Supplementary informations

Trimethoprim: An Old Antibacterial Drug As A Template To Search for New Targets. Synthesis, Biological Activity and Molecular Modeling Study of Novel Trimethoprim Analogues.

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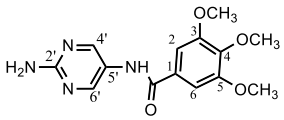
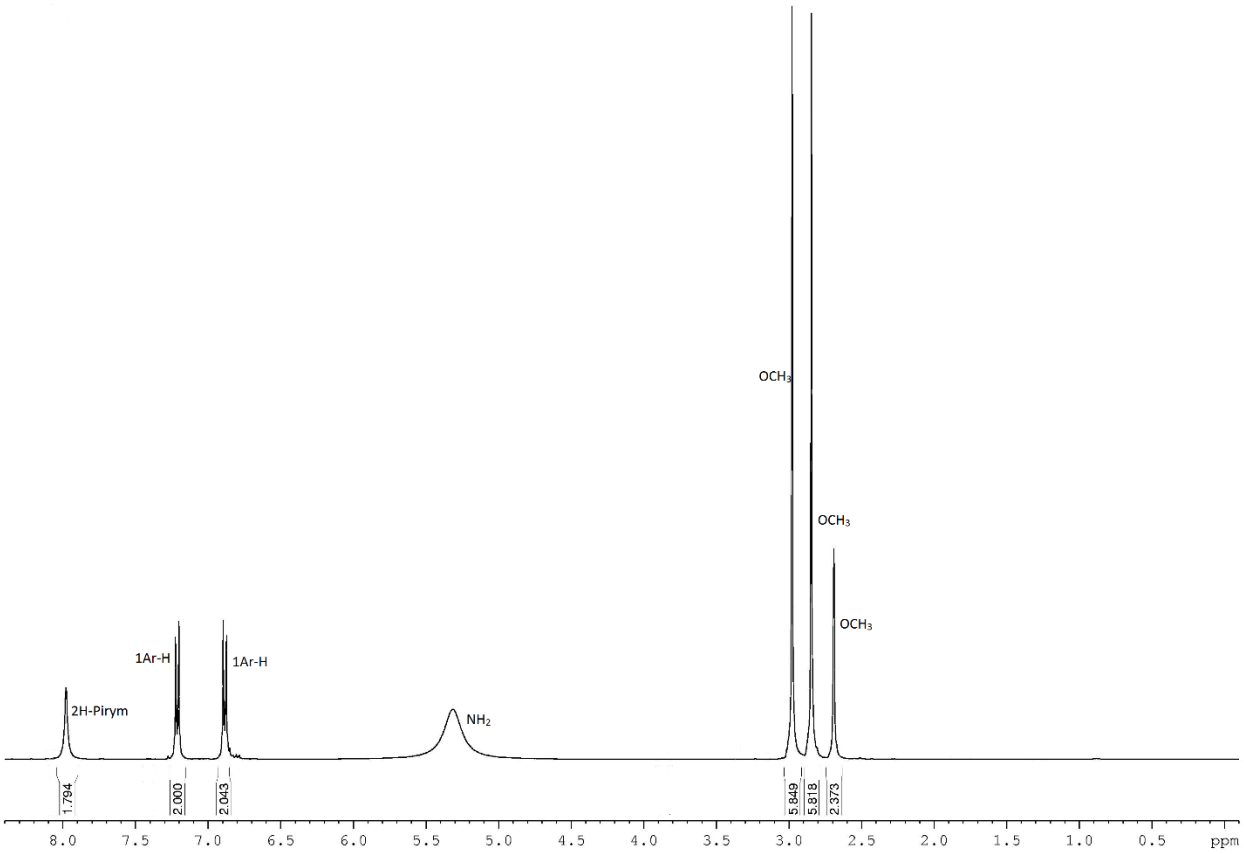
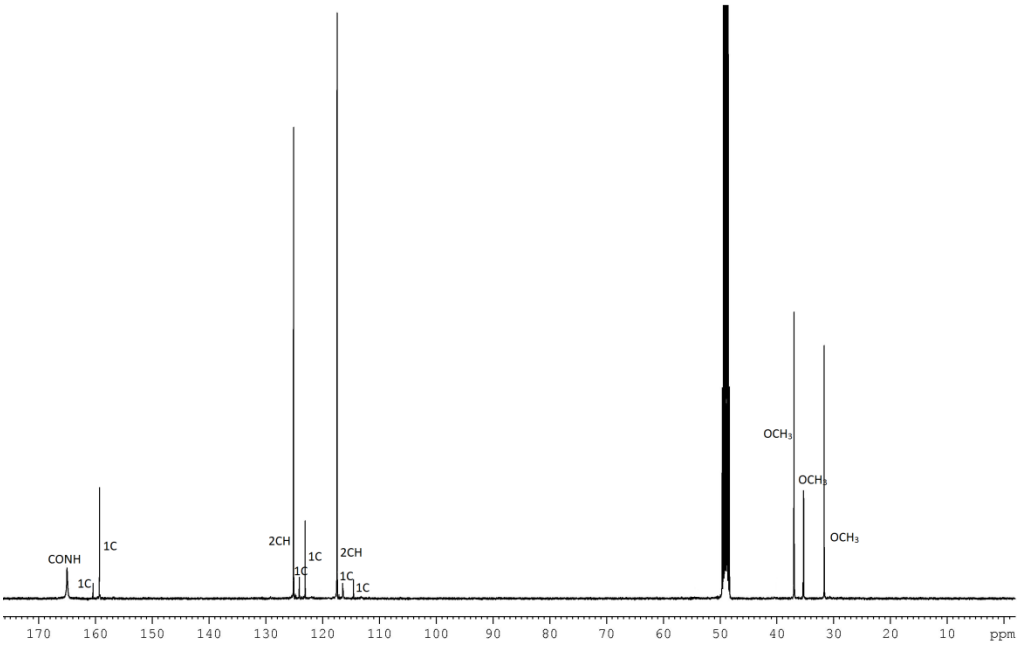
Compound 1



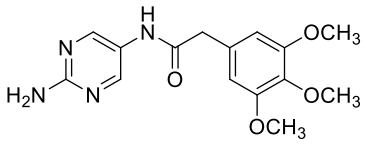
^{1}H NMR



^{13}C NMR



Compound 2



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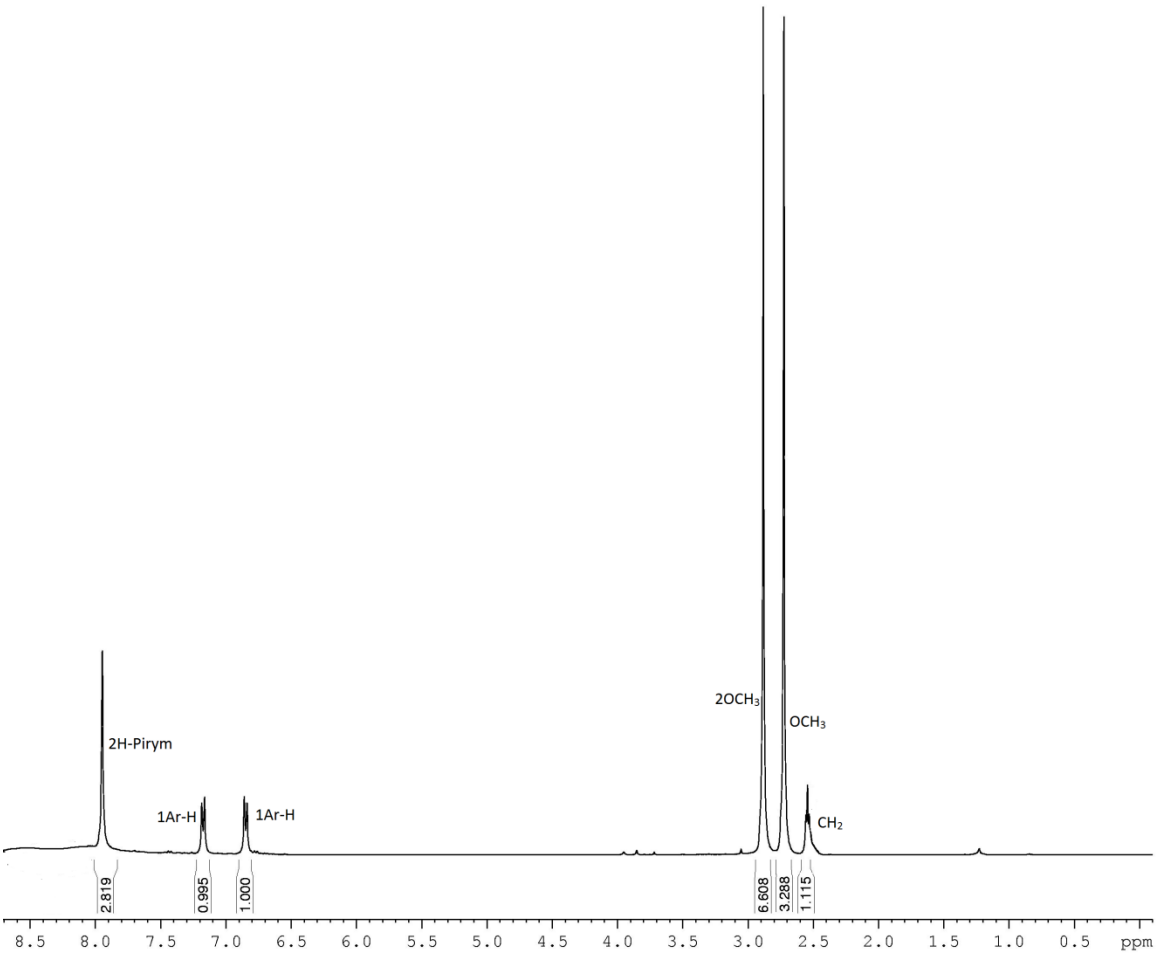

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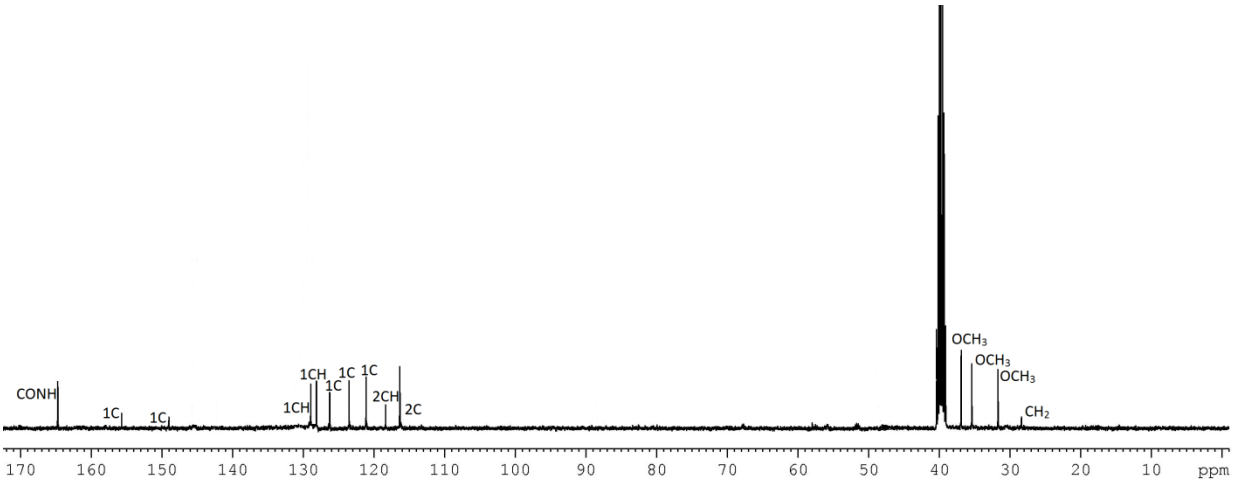
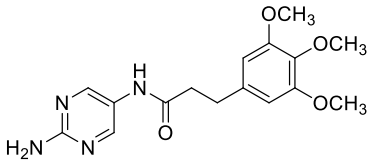


Compound 3



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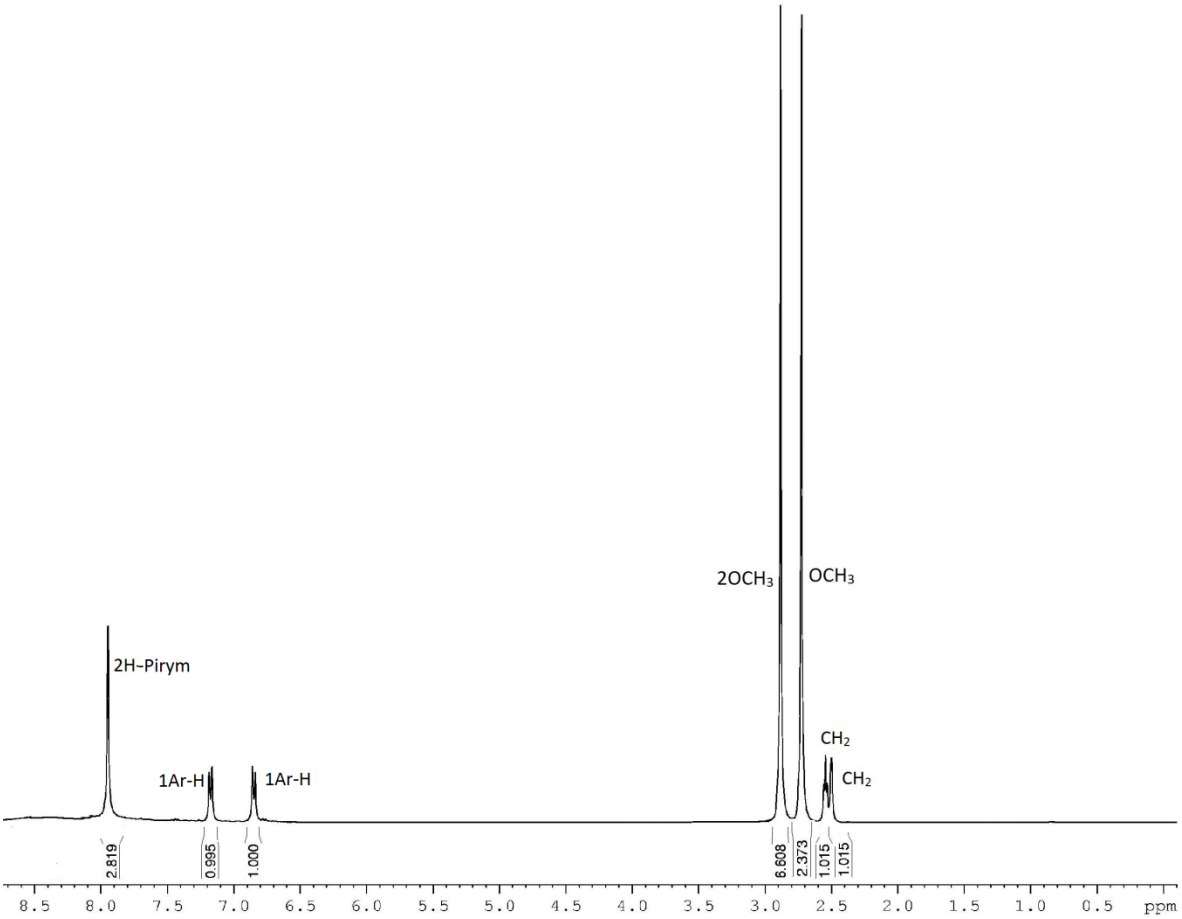

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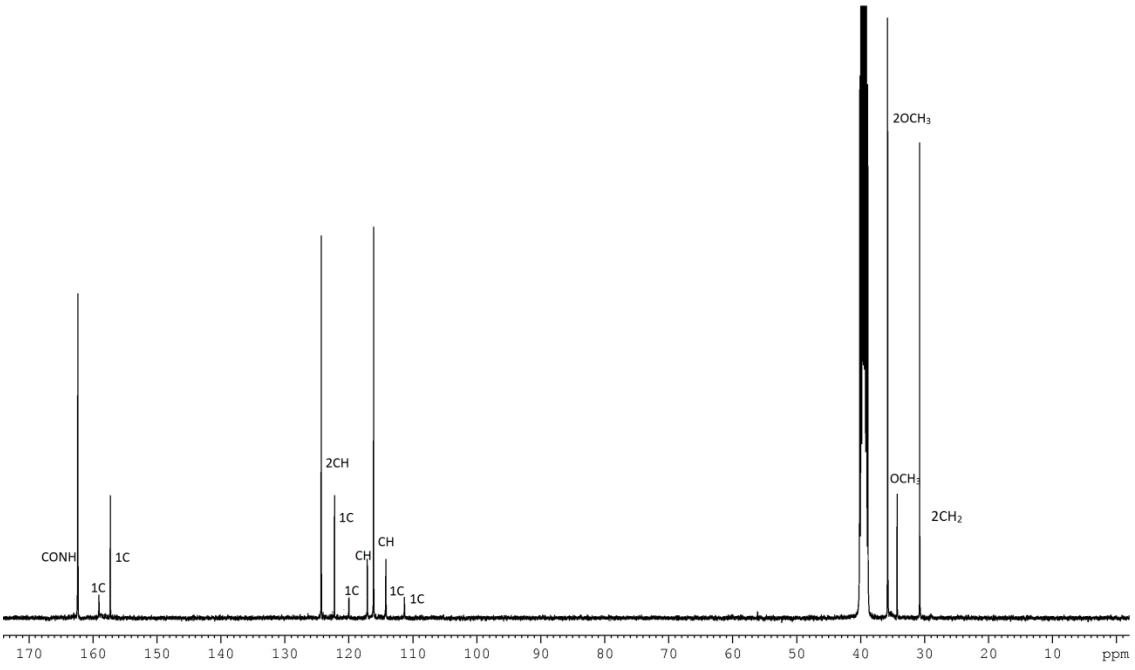

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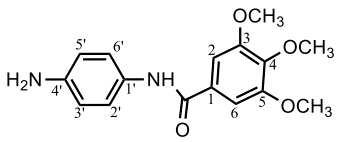
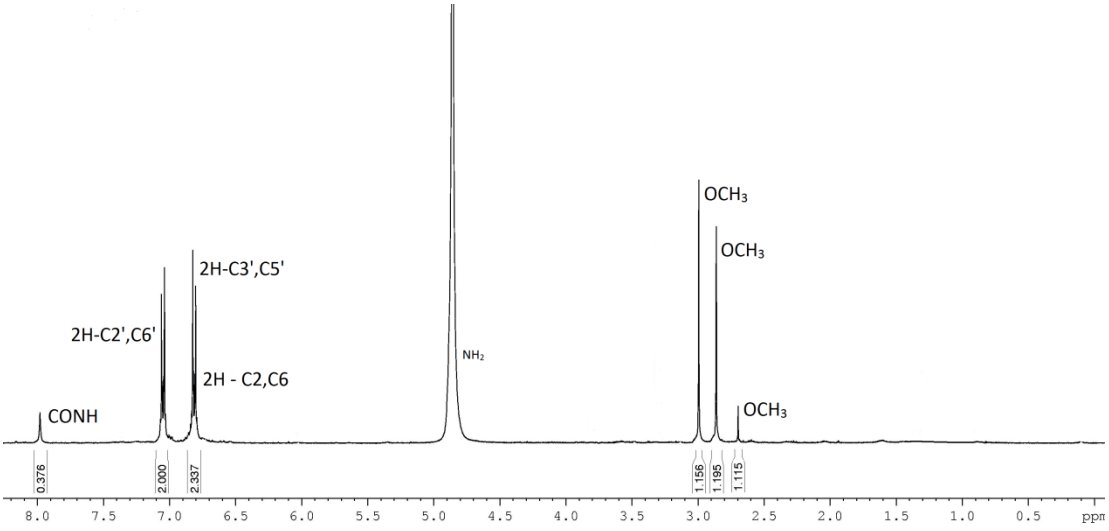
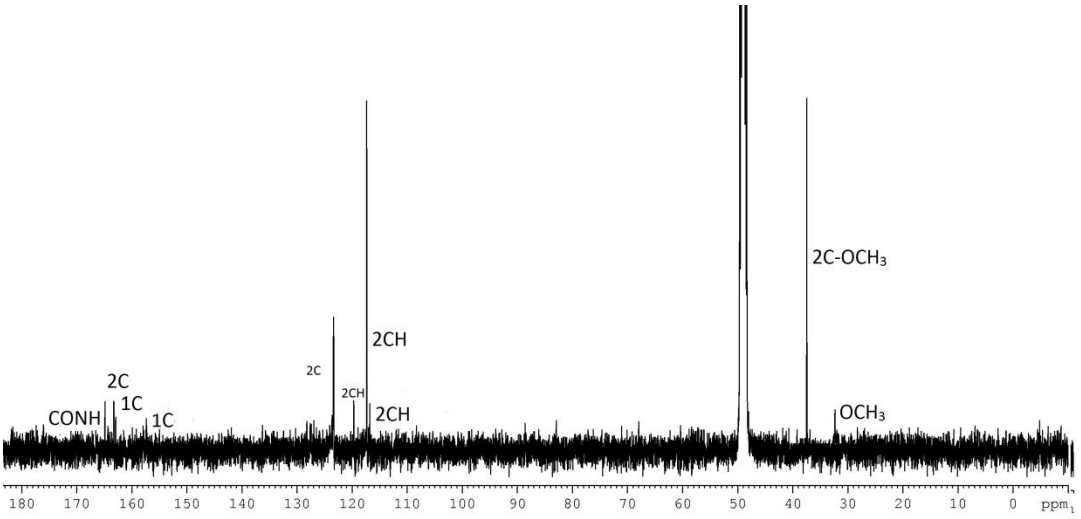


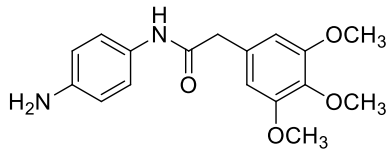
^{1}H NMR ($CDCl_3$)



^{13}C NMR NH_2



Compound 5



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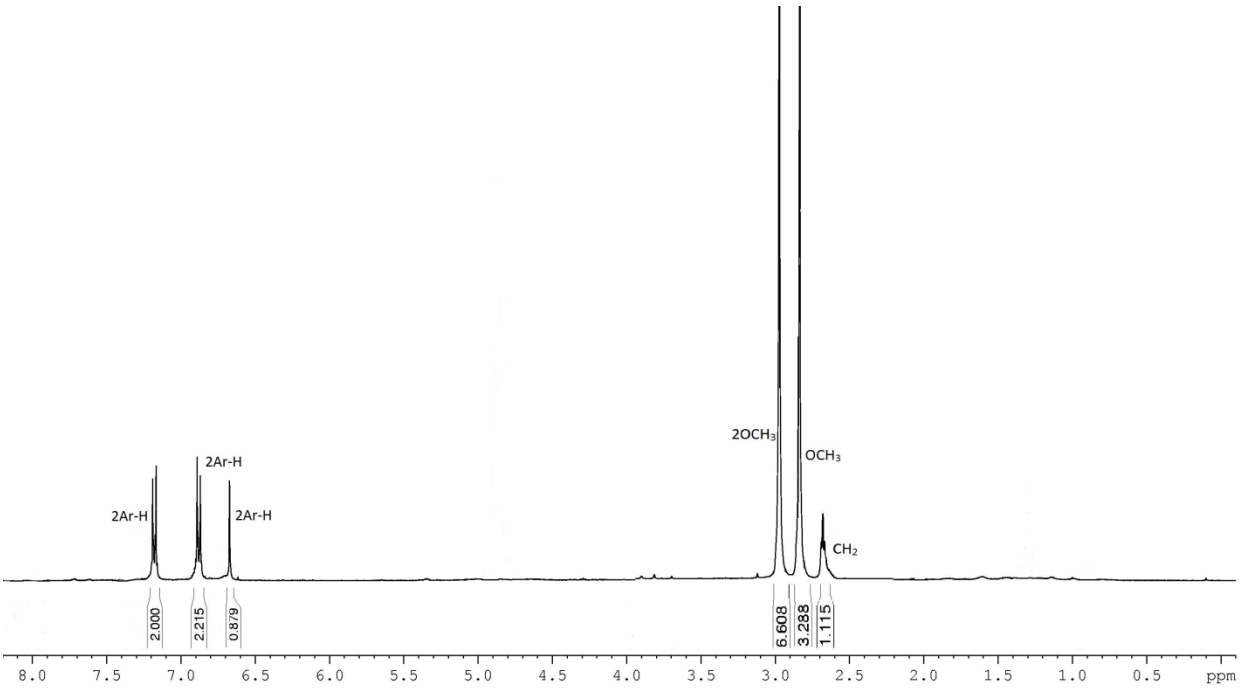
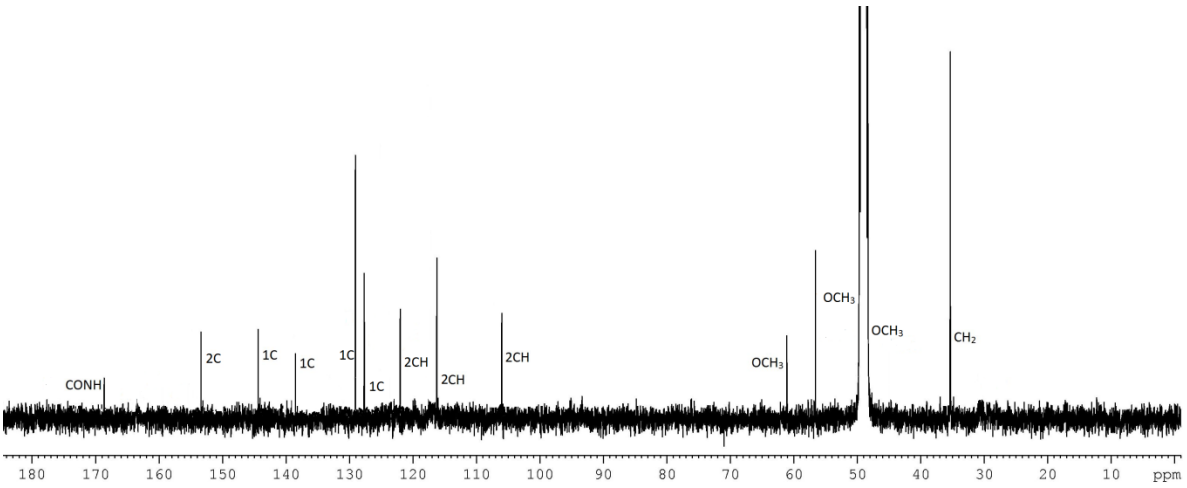
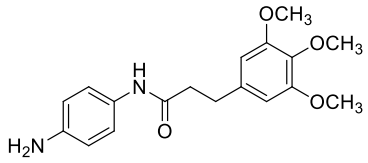


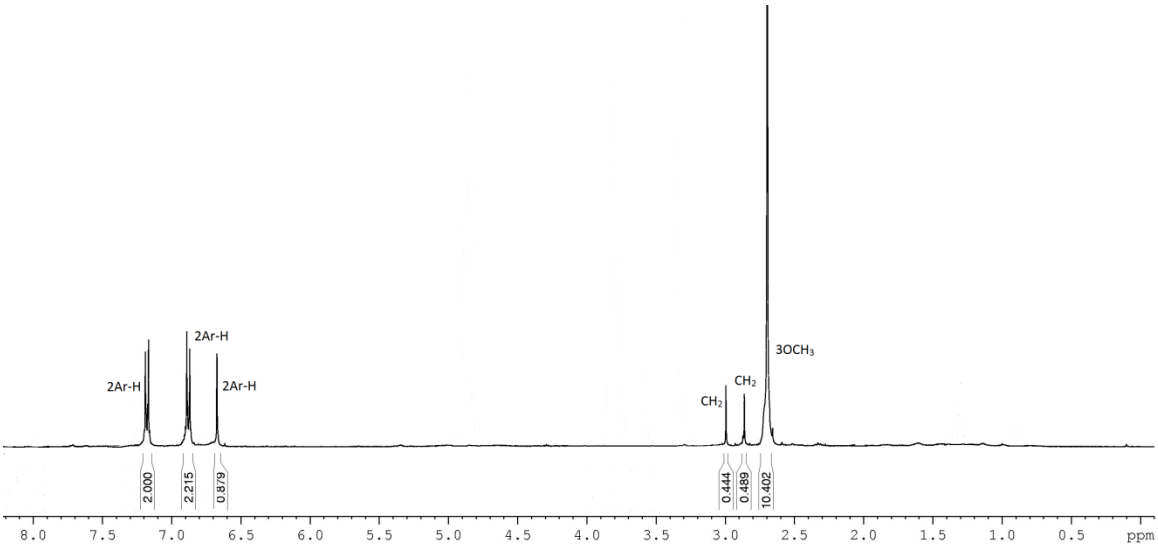
^{13}C NMR



Compound 6



^{1}H NMR



^{13}C NMR

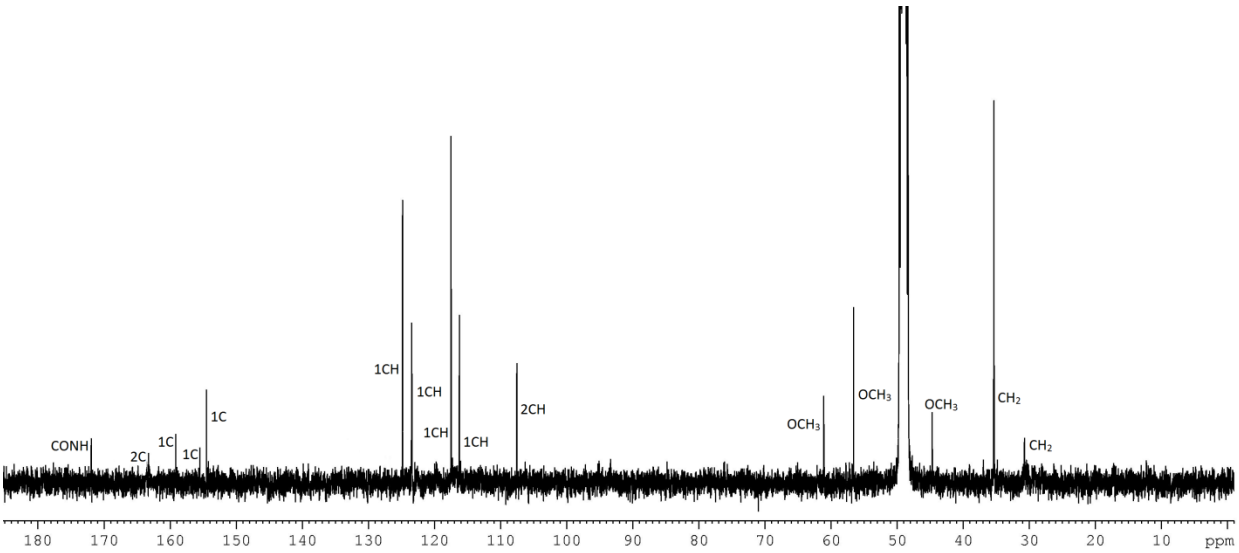


Table SI. List of binding modes of the molecule 2 from this study, as well as RMSD values relative to the best binding mode. Mode 3 is analogous to the binding mode of compound 1 but shows significantly smaller affinity than mode 1 (reversed structure).

mode	affinity (kcal/mol)	dist from best mode rmsd l.b.	rmsd u.b.
1	-8.3	0.000	0.000
2	-8.0	1.162	2.262
3	-7.4	4.123	8.238
4	-7.3	2.794	4.136
5	-7.3	3.938	7.833
6	-7.3	1.983	3.411
7	-7.2	1.548	1.642
8	-7.2	2.752	3.652
9	-7.2	4.258	7.744

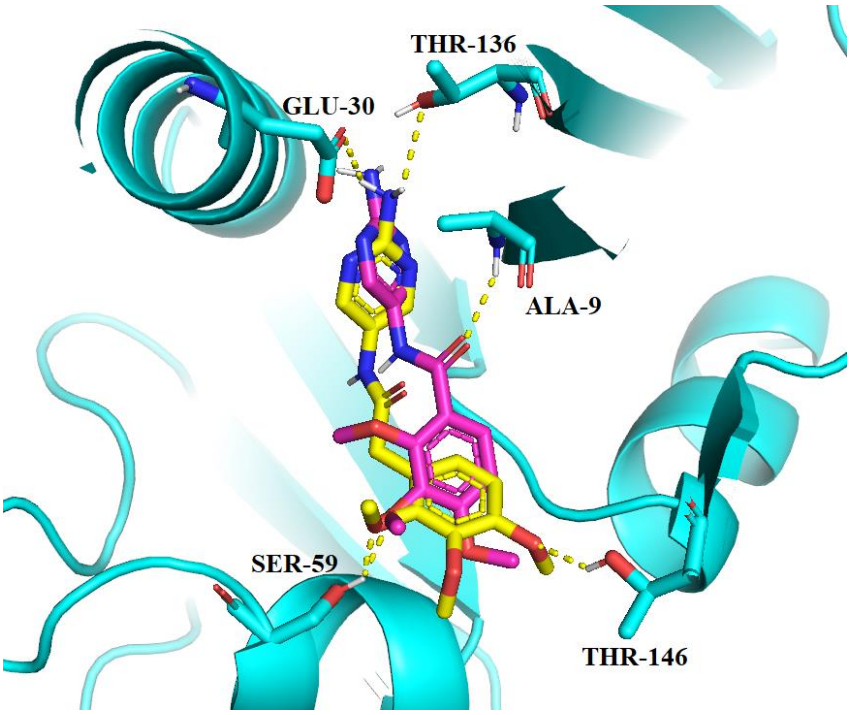


Figure SI. Binding mode comparison of molecule 1 (pink, -7.7 kcal/mol) and mode 3 of molecule 2 (yellow, -7.4 kcal/mol).