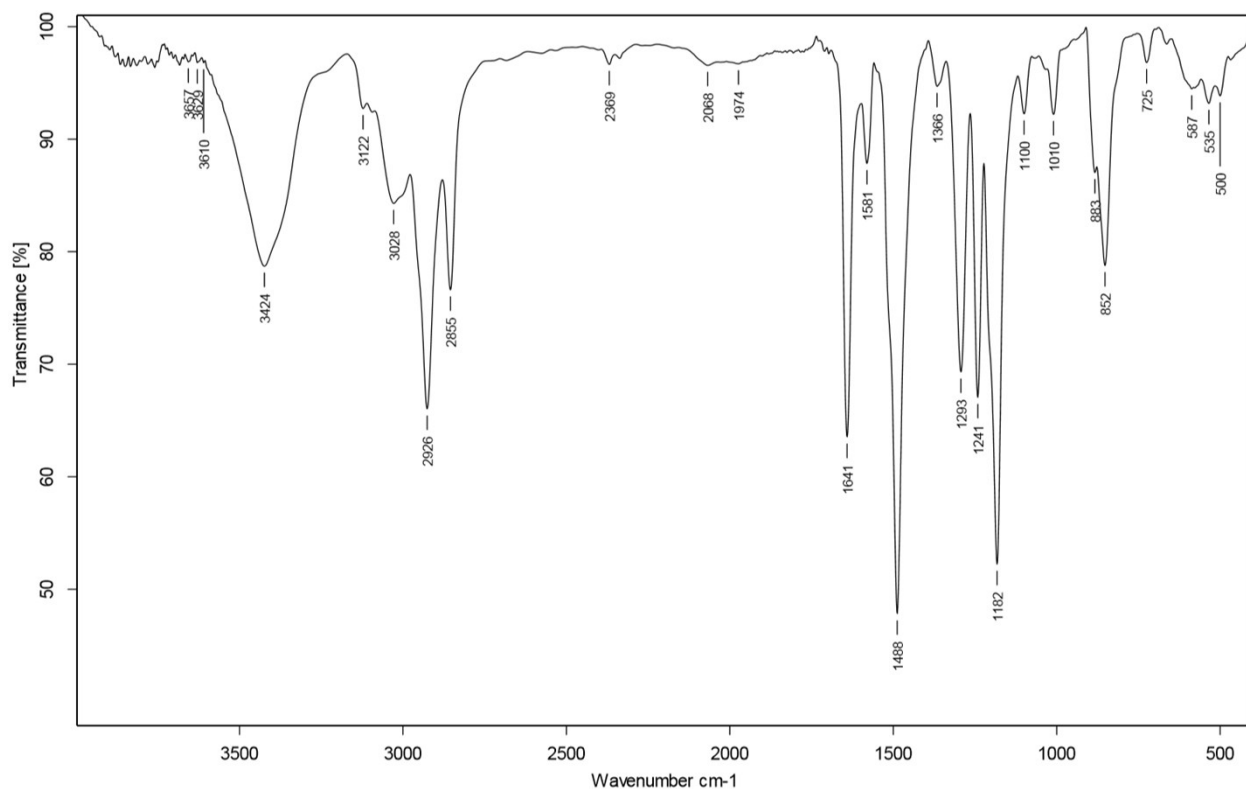


Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	4,97	3784,916	451,651	0,131	100,00	BB :

25, 4OB4POB-10, Cl

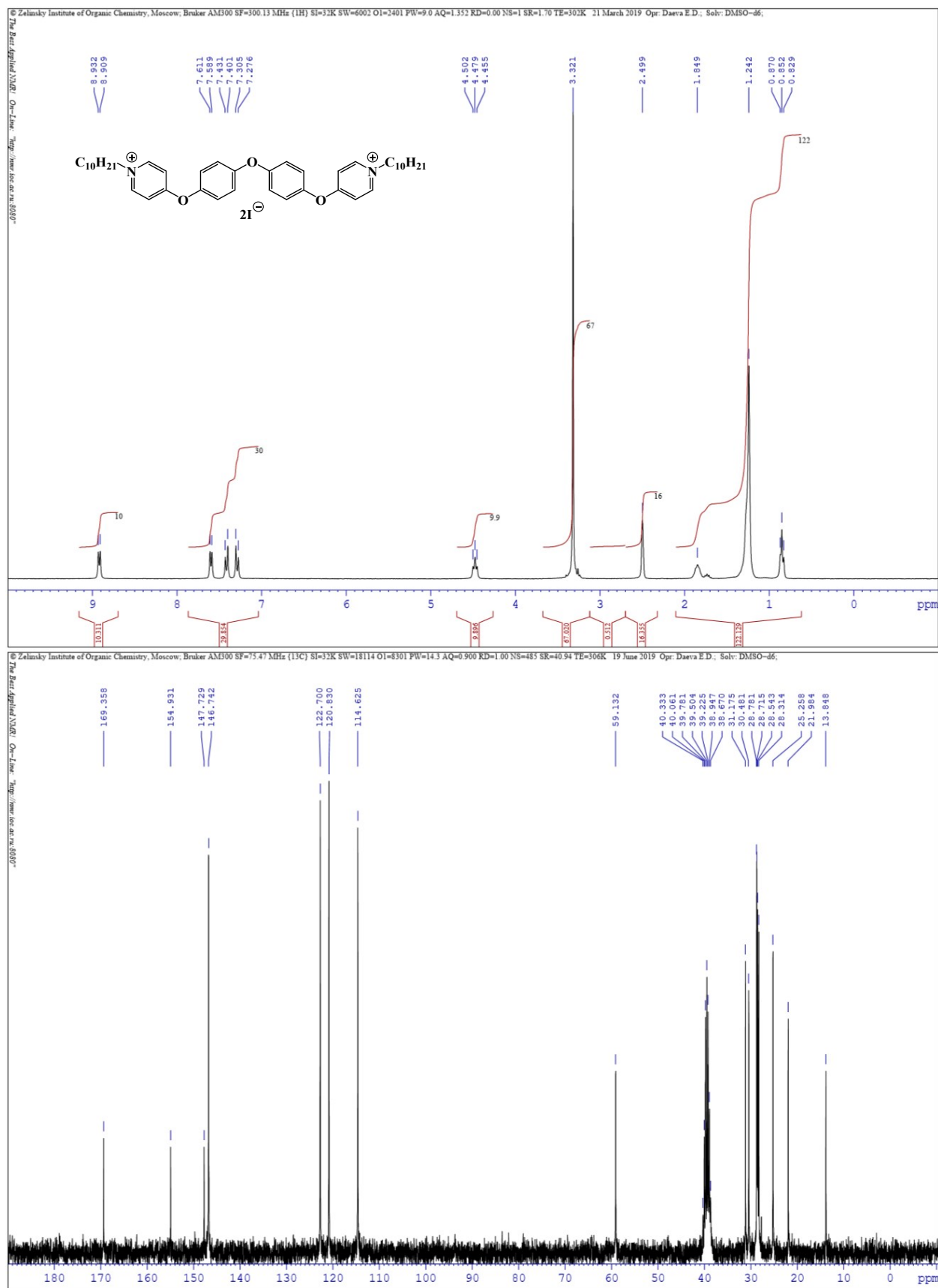


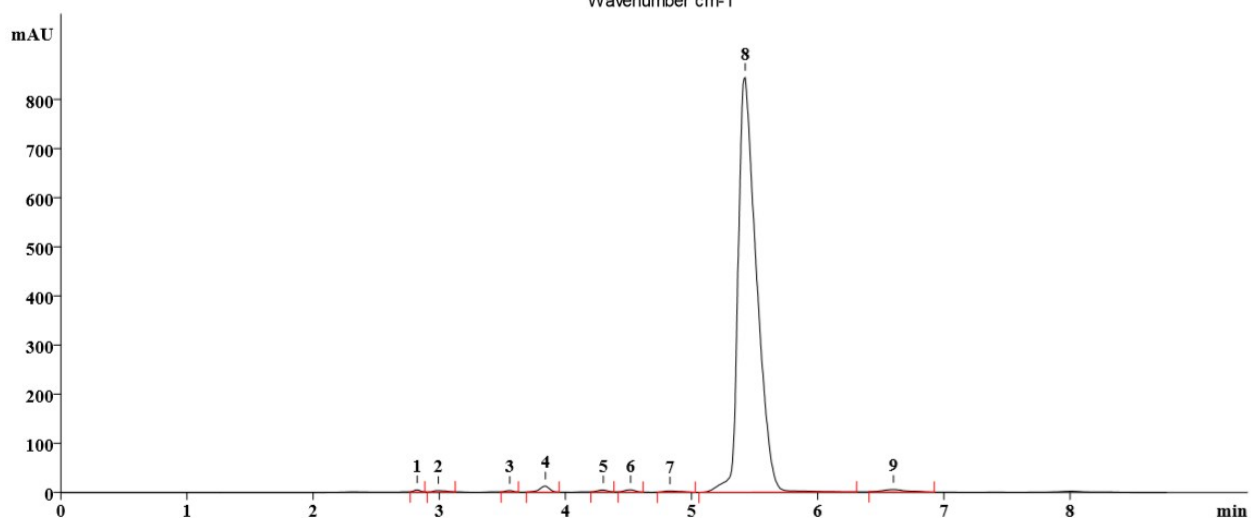
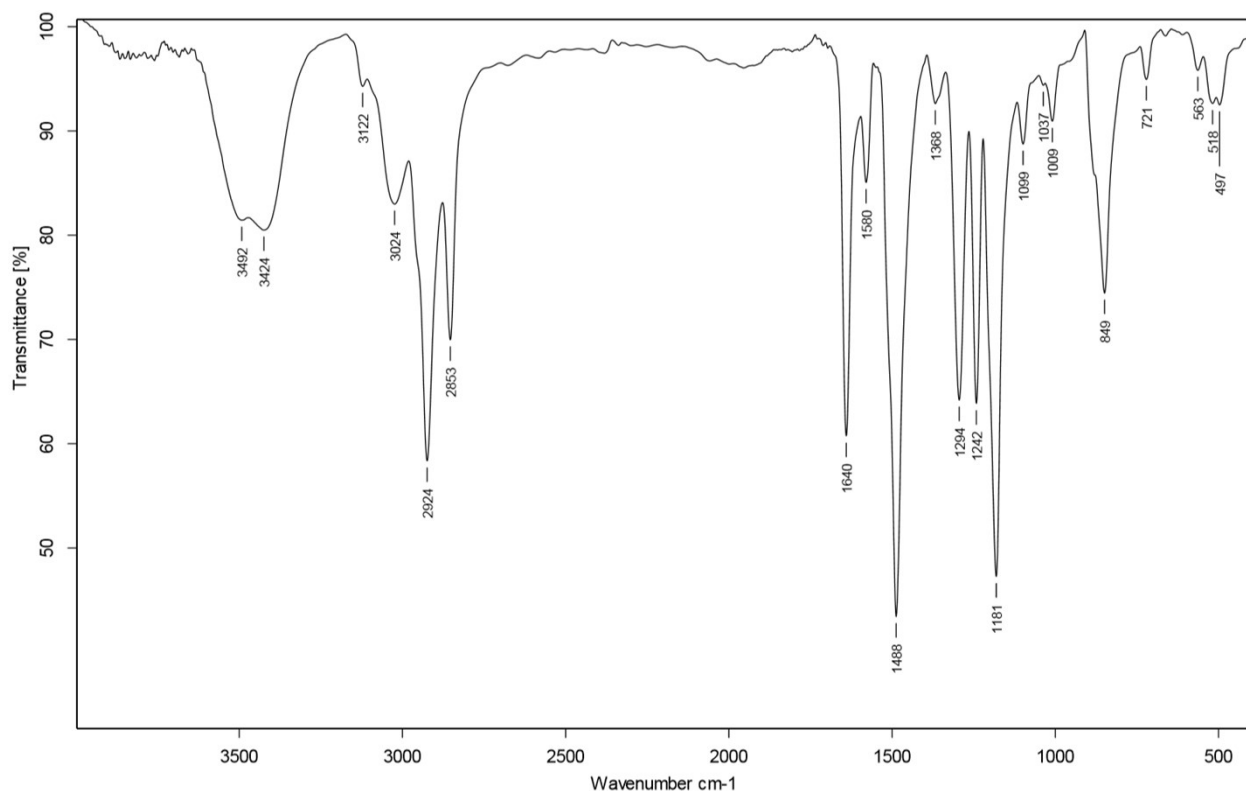


Peak table

<i>Peak</i>	<i>Retention min</i>	<i>Area</i>	<i>Height</i>	<i>Width h/2</i>	<i>Area%</i>	<i>Type</i>
1	3,15	27,011	7,225	0,0582	1,644	BD :
2	3,33	10,525	3,416	0,0516	0,640	DB :
3	4,96	1605,772	238,137	0,103	97,716	BB :

26, 4OB4POB-10, I

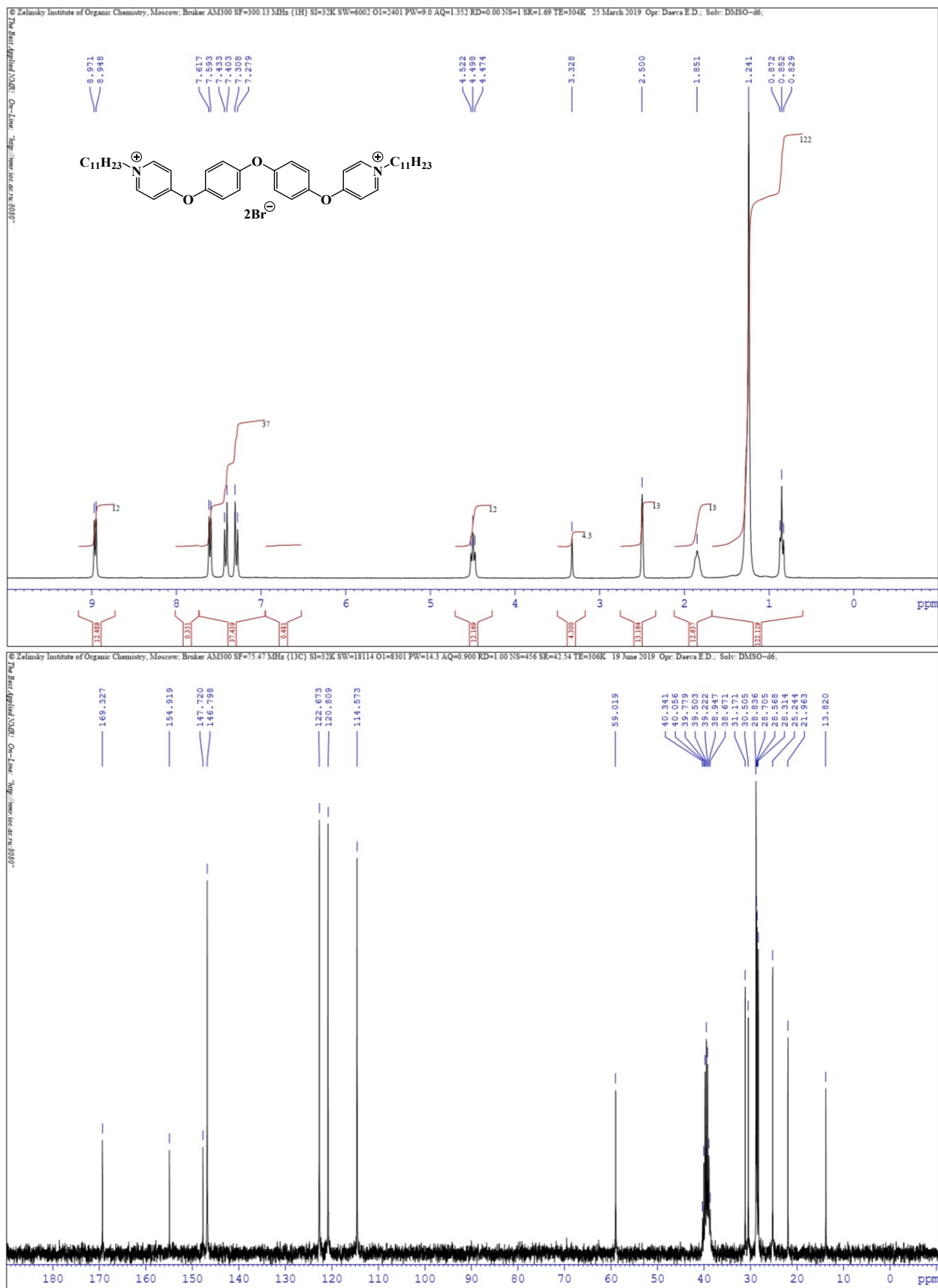


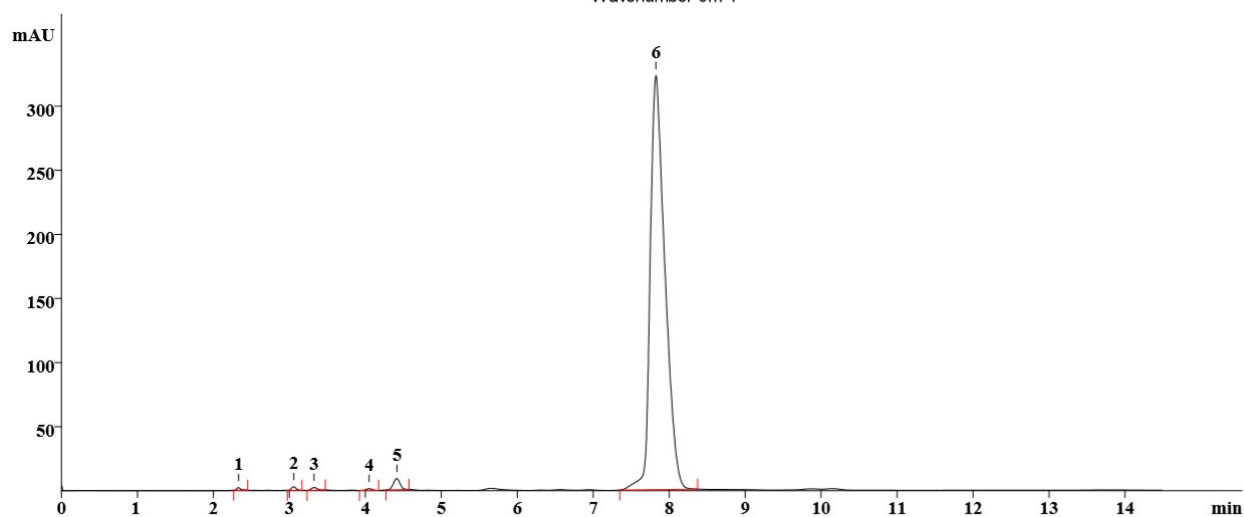
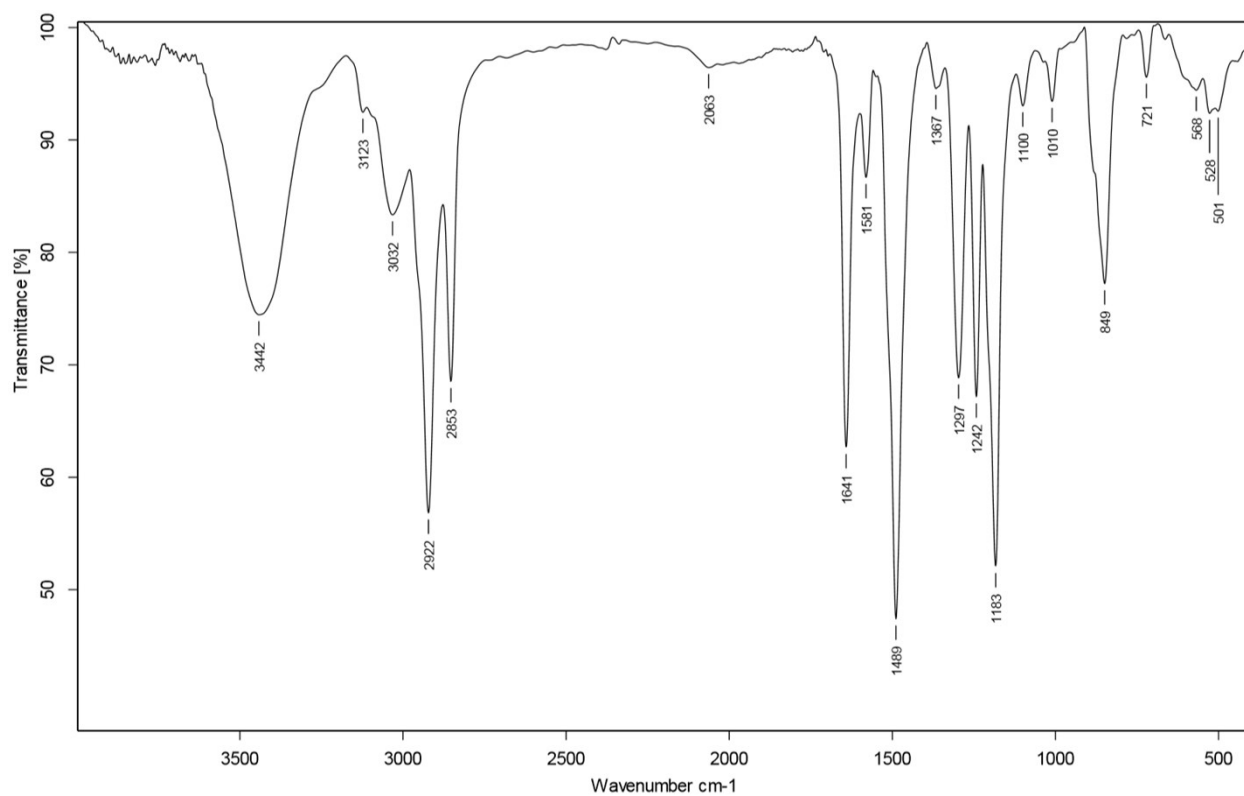


Peak table

<i>Peak</i>	<i>Retention min</i>	<i>Area</i>	<i>Height</i>	<i>Width h/2</i>	<i>Area%</i>	<i>Type</i>
1	2,82	13,446	3,930	0,0547	0,153	BB :
2	2,99	17,697	2,801	0,107	0,202	BB :
3	3,56	11,914	2,814	0,0692	0,136	BB :
4	3,84	66,563	12,070	0,0835	0,759	BB :
5	4,30	20,134	3,717	0,0876	0,230	BB :
6	4,51	25,942	4,562	0,0937	0,296	BB :
7	4,83	22,148	2,279	0,176	0,253	BB :
8	5,42	8528,019	843,565	0,156	97,265	BB :
9	6,60	61,979	4,895	0,171	0,707	BB :

27, 4OB4POB-11, Br





Peak table

Peak	Retention min	Area	Height	Width h/2	Area%	Type
1	2,33	7,286	1,957	0,0516	0,164	BB :
2	3,06	11,655	2,712	0,0677	0,263	BB :
3	3,33	10,483	2,049	0,0802	0,236	BB :
4	4,05	7,135	1,334	0,0845	0,161	BB :
5	4,41	53,017	8,696	0,0938	1,194	BB :
6	7,83	4349,826	322,766	0,209	97,982	BB :