

Design, synthesis, molecular docking, and kinetic study of 3-amino-2,4-diarylbenzo[4,5]imidazo[1,2-*a*]pyrimidines as novel, potent α -glucosidase inhibitor

Fariba Peytam^a, Ghazaleh Takalloobanafshi^b, Toktam Saadattalab^c, Zahra Emamgholipour^c, Maryam Norouzbahari^d, Setareh Moghimi^a, Loghman Firouzpour^a, Hamid Reza Bijanzadeh^e, Mohammad Ali Faramarzi^f, Somayeh Mojtavavi^f, Parviz Rashidi-Ranjbar^b, Alireza Foroumadi^{a,c,*}

^a Drug Design and Development Research Center, The Institute of Pharmaceutical Sciences (TIPS), Tehran University of Medical Sciences, Tehran, Iran

^b School of Chemistry, College of Science, University of Tehran, Tehran, Iran

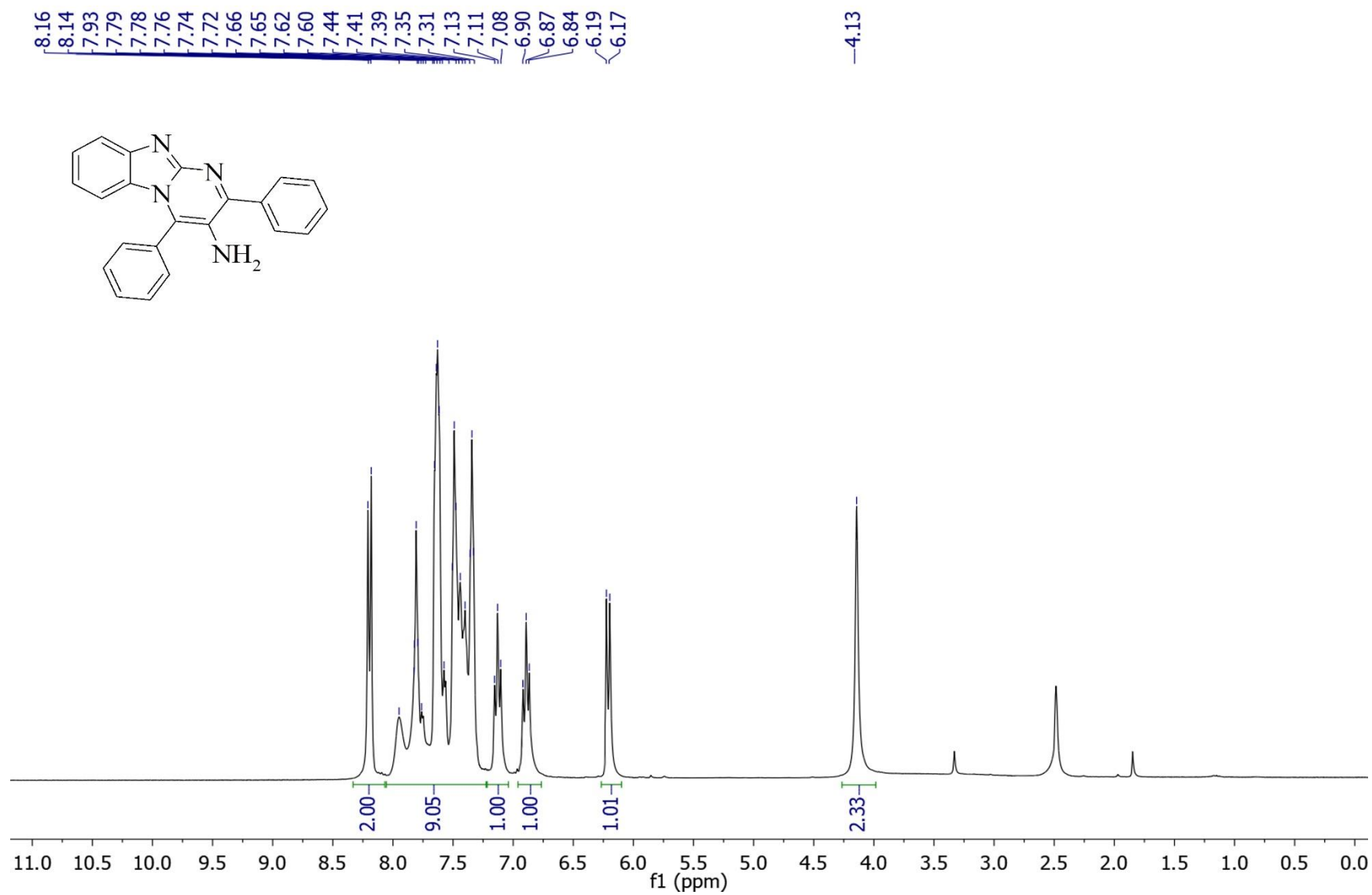
^c Department of Medicinal Chemistry, Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran

^d Faculty of Medicine, Eastern Mediterranean University, Famagusta, Northern Cyprus, via Mersin 10, Turkey.

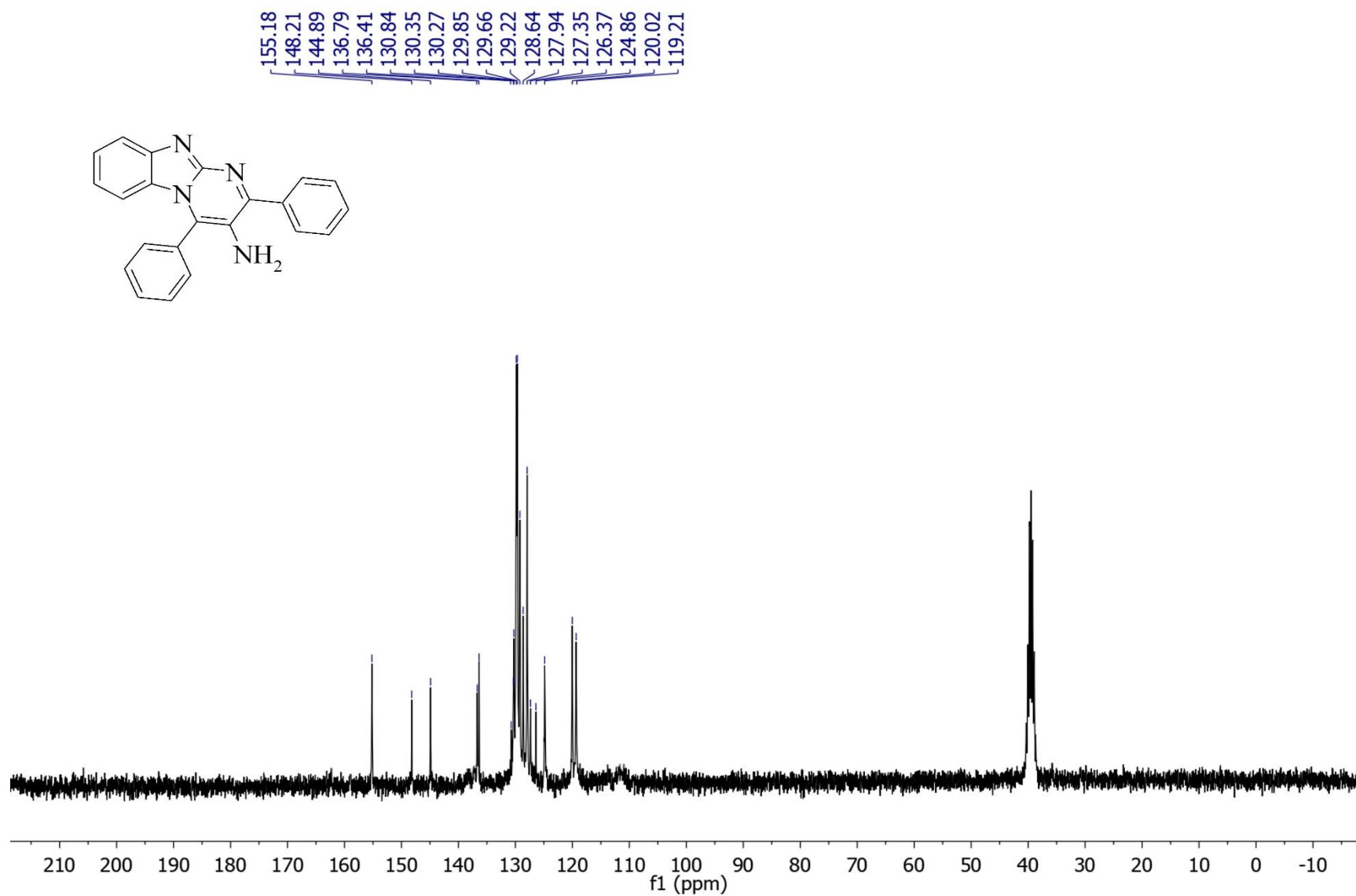
^e Department of Environmental Sciences, Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University, Tehran, Iran

^f Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran

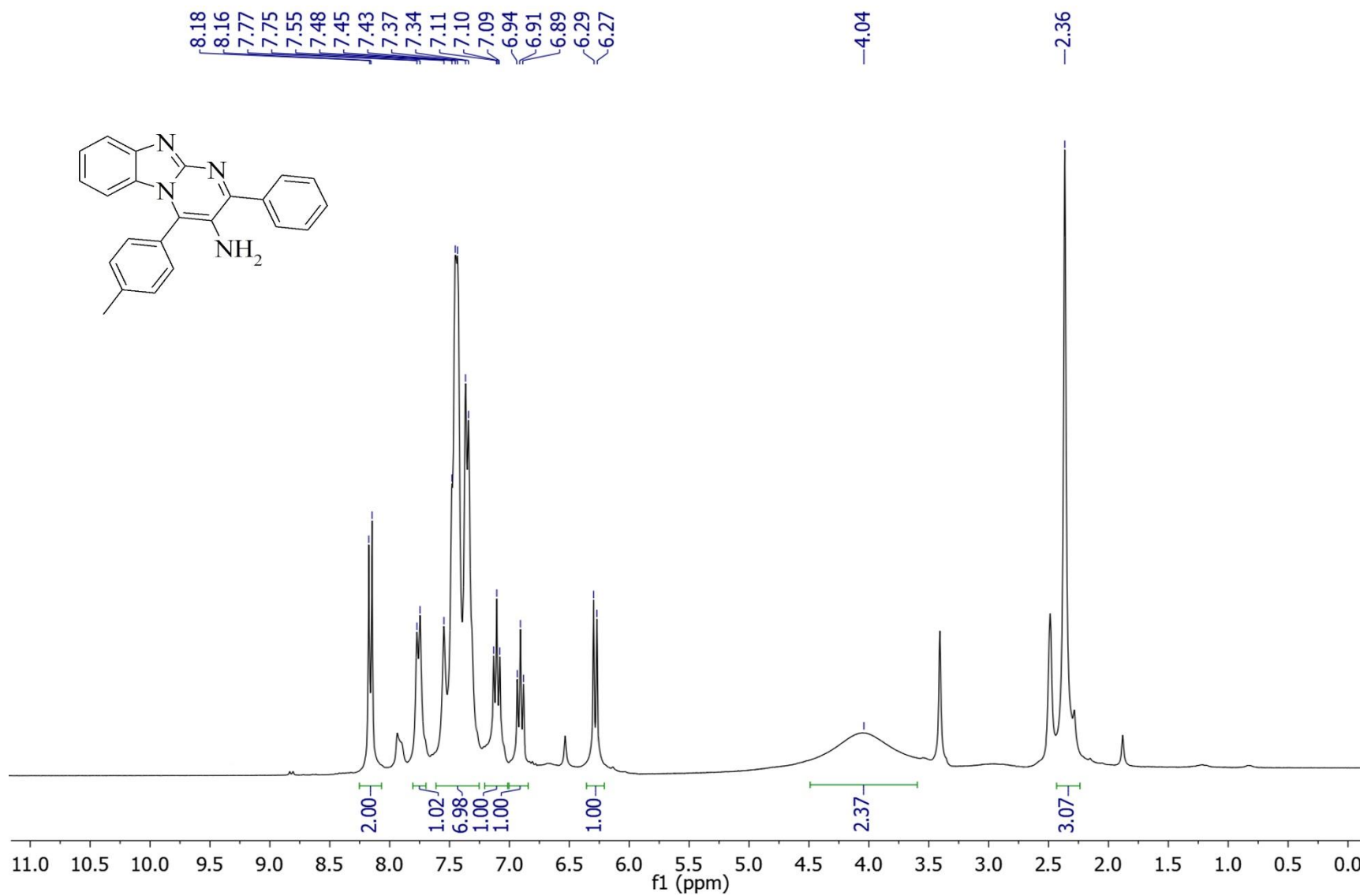
¹H NMR spectrum of 2,4-diphenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3a**)



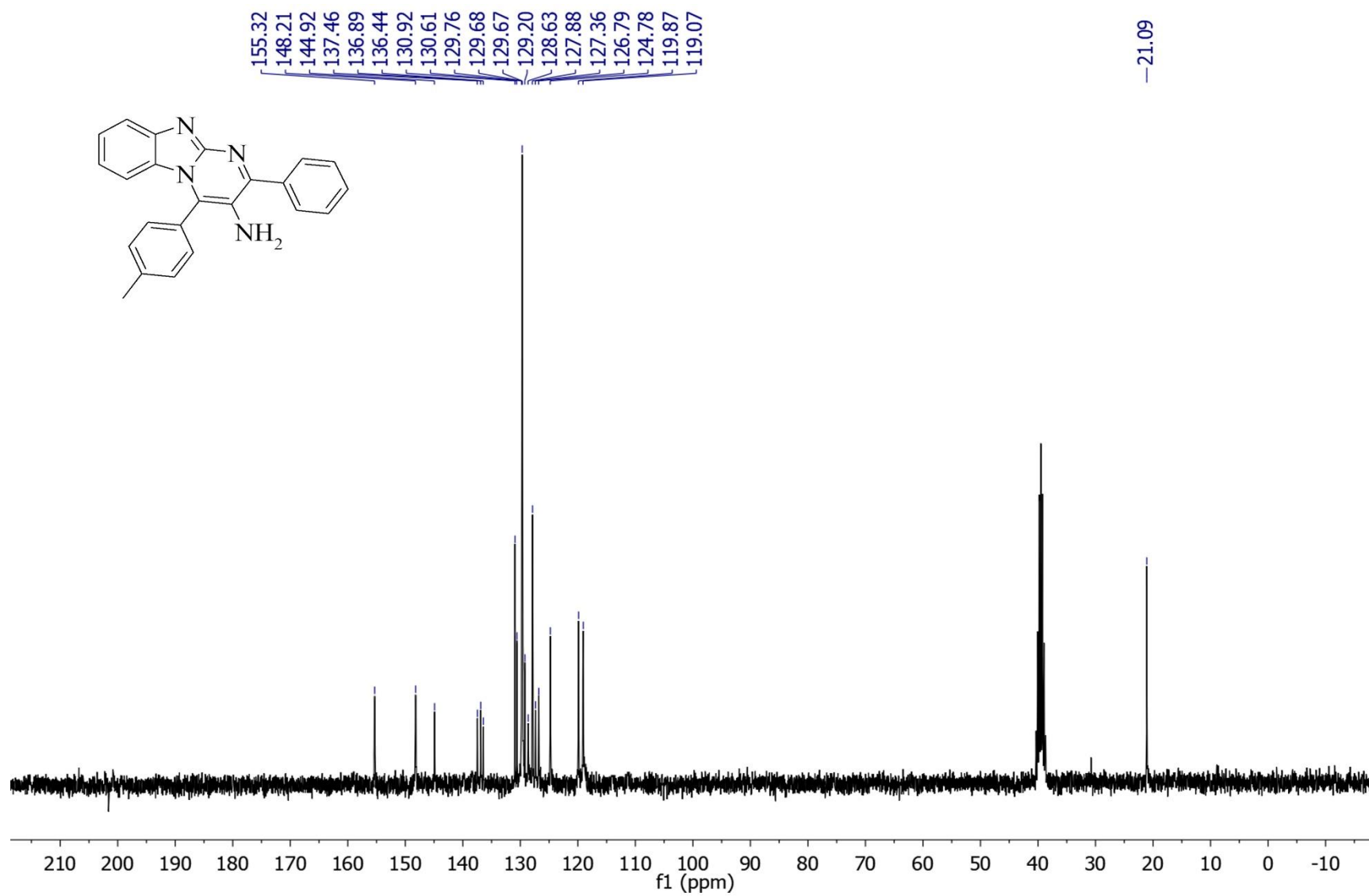
¹³C NMR spectrum of 2,4-diphenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3a**)



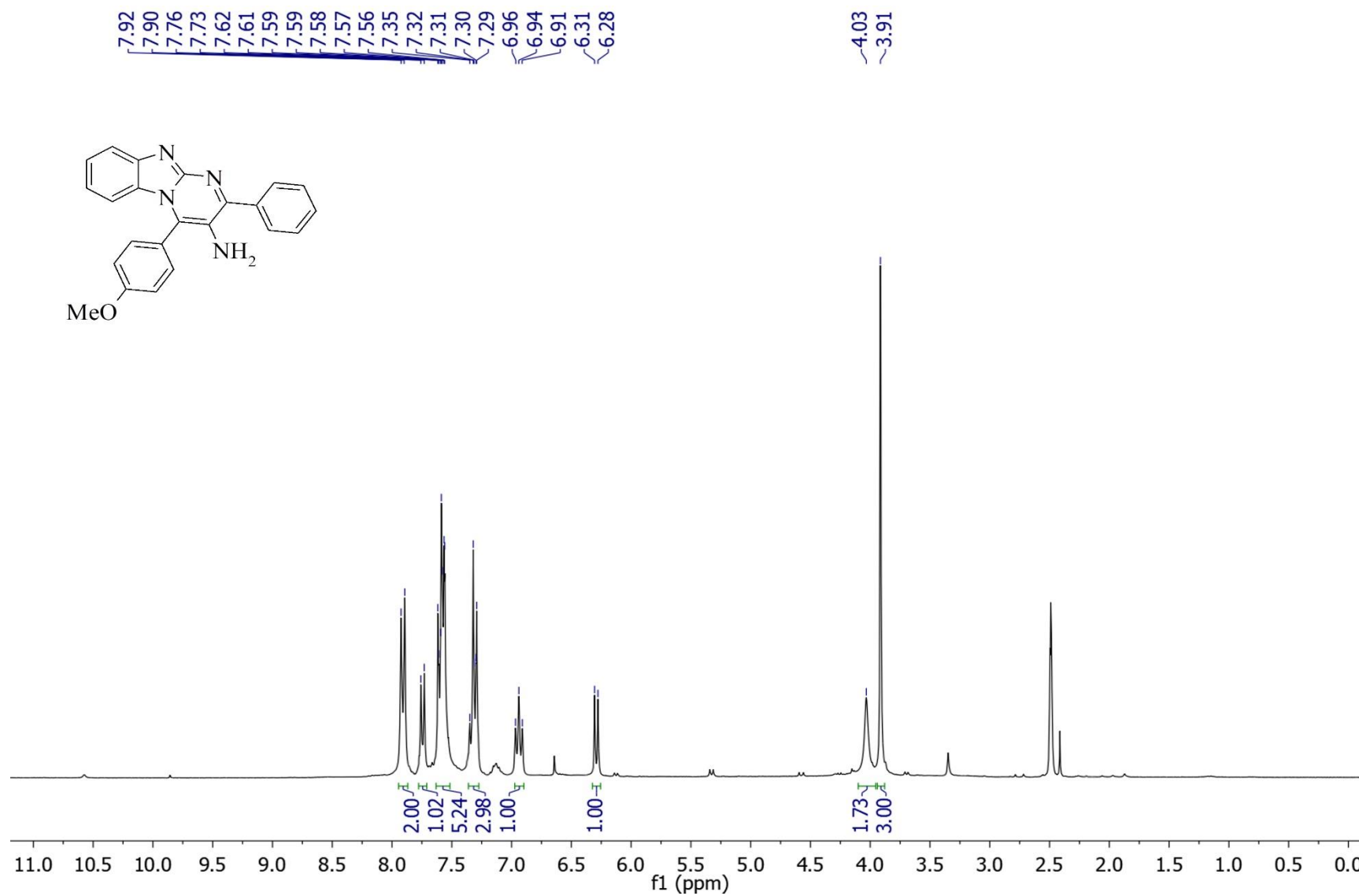
^1H NMR spectrum of 2-phenyl-4-p-tolyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3b**)



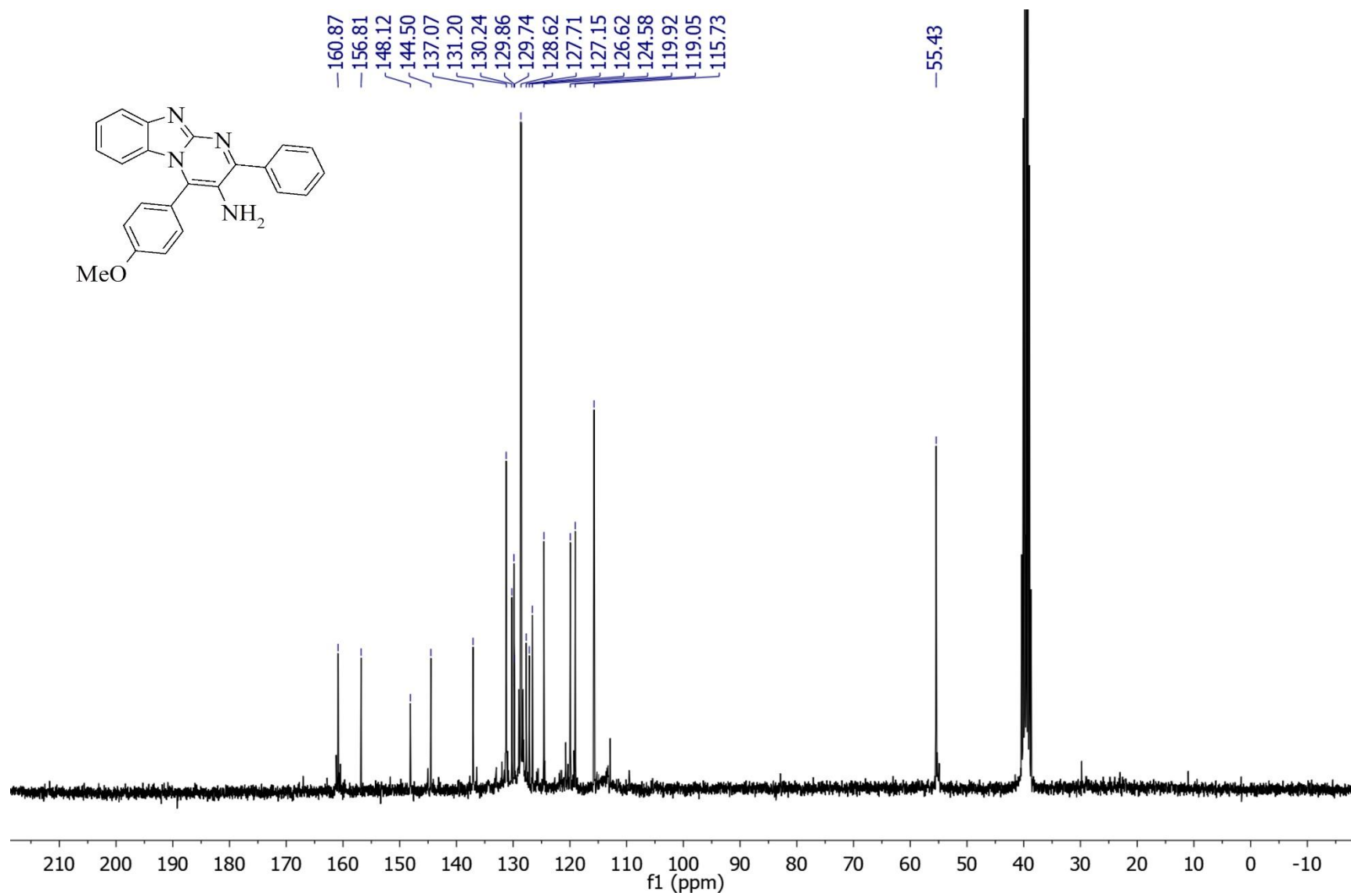
^{13}C NMR spectrum of 2-phenyl-4-p-tolyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3b**)



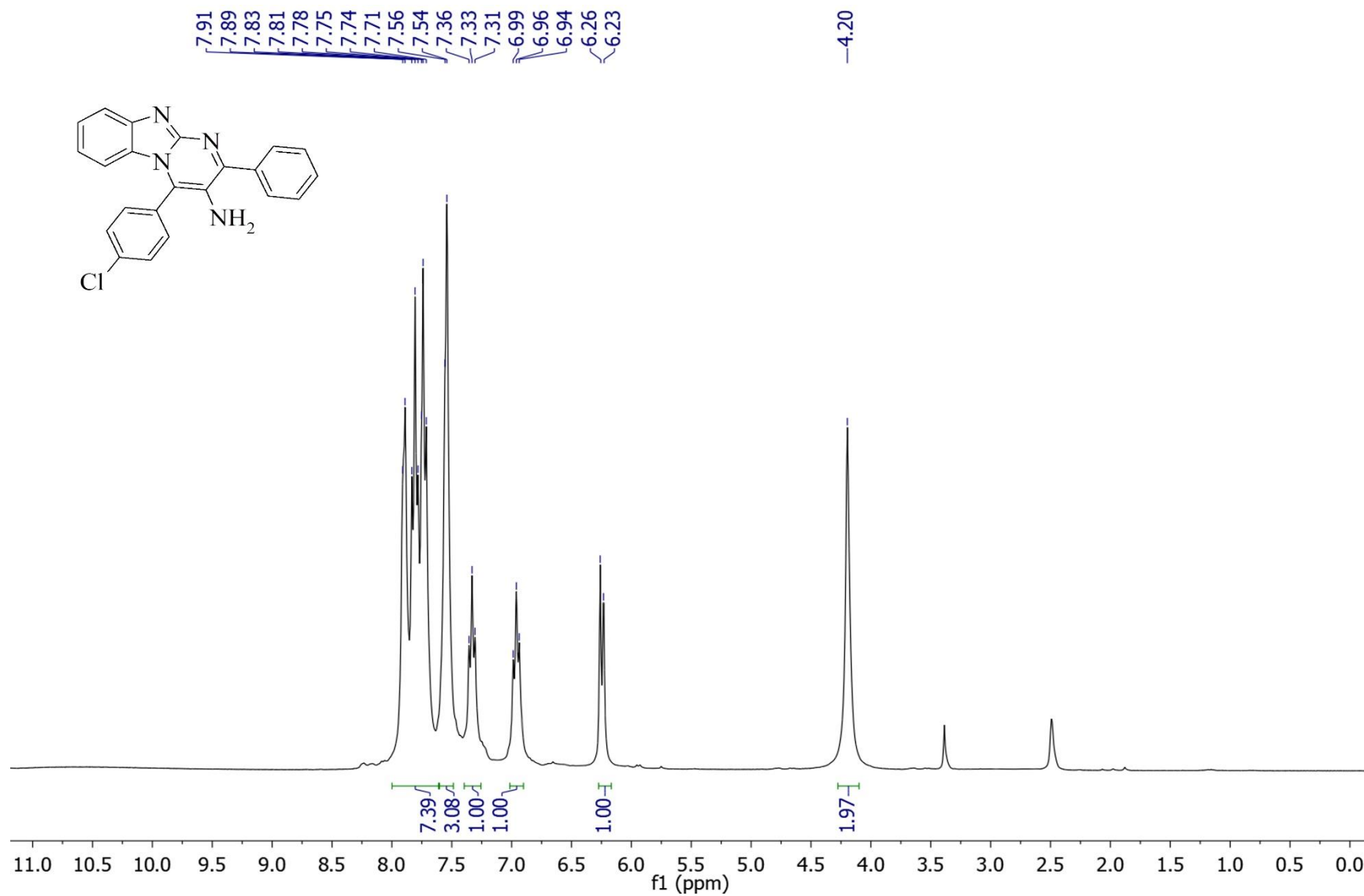
¹H NMR spectrum of 4-(4-methoxy-phenyl)-2-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3c**)



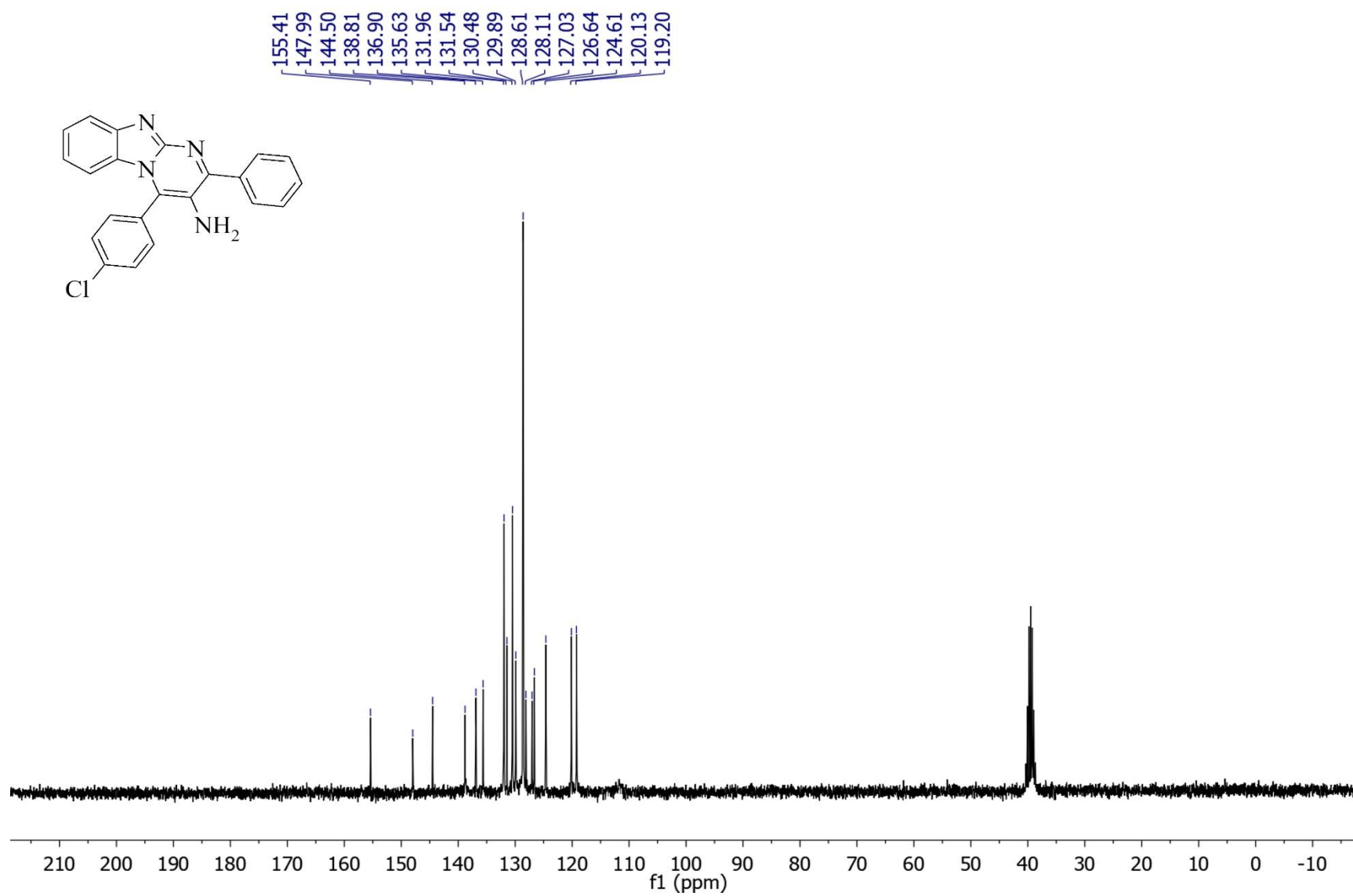
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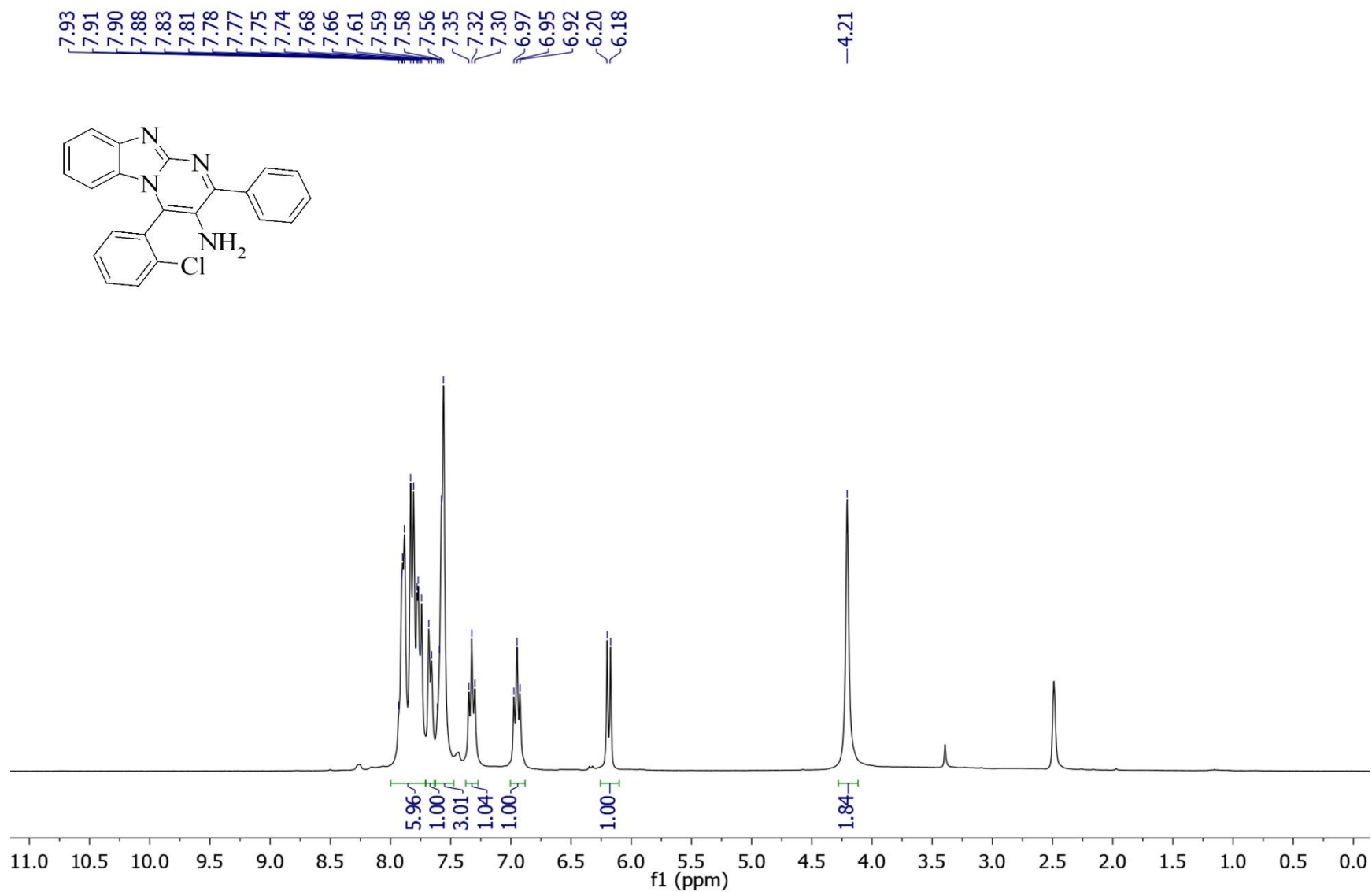
^1H NMR spectrum of 4-(4-chloro-phenyl)-2-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3d**)



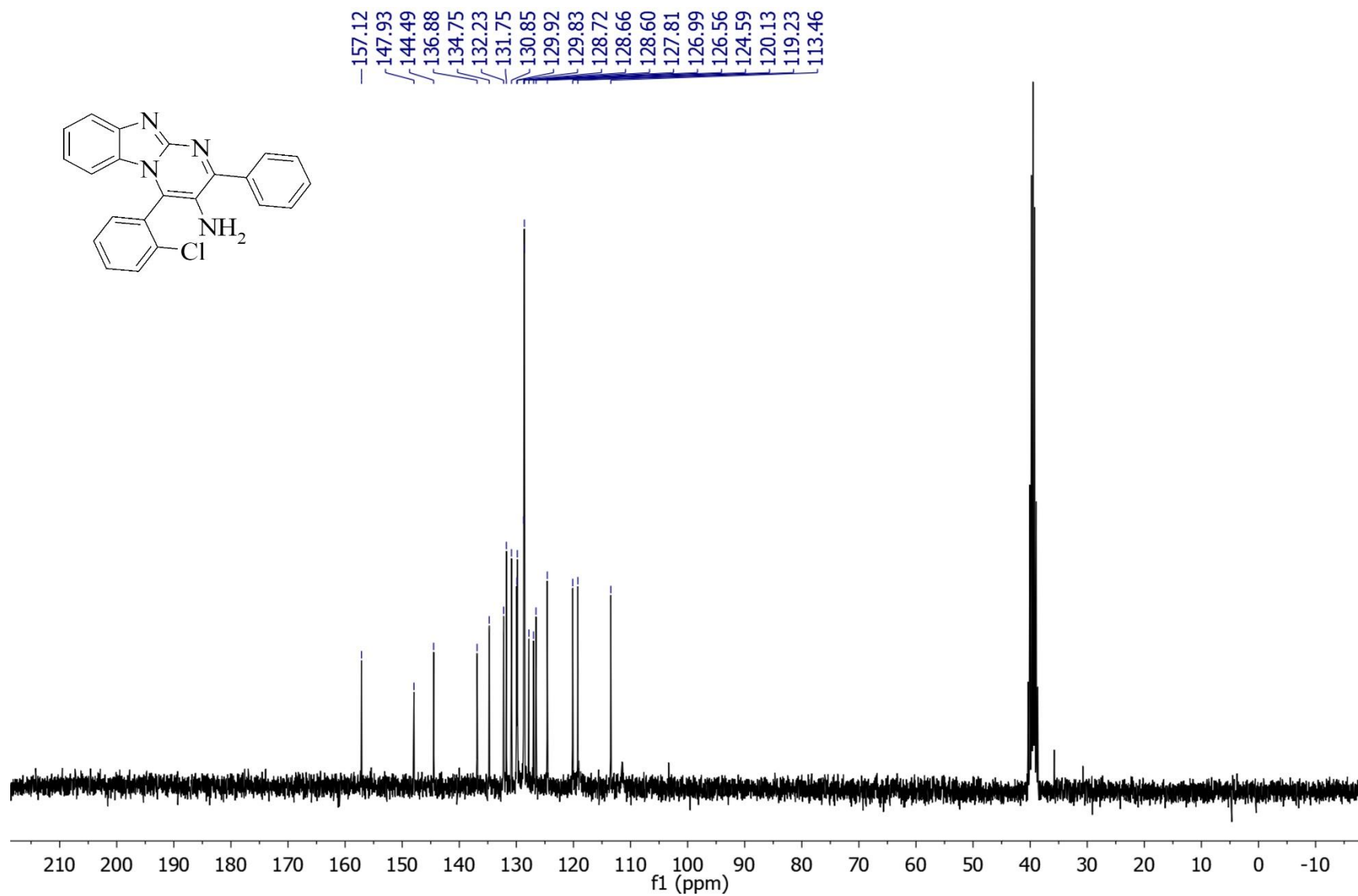
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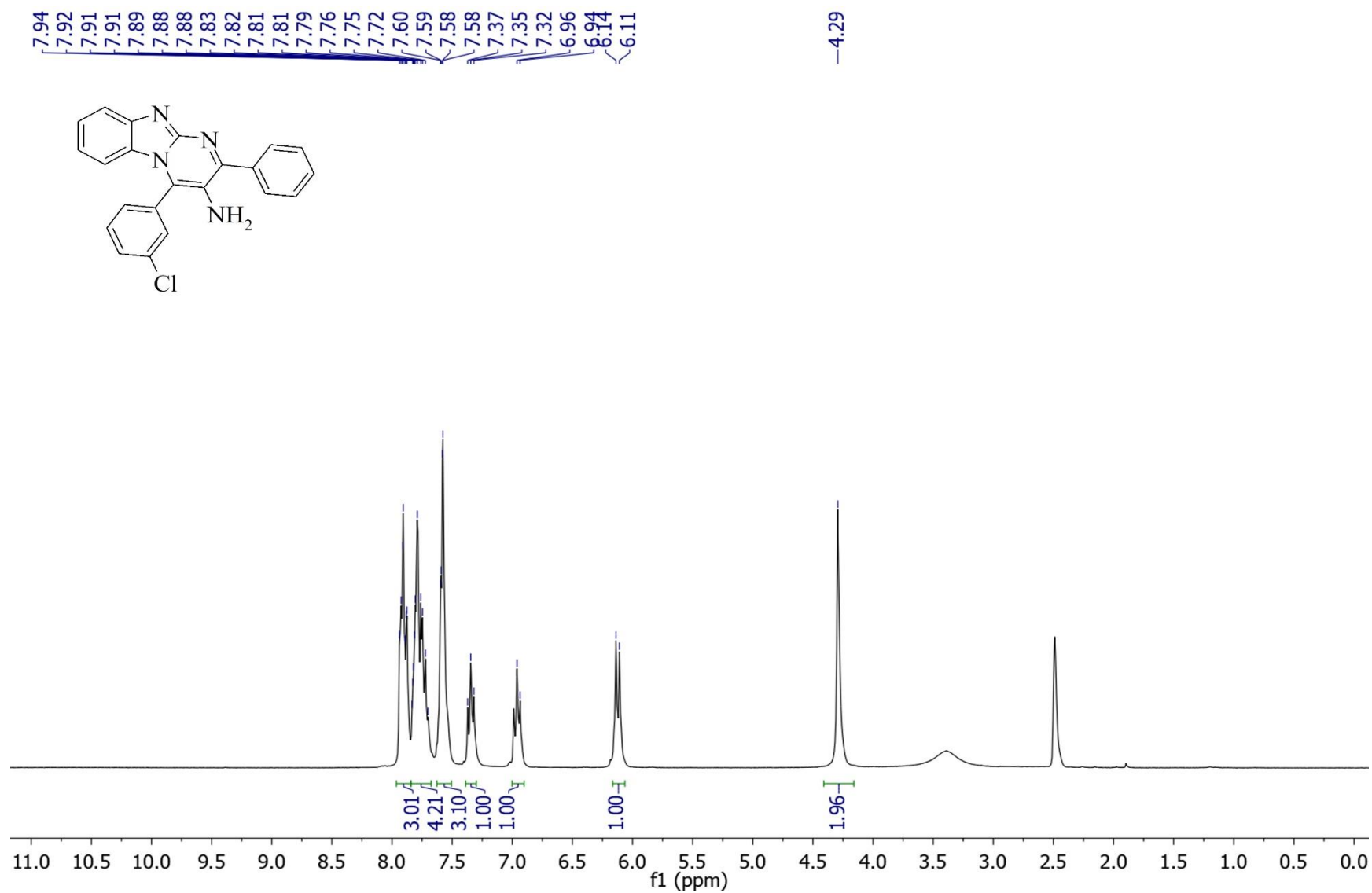
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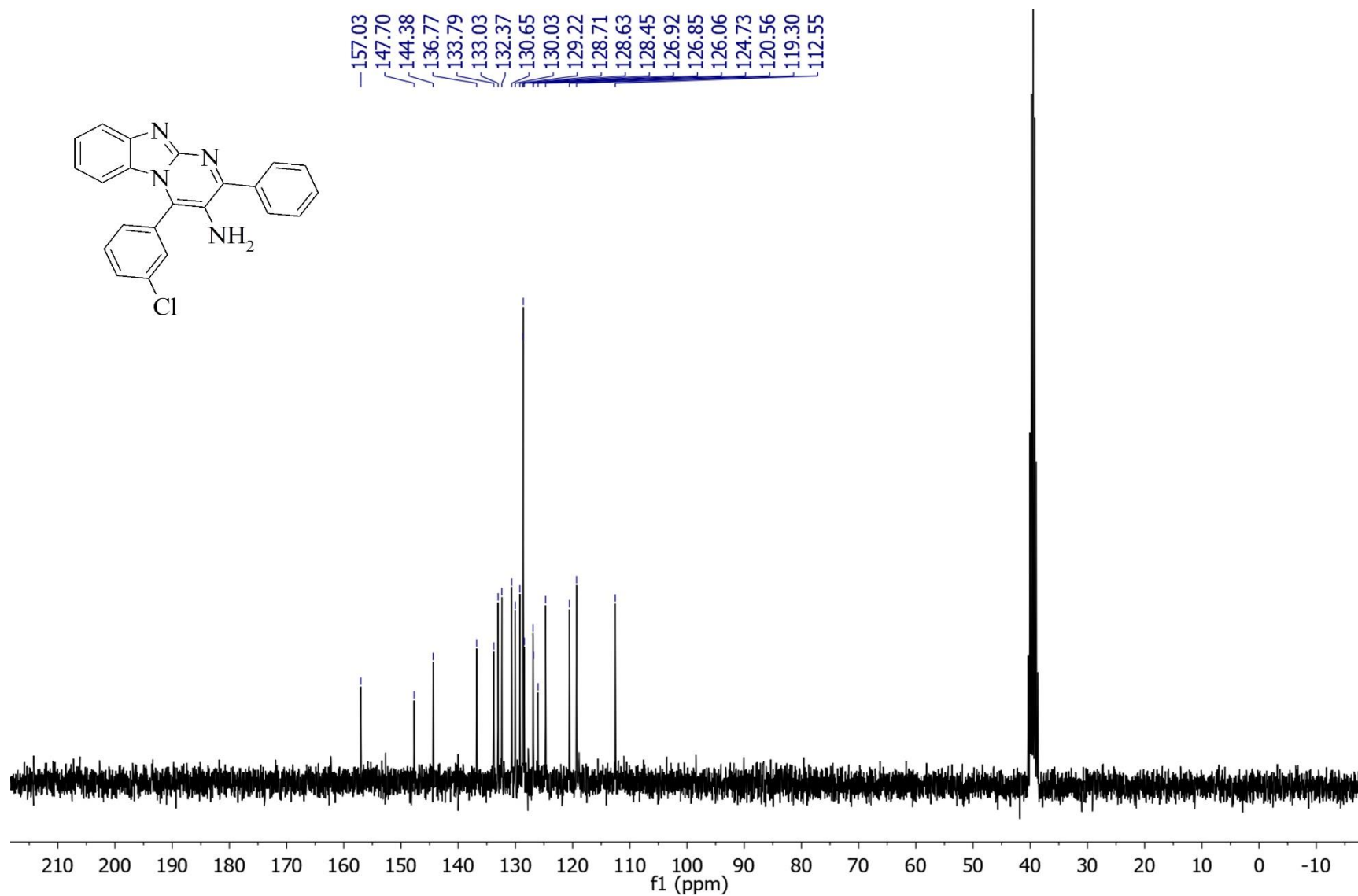
¹³C NMR spectrum of 4-(2-chloro-phenyl)-2-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3e**)



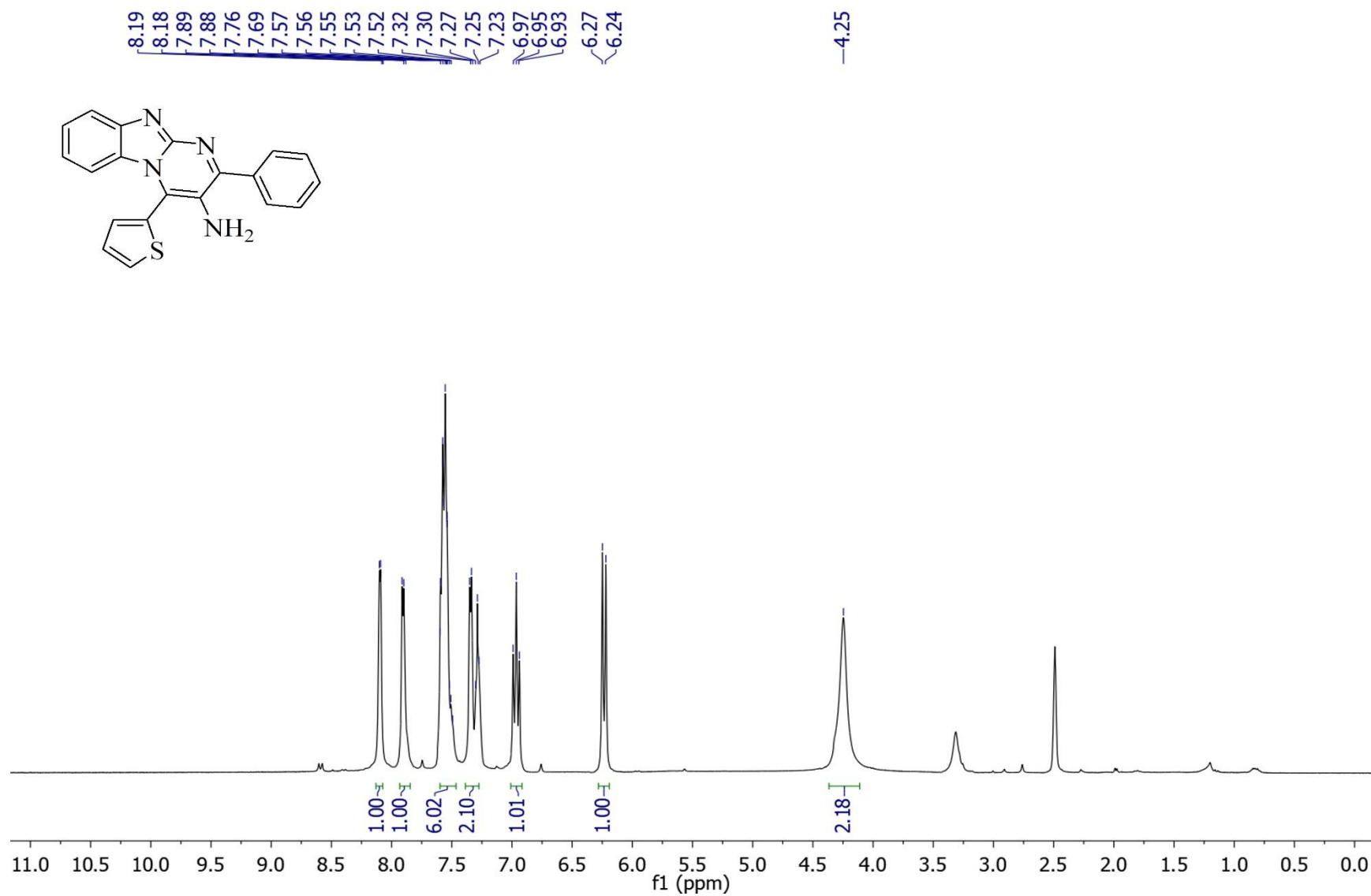
¹H NMR spectrum of 4-(3-chloro-phenyl)-2-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3f**)



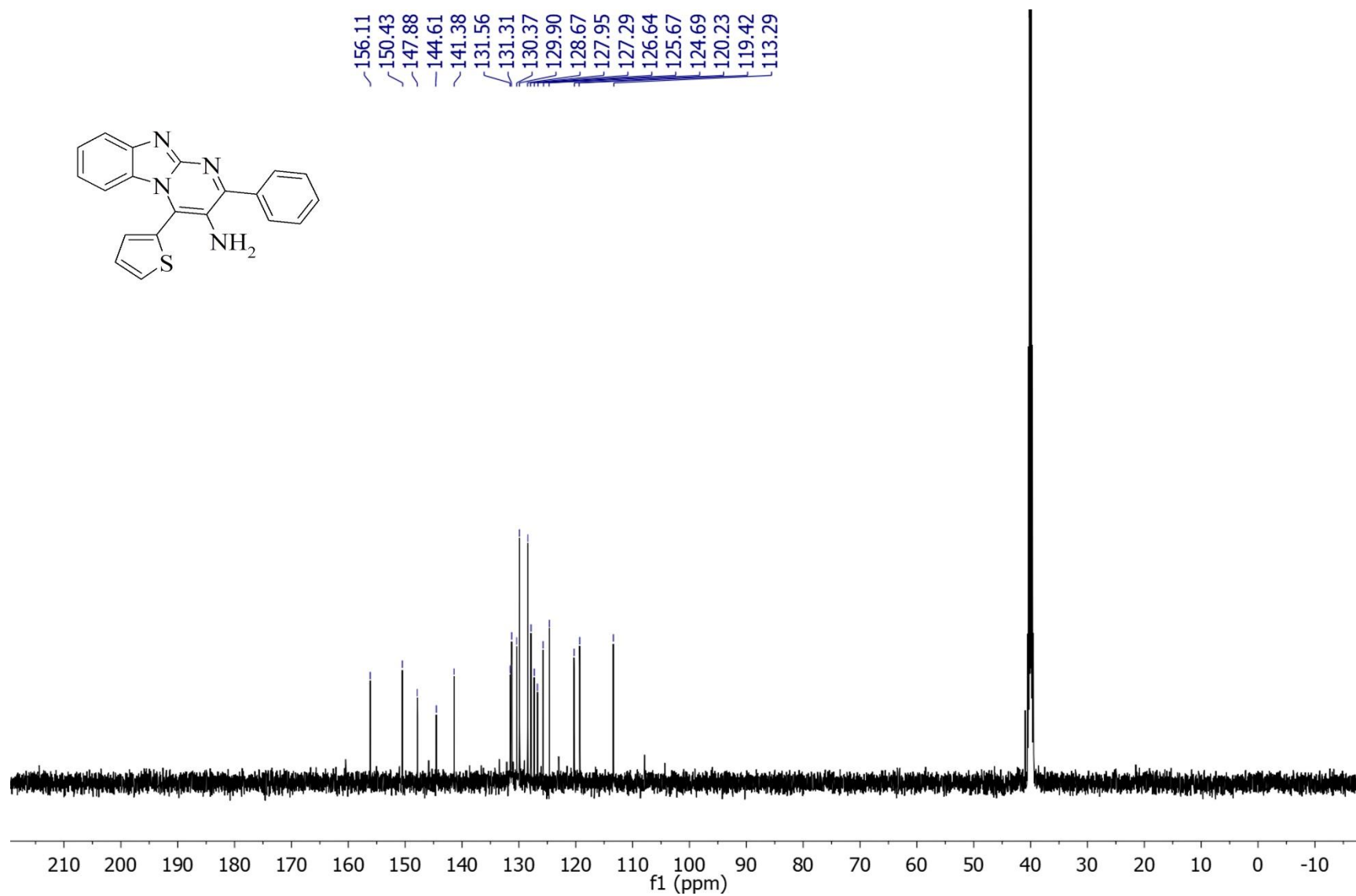
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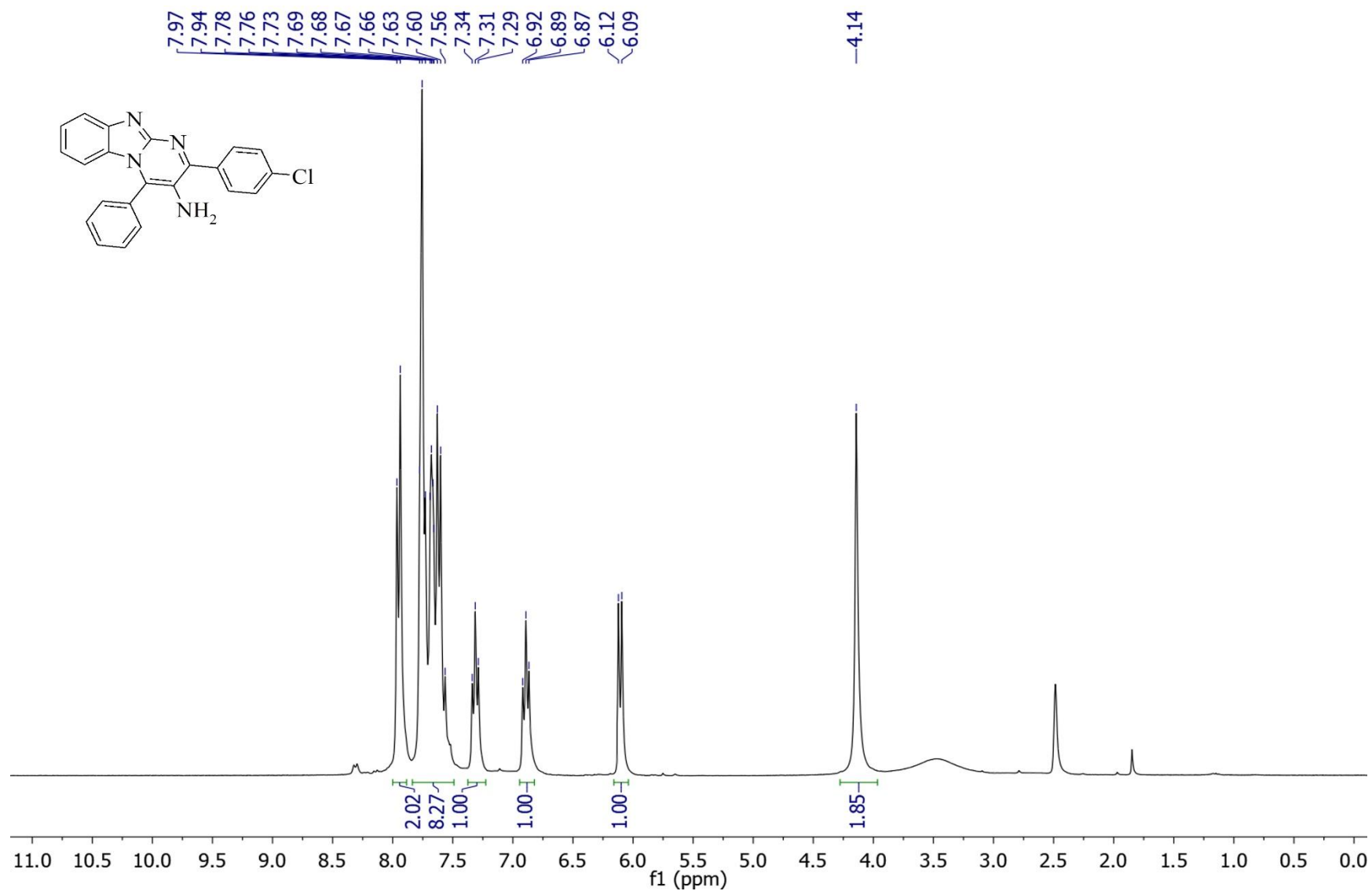
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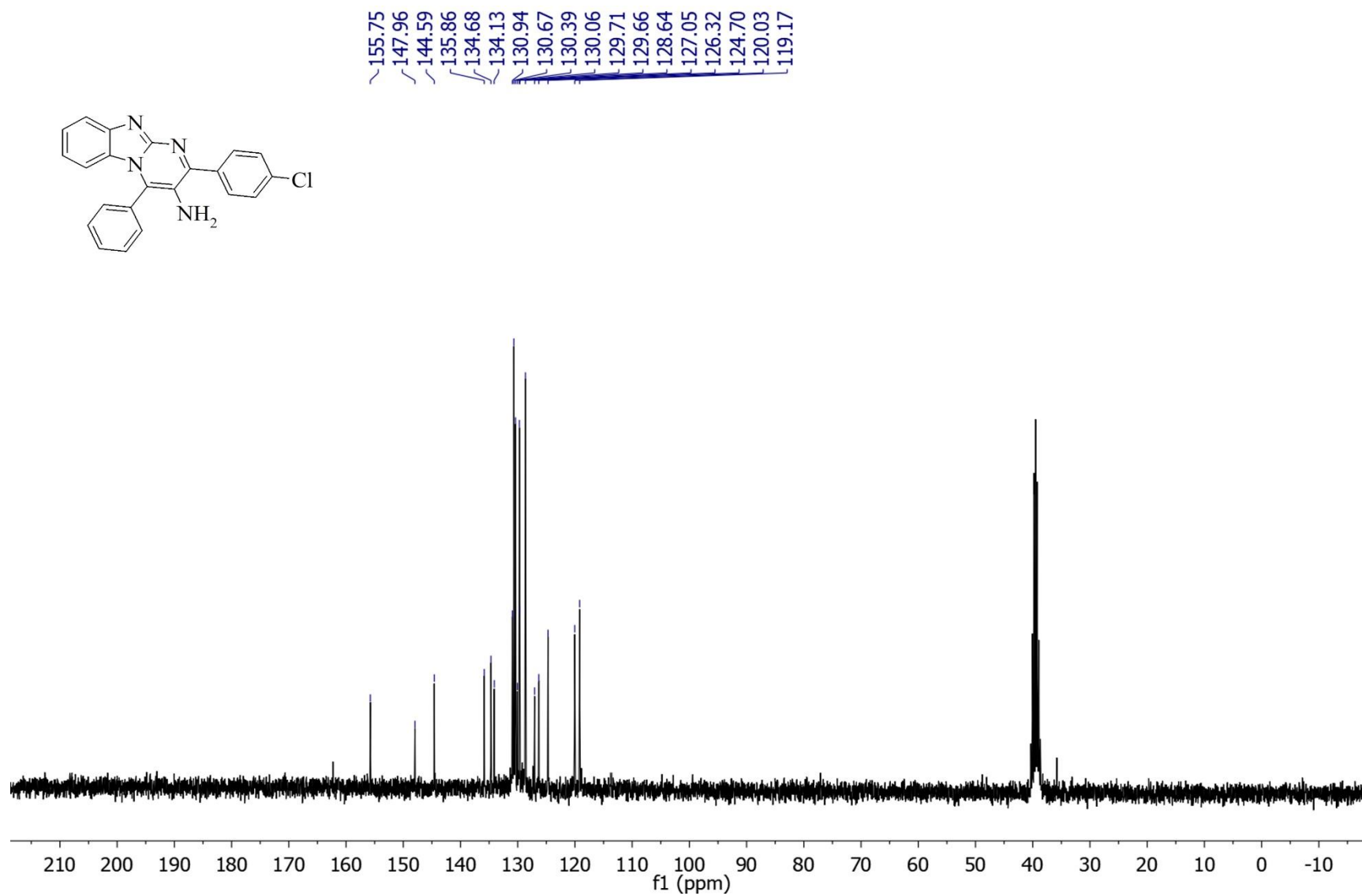
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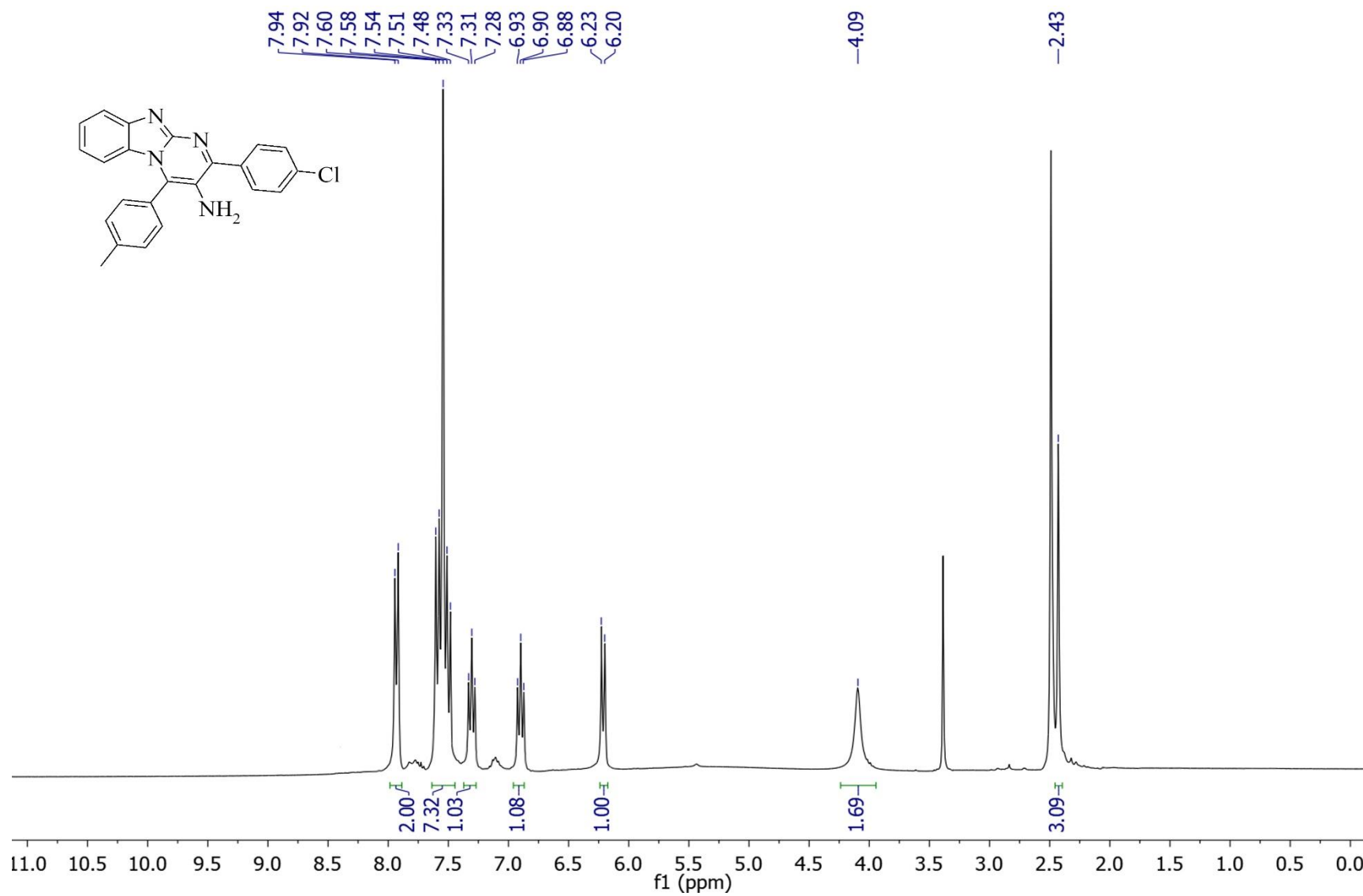
¹H NMR spectrum of 2-(4-chloro-phenyl)-4-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3h**)



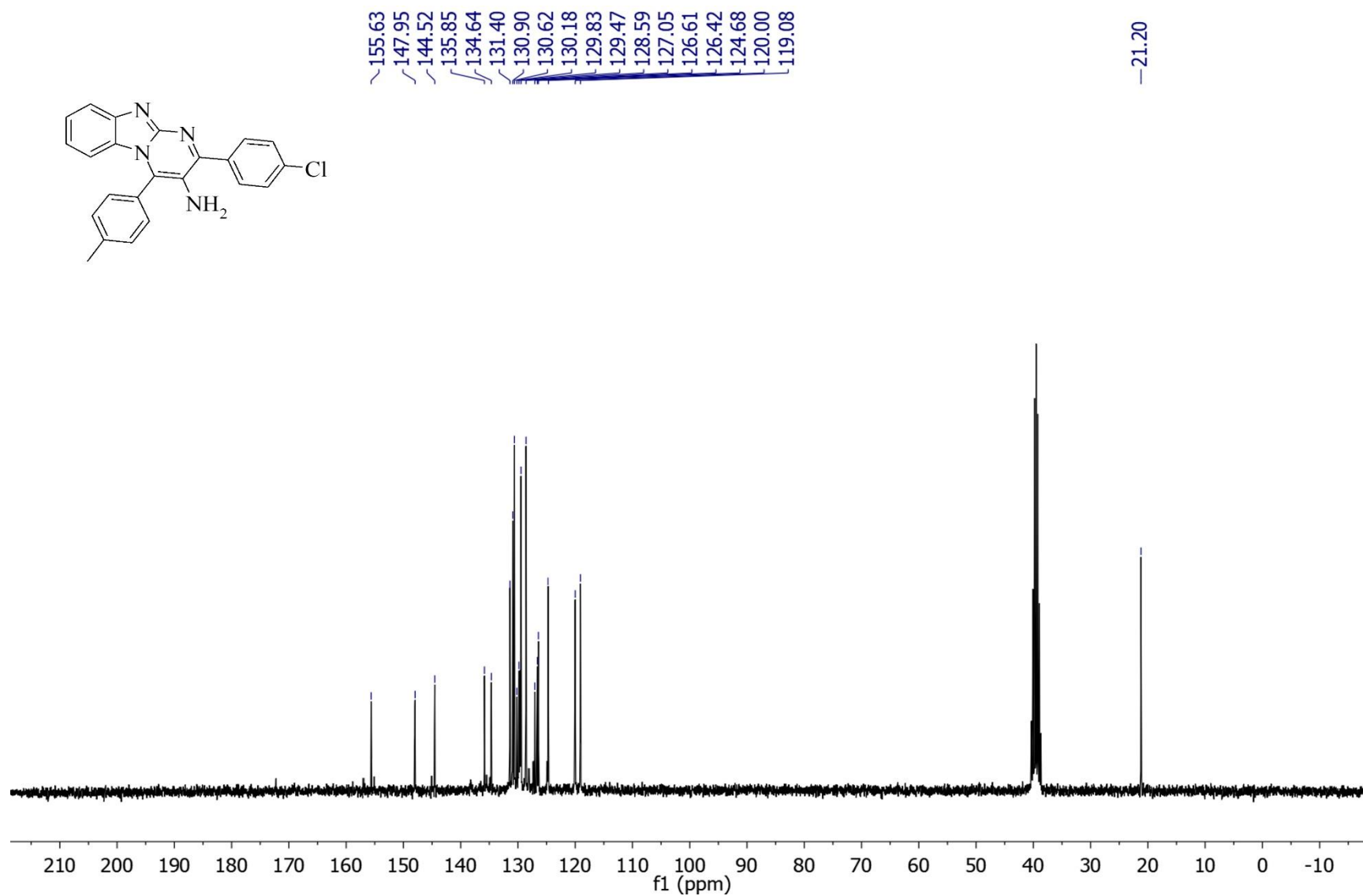
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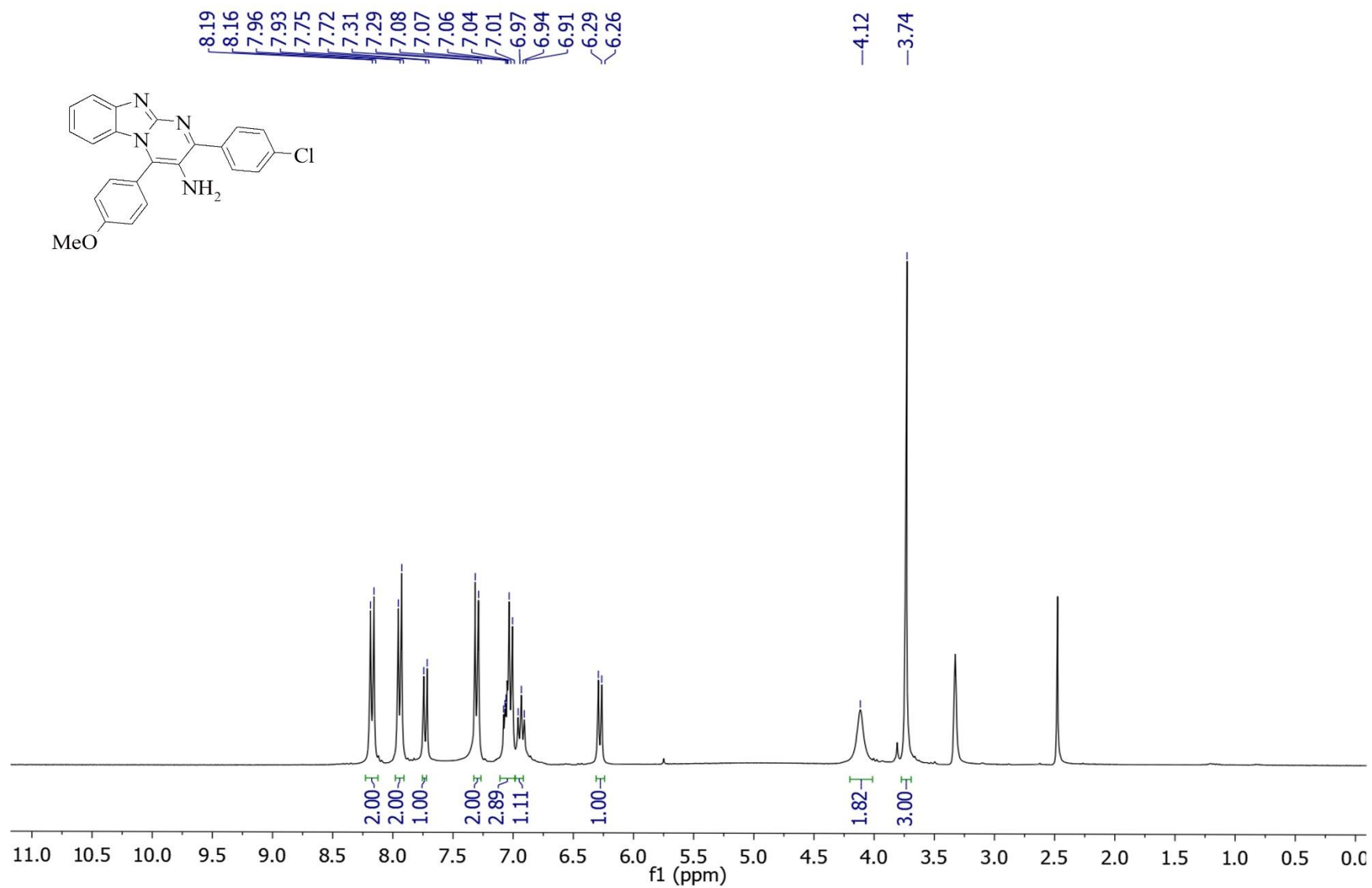
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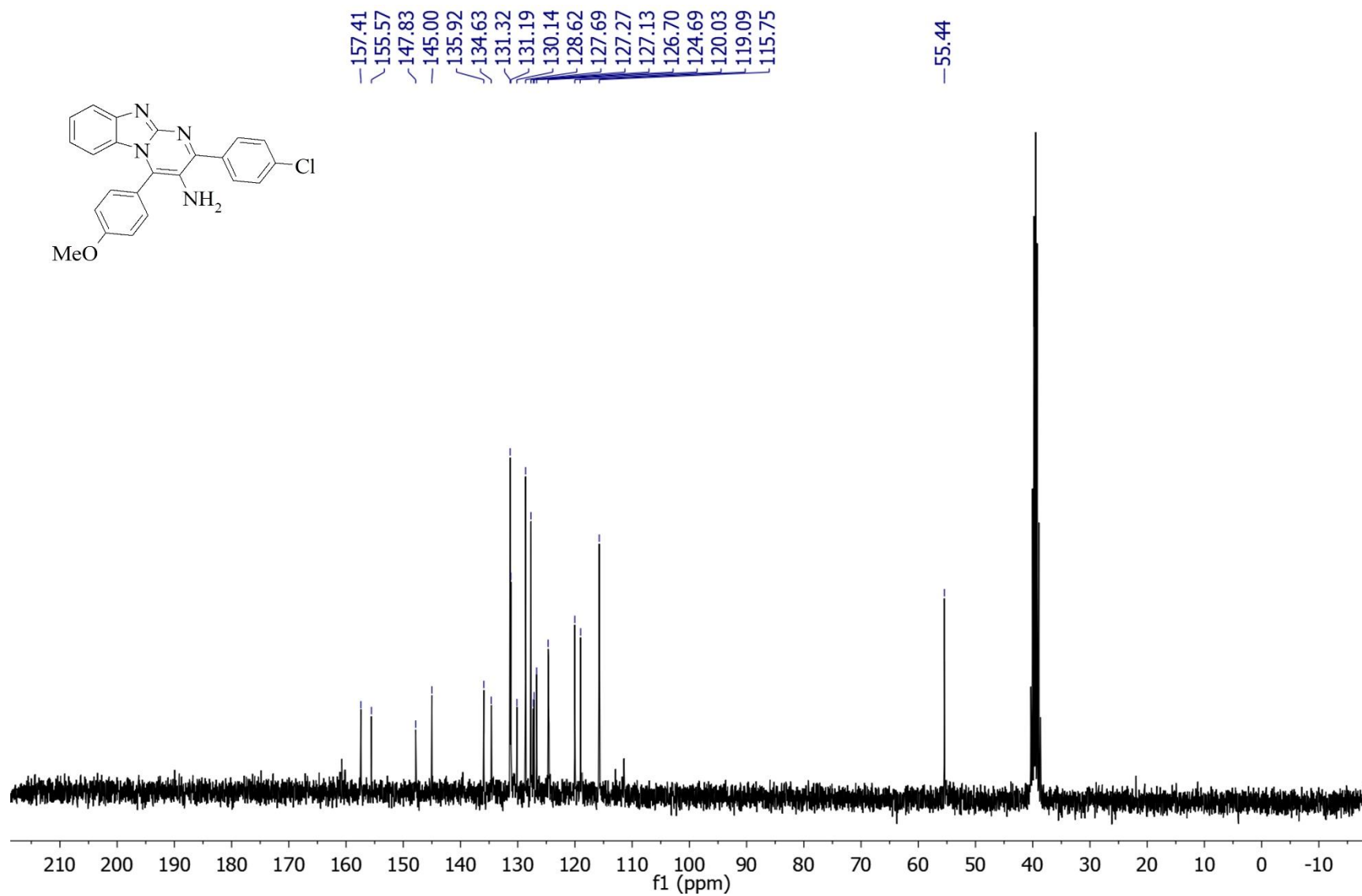
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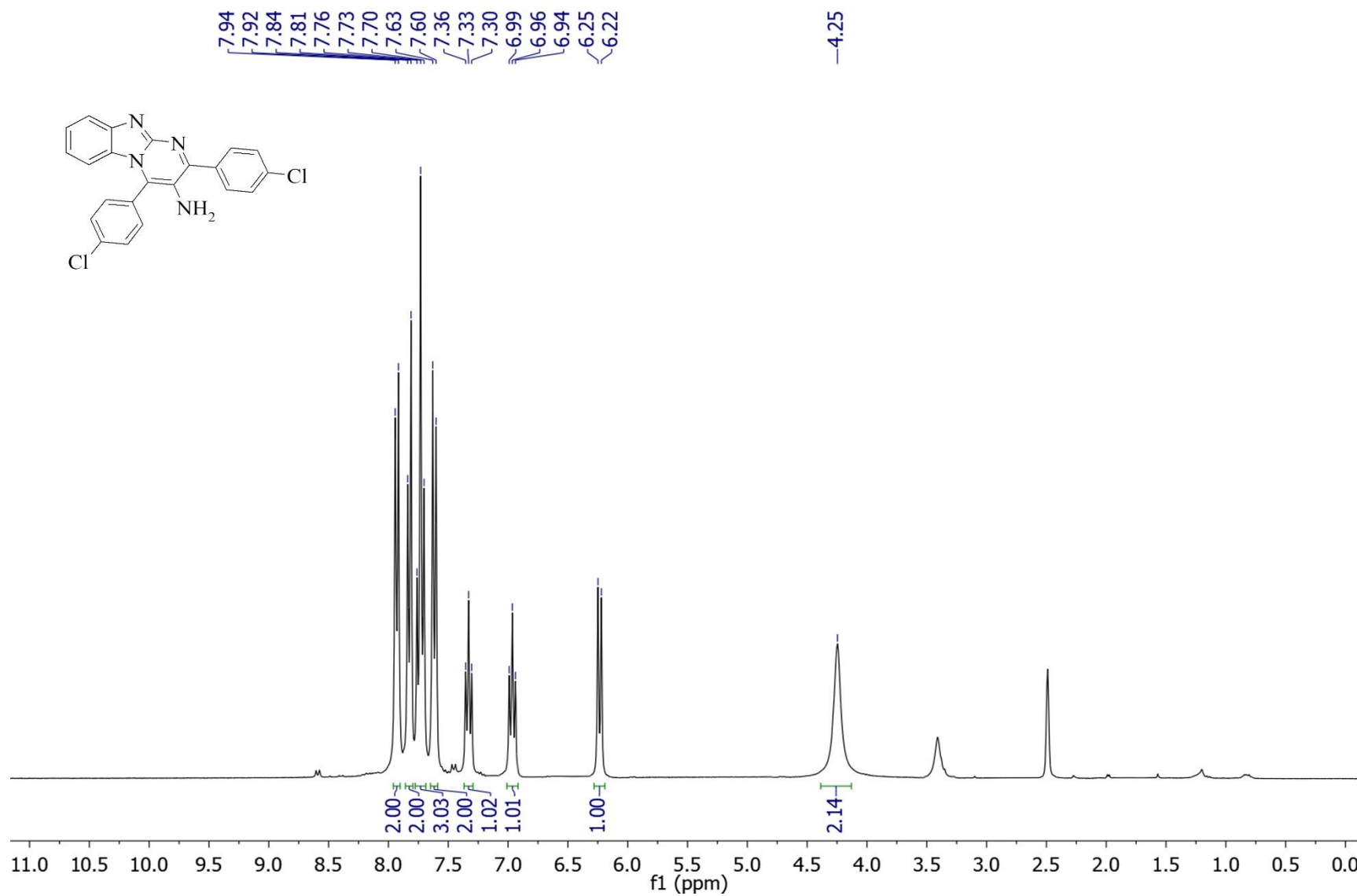
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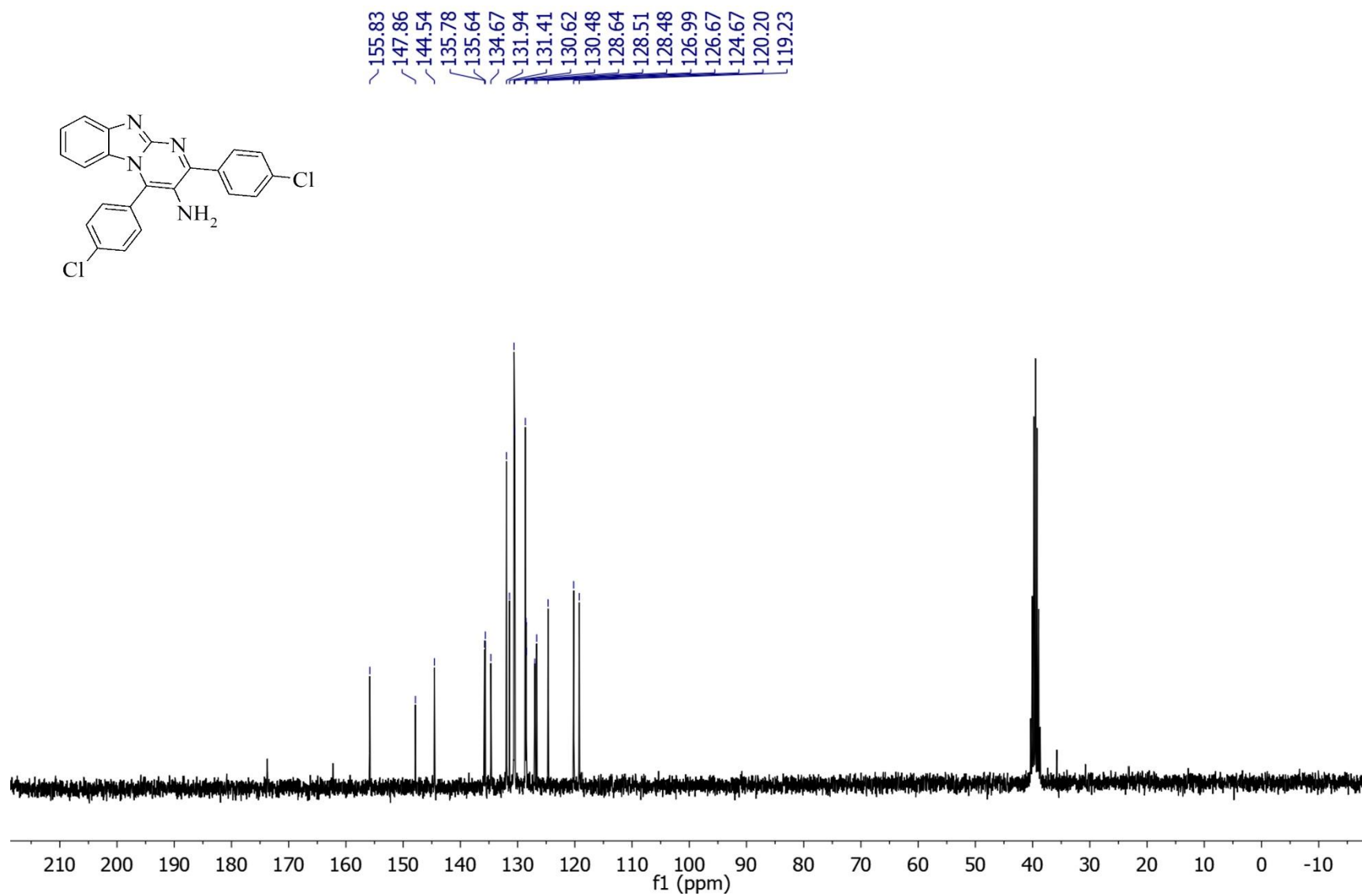
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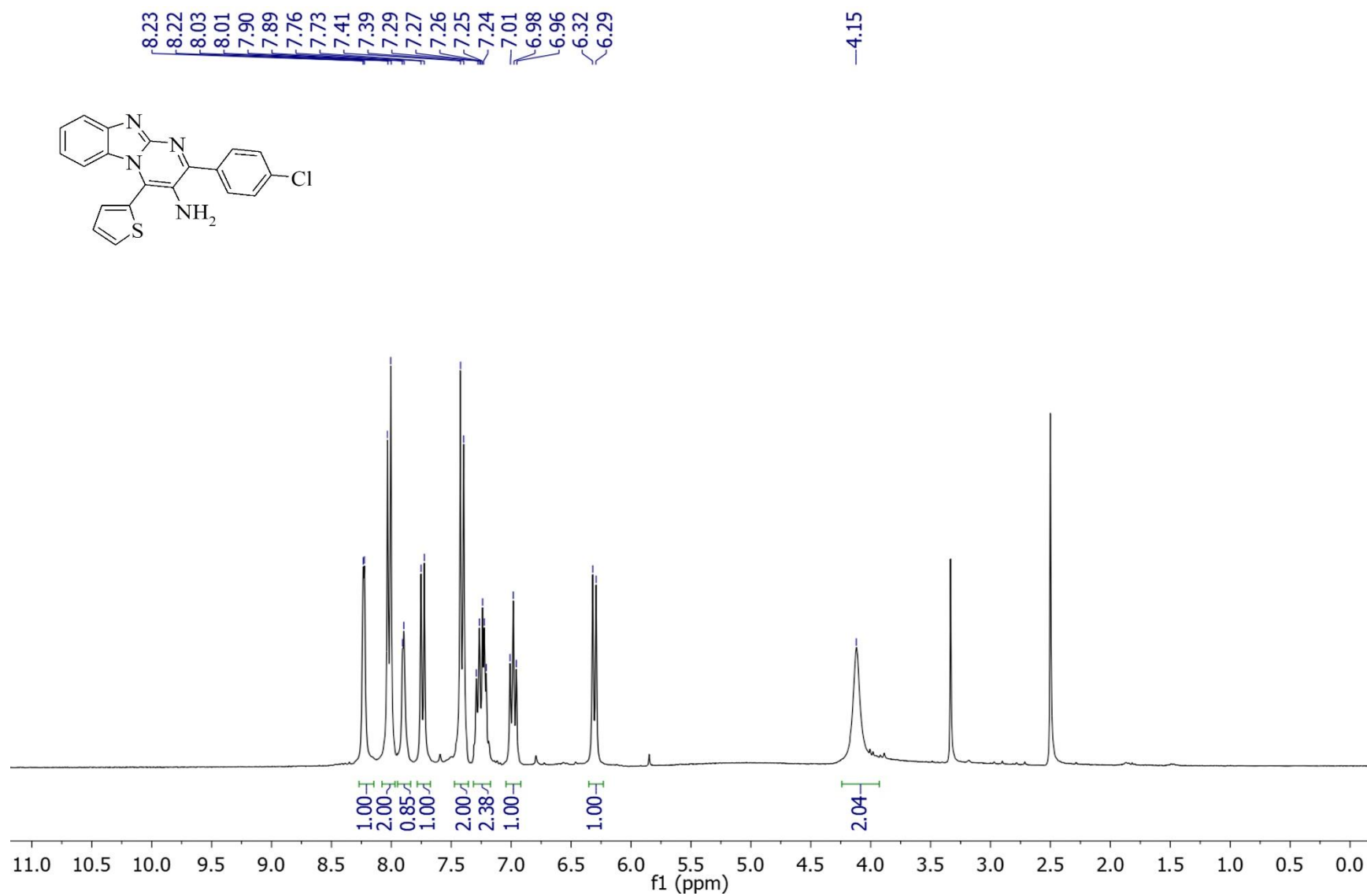
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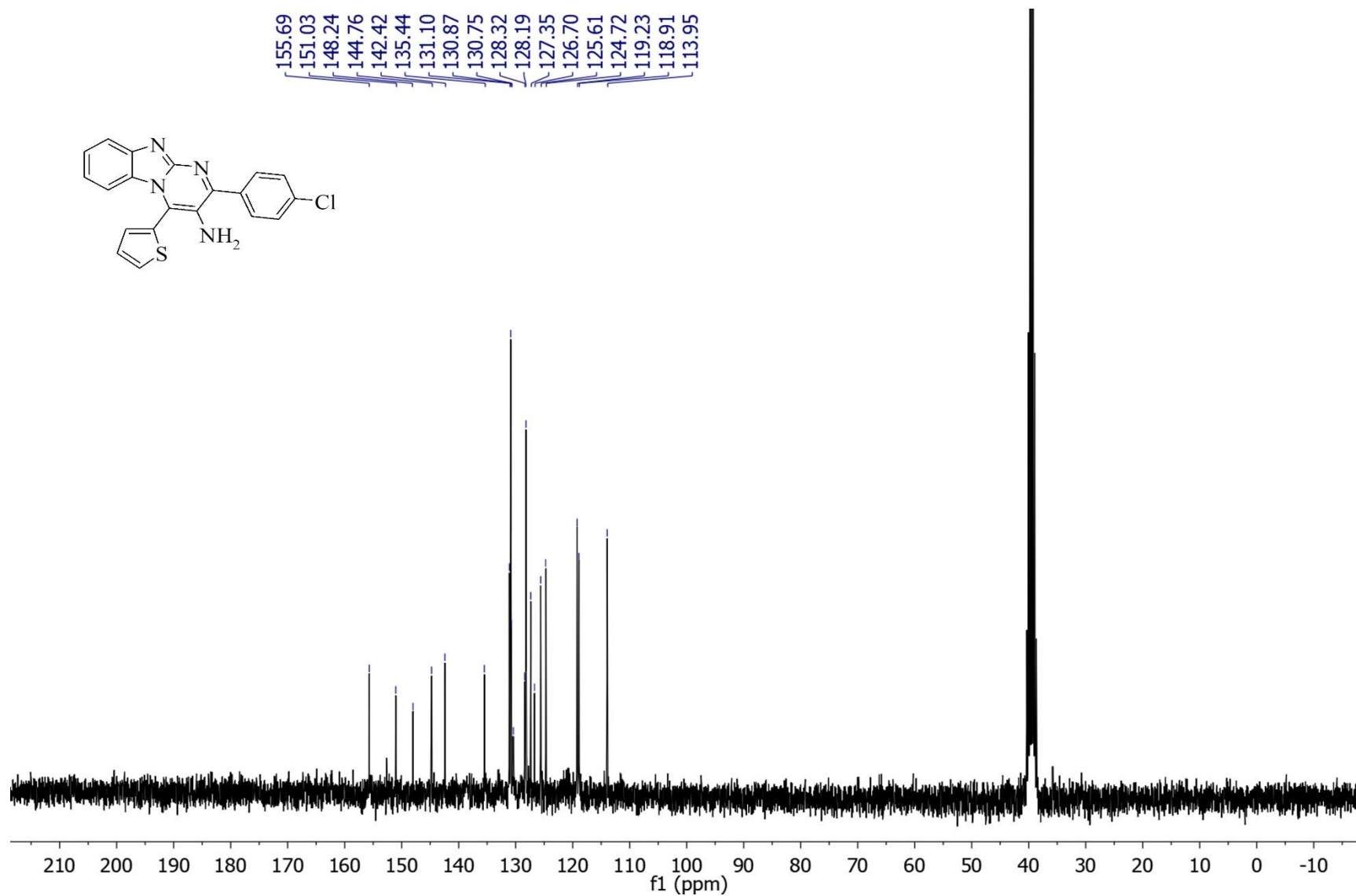
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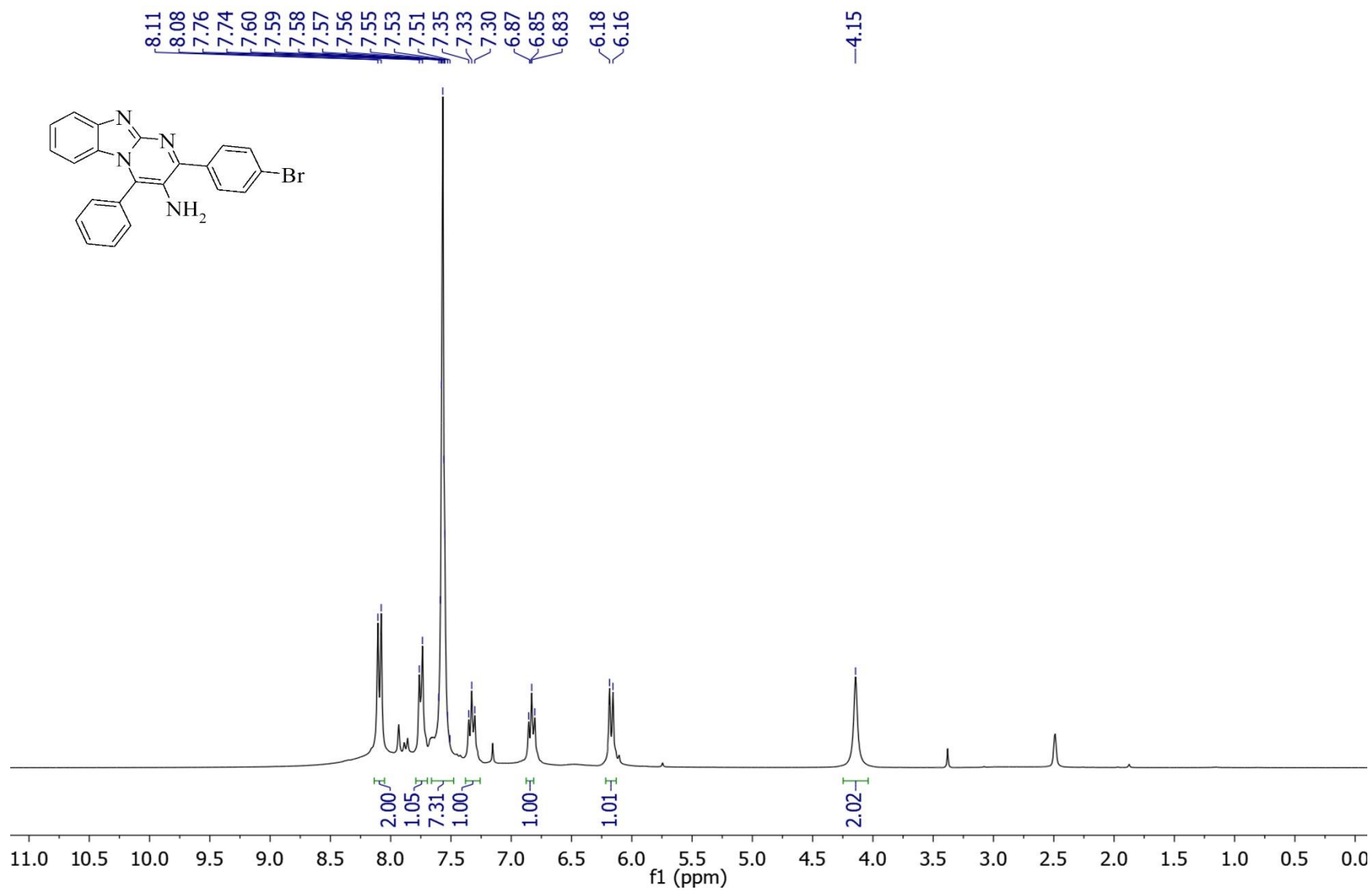
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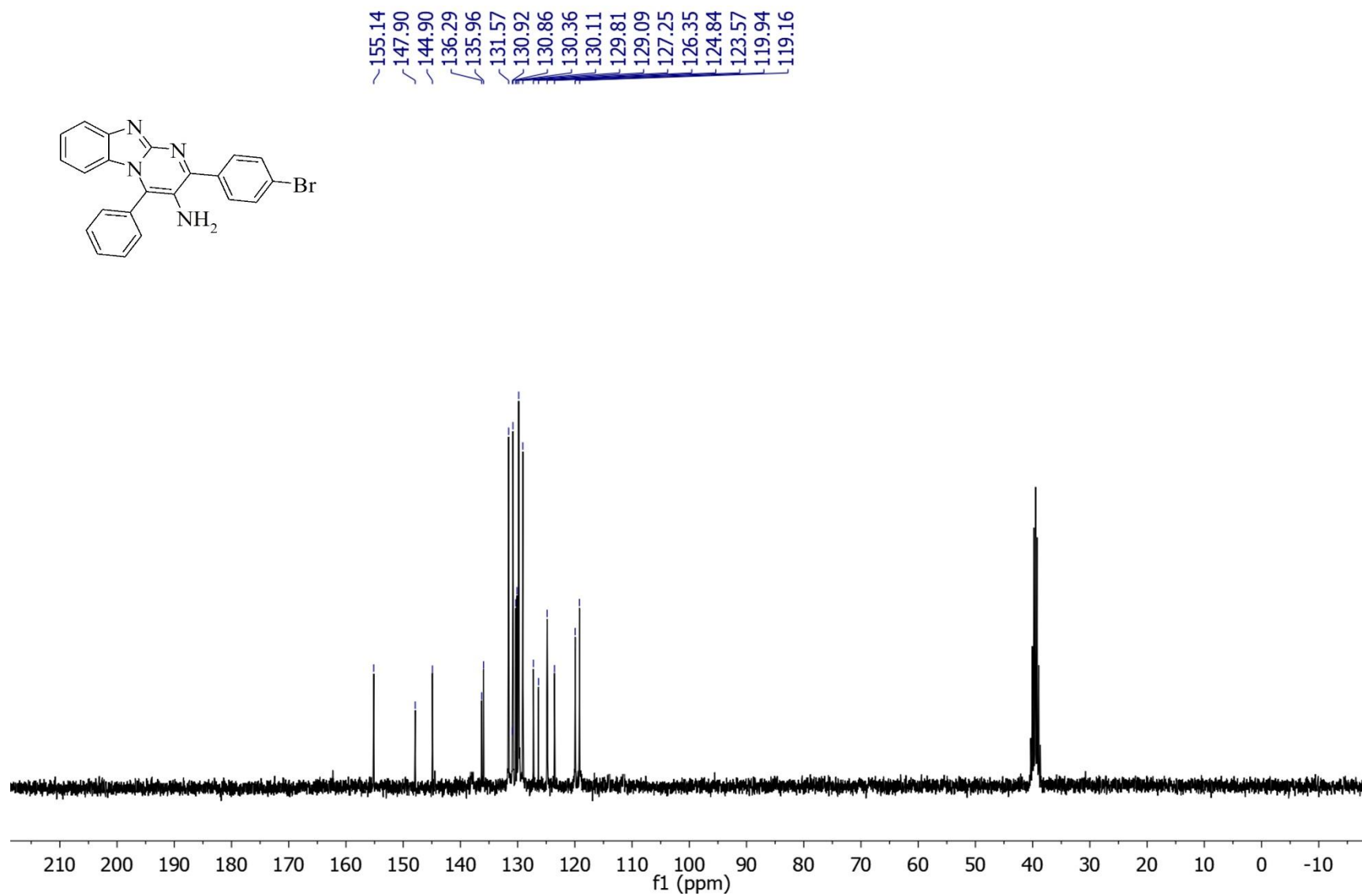
^{13}C NMR spectrum of 3-(4-chloro-phenyl)-1-thiophen-2-yl-benzo[4,5]imidazo[1,2-a]pyridin-2-ylamine (**3I**)



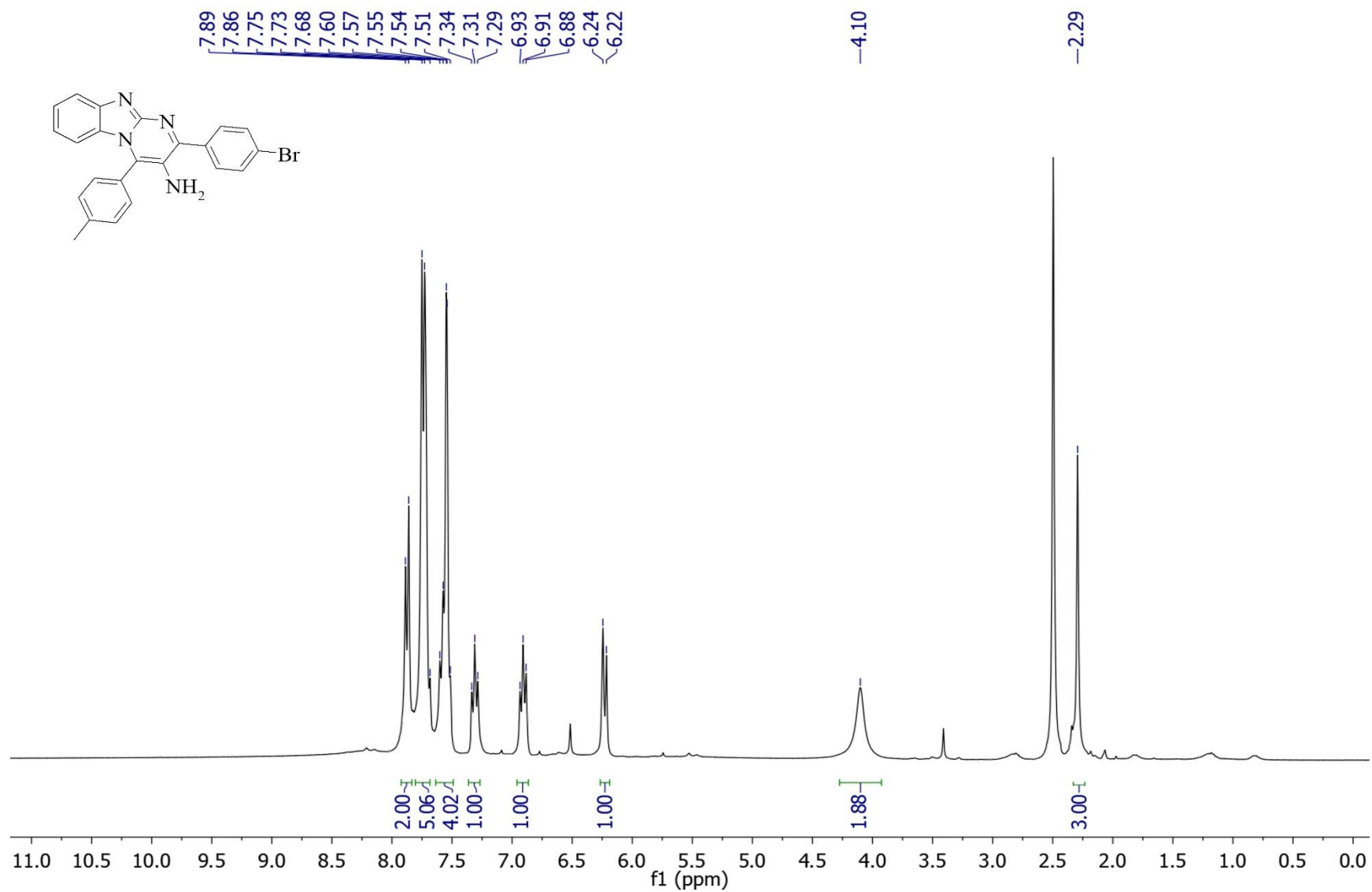
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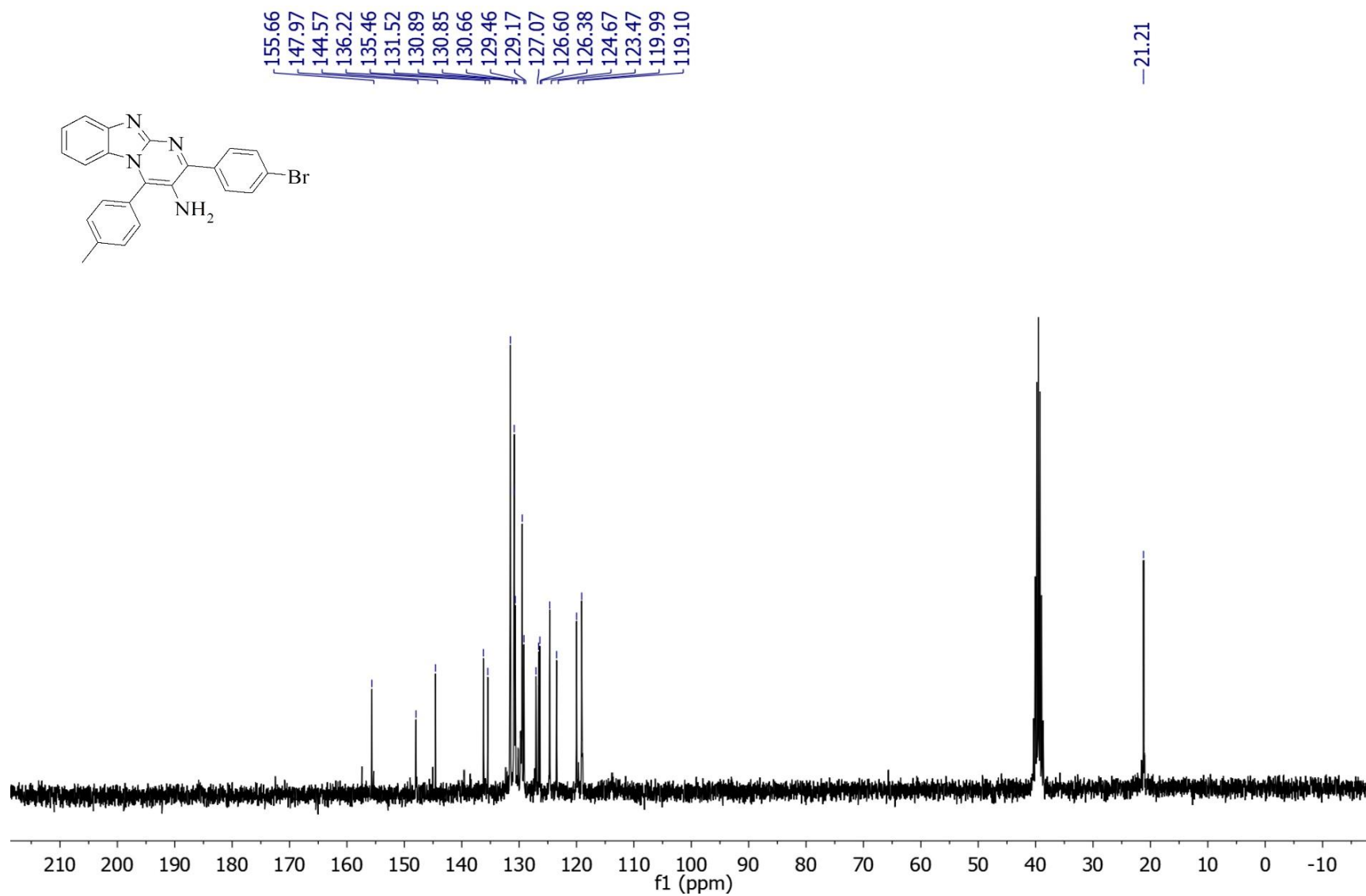
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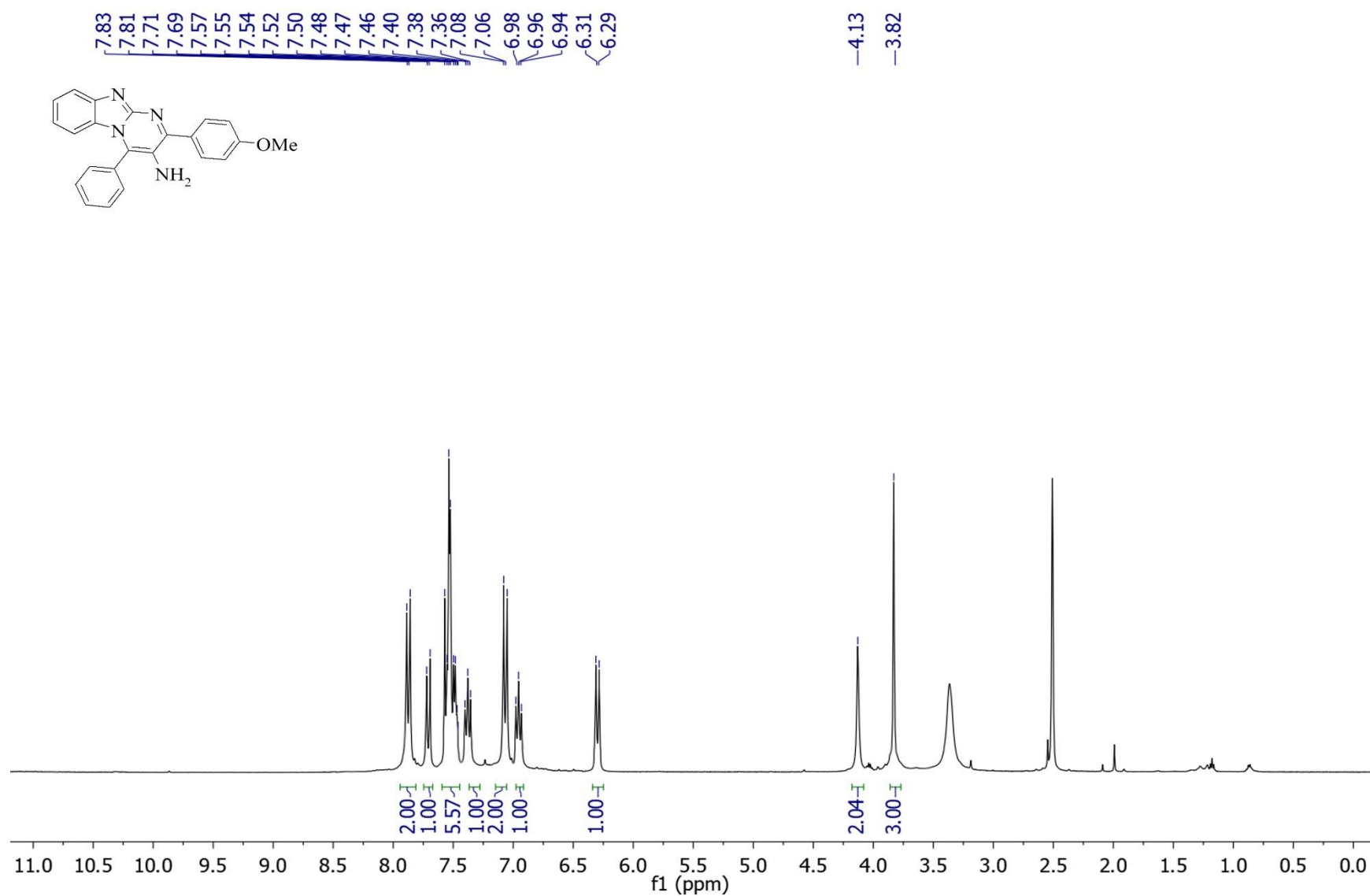
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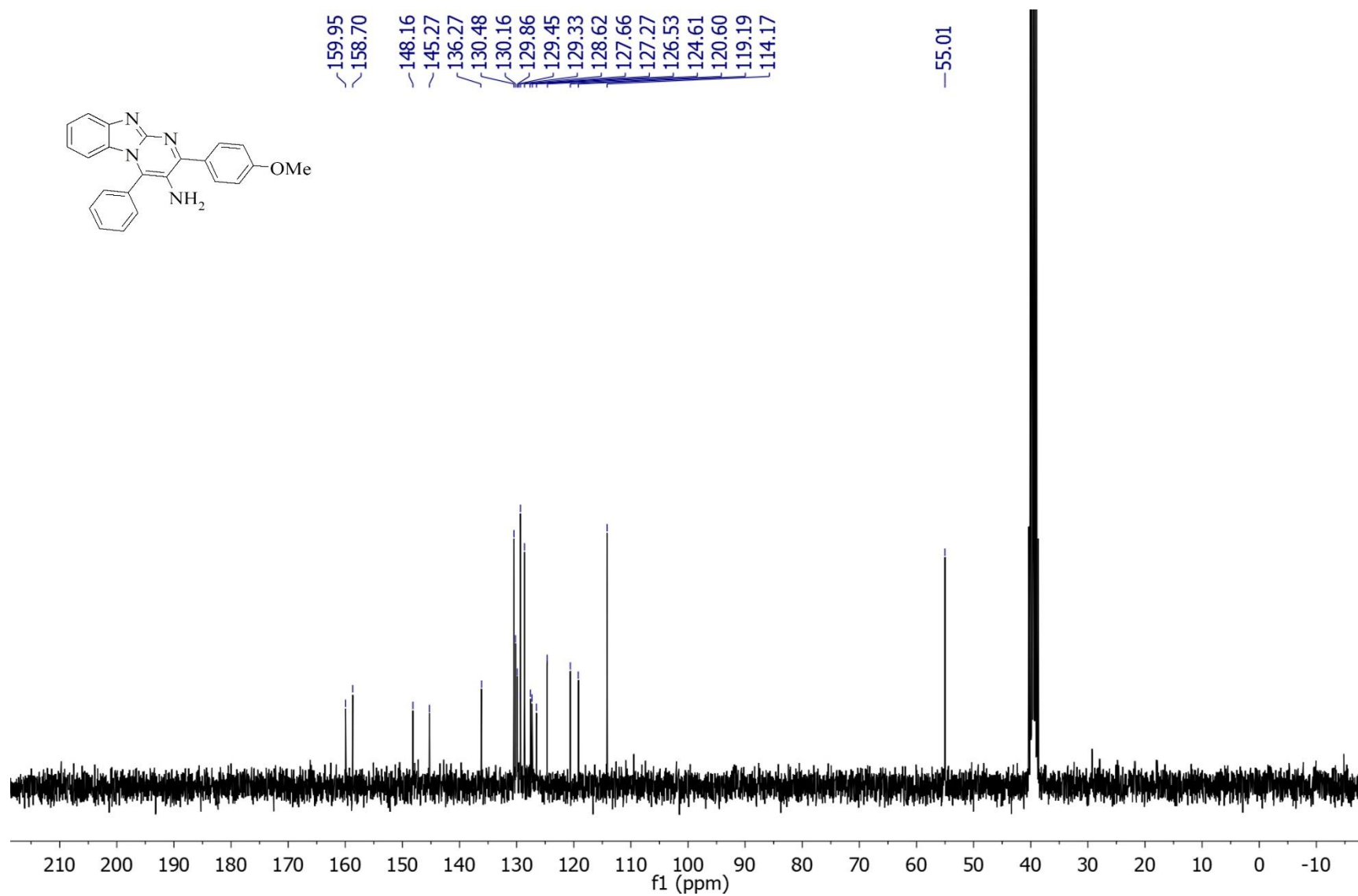
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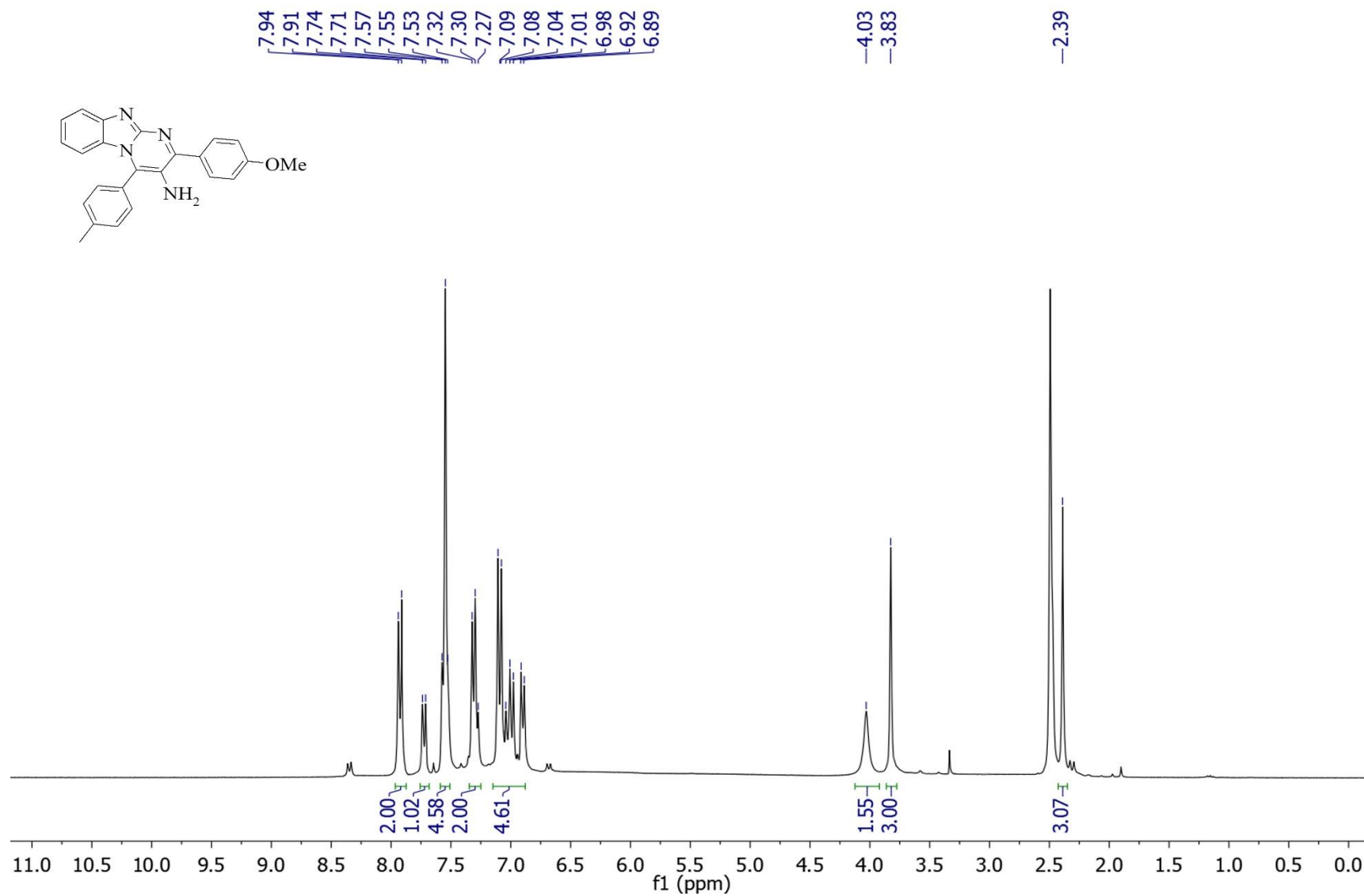
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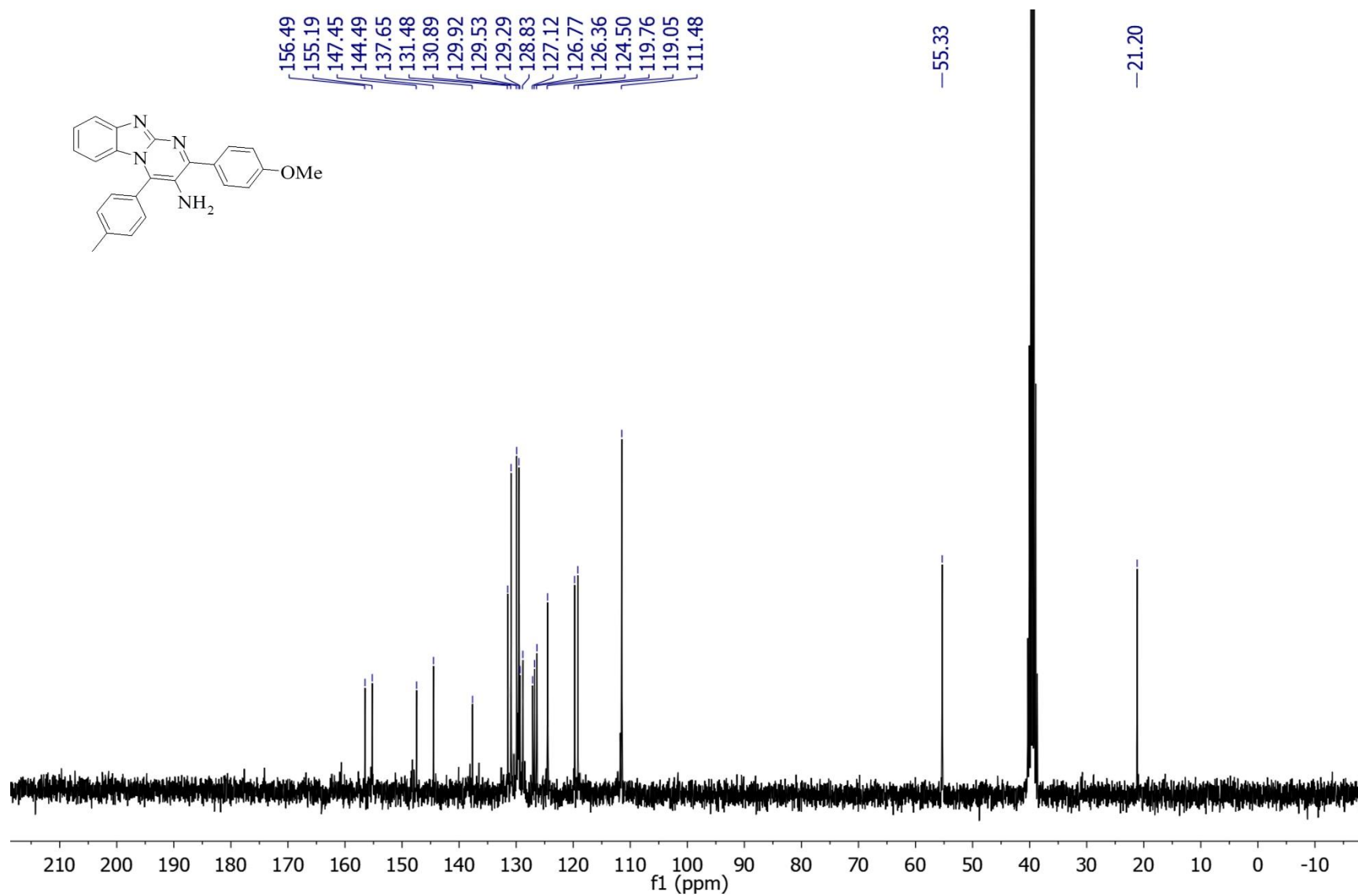
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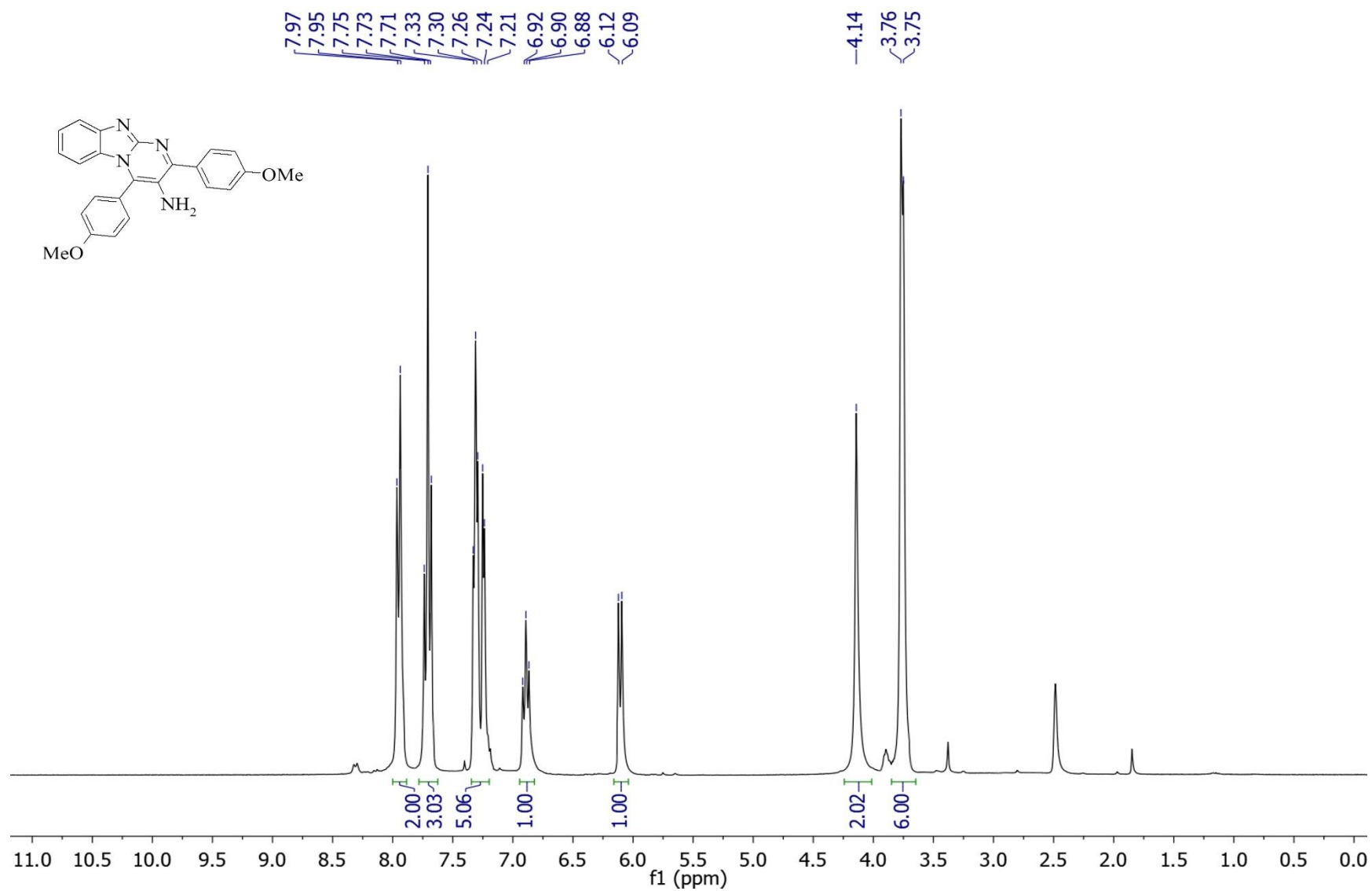
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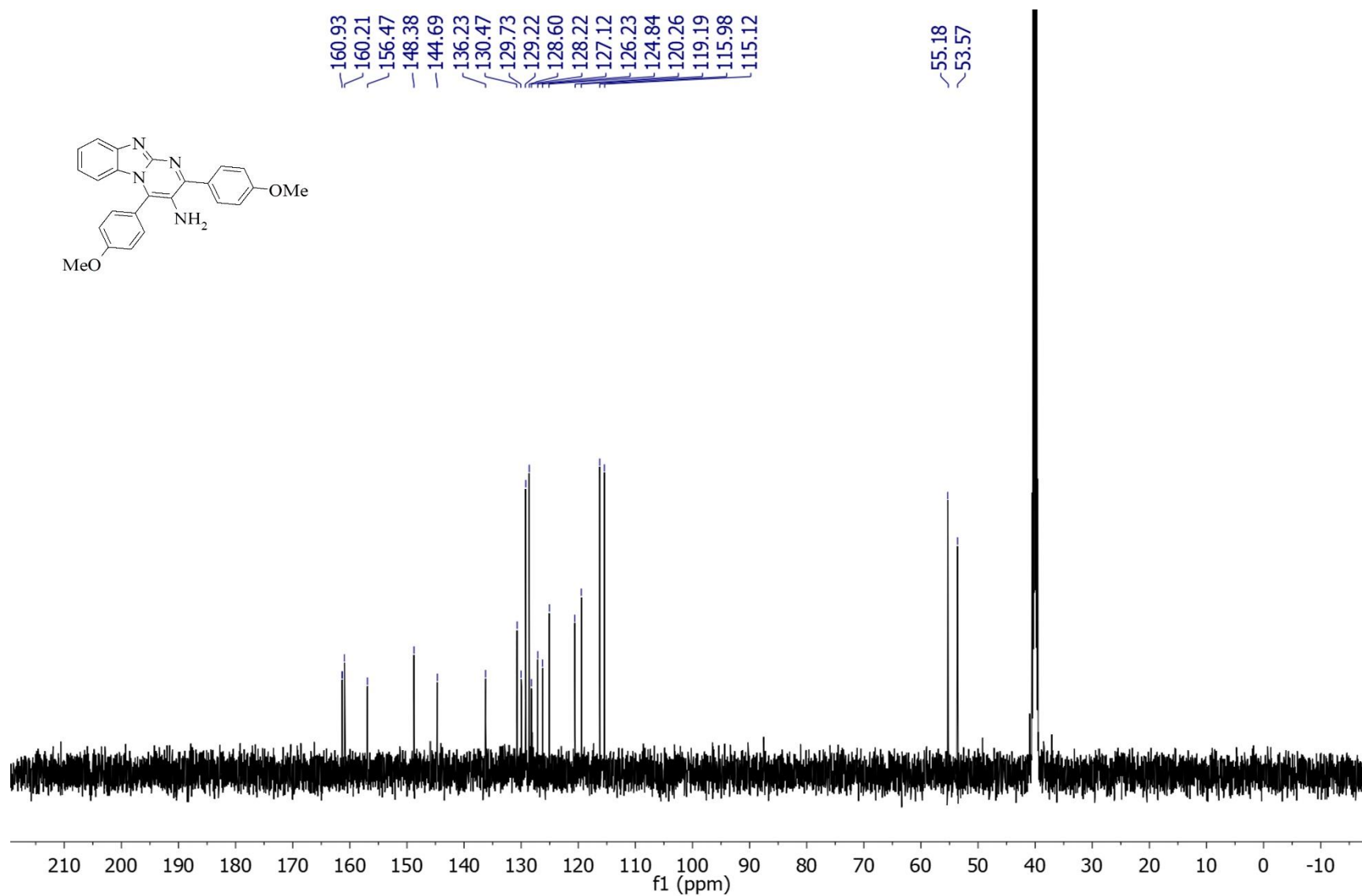
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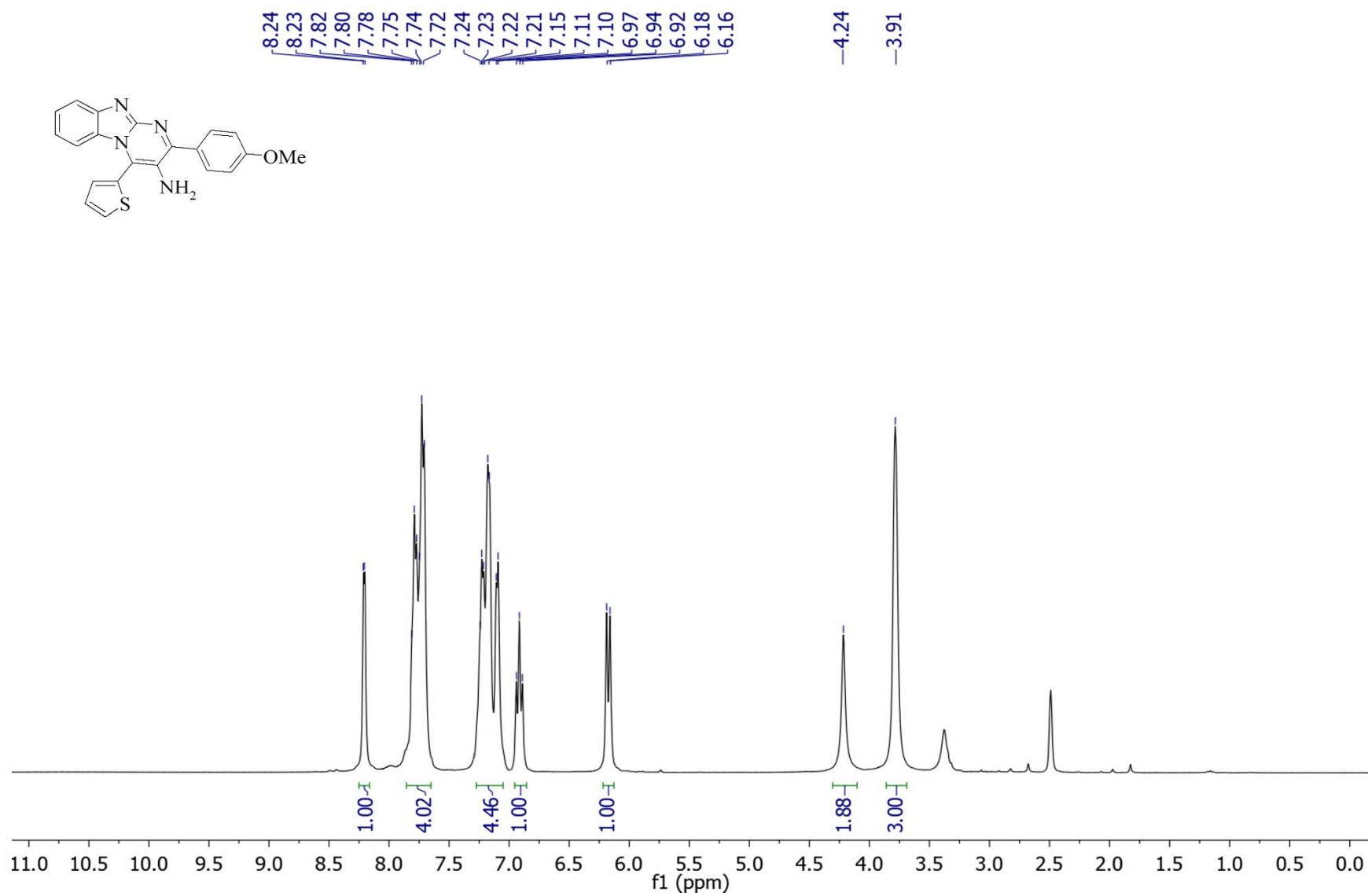
^1H NMR spectrum of 2,4-bis-(4-methoxy-phenyl)-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3q**)



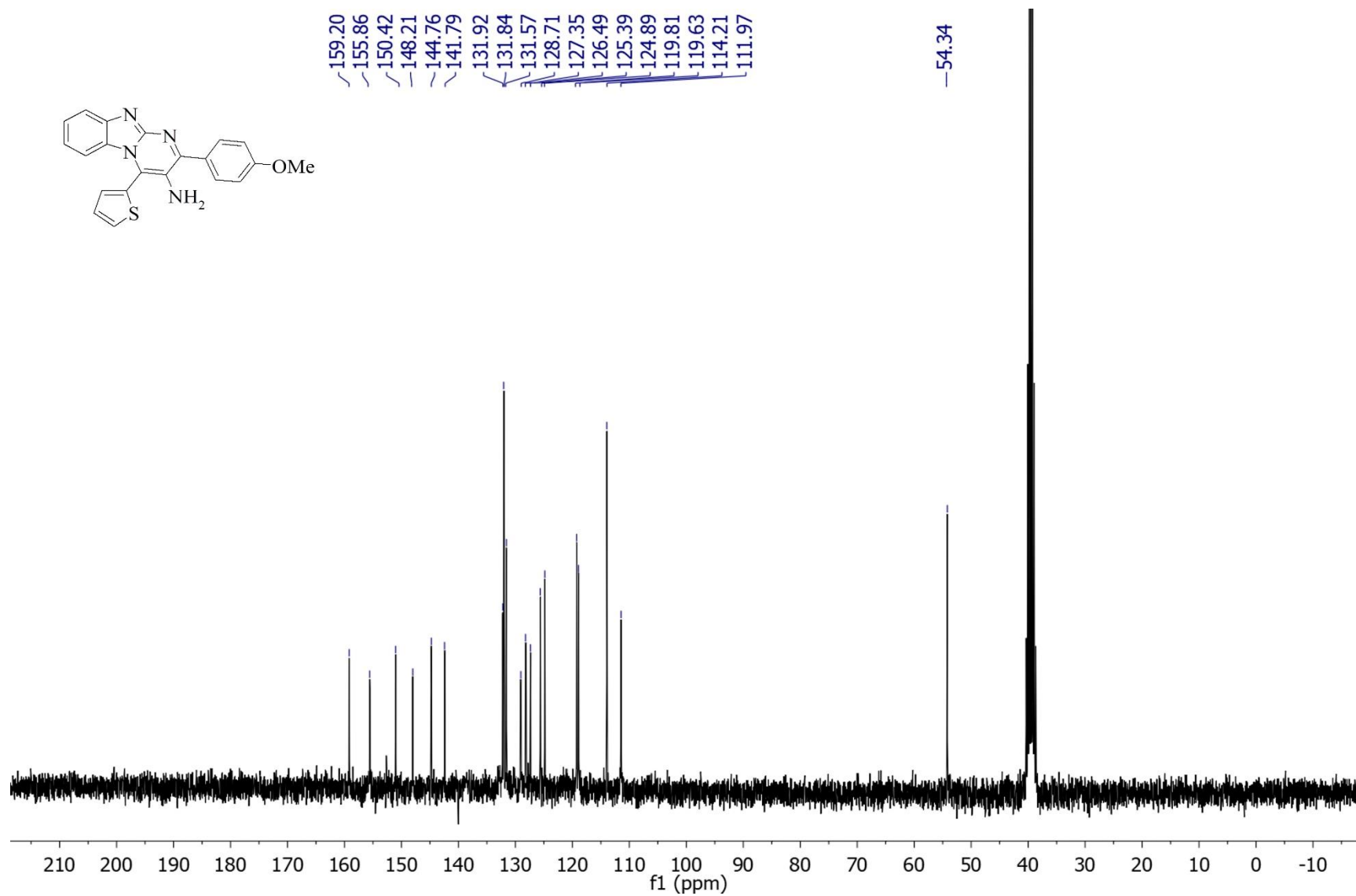
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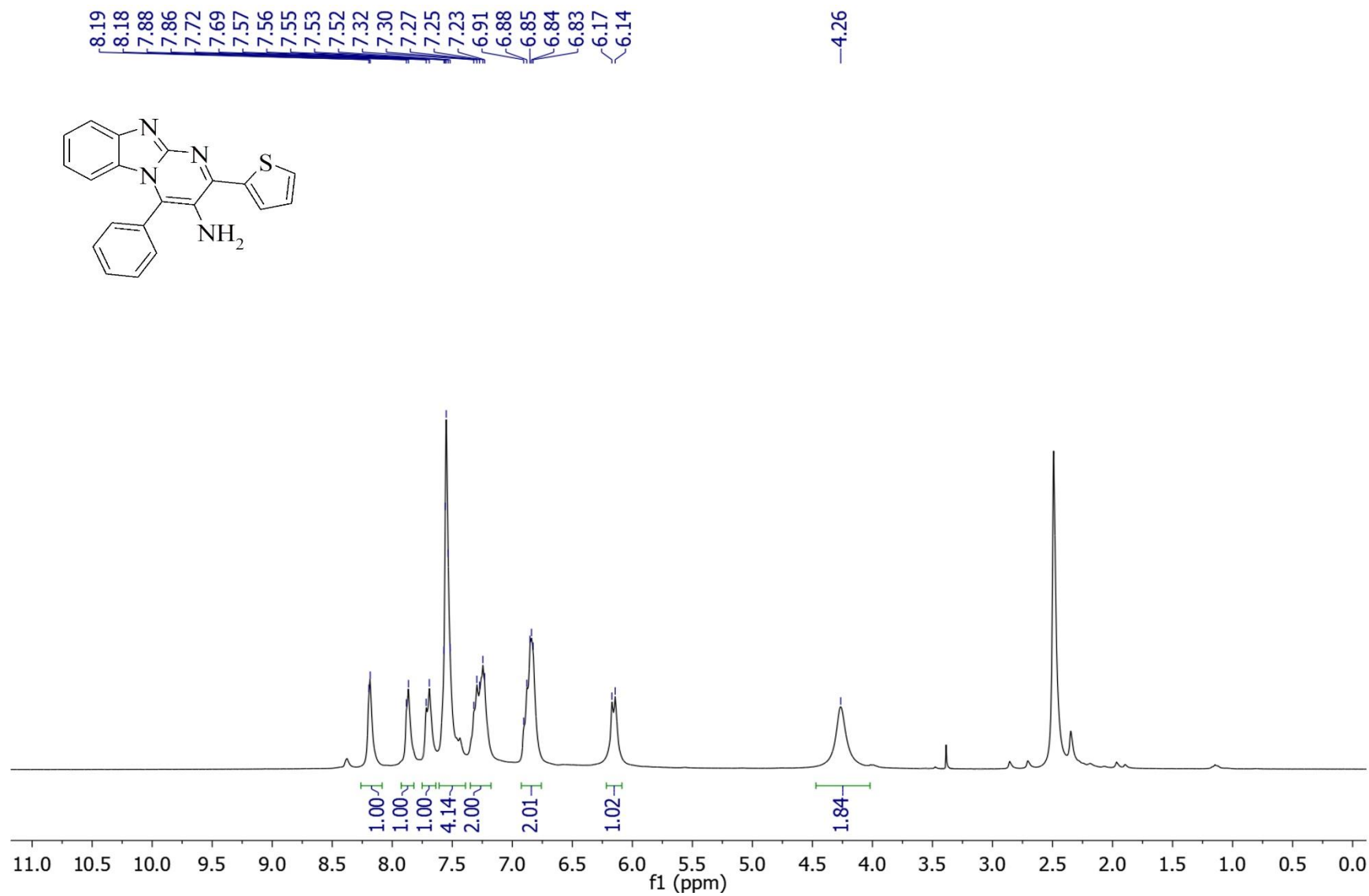
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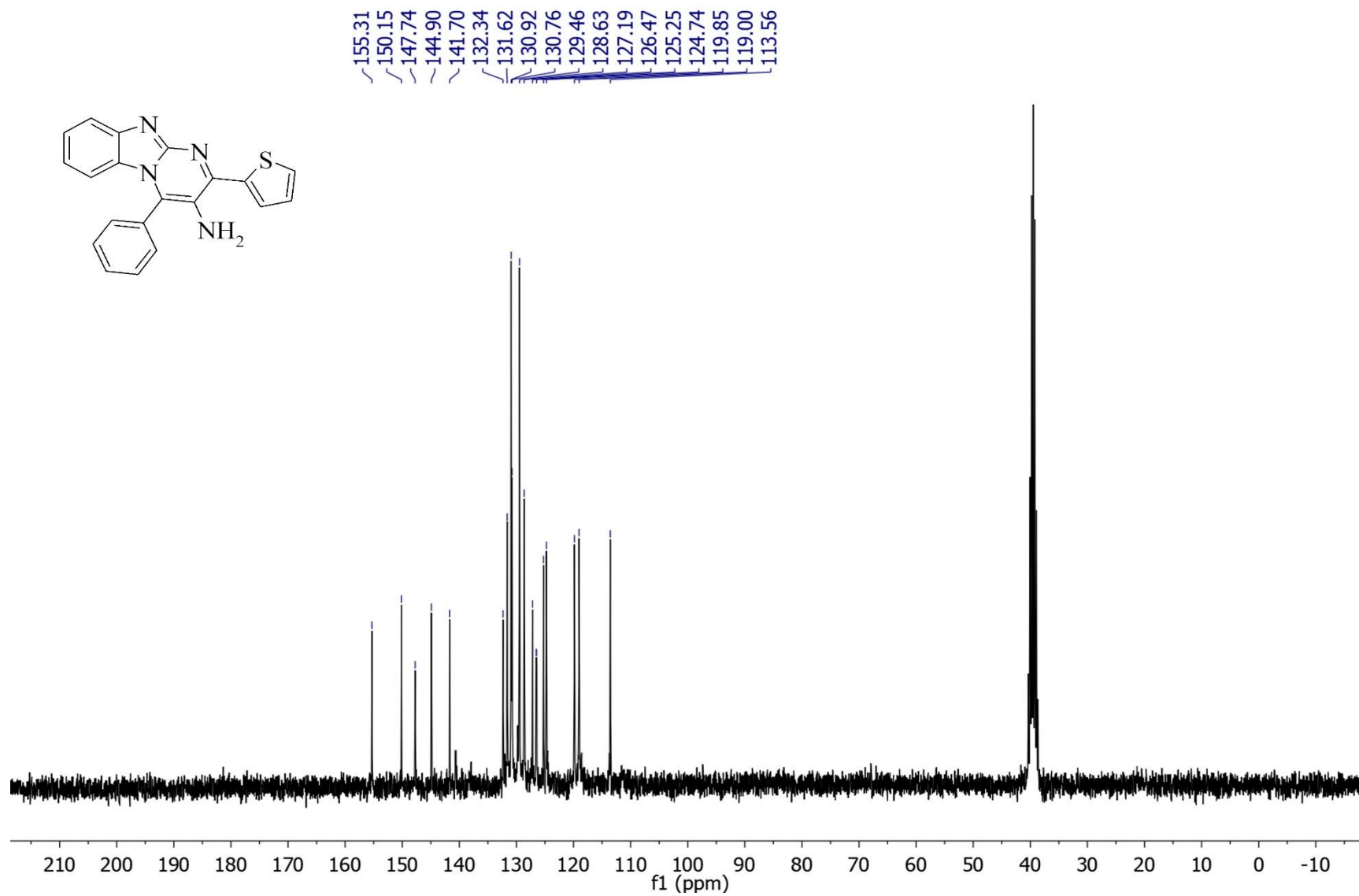
^{13}C NMR spectrum of 2-(4-methoxy-phenyl)-4-thiophen-2-yl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3r**)



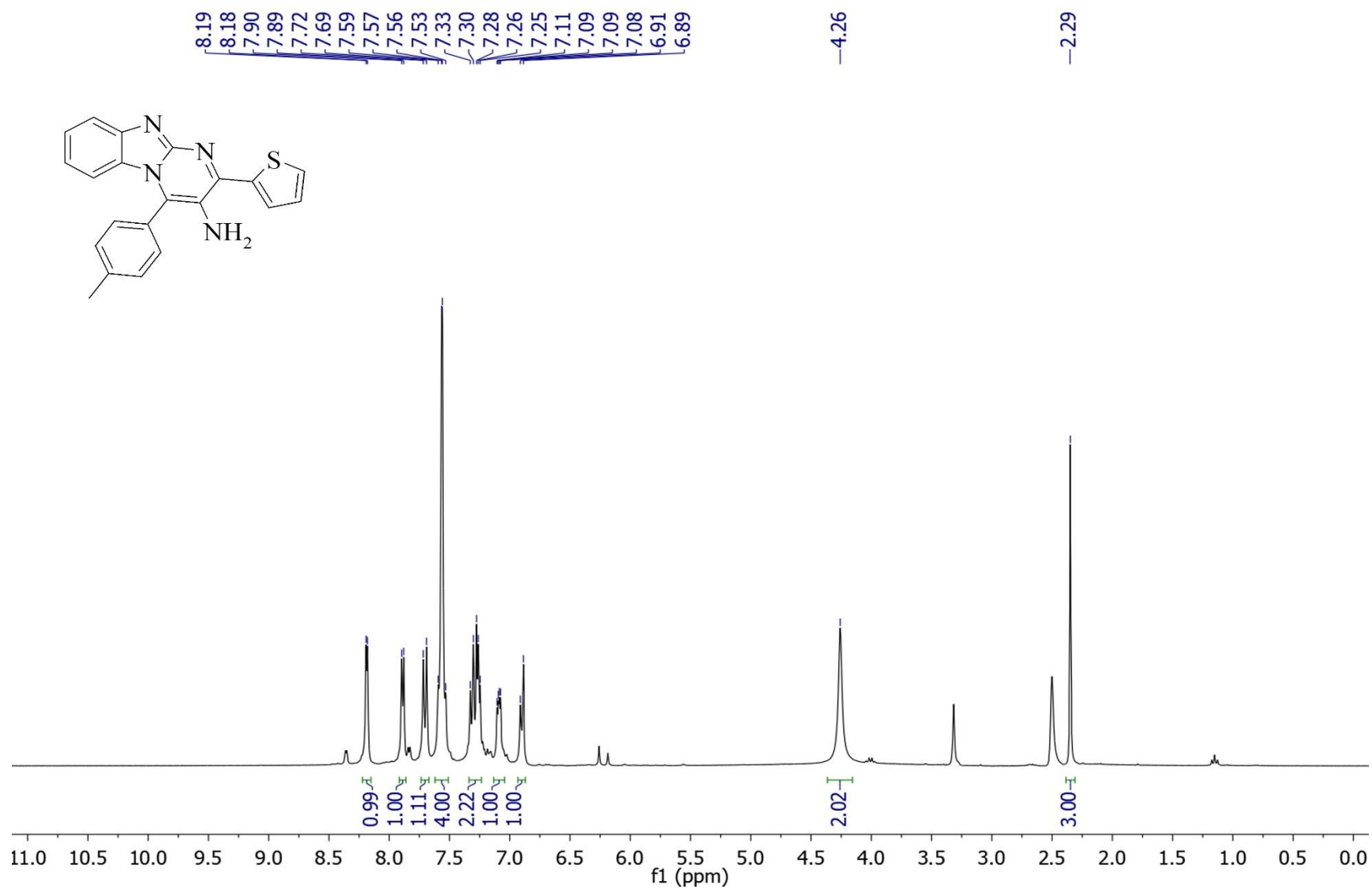
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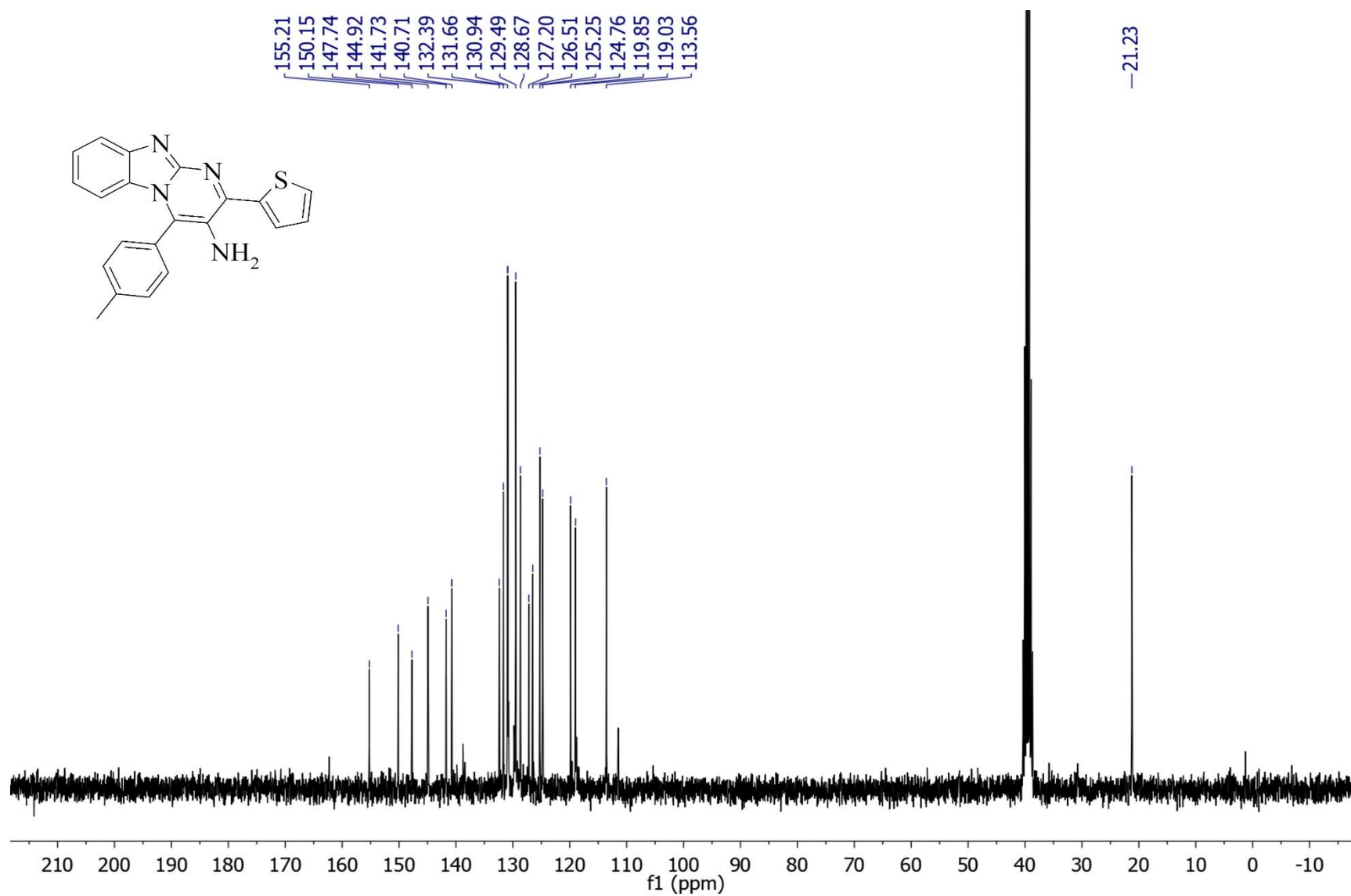
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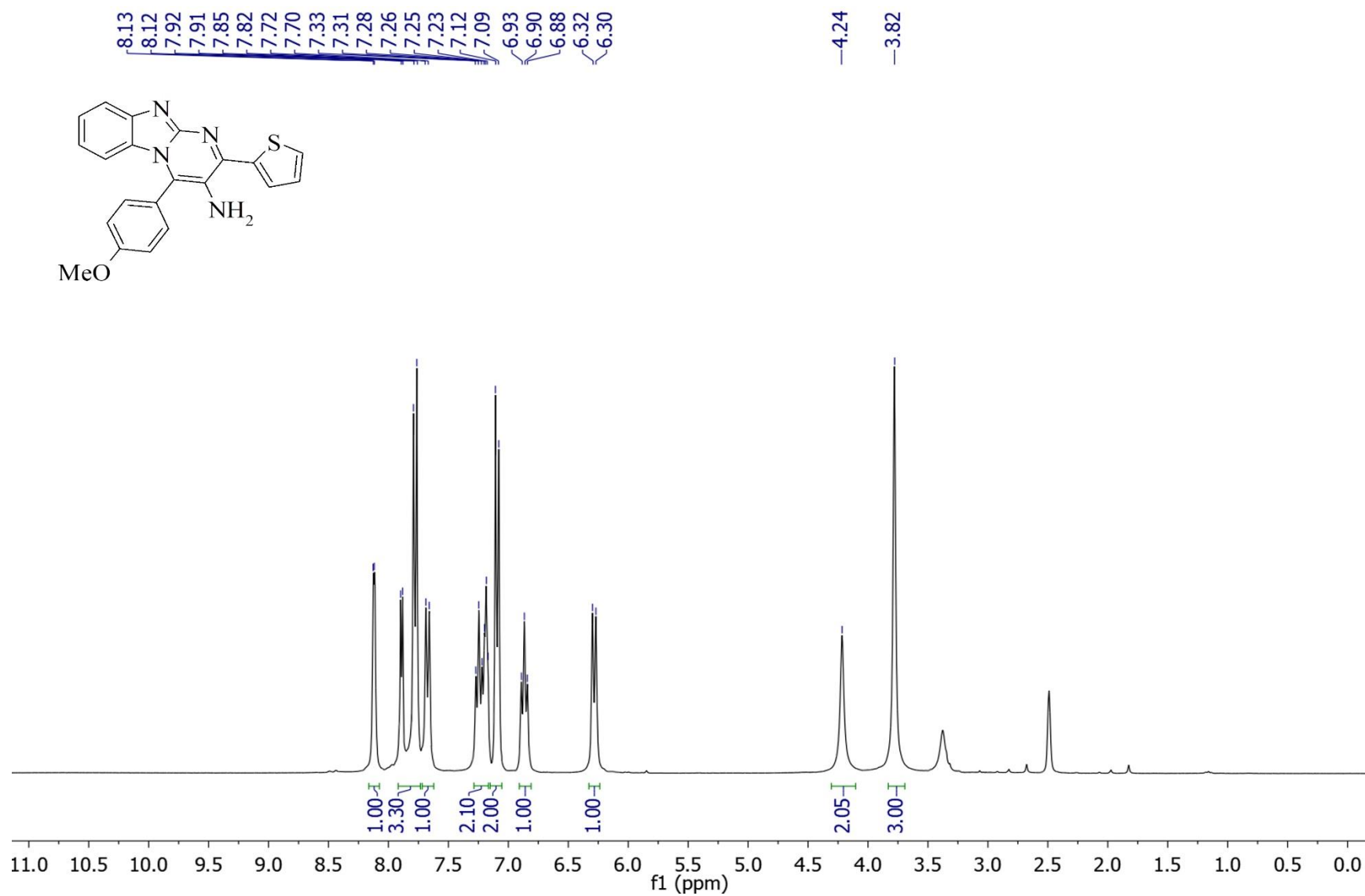
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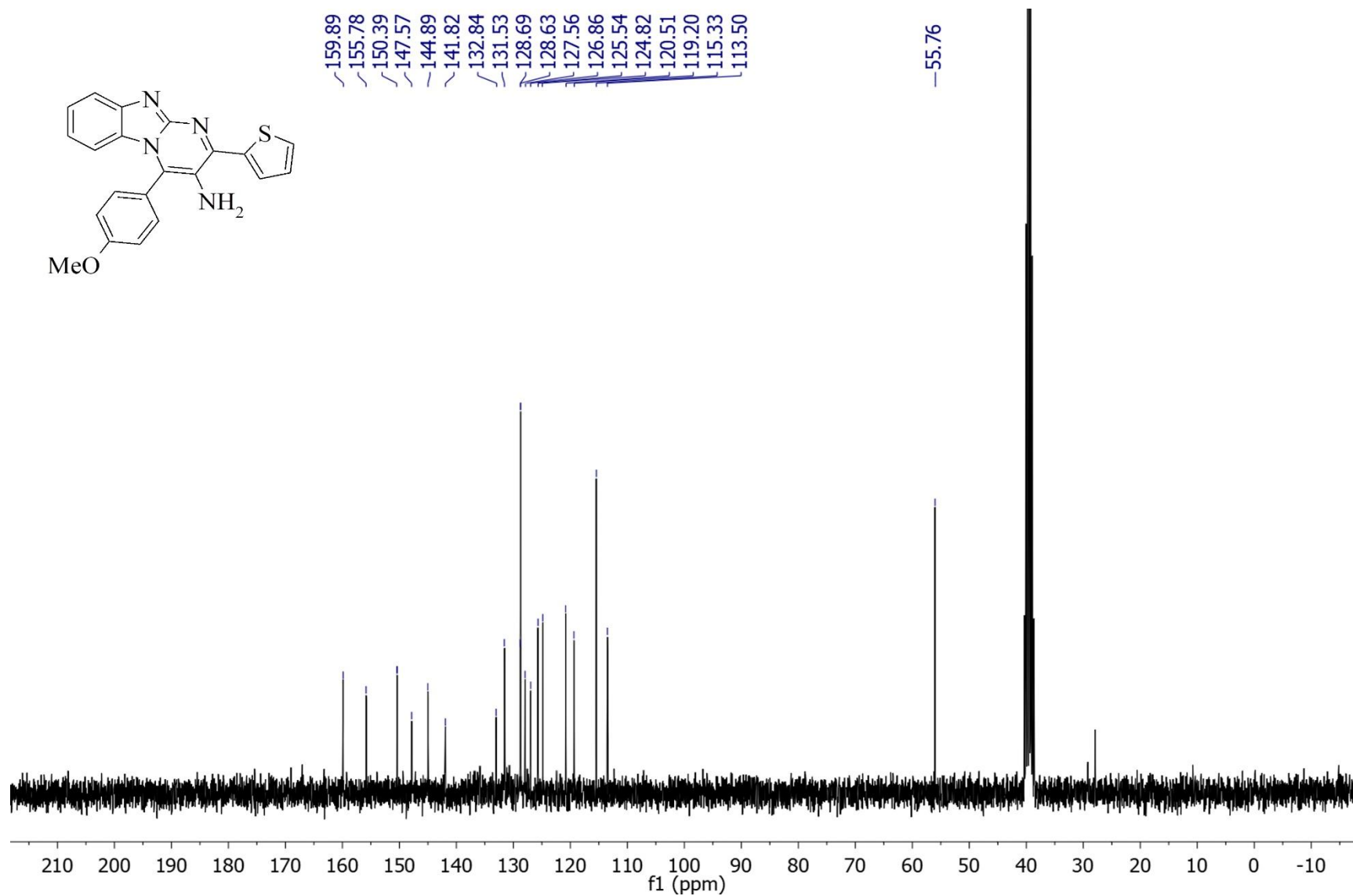
^{13}C NMR spectrum of 2-thiophen-2-yl-4-p-tolyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3t**)



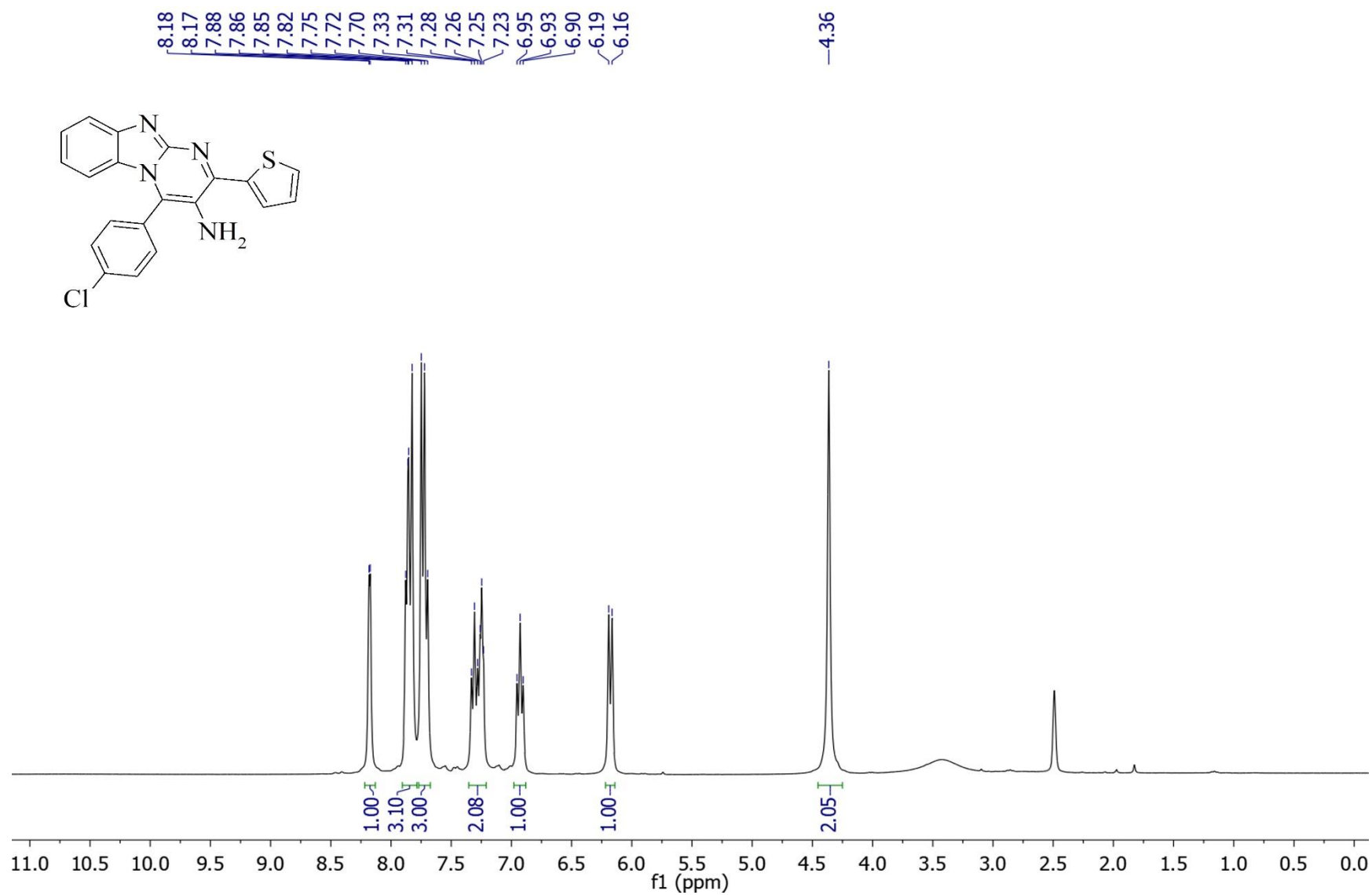
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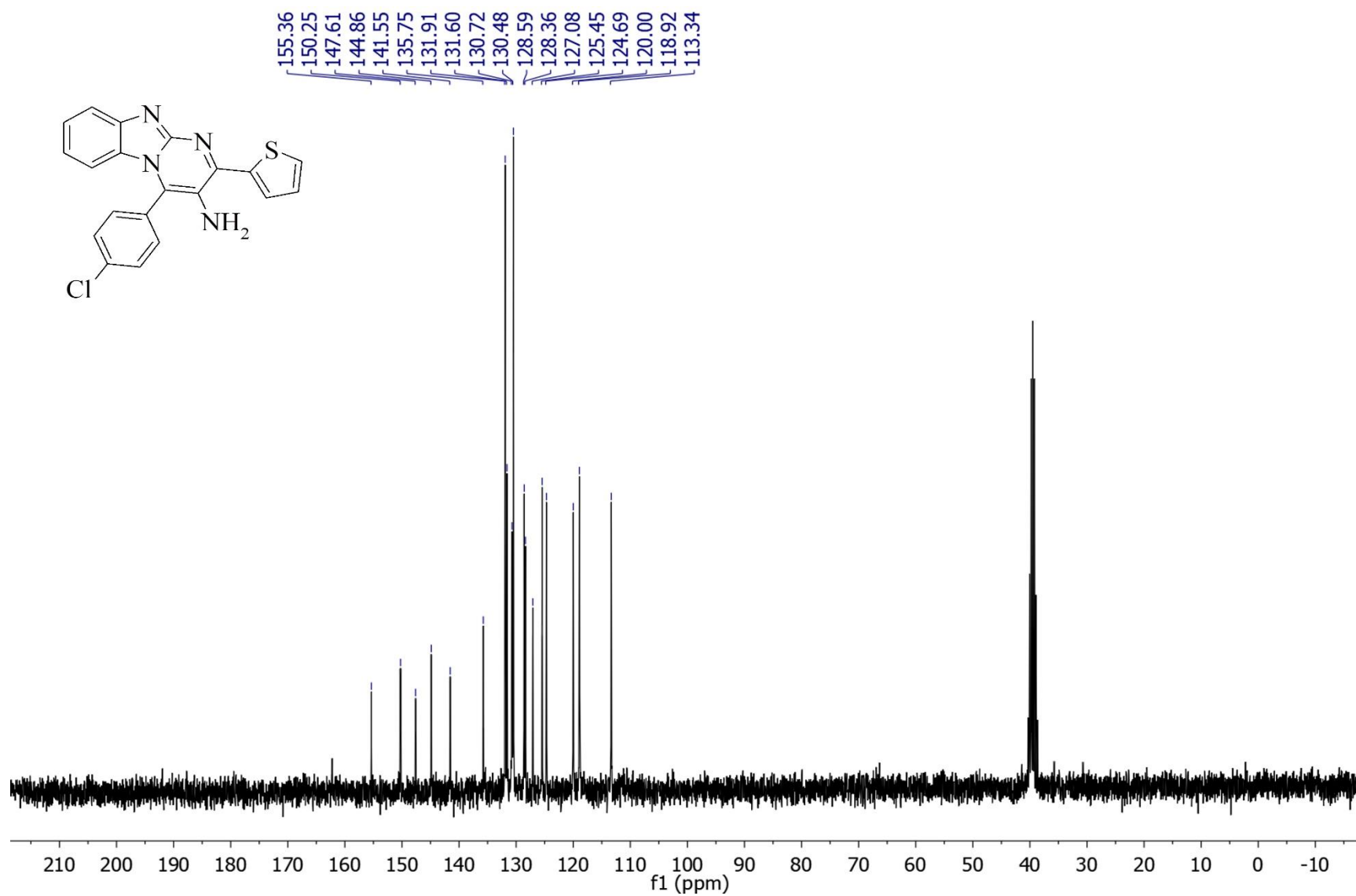
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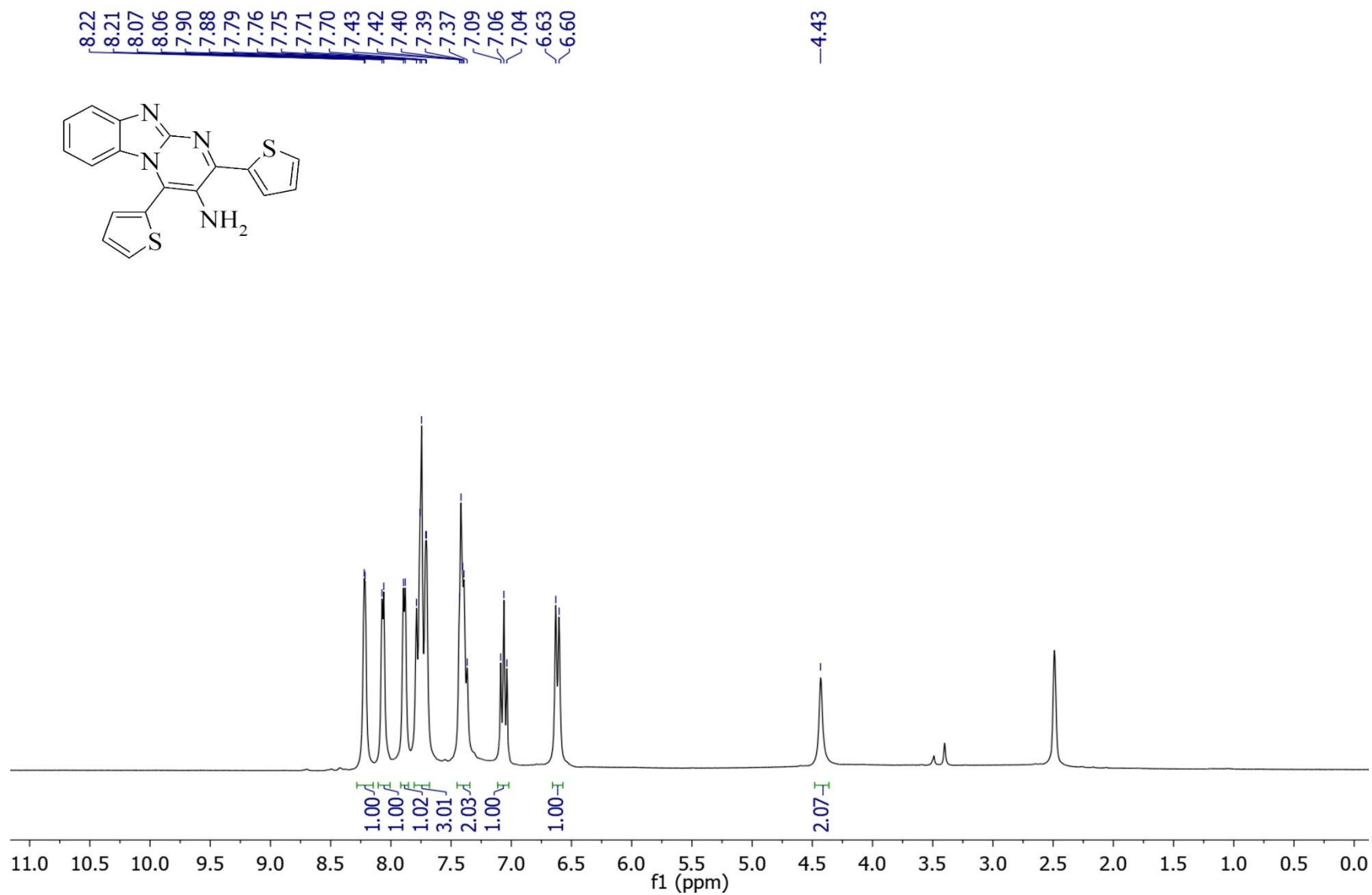
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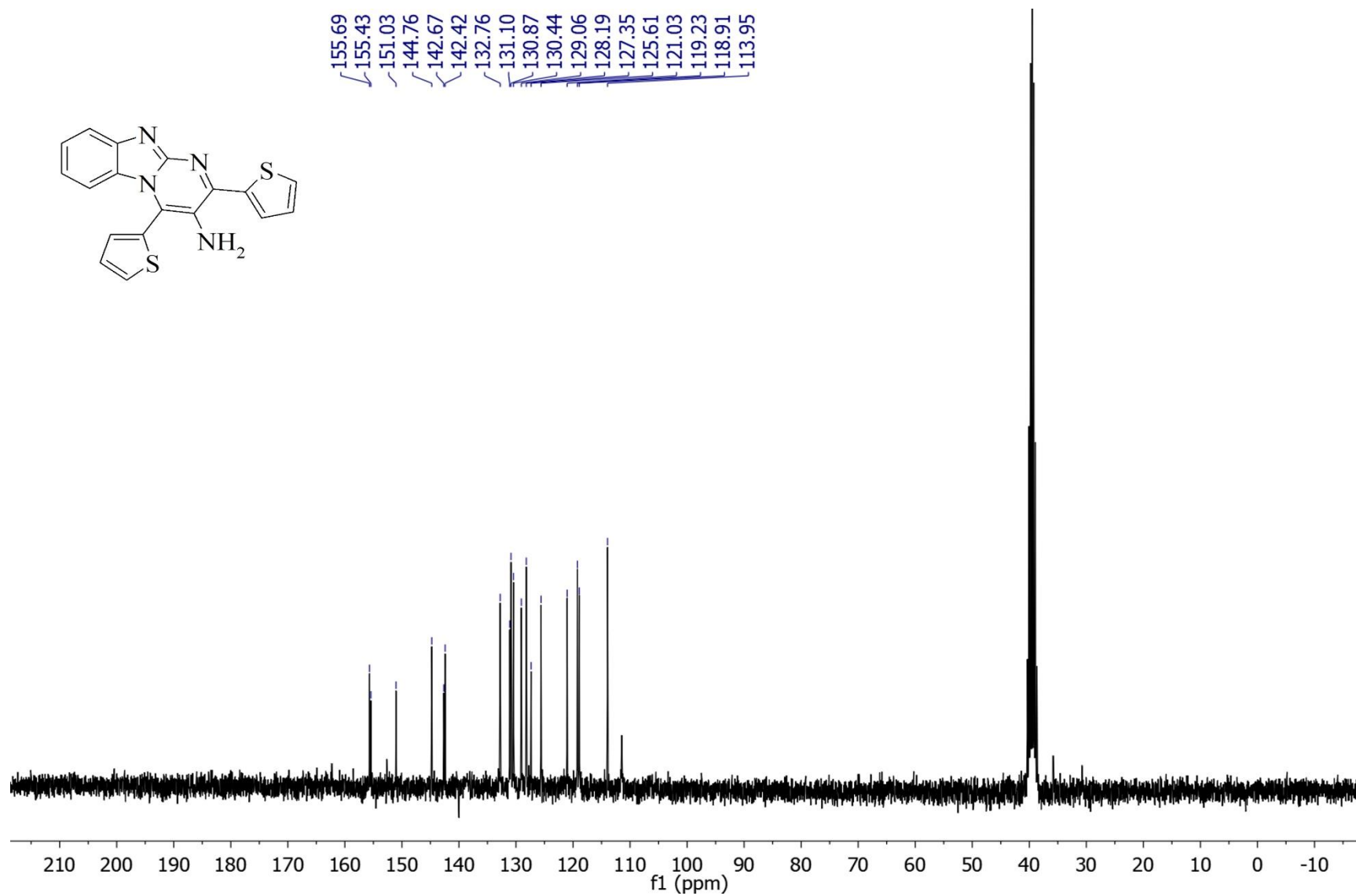
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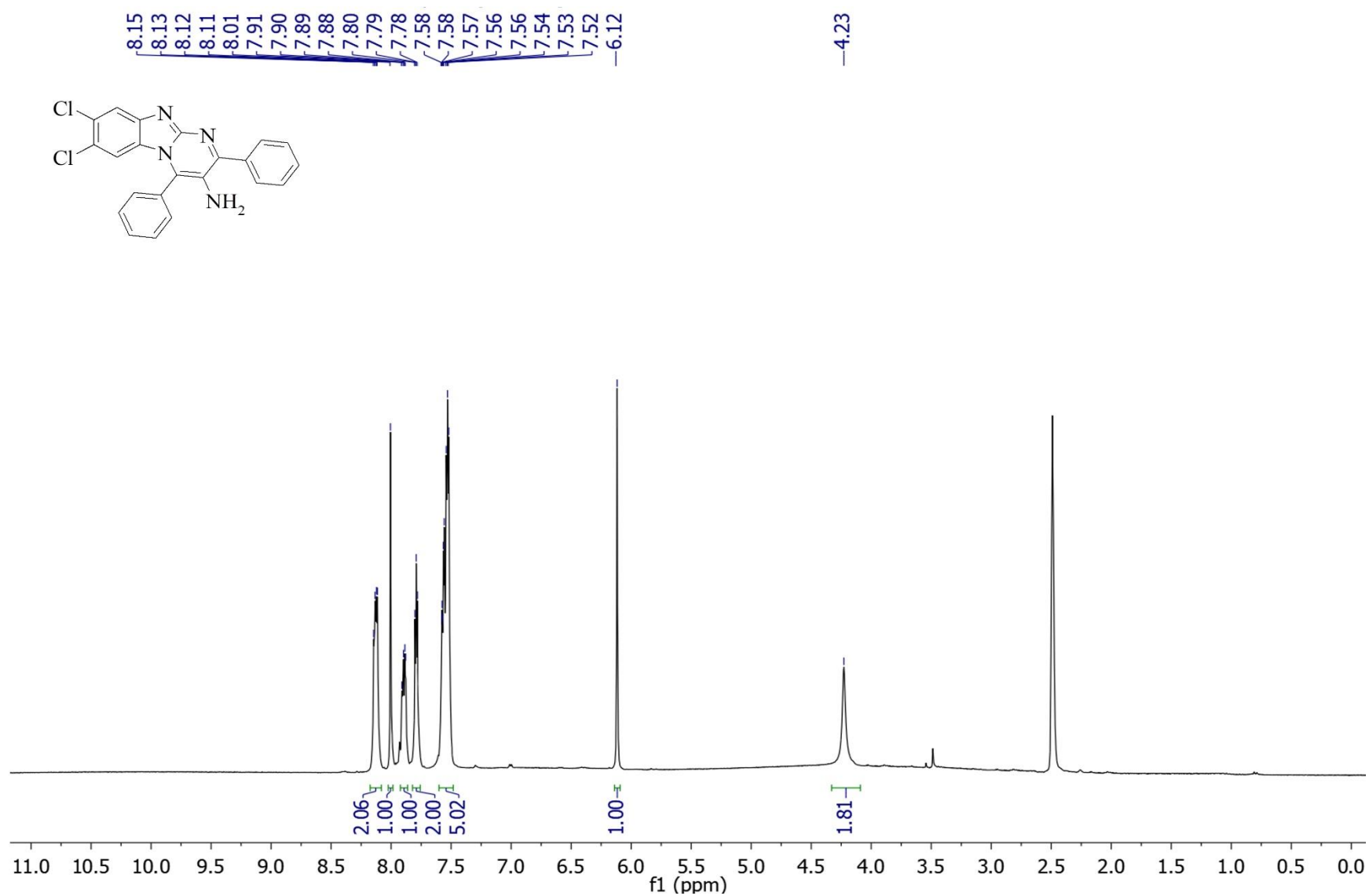
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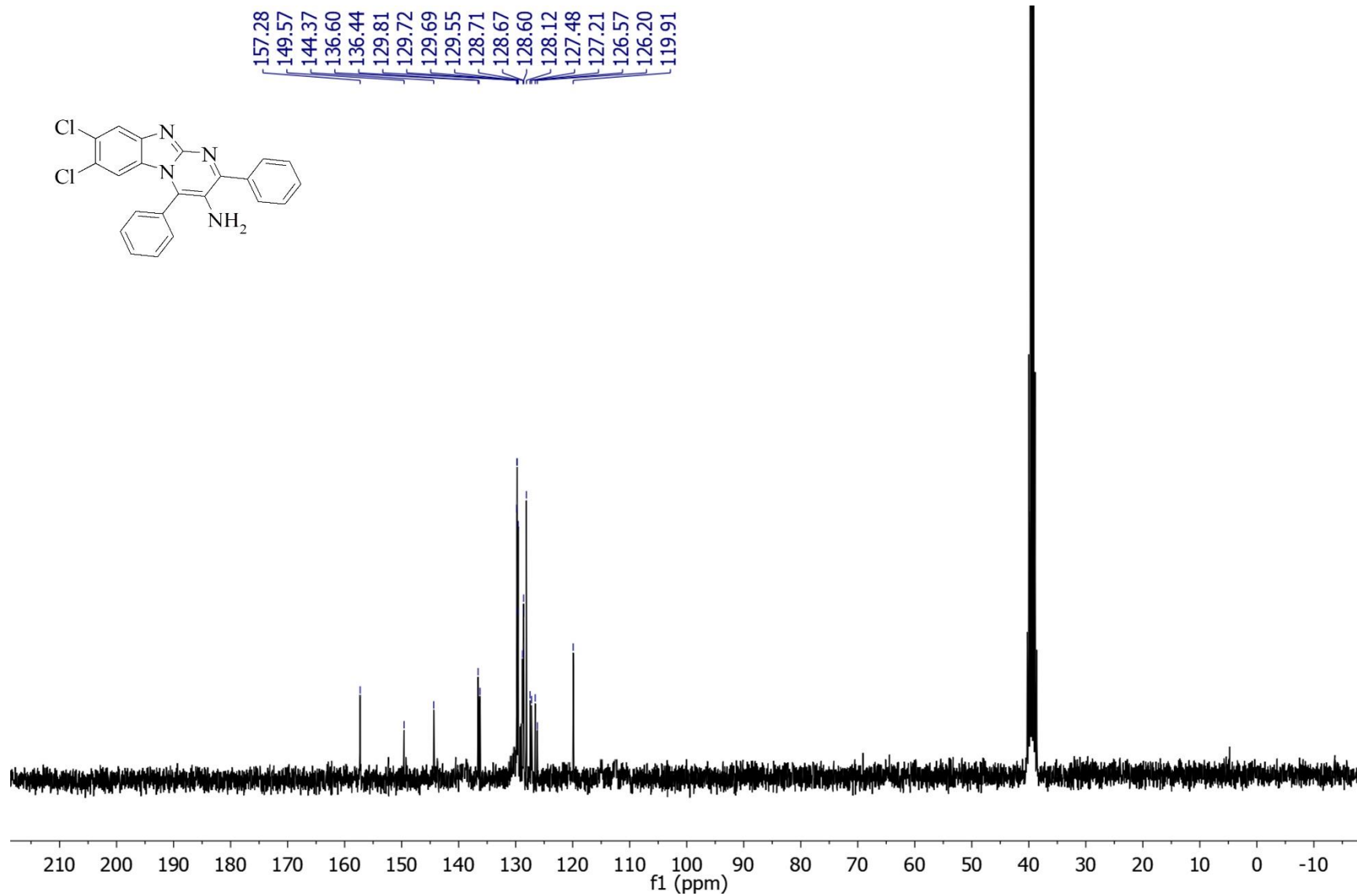
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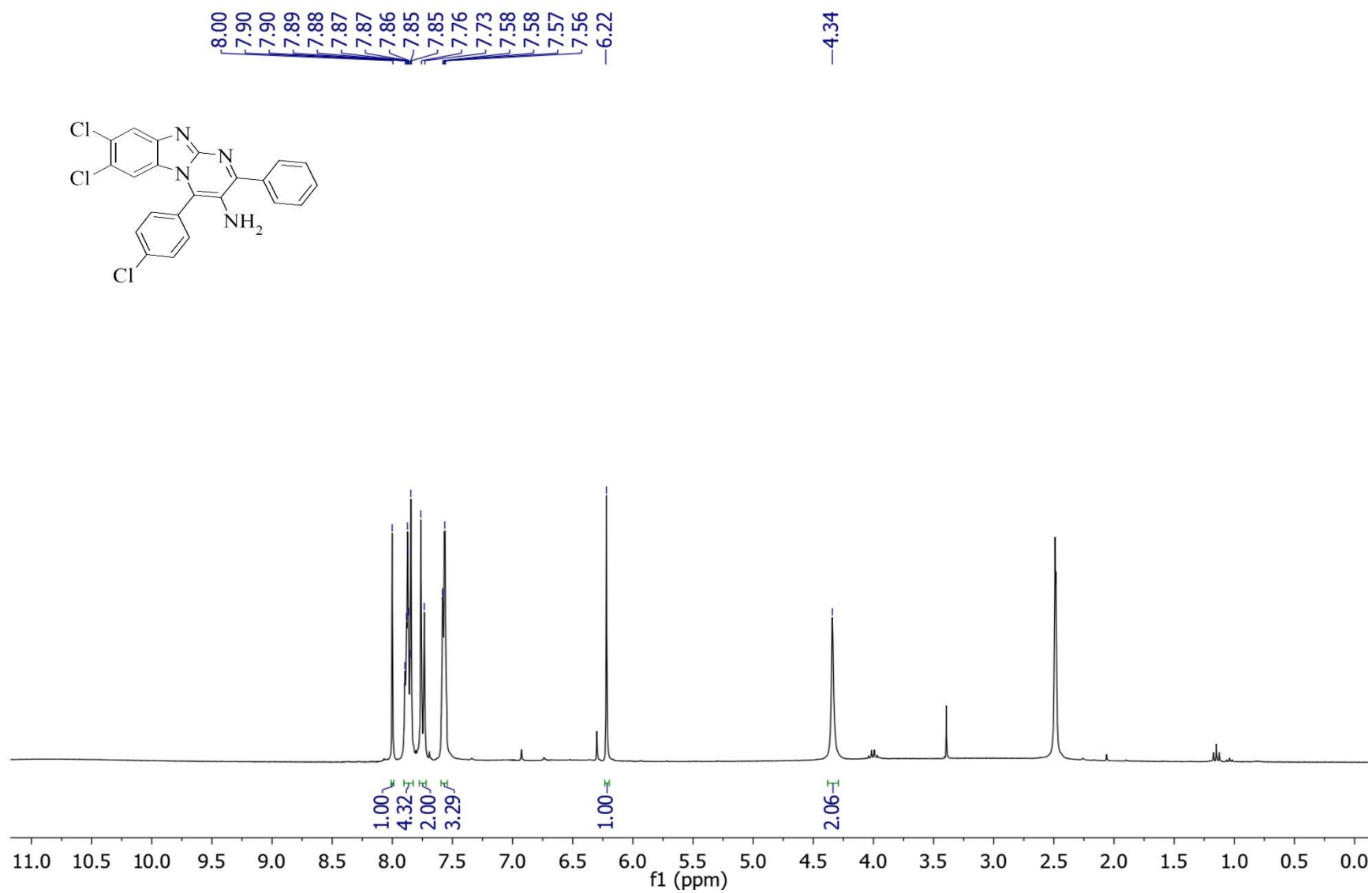
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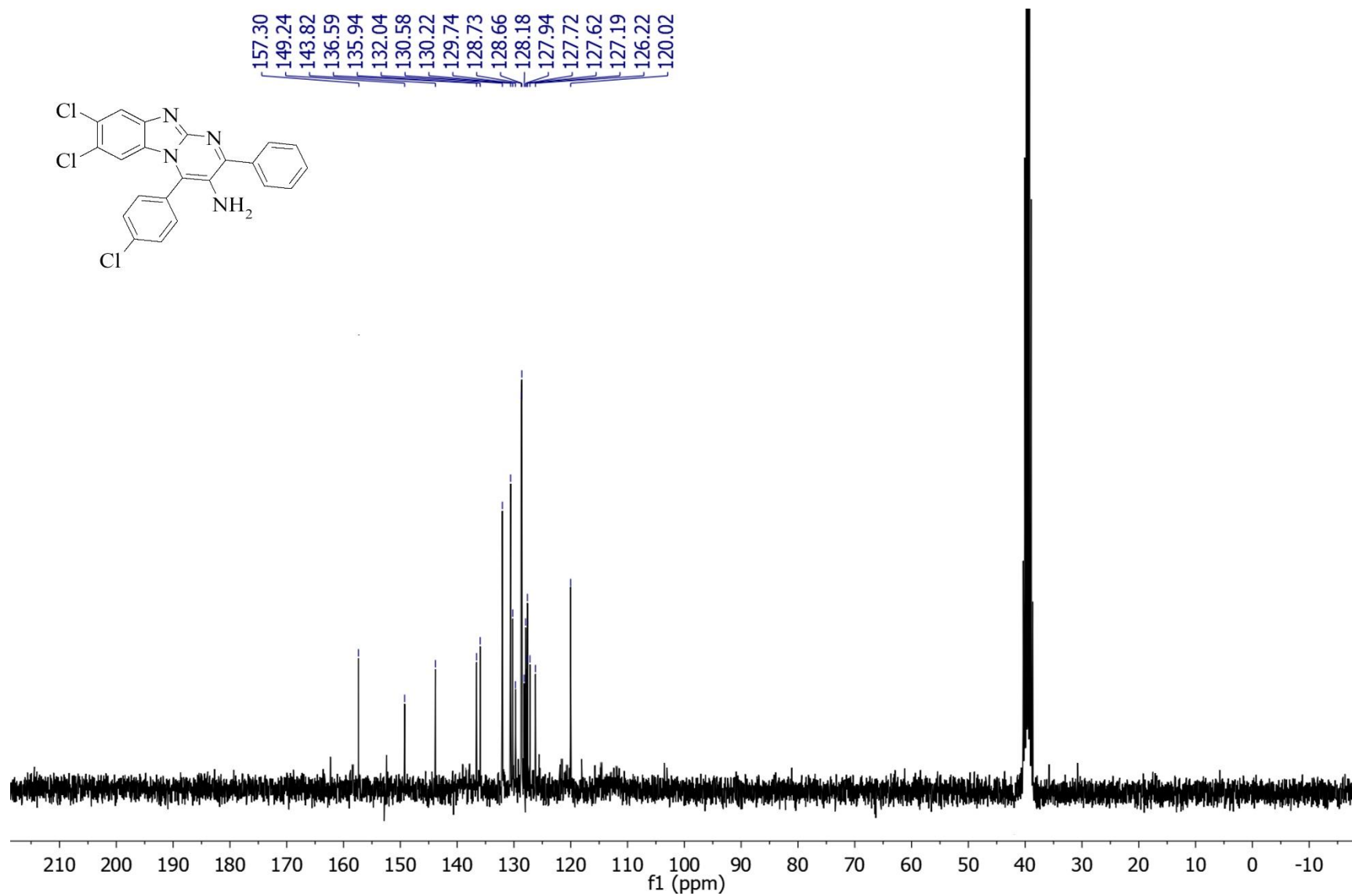
^{13}C NMR spectrum of 7,8-dichloro-2,4-diphenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3y**)



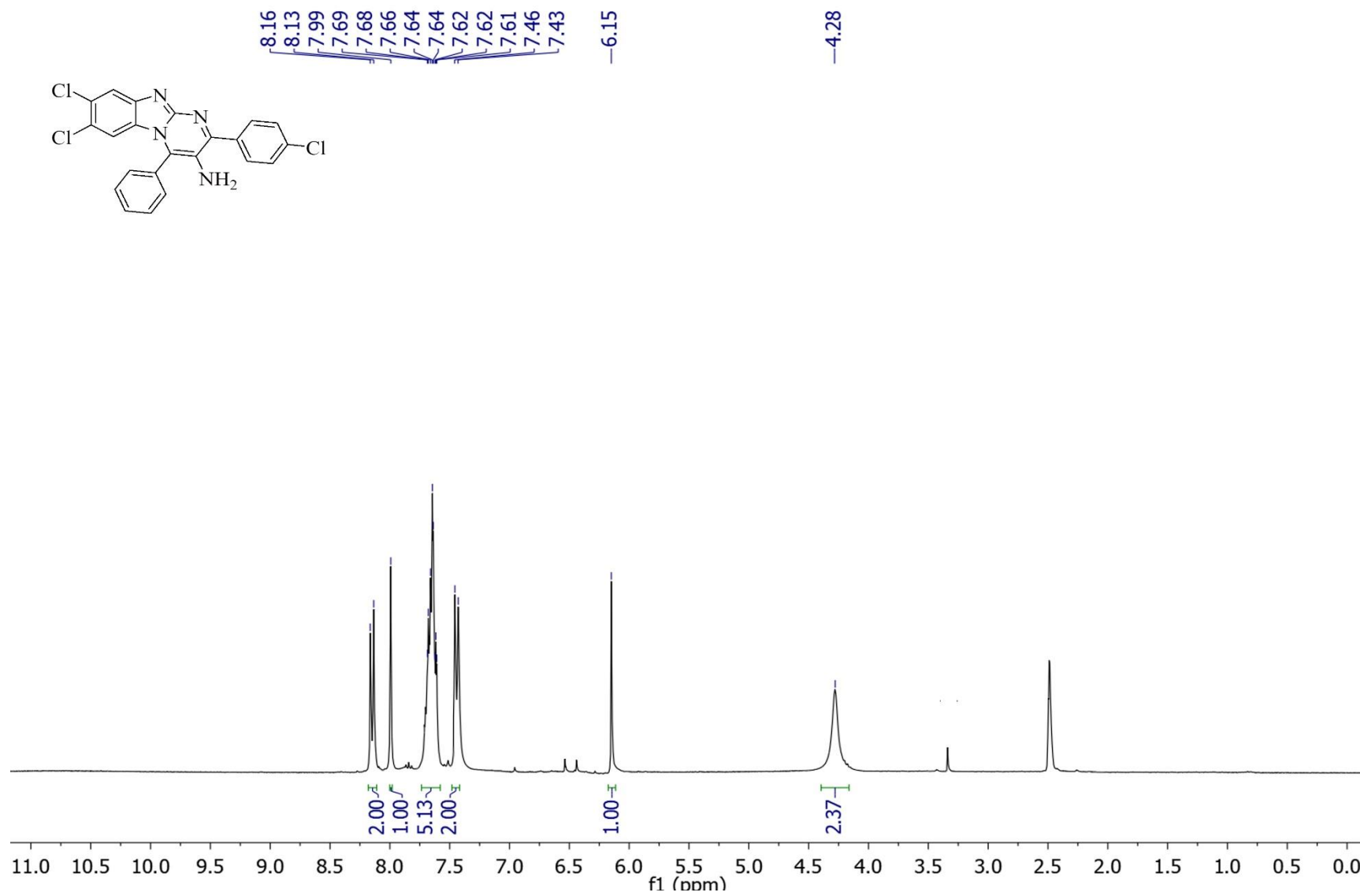
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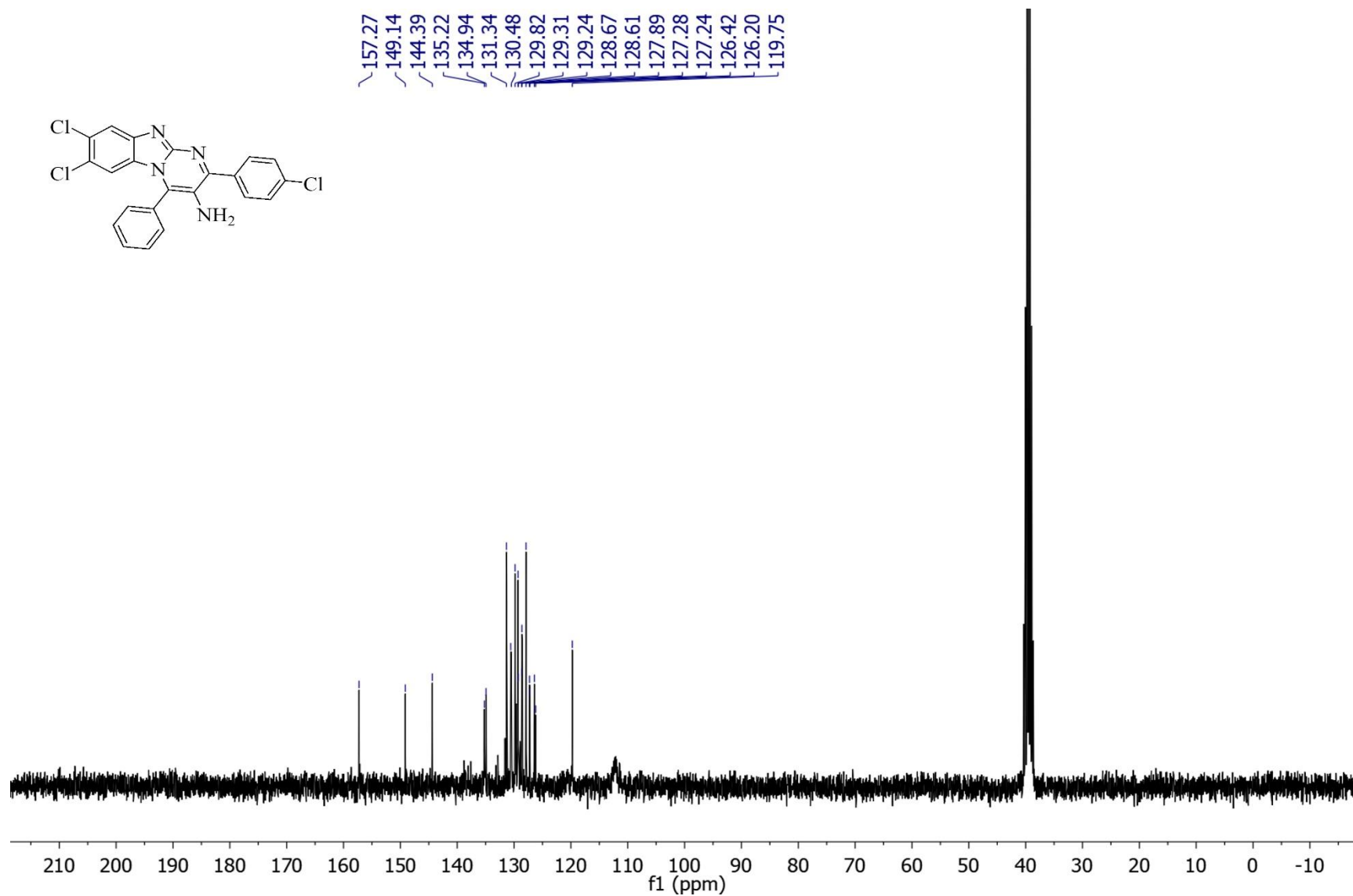
¹³C NMR spectrum of 7,8-dichloro-4-(4-chloro-phenyl)-2-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3z**)



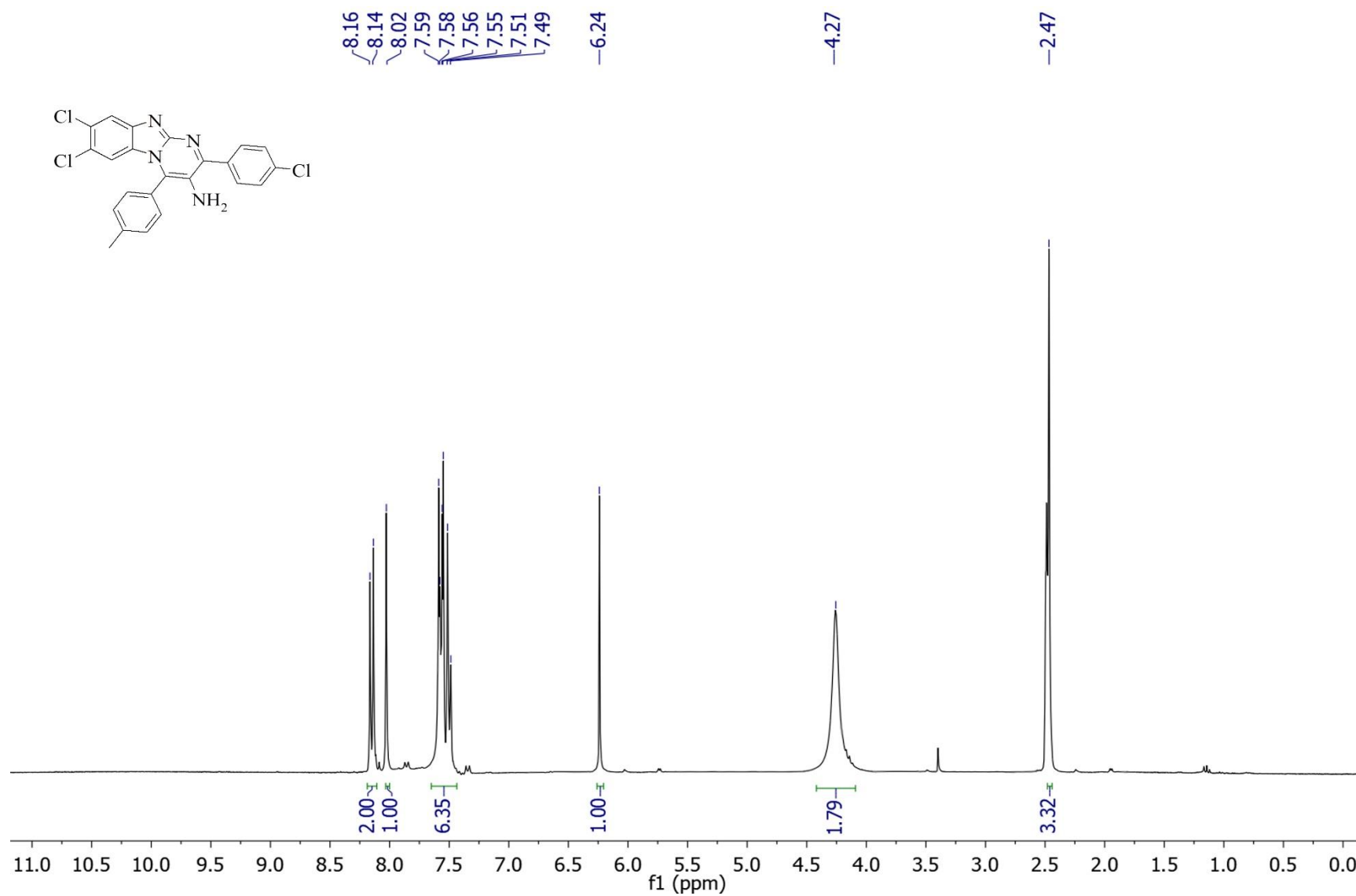
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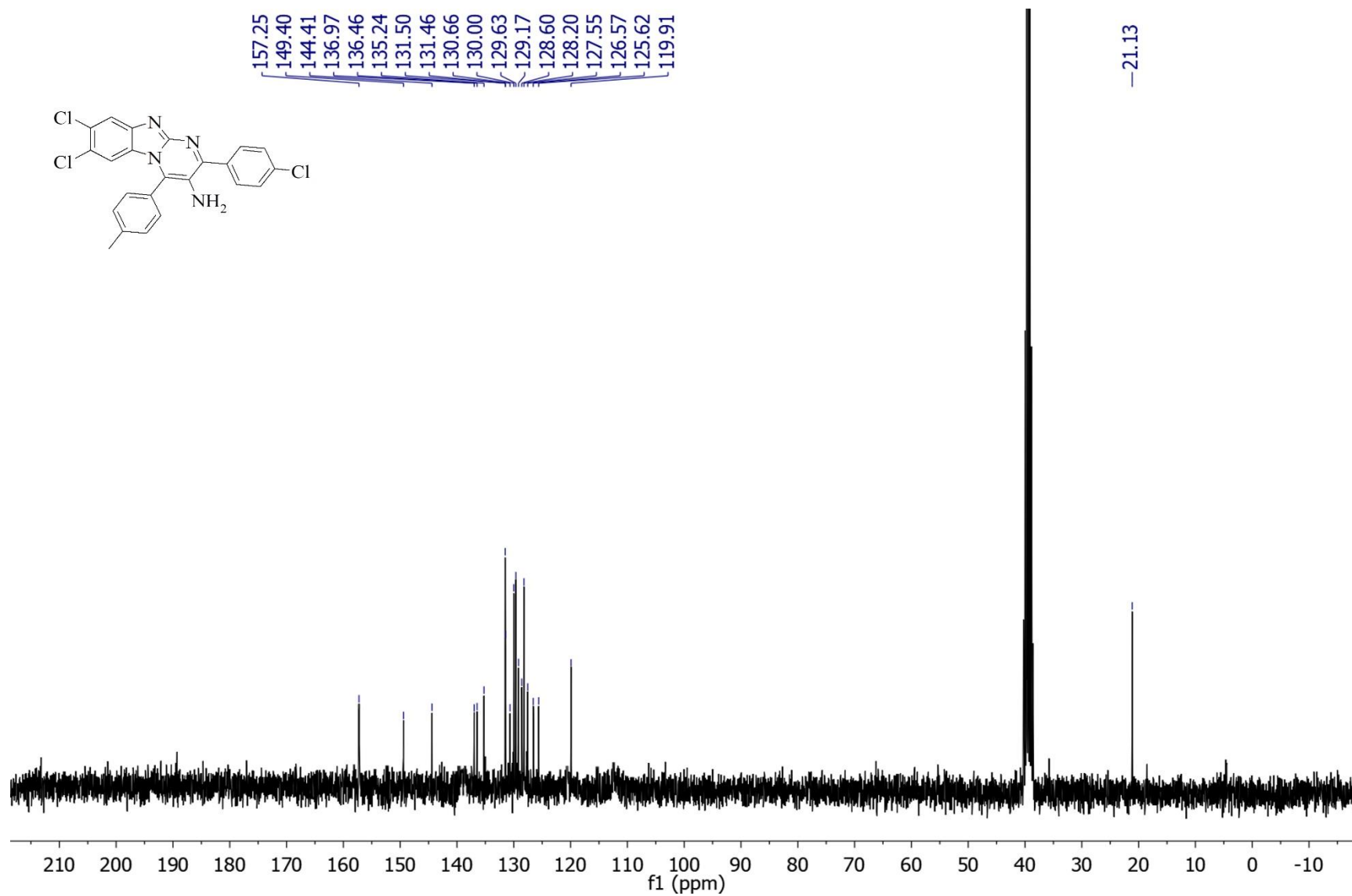
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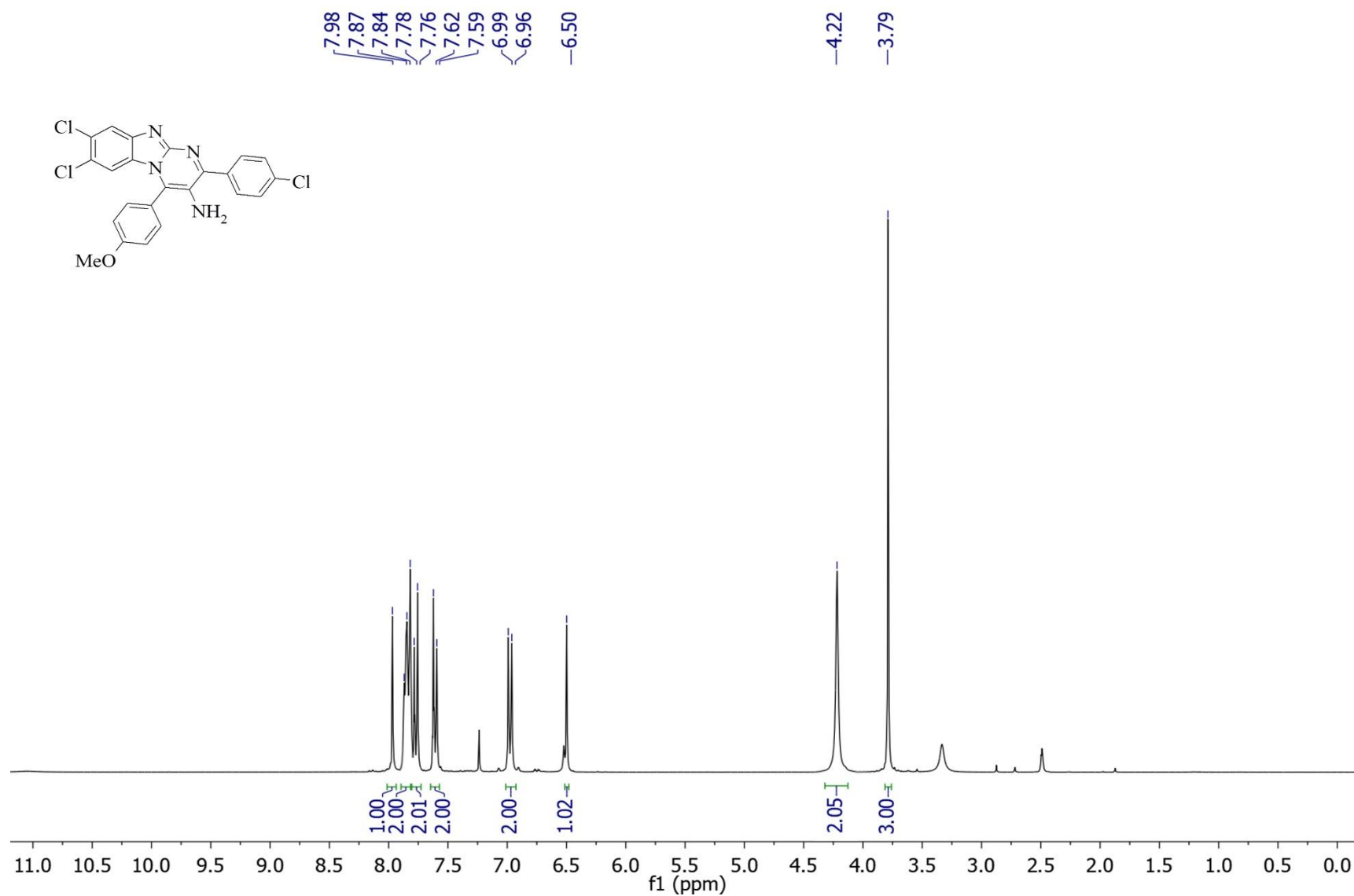
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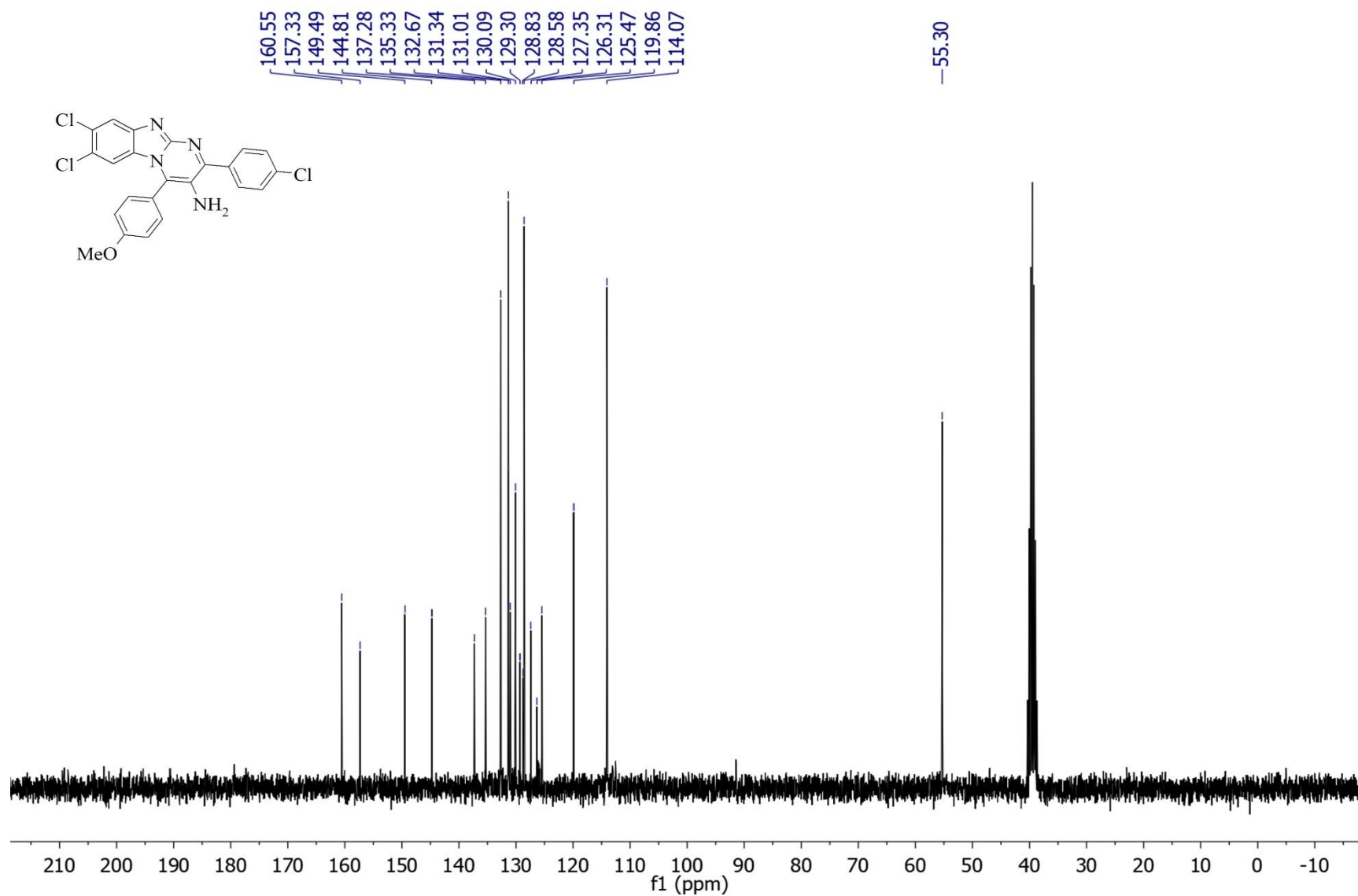
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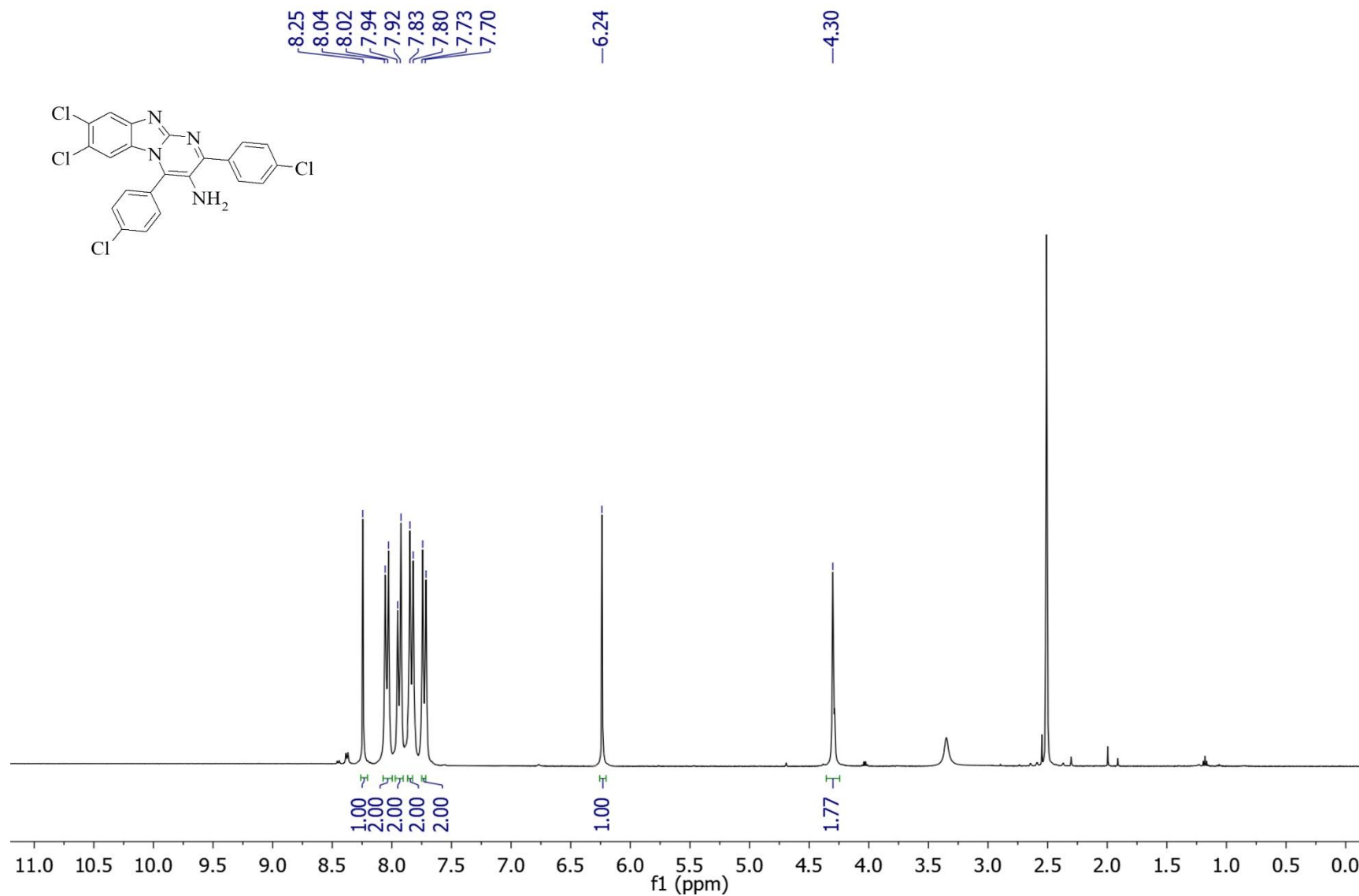
^1H NMR spectrum of 7,8-dichloro-2-(4-chloro-phenyl)-4-(4-methoxy-phenyl)-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ac**)



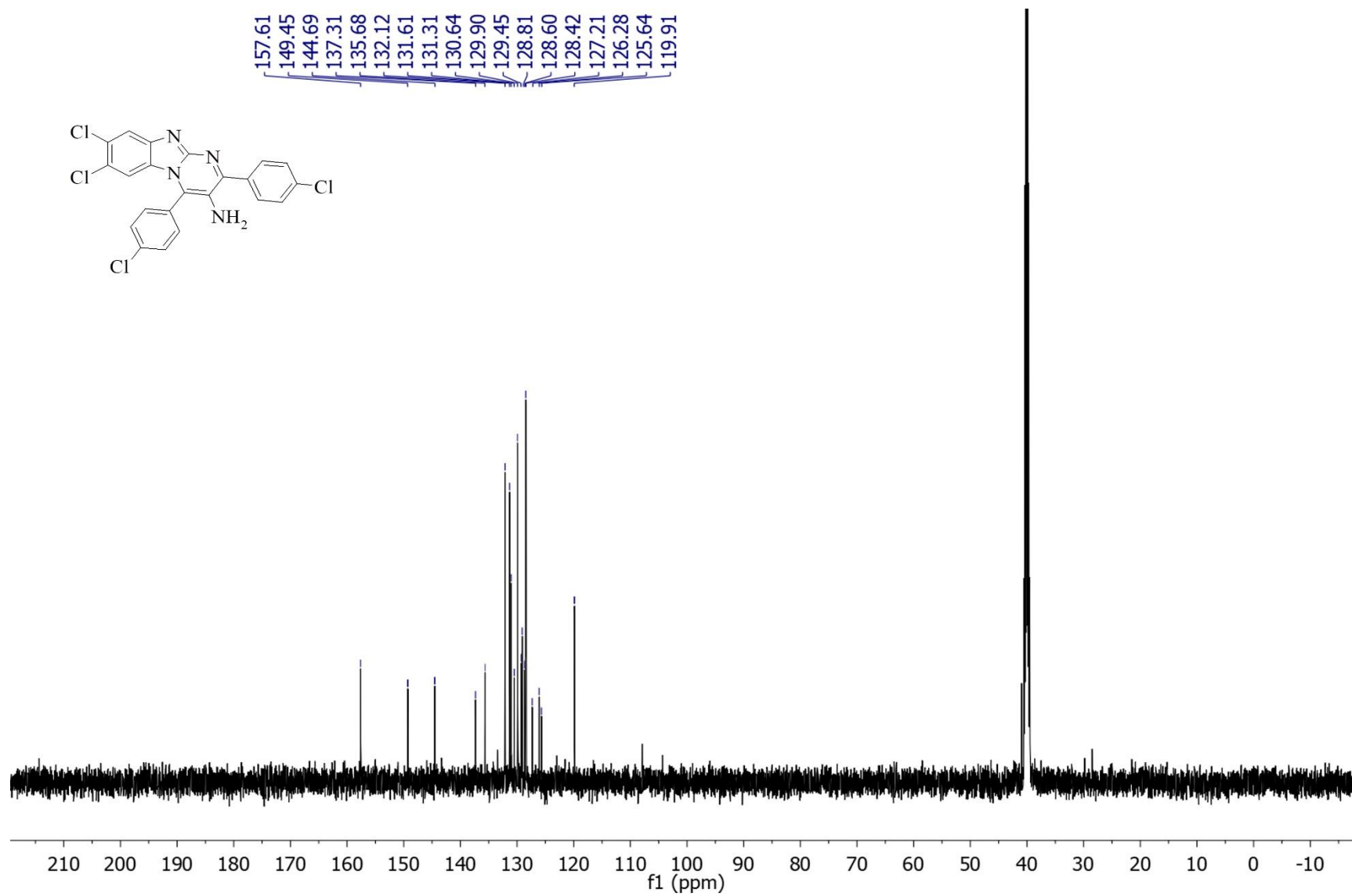
¹³C NMR spectrum of 7,8-dichloro-2-(4-chloro-phenyl)-4-(4-methoxy-phenyl)-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ac**)



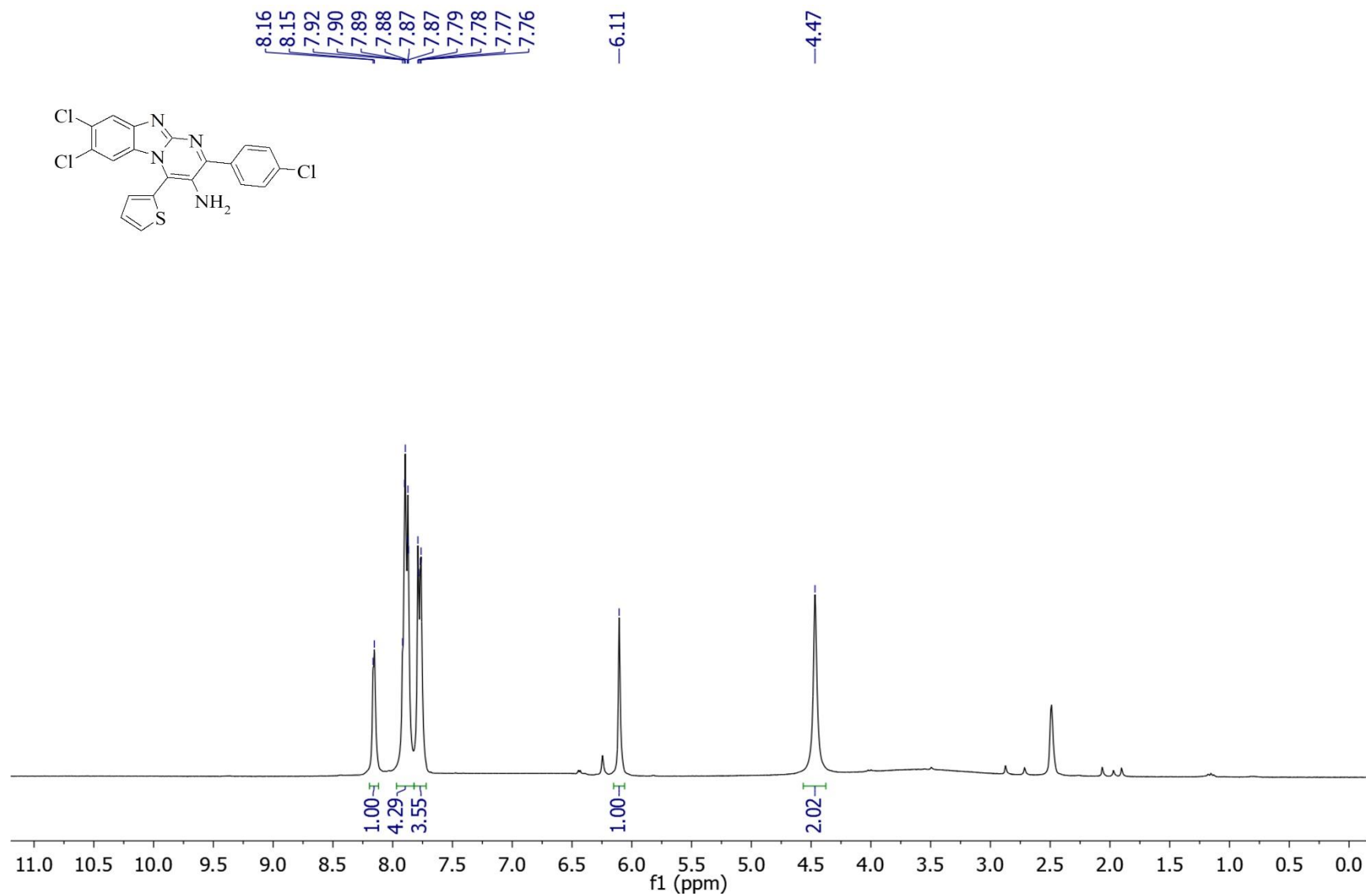
¹H NMR spectrum of 7,8-dichloro-2,4-bis-(4-chloro-phenyl)-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ad**)



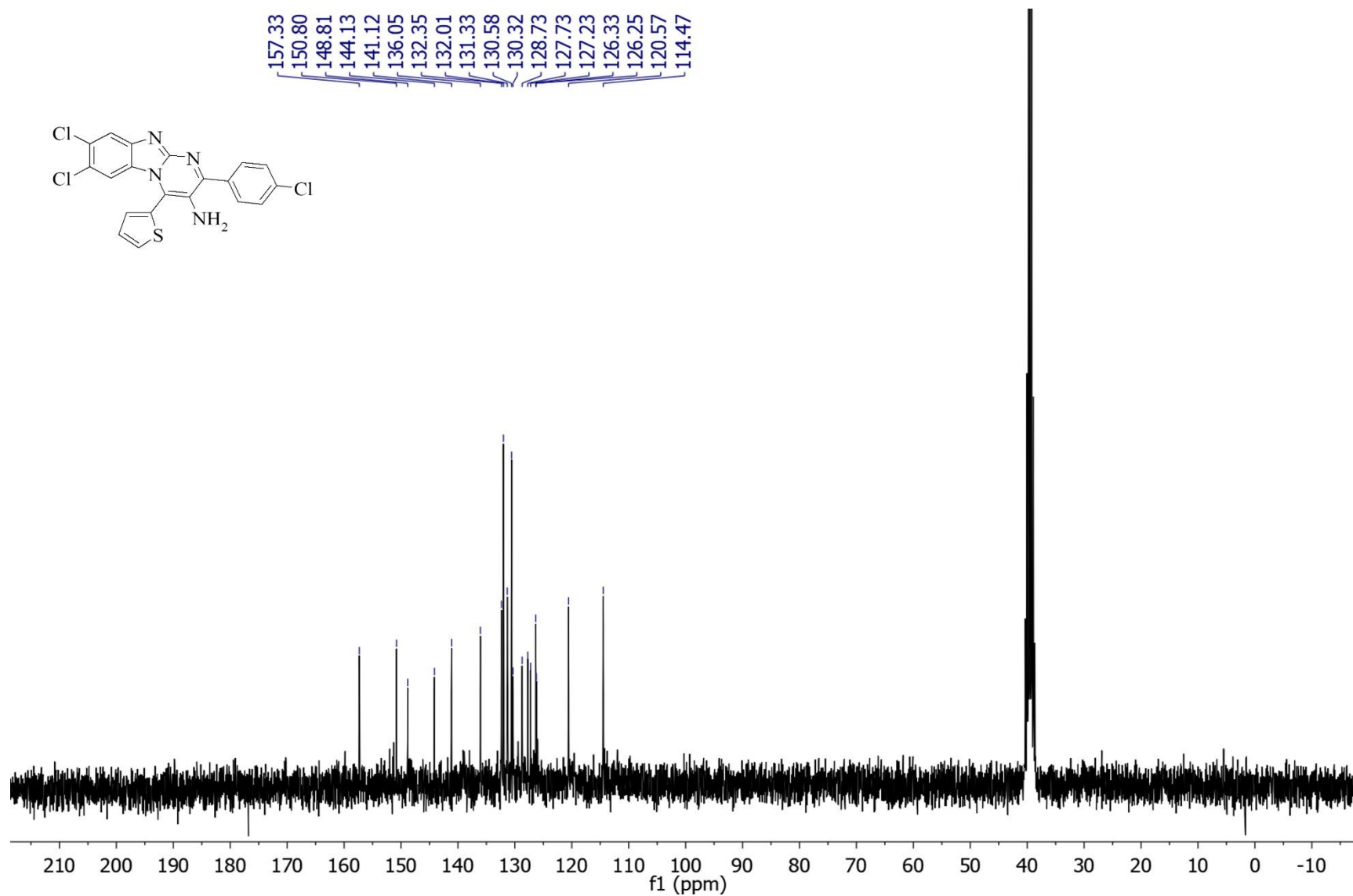
^{13}C NMR spectrum of 7,8-dichloro-2,4-bis-(4-chloro-phenyl)-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ad**)



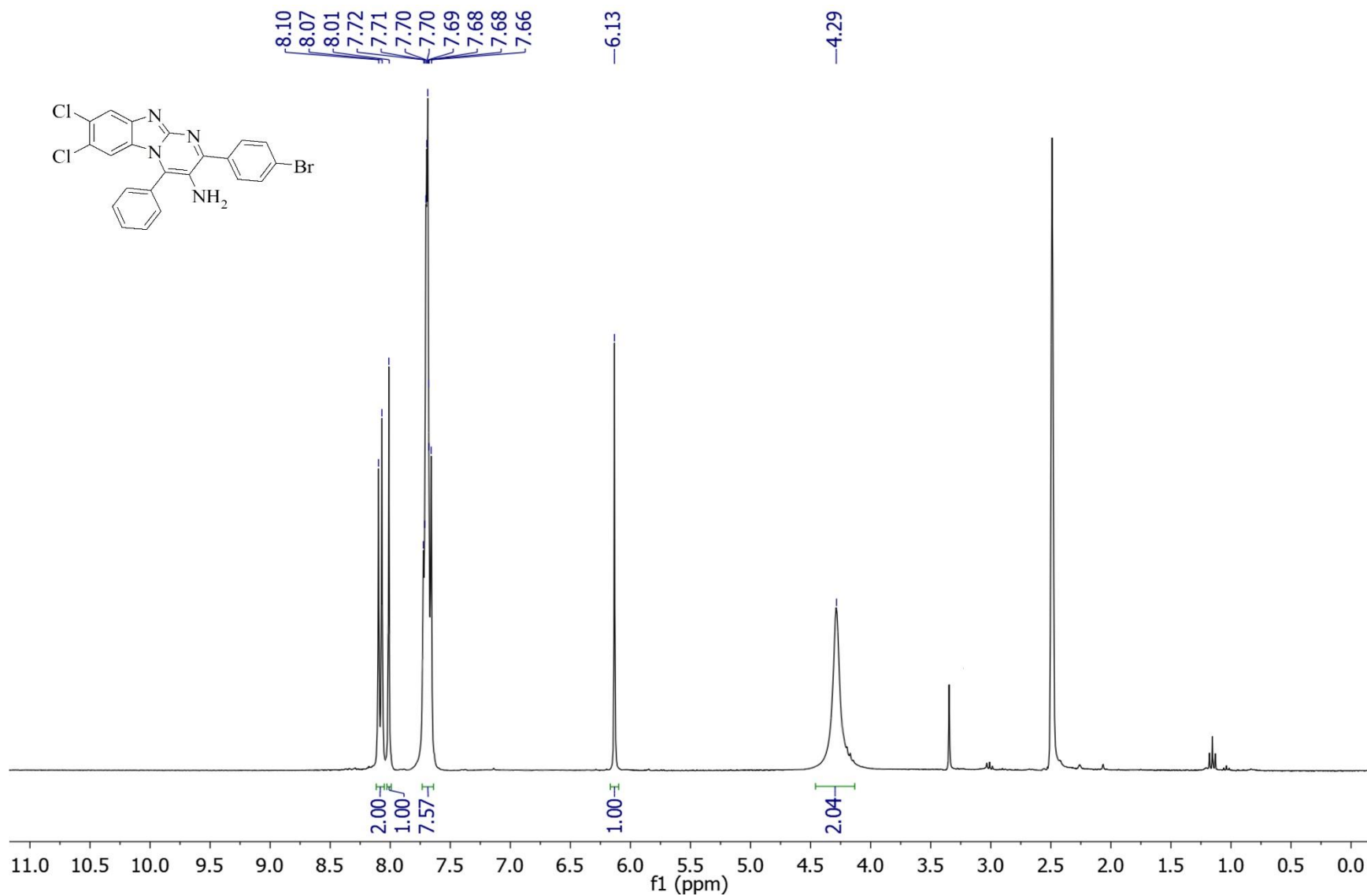
^1H NMR spectrum of 7,8-dichloro-2-(4-chloro-phenyl)-4-thiophen-2-yl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ae**)



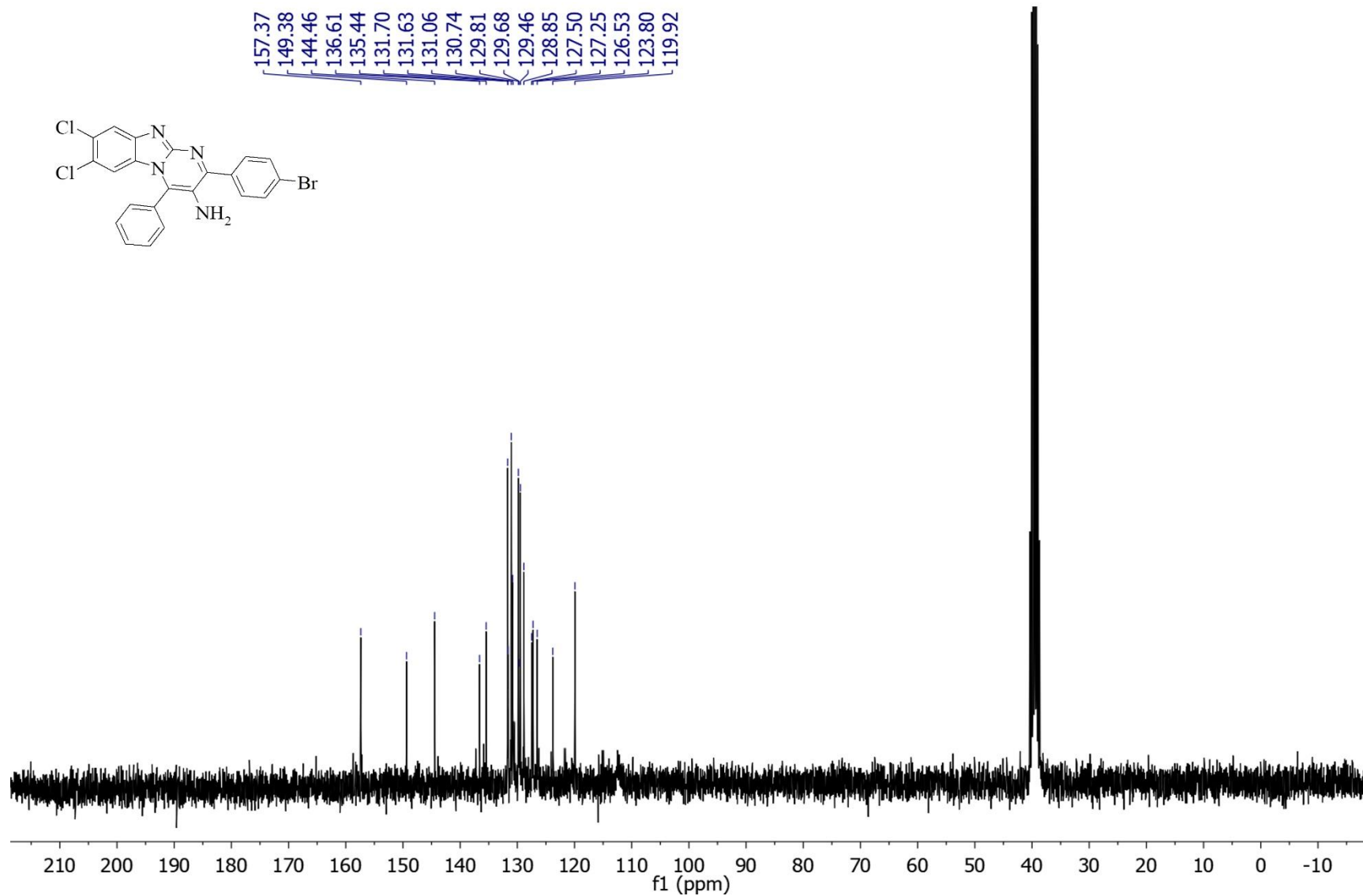
^{13}C NMR spectrum of 7,8-dichloro-2-(4-chloro-phenyl)-4-thiophen-2-yl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ae**)



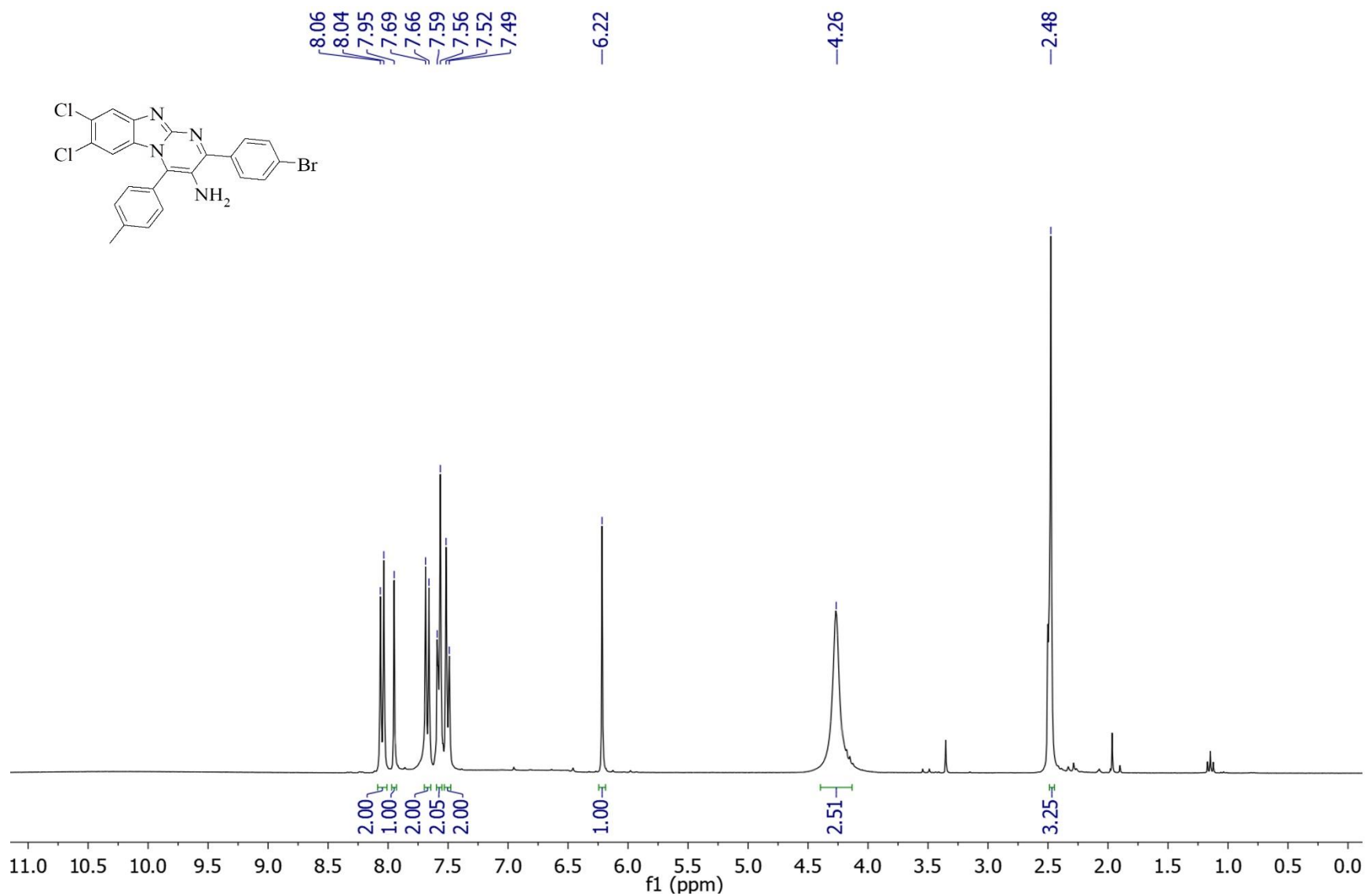
¹H NMR spectrum of 2-(4-bromo-phenyl)-7,8-dichloro-4-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3af**)



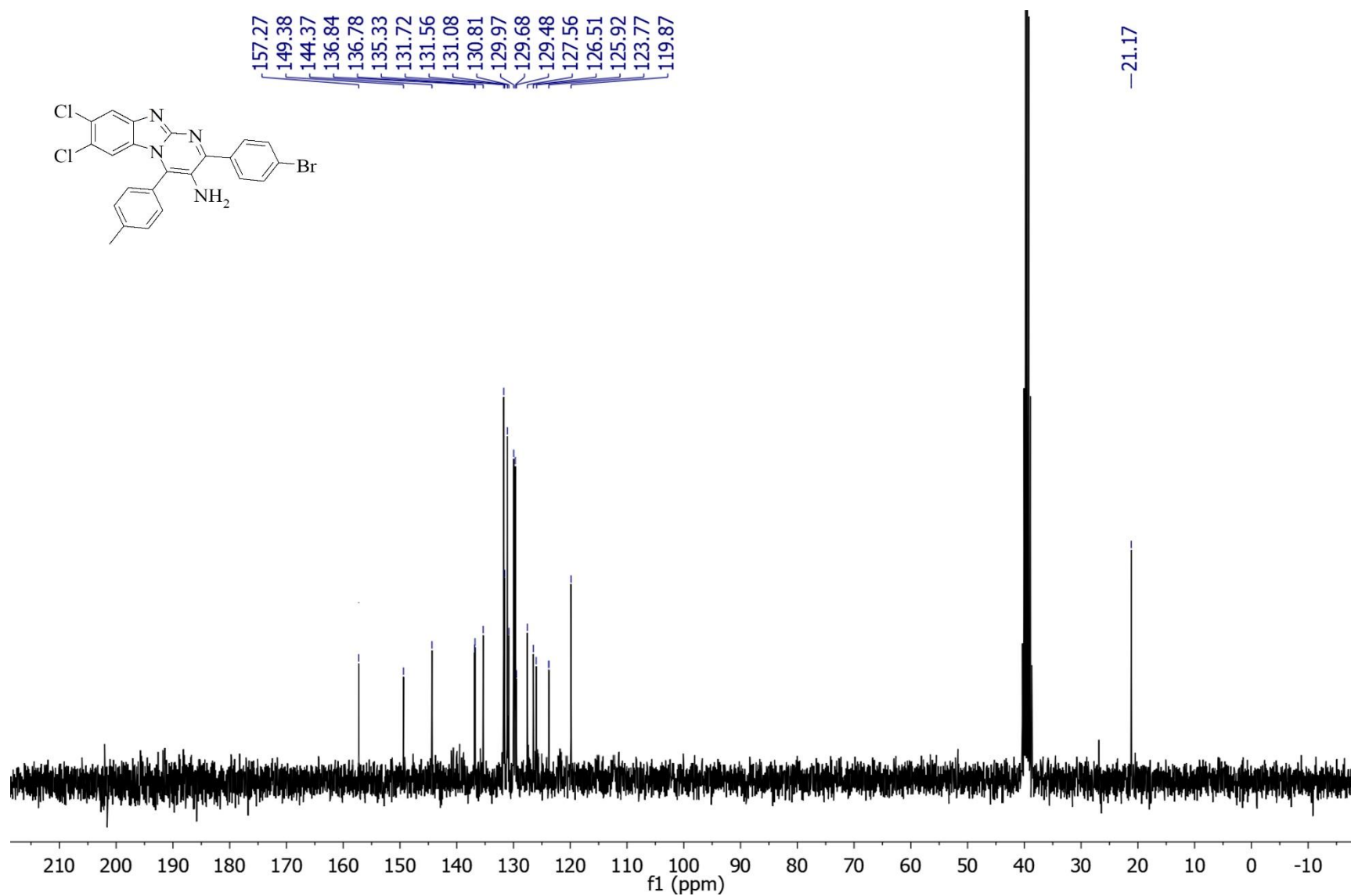
^{13}C NMR spectrum of 2-(4-bromo-phenyl)-7,8-dichloro-4-phenyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3af**)



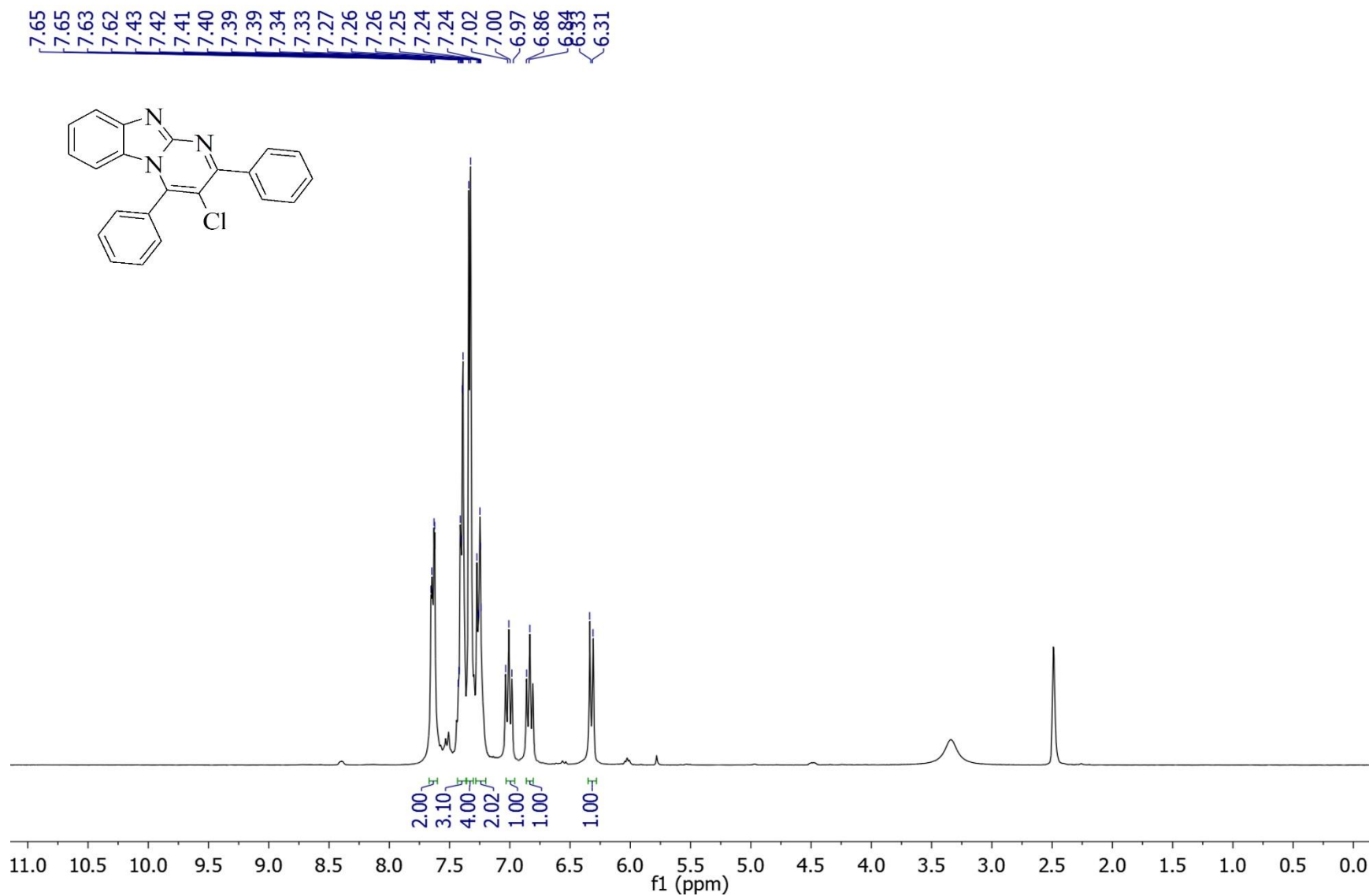
¹H NMR spectrum of 2-(4-bromo-phenyl)-7,8-dichloro-4-p-tolyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ag**)



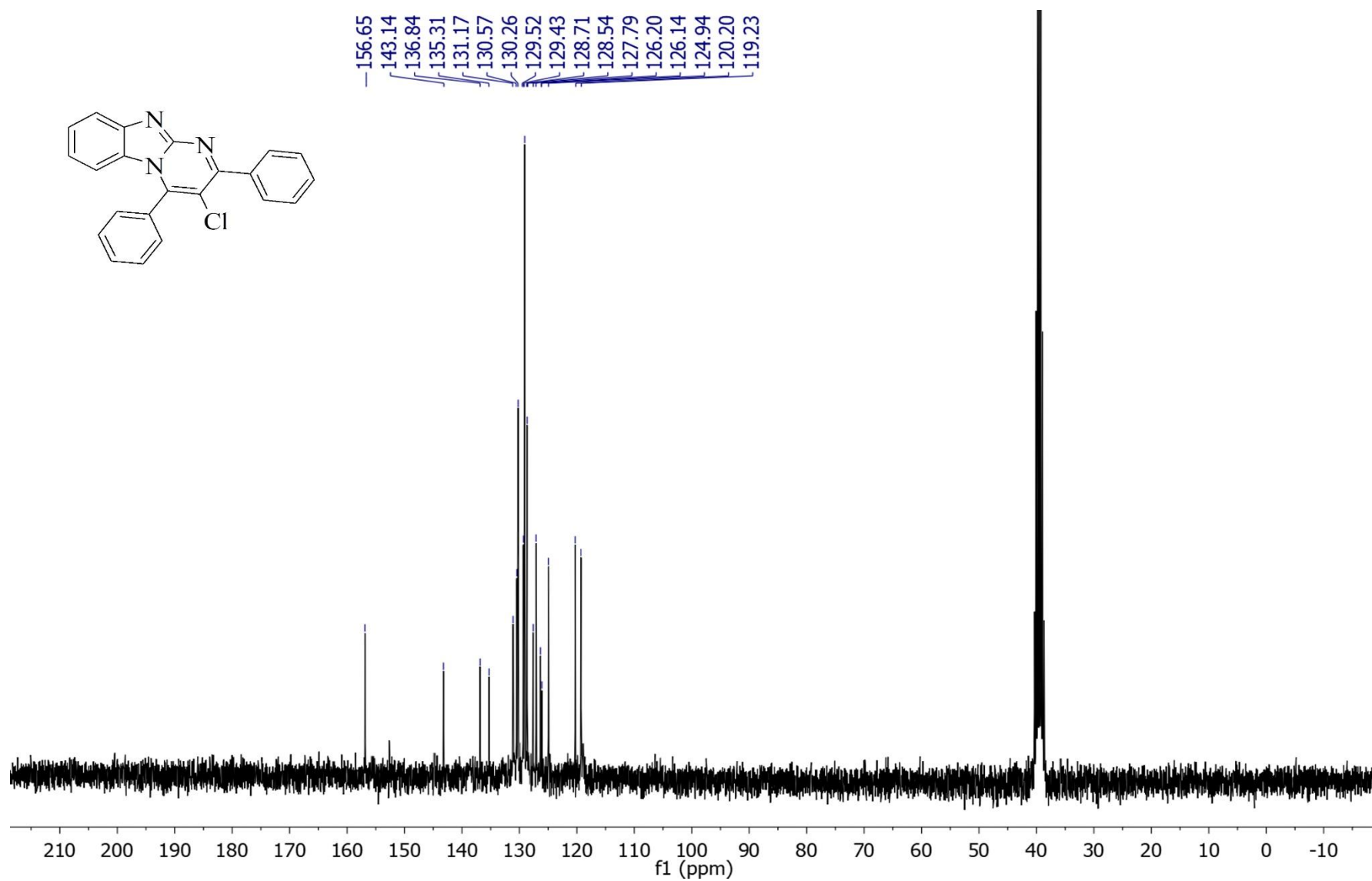
^{13}C NMR spectrum of 2-(4-bromo-phenyl)-7,8-dichloro-4-p-tolyl-benzo[4,5]imidazo[1,2-a]pyrimidin-3-ylamine (**3ag**)



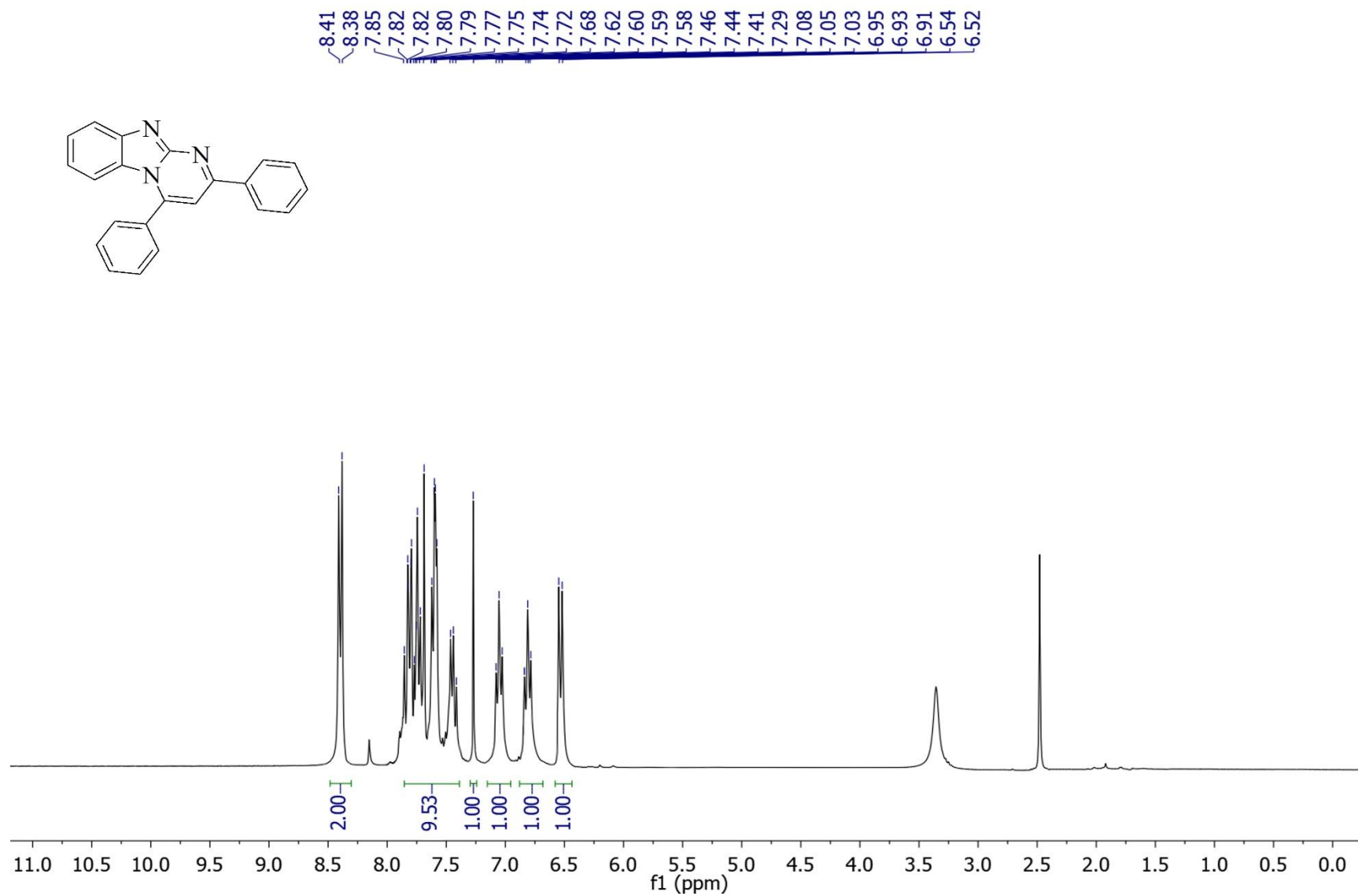
¹H NMR spectrum of 3-chloro-2,4-diphenyl-benzo[4,5]imidazo[1,2-a]pyrimidine (**4a**)



¹³C NMR spectrum of 3-chloro-2,4-diphenyl-benzo[4,5]imidazo[1,2-a]pyrimidine (**4a**)



¹H NMR spectrum of 2,4-diphenyl-benzo[4,5]imidazo[1,2-a]pyrimidine (**6a**)



¹³C NMR spectrum of 2,4-diphenyl-benzo[4,5]imidazo[1,2-a]pyrimidine (**6a**)

