

Supplementary Material

Stereoselective one-pot five-component synthesis of polysubstituted 1,4,5,6-tetrahydropyridines with two and three stereocenters

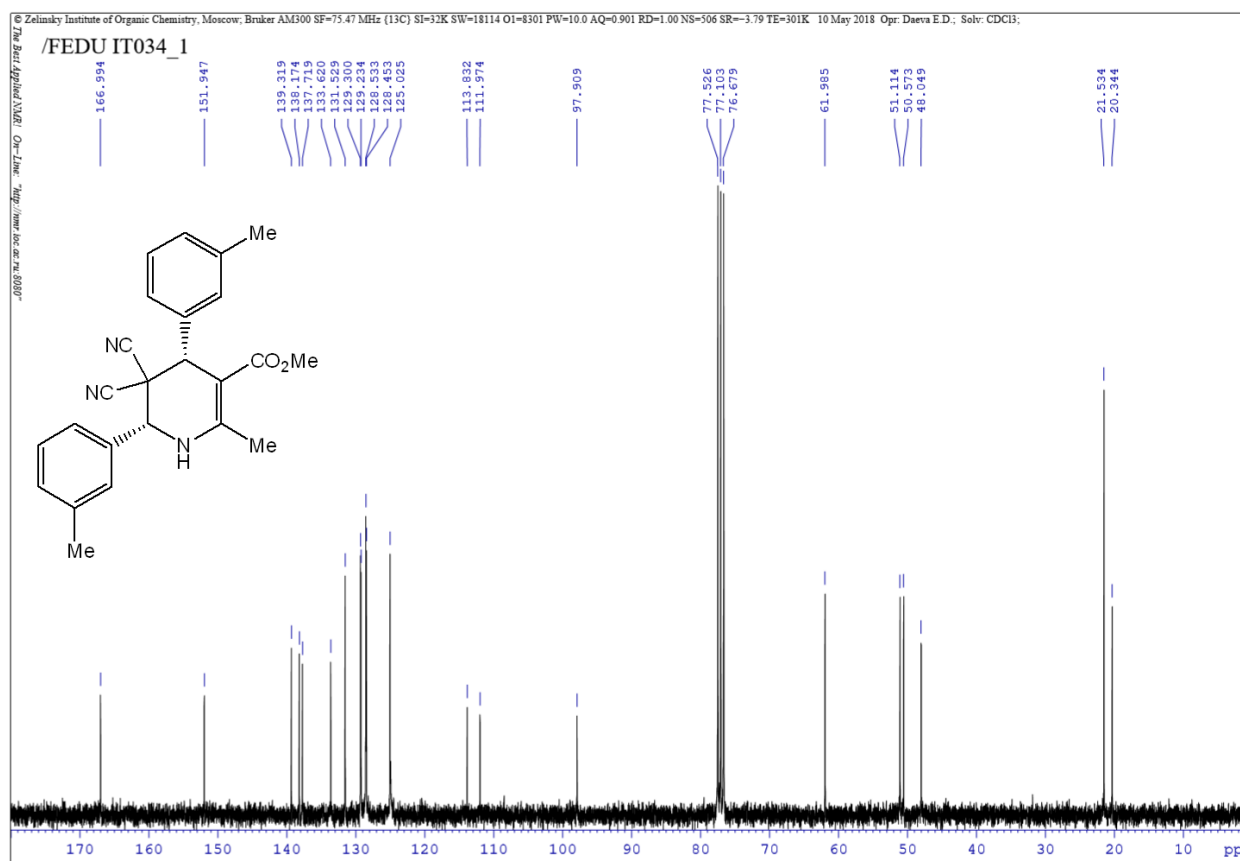
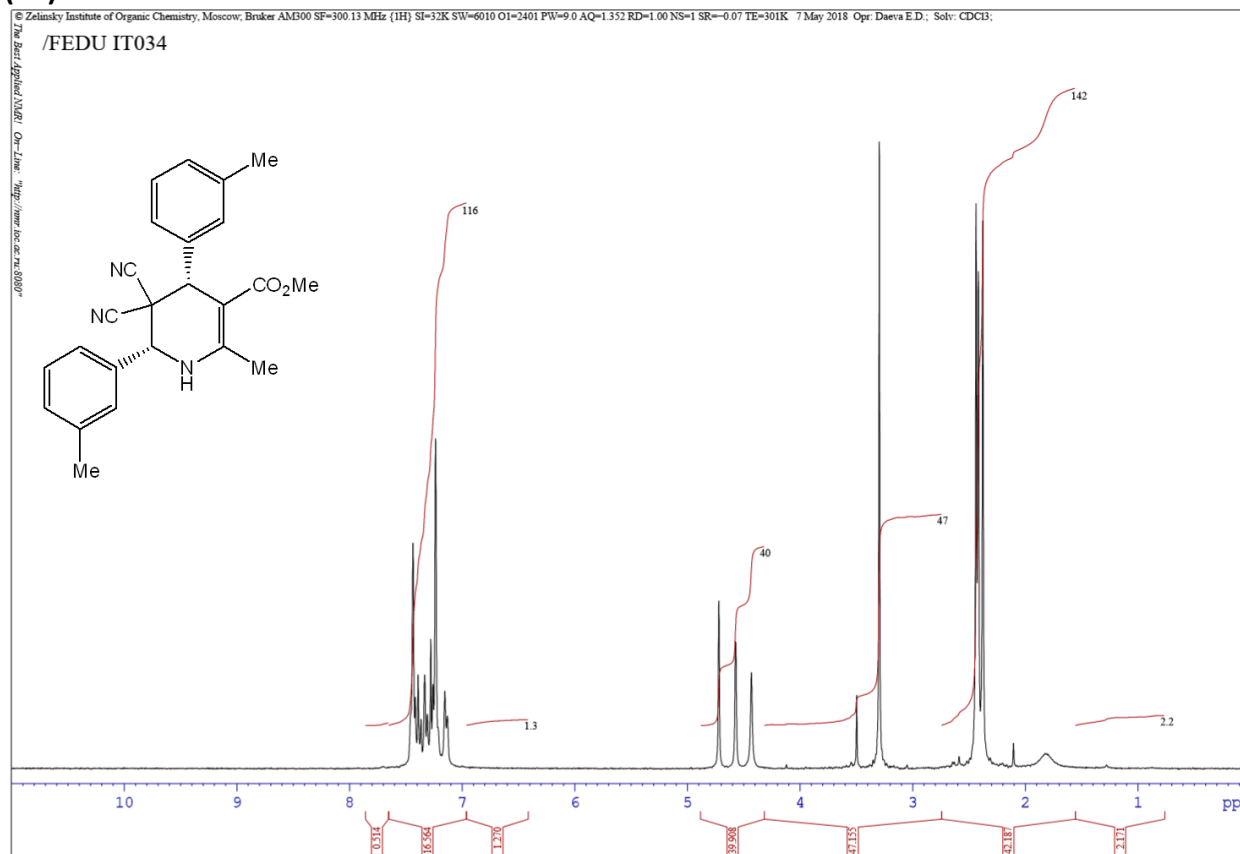
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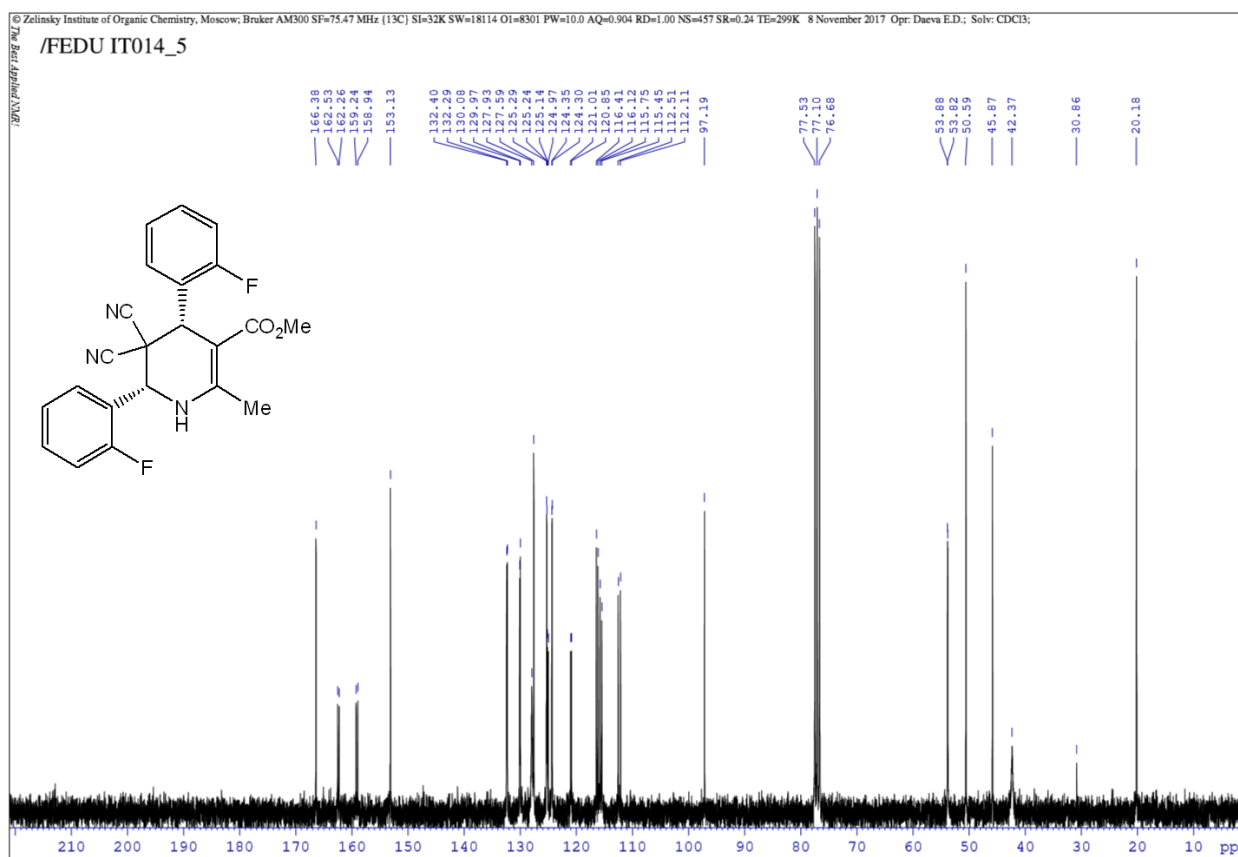
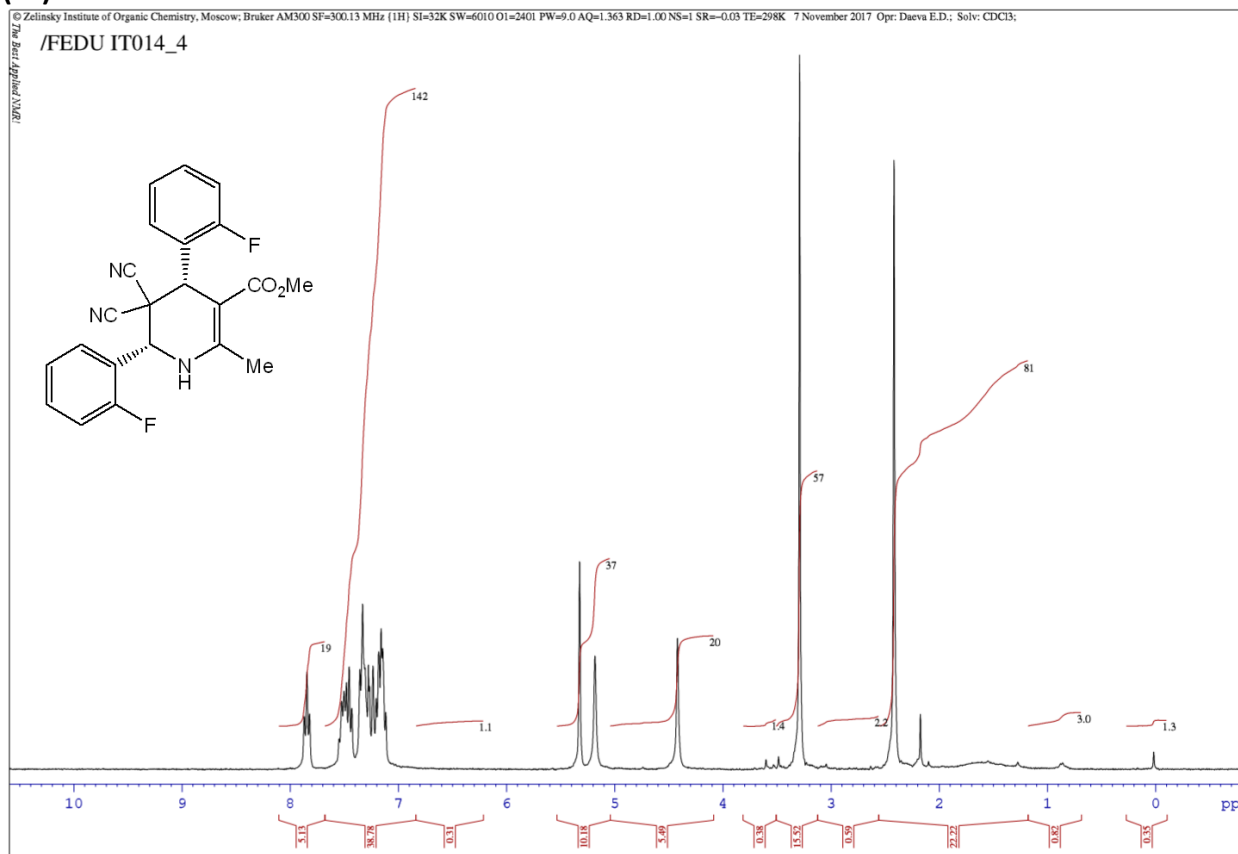
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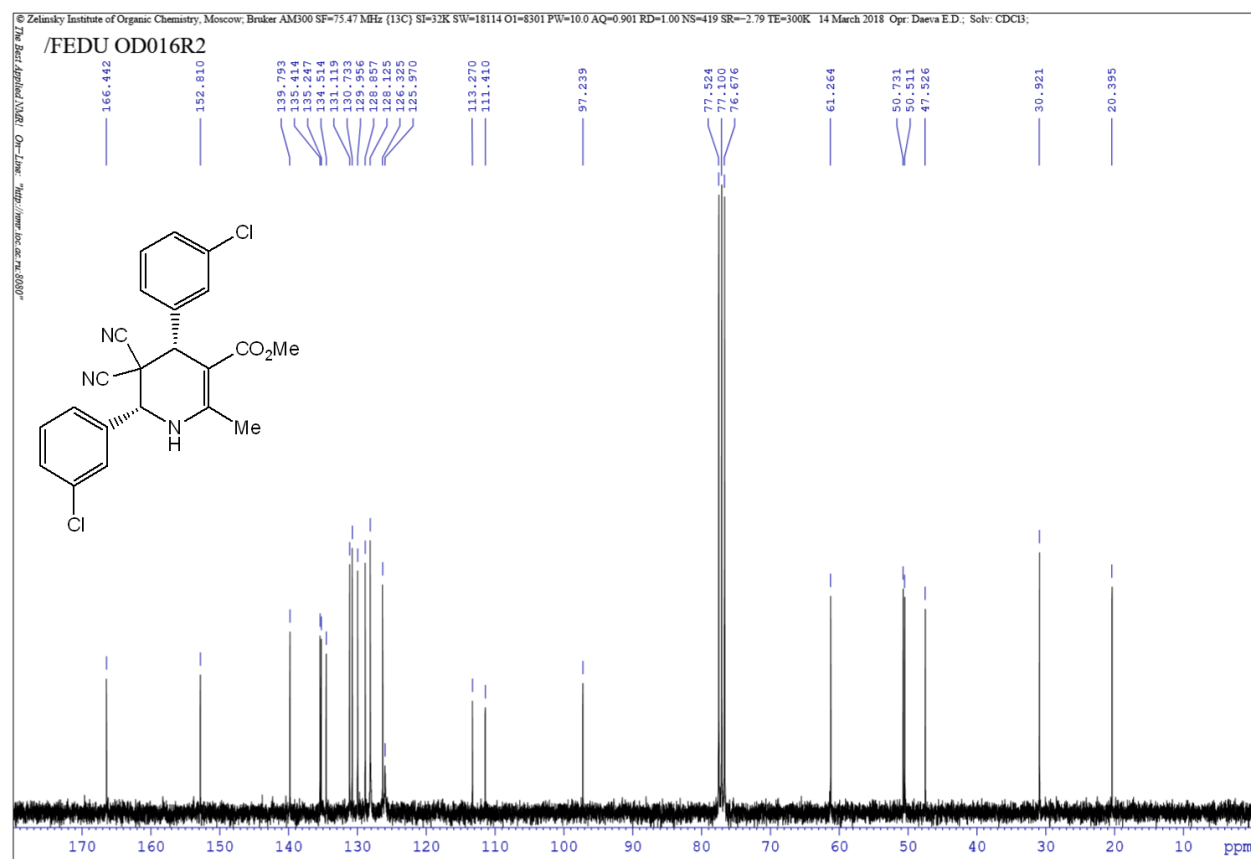
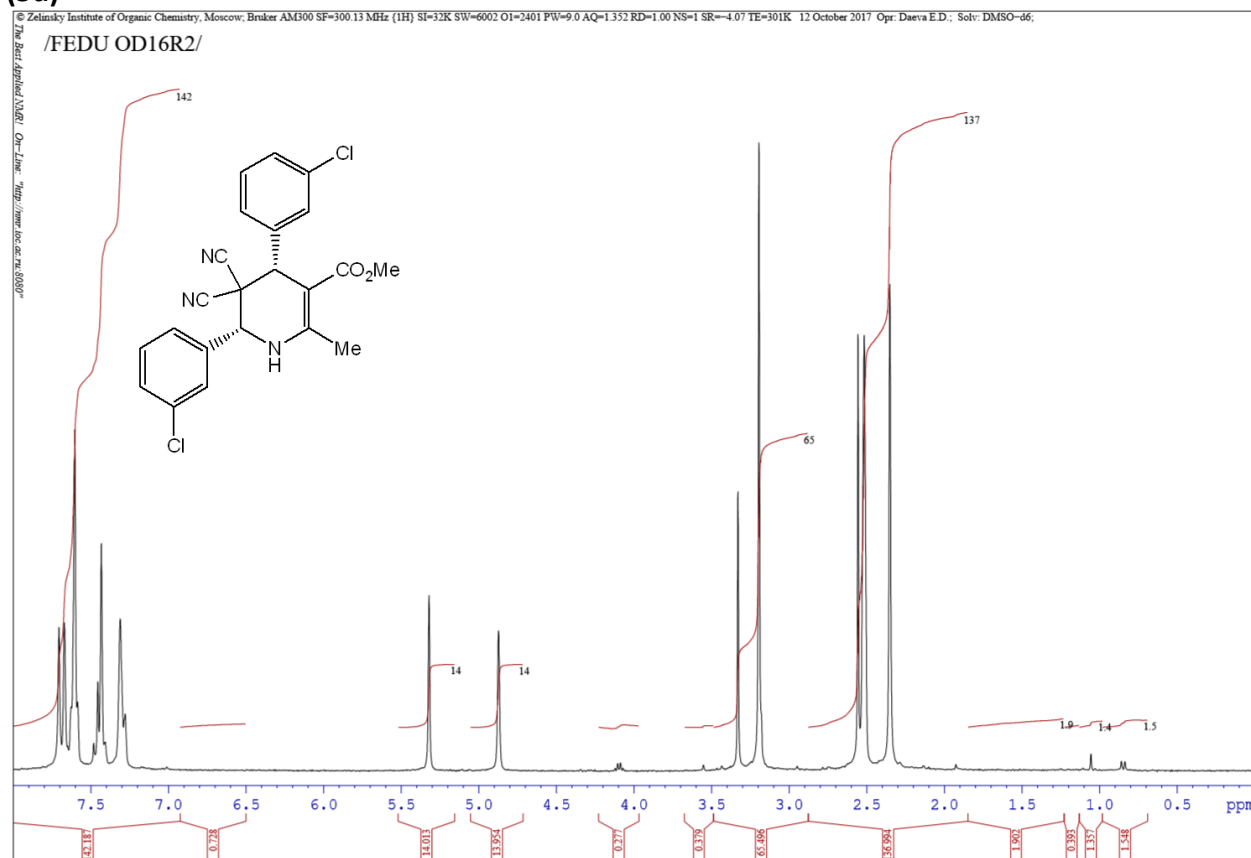
Email: vereshchagin@ioc.ac.ru

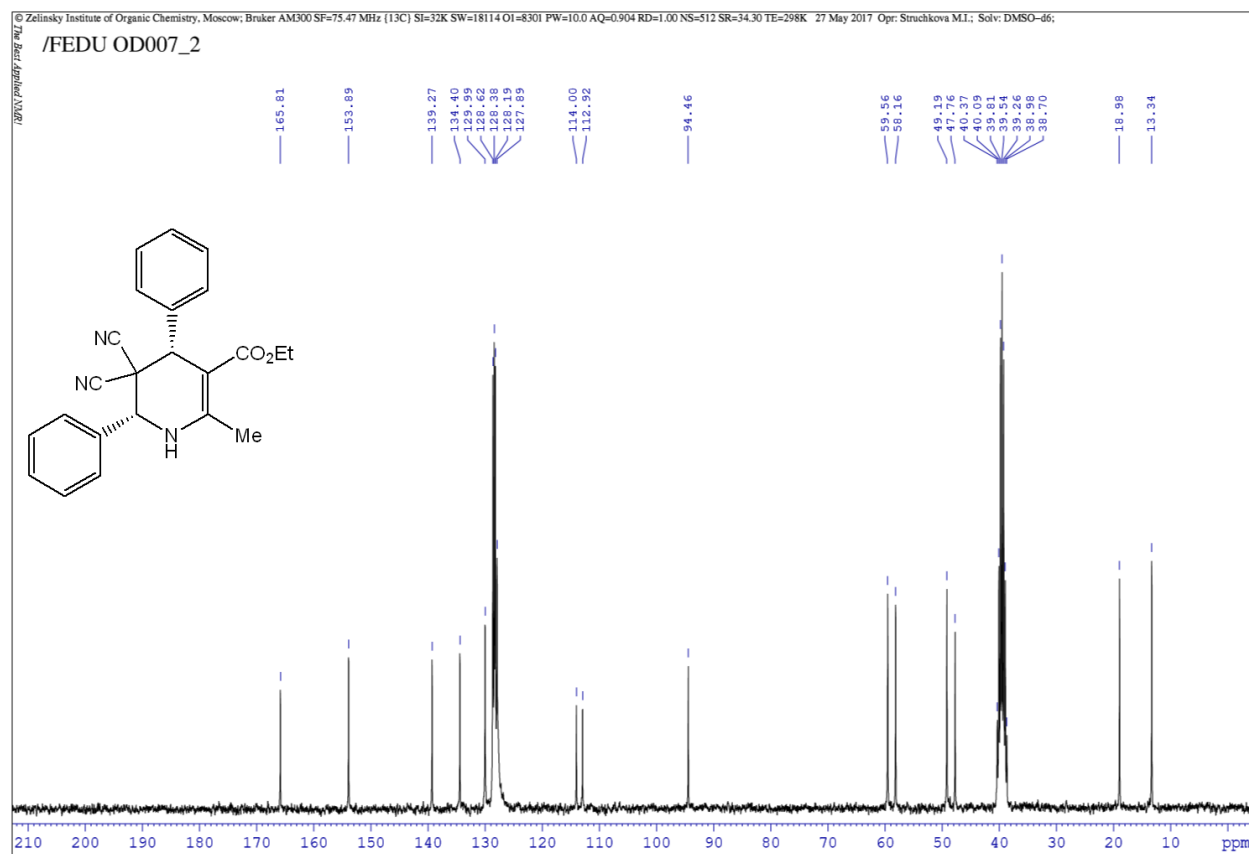
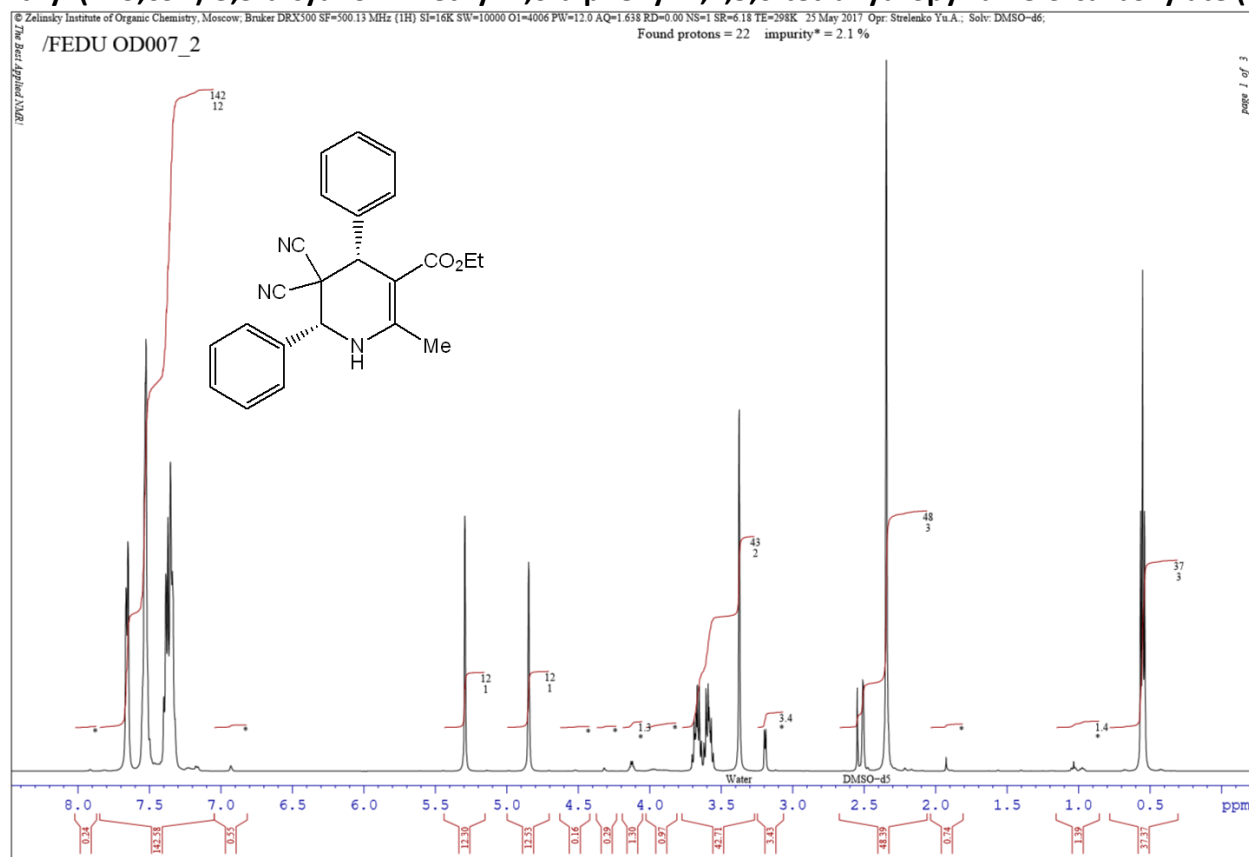
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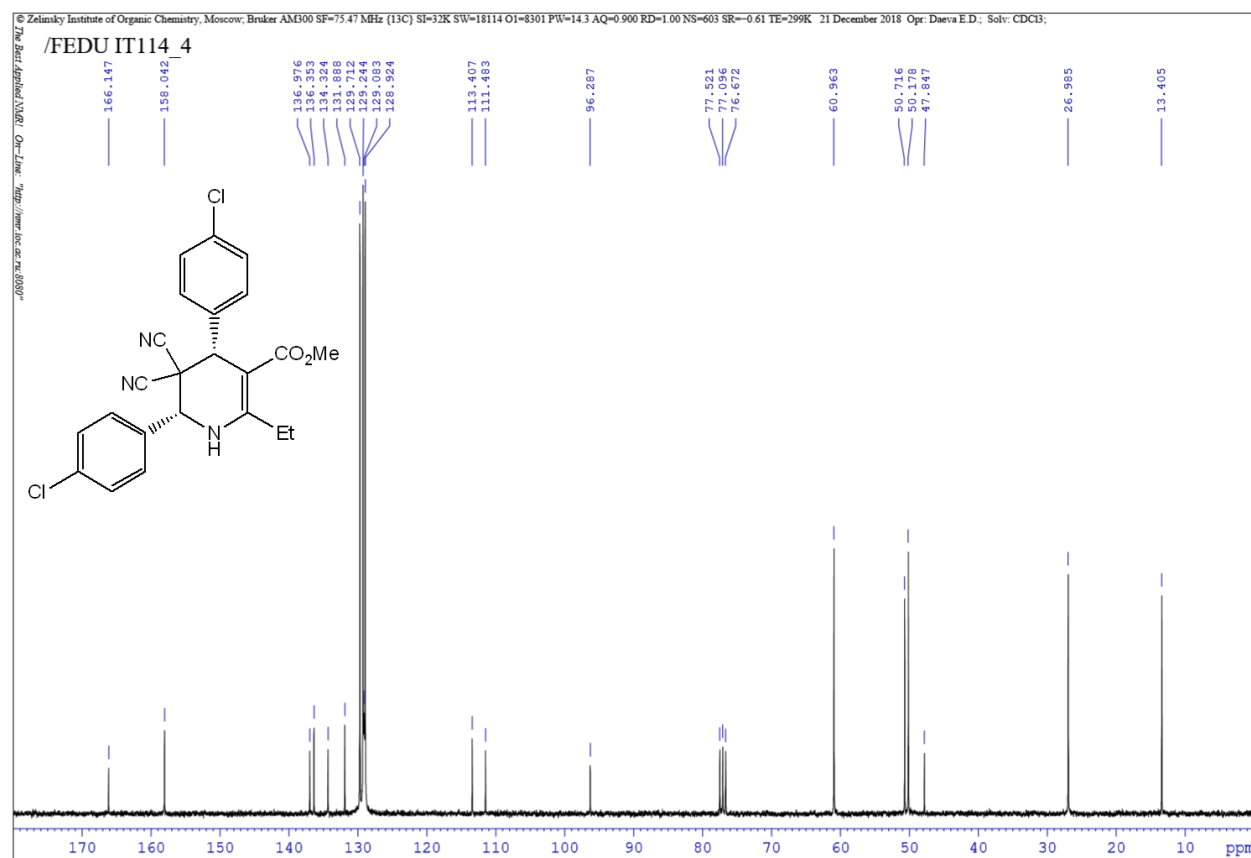
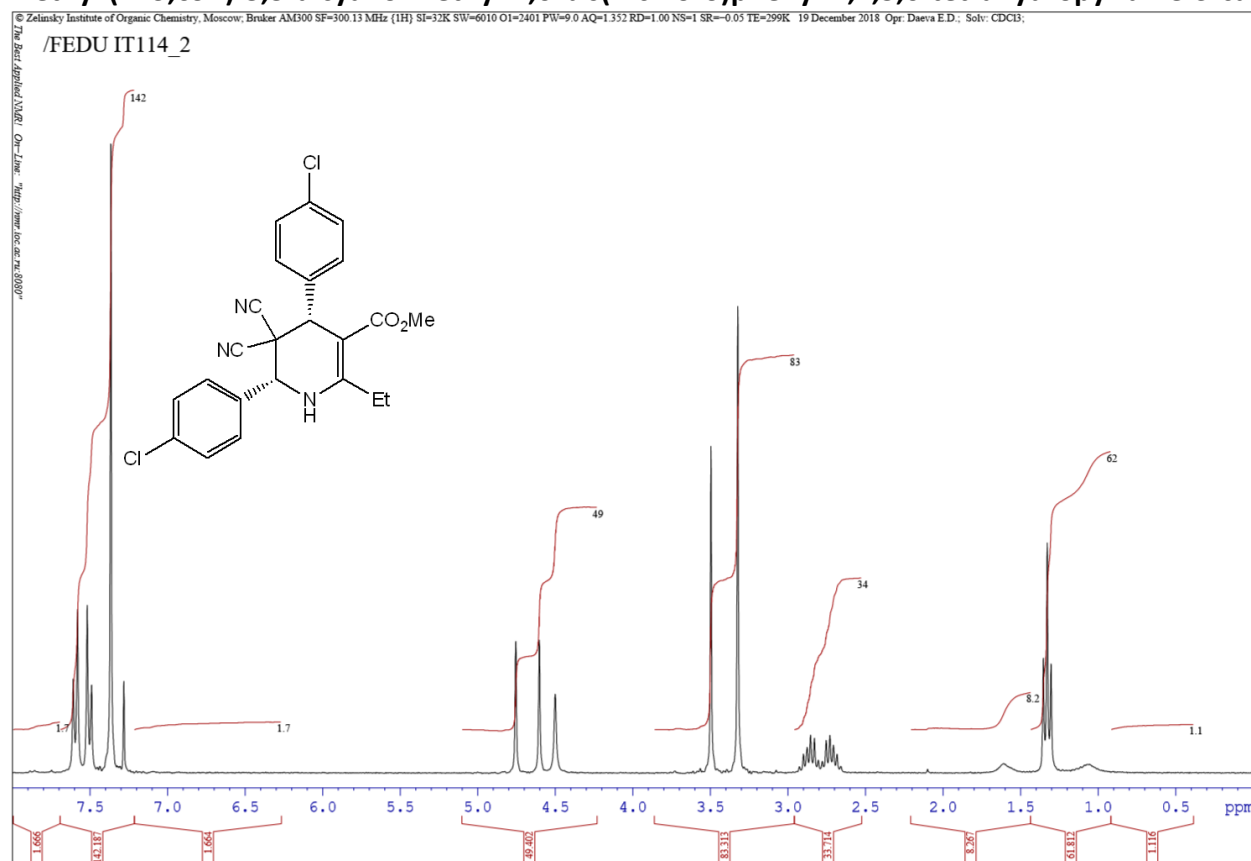
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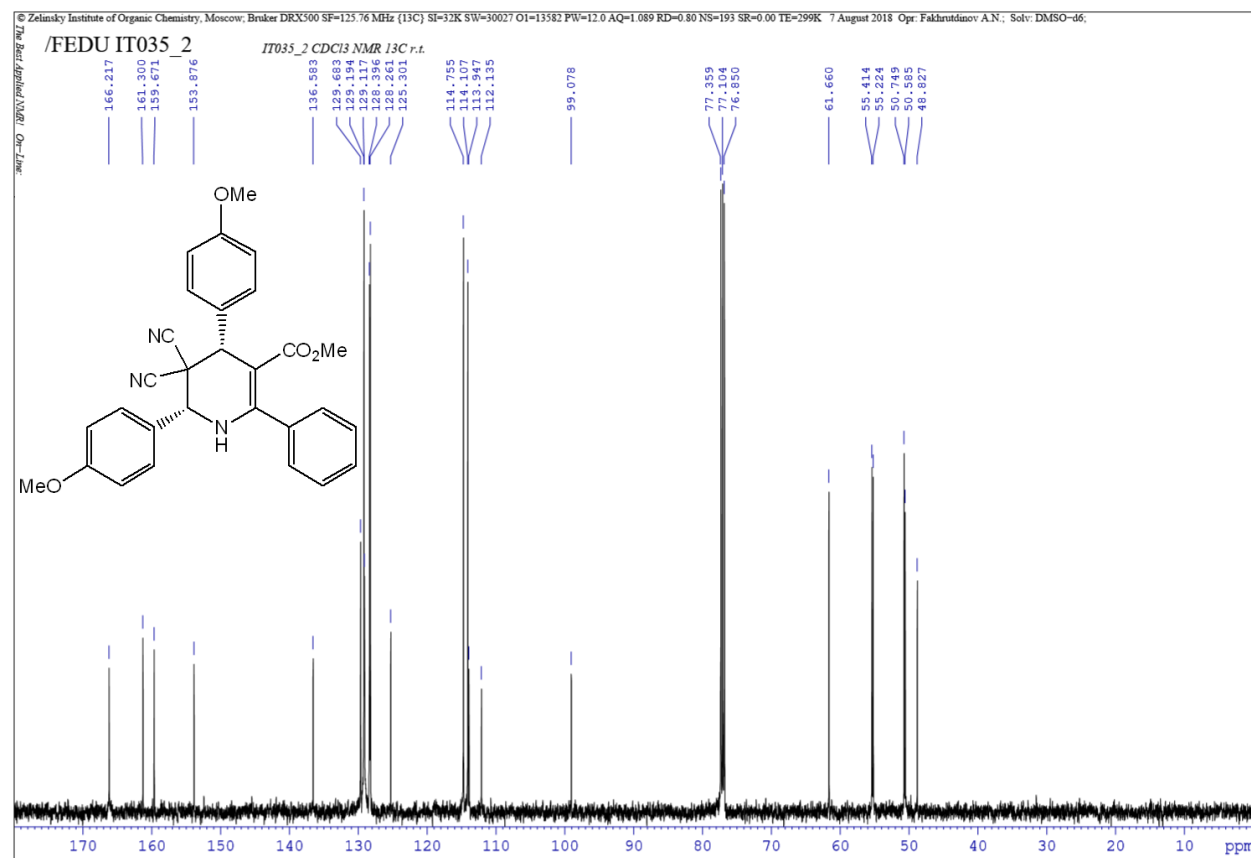
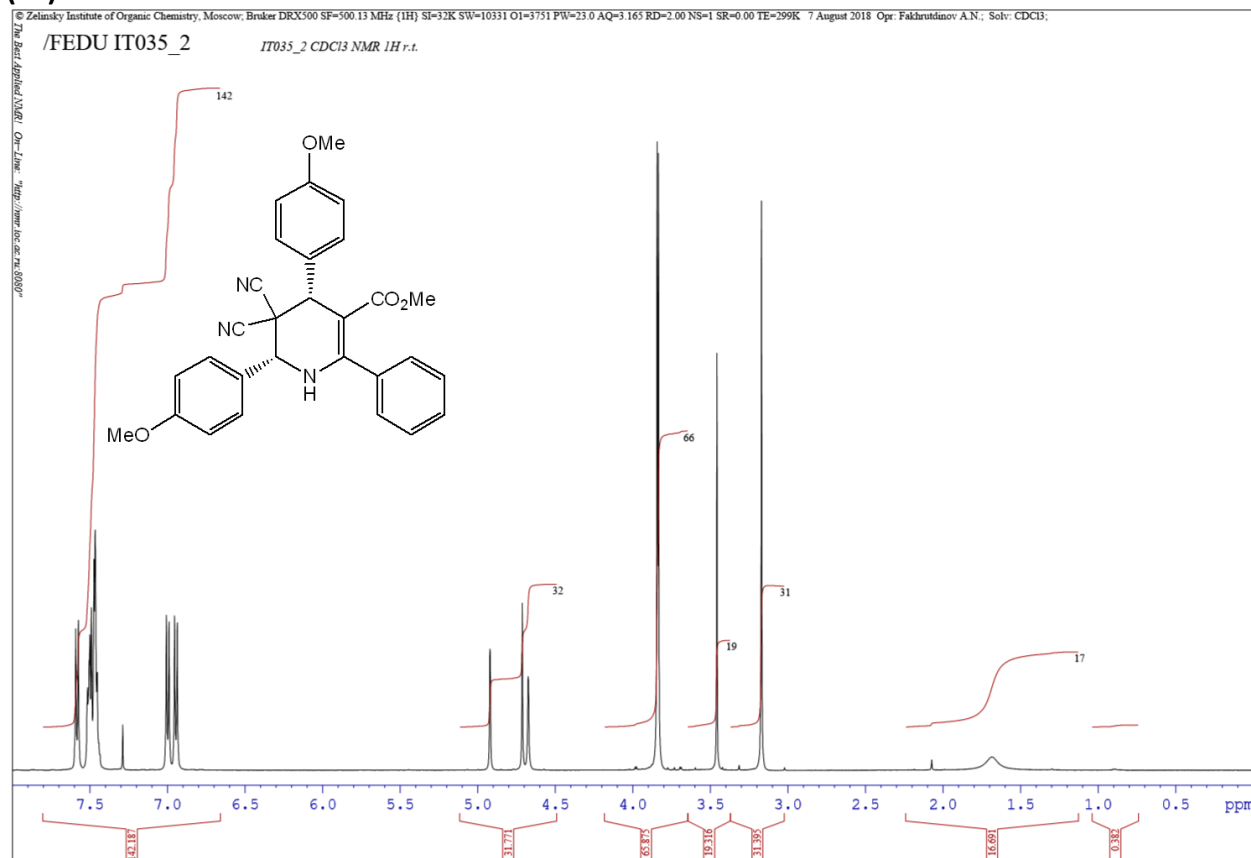
Methyl (4*RS*,6*SR*)-5,5-dicyano-2-methyl-4,6-bis(3-methyl)phenyl-1,4,5,6-tetrahydropyridine-3-carboxylate (5b)

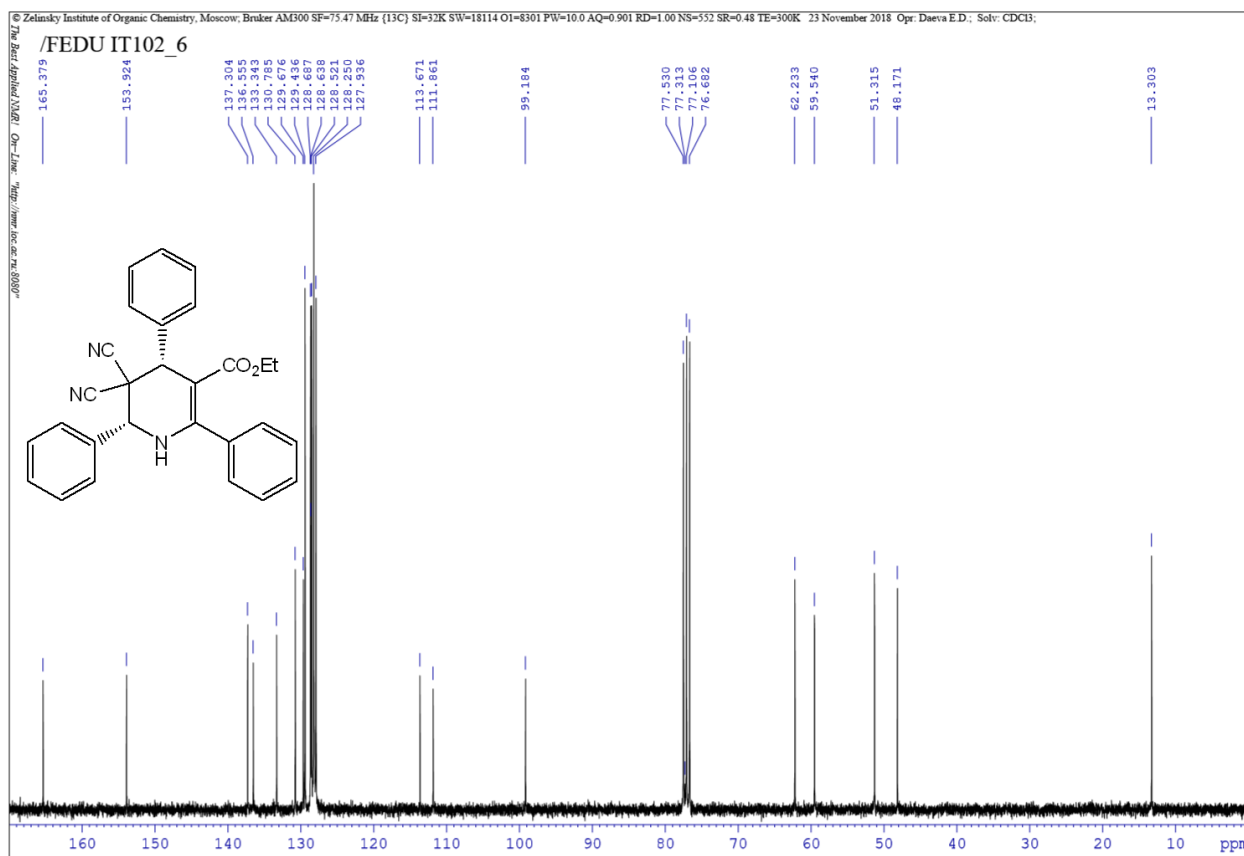
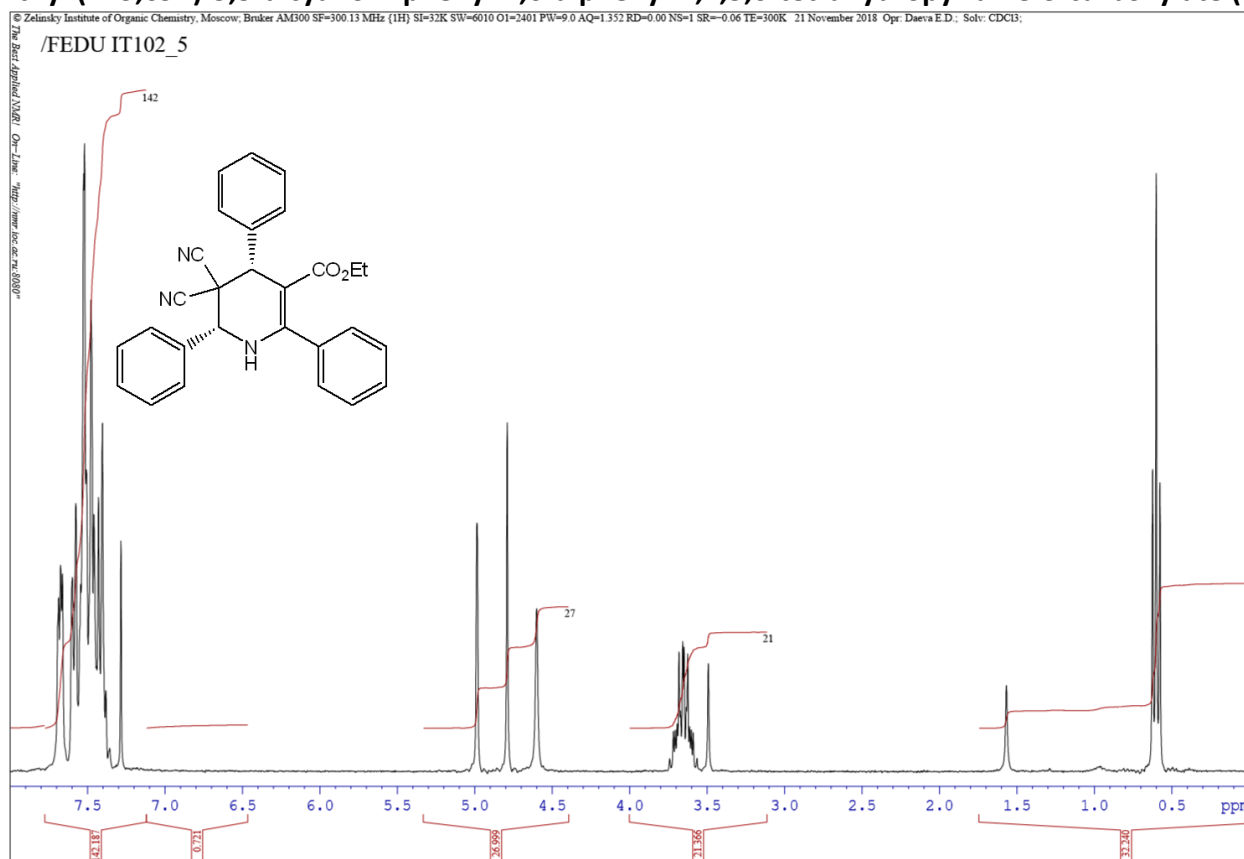
Methyl (4*RS*,6*SR*)-5,5-dicyano-2-methyl-4,6-bis(2-fluorophenyl)-1,4,5,6-tetrahydropyridine-3-carboxylate (5c)

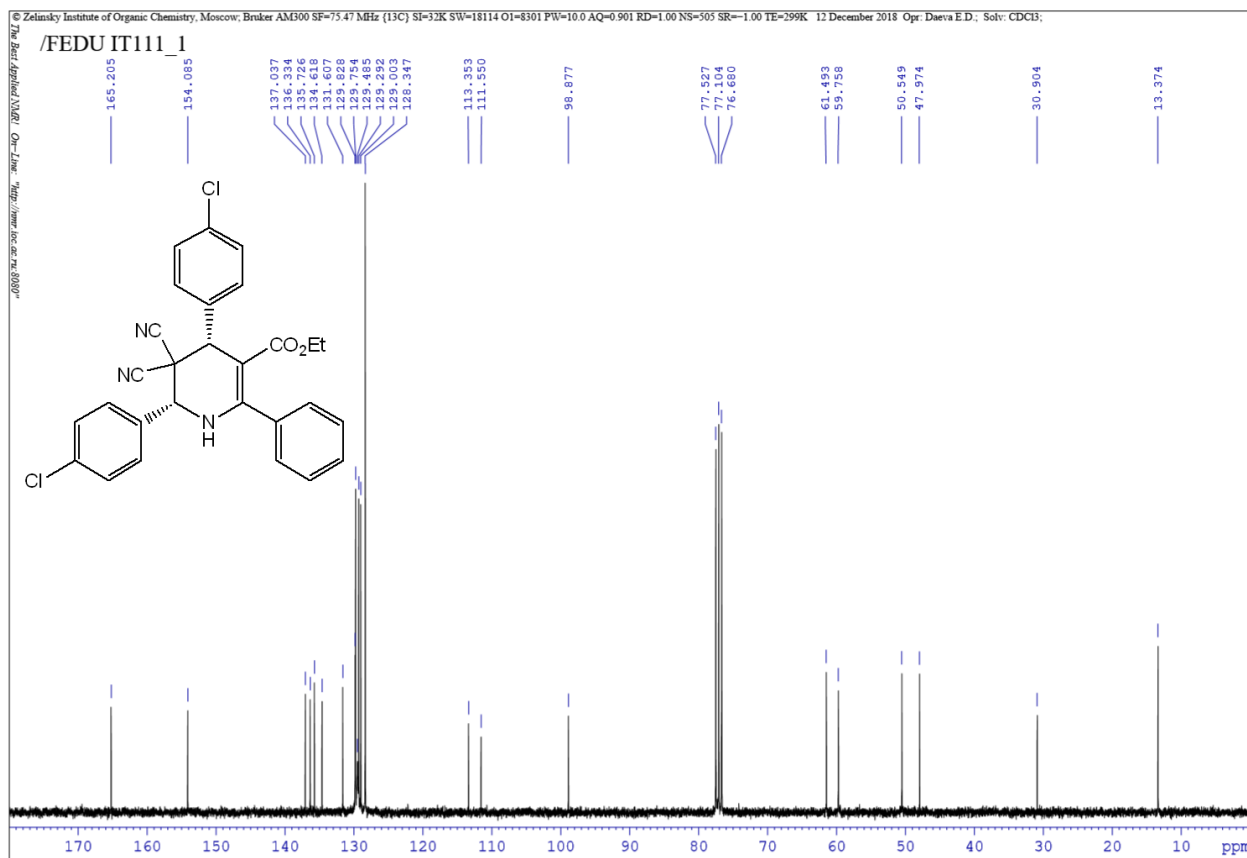
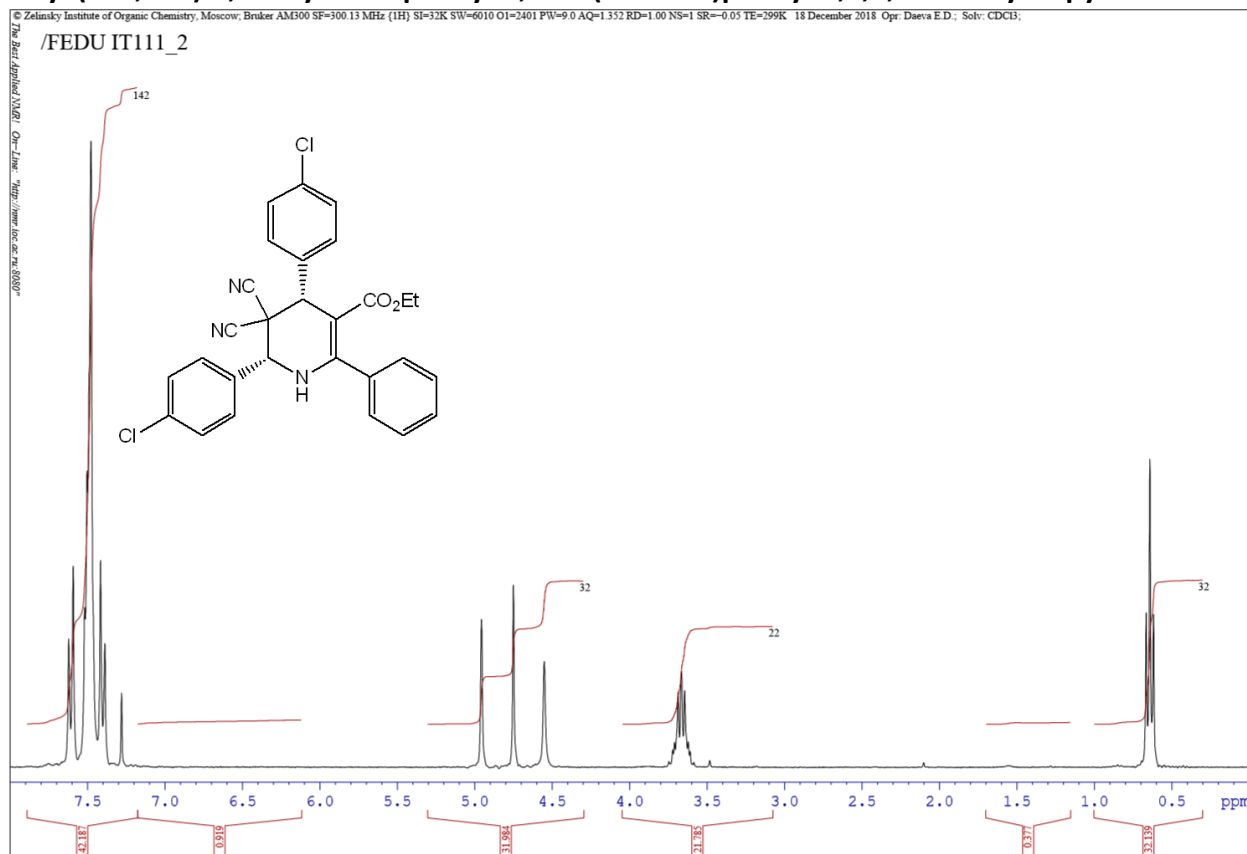
Methyl (4*RS*,6*SR*)-5,5-dicyano-2-methyl-4,6-bis(3-chlorophenyl)-1,4,5,6-tetrahydropyridine-3-carboxylate (5d)

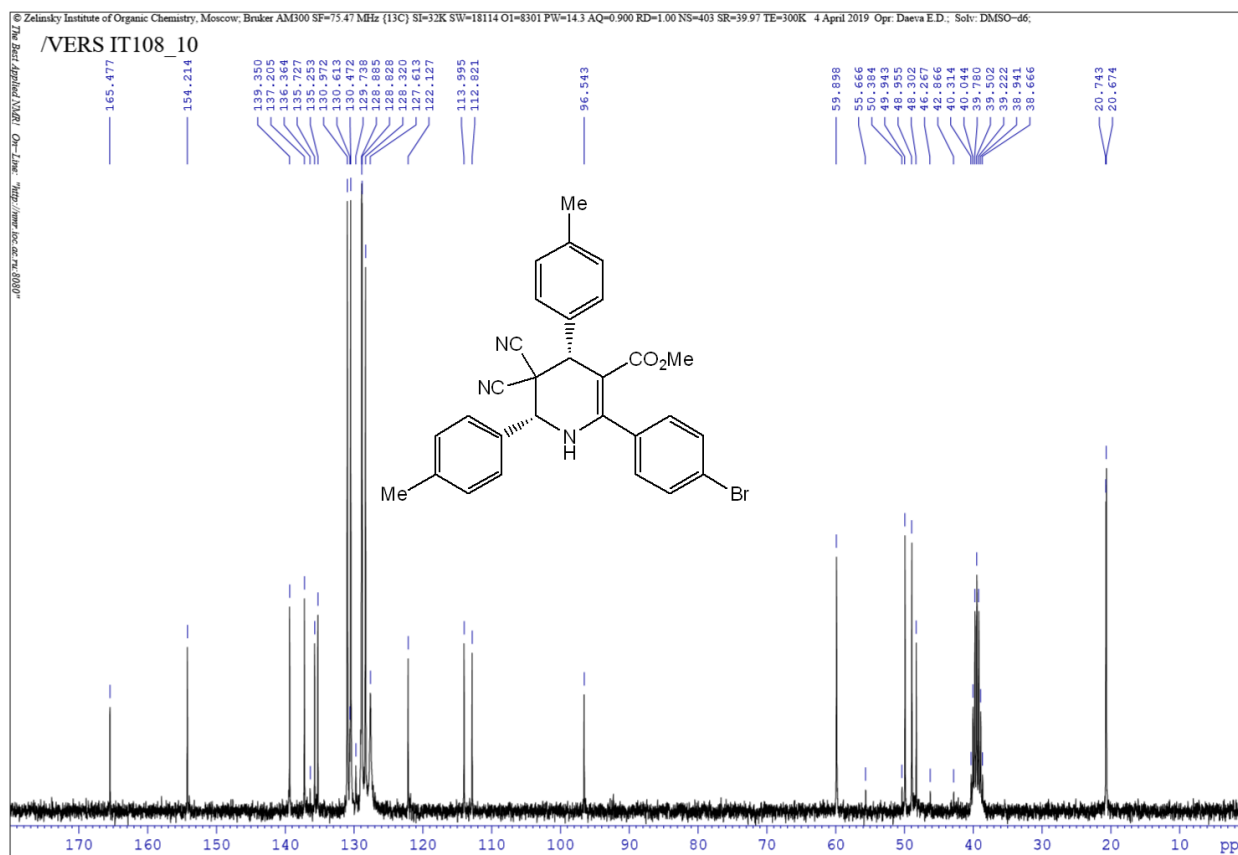
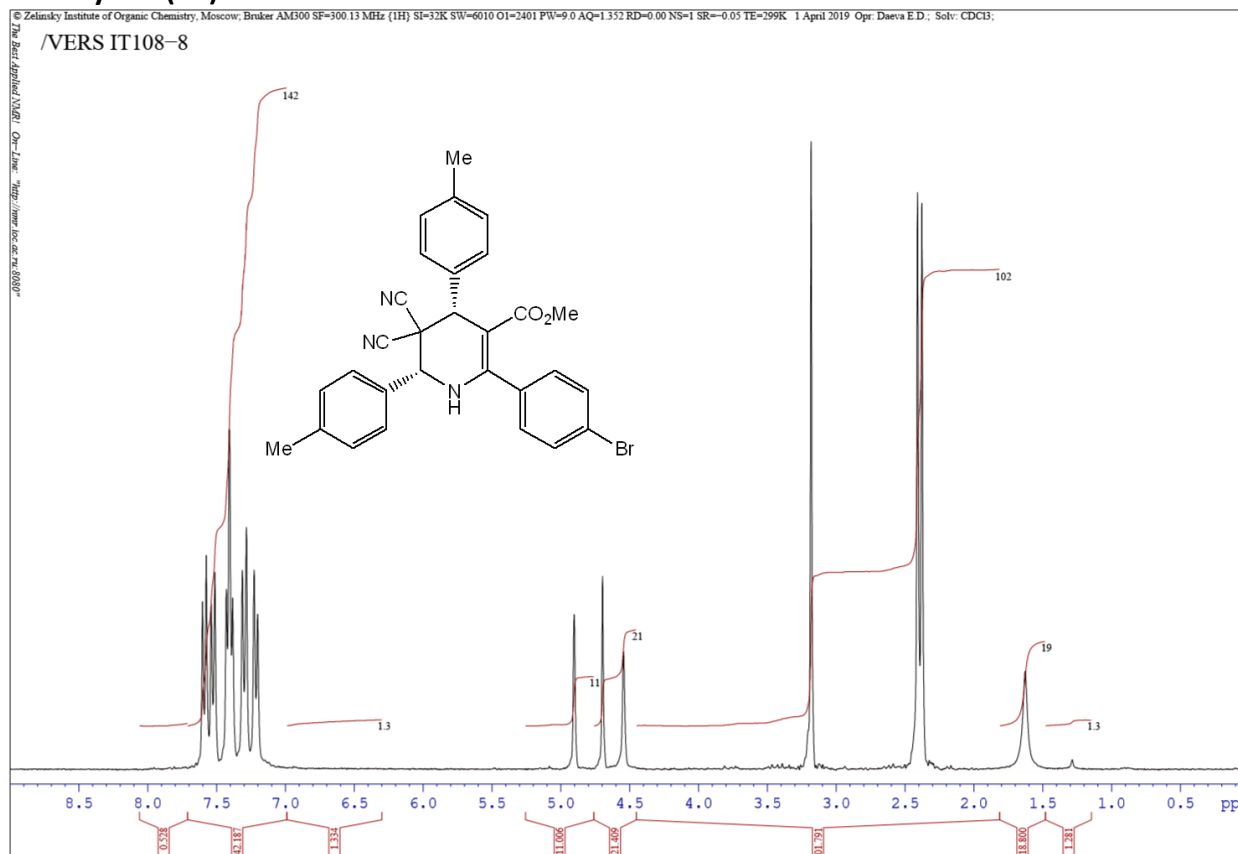
Ethyl (4*RS*,6*SR*)-5,5-dicyano-2-methyl-4,6-diphenyl-1,4,5,6-tetrahydropyridine-3-carboxylate (5g)

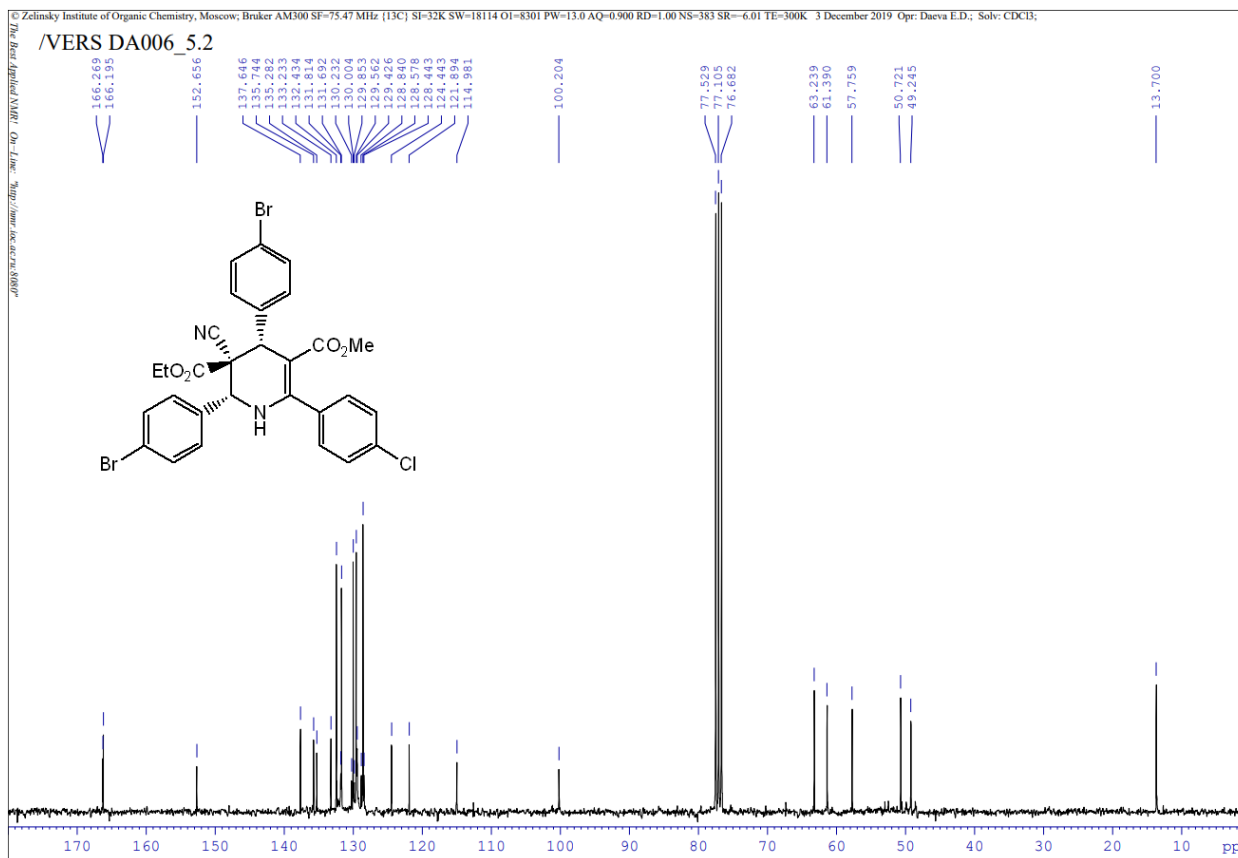
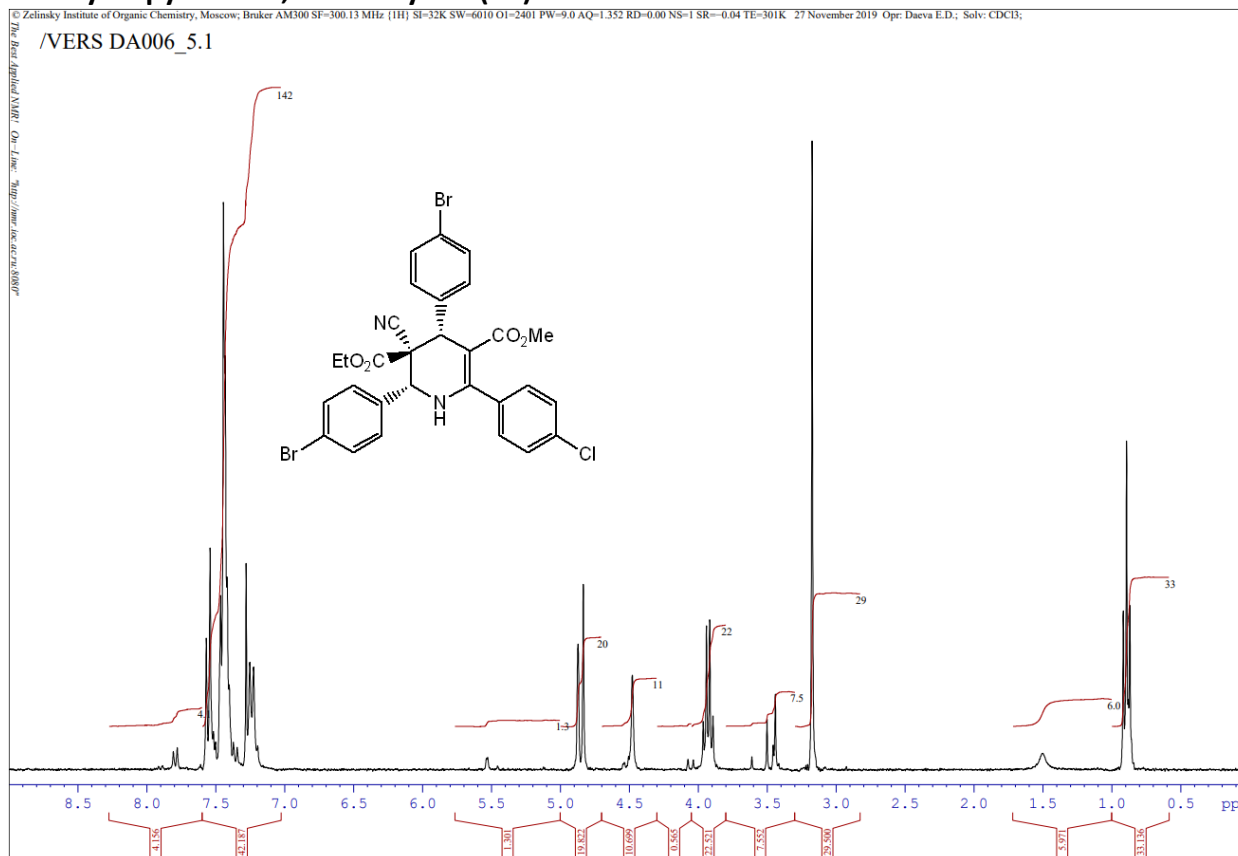
Methyl (4*RS*,6*SR*)-5,5-dicyano-2-ethyl-4,6-bis(4-chloro)phenyl-1,4,5,6-tetrahydropyridine-3-carboxylate (5i)

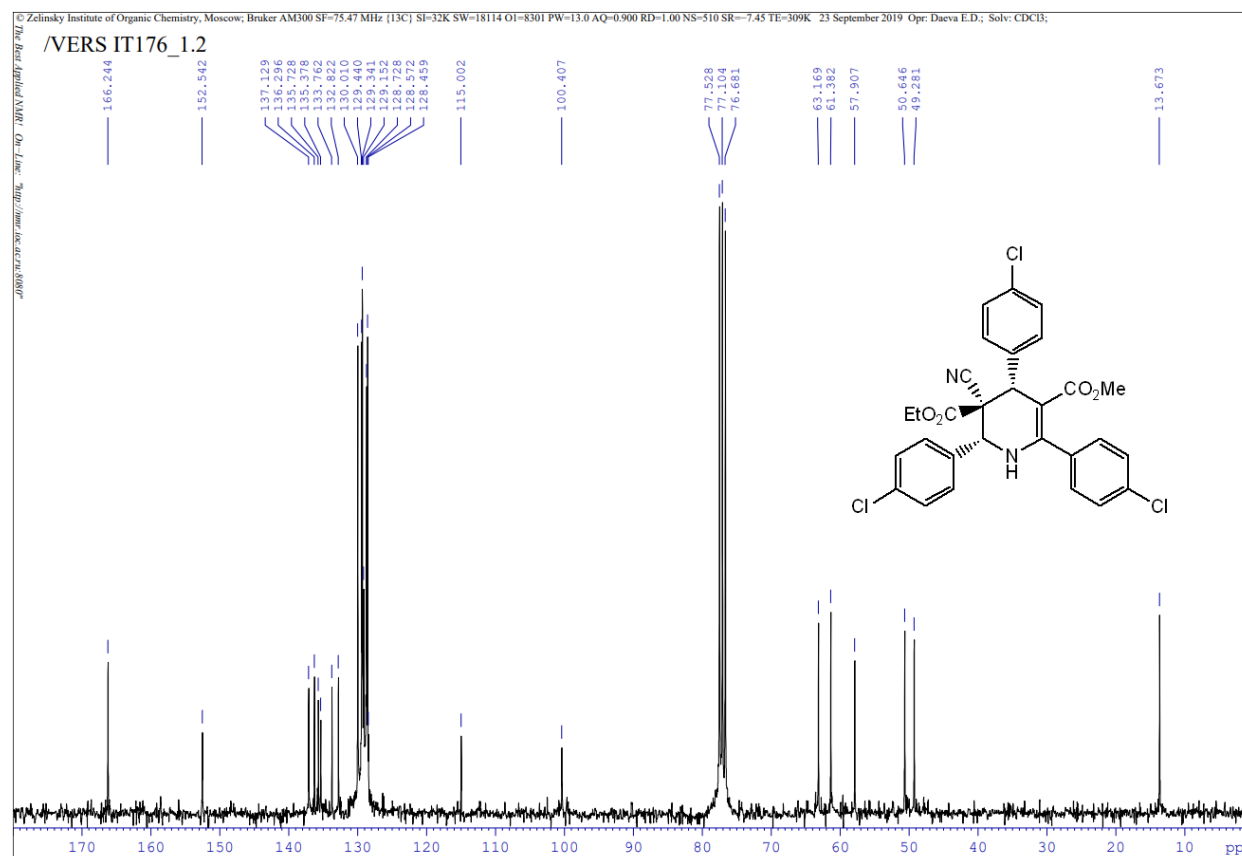
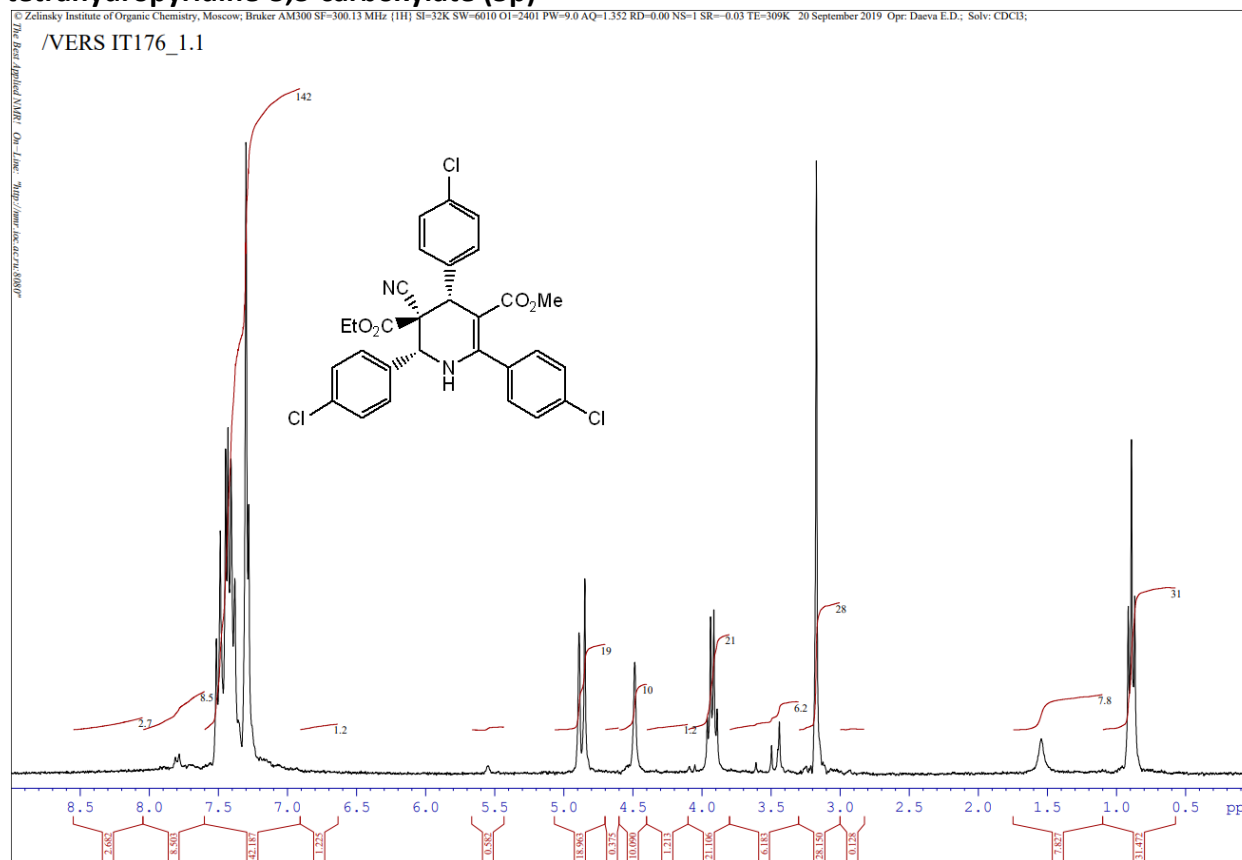
Methyl (4*RS*,6*SR*)-5,5-dicyano-2-phenyl-4,6-bis(4-methoxy)phenyl-1,4,5,6-tetrahydropyridine-3-carboxylate (5k)

Ethyl (4*RS*,6*SR*)-5,5-dicyano-2-phenyl-4,6-diphenyl-1,4,5,6-tetrahydropyridine-3-carboxylate (5I)

Ethyl (4*RS*,6*SR*)-5,5-dicyano-2-phenyl-4,6-bis(4-chloro)phenyl-1,4,5,6-tetrahydropyridine-3-carboxylate (5m)

Methyl (4*RS*,6*SR*)-5,5-dicyano-2-(4-bromo)phenyl-4,6-bis(4-methyl)phenyl-1,4,5,6-tetrahydropyridine-3-carboxylate (5n)

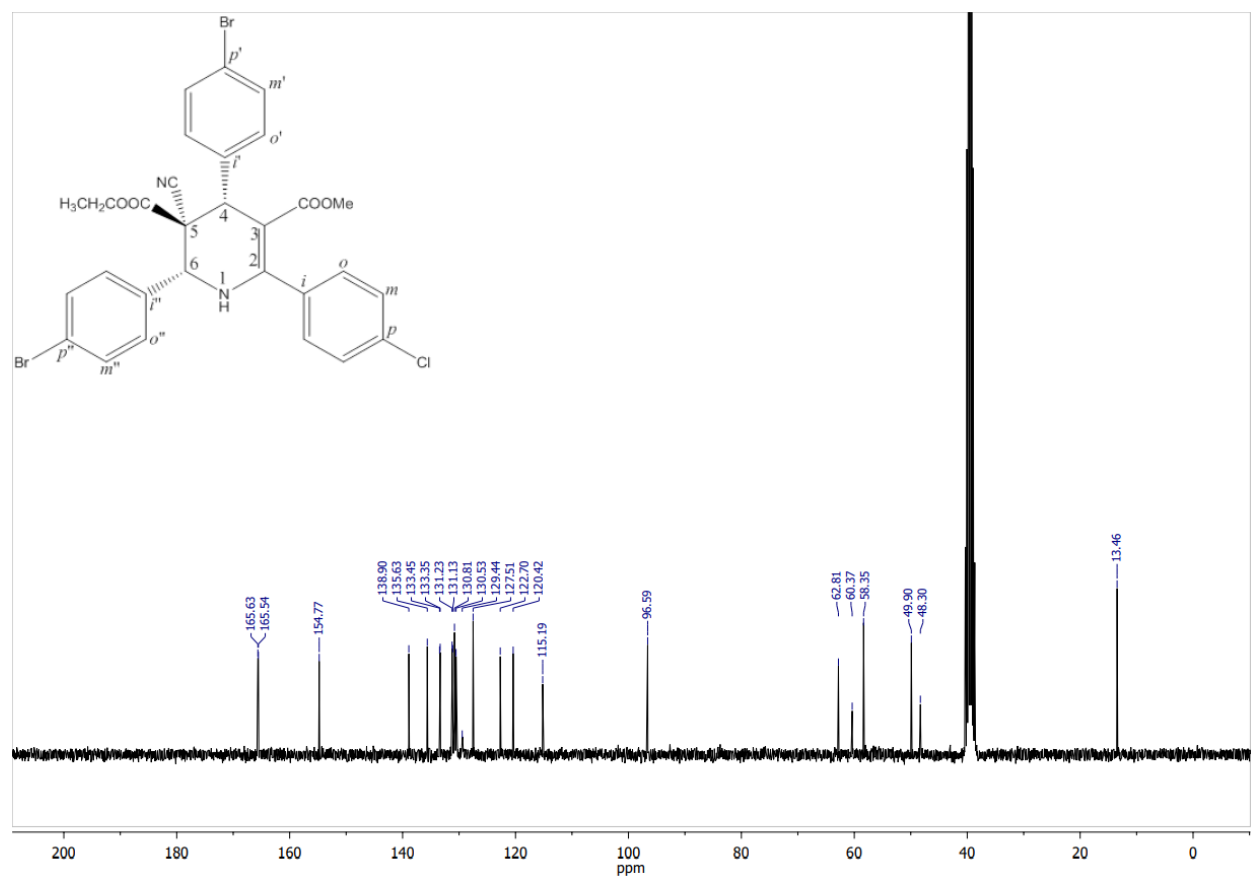
5-ethyl-3-methyl (4*RS*,5*SR*,6*RS*)-5-cyano-2-(4-chloro)phenyl-4,6-bis(4-bromo)phenyl-1,4,5,6-tetrahydropyridine-5,3-carboxylate (5o)

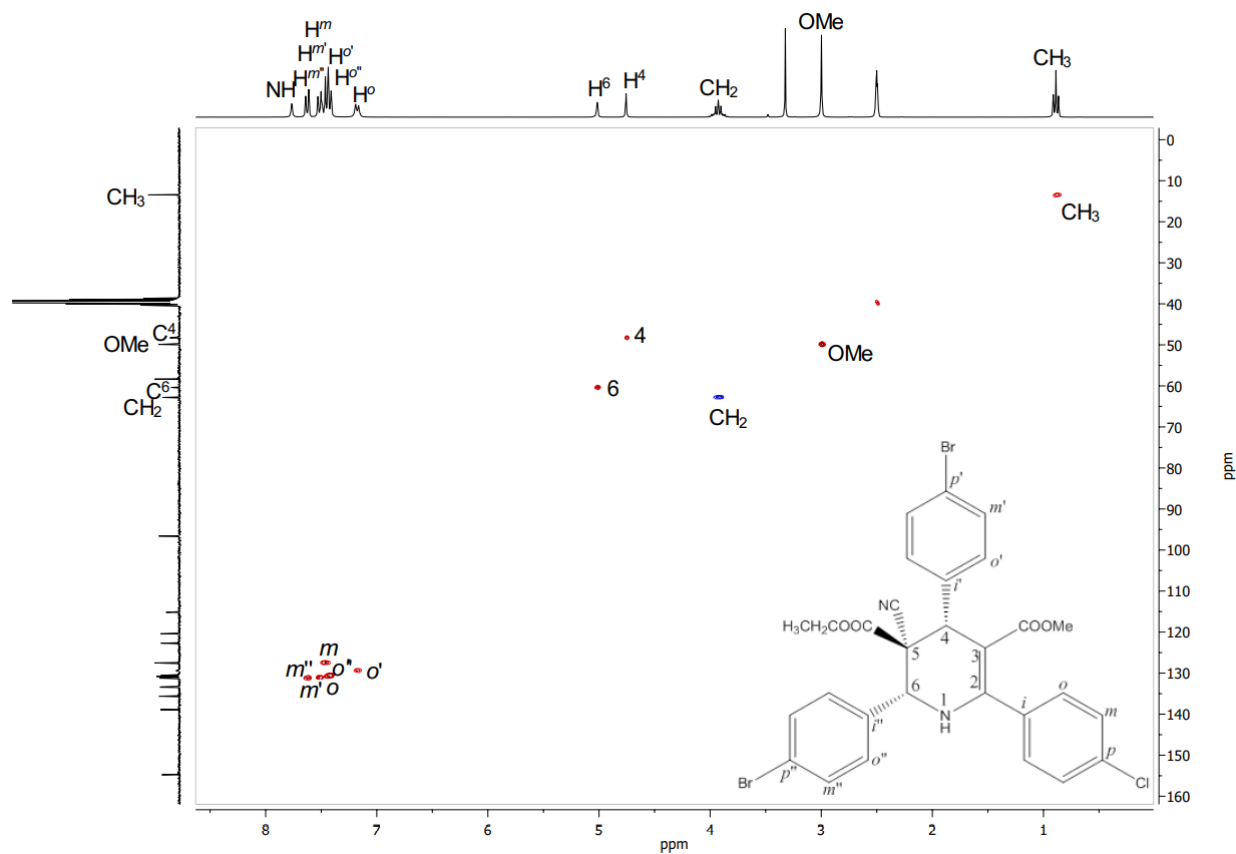
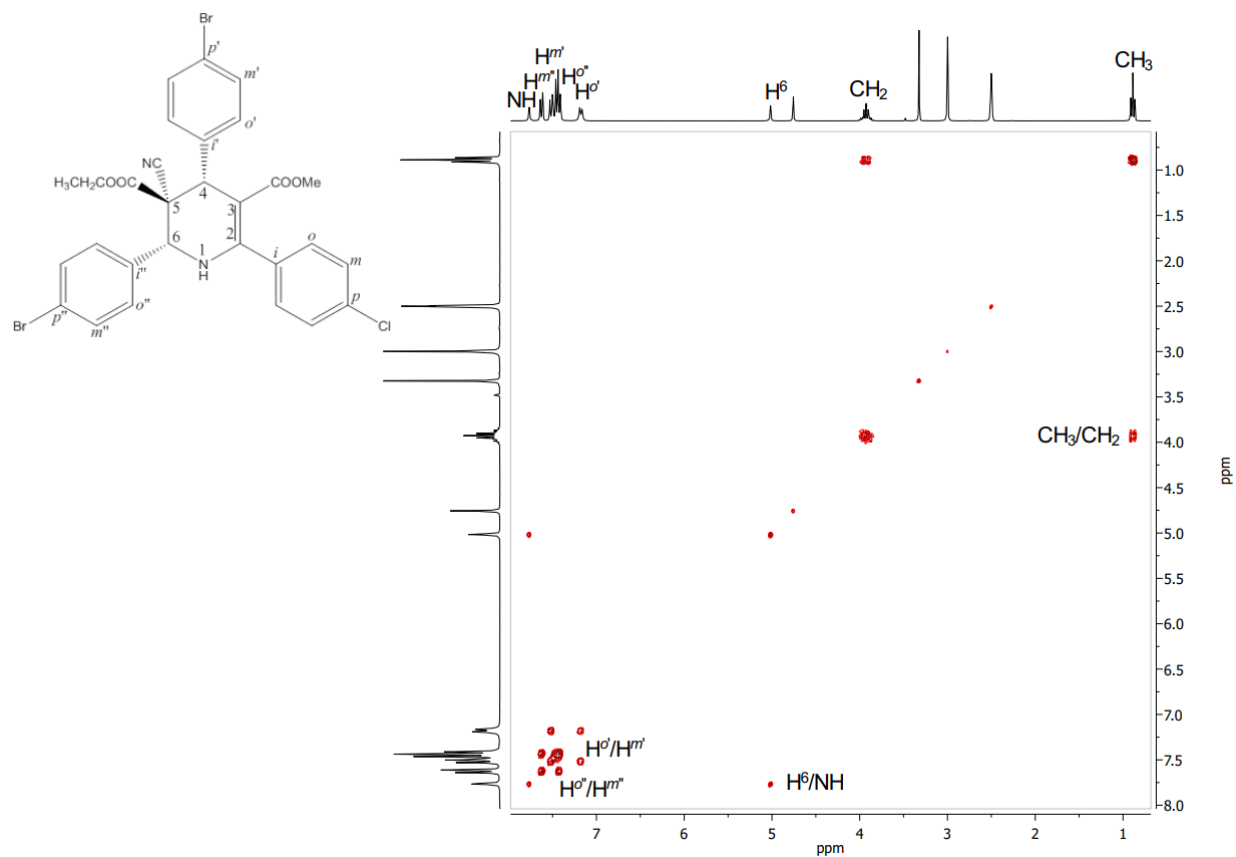
5-ethyl 3-methyl (4*RS*,5*SR*,6*RS*)-5-cyano-2-(4-chloro)phenyl-4,6-bis(4-chloro)phenyl-1,4,5,6-tetrahydropyridine-5,3-carboxylate (5p)

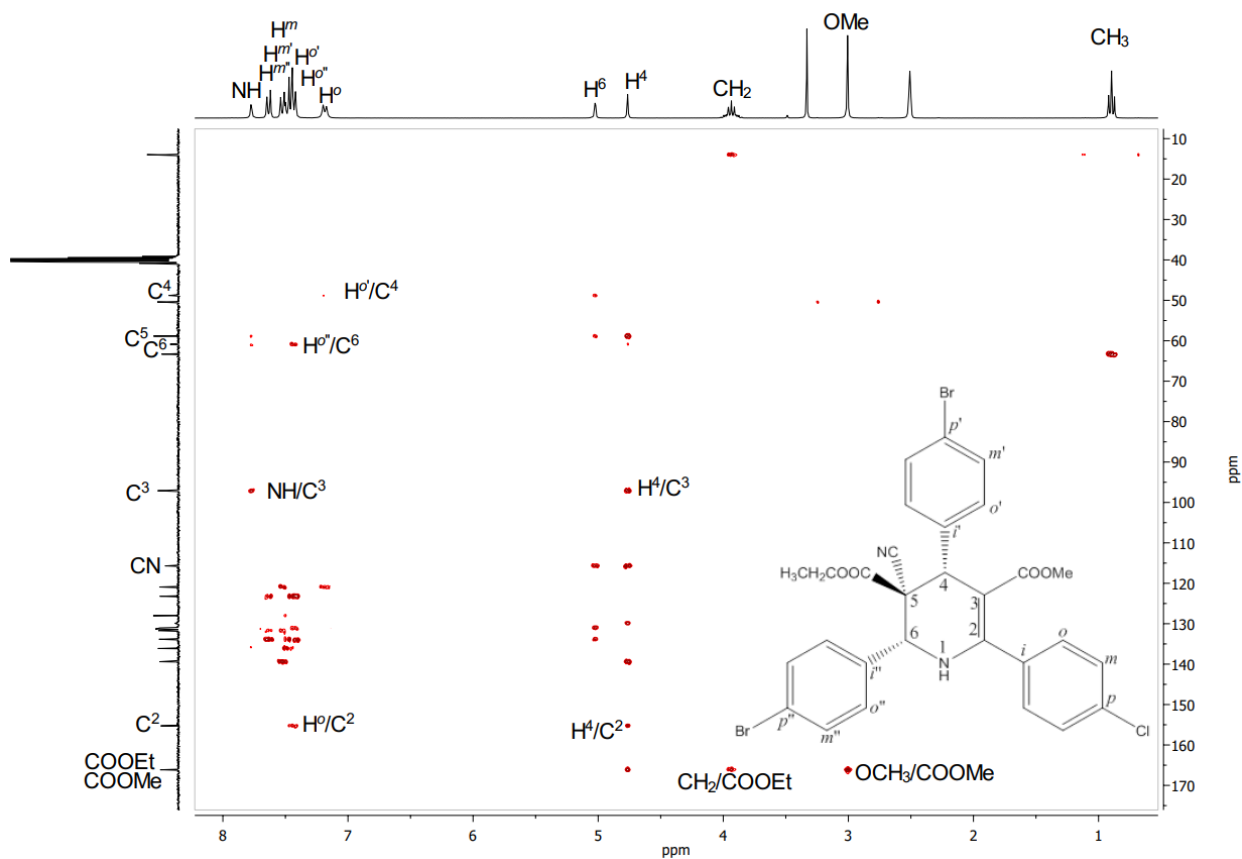
Chemical structure of compound 10: COC(=O)C1=C(C(=O)N)C(C#N)C1[C@H](C#N)C2=CC=C(C=C2)Br

¹H NMR spectrum (CDCl₃):

Chemical Shift (ppm)	Integration	Assignment
7.20 - 7.78	0.93, 1.97, 2.11, 2.02, 4.02, 1.86	Aromatic protons (NH, H ^o , H ^{o'} , H ^m , H ^{m'})
4.95	0.95	H ⁶
4.75	0.98	H ⁴
3.92	2.00	CH ₂
3.87	3.04	OMe
1.00	2.95	CH ₃







Correlations of 6 spectra

