

SUPPLEMENTARY DATA

New *N*-substituted-1,2,4-triazole Derivatives of Pyrrolo[3,4-*d*]pyridazinone with Significant Anti-Inflammatory Activity - Design, Synthesis and Complementary *In Vitro*, Computational and Spectroscopic Studies

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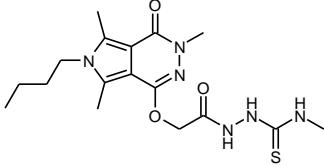
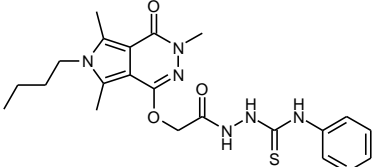
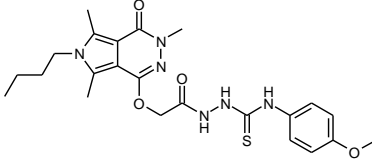
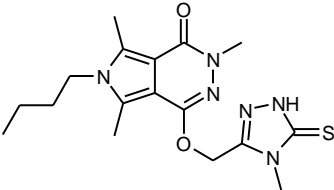
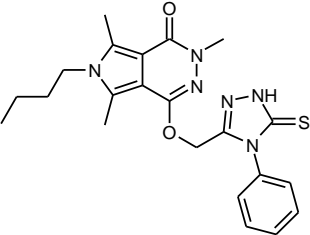
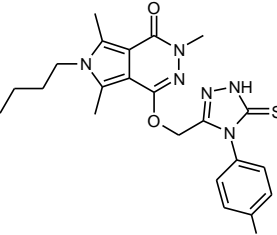
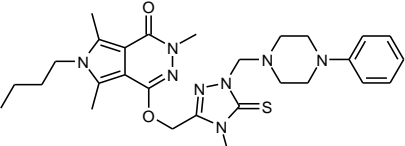
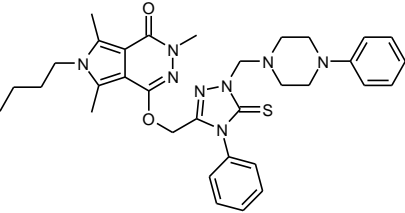
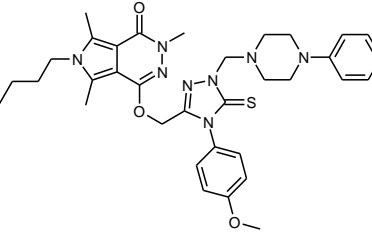
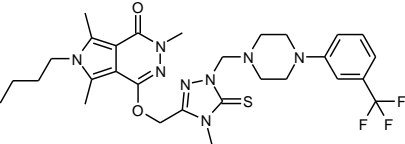
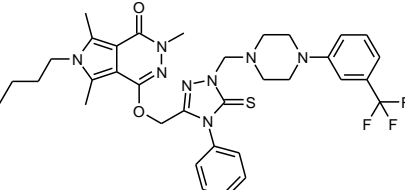
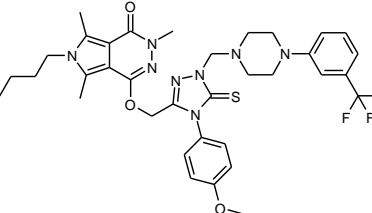
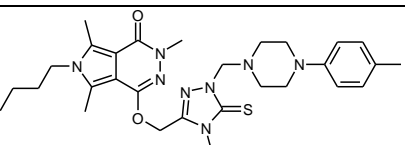
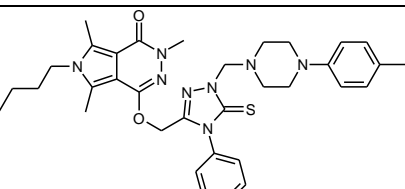
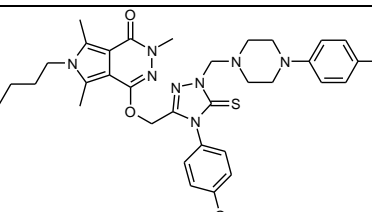
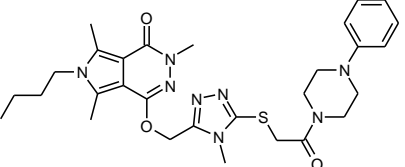
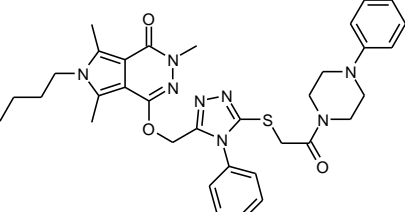
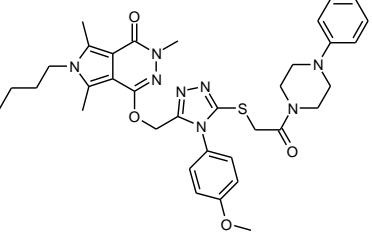
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Table S1 - Structures of new compounds

		
2a	2b	2c
		
3a	3b	3c
		
4a	4b	4c
		
5a	5b	5c
		
6a	6b	6c
		
7a	7b	7c

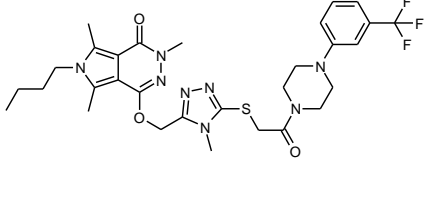
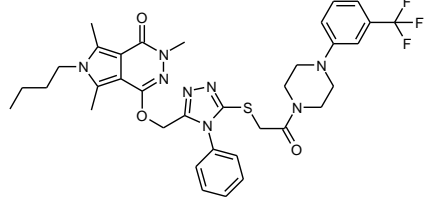
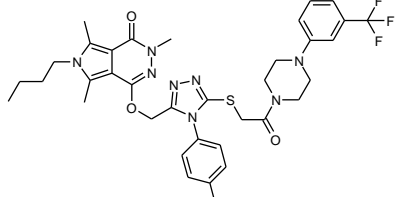
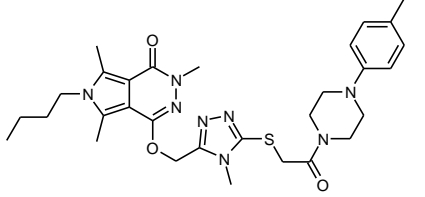
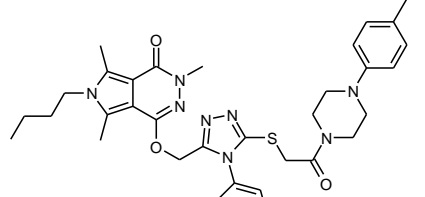
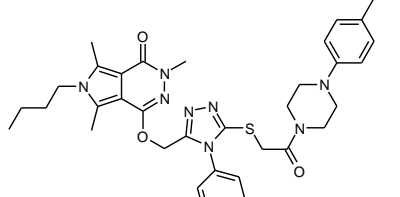
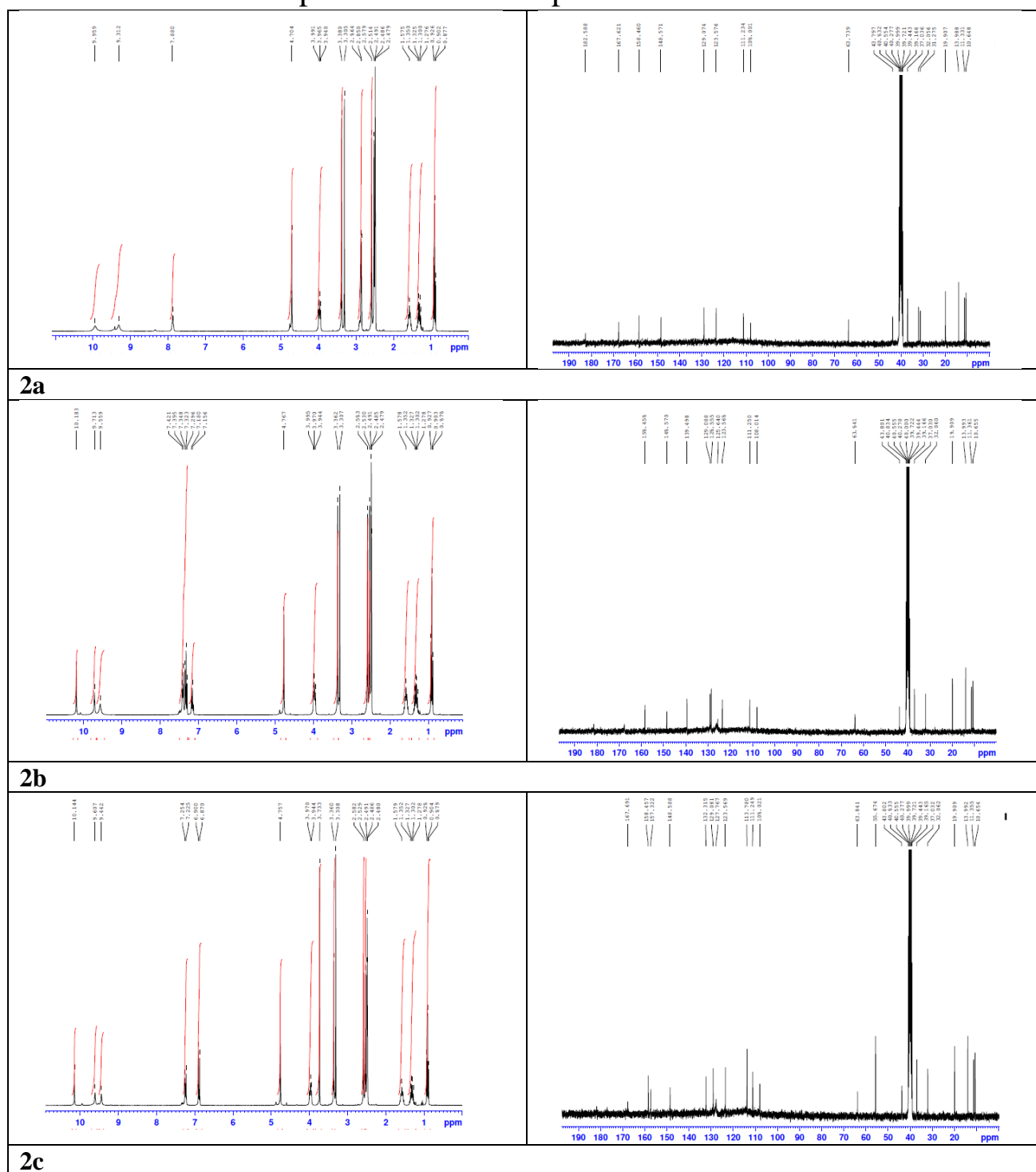
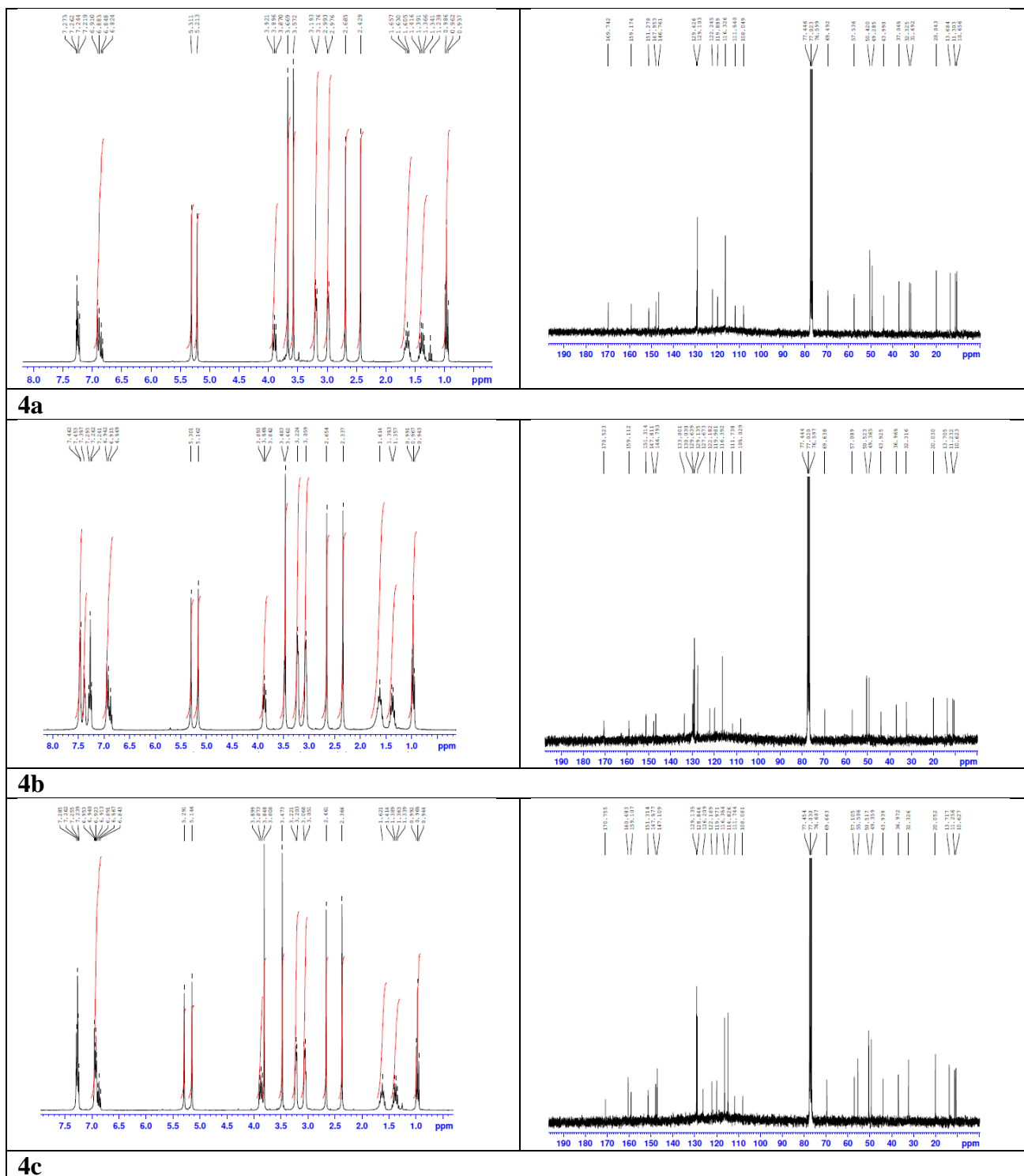
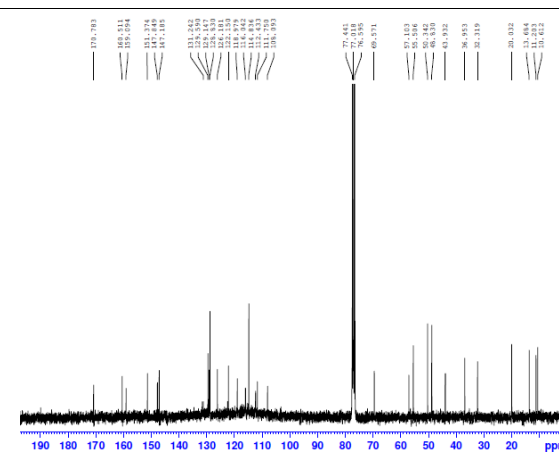
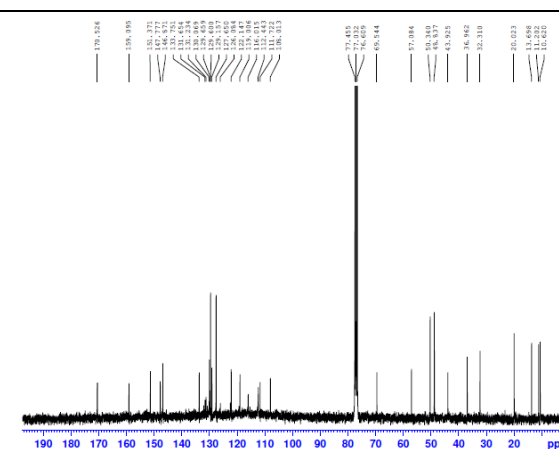
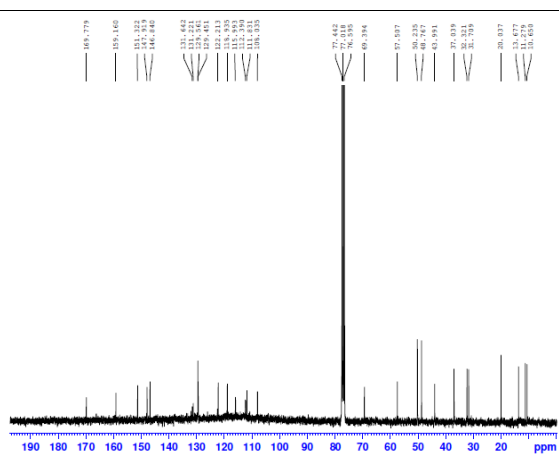
		
8a	8b	8c
		
9a	9b	9c

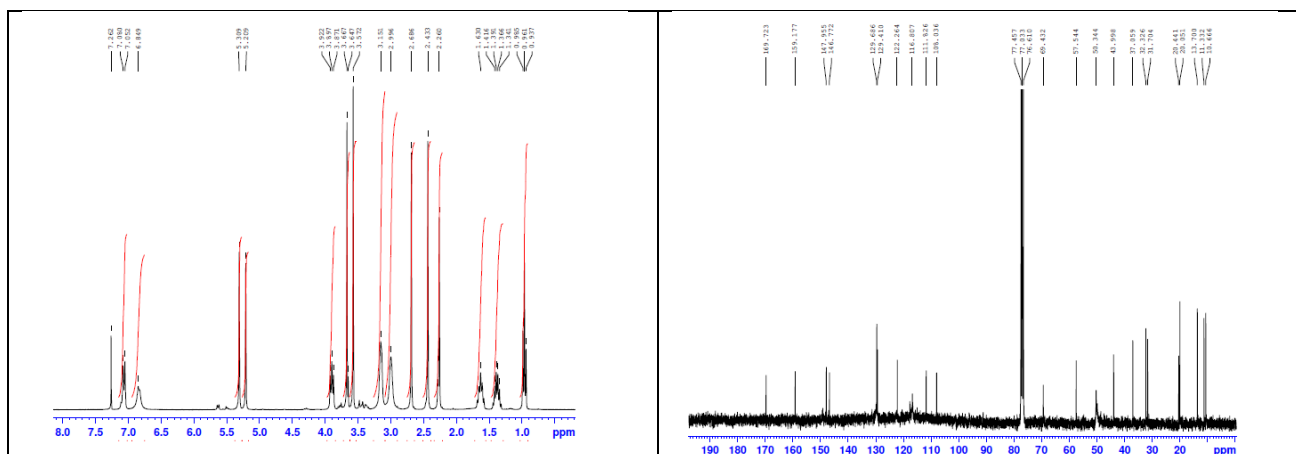
Table S2 - NMR spectra of new compounds

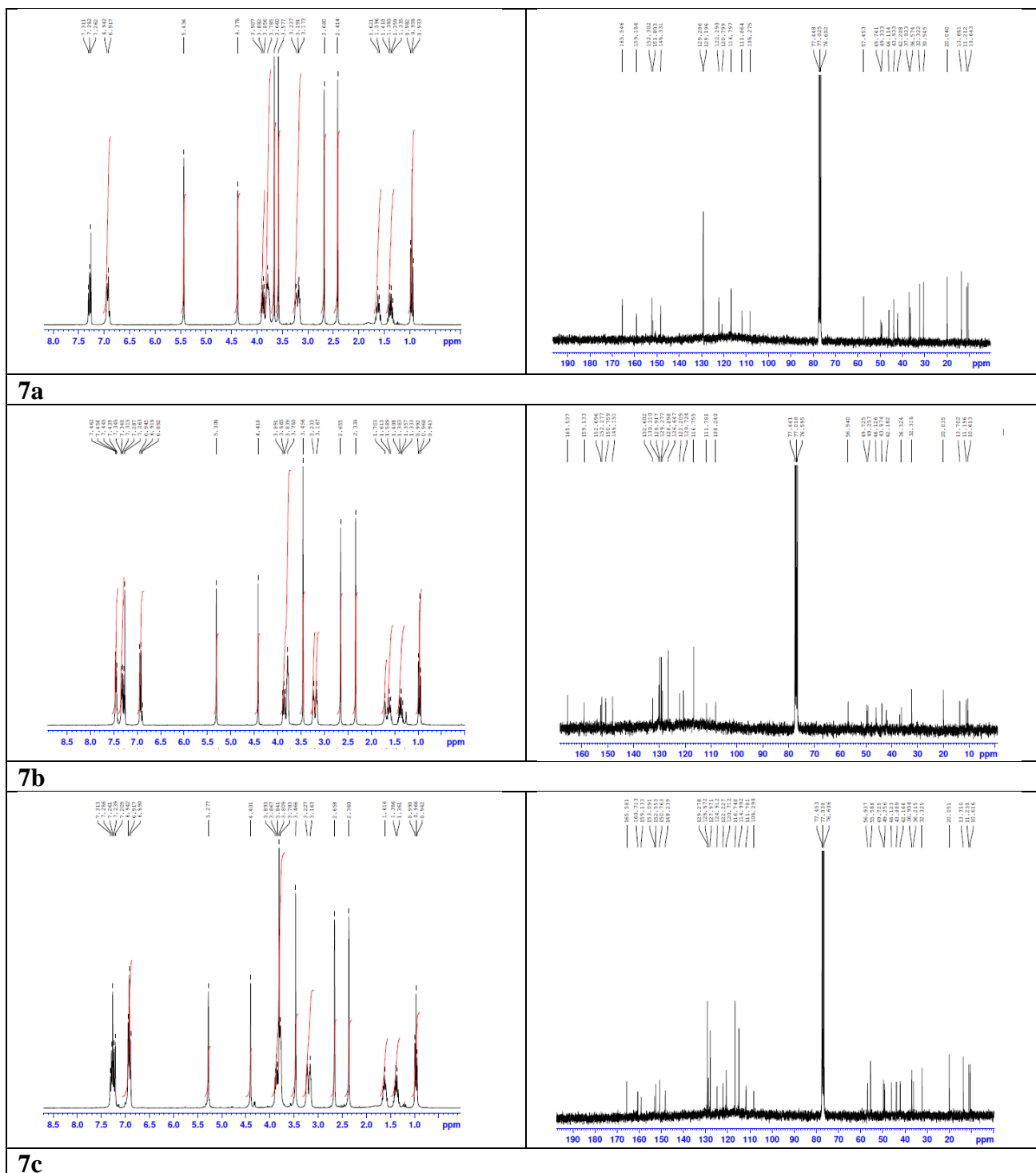






5c





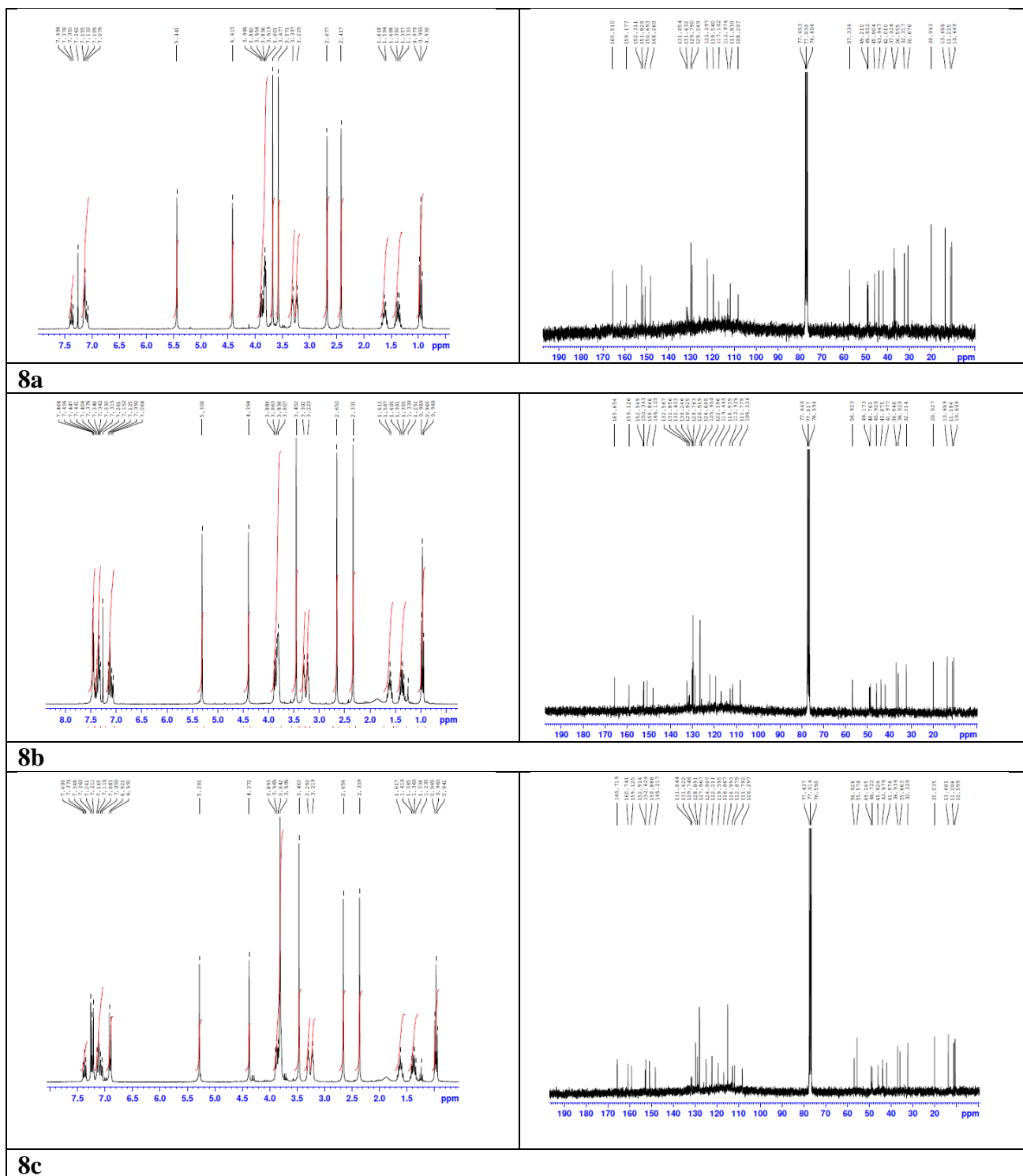
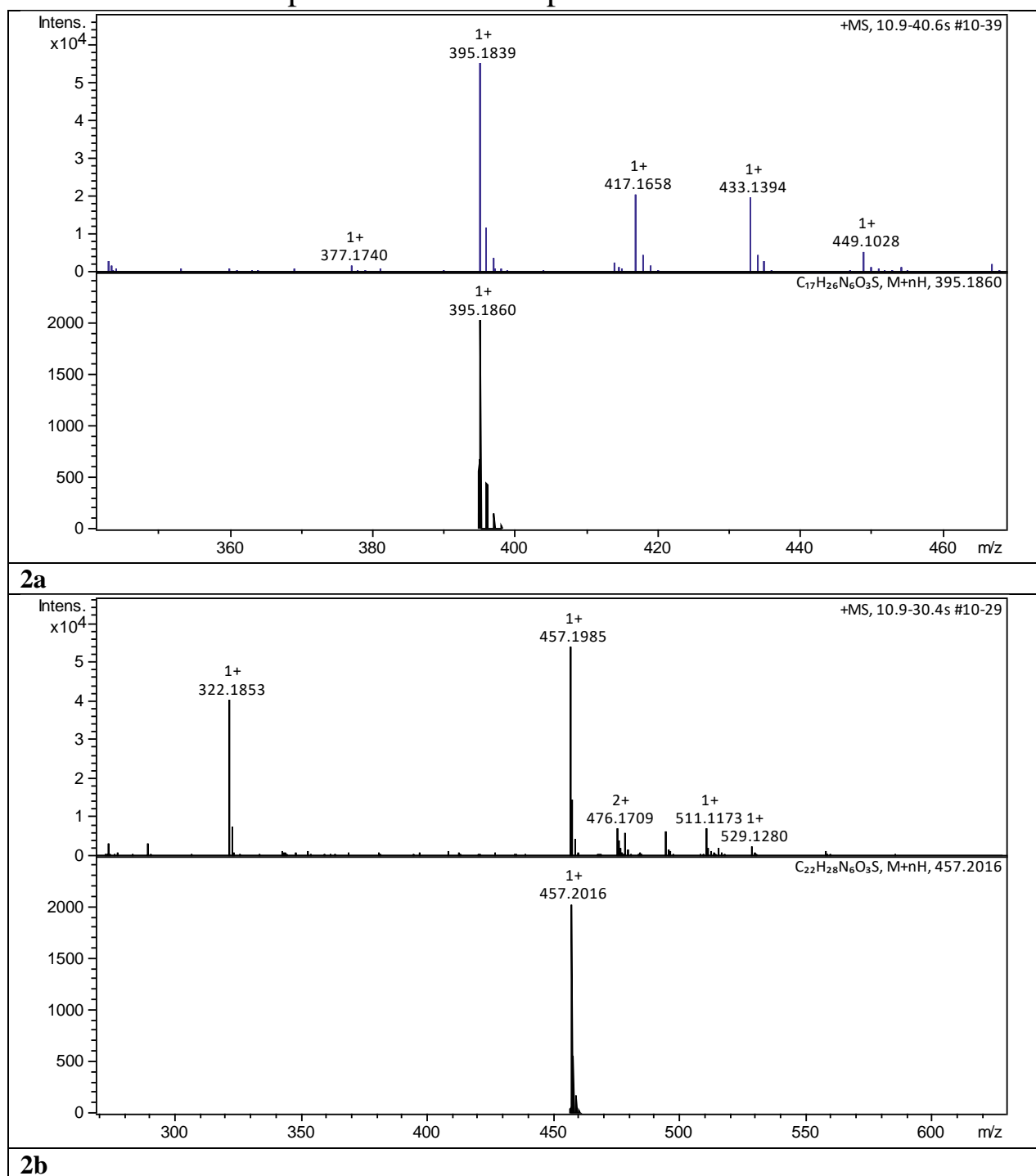
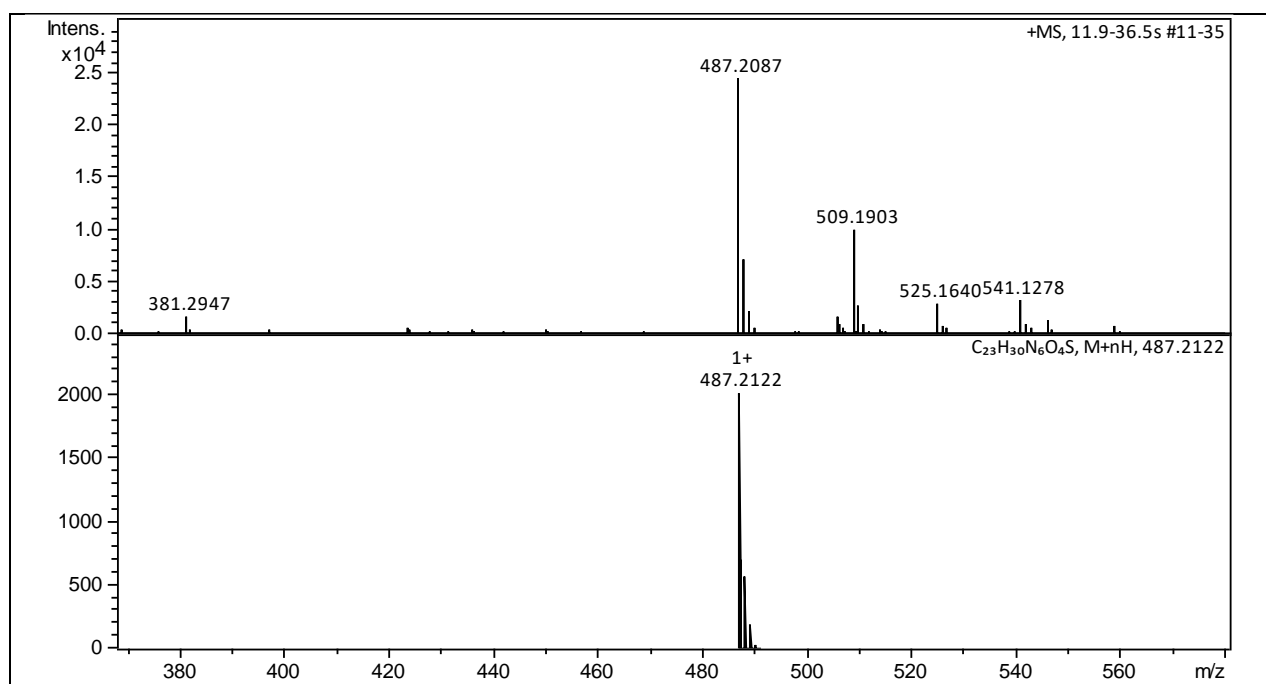
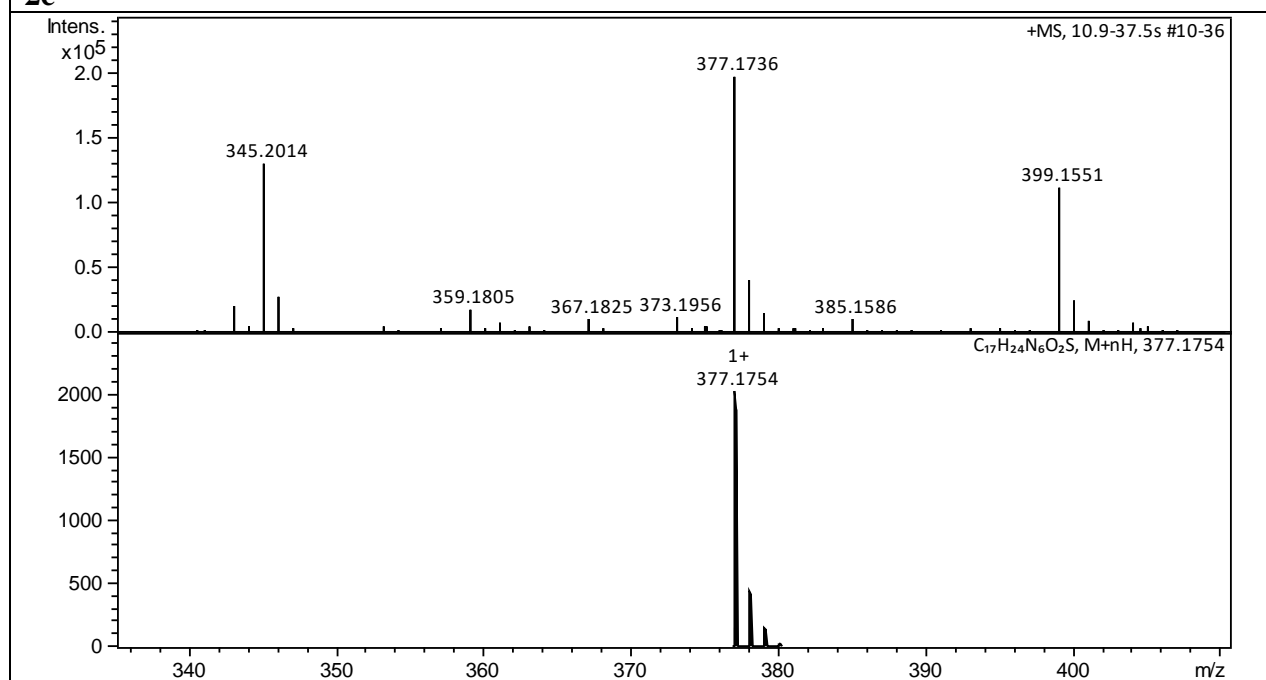


Table S3 - Mass spectra of new compounds

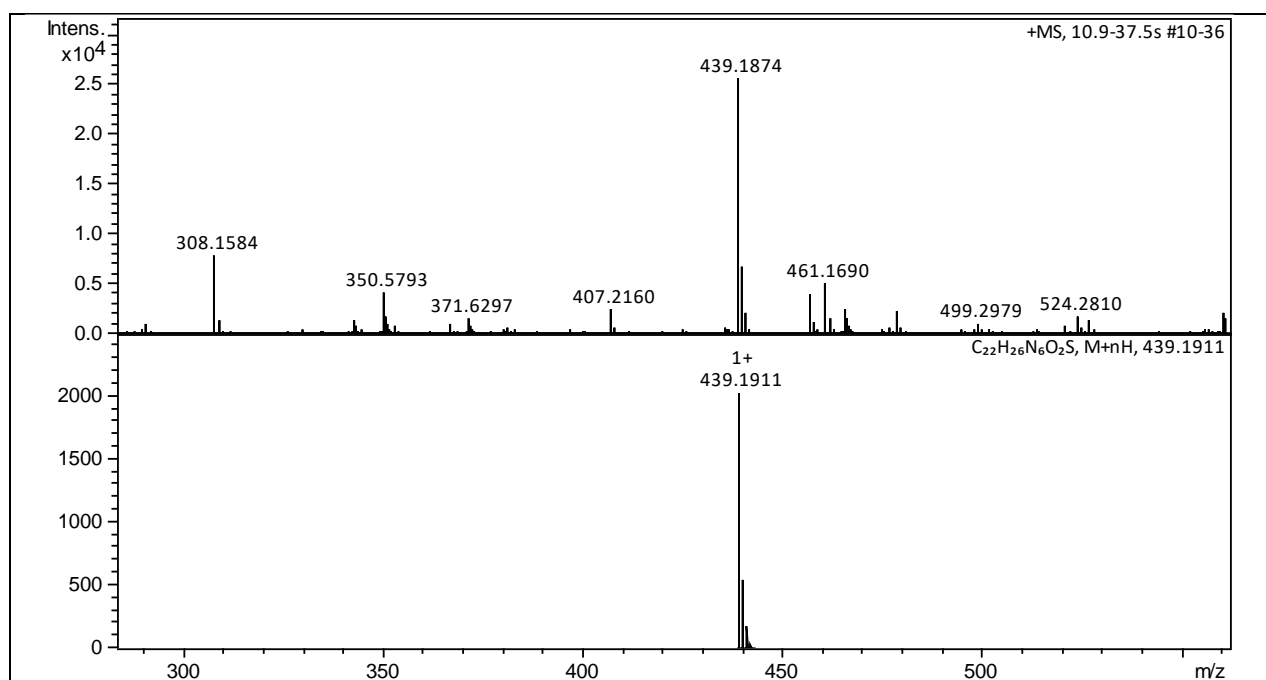




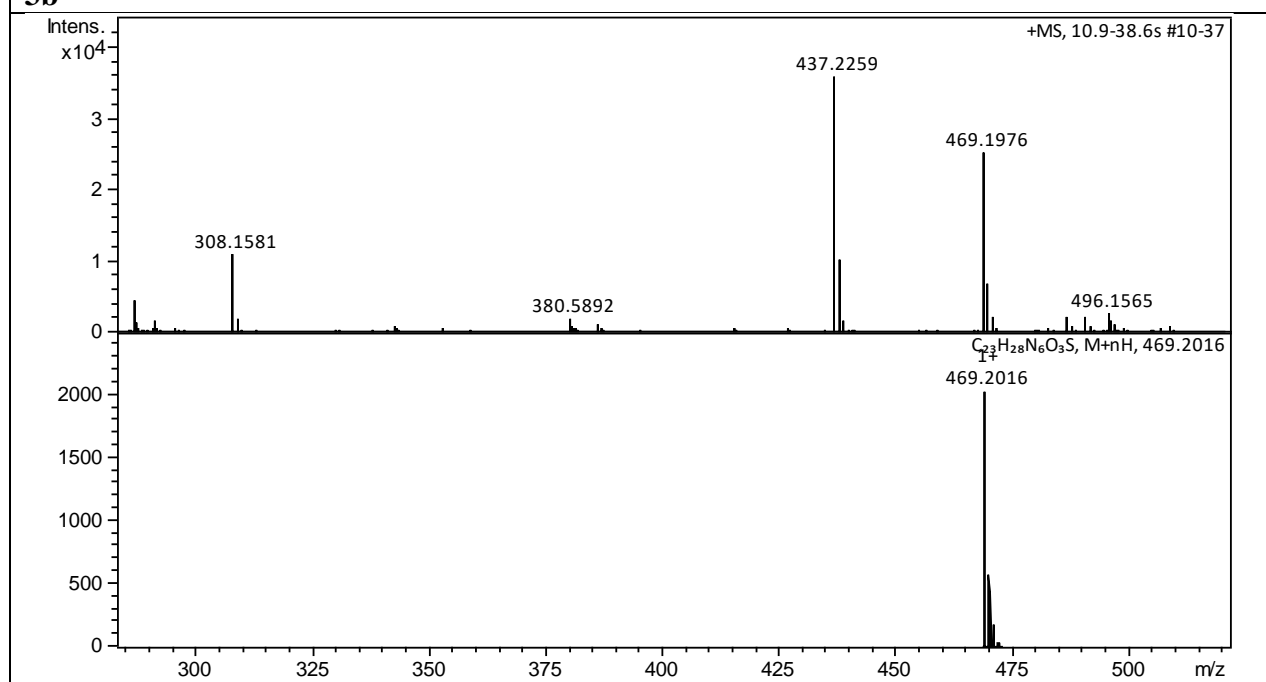
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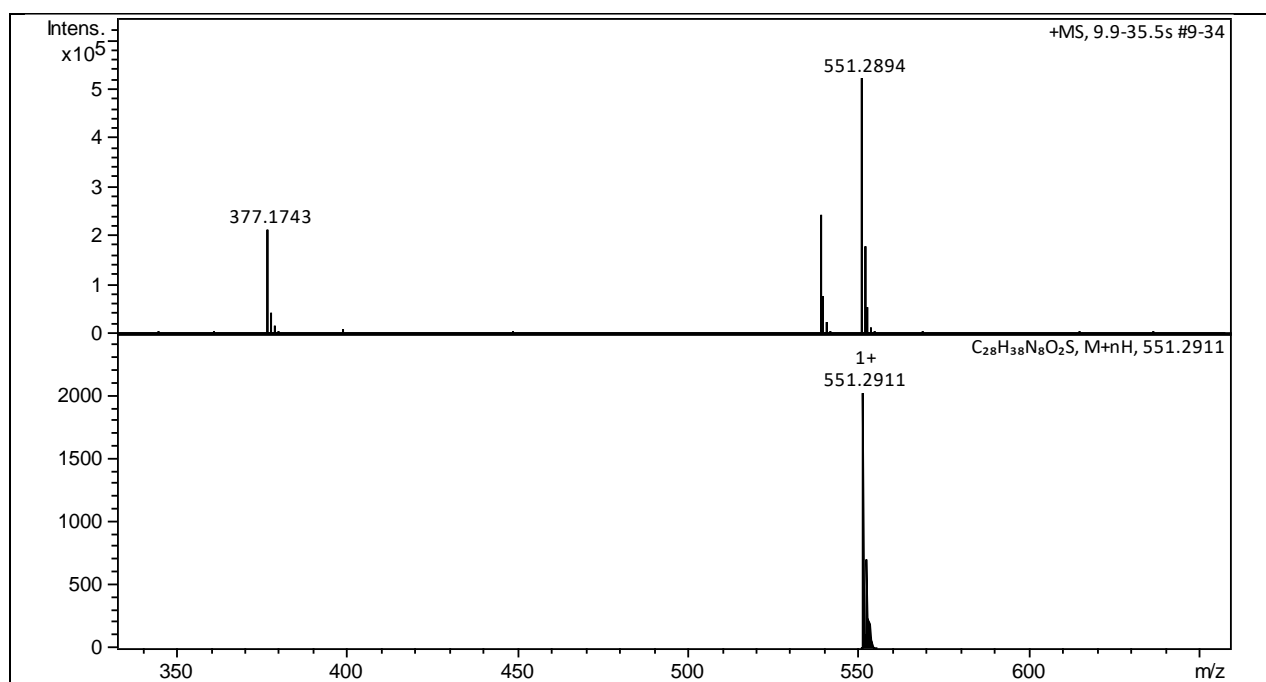
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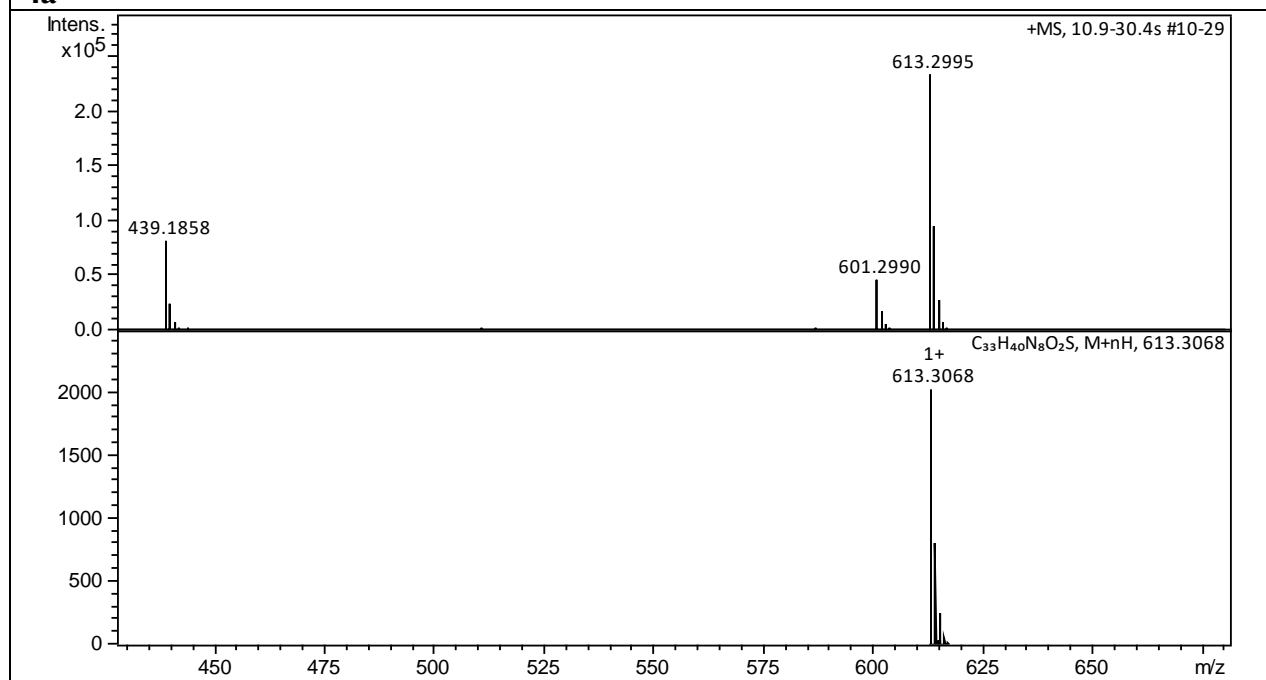
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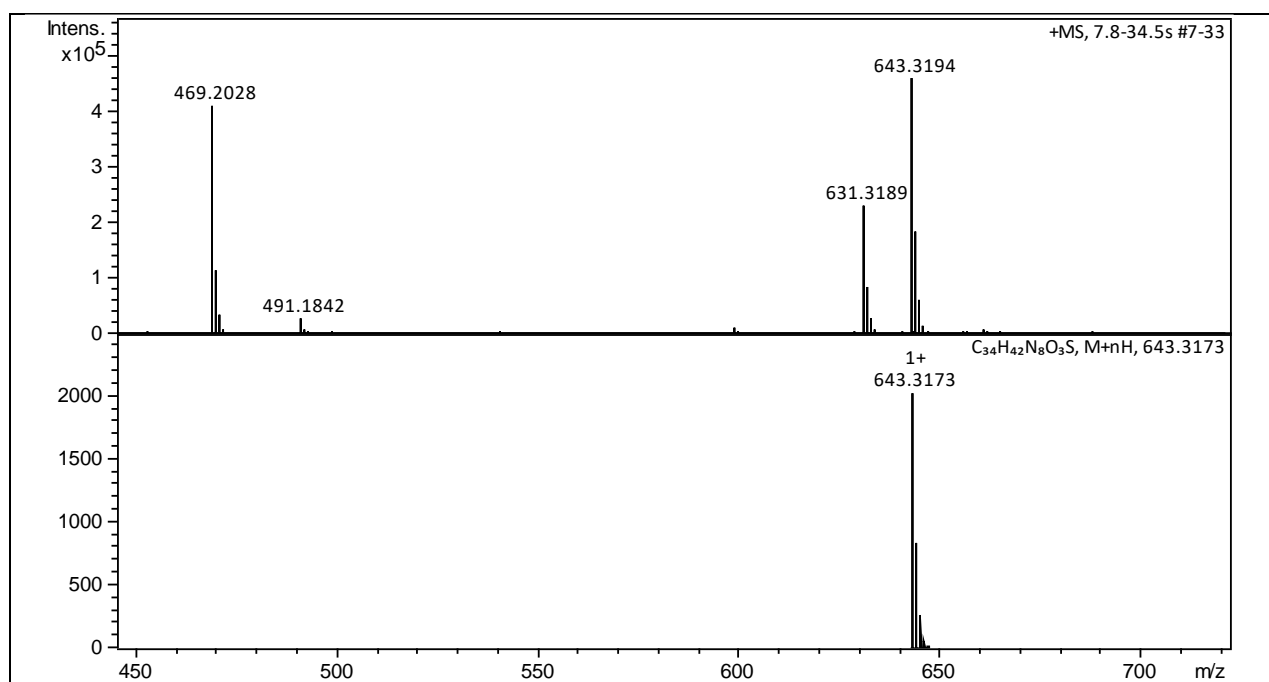
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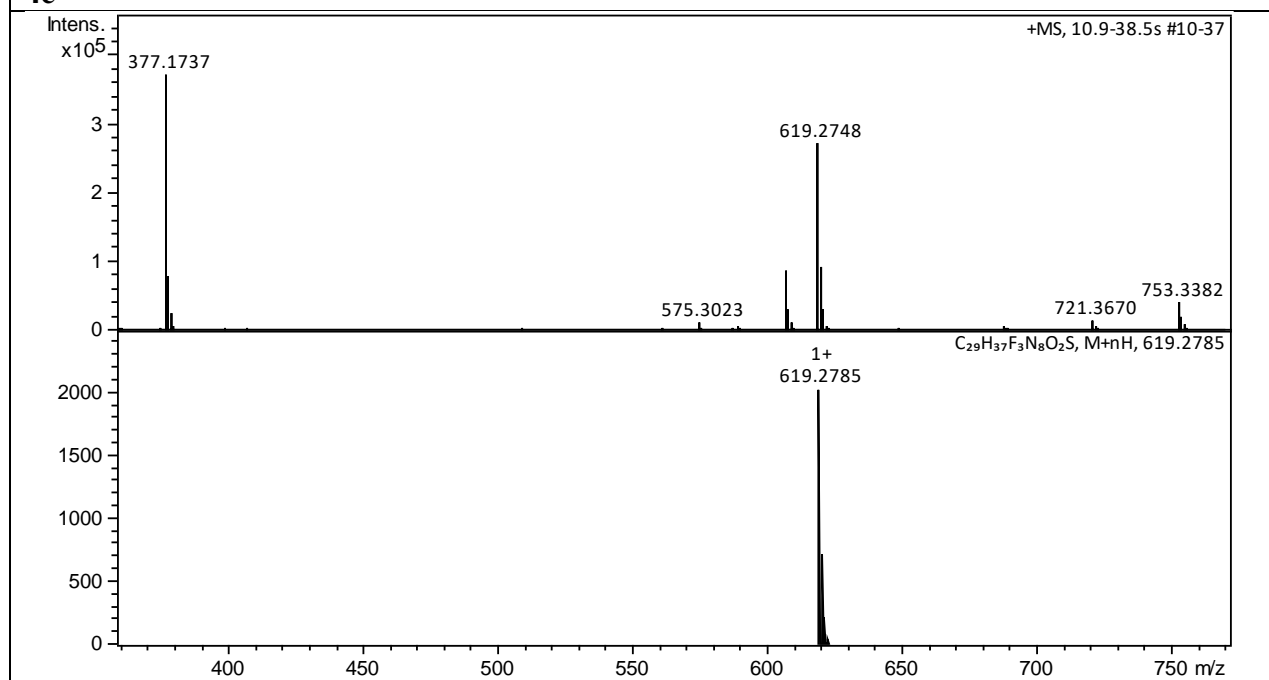
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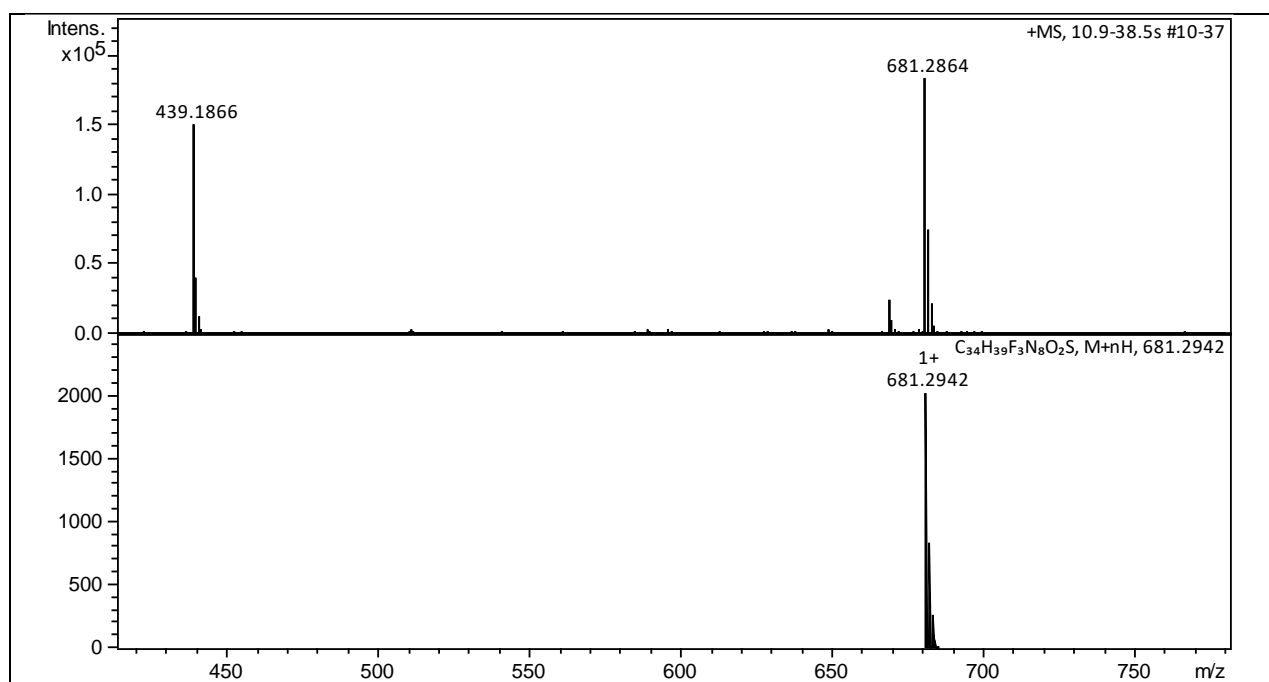
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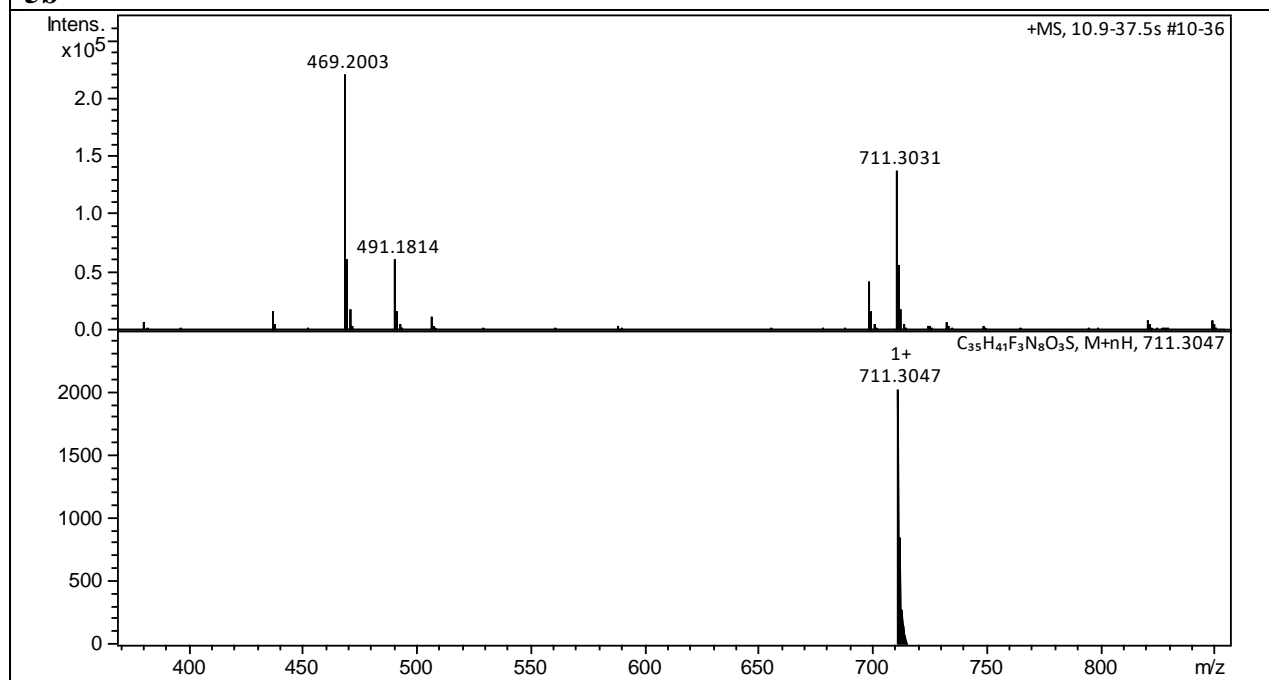
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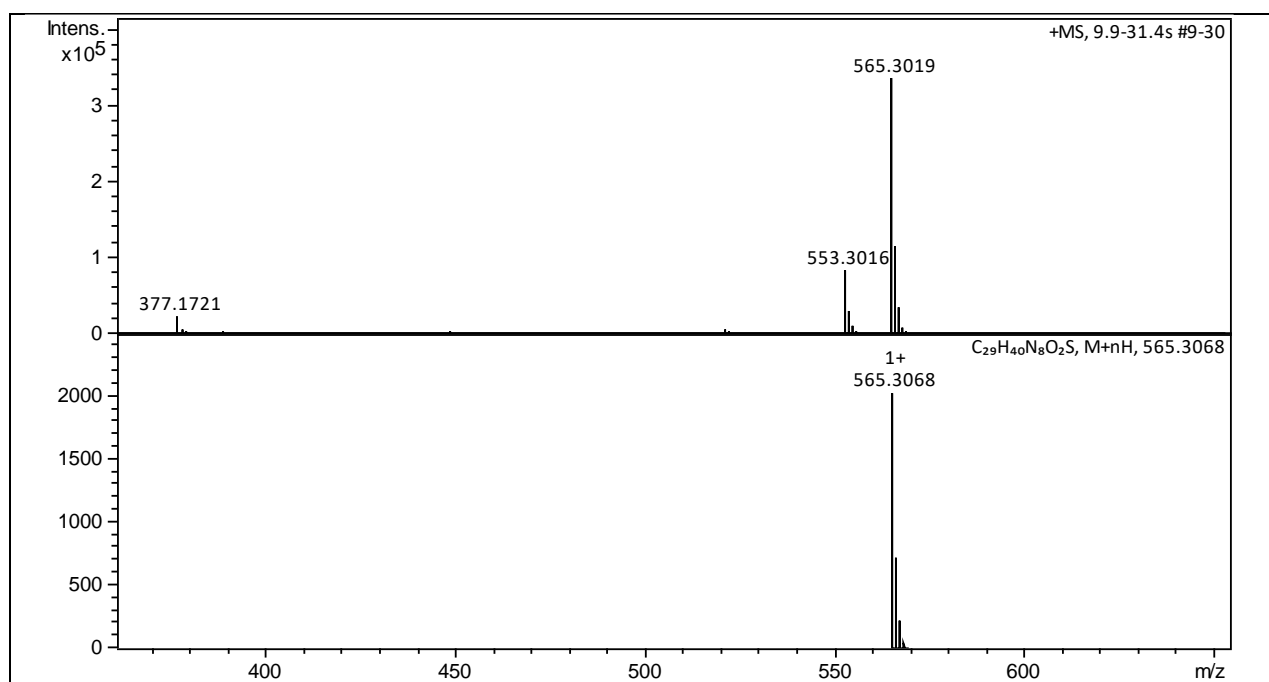
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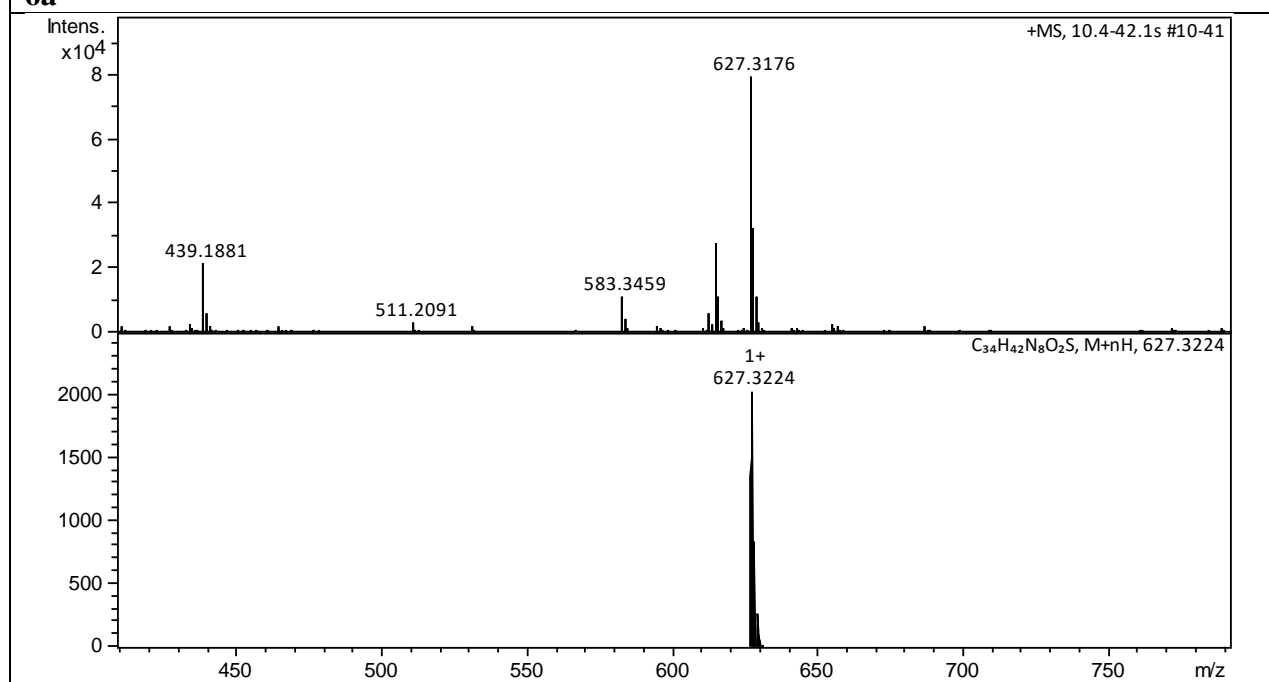
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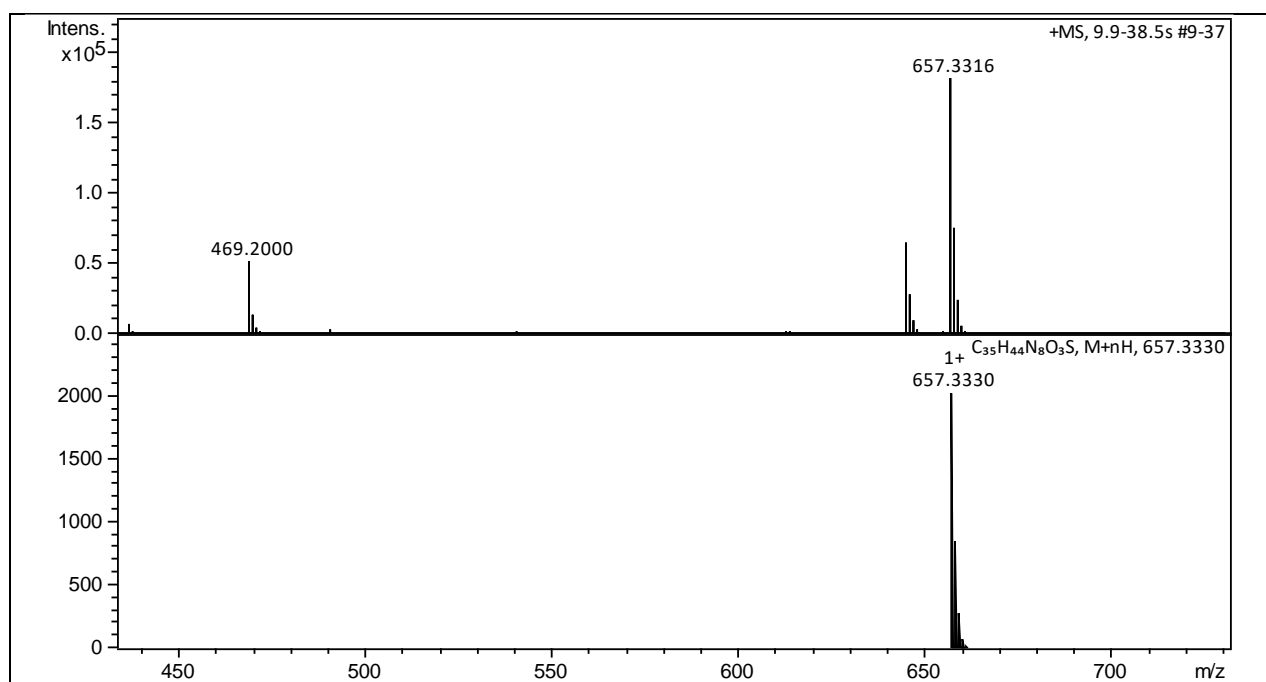
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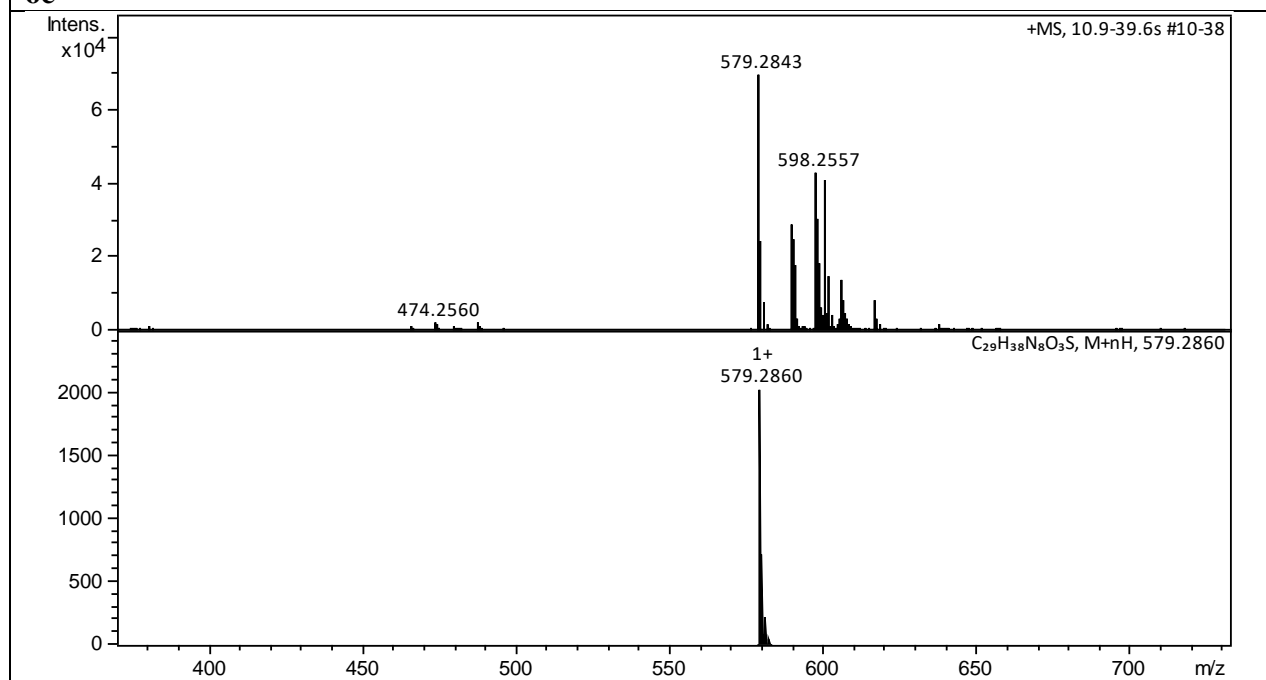
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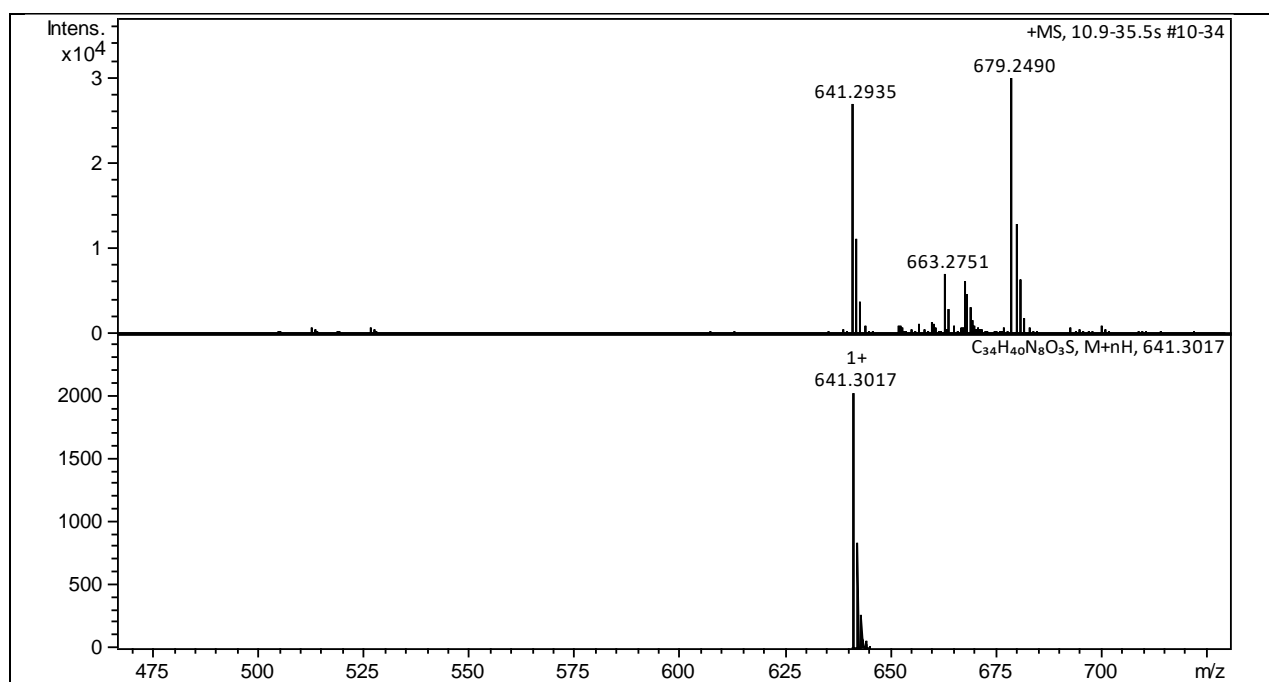
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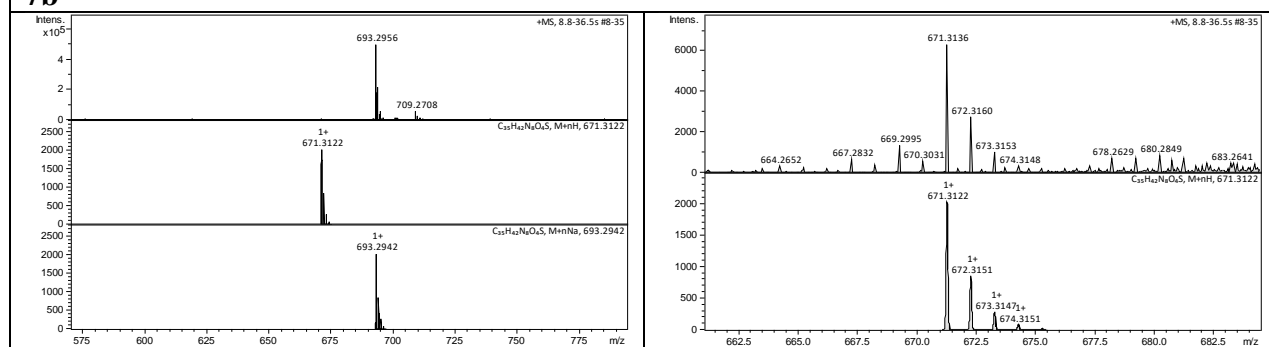
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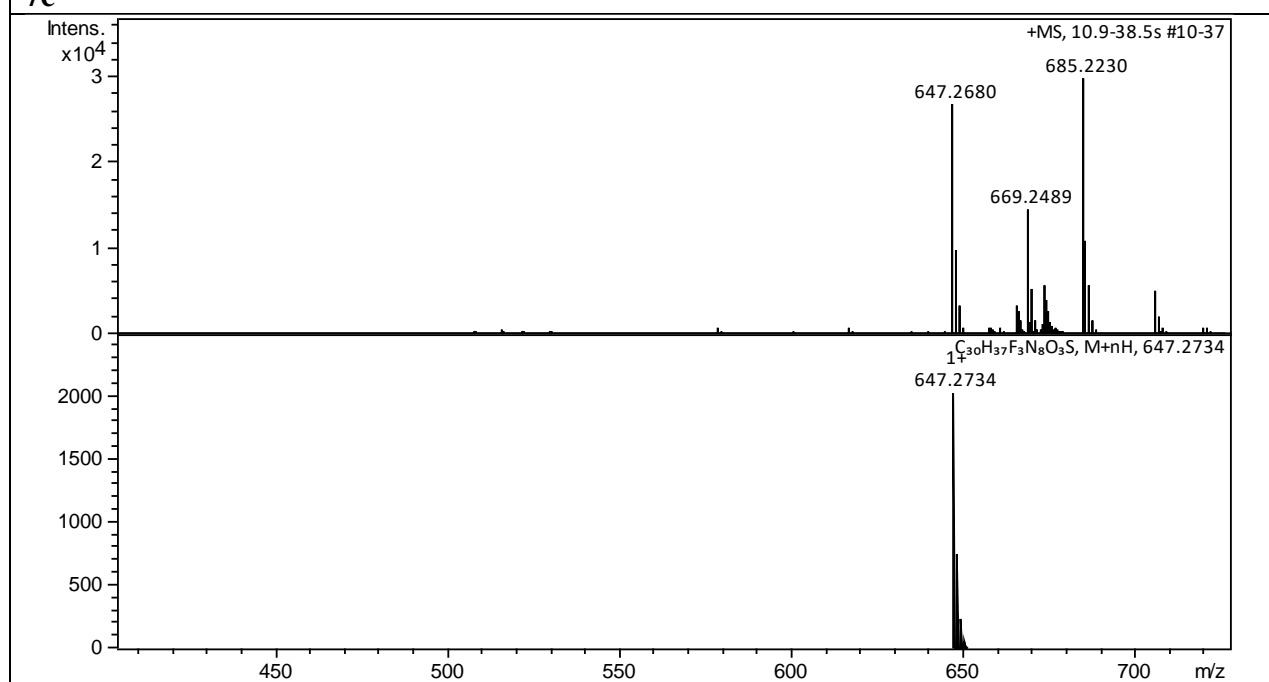
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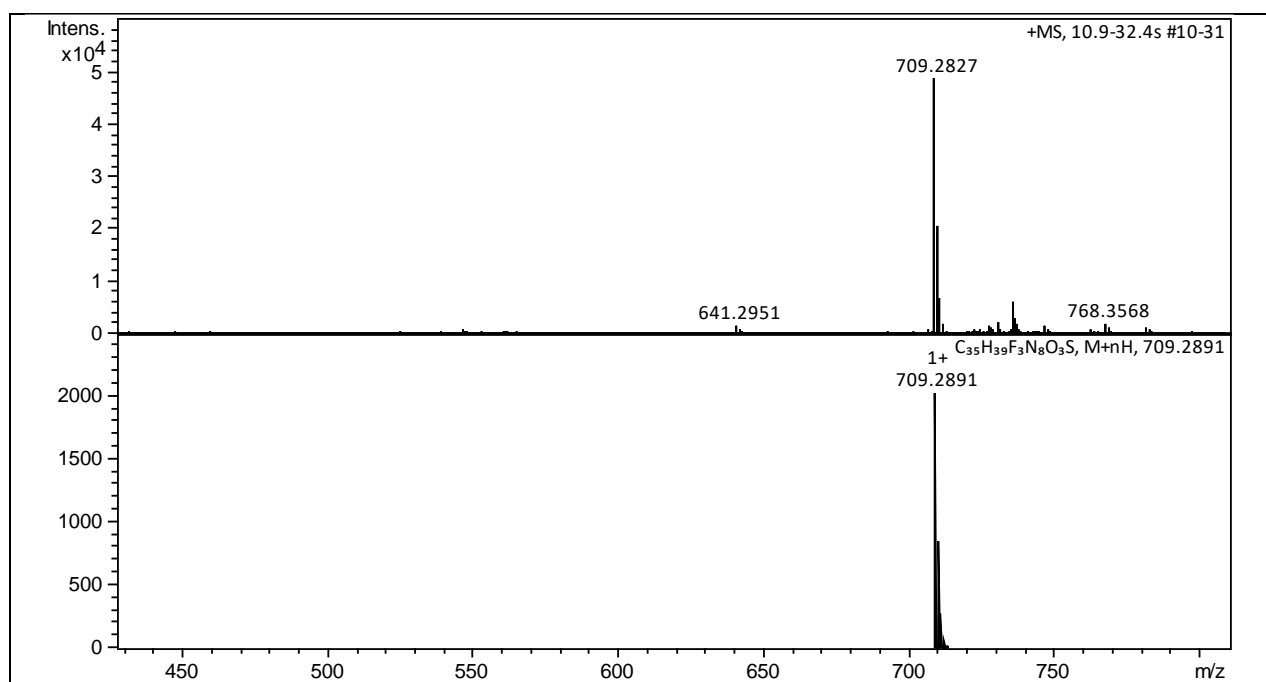
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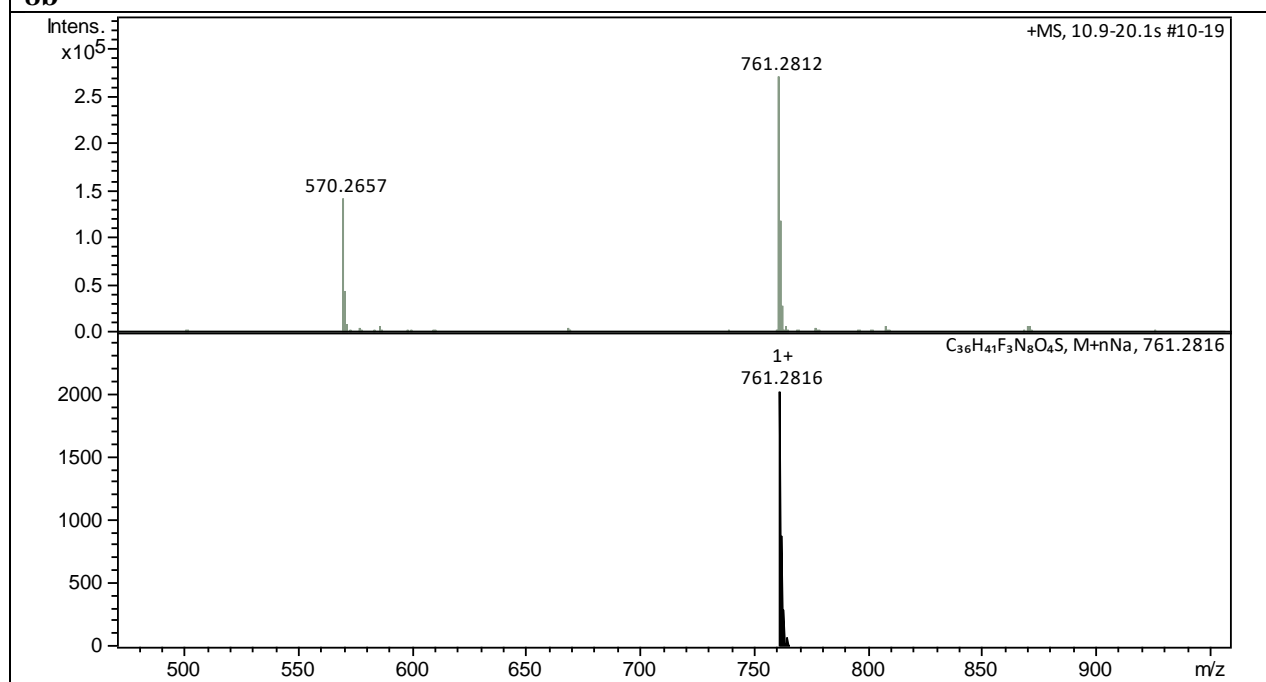
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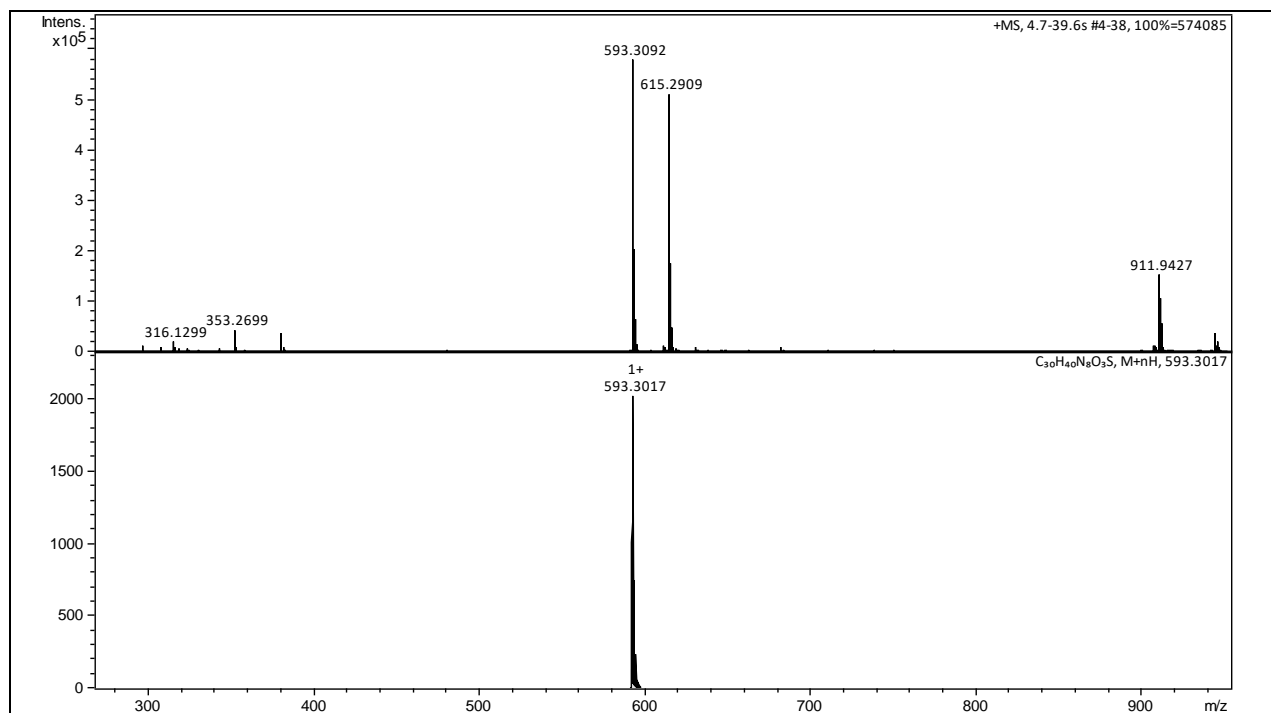
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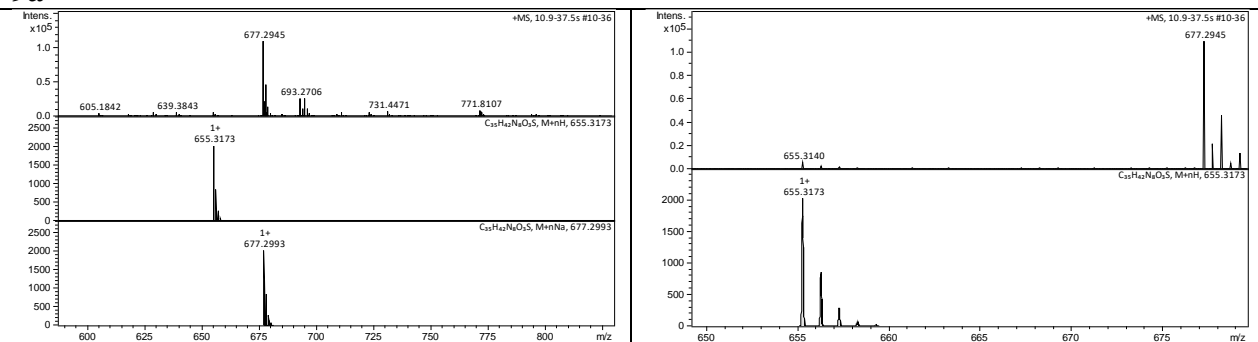
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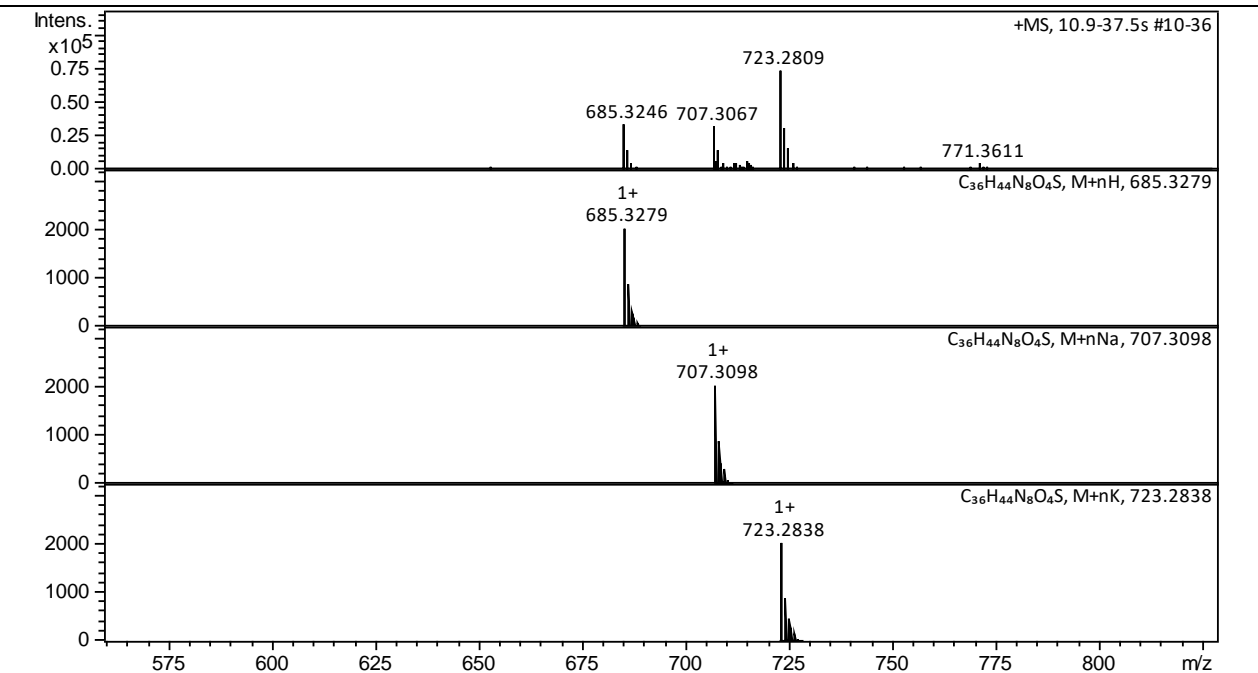
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9a

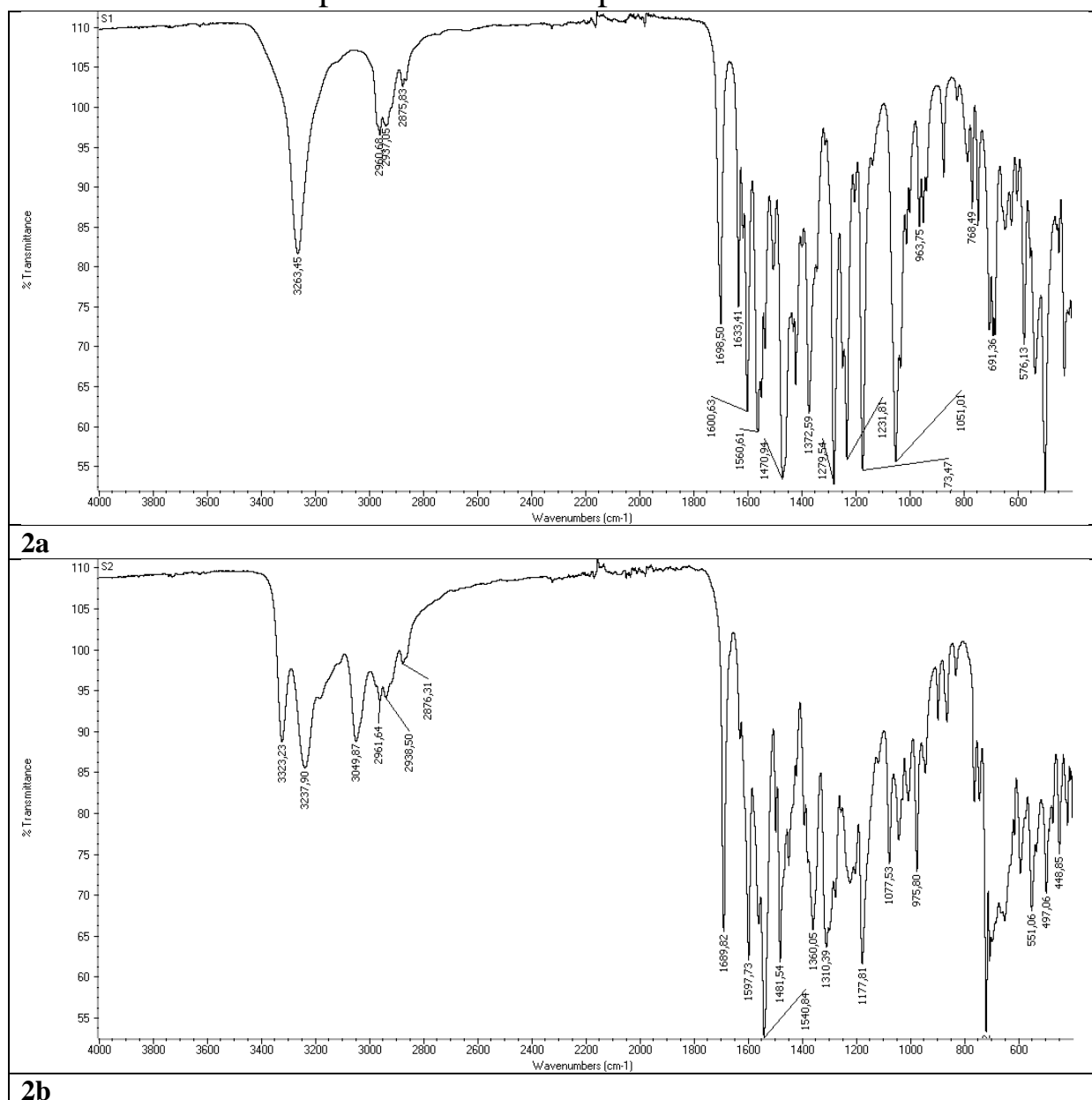


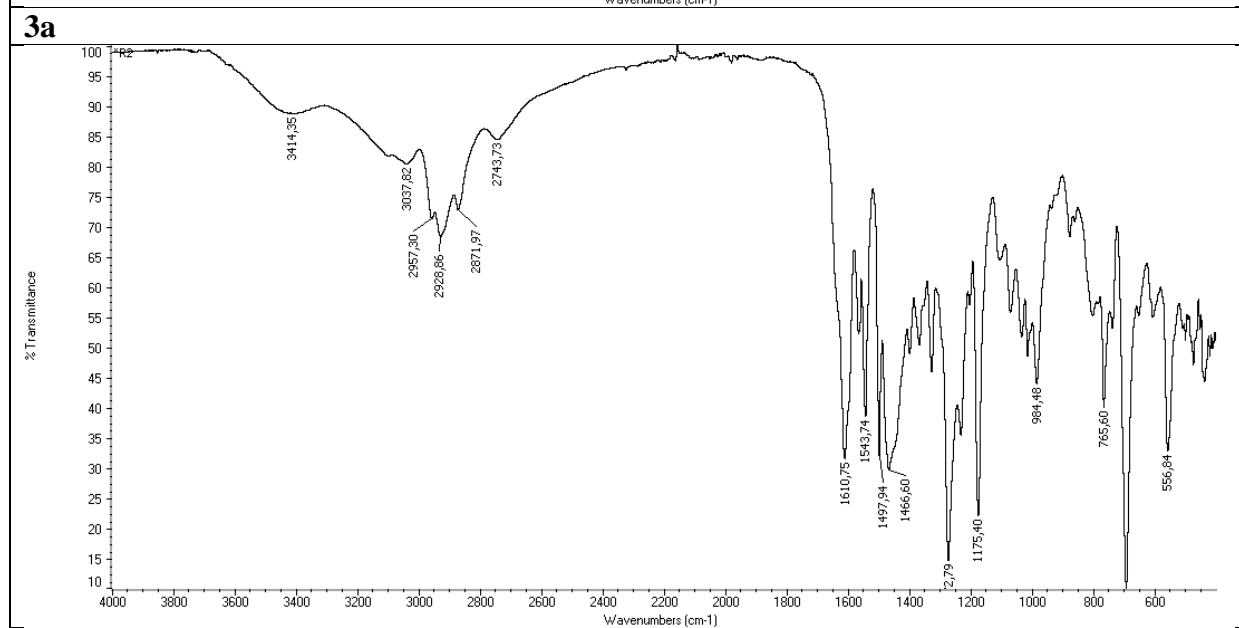
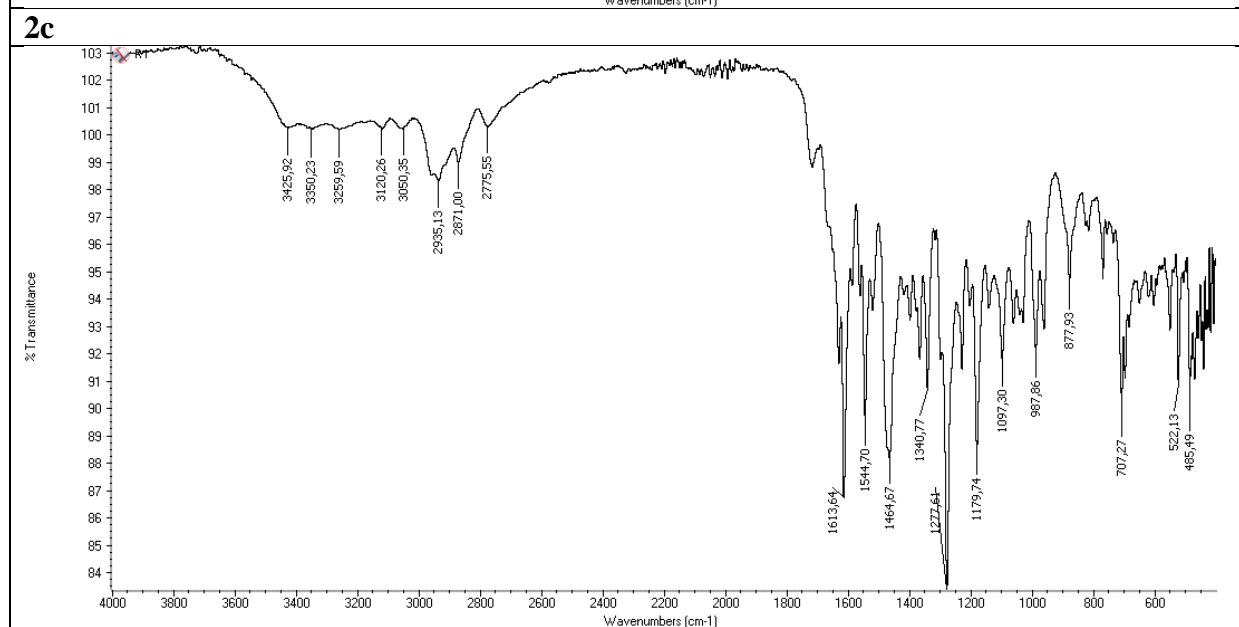
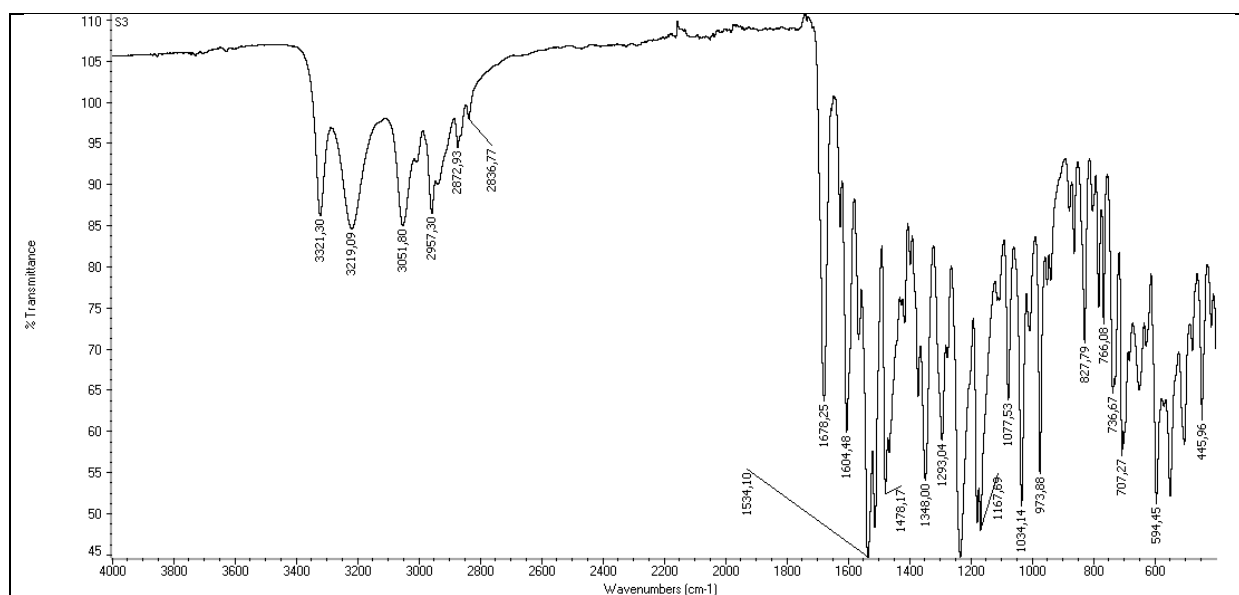
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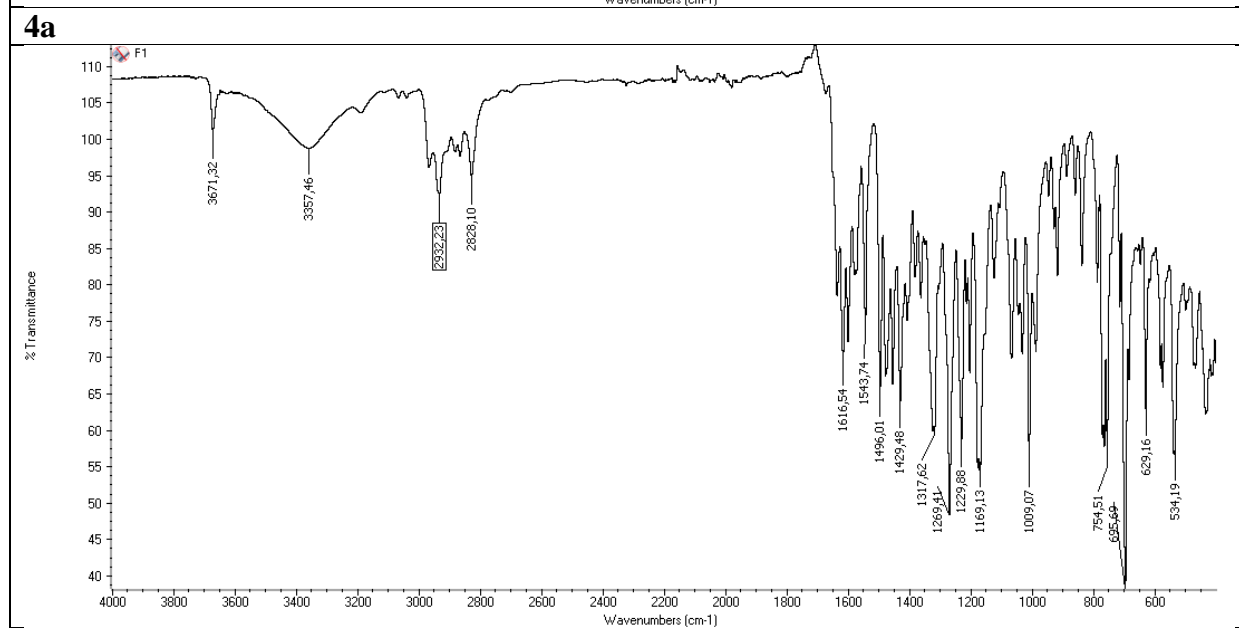
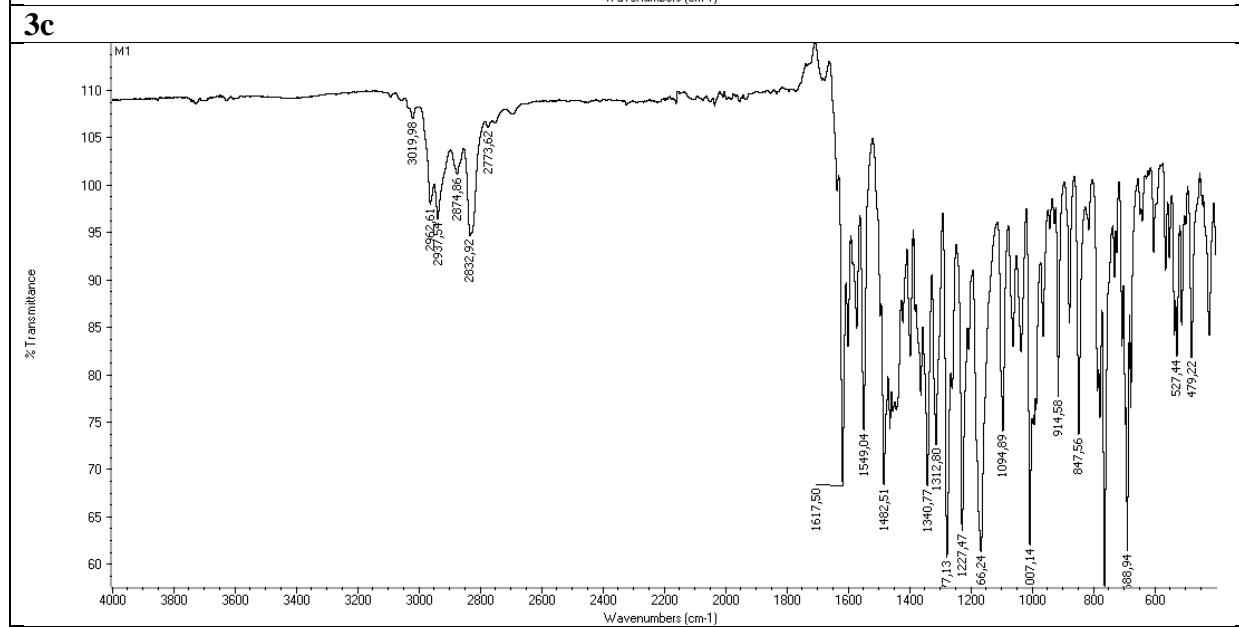
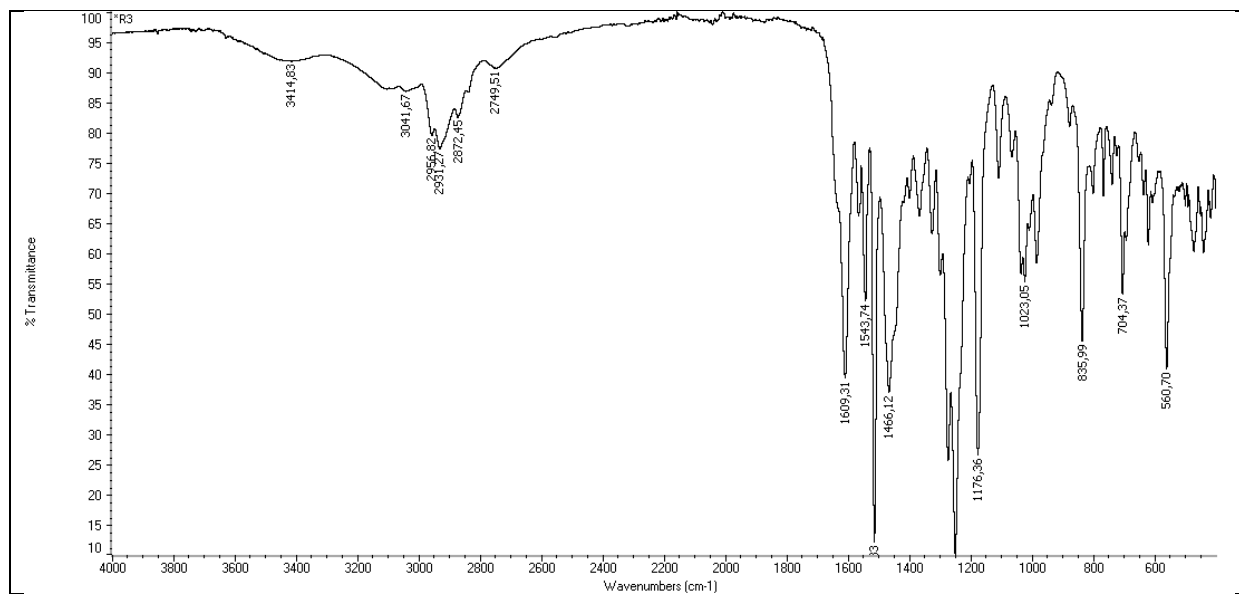
9c

Table S4 – FT-IR spectra of new compounds

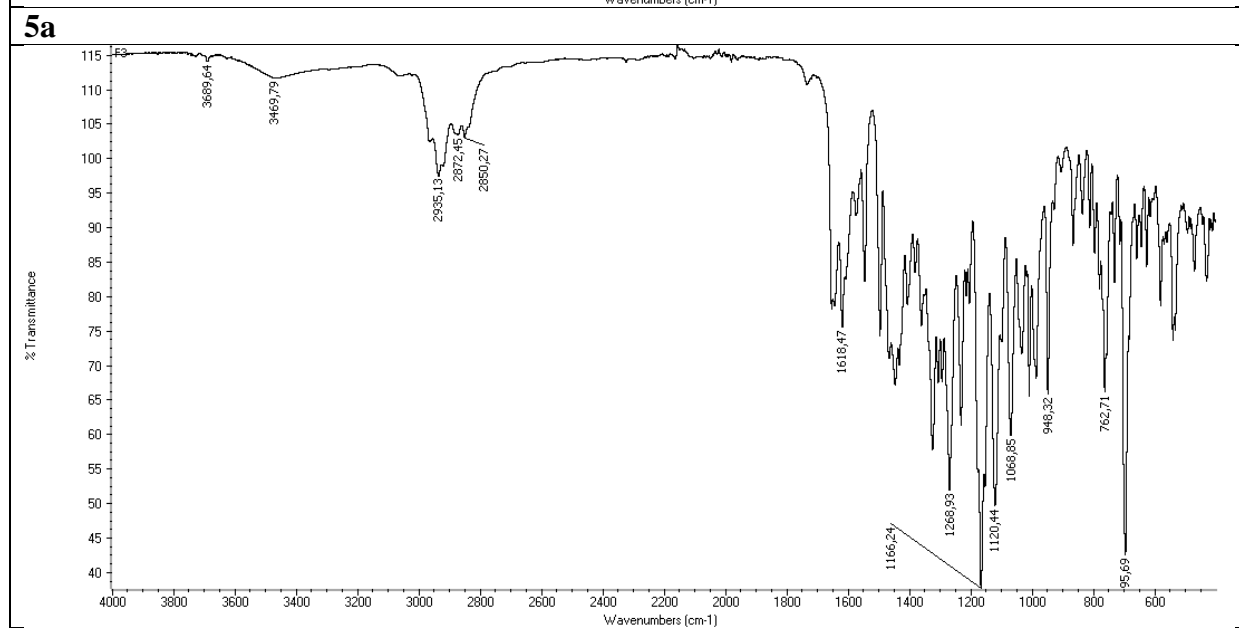
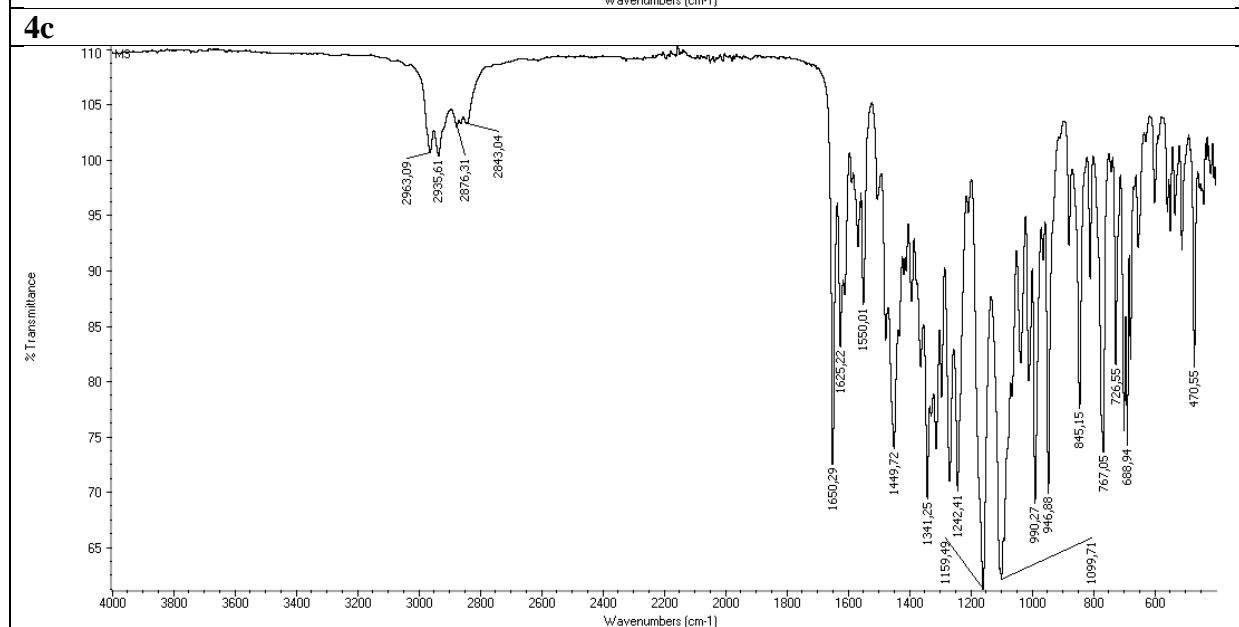
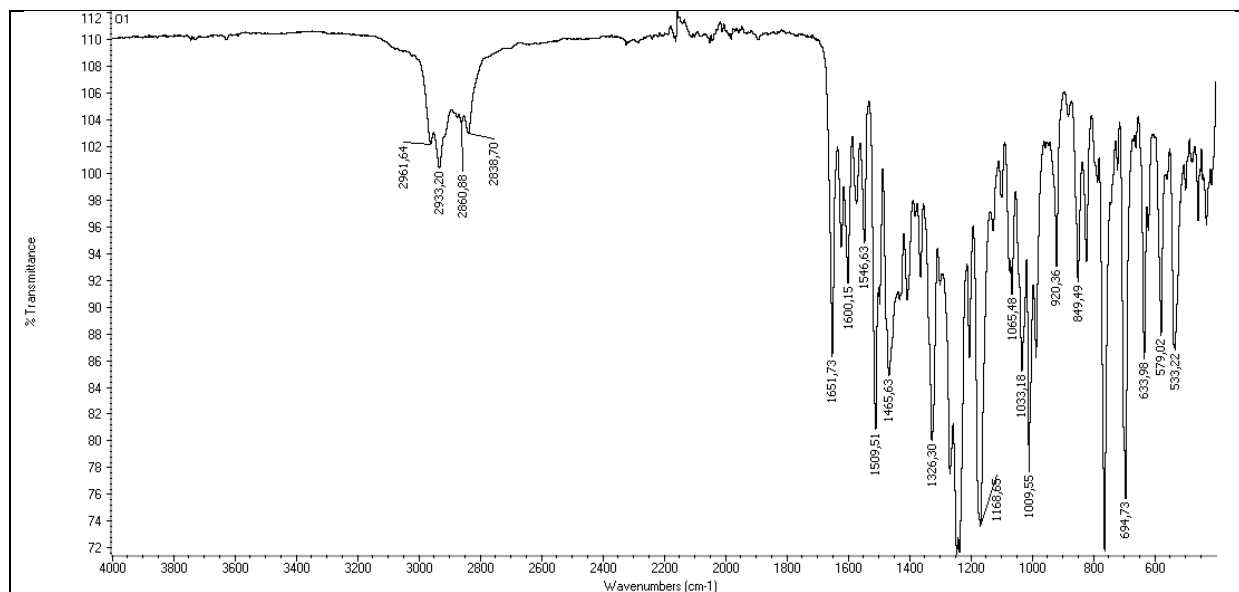




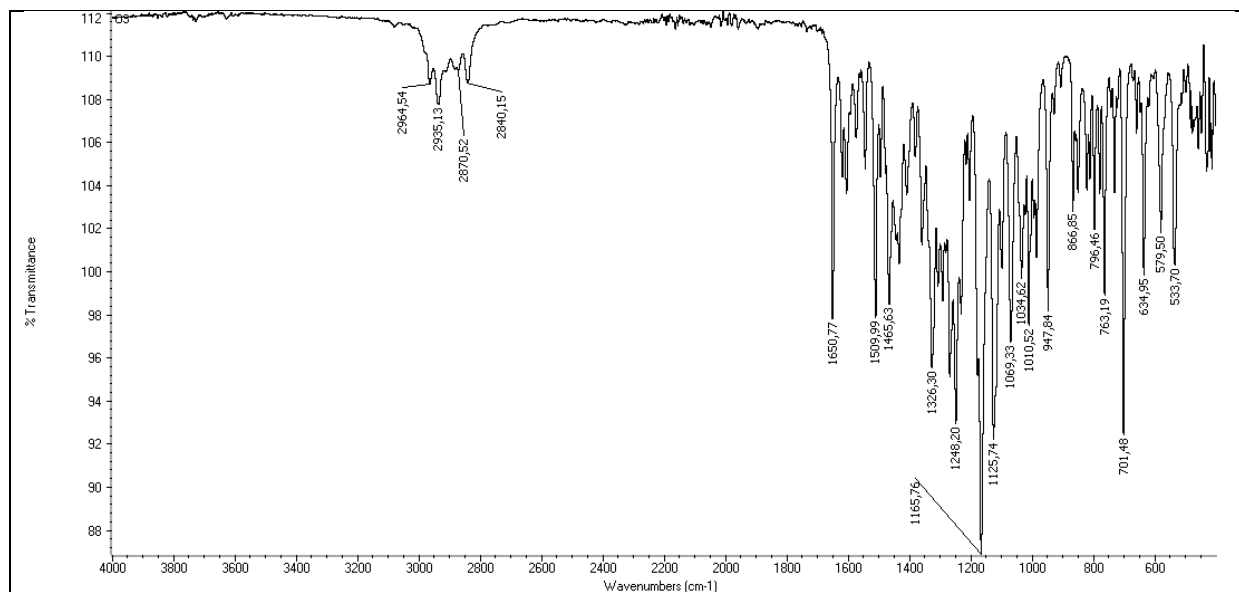
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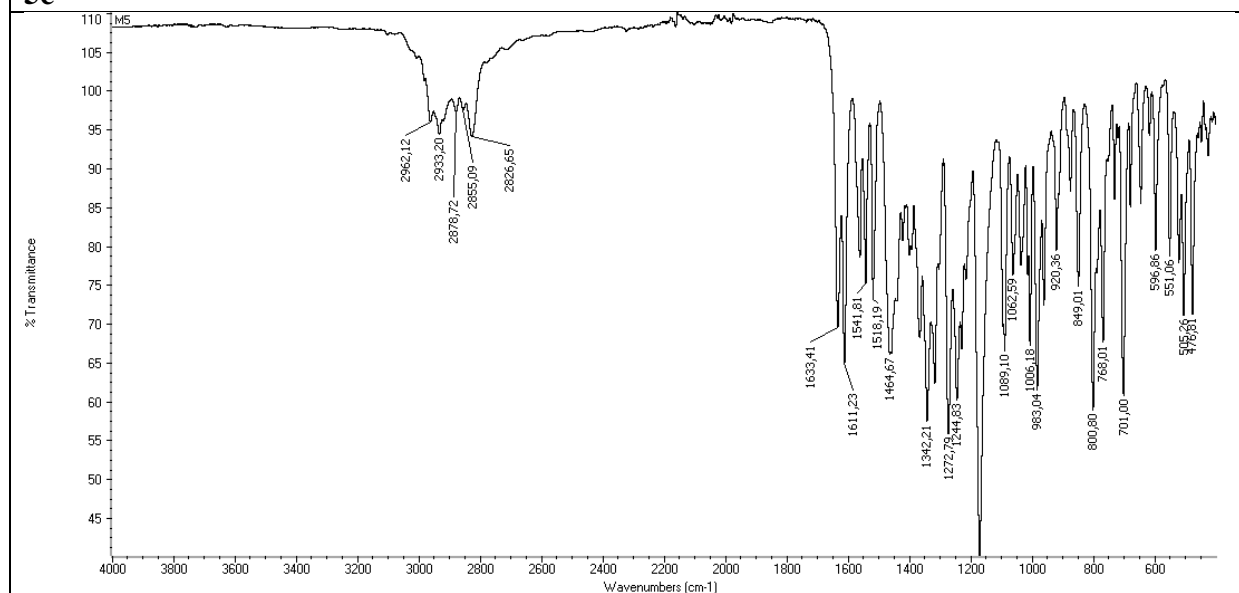
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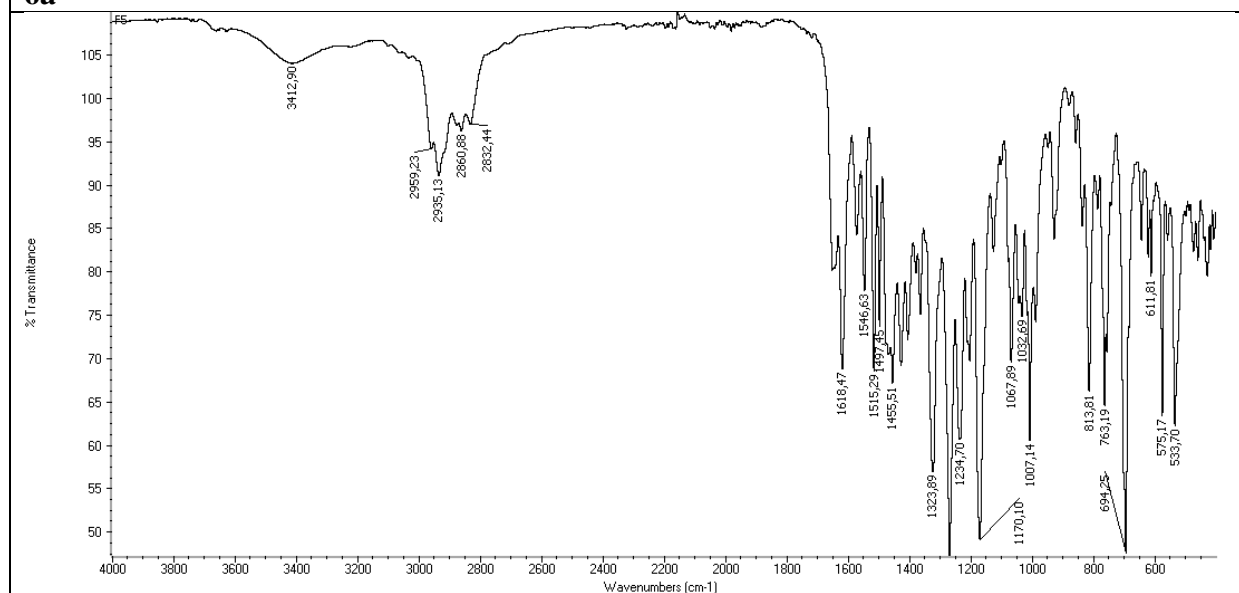
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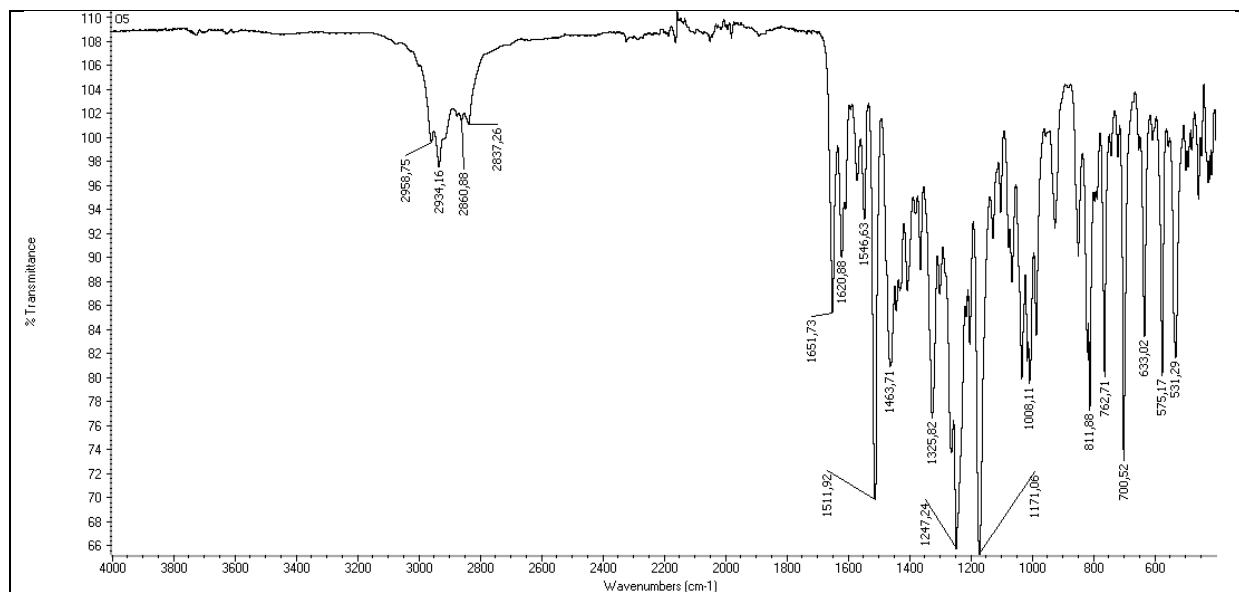
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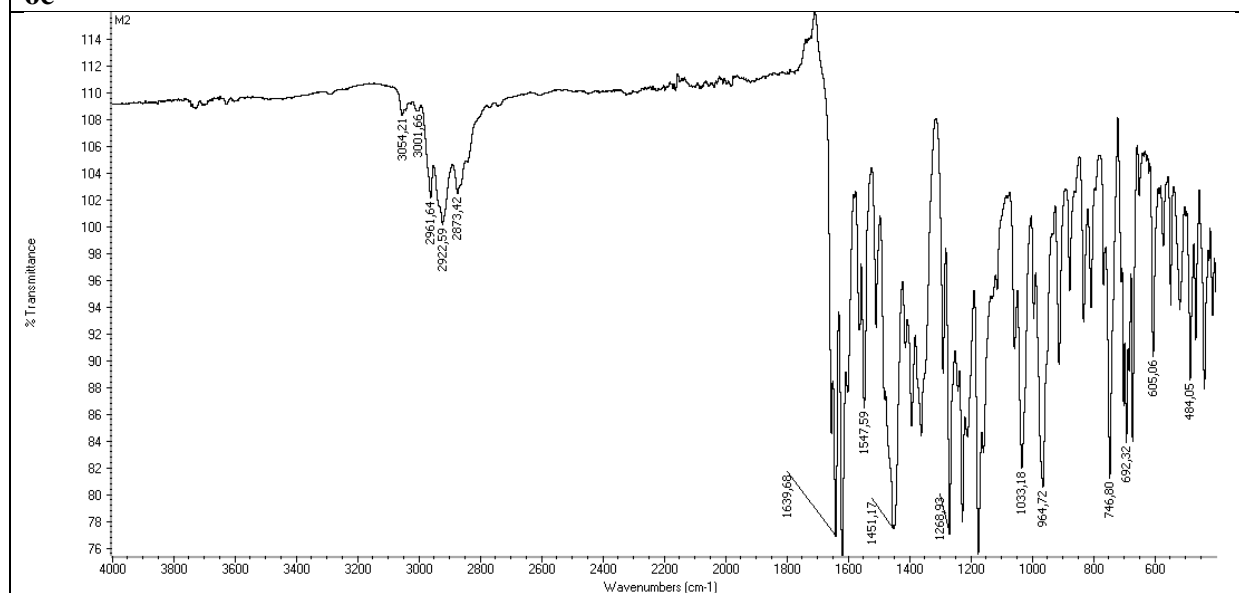
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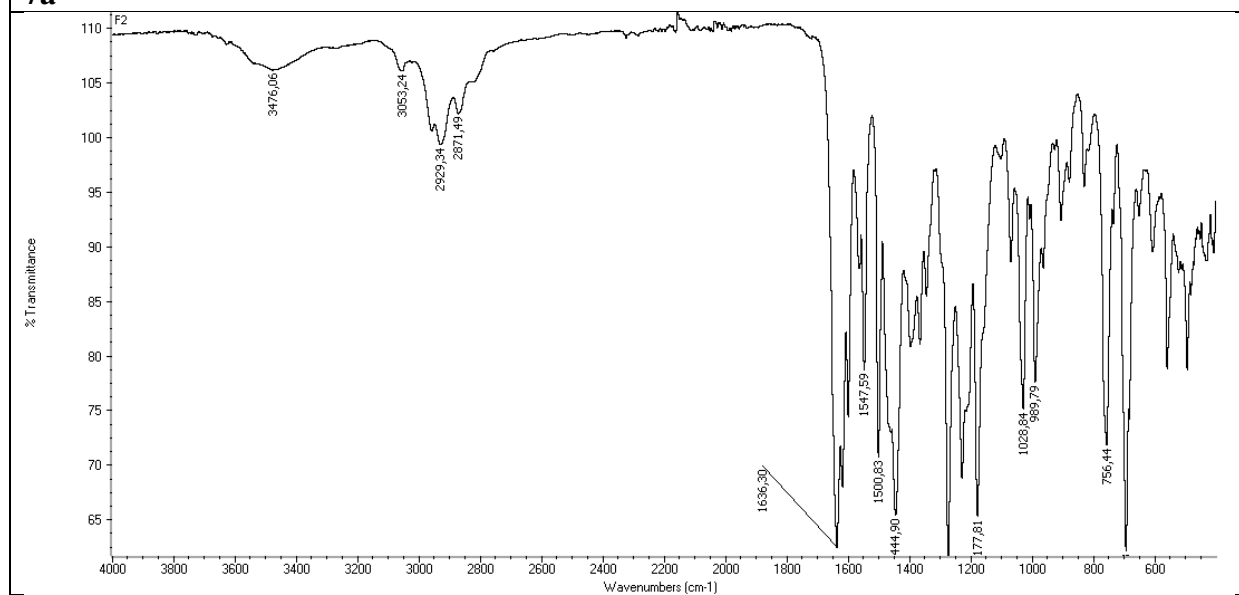
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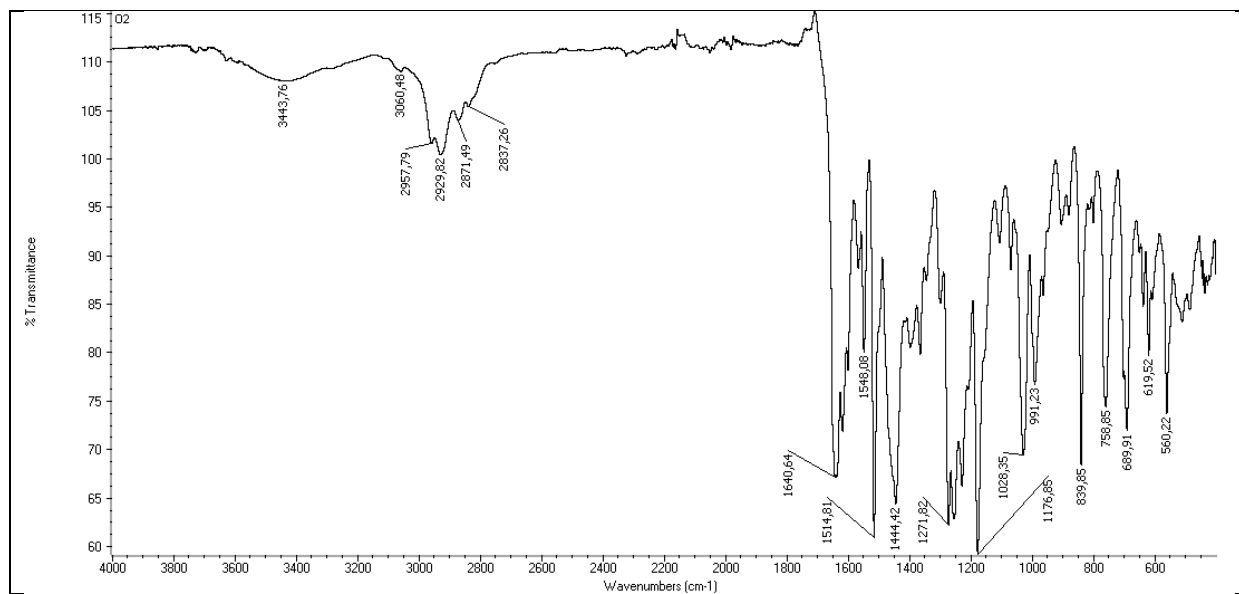
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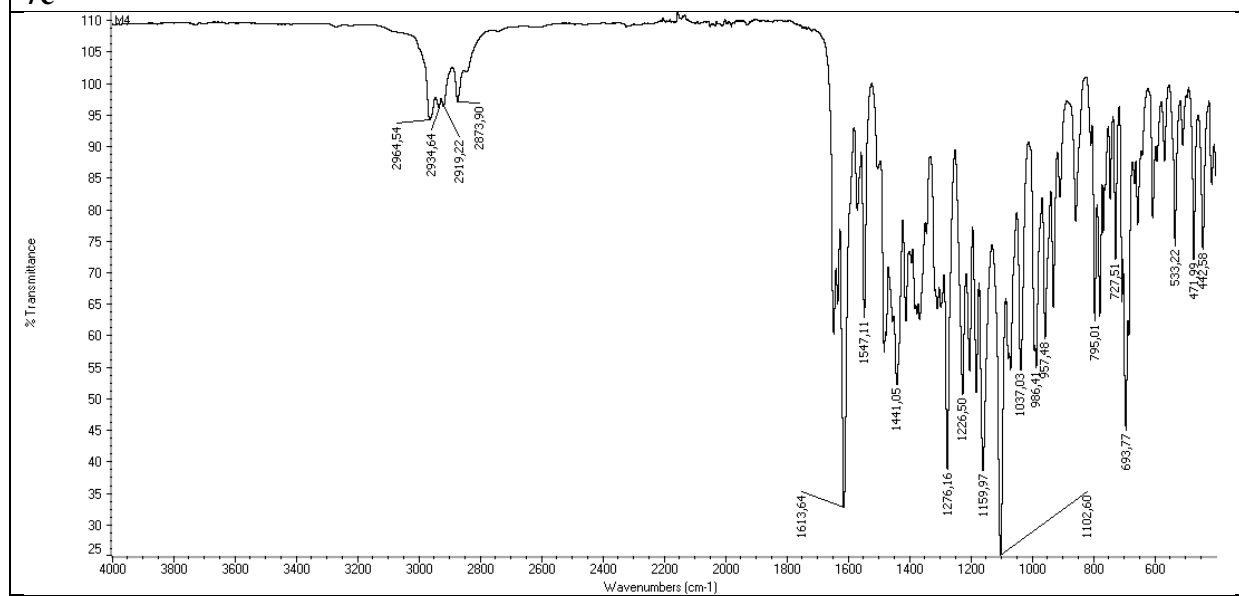
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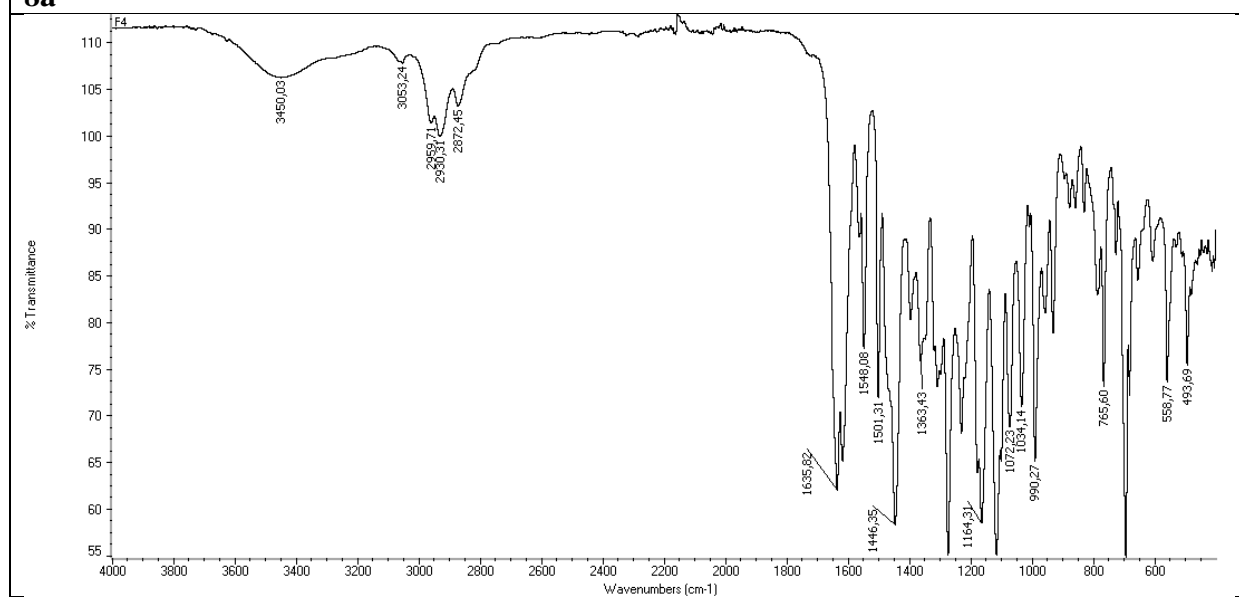
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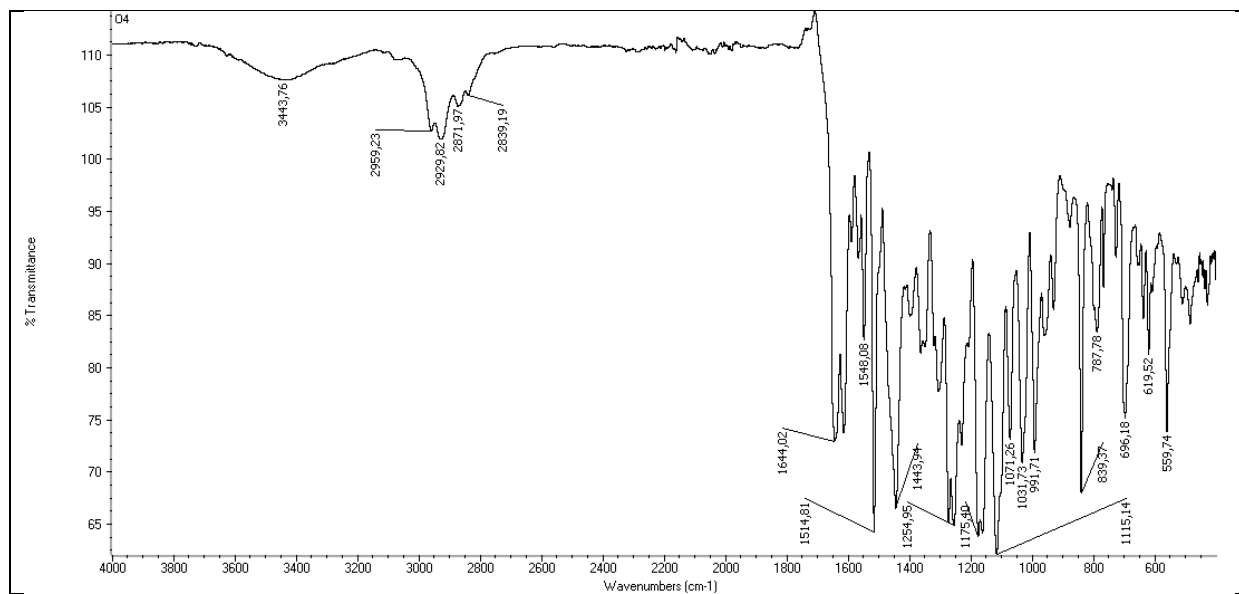
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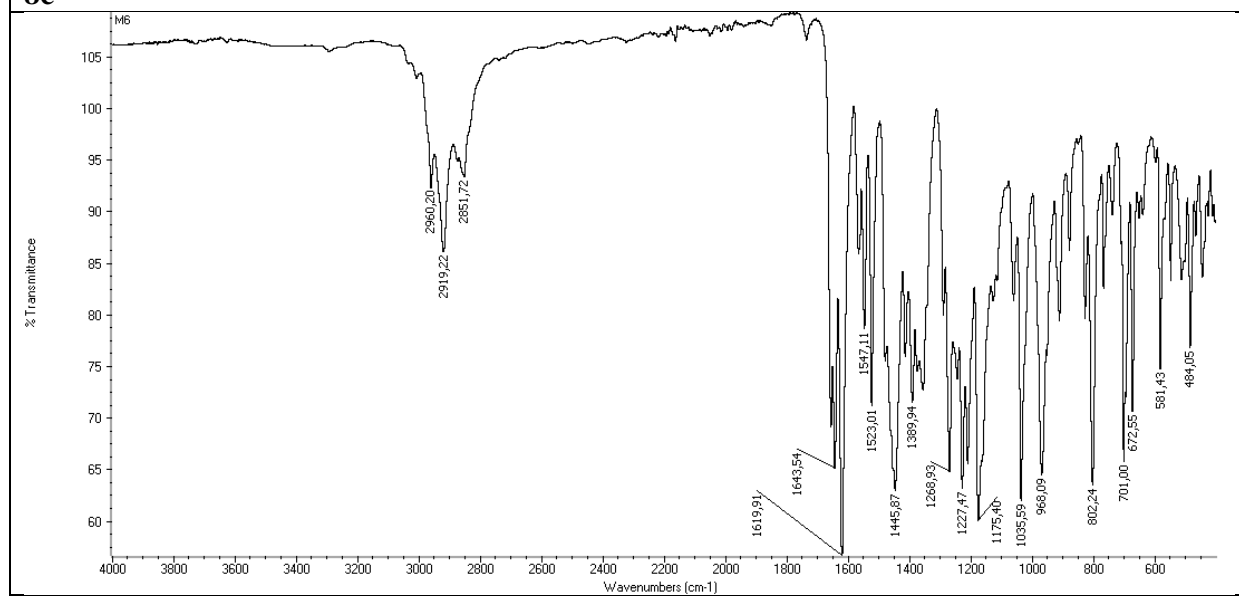
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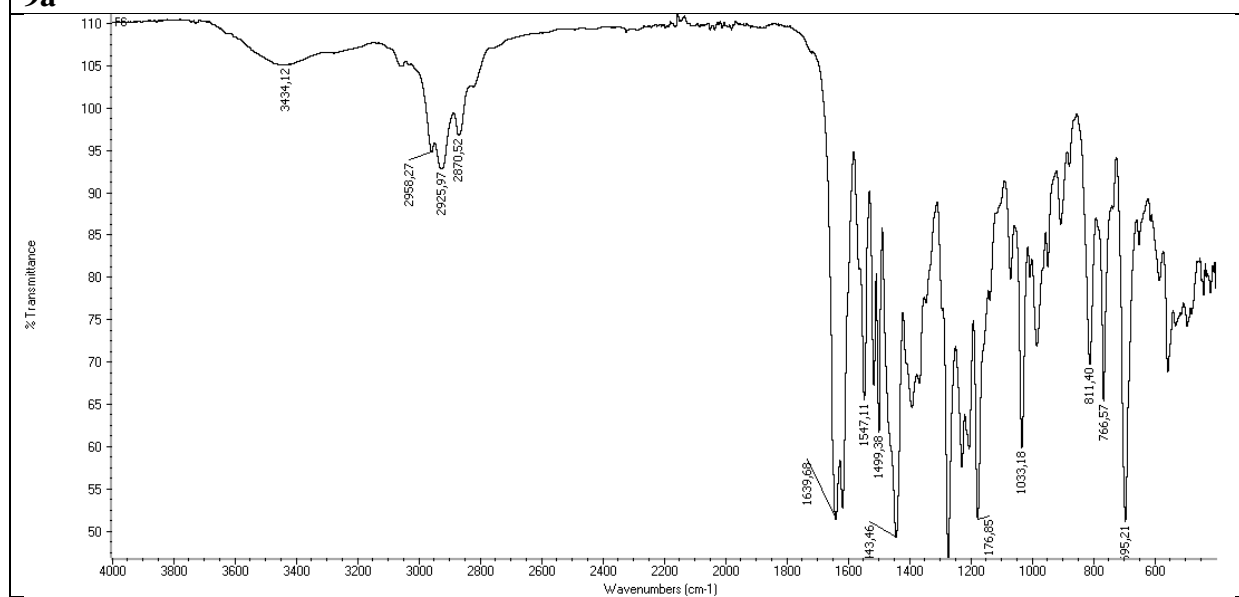
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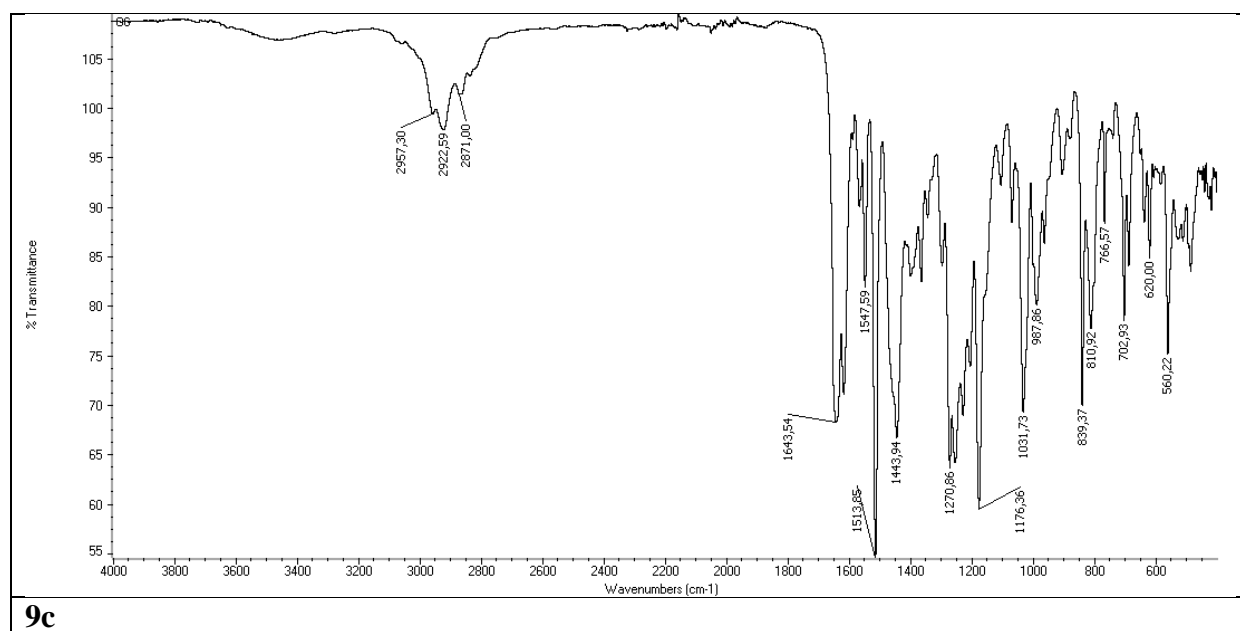
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9a



9b



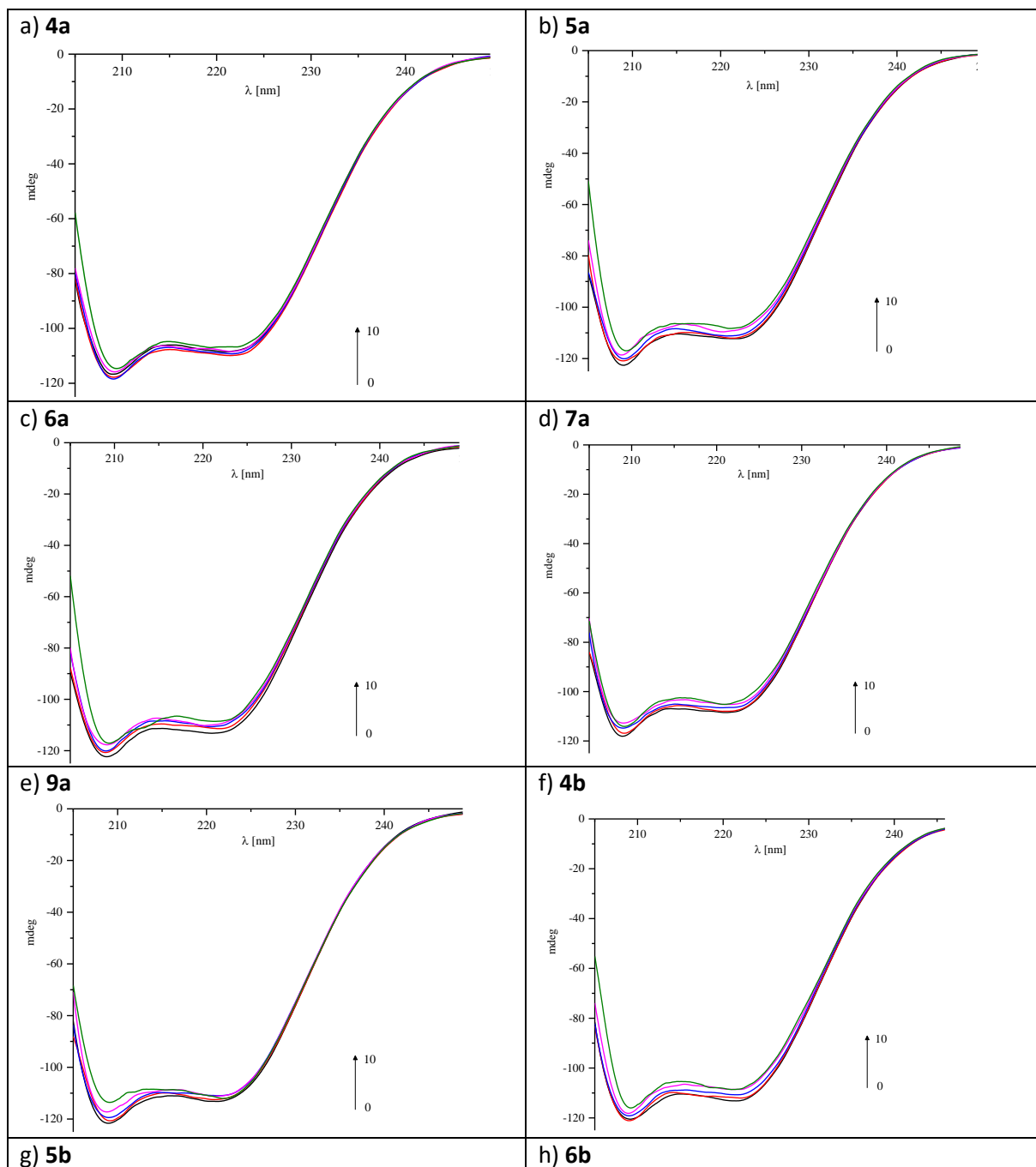
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Table S5 – Molecular formula strings (CSV) of reported compounds

	SMILE
2a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCC(=O)NNC(=S)NC)C)C</chem>
2b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCC(=O)NNC(=S)Nc3ccccc3)C)C</chem>
2c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCC(=O)NNC(=S)Nc3ccc(cc3)OC)C)C</chem>
3a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3n[nH]c(=S)n3C)C)C</chem>
3b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3n[nH]c(=S)n3c4ccccc4)C)C</chem>
3c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3n[nH]c(=S)n3c4ccc(cc4)OC)C)C</chem>
4a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3C)CN4CCN(CC4)c5ccccc5)C)C</chem>
5a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3C)CN4CCN(CC4)c5cccc(c5)C(F)(F)F)C)C</chem>
6a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3C)CN4CCN(CC4)c5ccc(cc5)C)C)C</chem>
7a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3C)SCC(=O)N4CCN(CC4)c5ccccc5)C)C</chem>
8a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3C)SCC(=O)N4CCN(CC4)c5cccc(c5)C(F)(F)F)C)C</chem>
9a	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3C)SCC(=O)N4CCN(CC4)c5ccc(cc5)C)C)C</chem>
4b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3c4ccccc4)CN5CCN(CC5)c6ccccc6)C)C</chem>
5b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3c4ccccc4)CN5CCN(CC5)c6cccc(c6)C(F)(F)F)C)C</chem>
6b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3c4ccccc4)CN5CCN(CC5)c6ccc(cc6)C)C)C</chem>
7b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3c4ccccc4)SCC(=O)N5CCN(CC5)c6ccccc6)C)C</chem>
8b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3c4ccccc4)SCC(=O)N5CCN(CC5)c6cccc(c6)C(F)(F)F)C)C</chem>
9b	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3c4ccccc4)SCC(=O)N5CCN(CC5)c6ccc(cc6)C)C)C</chem>
4c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3c4ccc(cc4)OC)CN5CCN(CC5)c6ccccc6)C)C</chem>
5c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3c4ccc(cc4)OC)CN5CCN(CC5)c6cccc(c6)C(F)(F)F)C)C</chem>
6c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nn(c(=S)n3c4ccc(cc4)OC)CN5CCN(CC5)c6ccc(cc6)C)C)C</chem>
7c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3c4ccc(cc4)OC)SCC(=O)N5CCN(CC5)c6ccccc6)C)C</chem>
8c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3c4ccc(cc4)OC)SCC(=O)N5CCN(CC5)c6cccc(c6)C(F)(F)F)C)C</chem>
9c	<chem>CCCCn1c(c2c(c1C)c(=O)n(nc2OCc3nnc(n3c4ccc(cc4)OC)SCC(=O)N5CCN(CC5)c6ccc(cc6)C)C)C</chem>

Table S6 – CD spectra of BSA in the absence and presence of all analyzed compounds

BSA to analyzed compounds' molar ratios was changing from 1:0 to 1:10



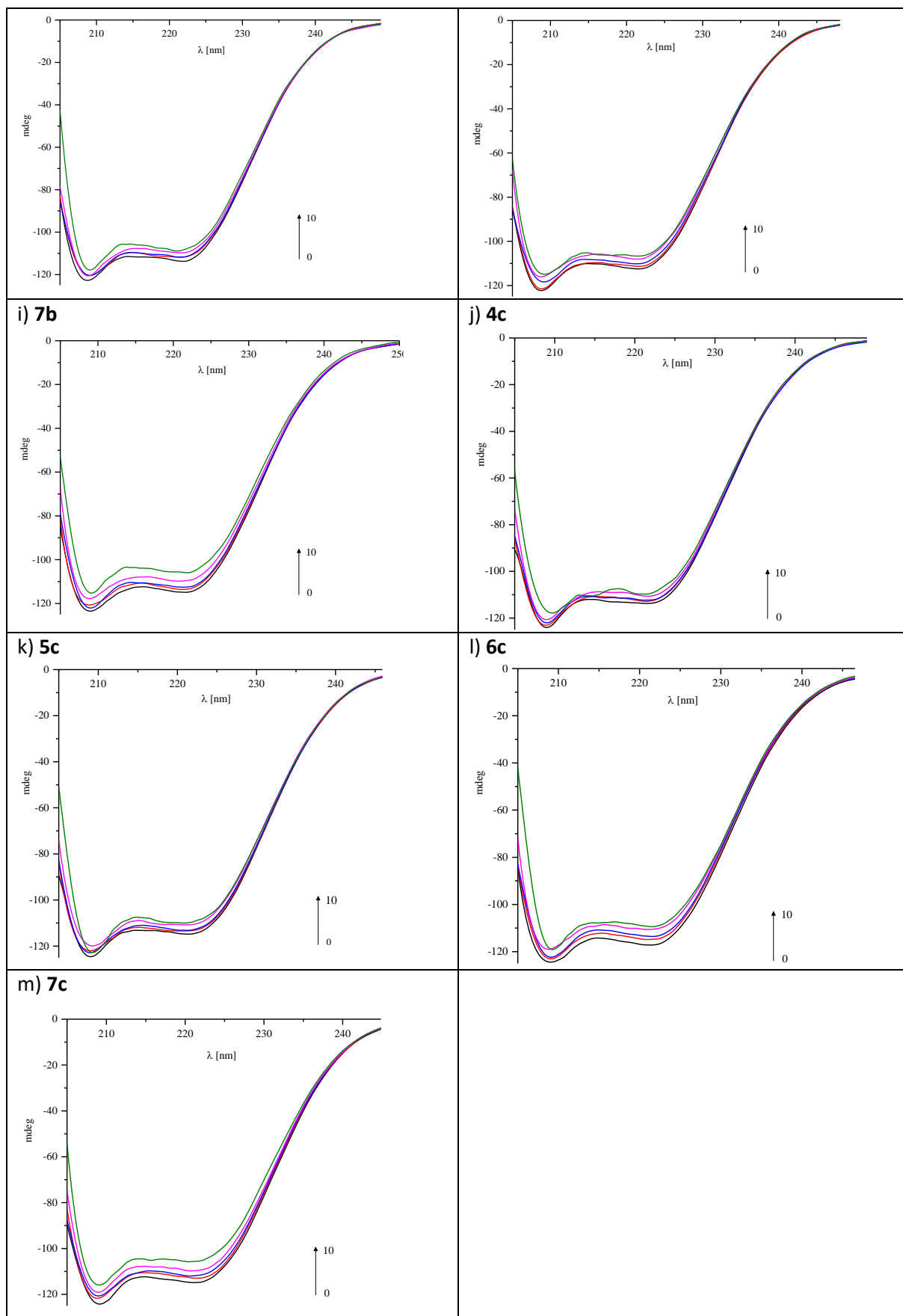
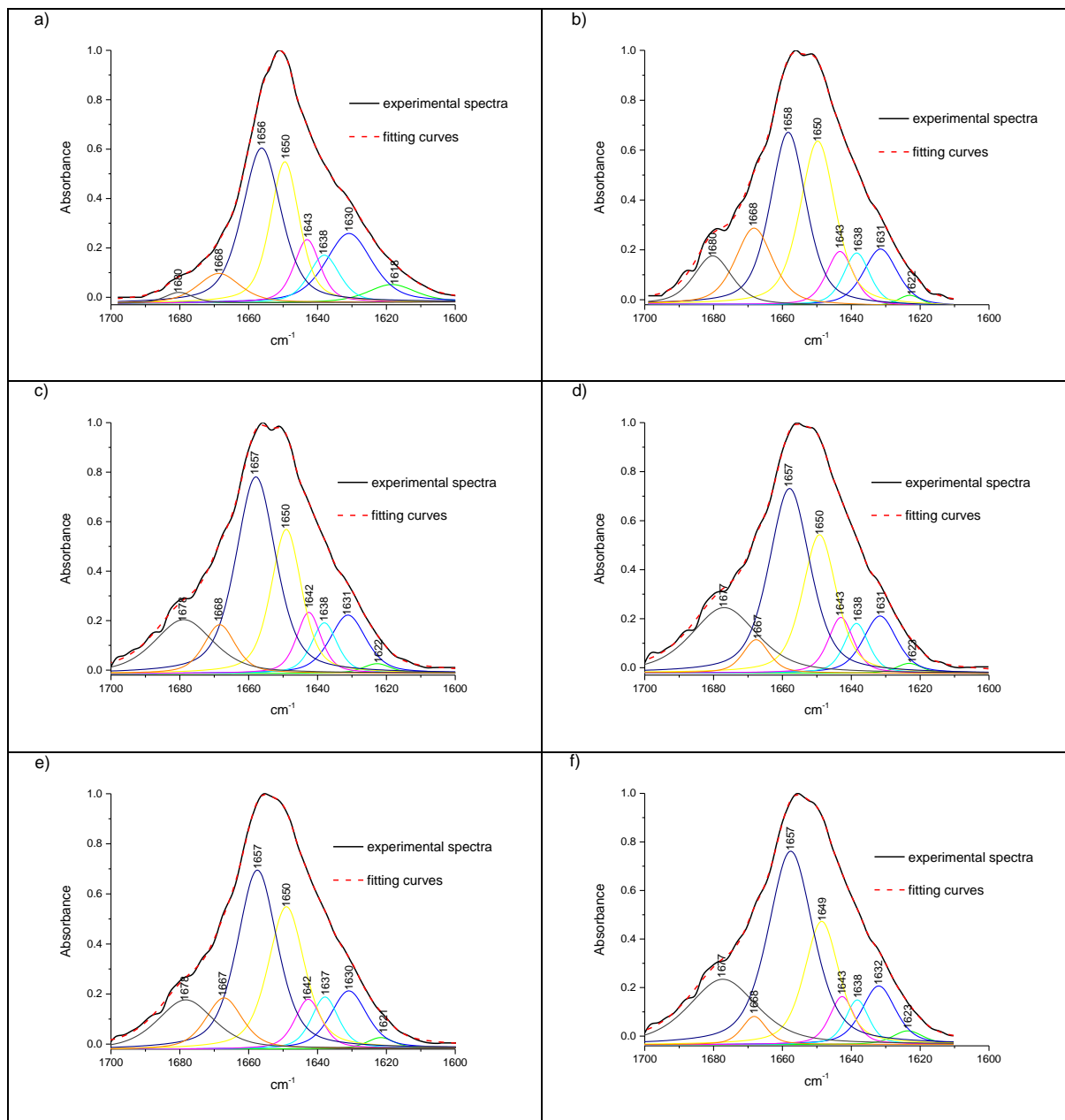


Table S7 - FT-IR spectra - The curve-fitted Amide I region

The curve-fitted Amide I region for a) free-BSA and equimolar complex samples: b) BSA-**4a**, c) BSA-**5a**, d) BSA-**6a**, e) BSA-**7a**, f) BSA-**9a**, g) BSA-**4b**, h) BSA-**5b**, i) BSA-**6b**, j) BSA-**7b**, k) BSA-**4c**, l) BSA-**5c**, m) BSA-**6c**, n) BSA-**7c**.



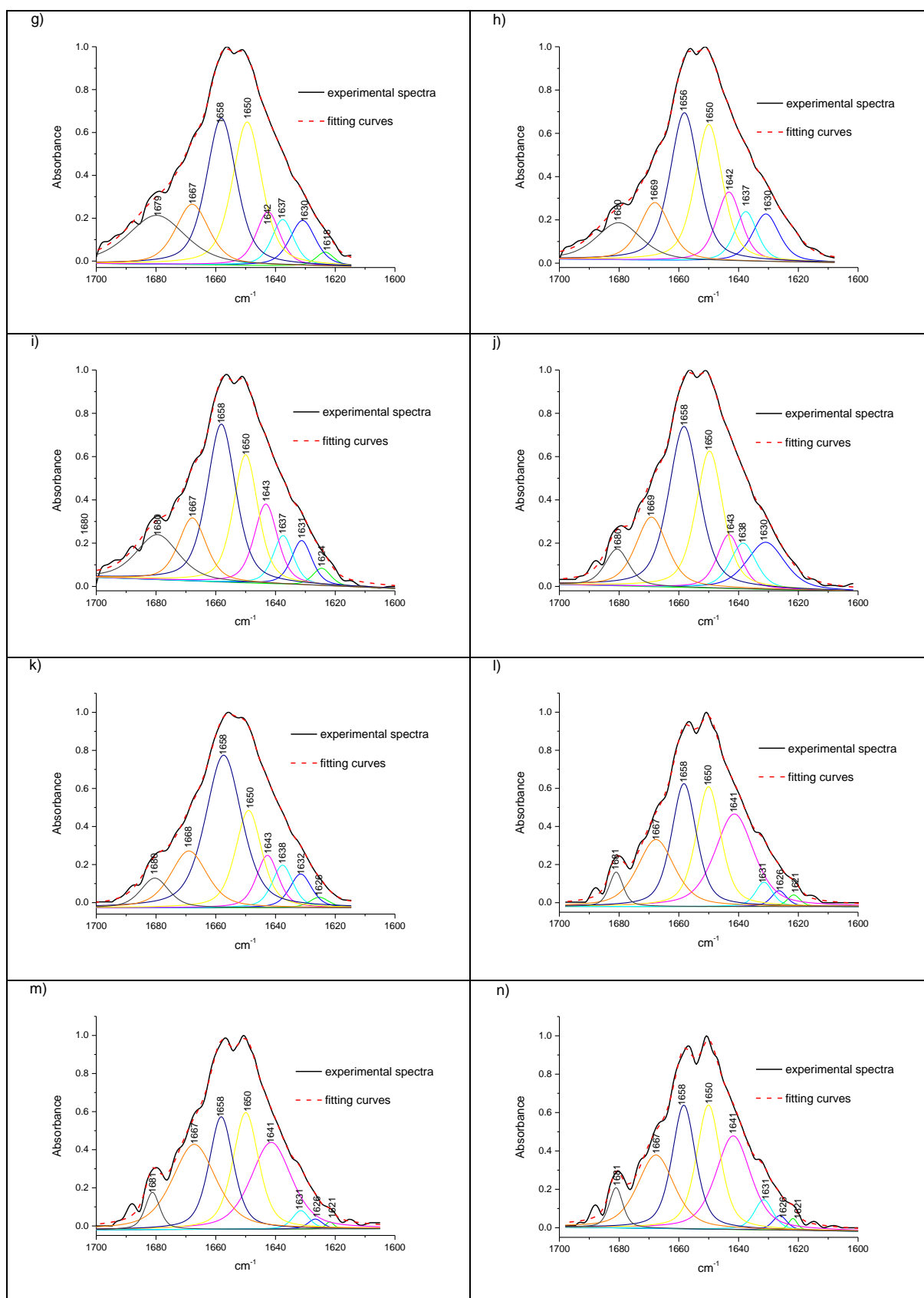


Table S8 - FT-IR spectra – The changes in Amide I (1650cm^{-1}) and Amide II (1545cm^{-1}) band contribution by BSA interaction with analyzed compounds.

a) **4a**, b) **5a**, c) **6a**, d) **7a**, e) **9a**, f) **4b**, g) **5b**, h) **6b**, i) **7b**, j) **4c**, k) **5c**, l) **6c**, m) **7c**.

