Přílohy disertační práce

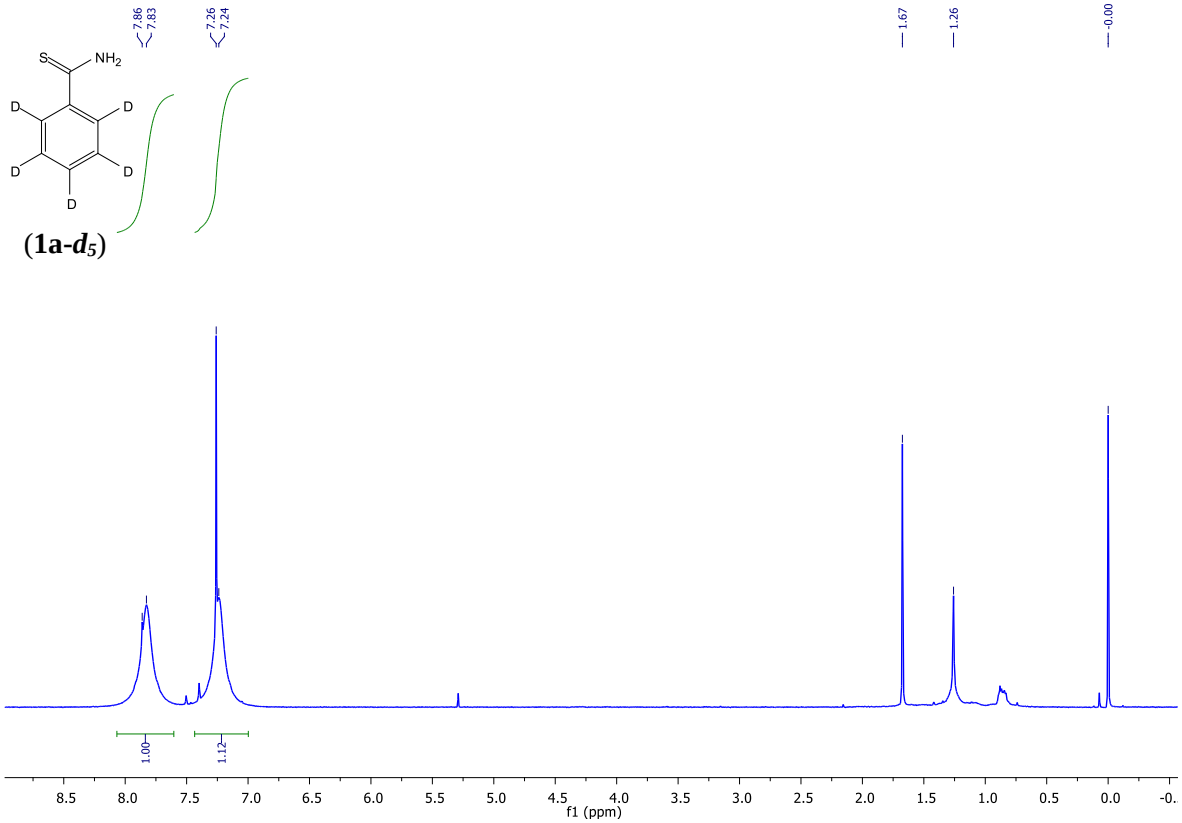
Využití *Eschenmoserovy* reakce při syntéze biologicky aktivních sloučenin

Autor: Ing. Lukáš Marek

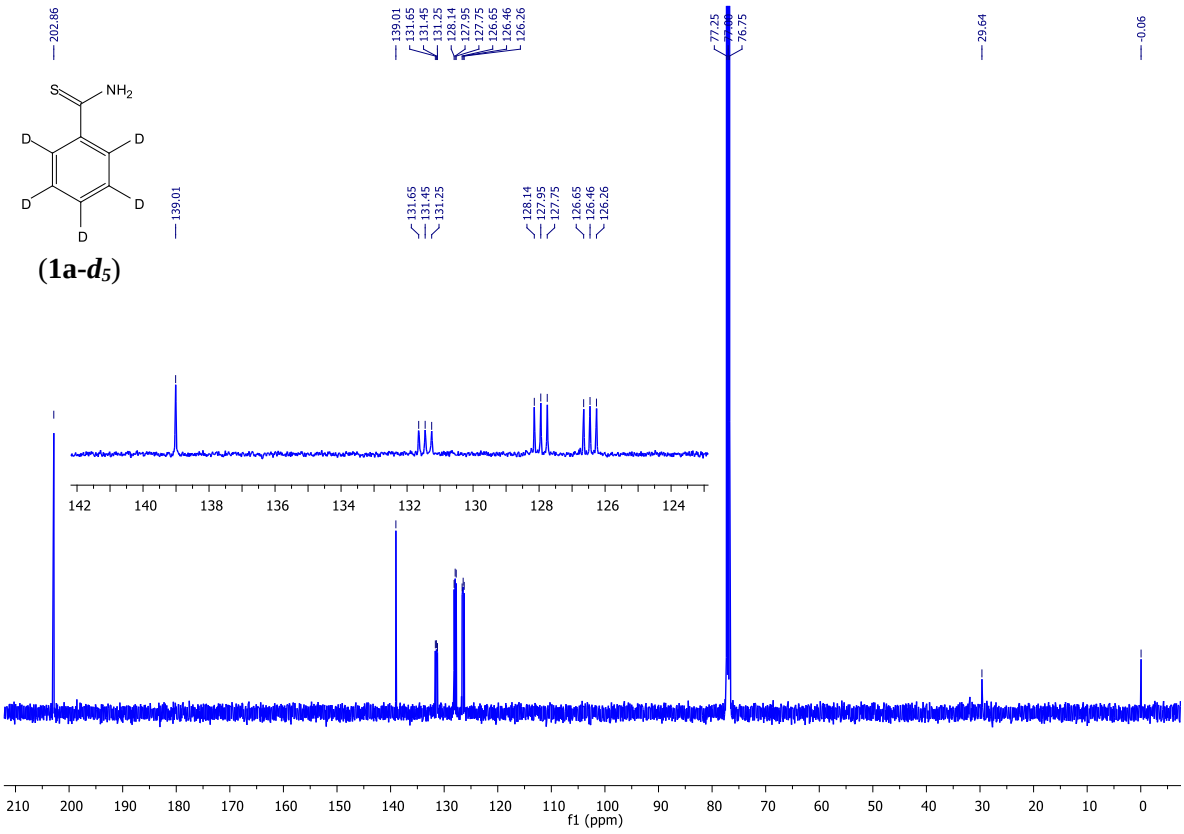
Vedoucí práce: prof. Ing. Jiří Hanusek, Ph.D.

2024

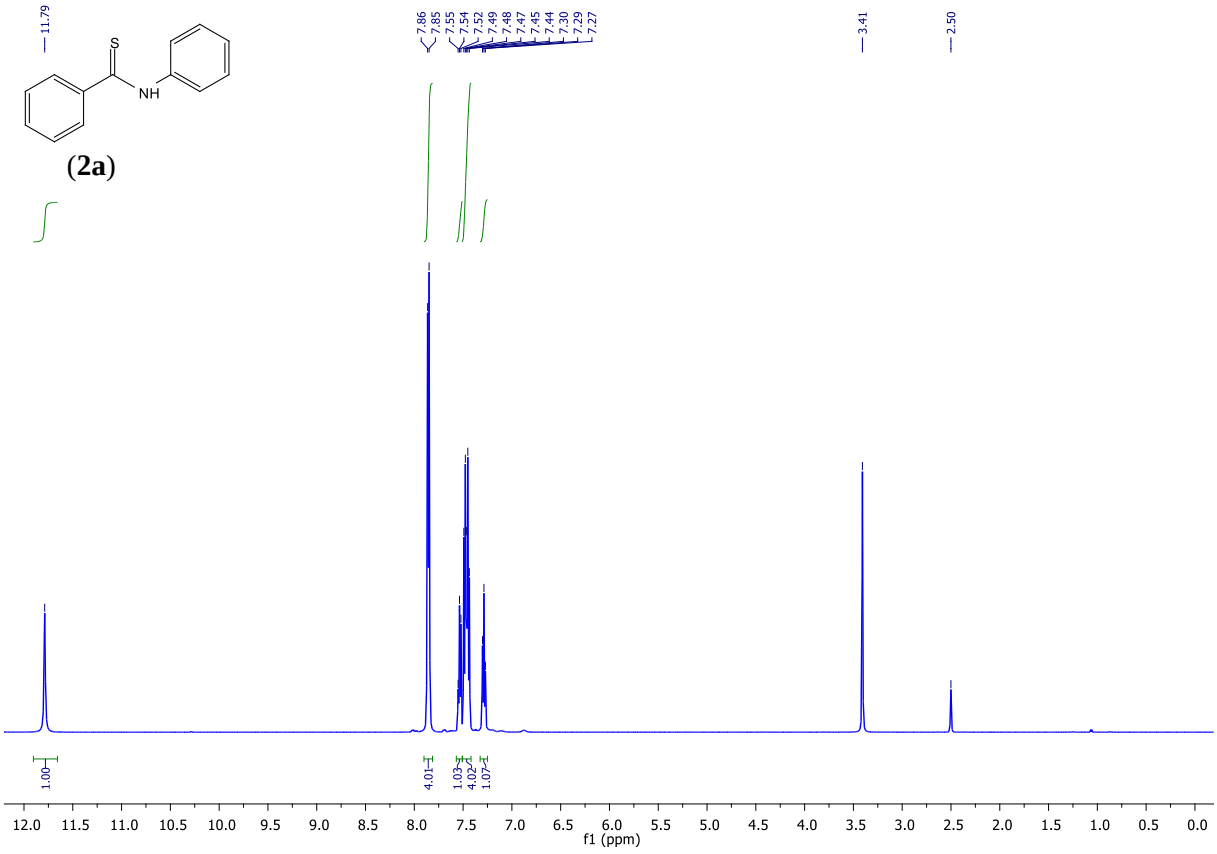
NMR spektra



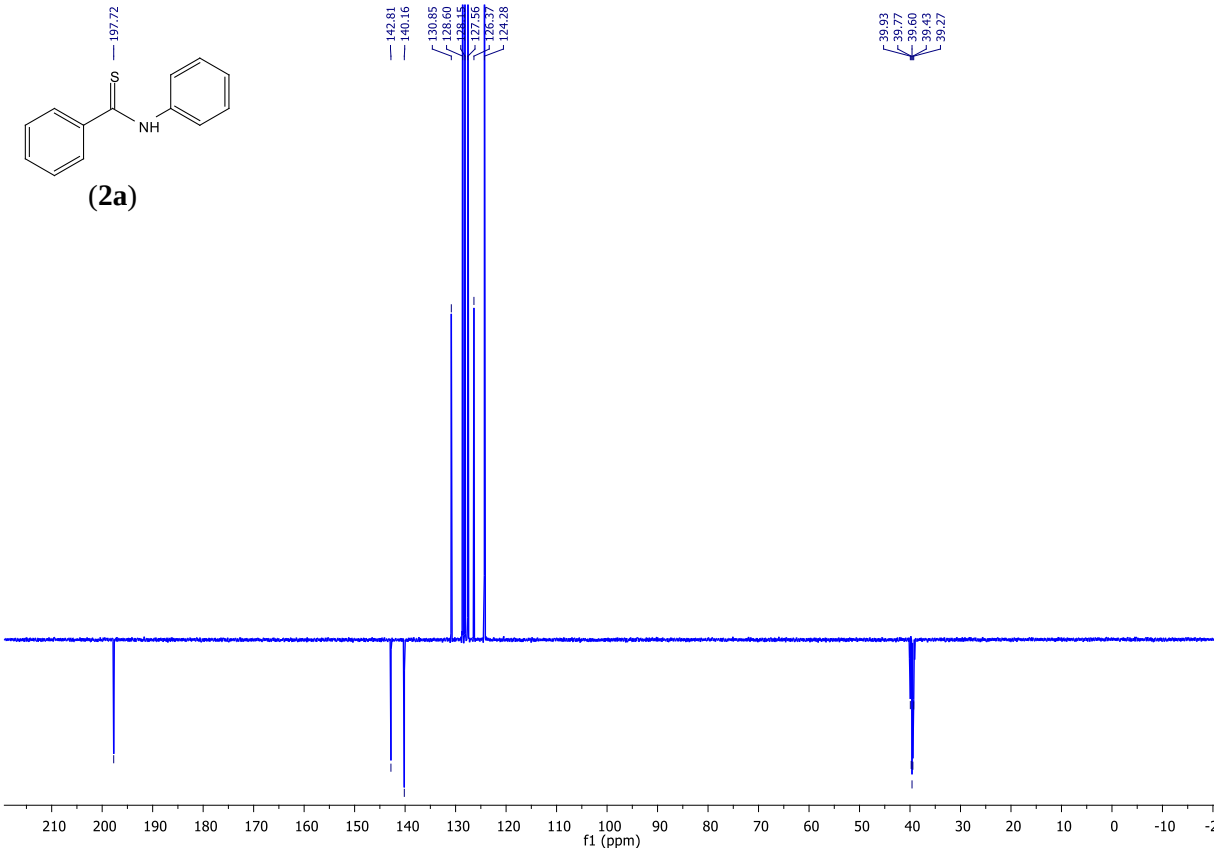
^{1}H NMR spektrum látky **1a-*d*$_5$**.



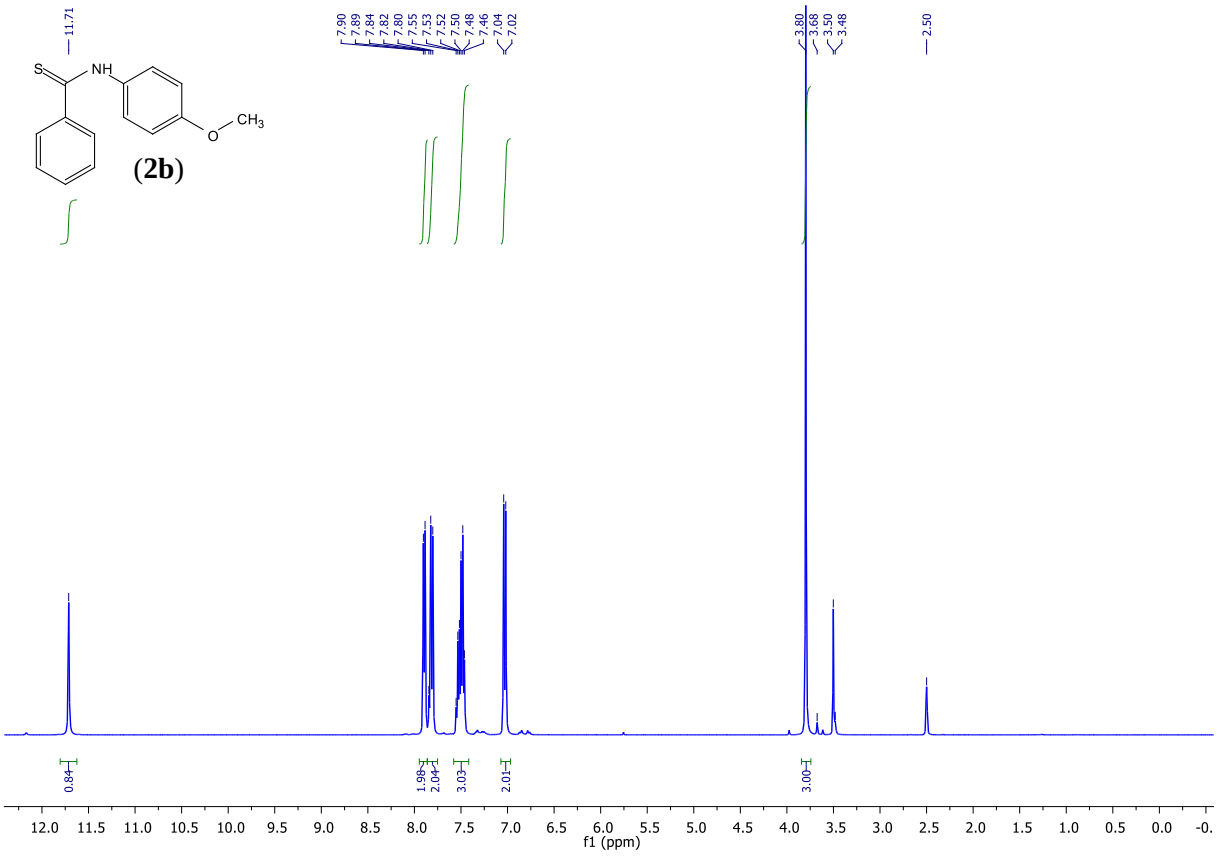
^{13}C NMR spektrum látky **1a-*d*$_5$**.



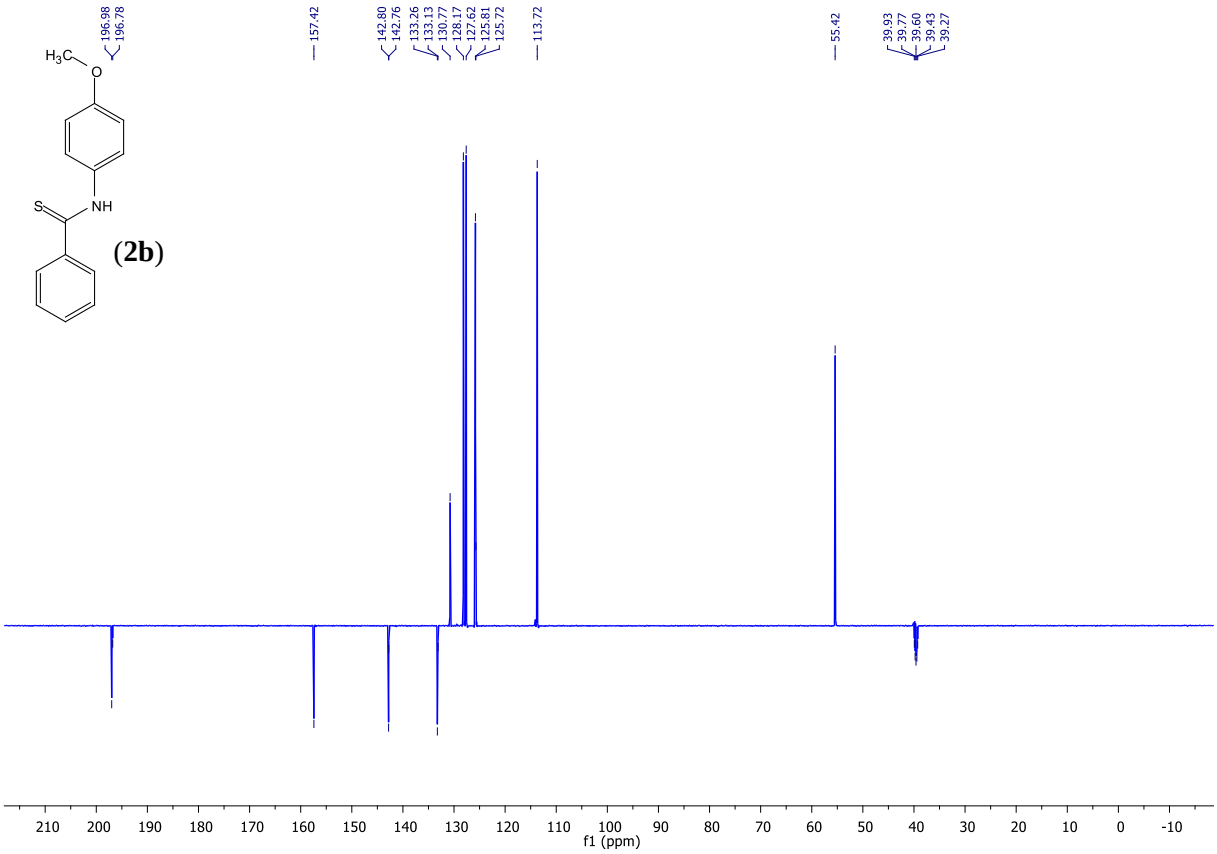
^{1}H NMR spektrum látky **2a**.



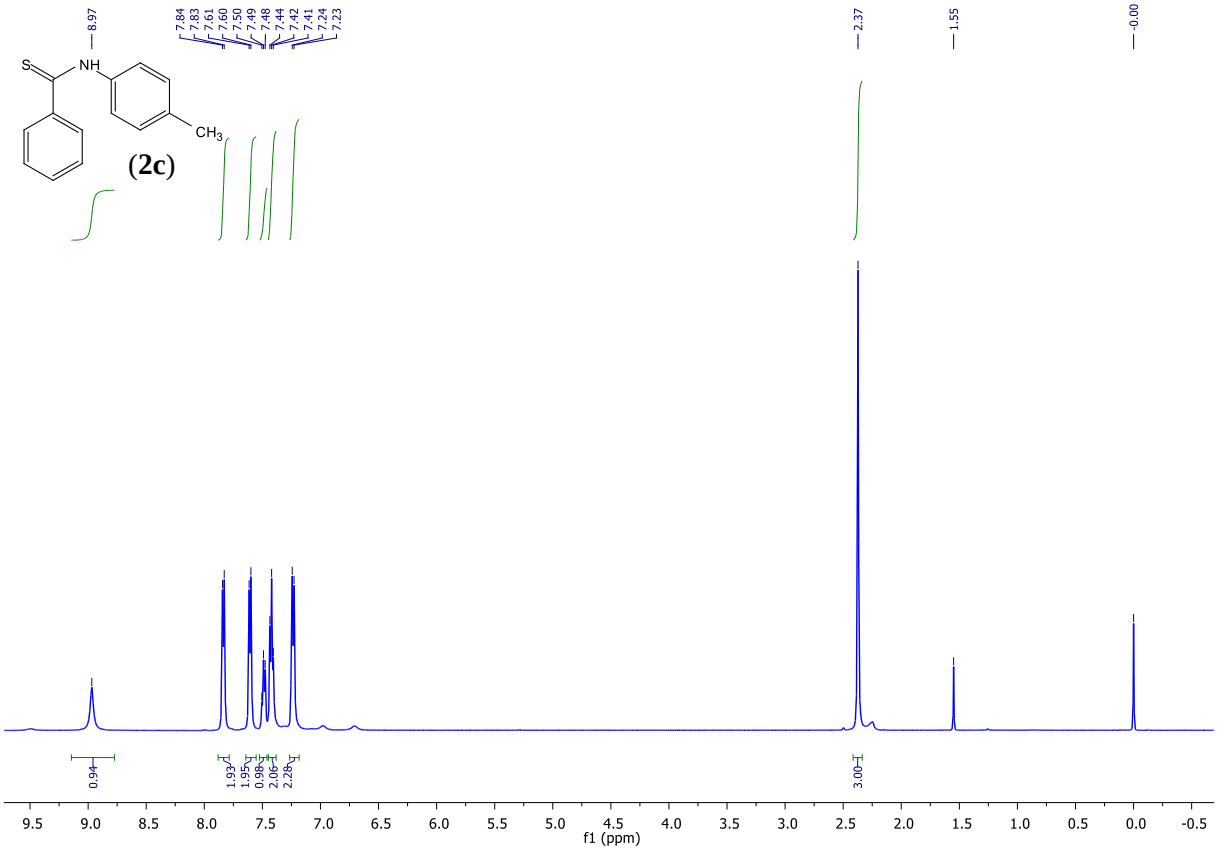
^{13}C NMR-APT spektrum látky **2a**.



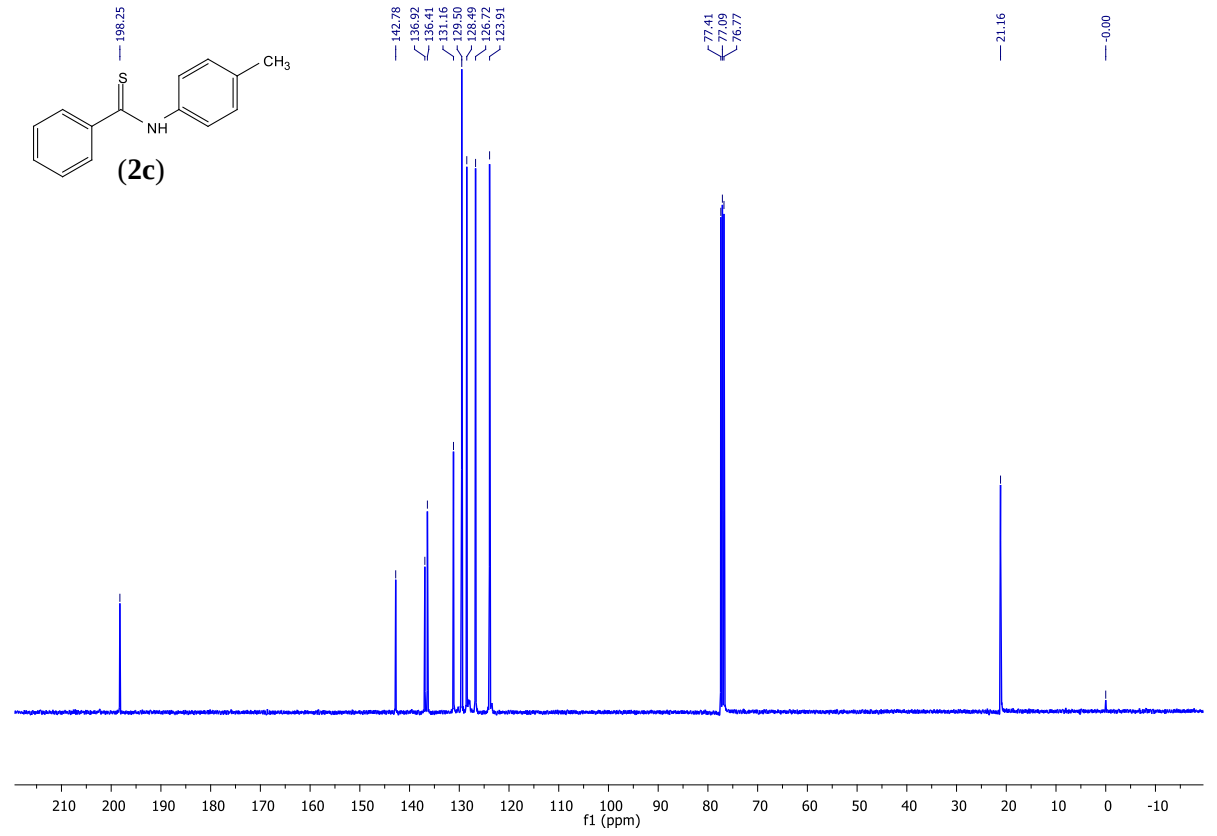
^{1}H NMR spektrum látky **2b**.



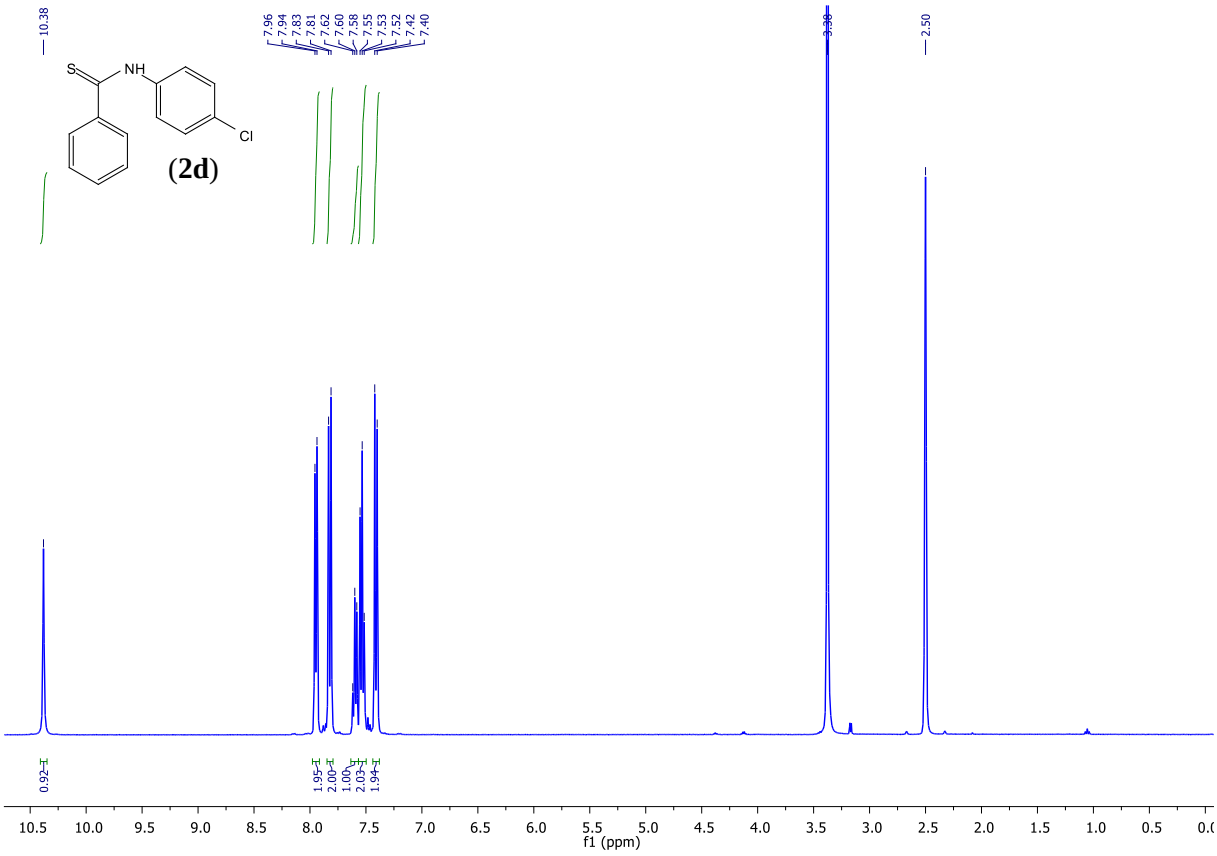
^{13}C NMR-APT spektrum látky **2b**.



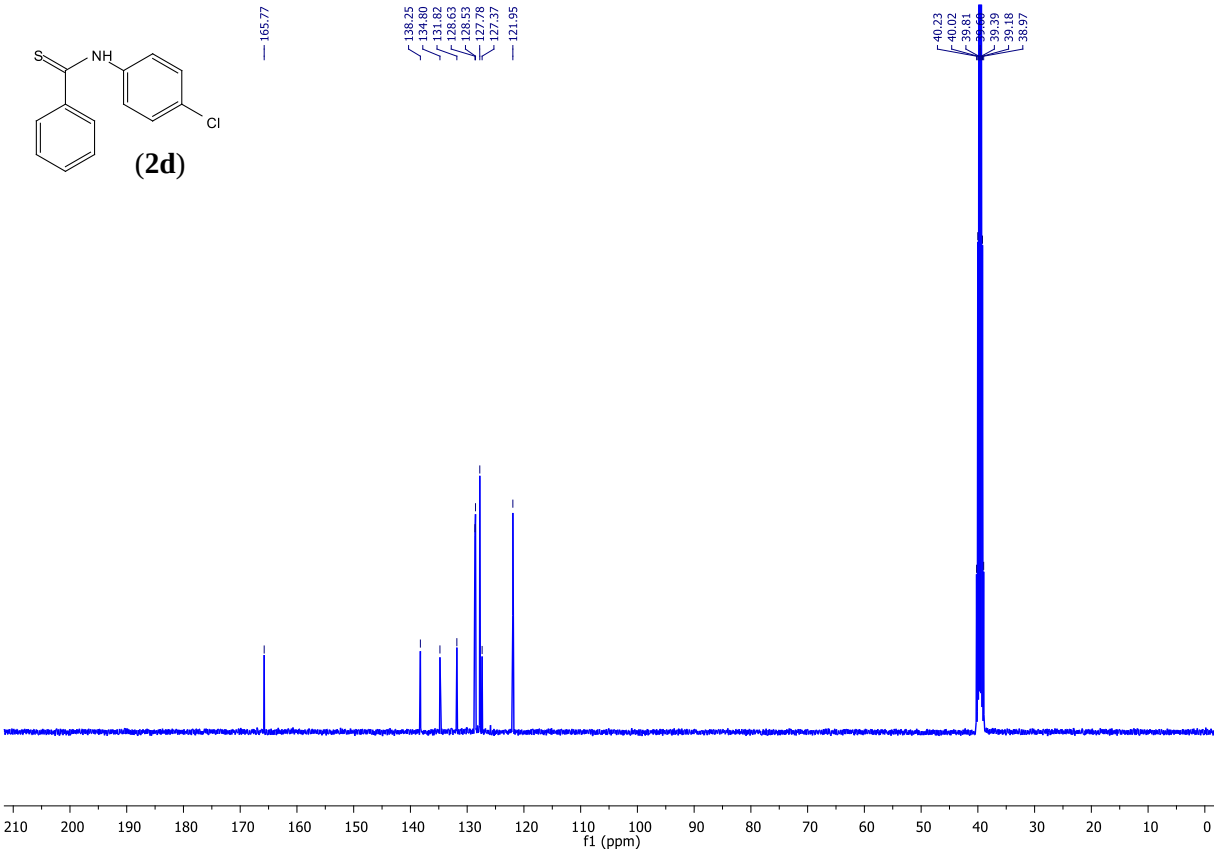
^{1}H NMR spektrum látky **2c**.



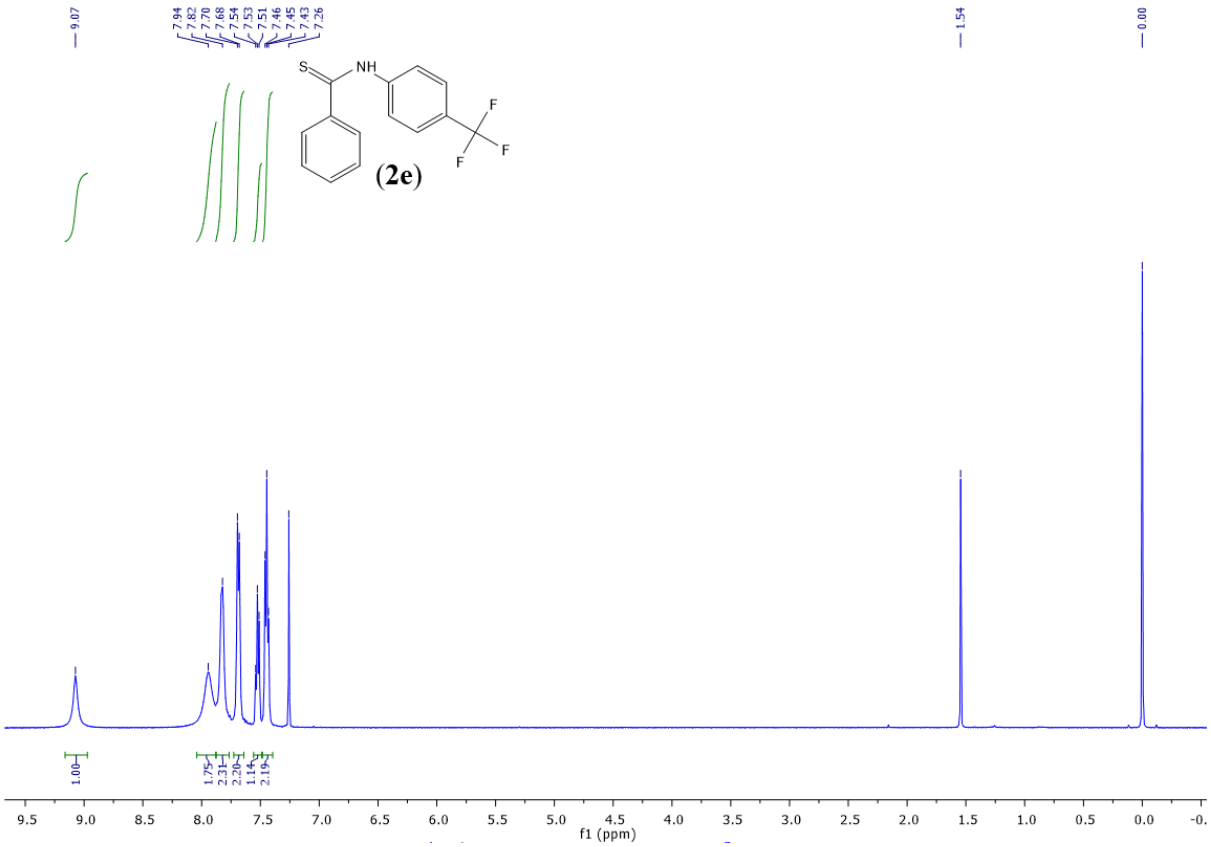
^{13}C NMR spektrum látky **2c**.



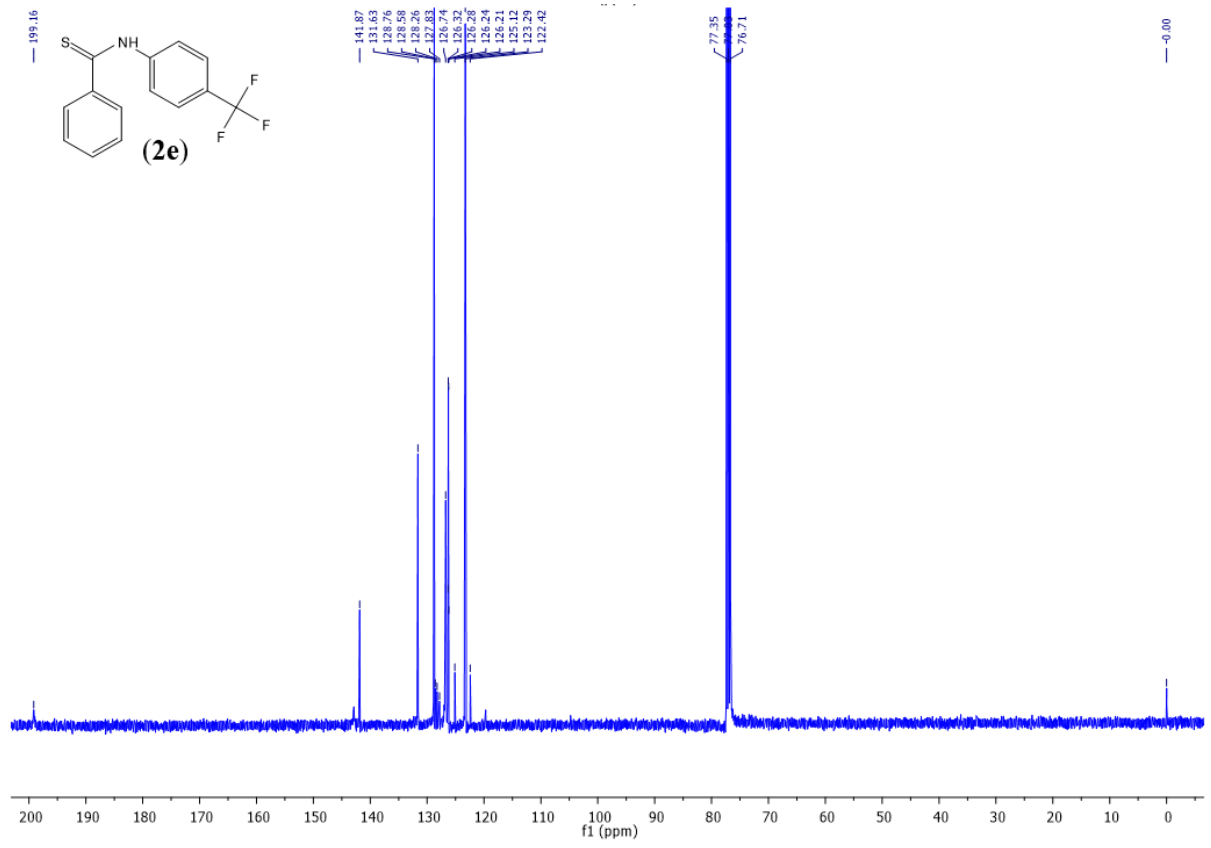
^{1}H NMR spektrum látky **2d**.



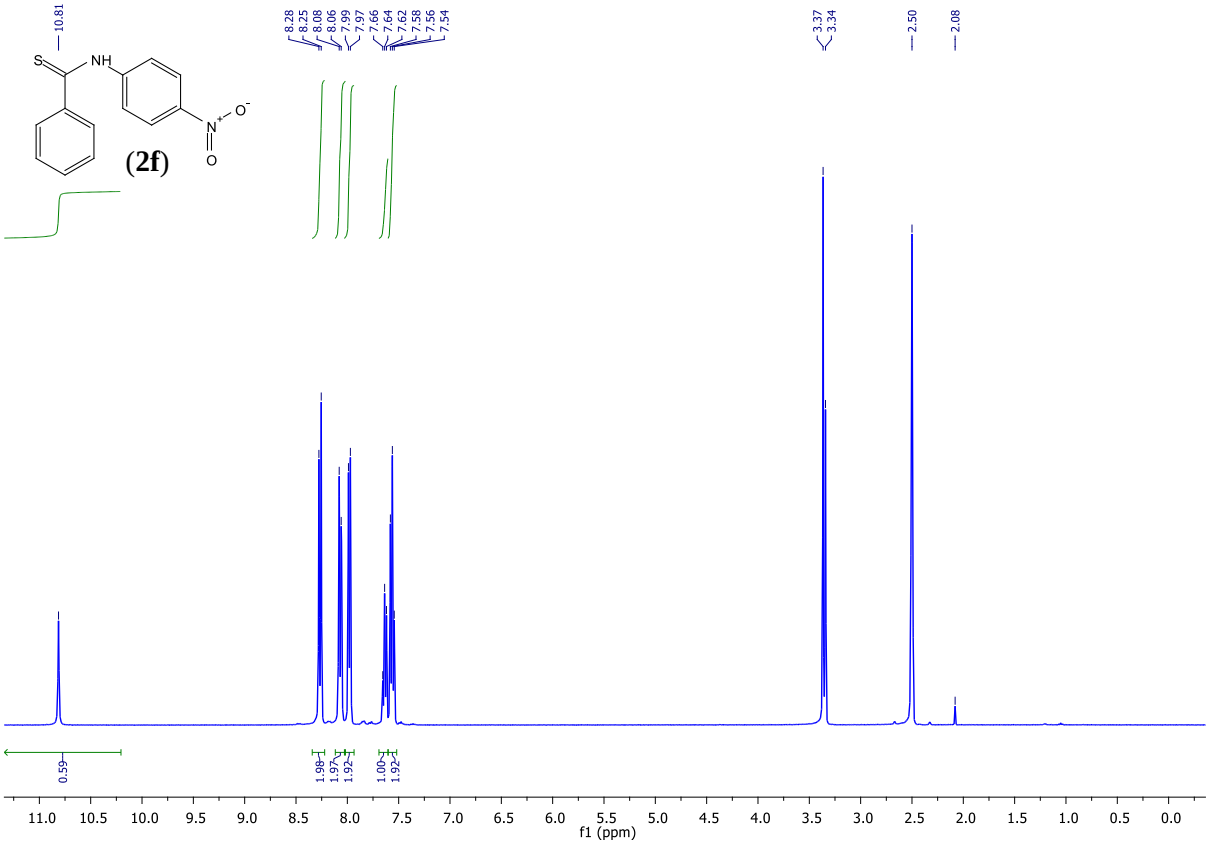
^{13}C NMR spektrum látky **2d**.



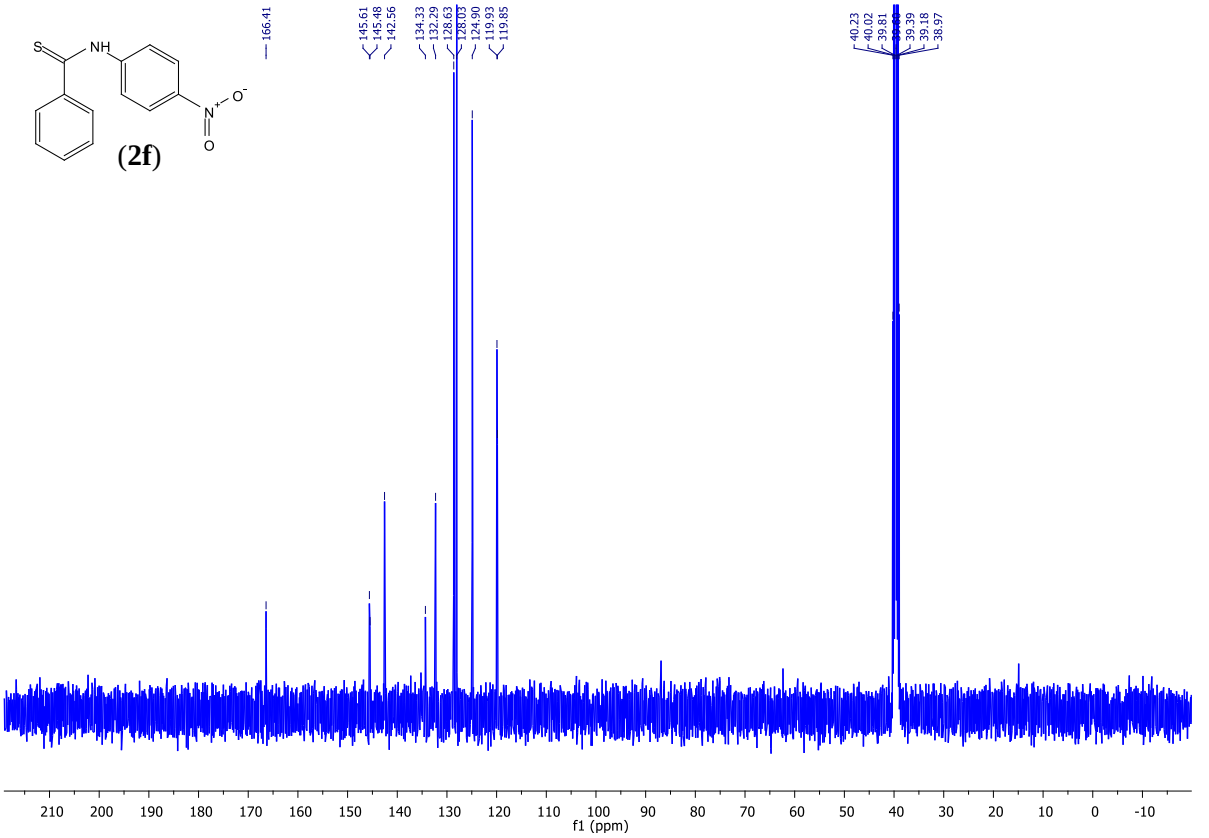
^{1}H NMR spektrum látky **2e**.



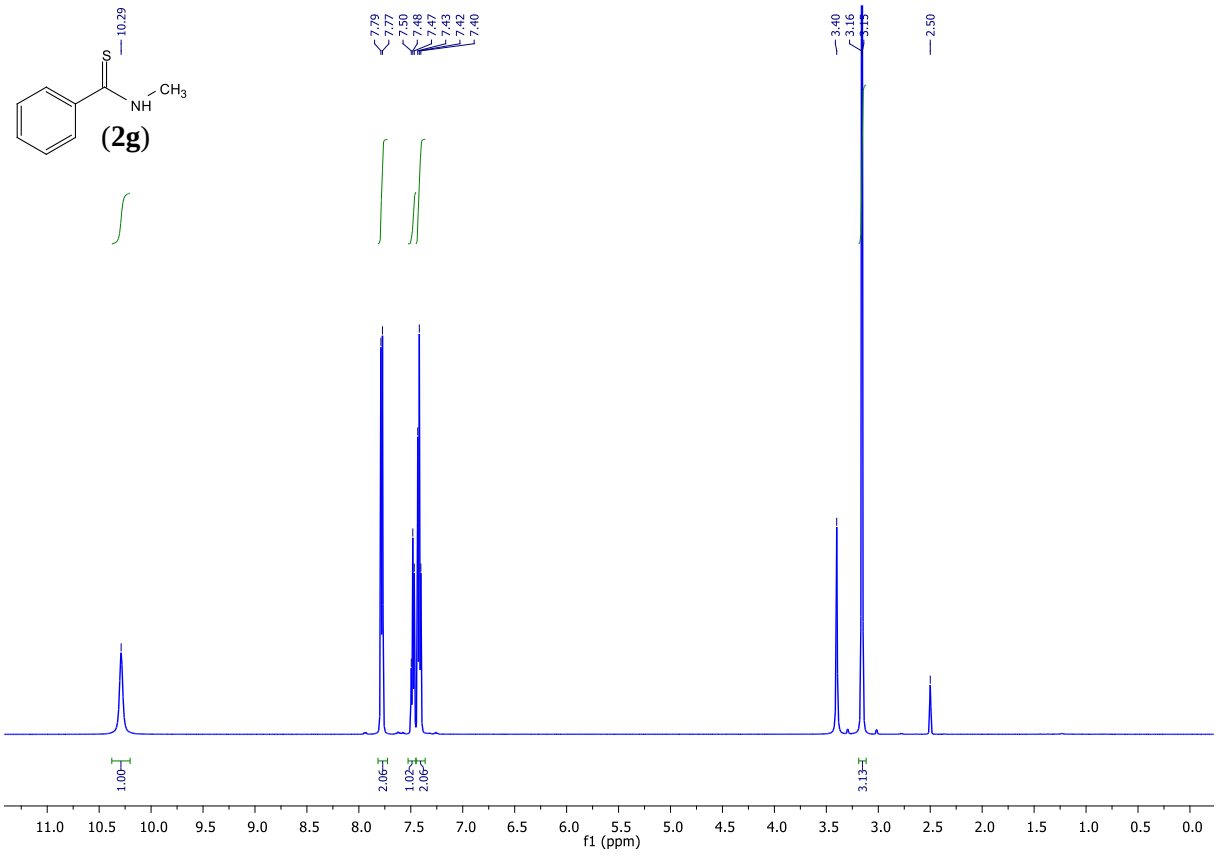
^{13}C NMR spektrum látky **2e**.



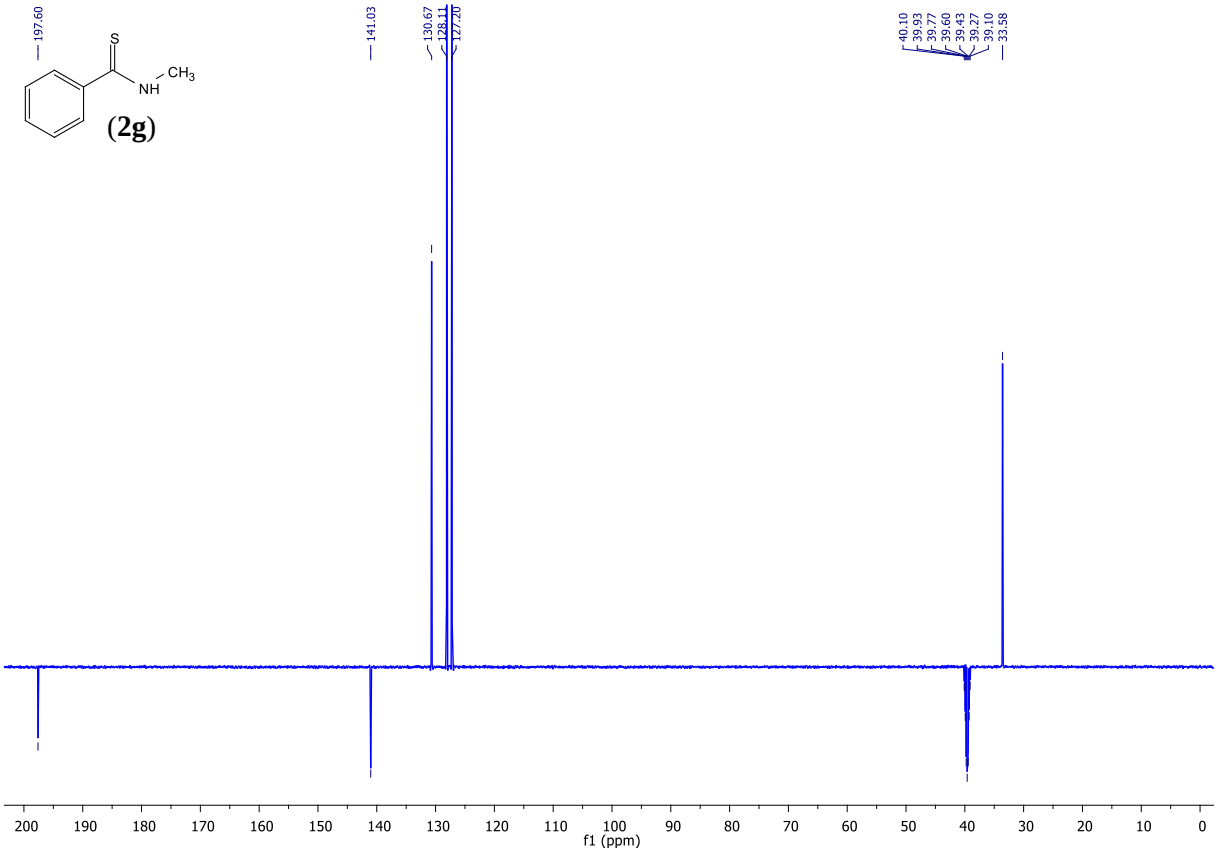
^{1}H NMR spektrum látky **2f**.



^{13}C NMR spektrum látky **2f**.



^{1}H NMR spektrum látky **2g**.



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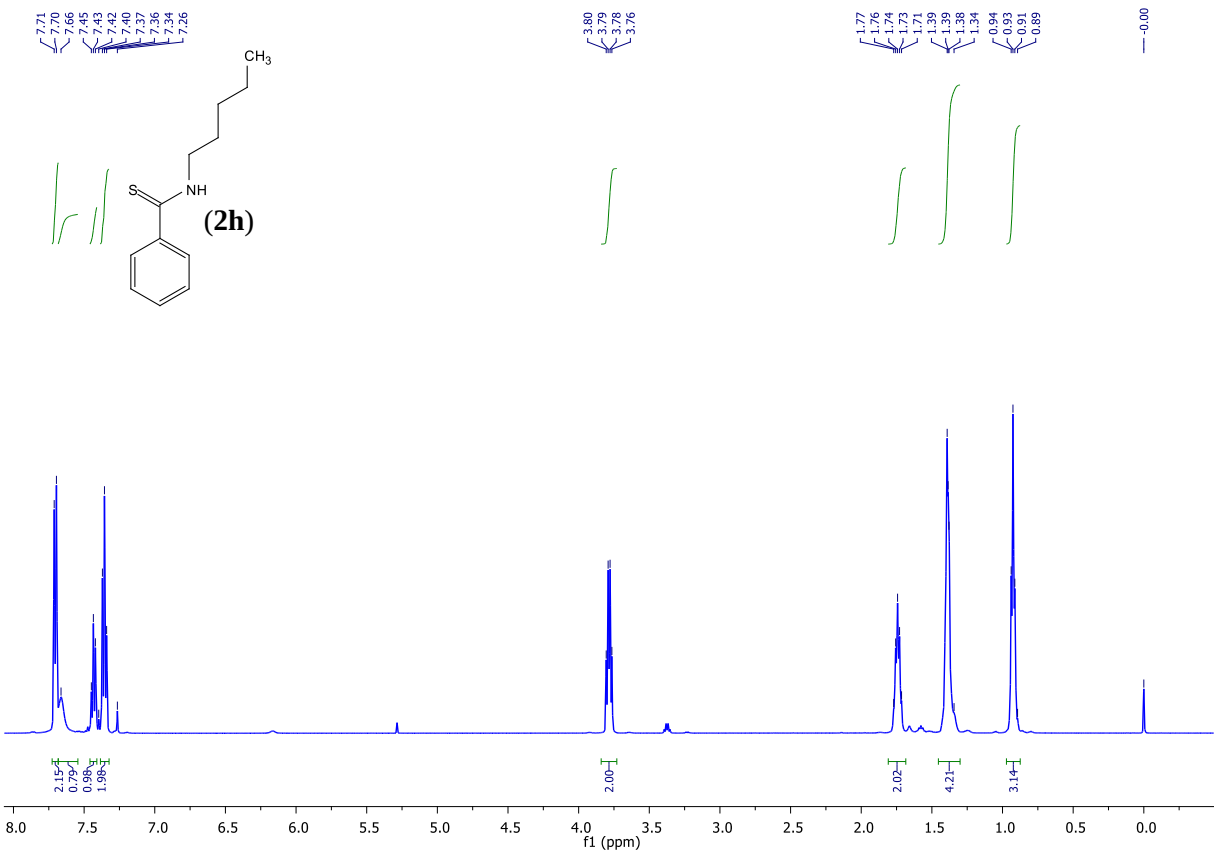

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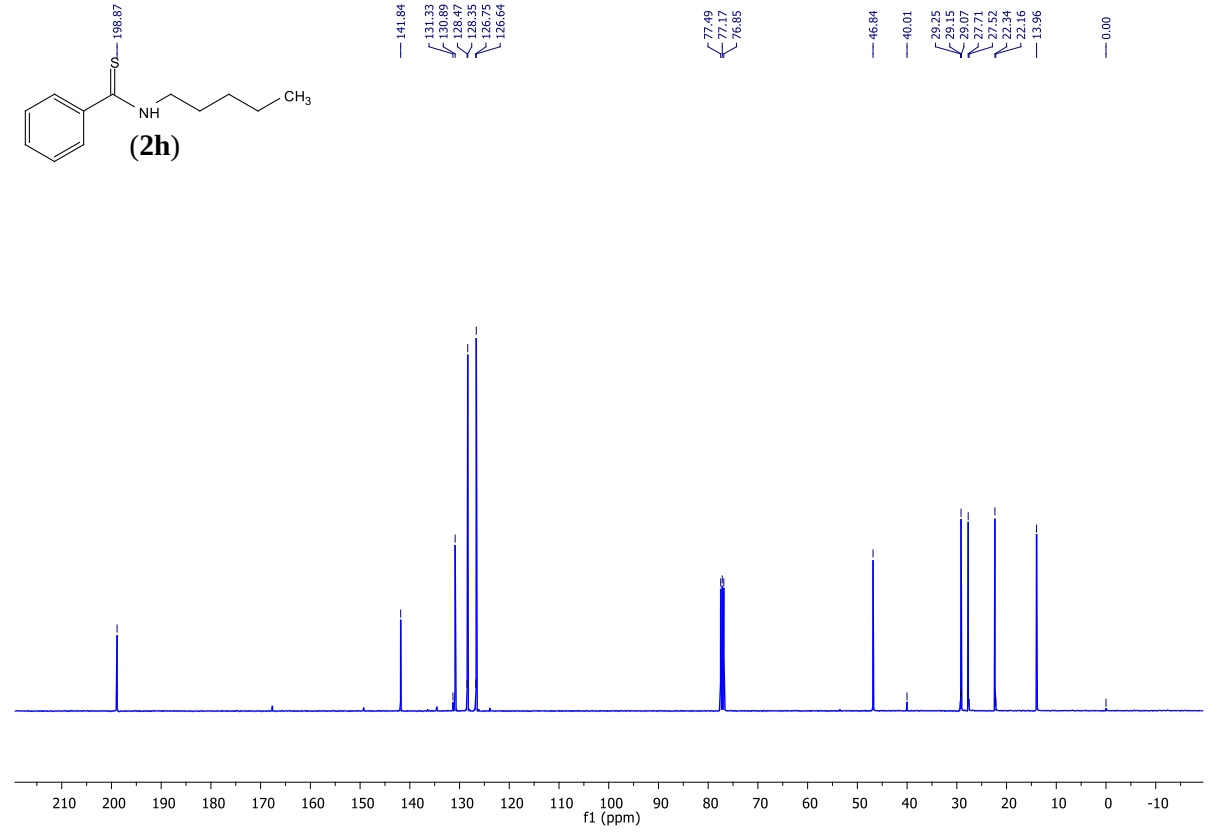

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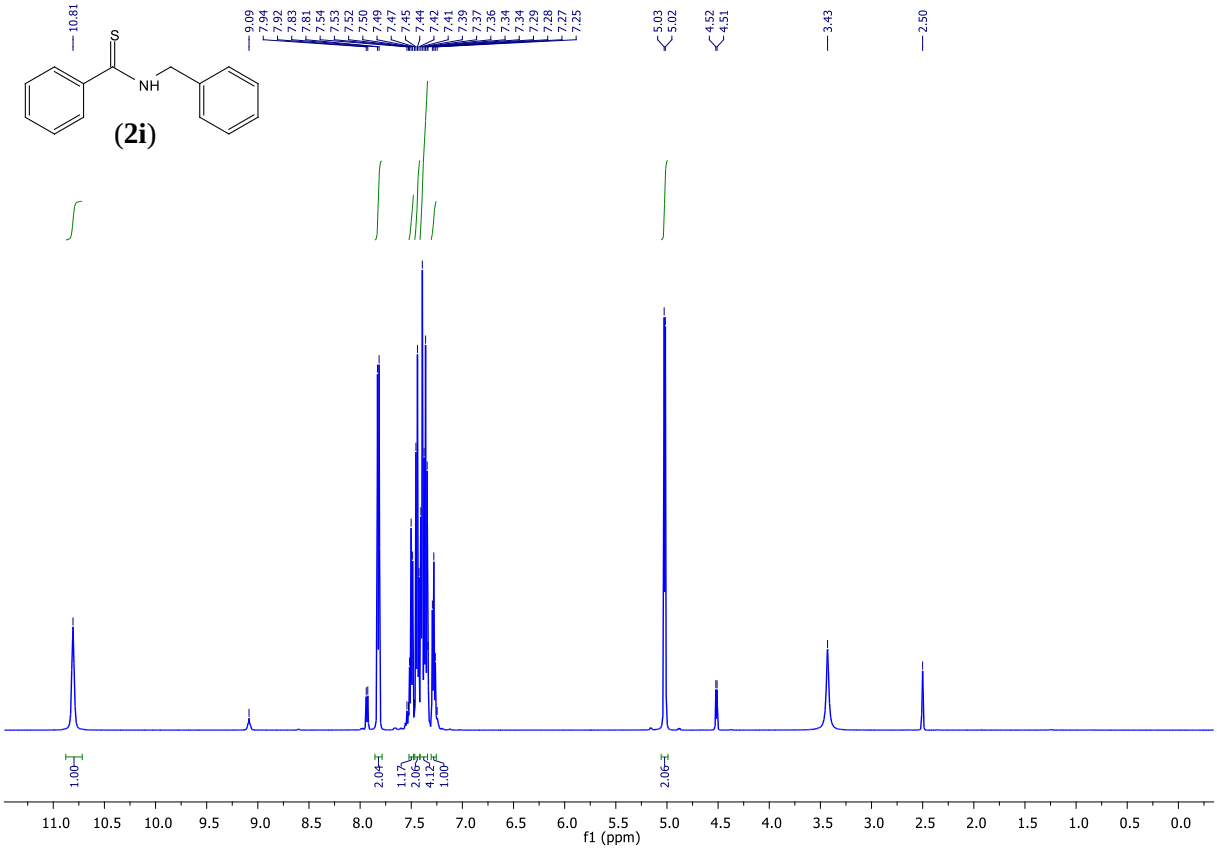
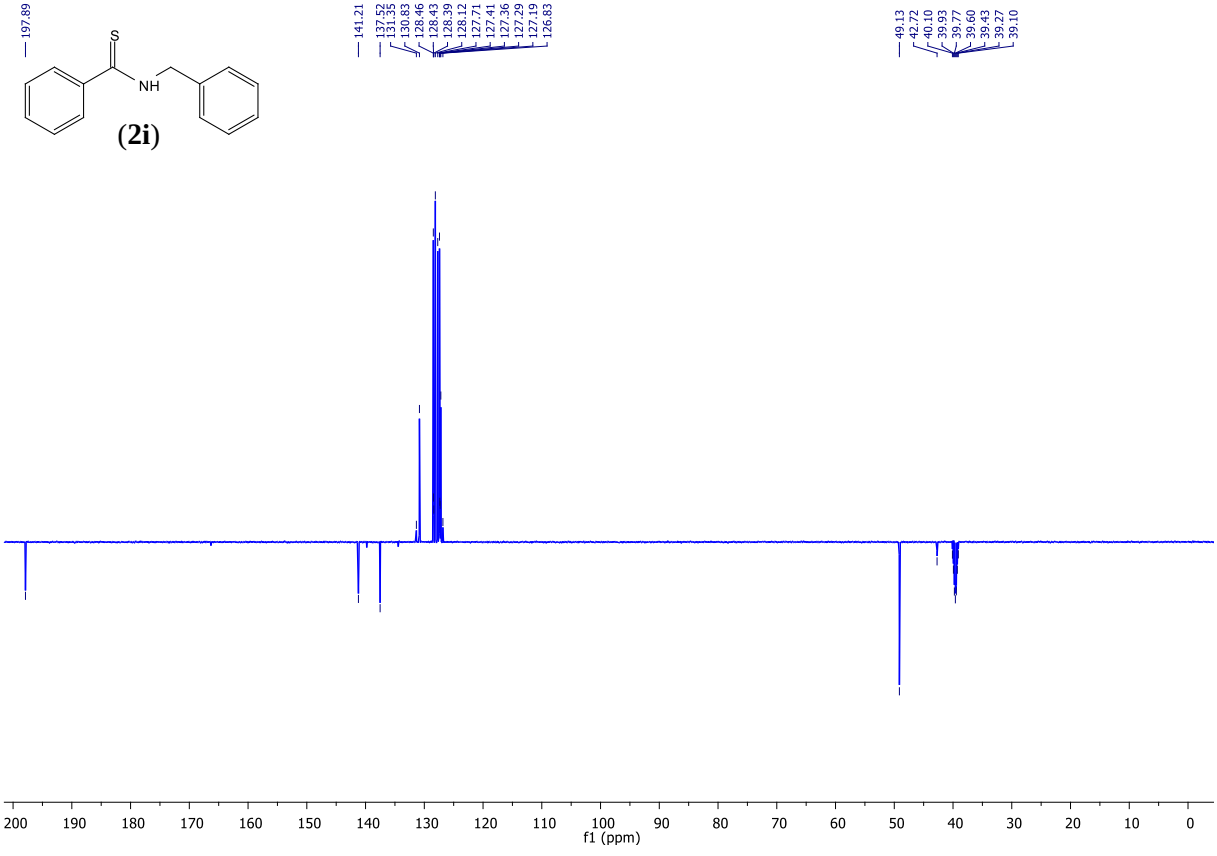
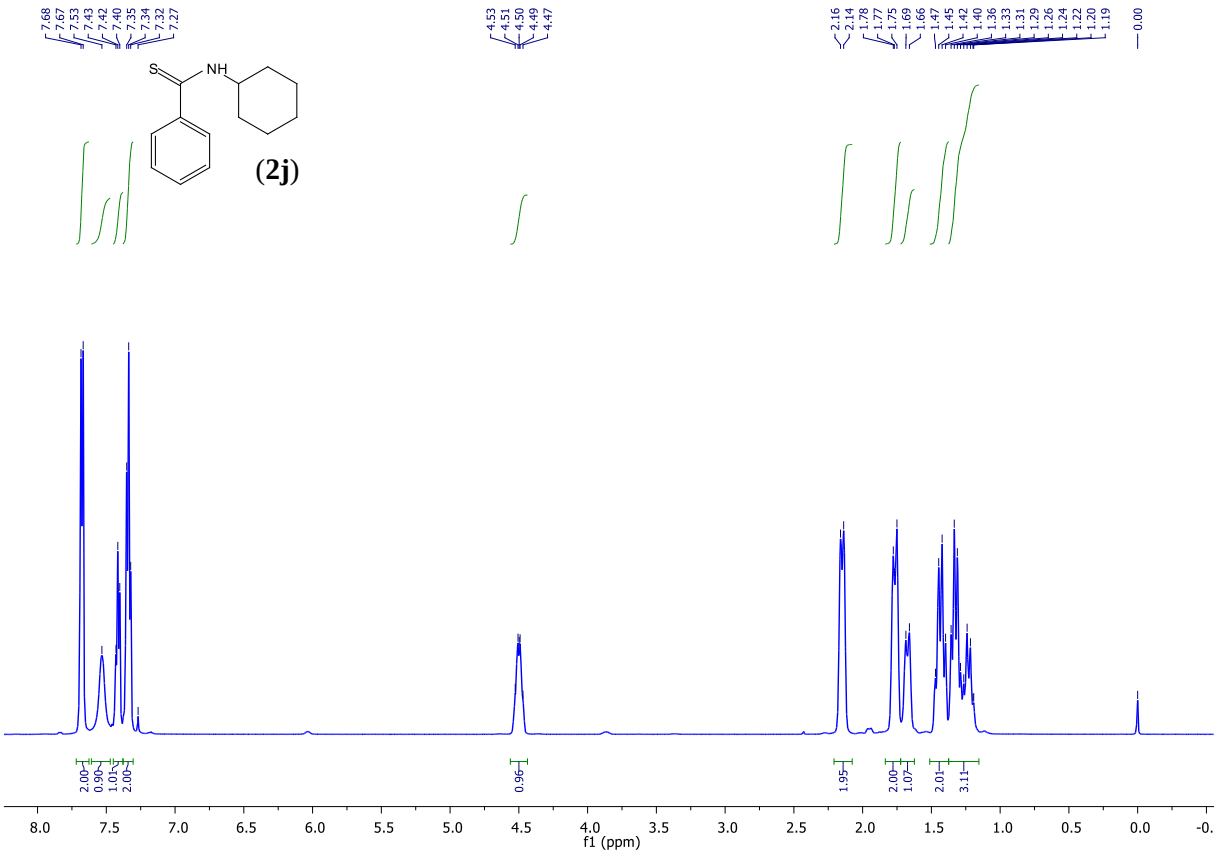


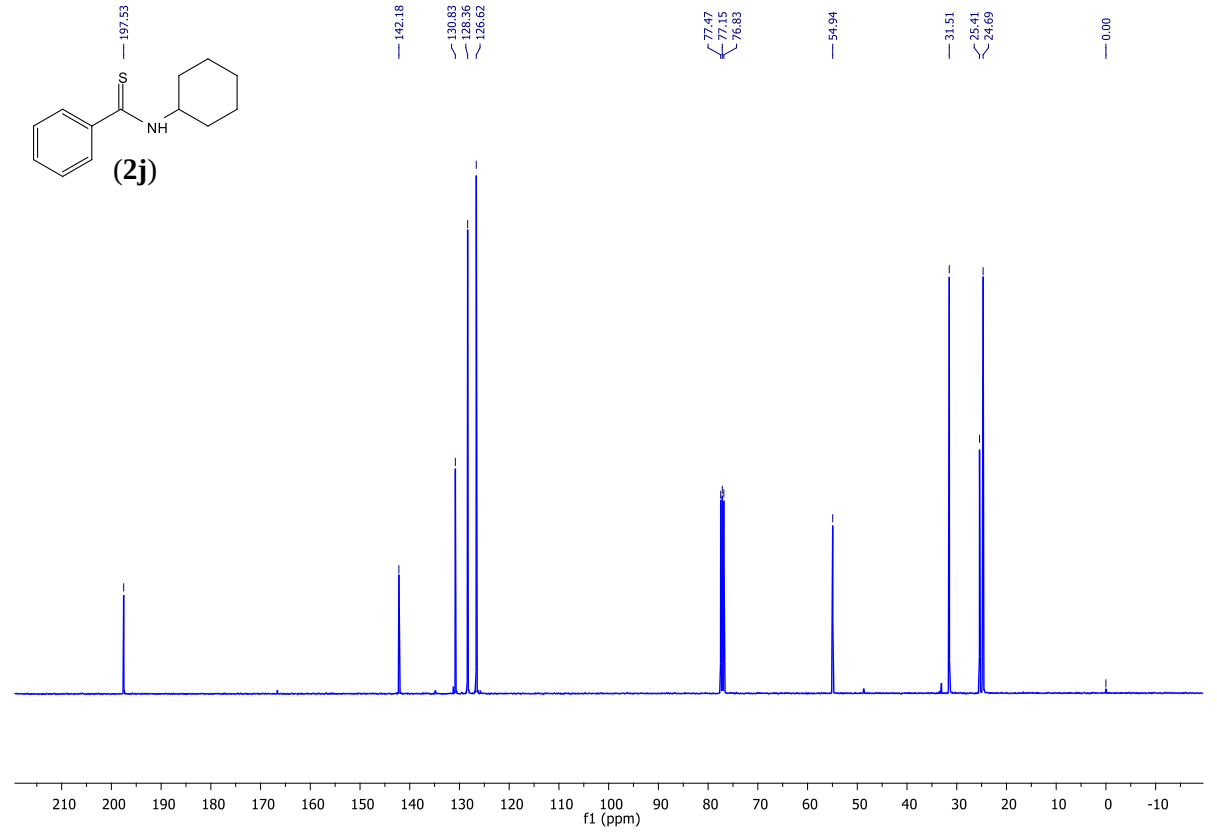
^{1}H NMR spektrum látky **2i**.



^{13}C NMR-APT spektrum látky **2i**.



^{1}H NMR spektrum látky **2j**.



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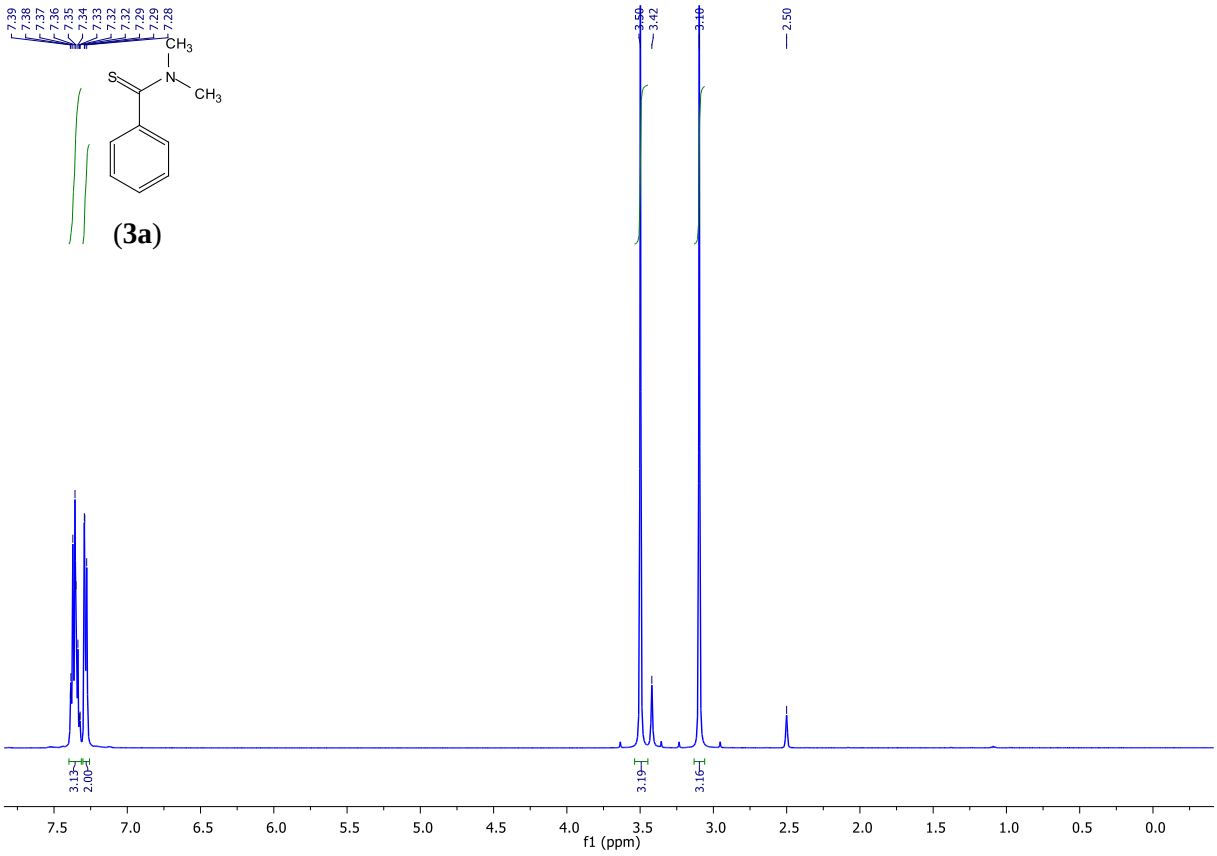
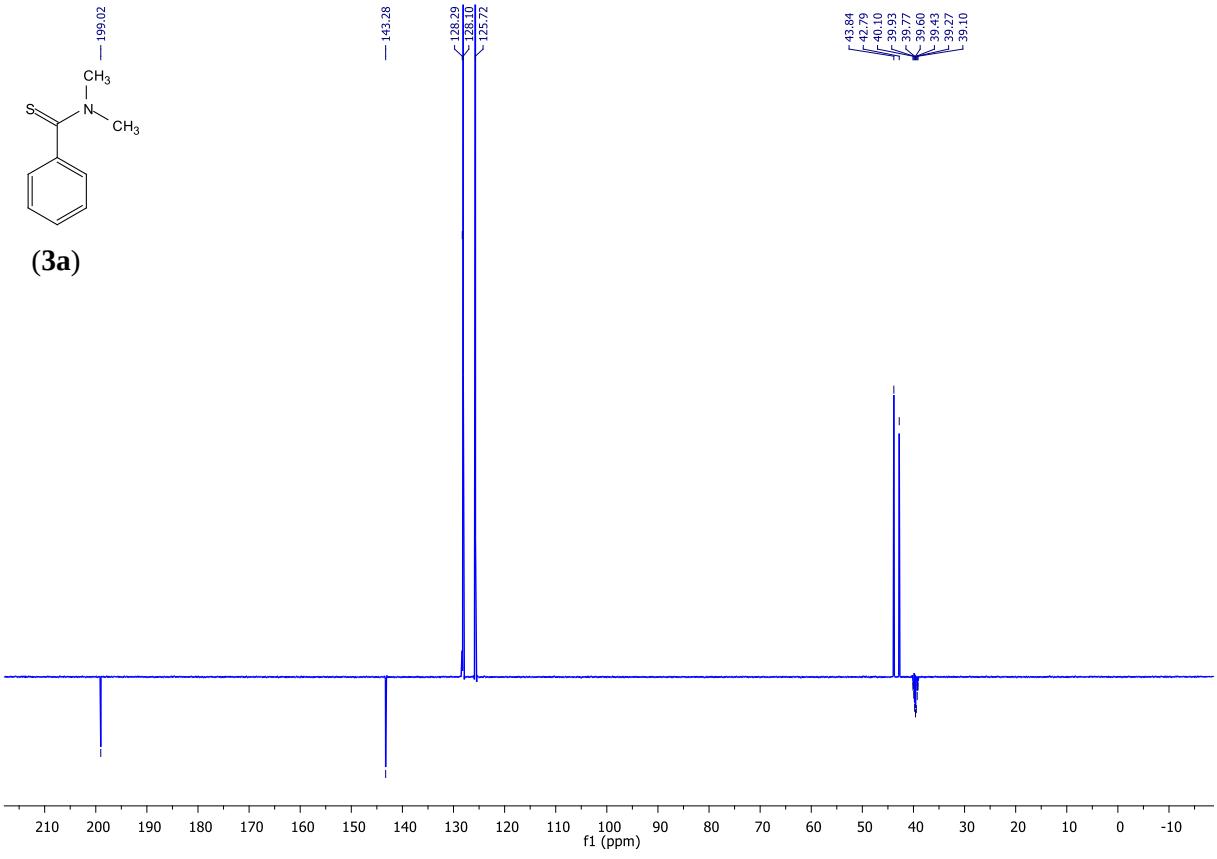
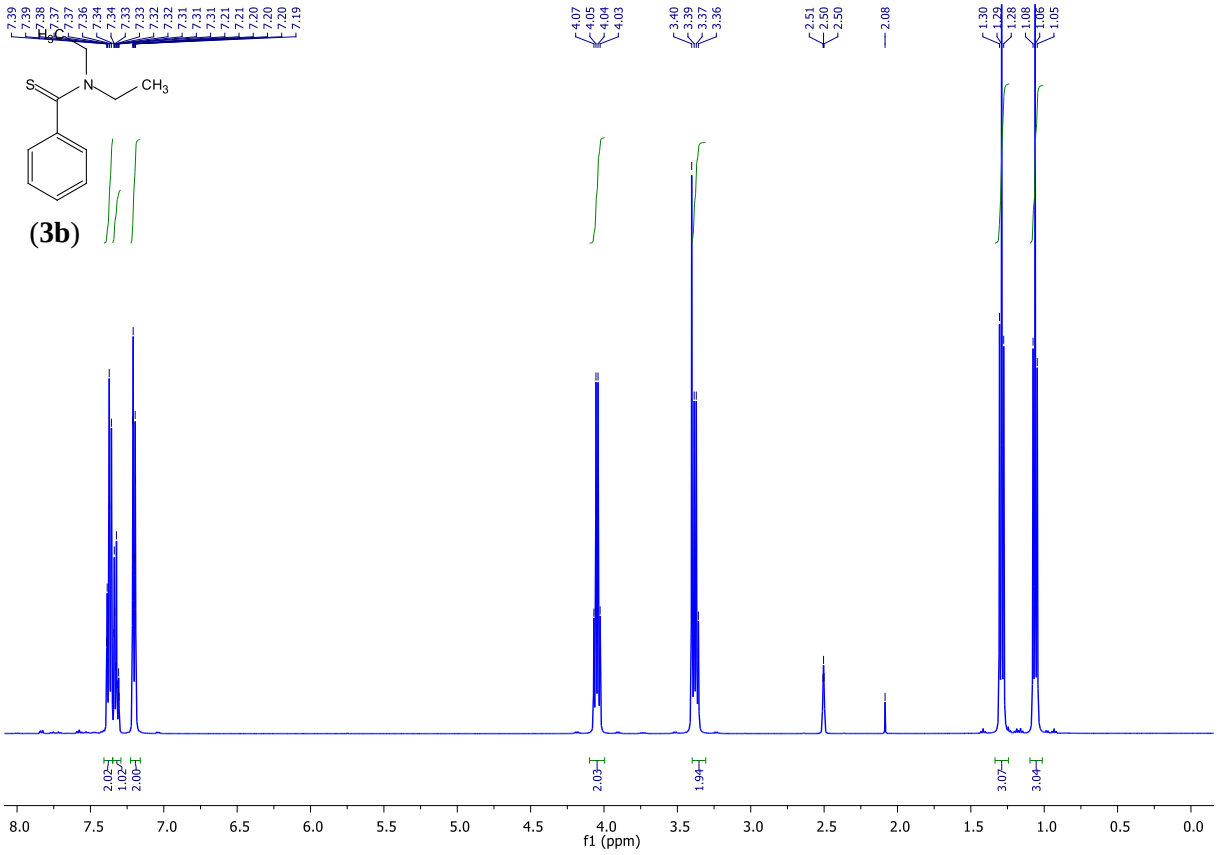


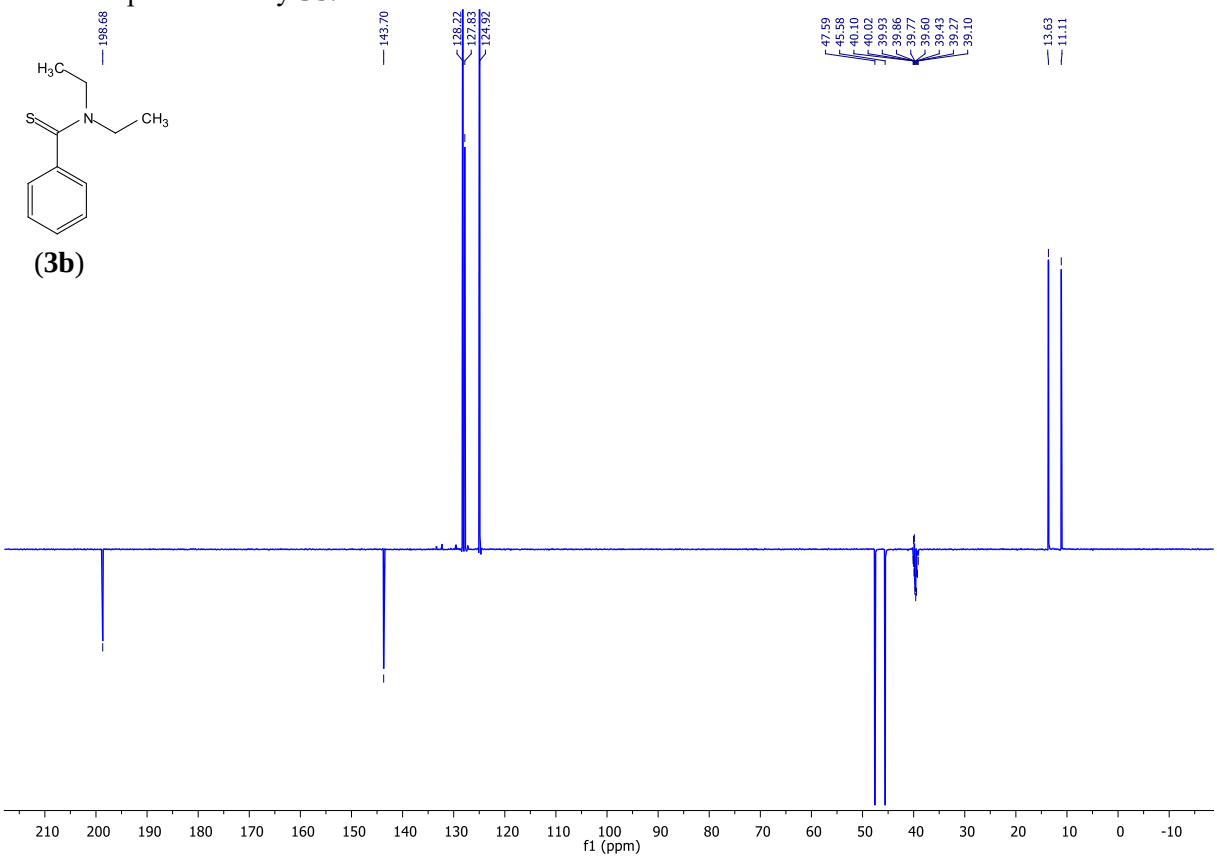
^{1}H NMR spektrum látky **3a**.



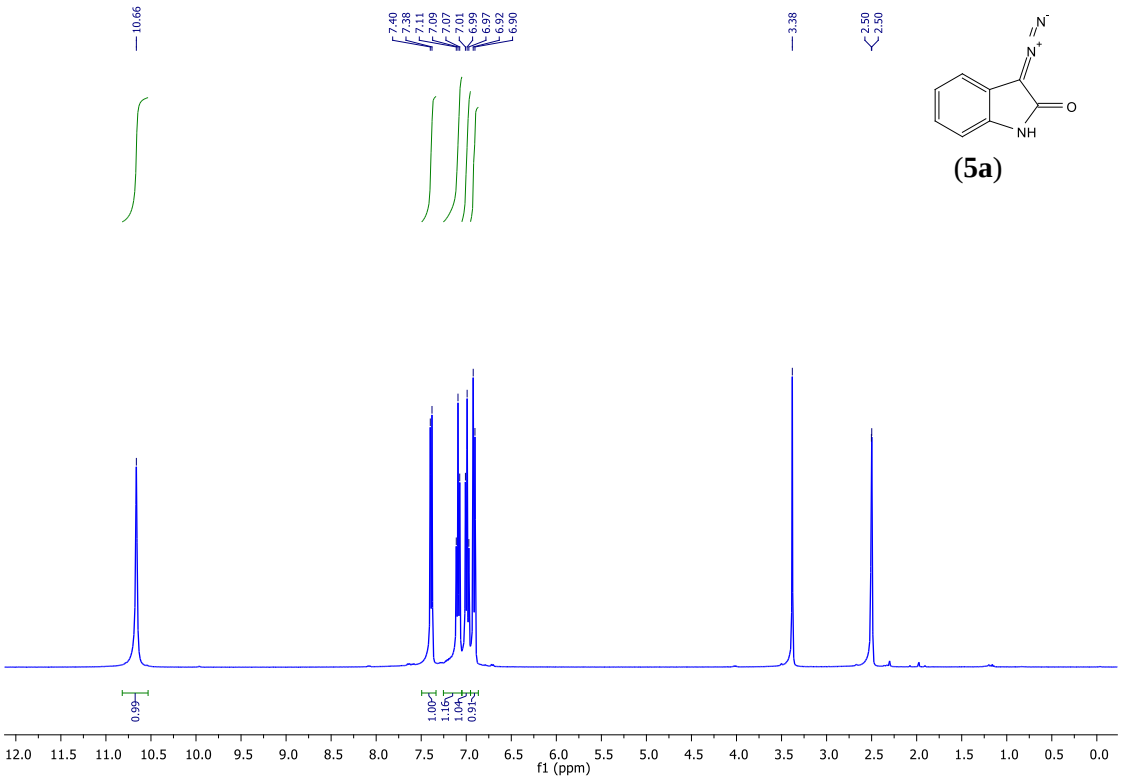
^{13}C NMR-APT spektrum látky **3a**.



^{1}H NMR spektrum látky **3b**.

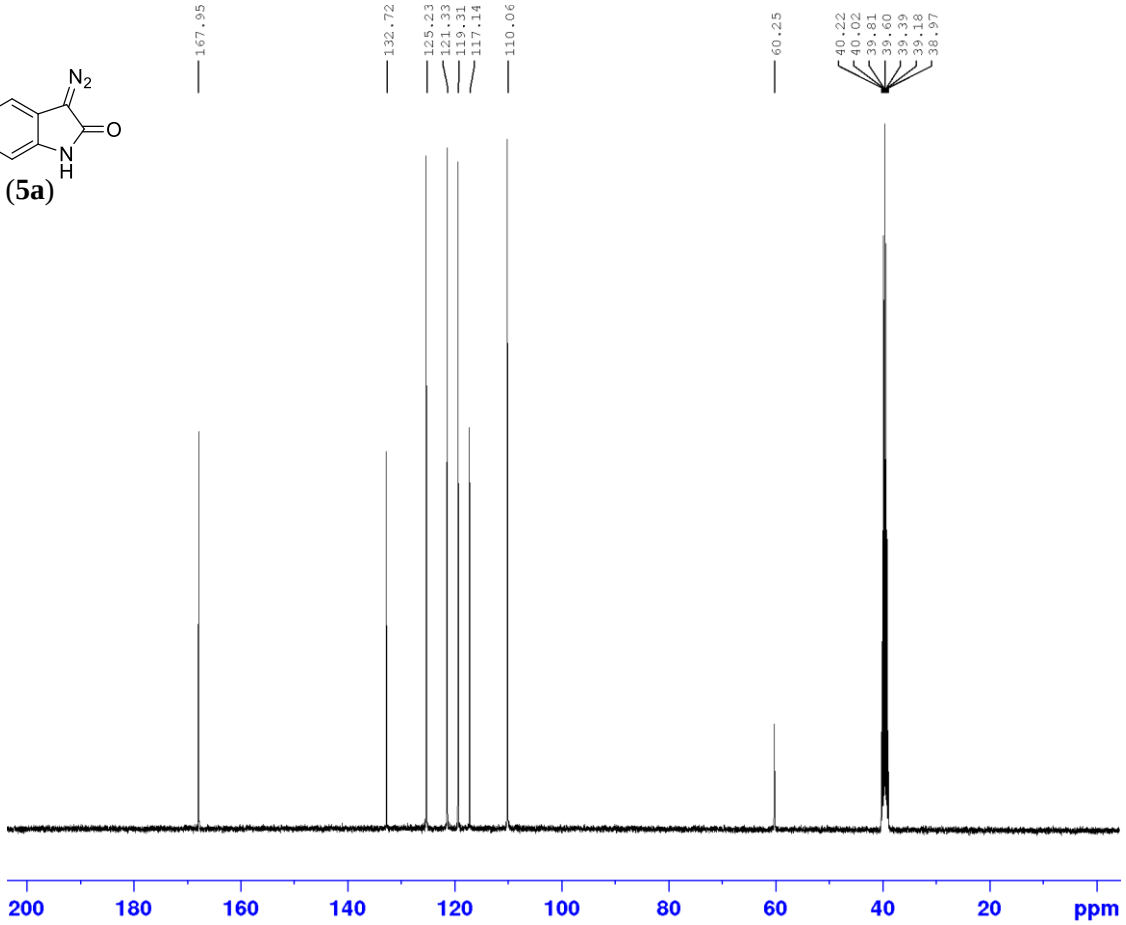


^{13}C NMR-APT spektrum látky **3b**.



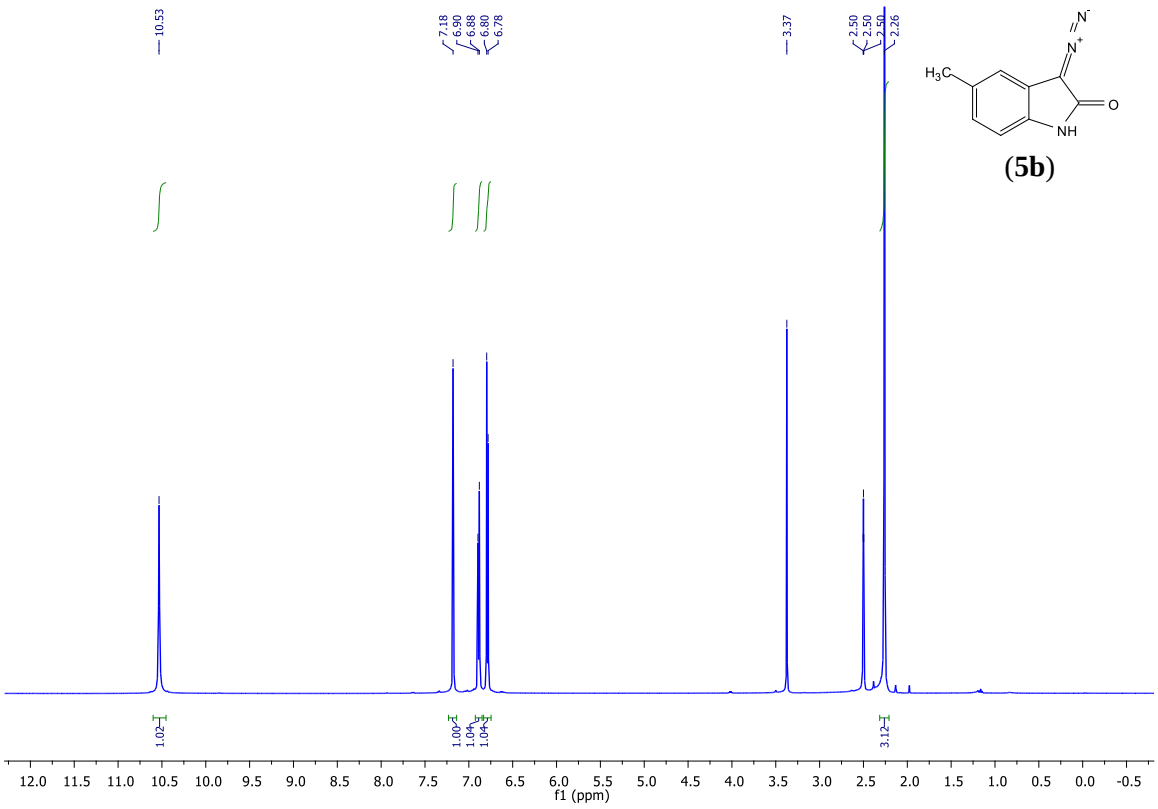
(5a)

^{1}H NMR spektrum látky **5a**.

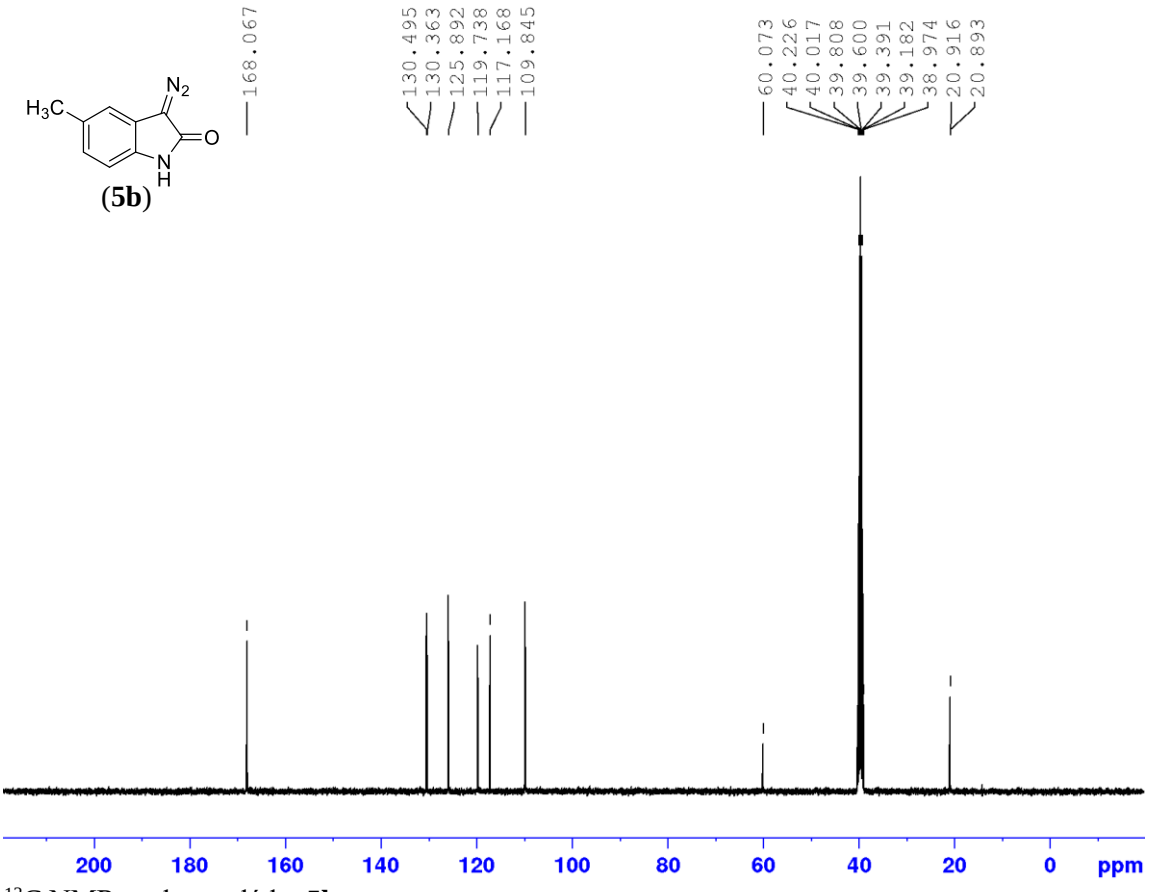


(5a)

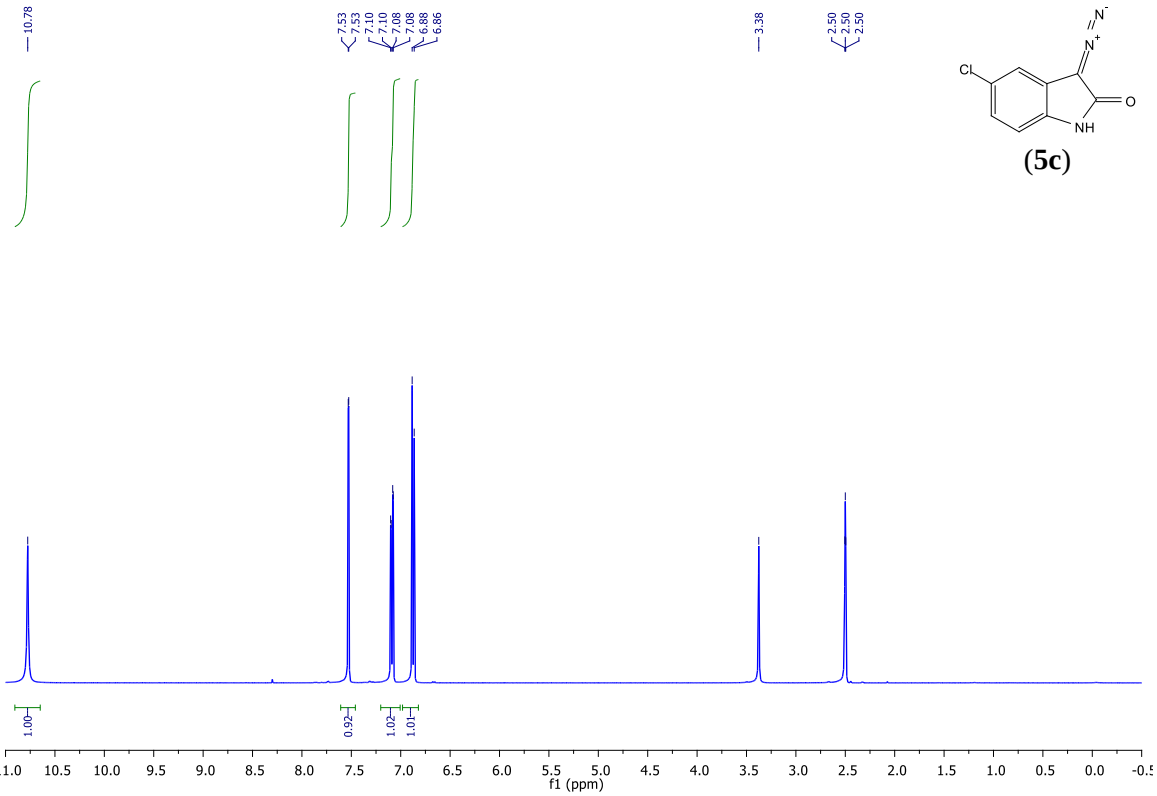
^{13}C NMR spektrum látky **5a**.



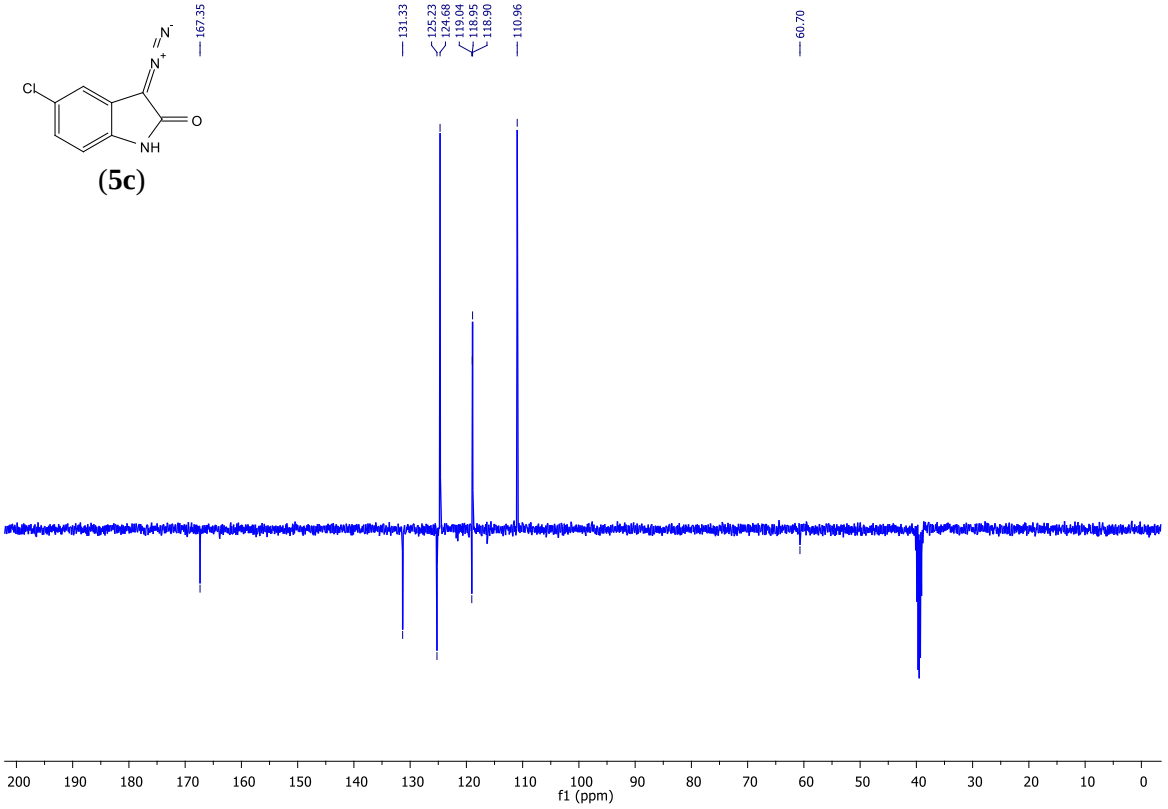
^{1}H NMR spektrum látky **5b**.



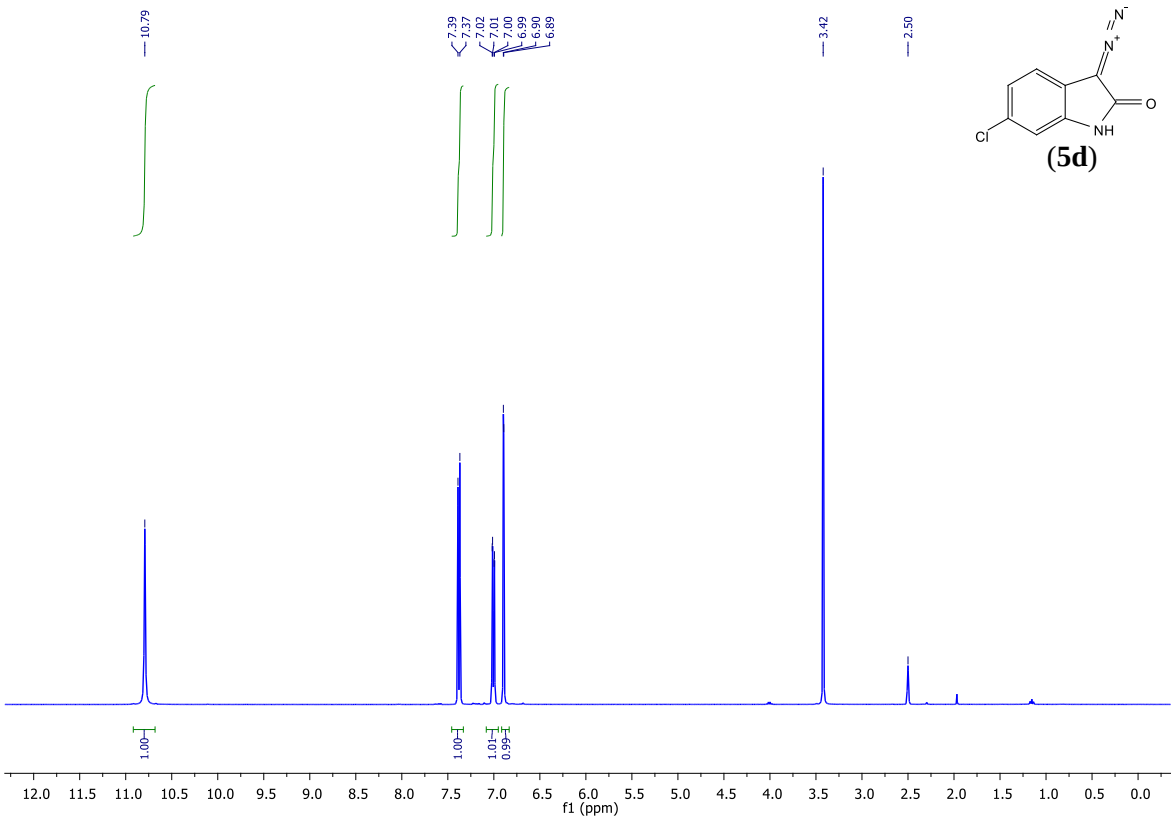
^{13}C NMR spektrum látky **5b**.



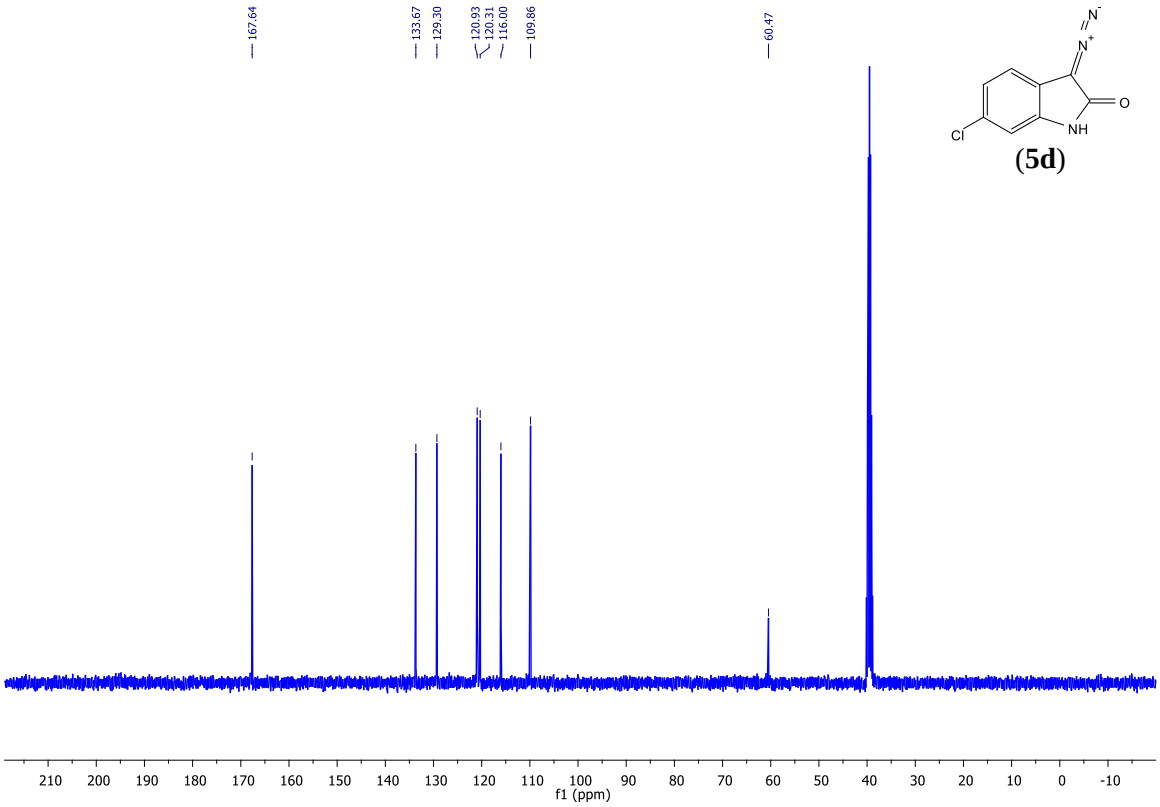
^{1}H NMR spektrum látky **5c**.



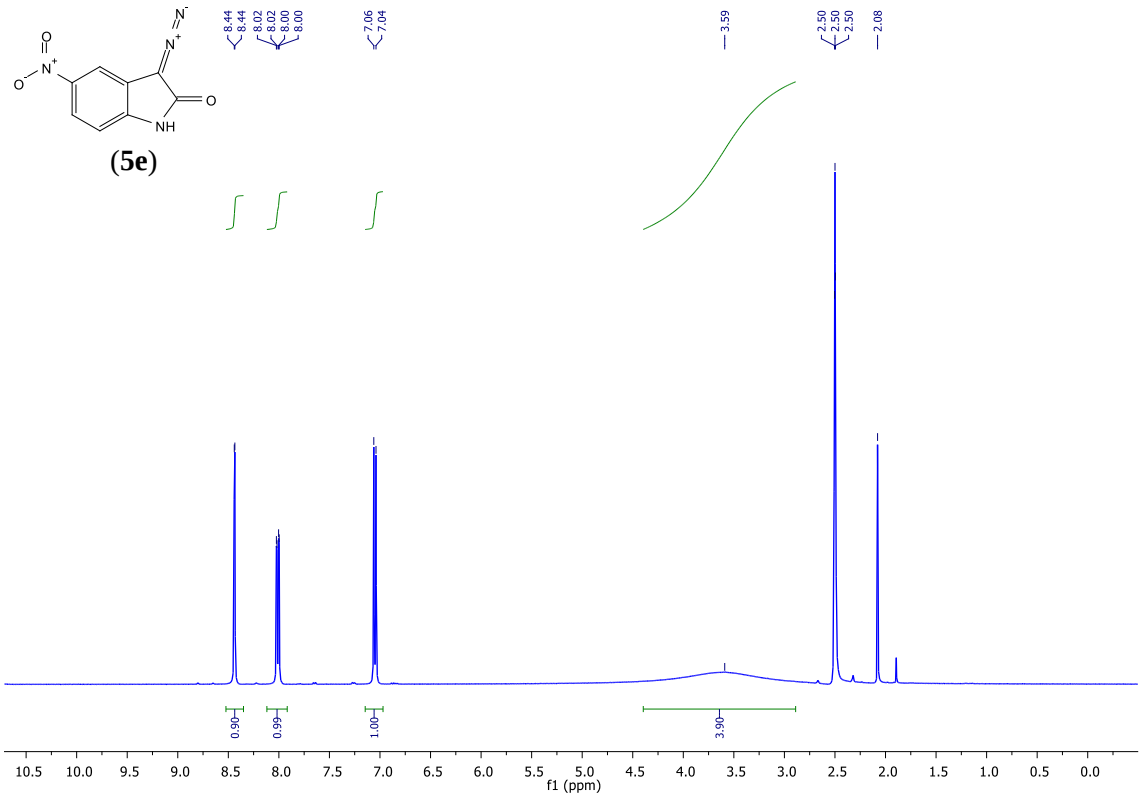
^{13}C NMR-APT spektrum látky **5c**.



^{1}H NMR spektrum látky **5d**.



^{13}C NMR spektrum látky **5d**.



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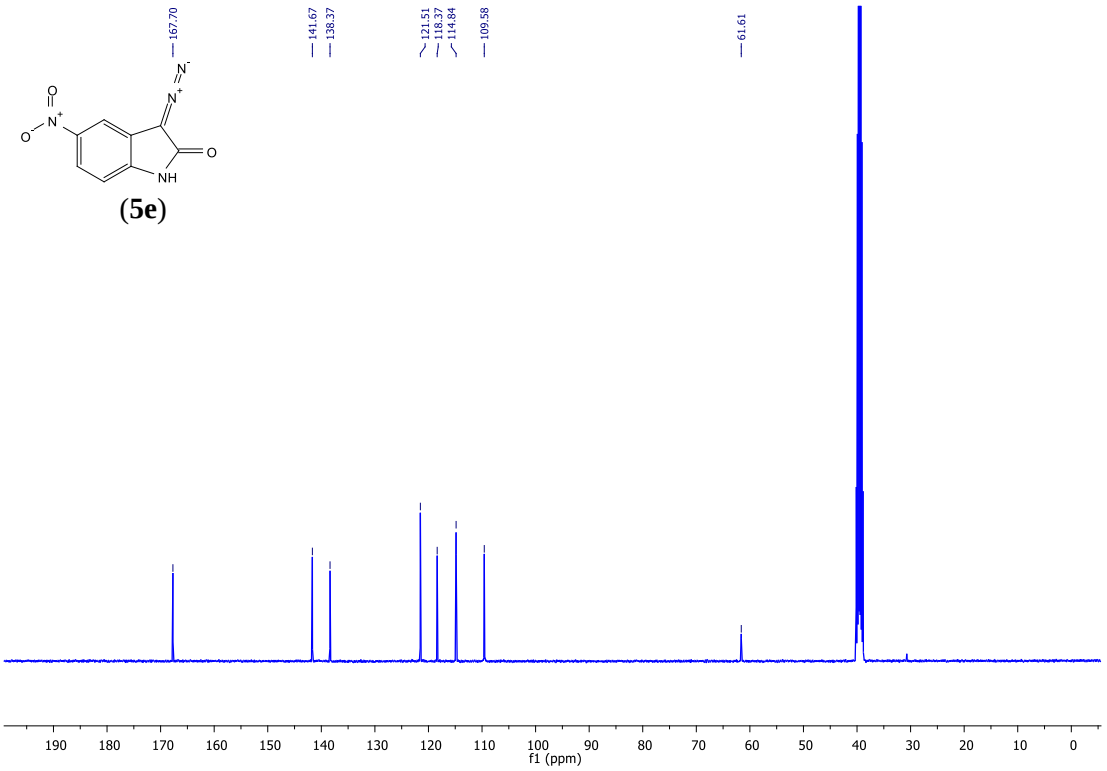
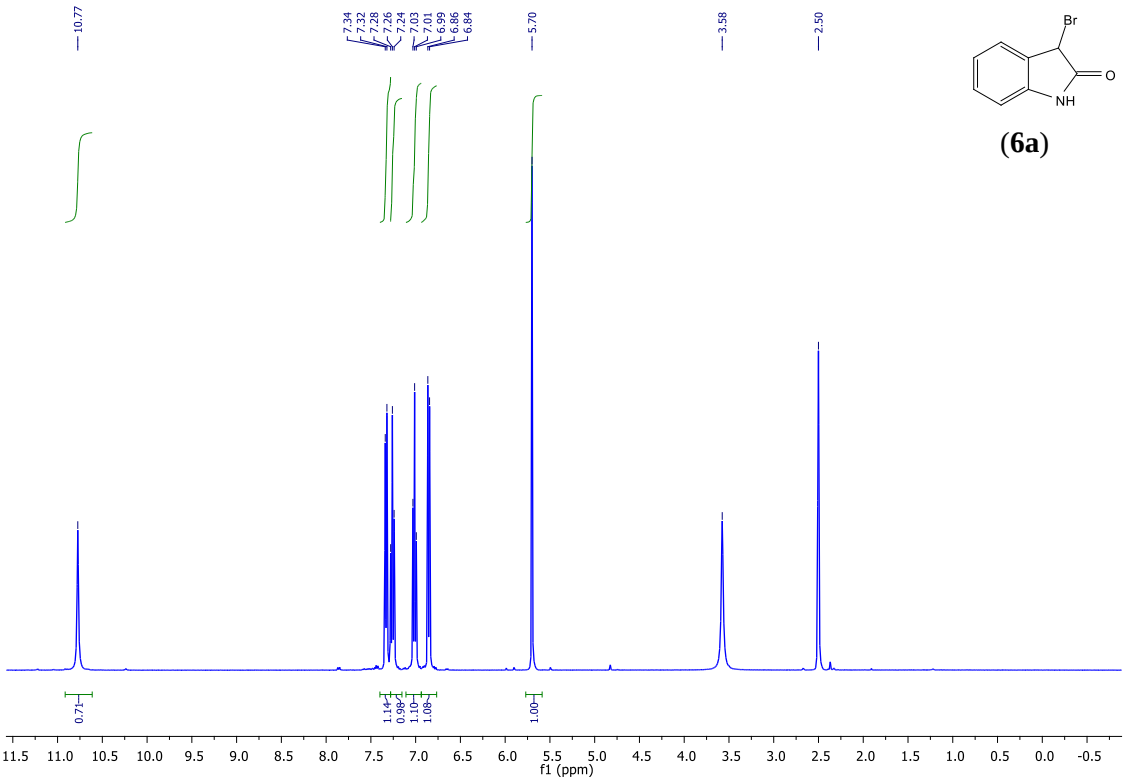
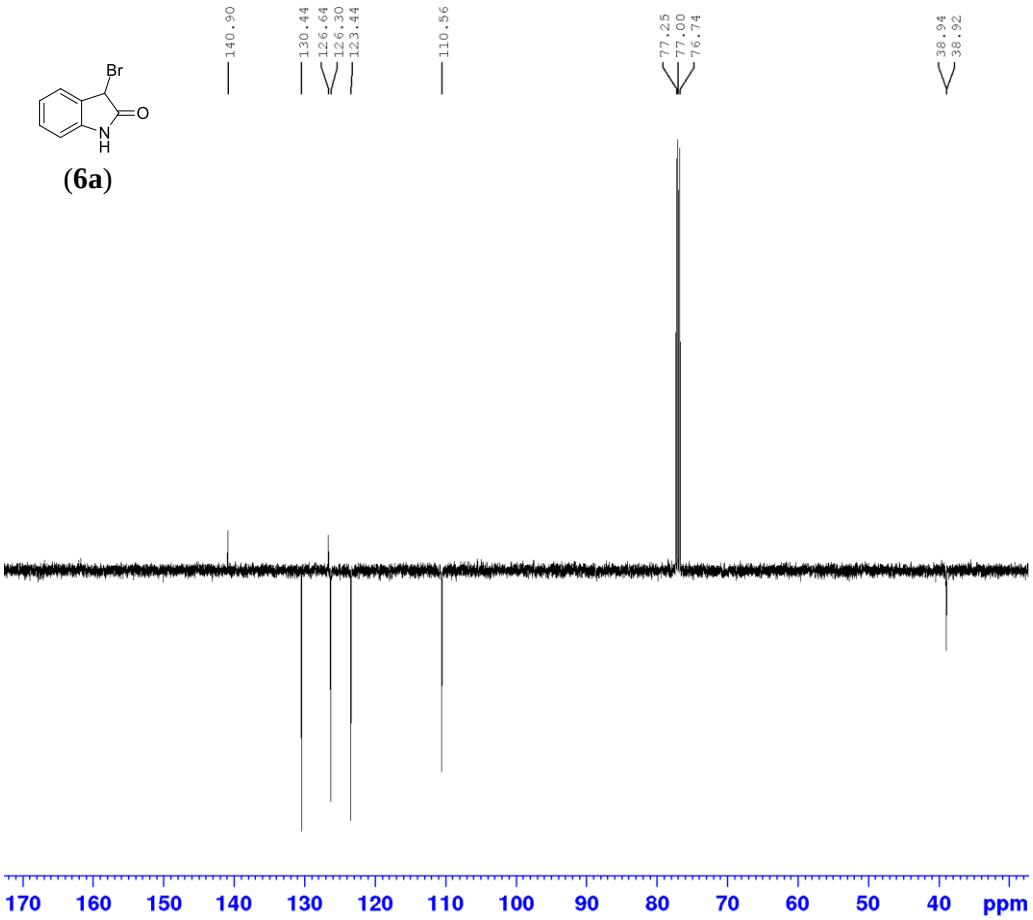


^{13}C NMR spektrum látky **5e**.



^{1}H NMR spektrum látky **6a**.



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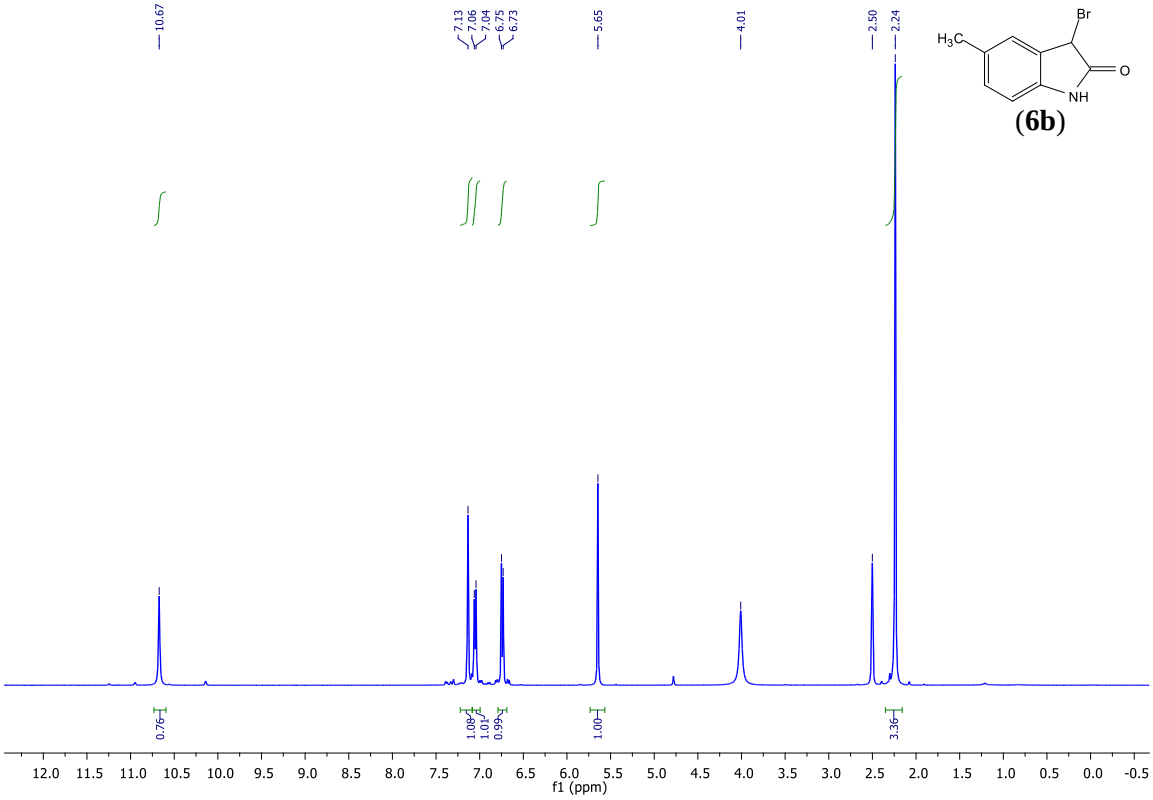
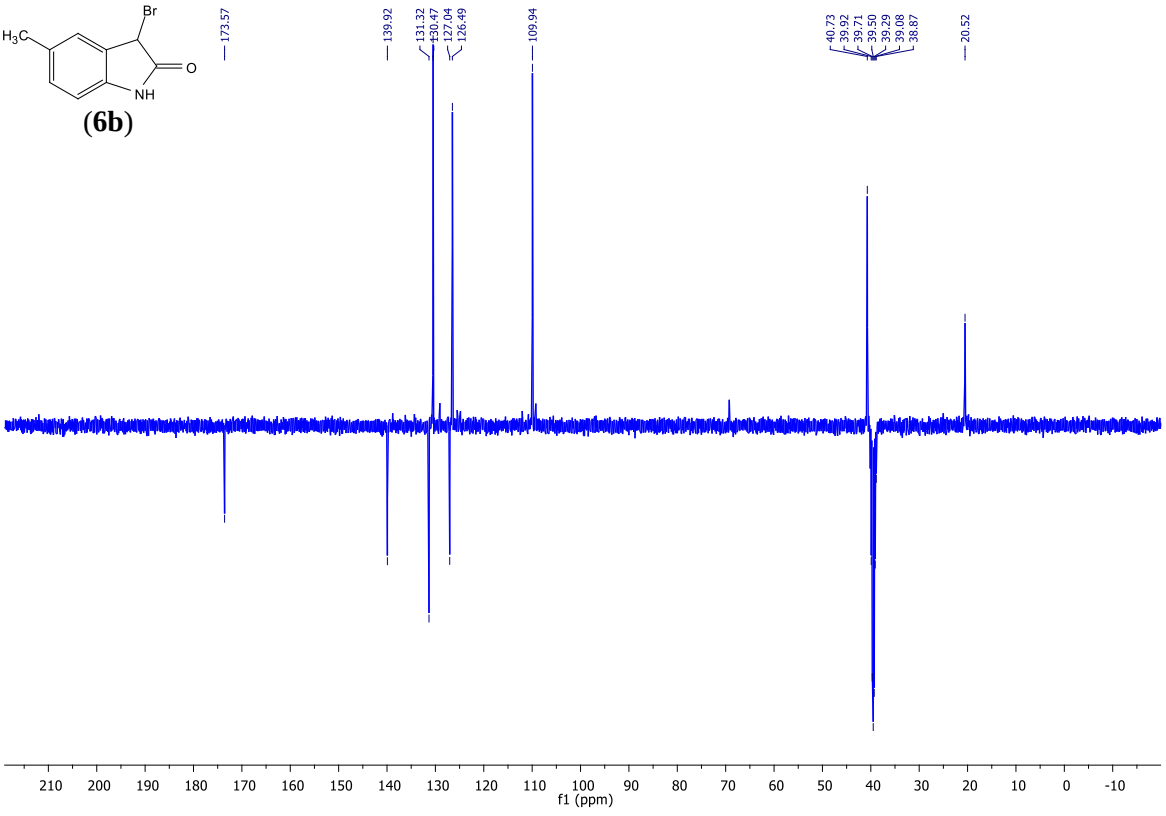


^{1}H NMR spektrum látky **6b**.



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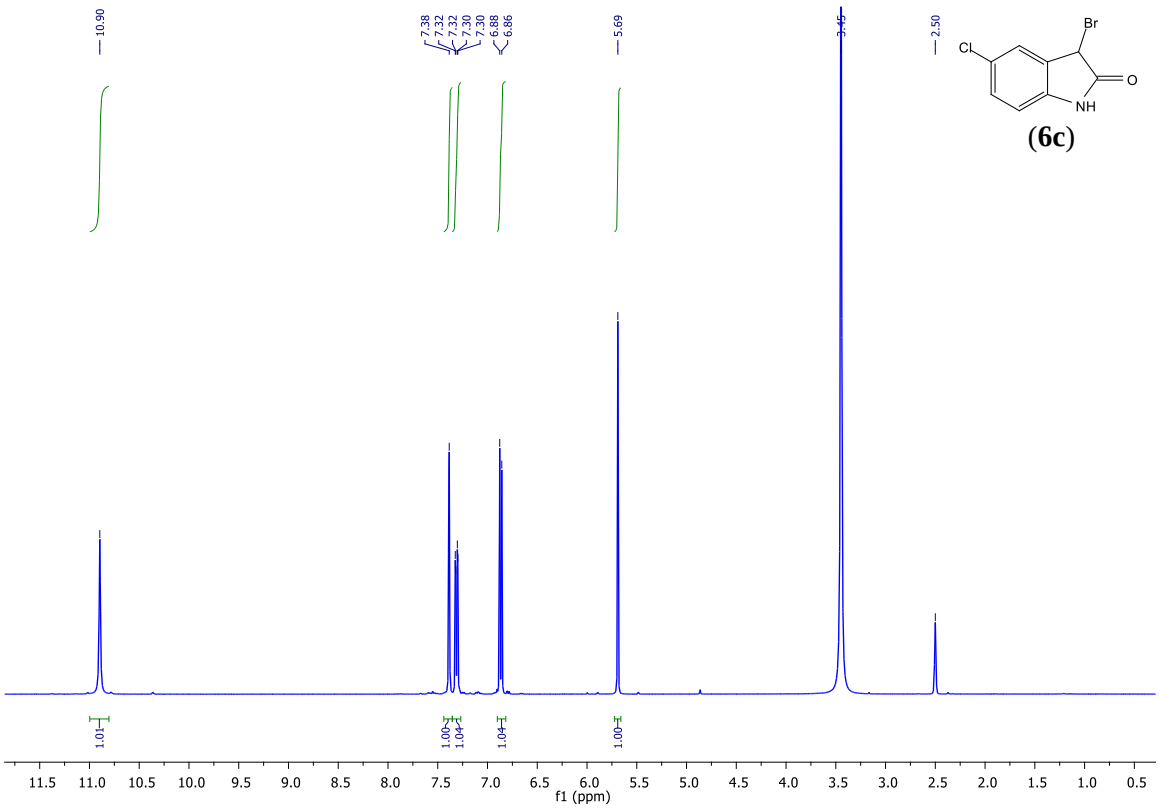
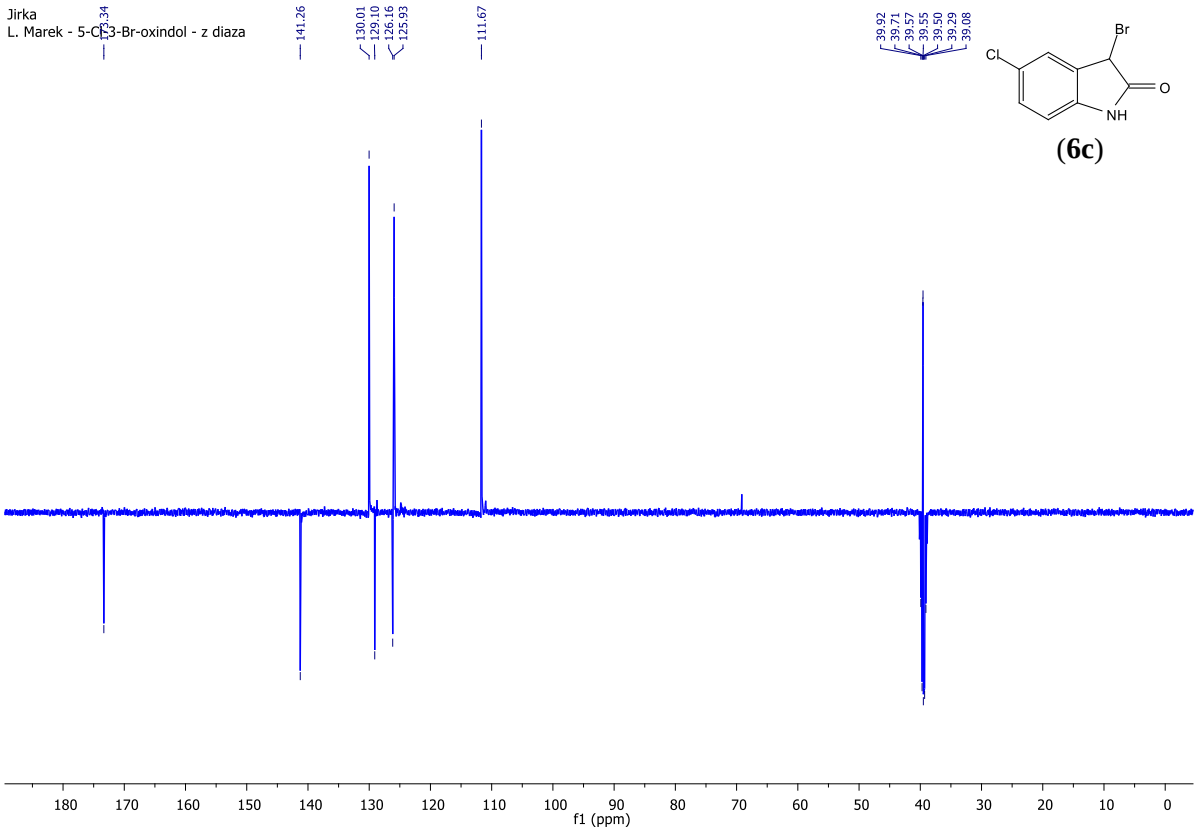
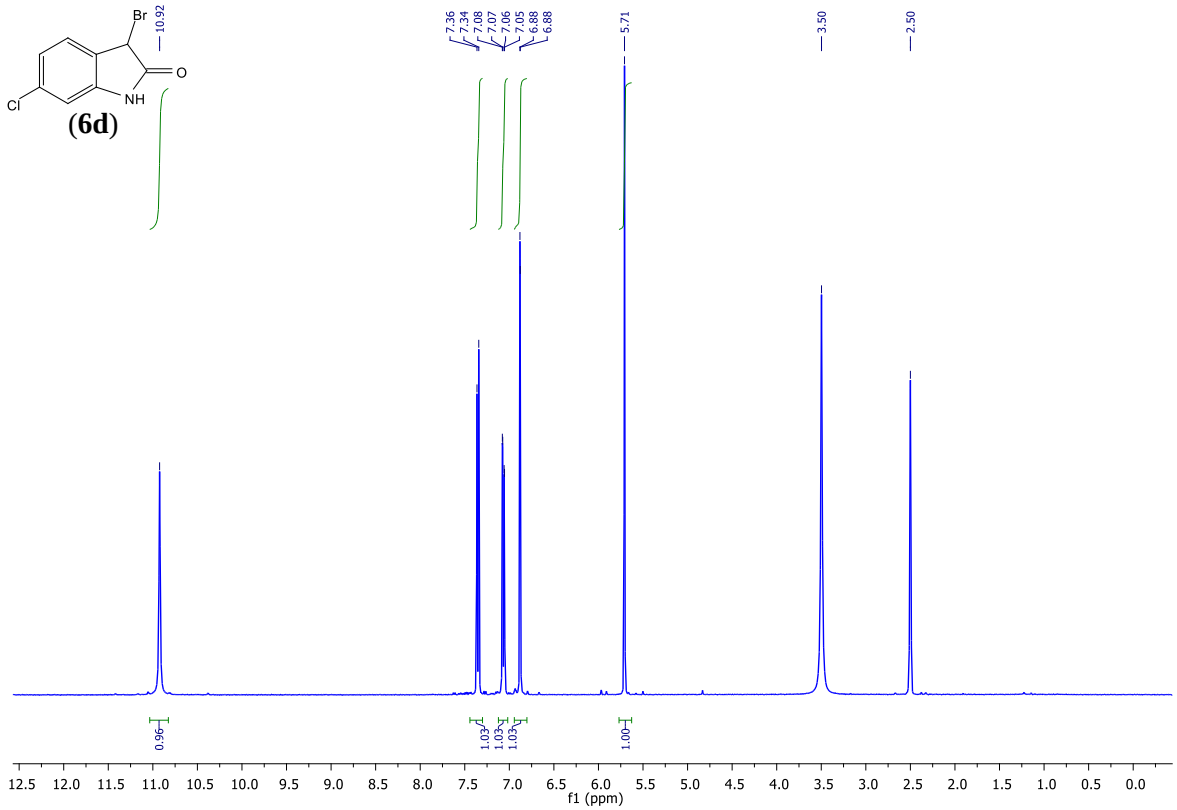


^{1}H NMR spektrum látky **6c**.



^{13}C NMR-APT spektrum látky **6c**.



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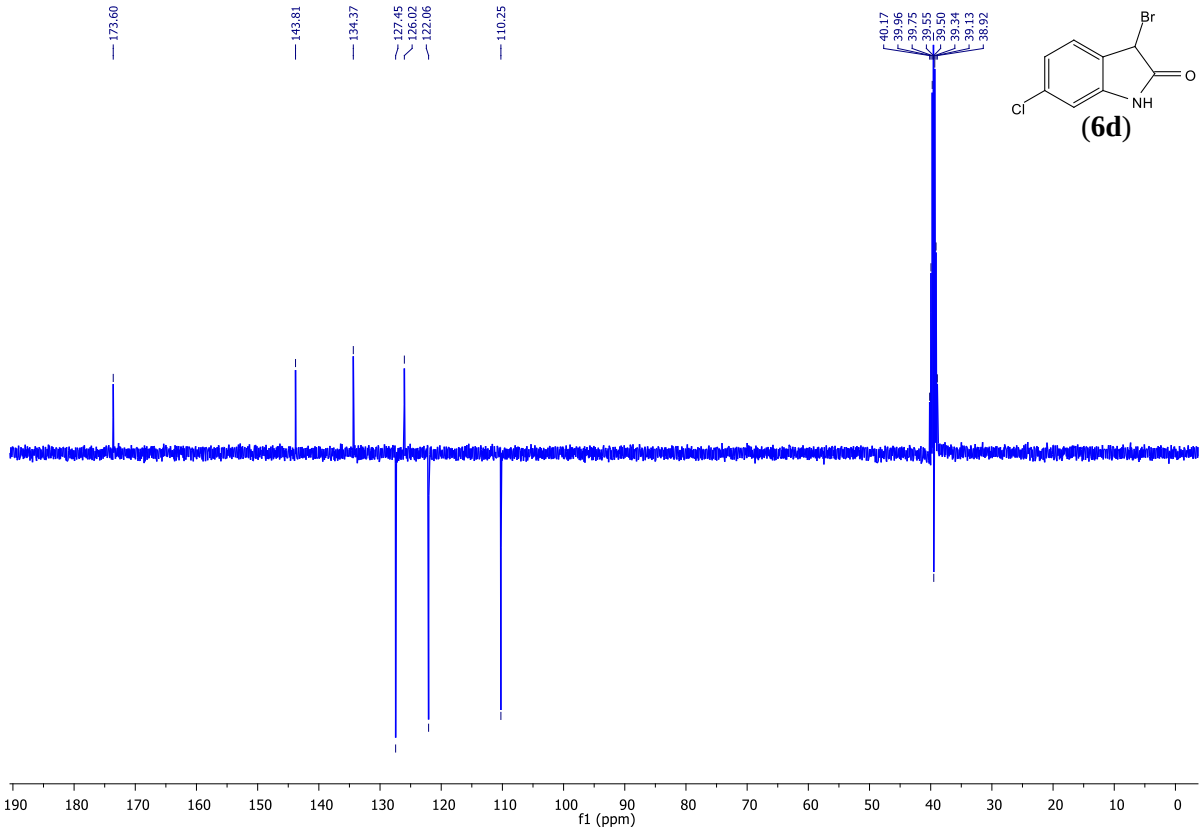

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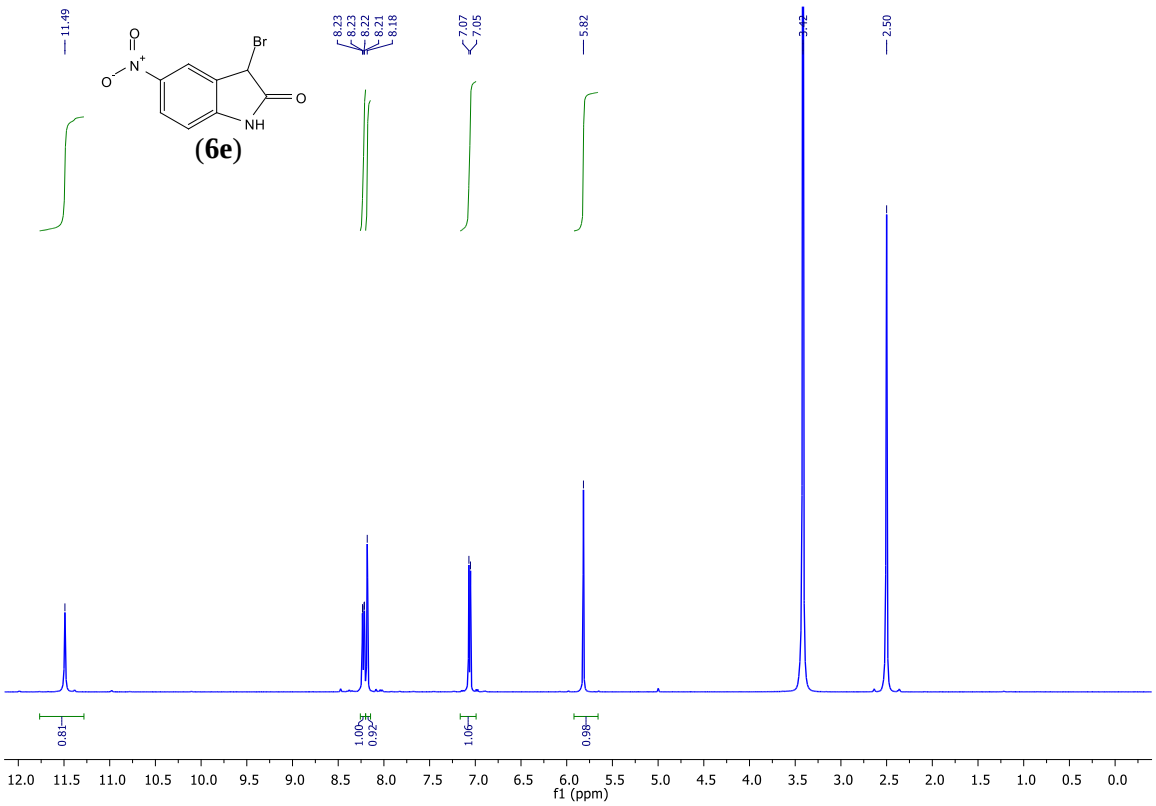

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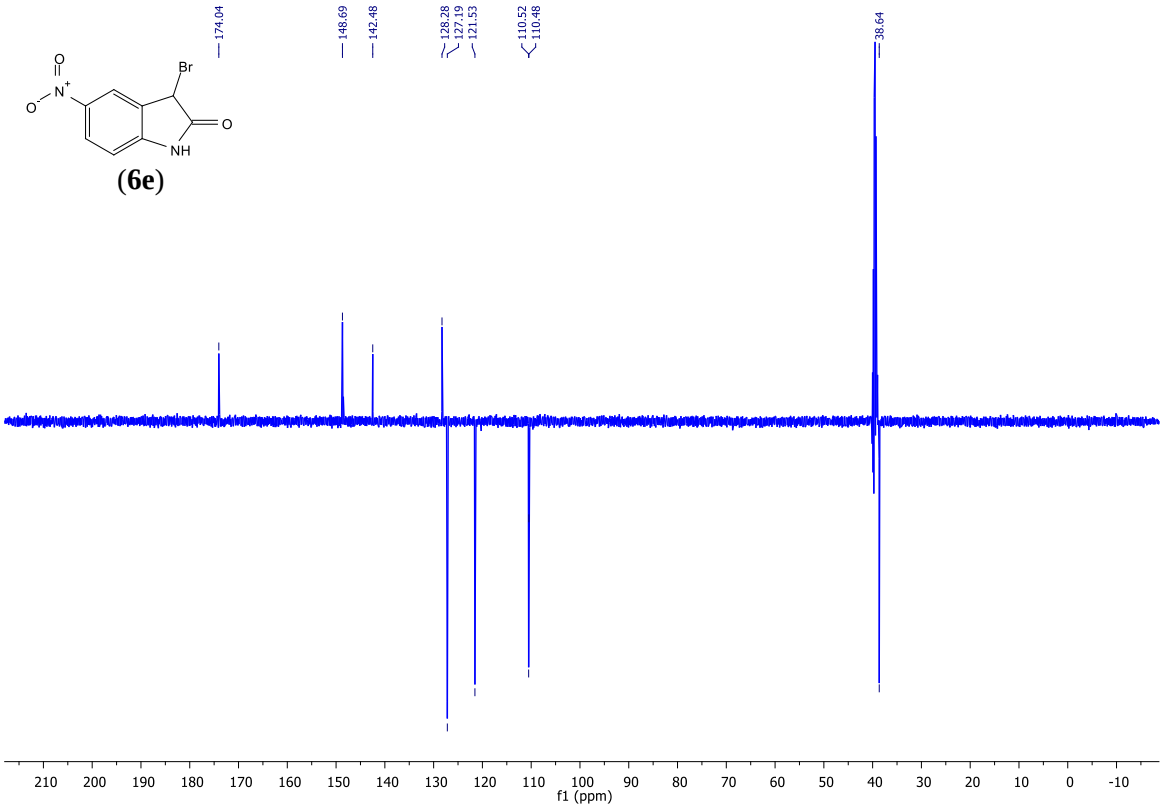

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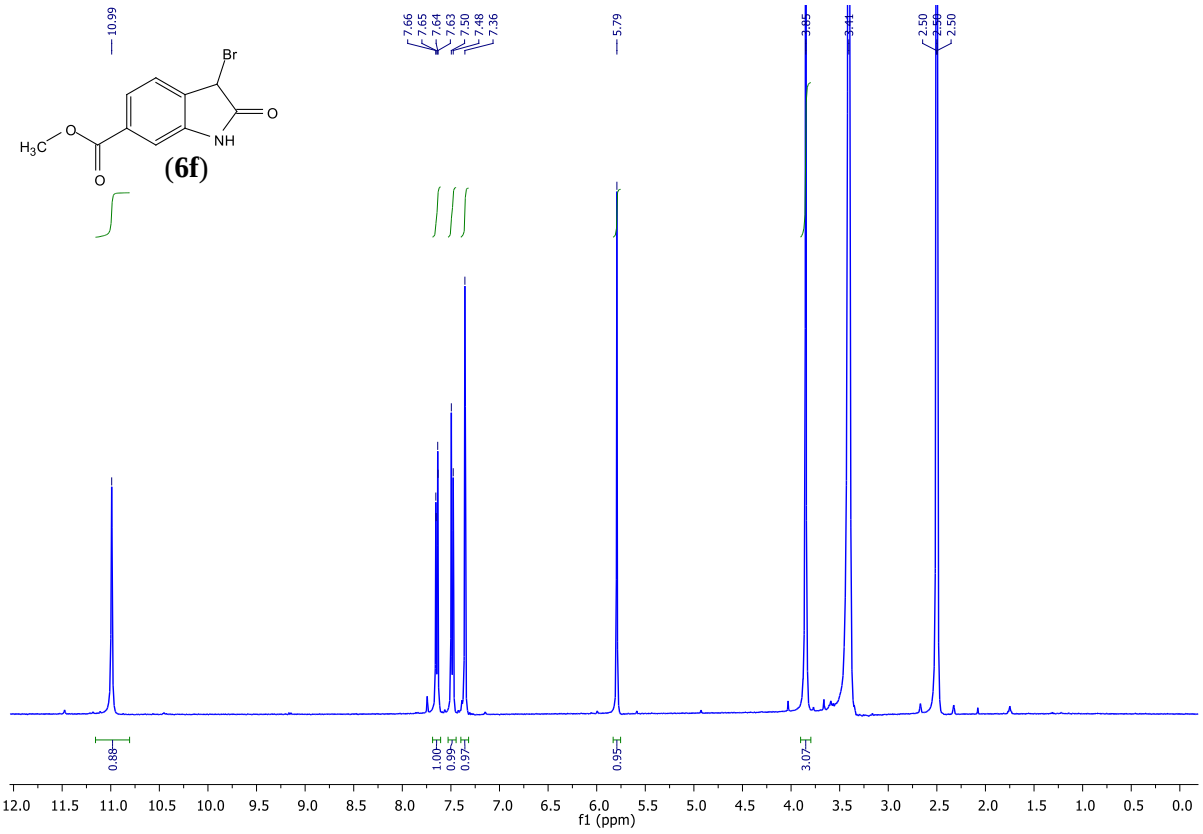
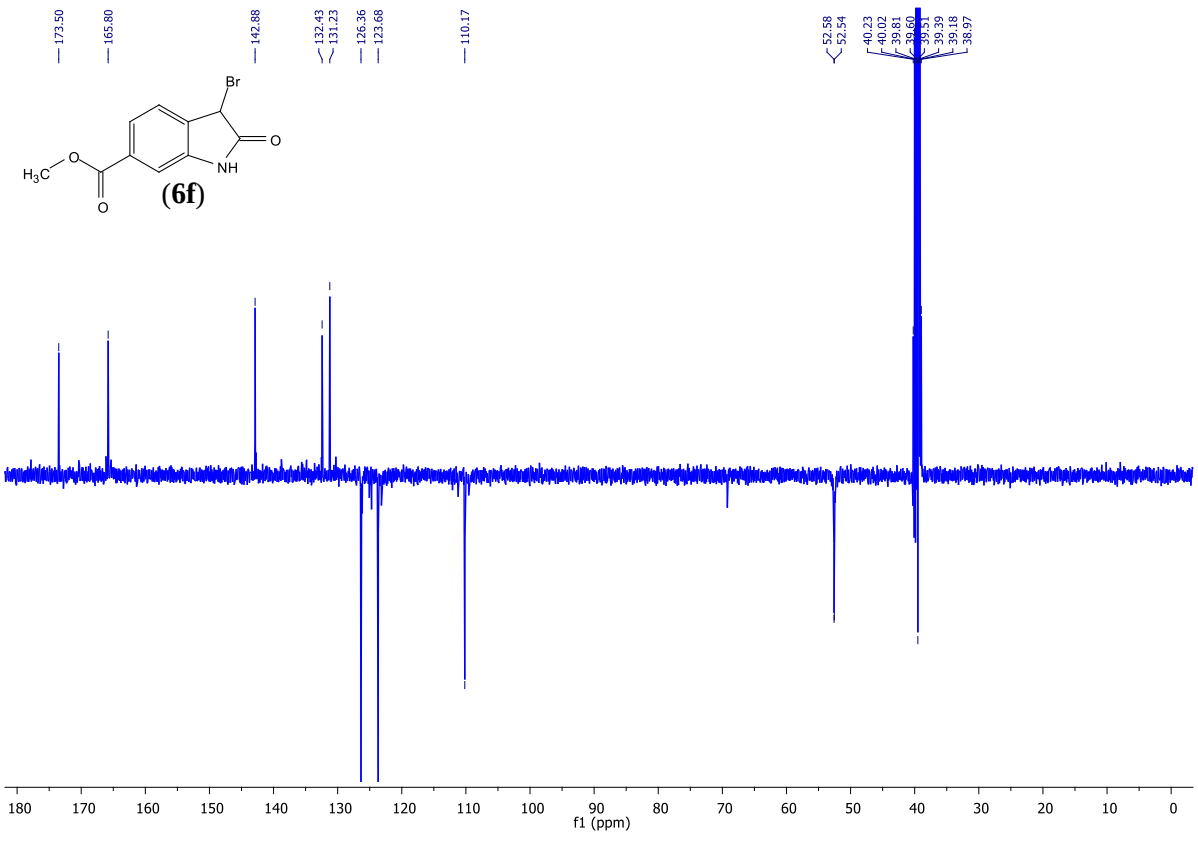
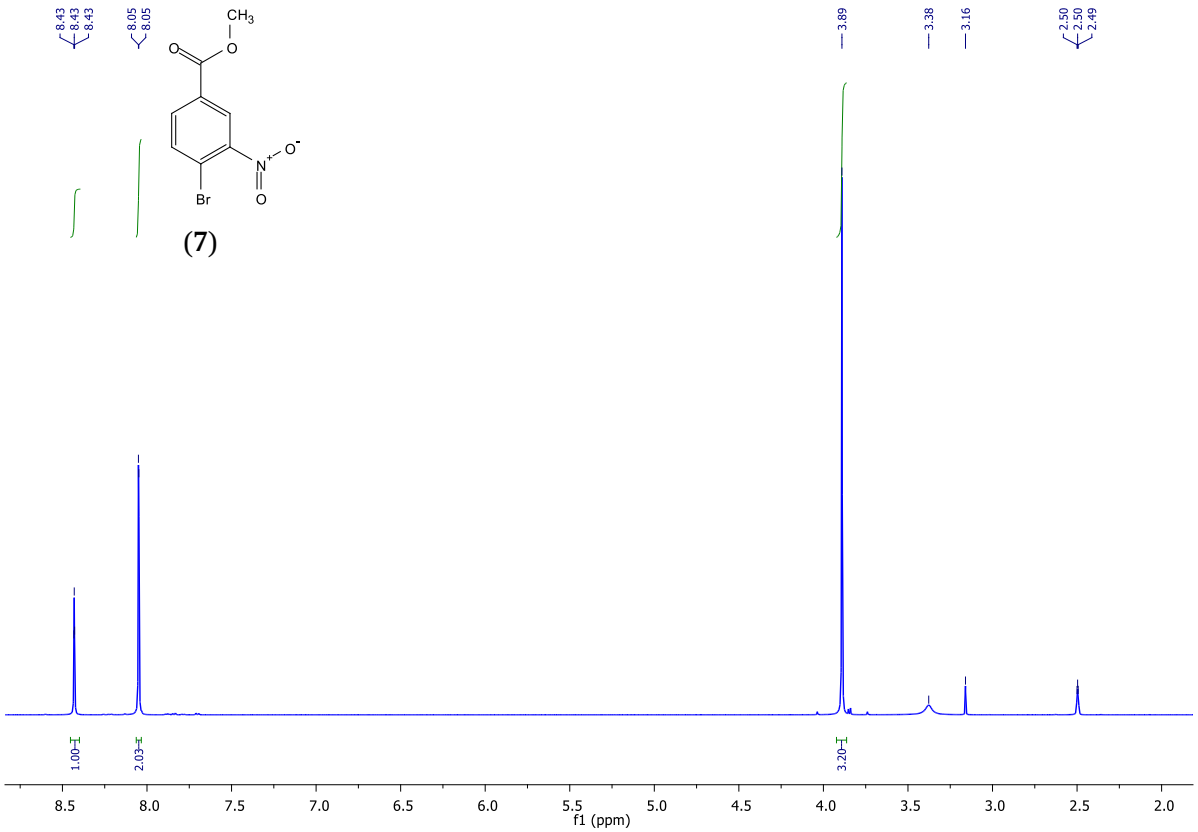


^{1}H NMR spektrum látky **6f**.

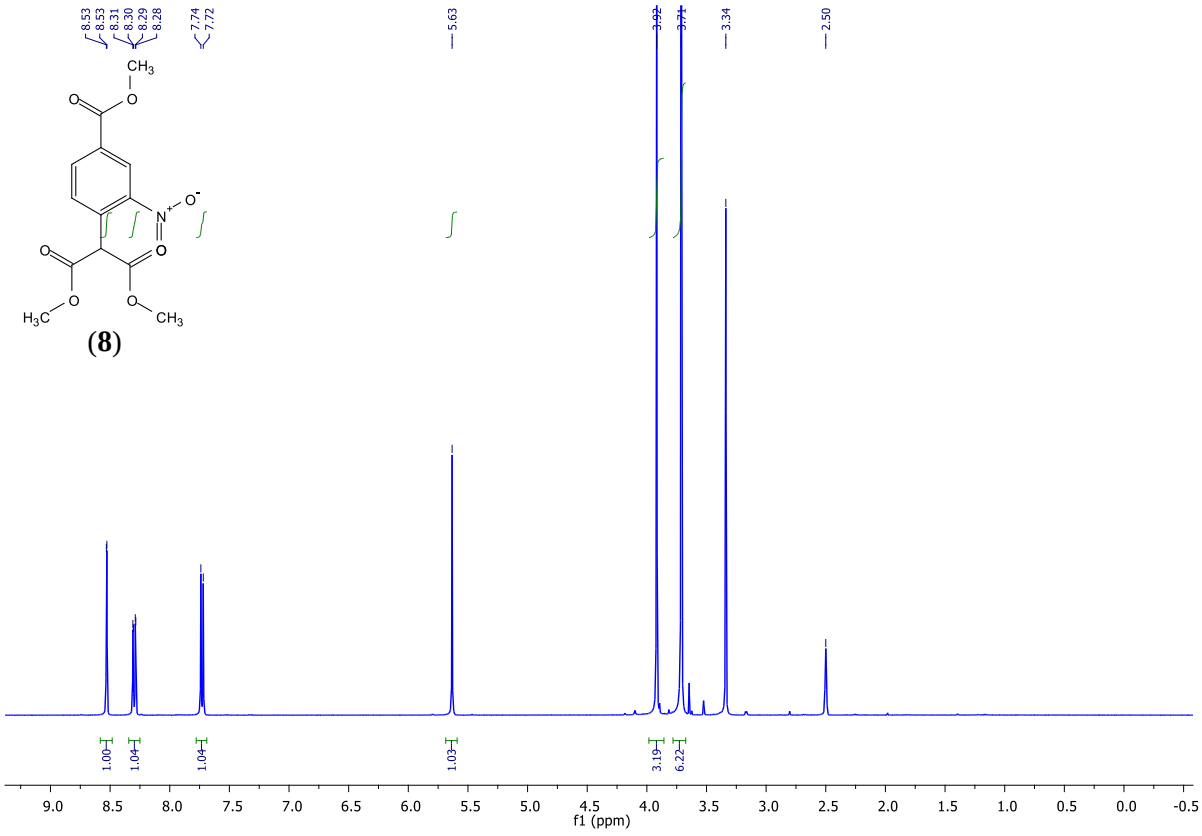


^{13}C NMR-APT spektrum látky **6f**.



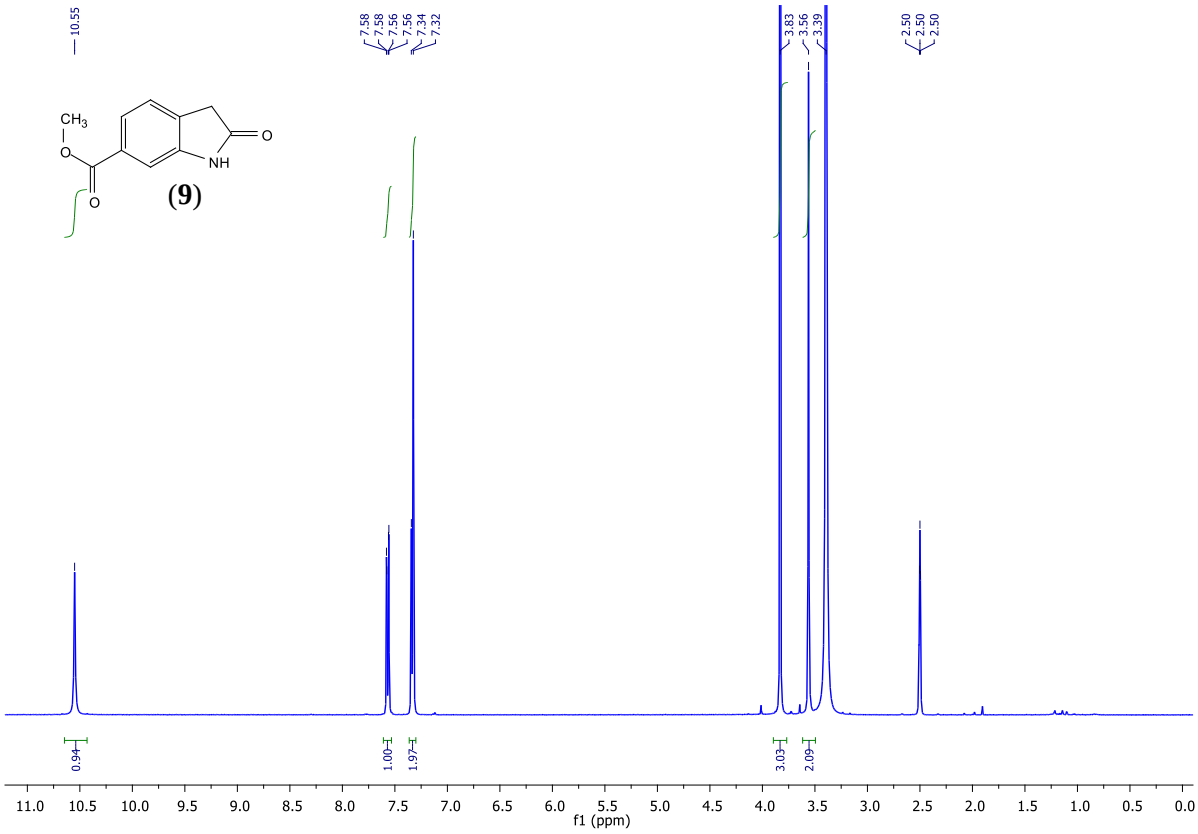
(7)

^{1}H NMR spektrum látky **7**.

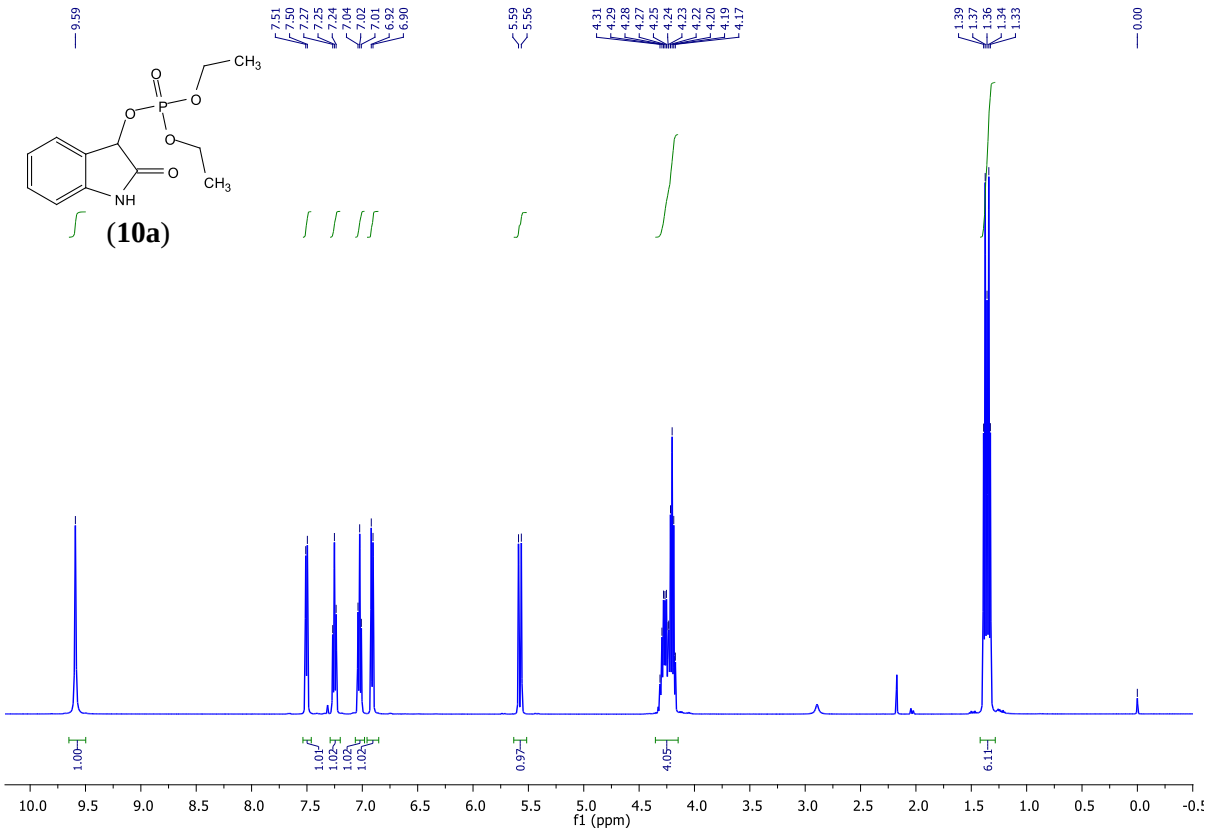


(8)

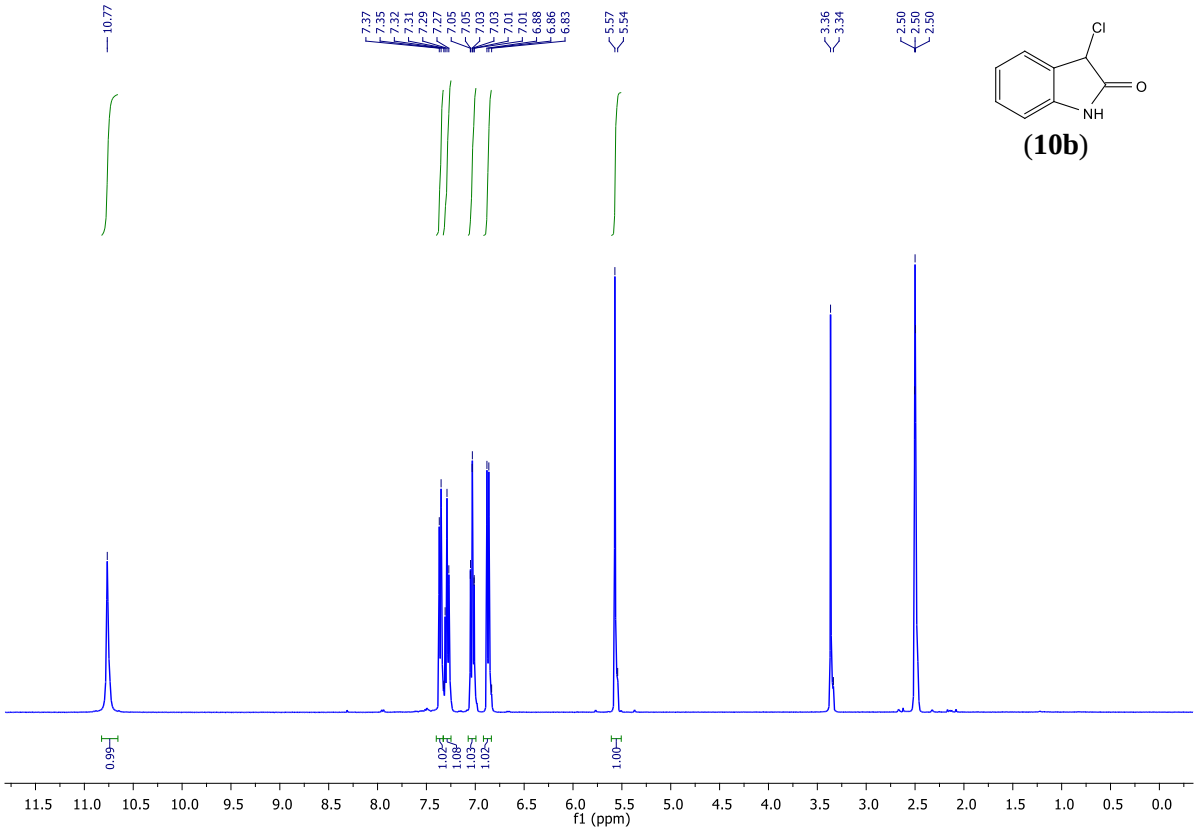
^{1}H NMR spektrum látky **8**.



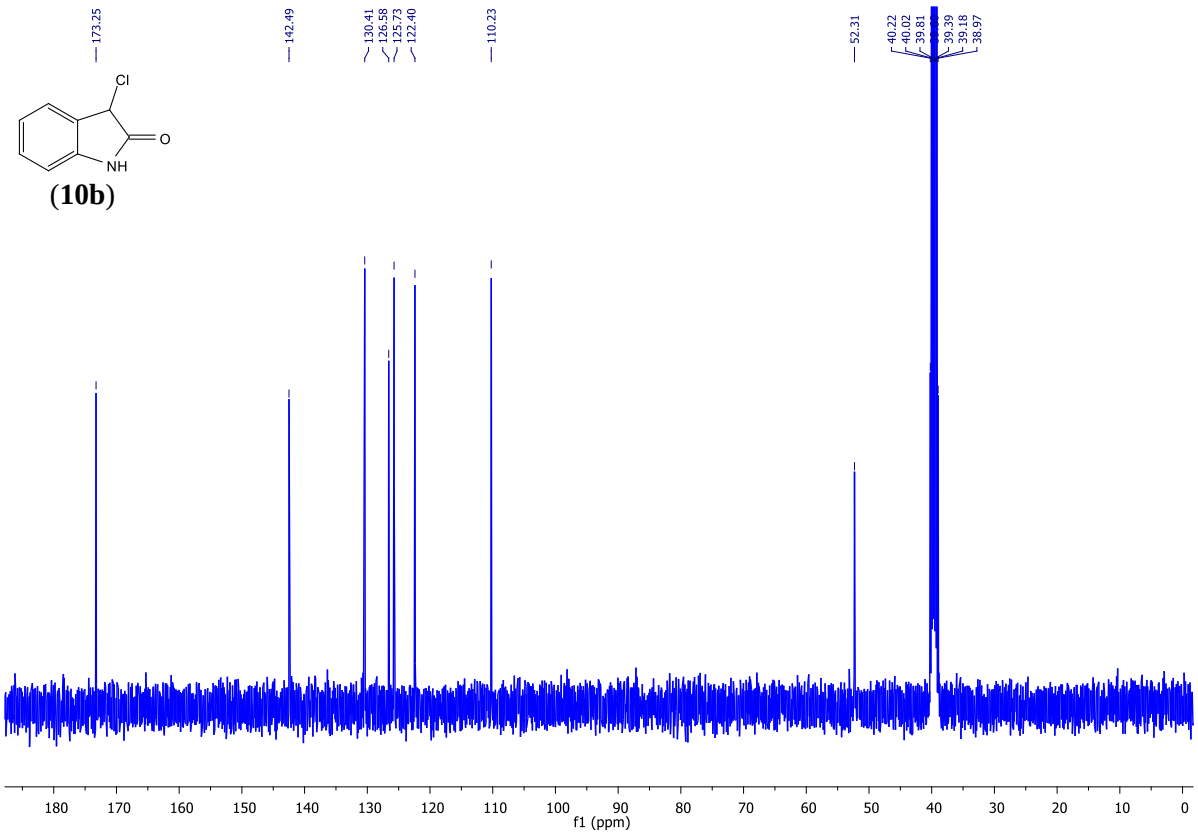
^{1}H NMR spektrum látky **9**.



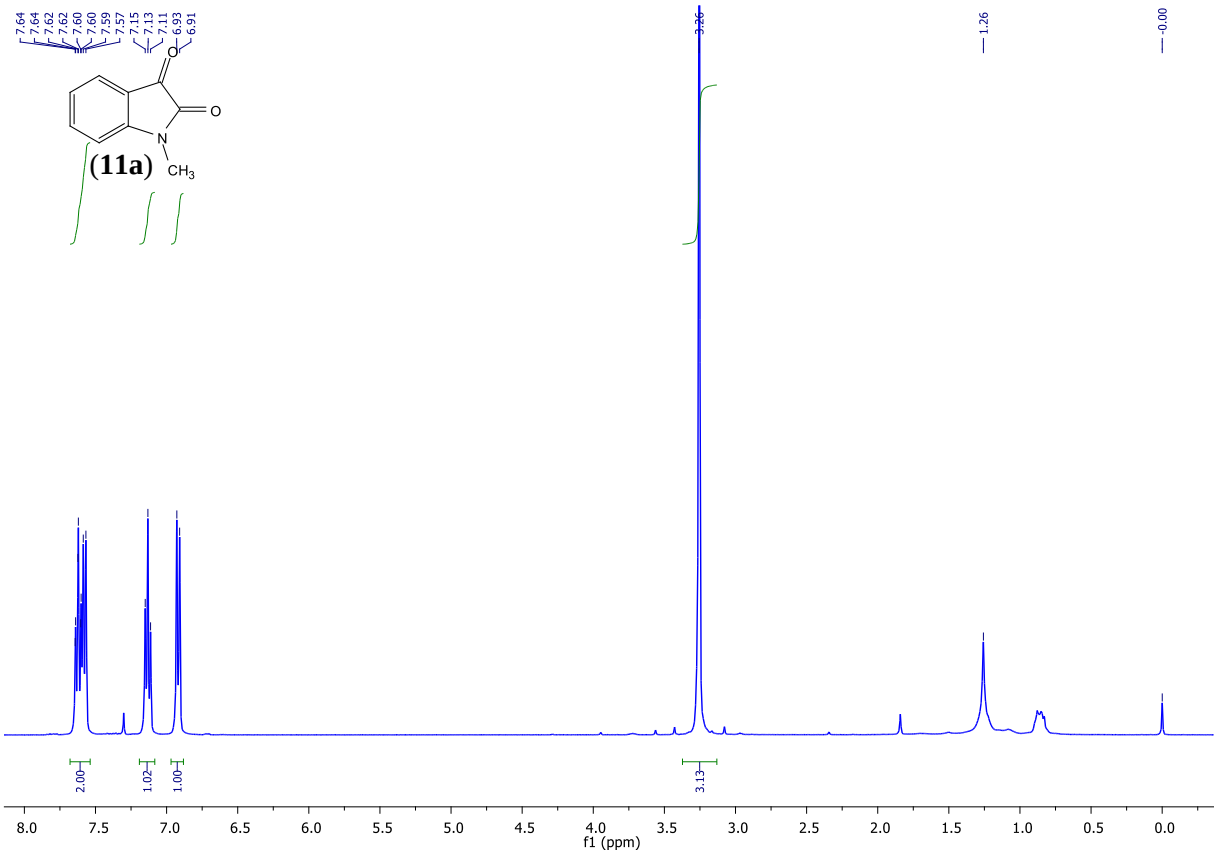
^{1}H NMR spektrum látky **10a**.



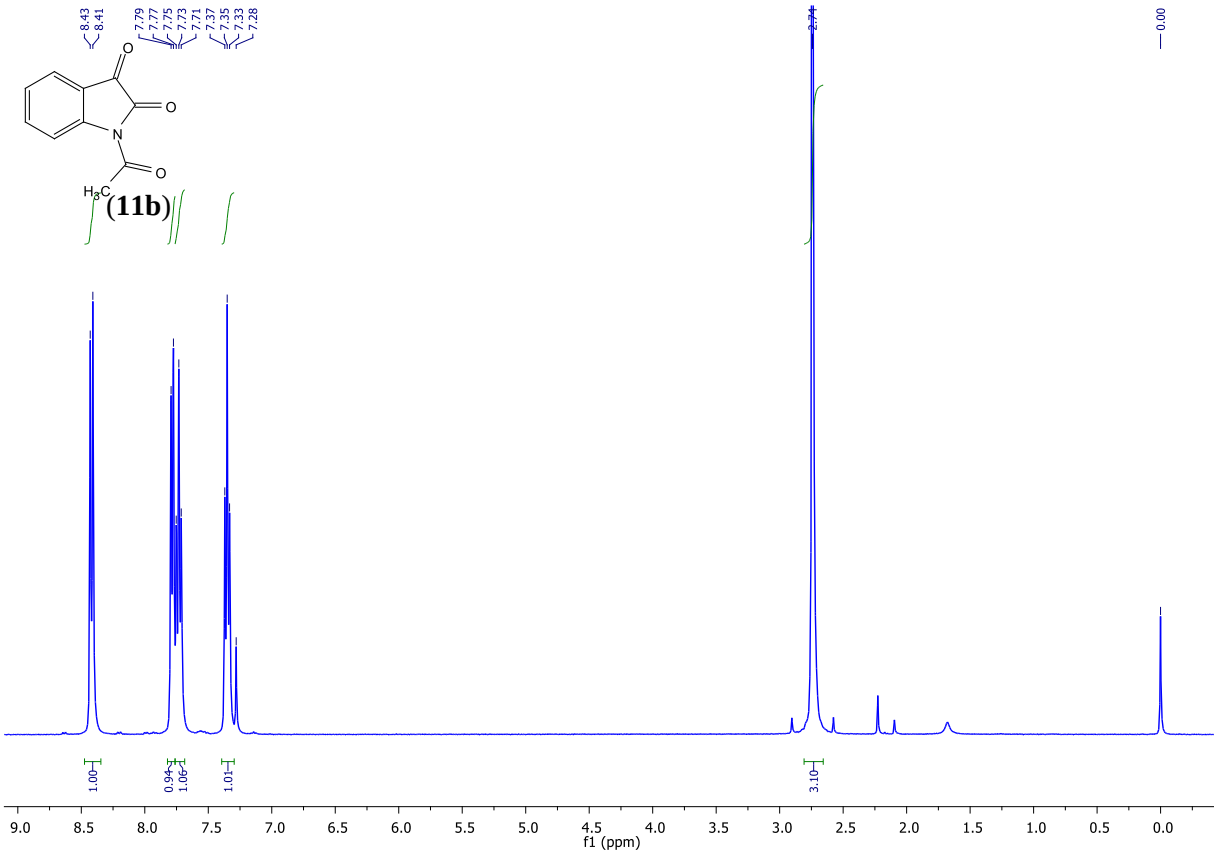
^{1}H NMR spektrum látky **10b**.



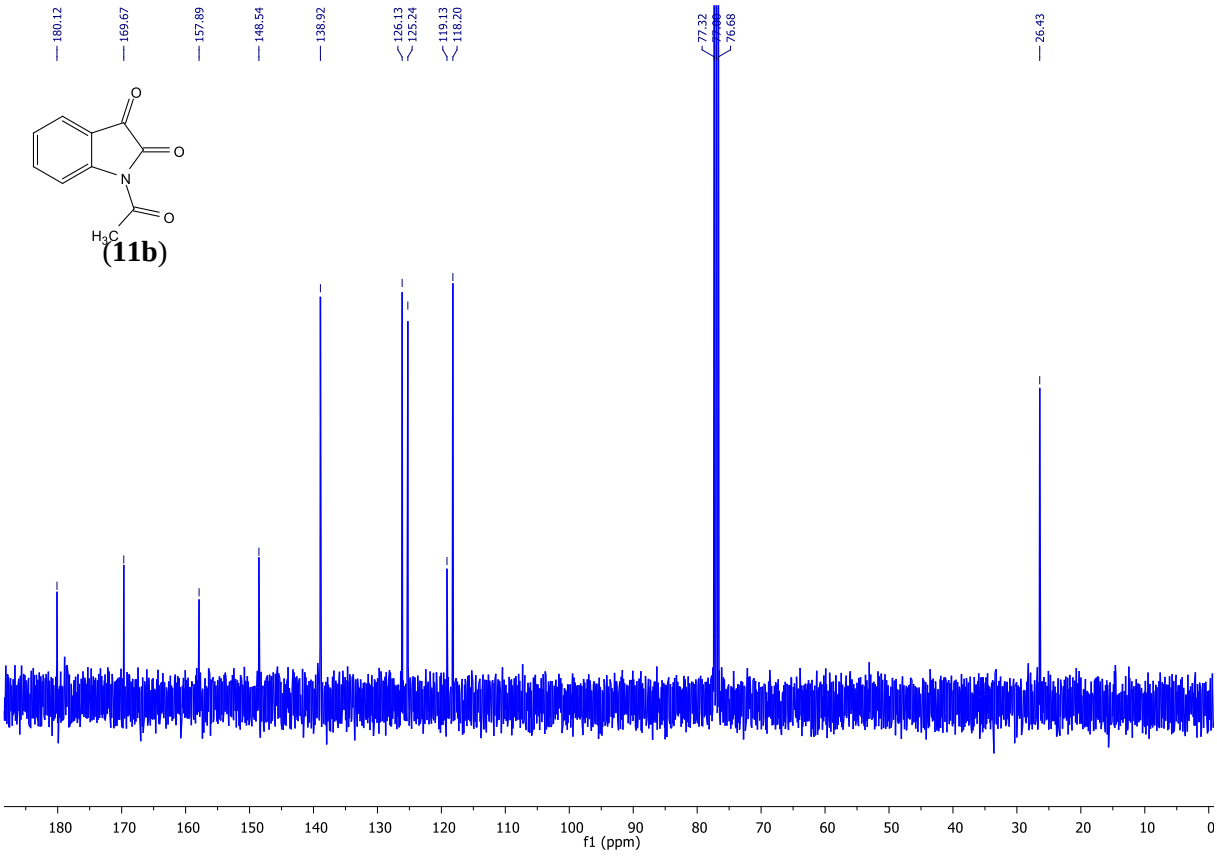
^{13}C NMR spektrum látky **10b**.



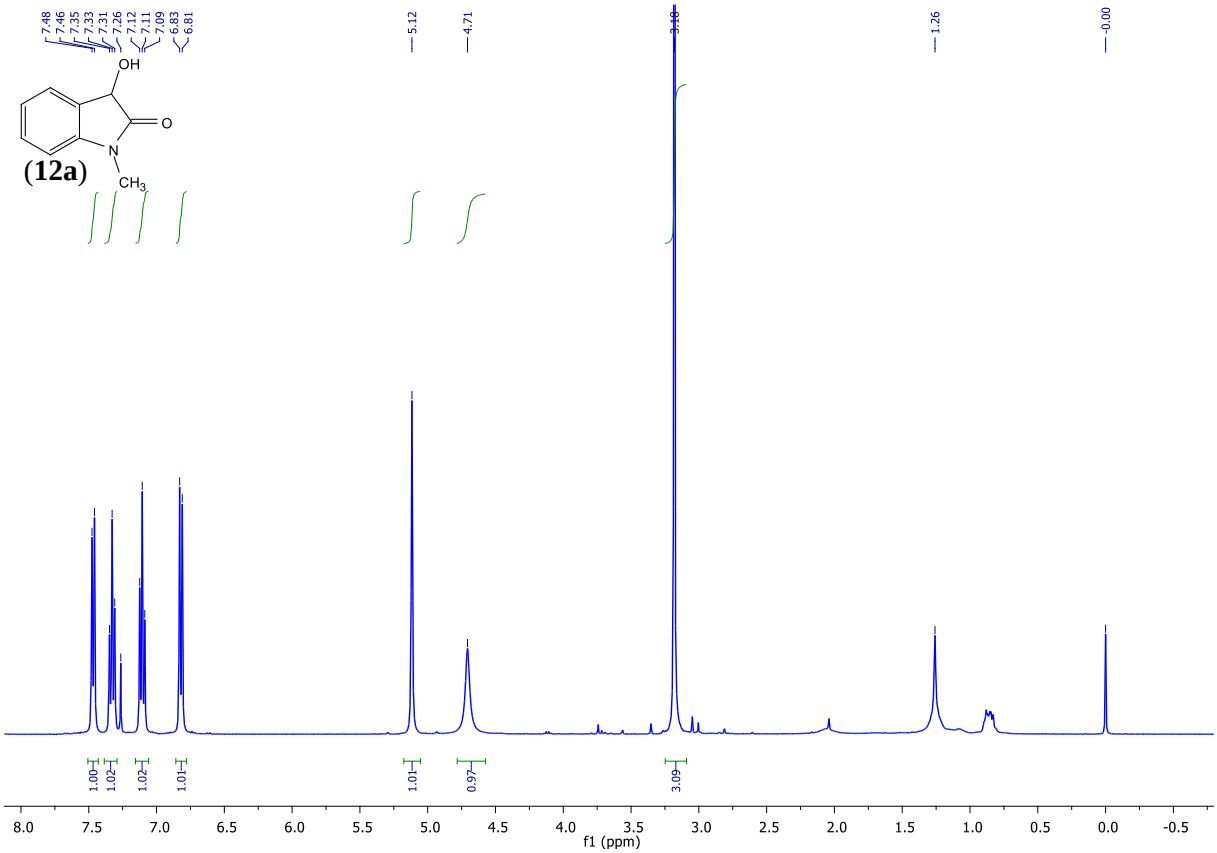
^{1}H NMR spektrum látky **11a**.



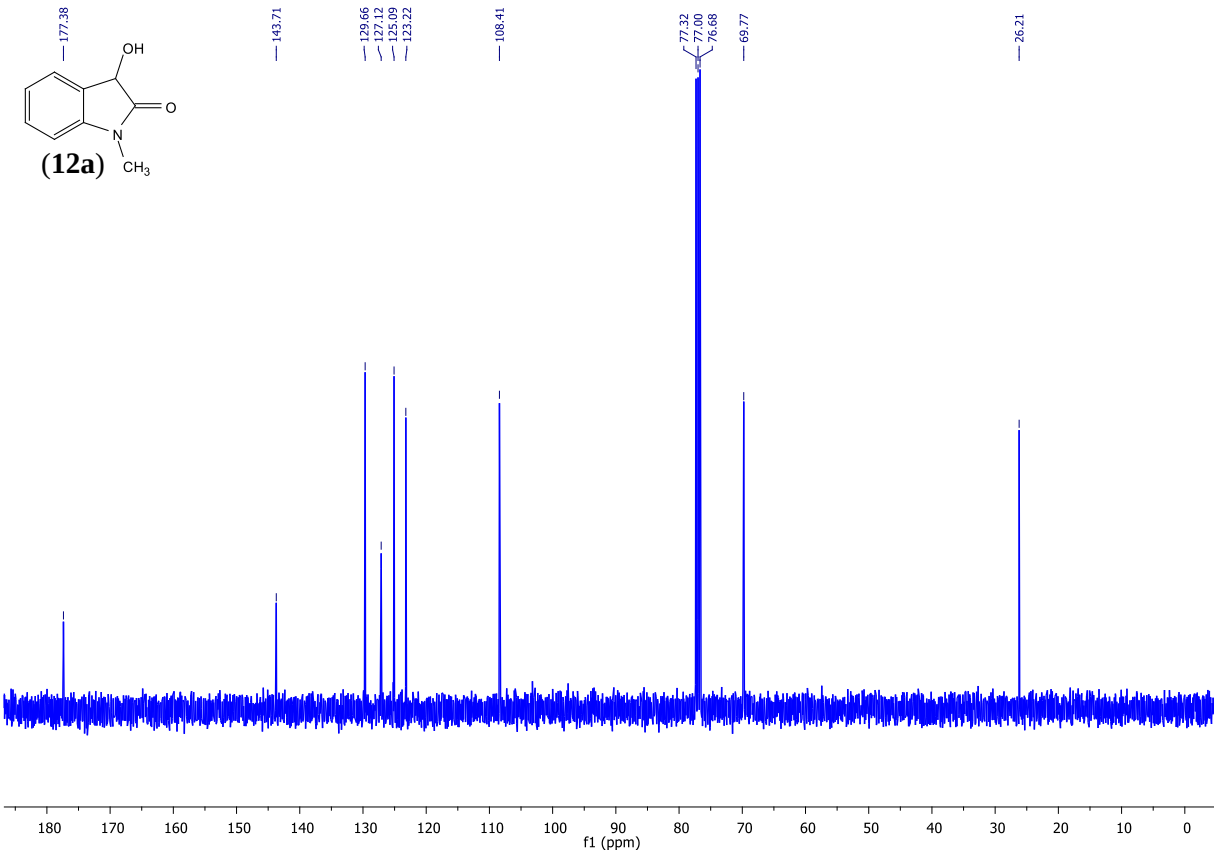
^{1}H NMR spektrum látky **11b**.



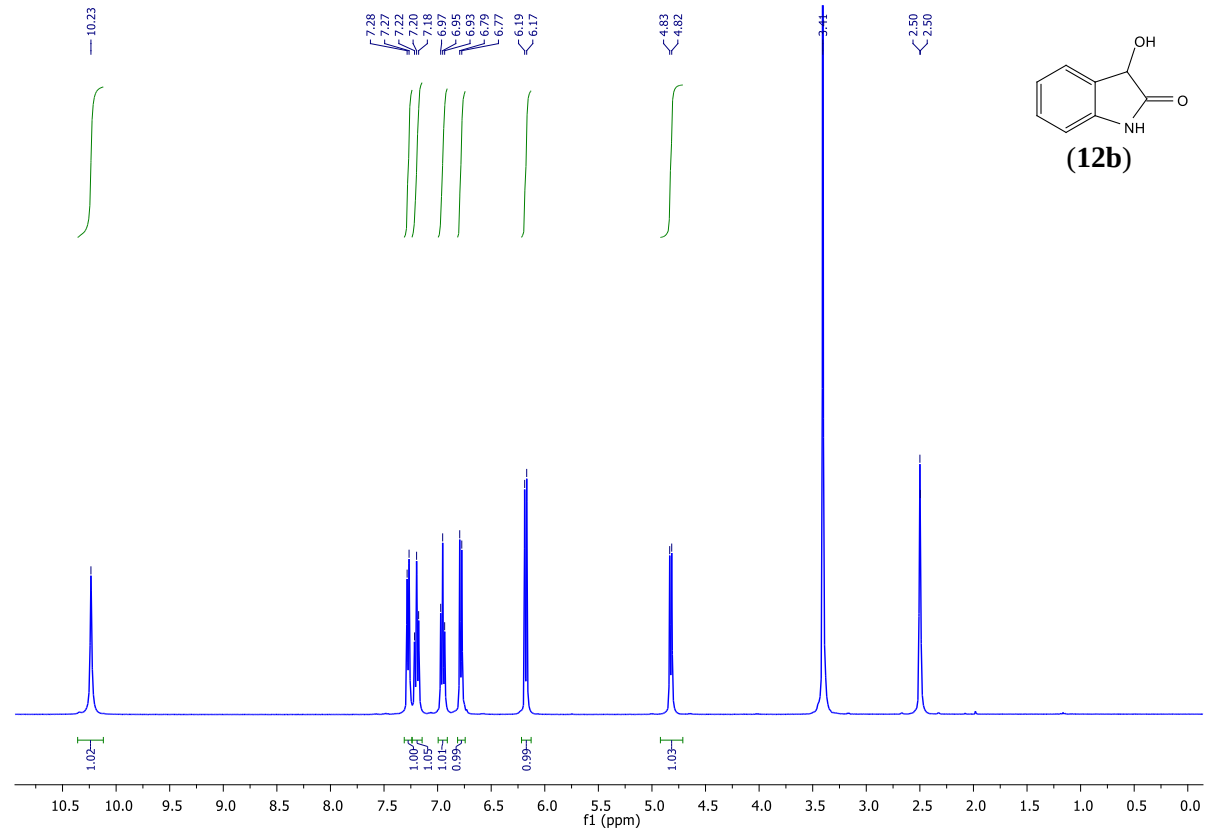
^{13}C NMR spektrum látky **11b**.



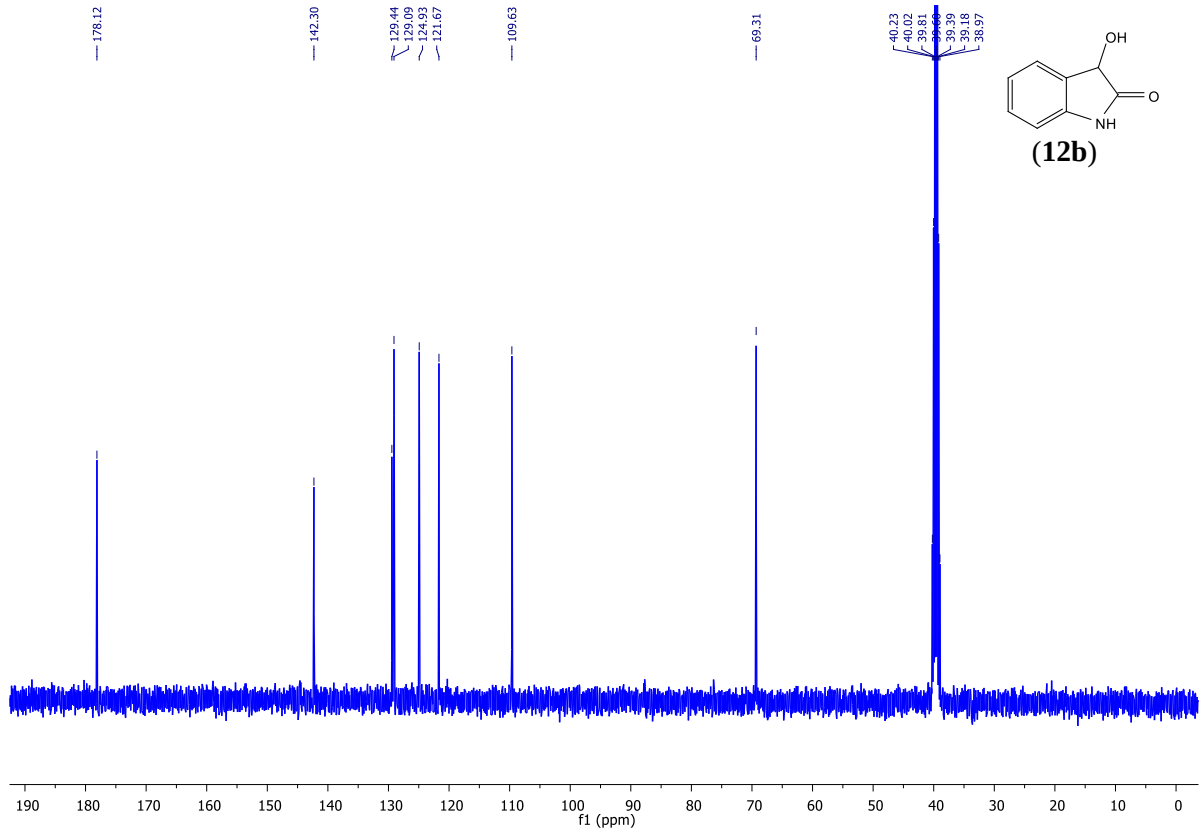
^{1}H NMR spektrum látky **12a**.



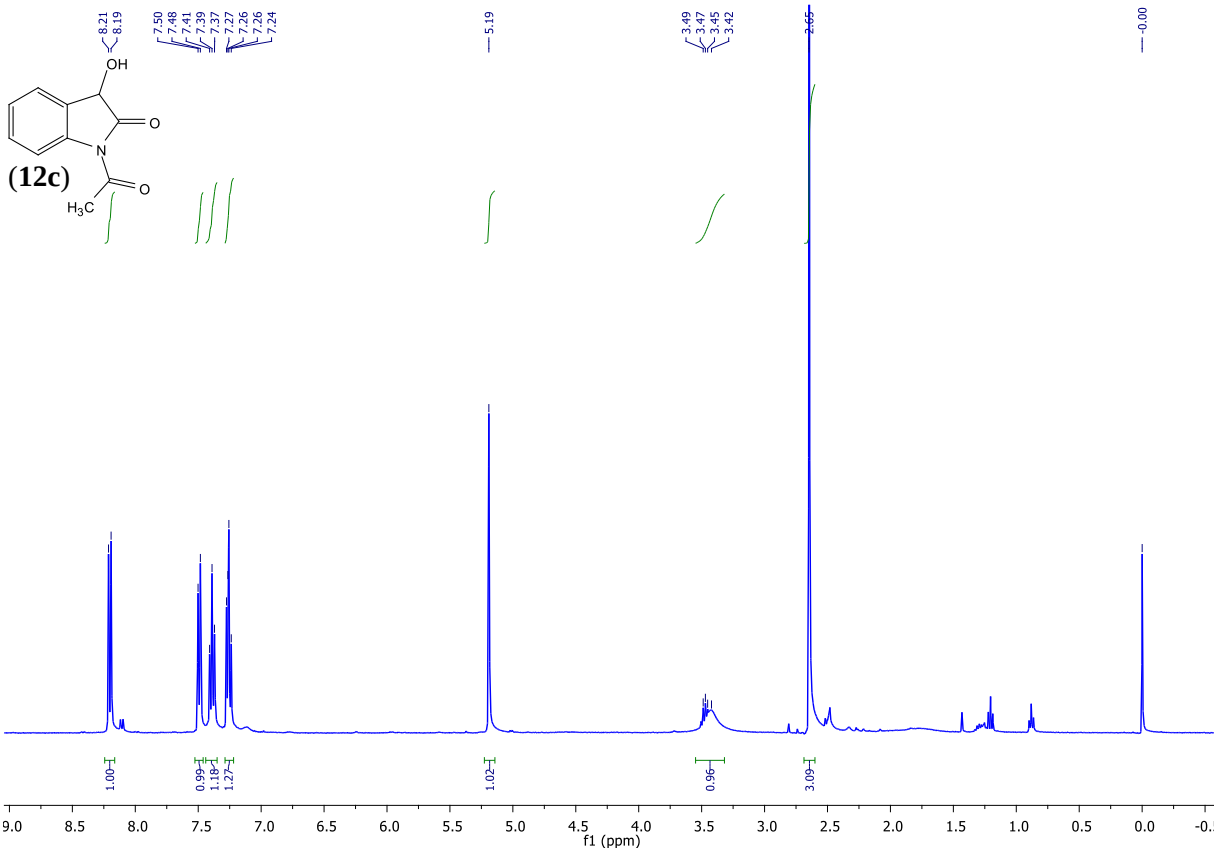
^{13}C NMR spektrum látky **12a**.



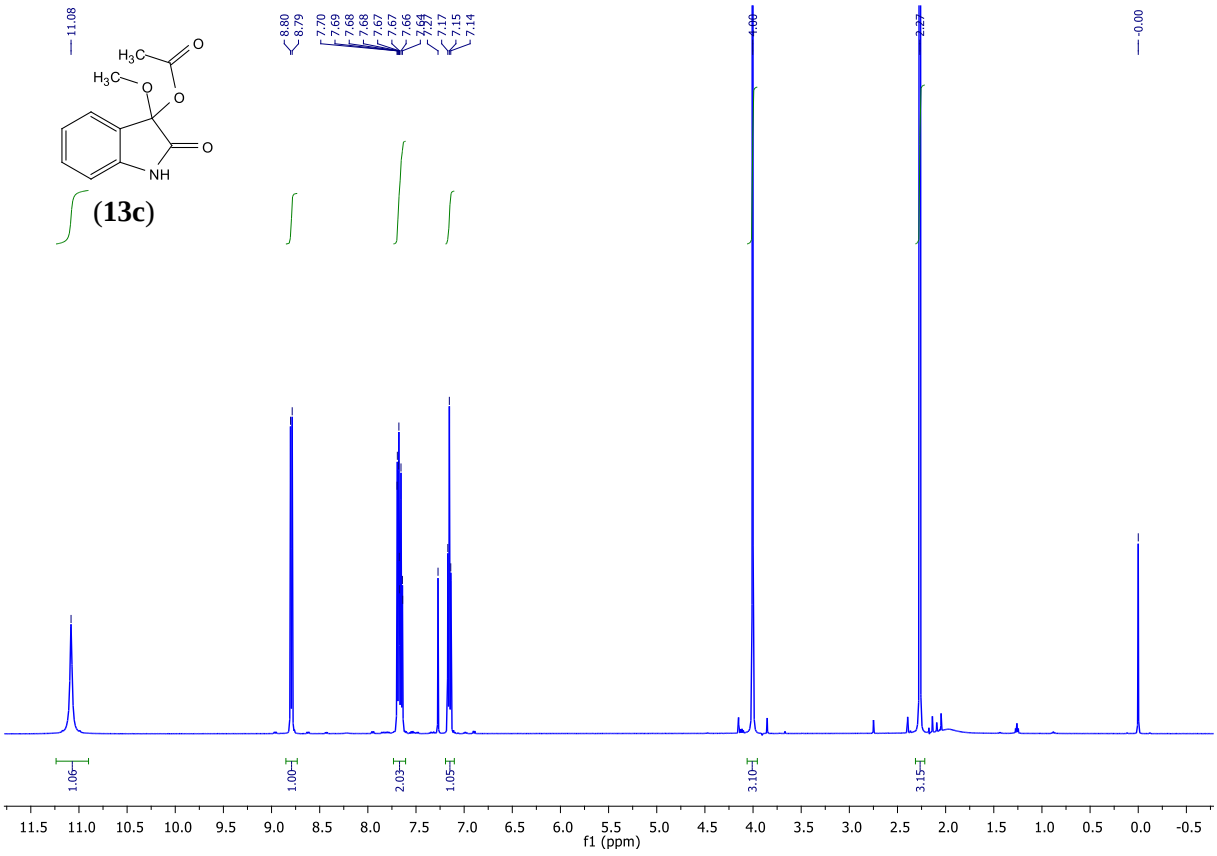
^{1}H NMR spektrum látky **12b**.



^{13}C NMR spektrum látky **12b**.

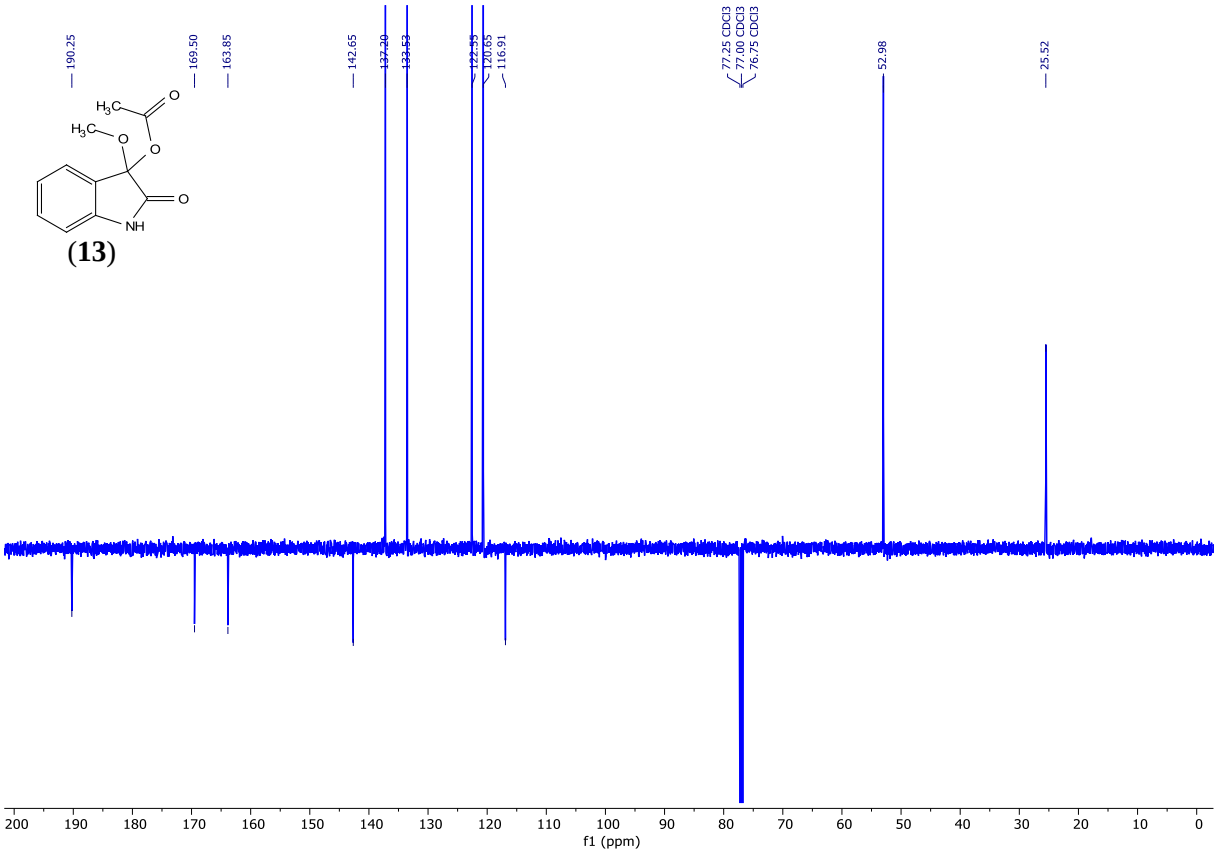


^{1}H NMR spektrum látky **12c**.



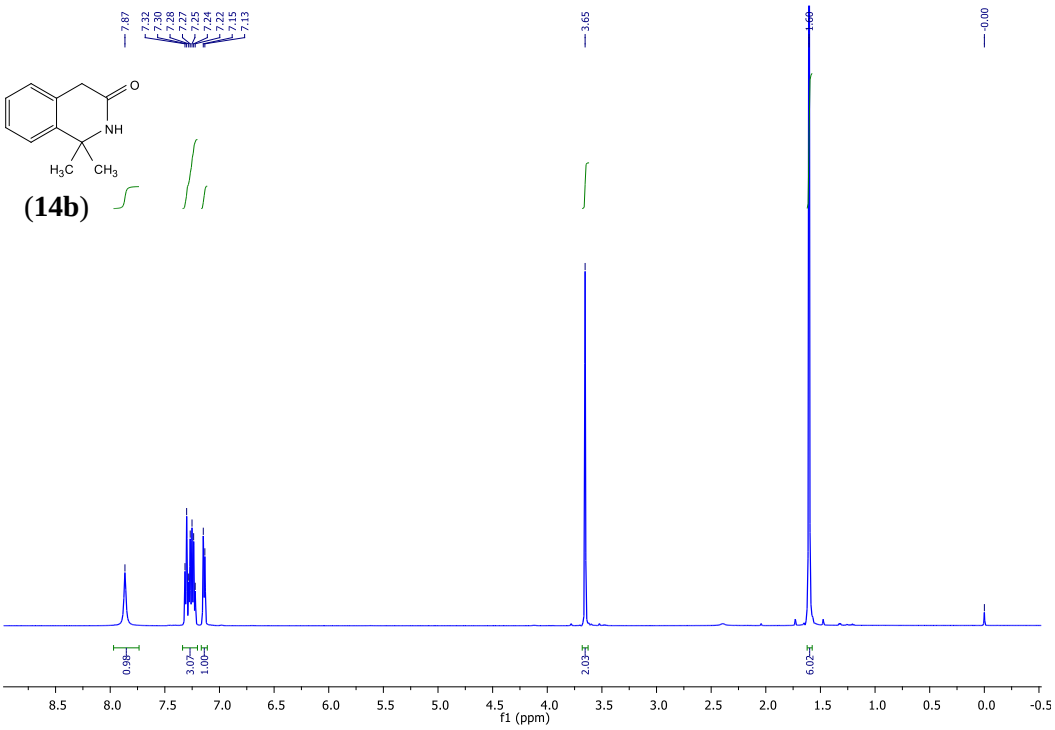
(**13c**)

^{1}H NMR spektrum látky **13**.

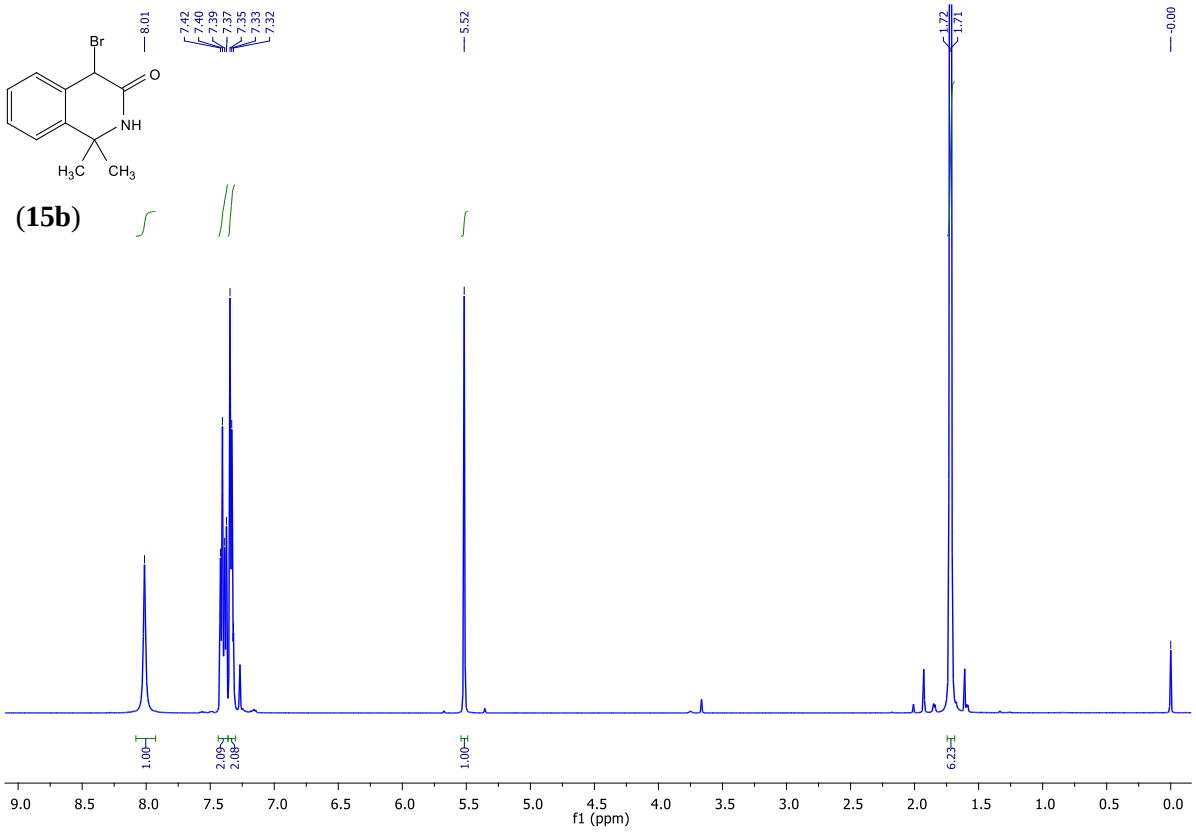


(**13**)

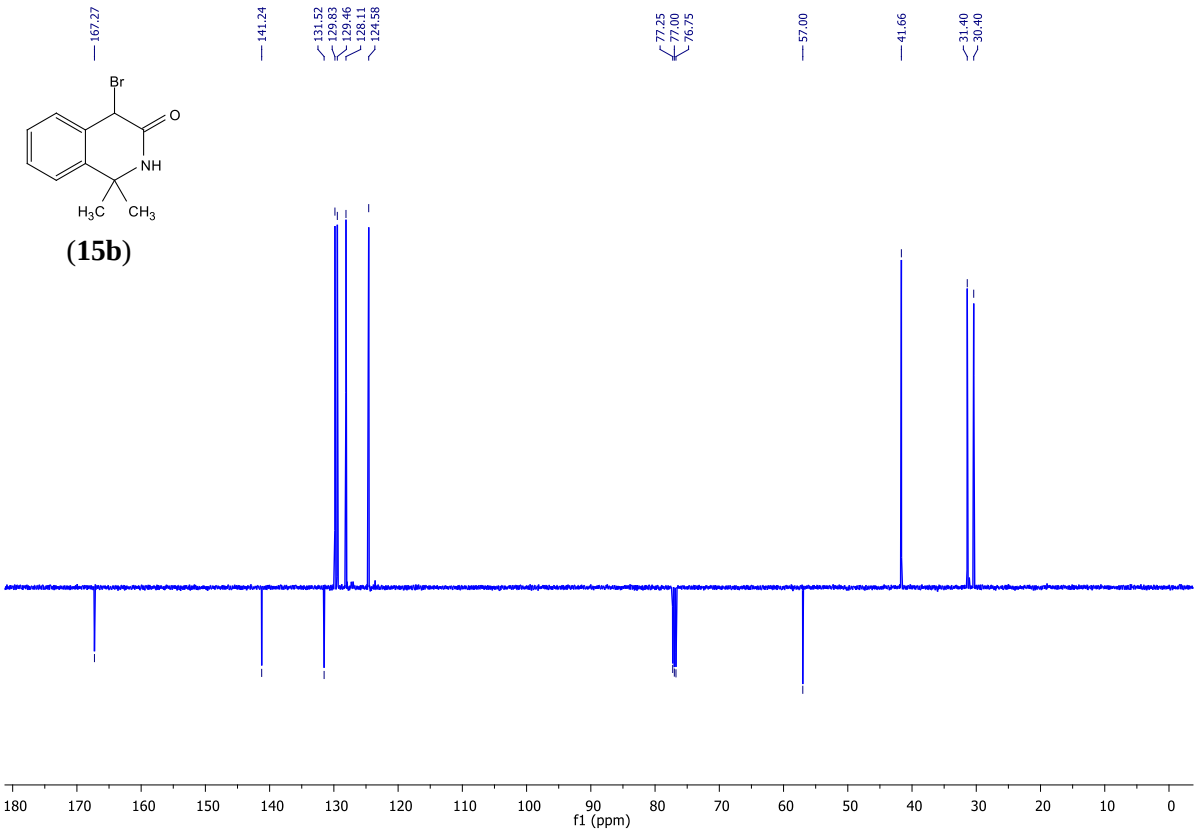
^{13}C NMR-APT spektrum látky **13**.



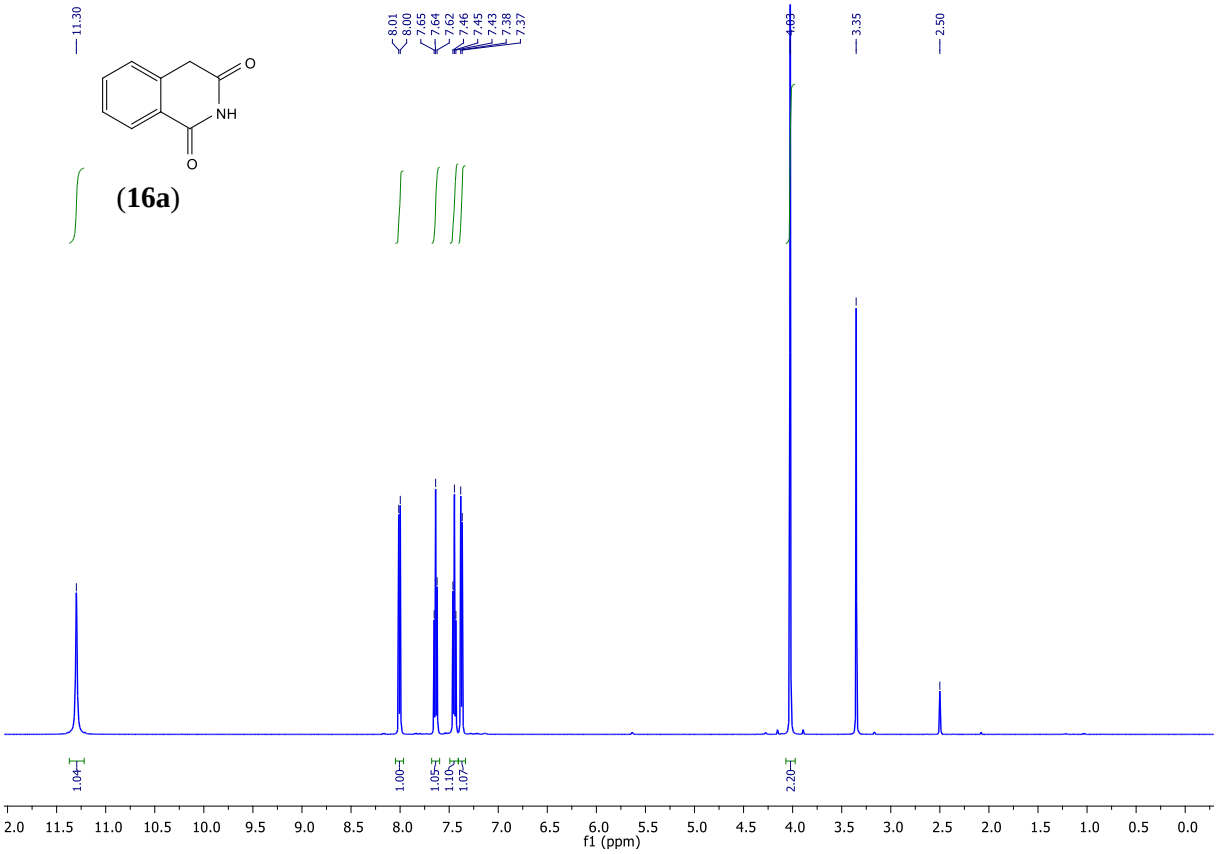
^{1}H NMR spektrum látky **14b**.



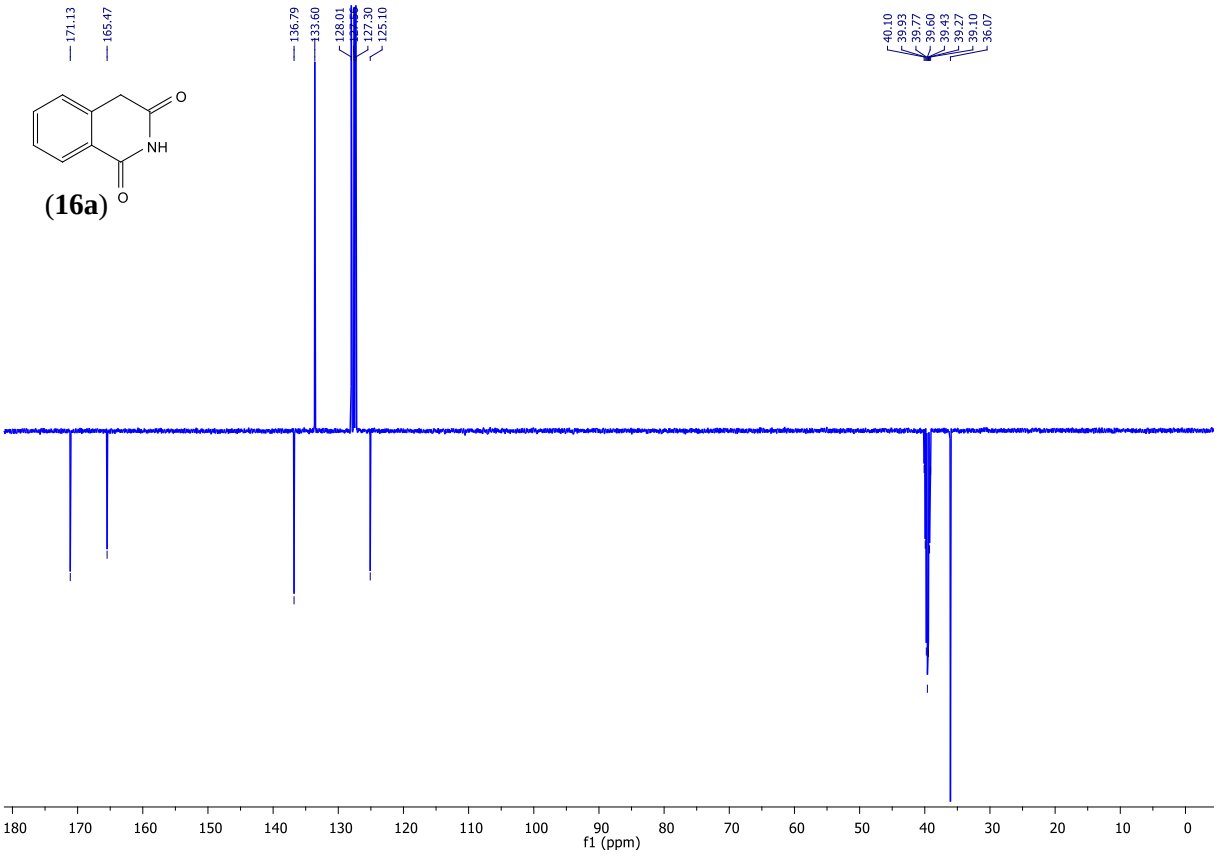
^{1}H NMR spektrum látky **15b**.



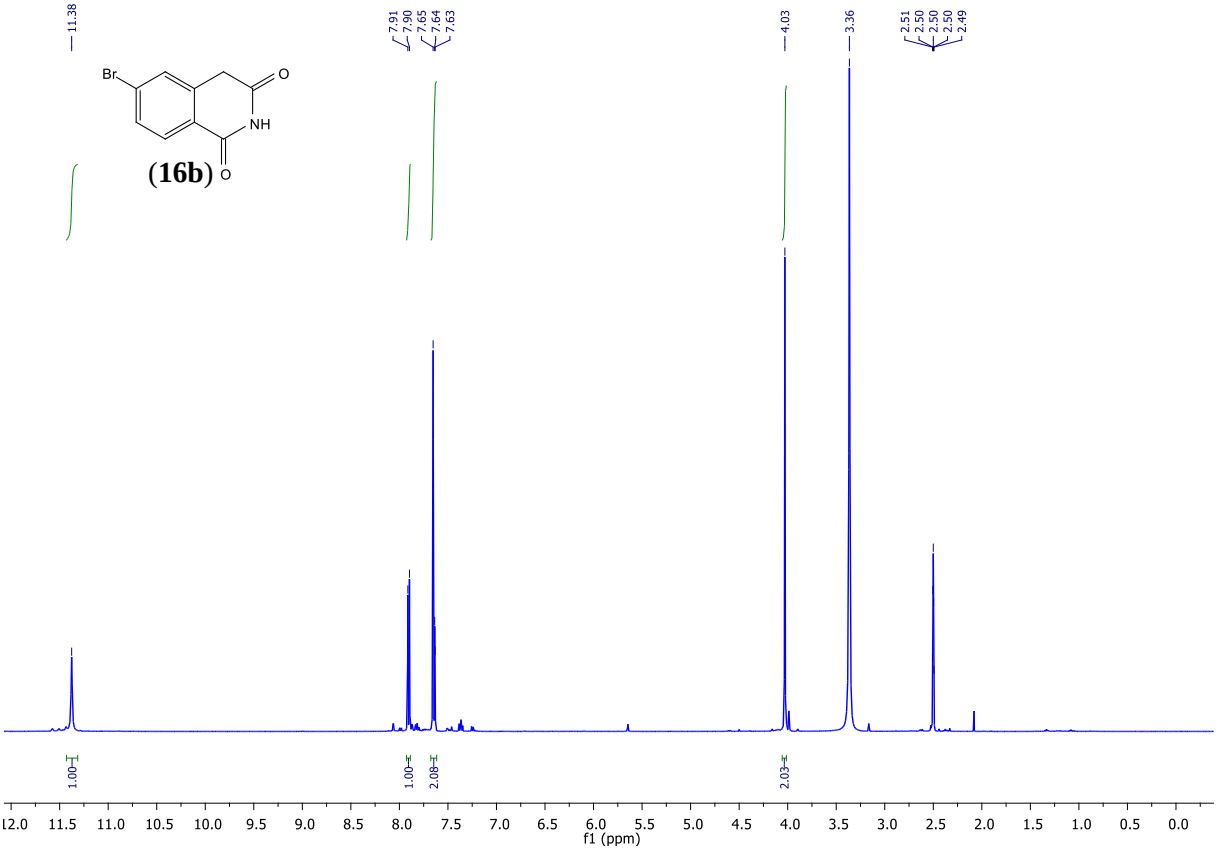
^{13}C NMR-APT spektrum látky **15b**.



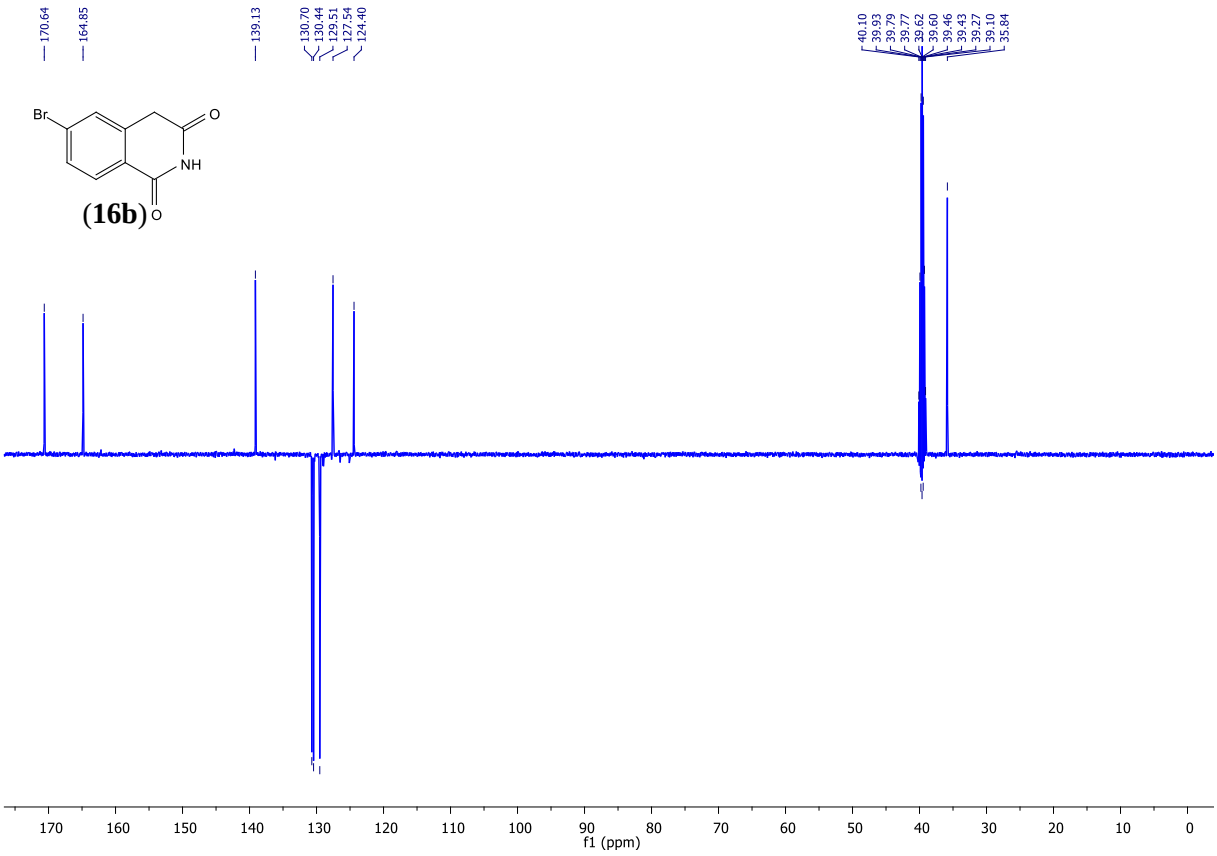
^{1}H NMR spektrum látky **16a**.



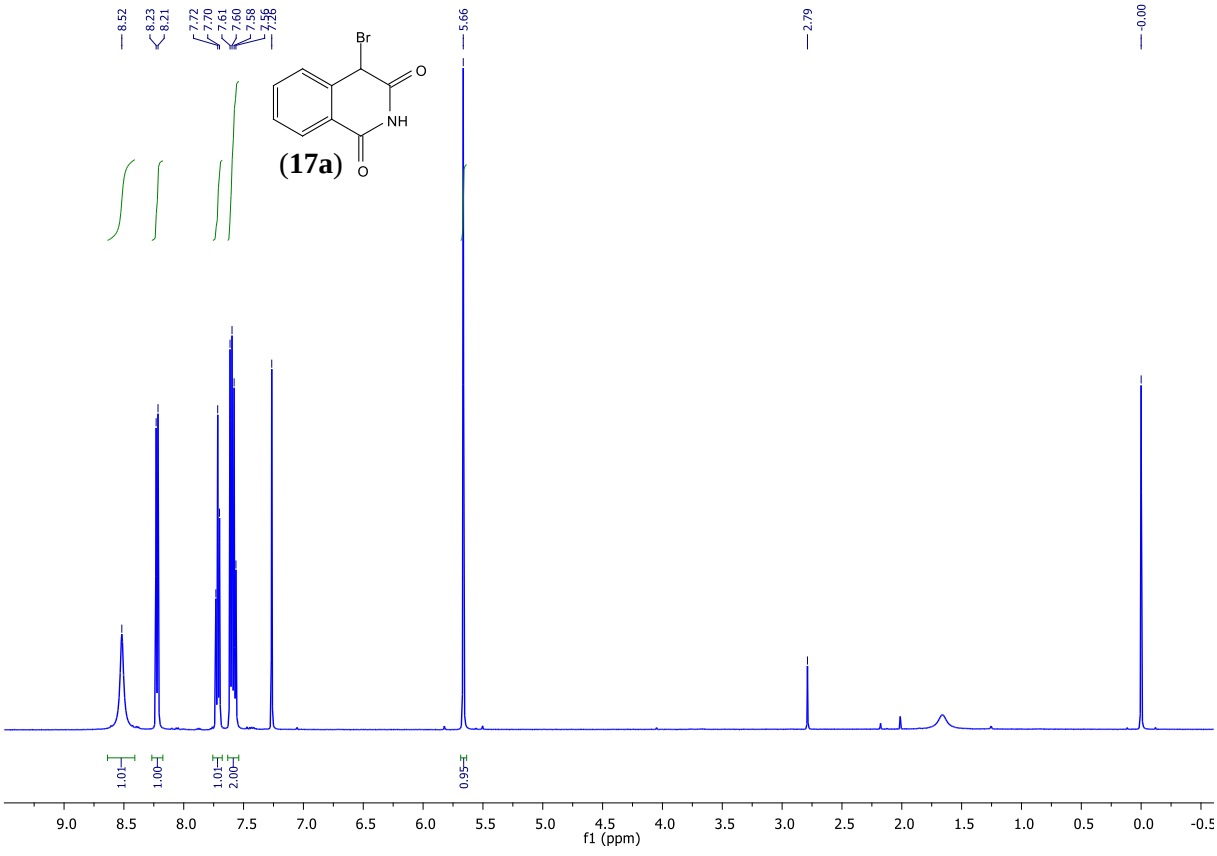
^{13}C NMR-APT spektrum látky **16a**.



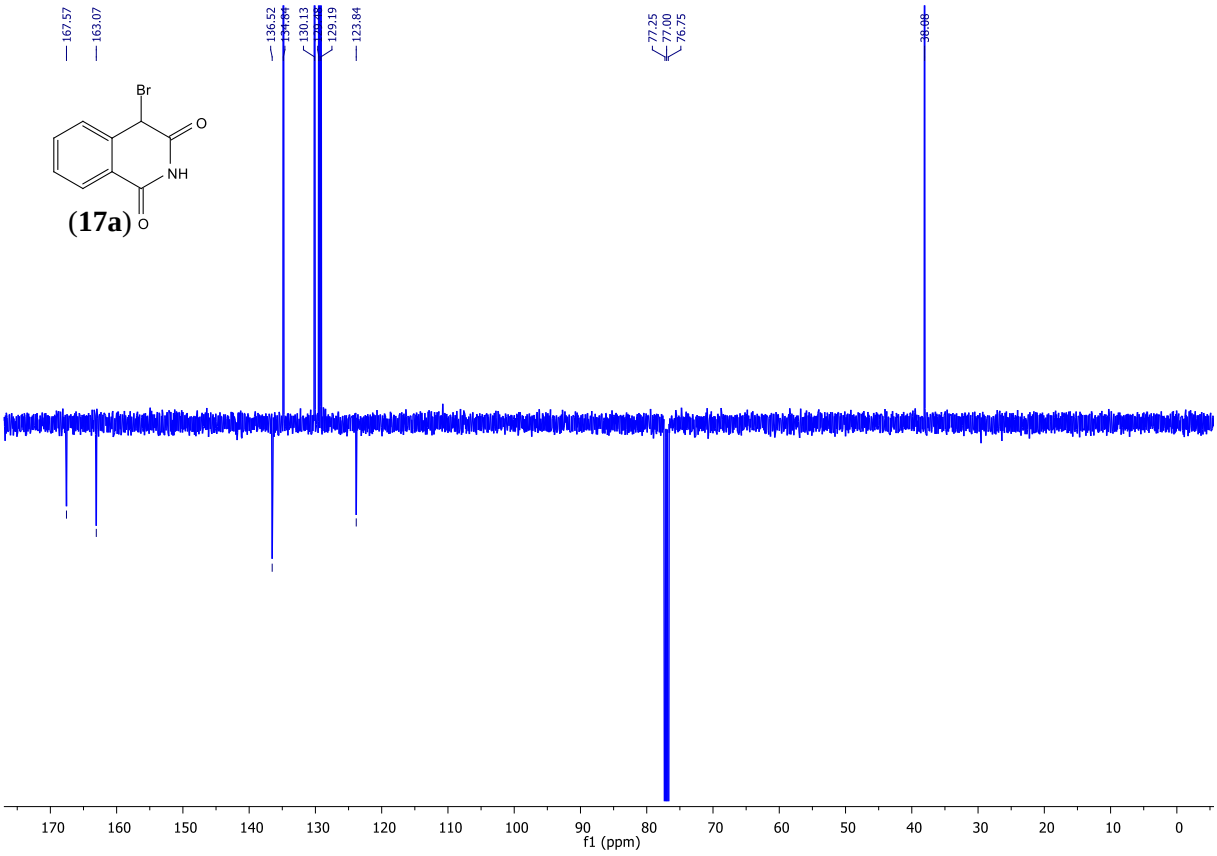
^{1}H NMR spektrum látky **16b**.



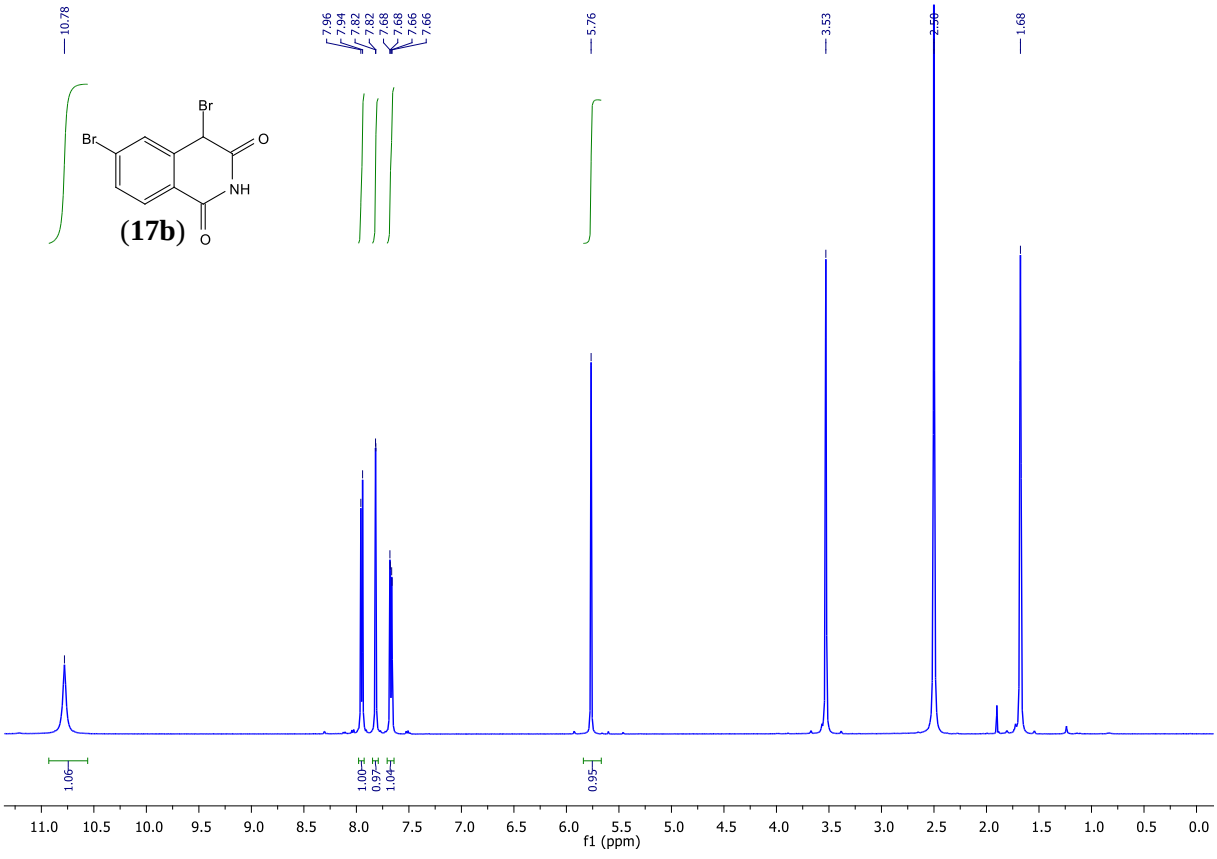
^{13}C NMR-APT spektrum látky **16b**.



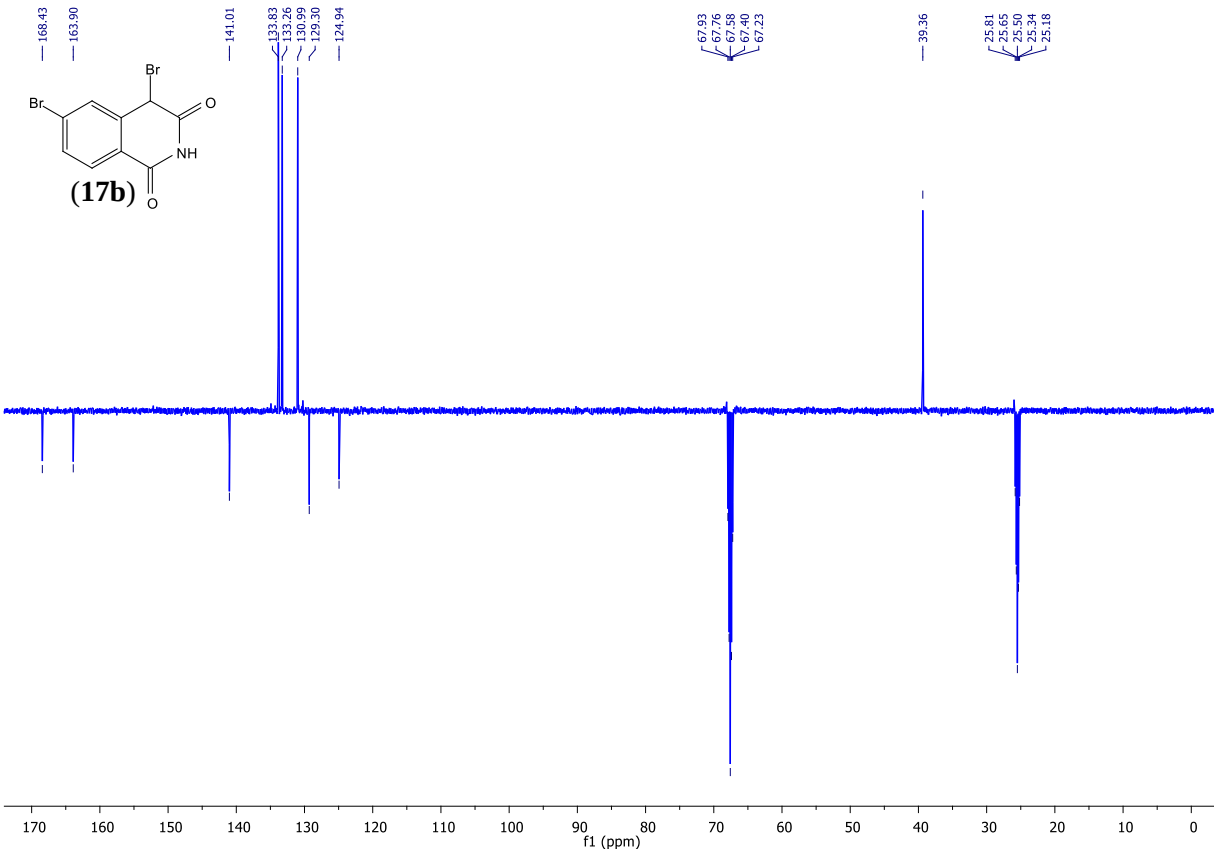
^{1}H NMR spektrum látky **17a**.



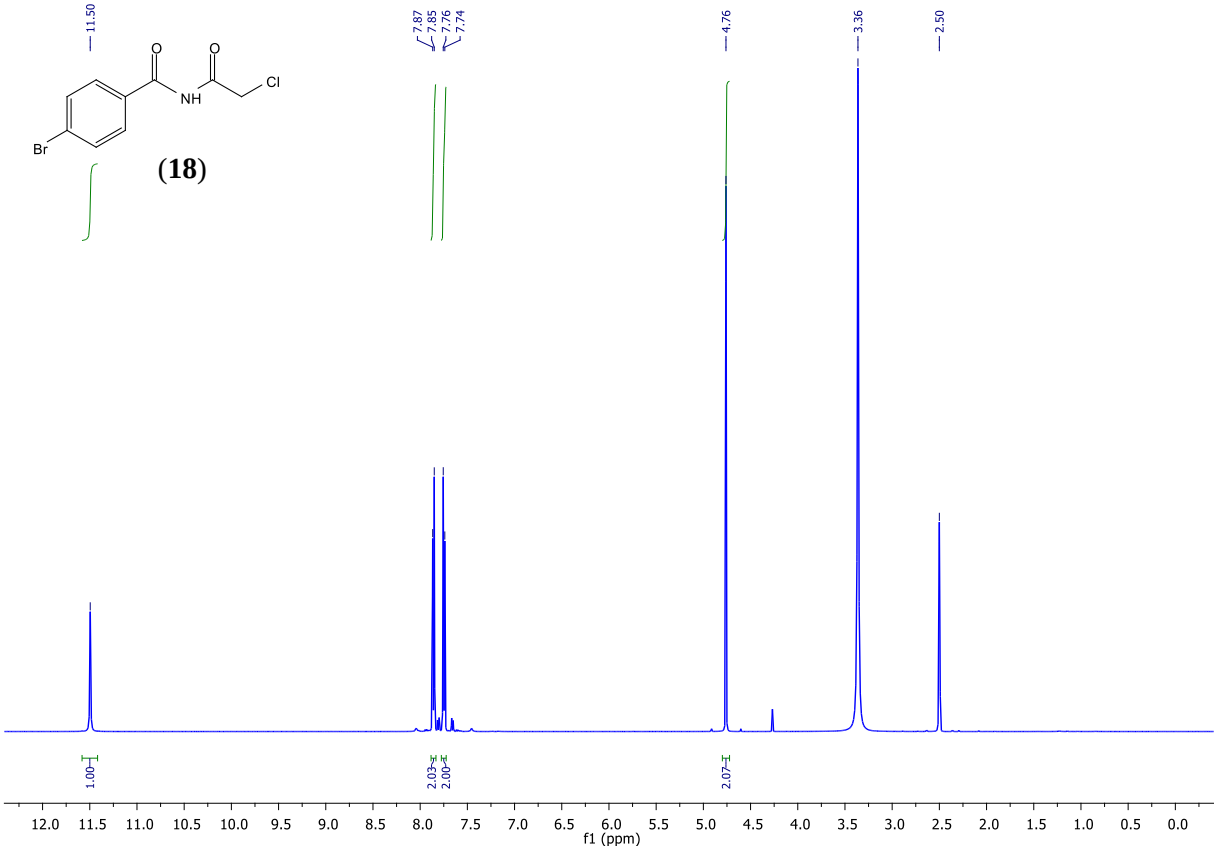
^{13}C NMR-APT spektrum látky **17a**.



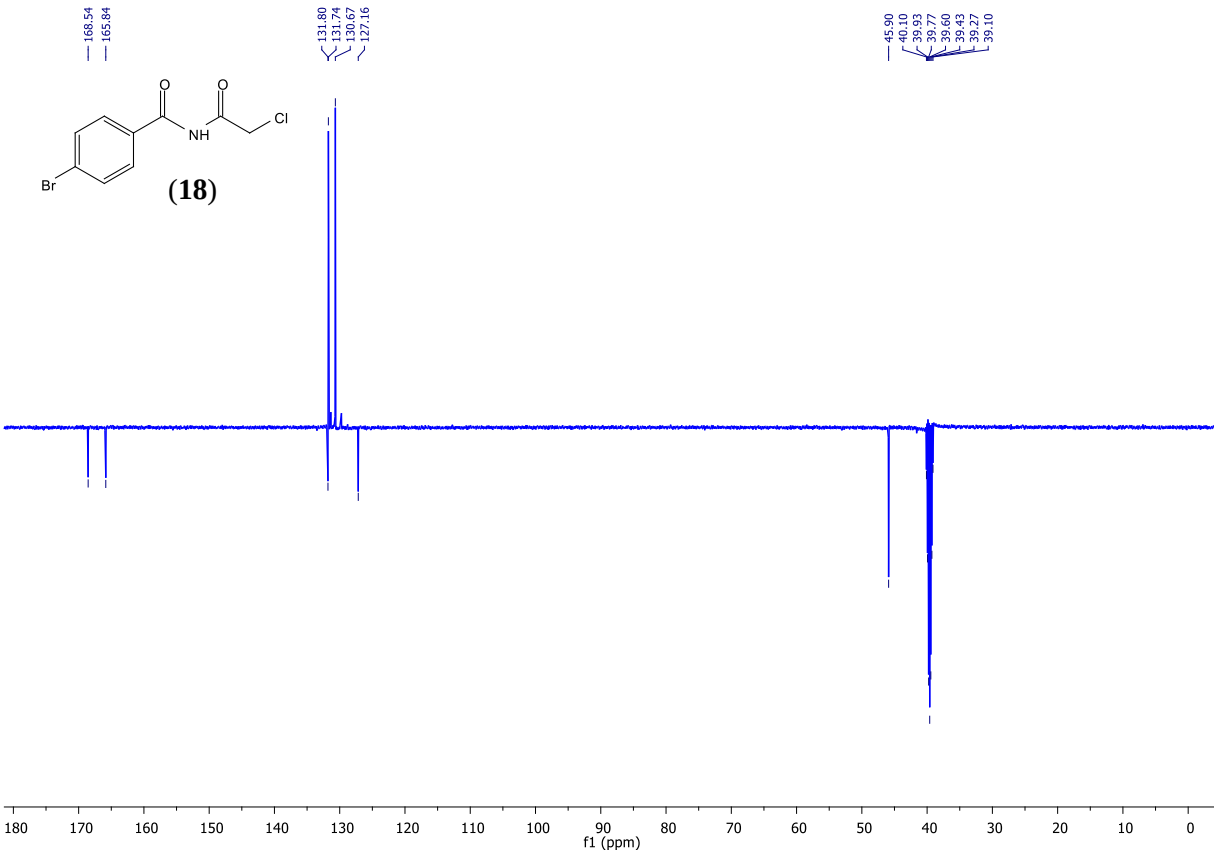
^{1}H NMR spektrum látky **17b**.



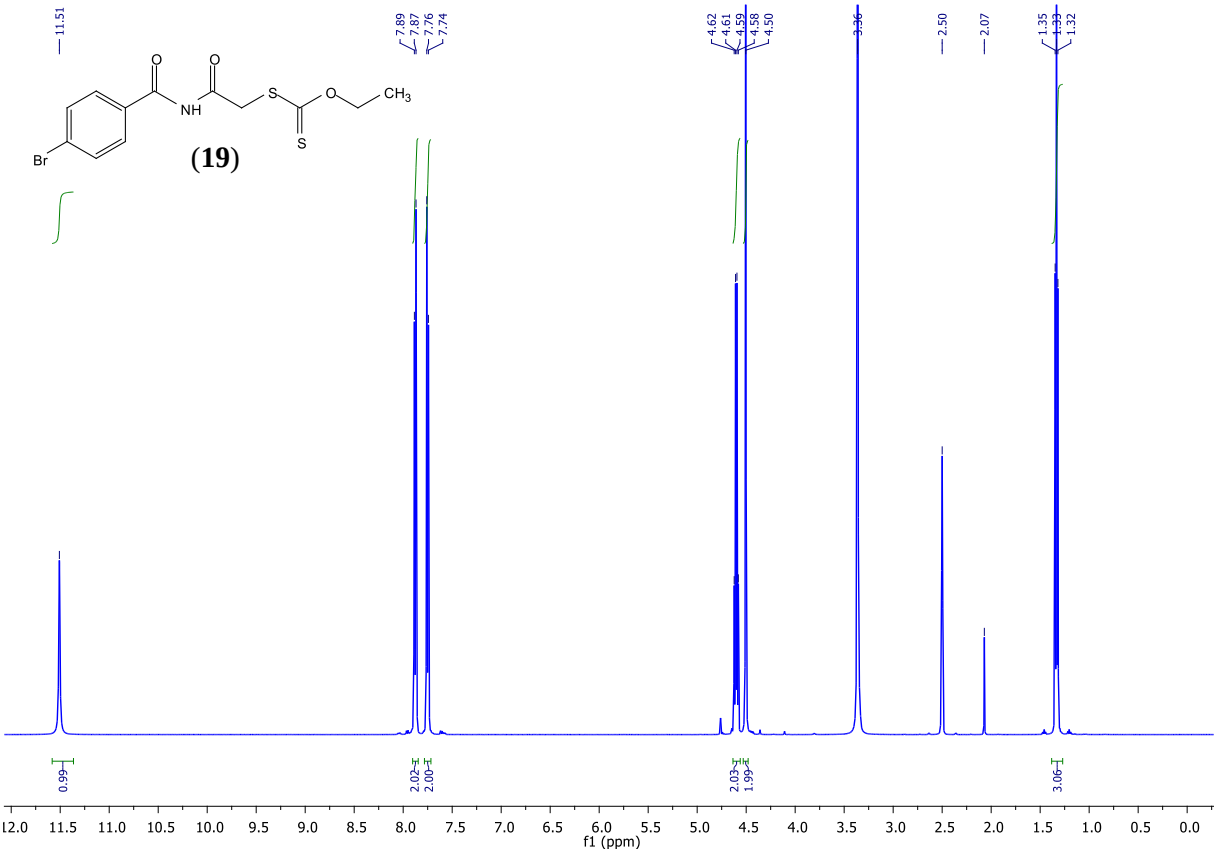
^{13}C NMR-APT spektrum látky **17b**.



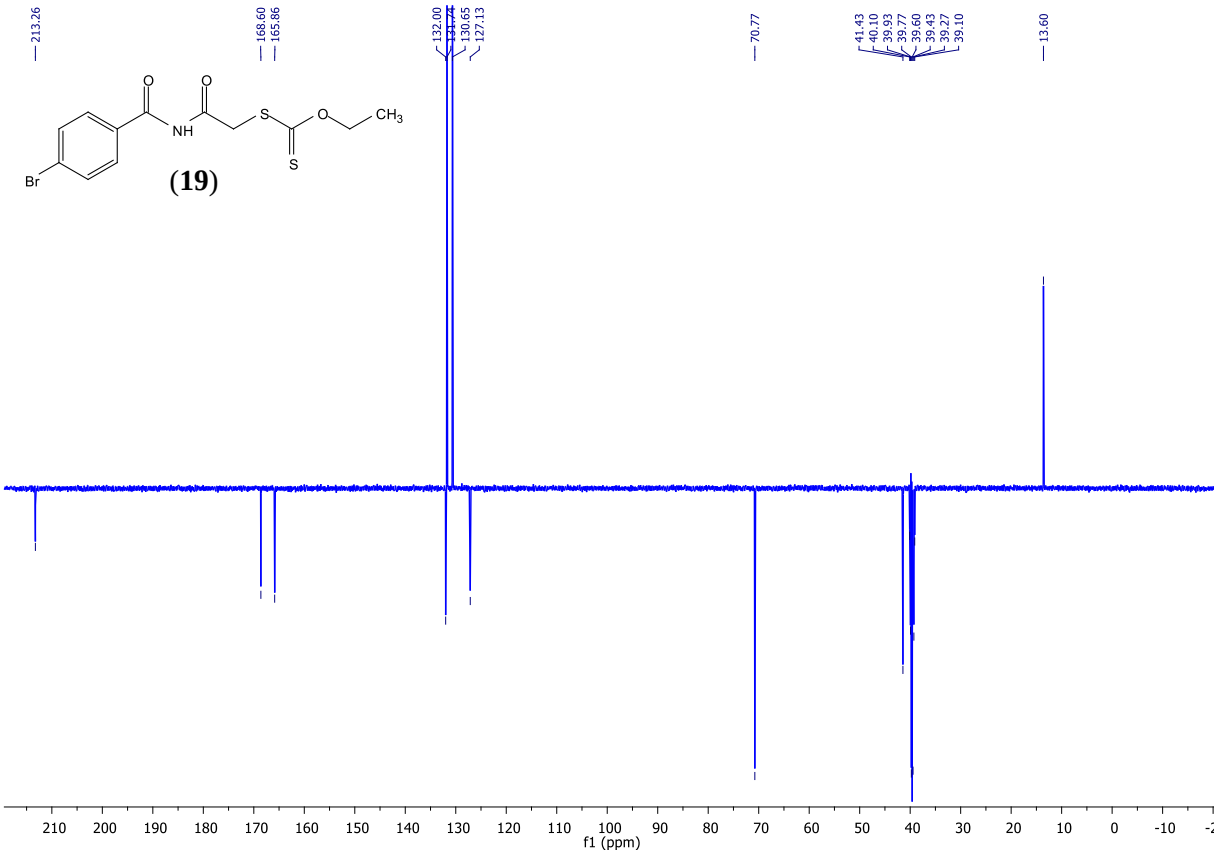
^{1}H NMR spektrum látky **18**.



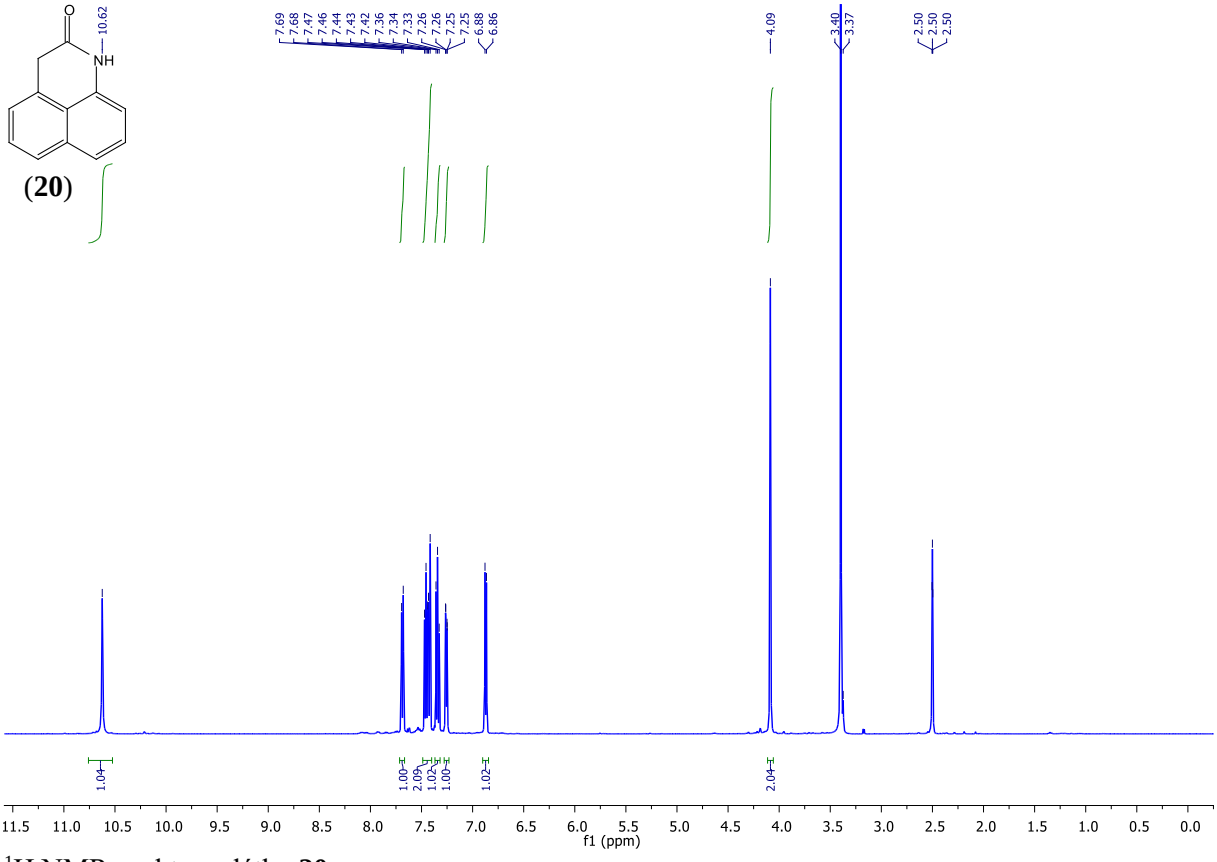
^{13}C NMR-APT spektrum látky **18**.



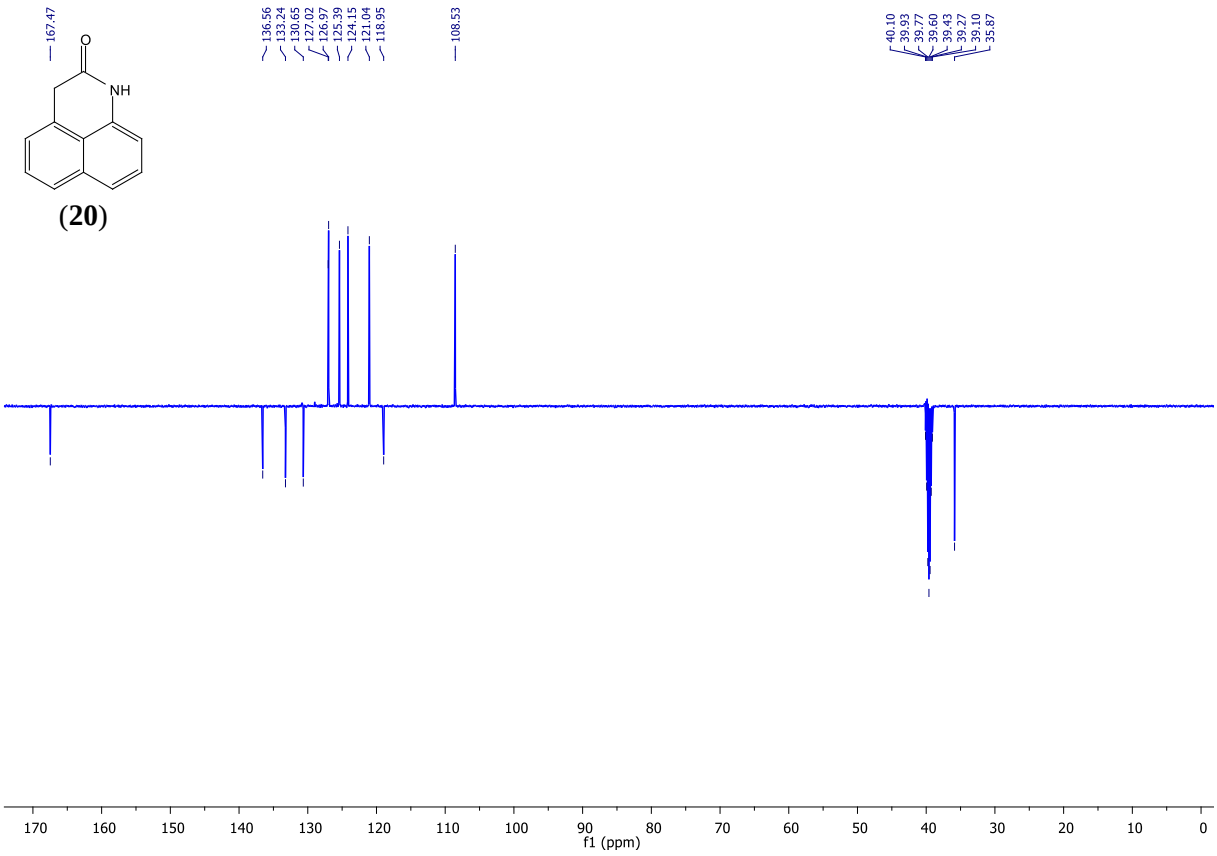
^{1}H NMR spektrum látky **19**.



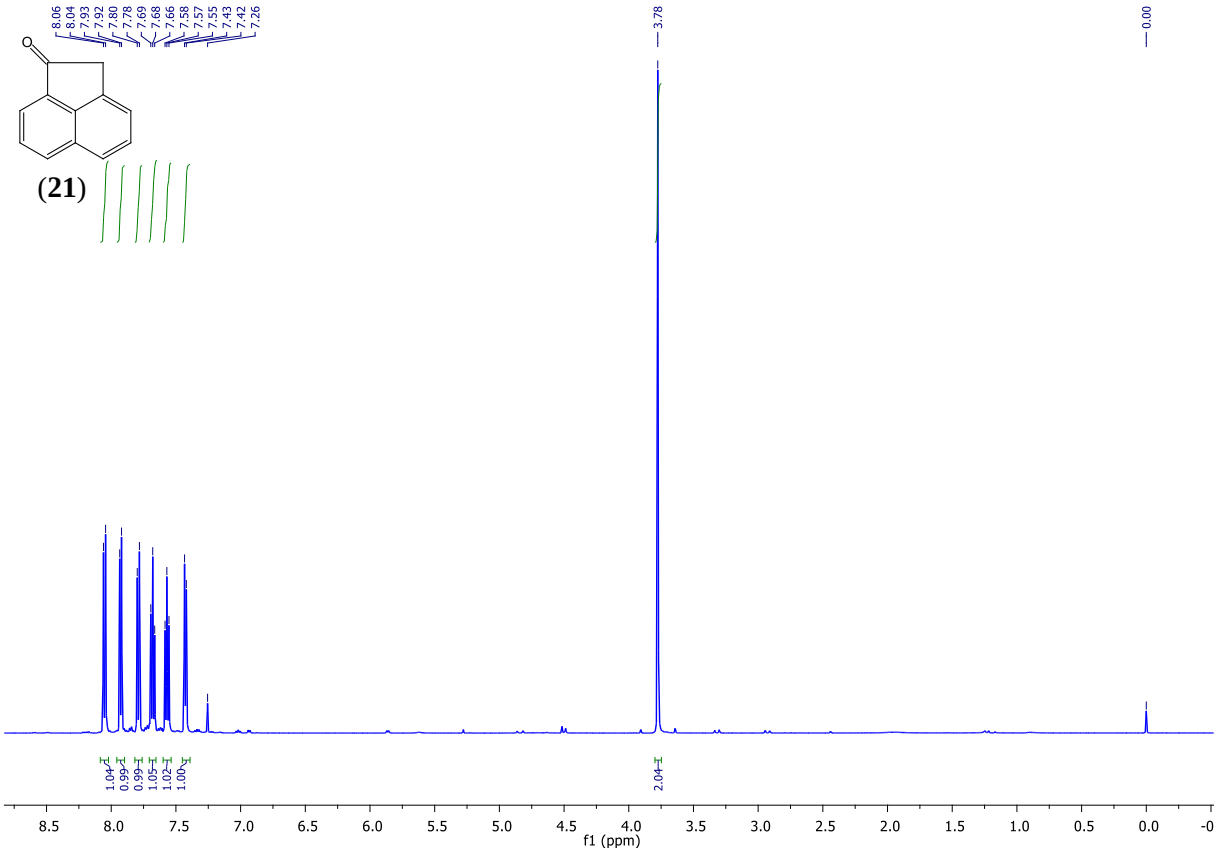
^{13}C NMR-APT spektrum látky **19**.



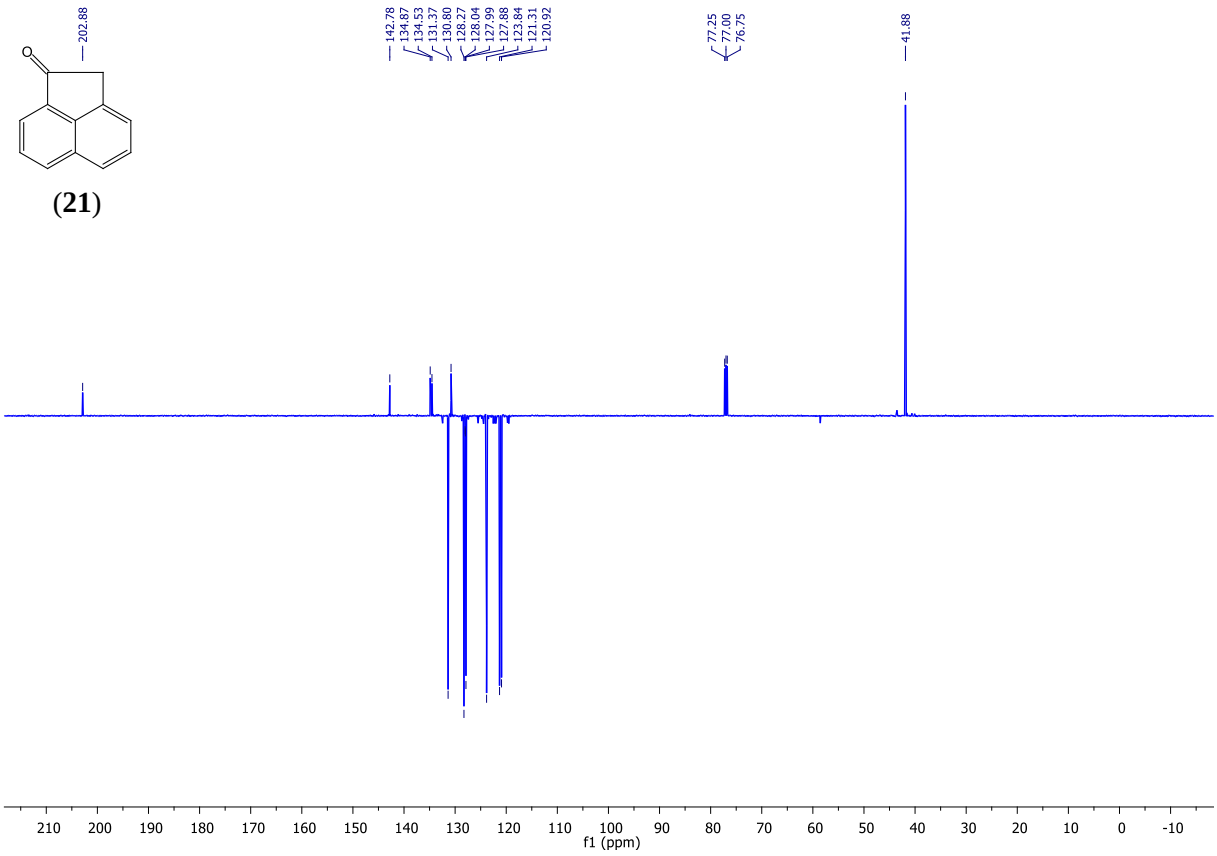
^{1}H NMR spektrum látky **20**.



^{13}C NMR-APT spektrum látky **20**.

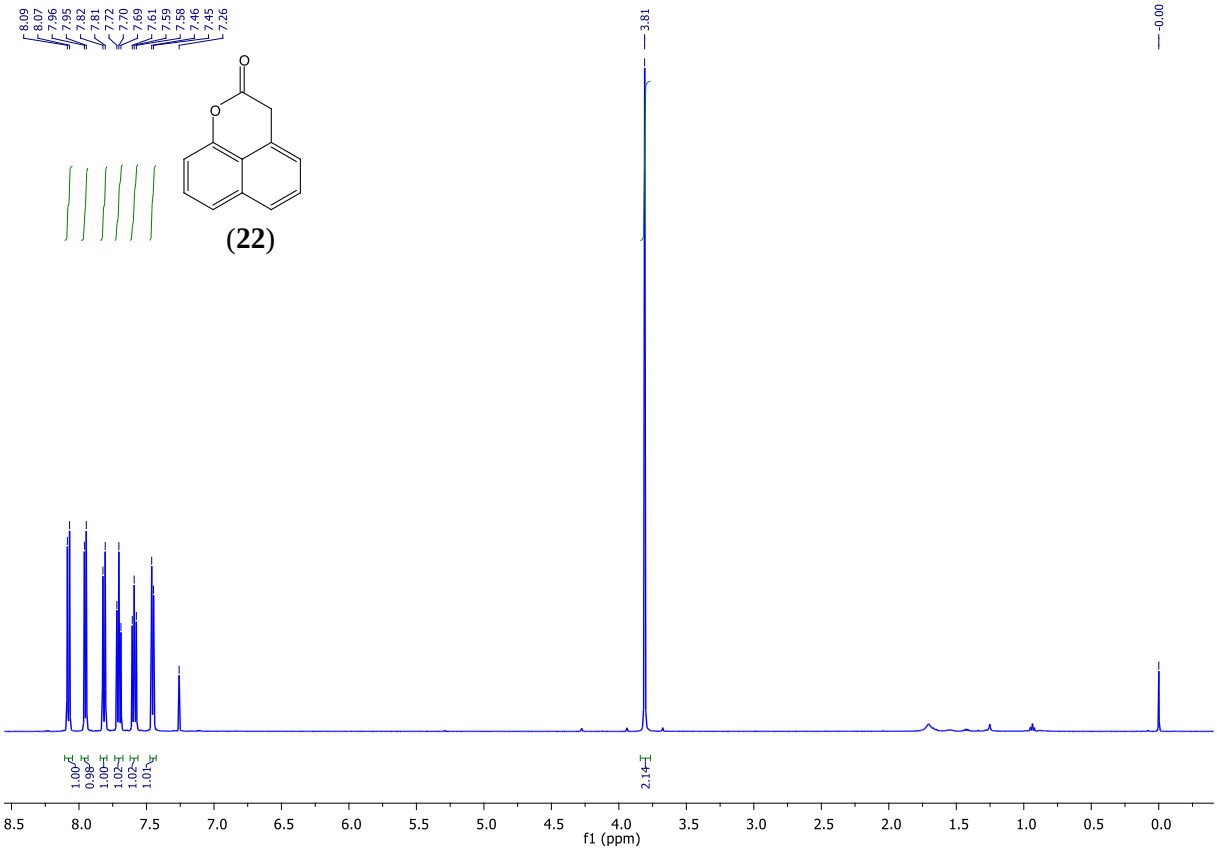


^{1}H NMR spektrum látky **21**.



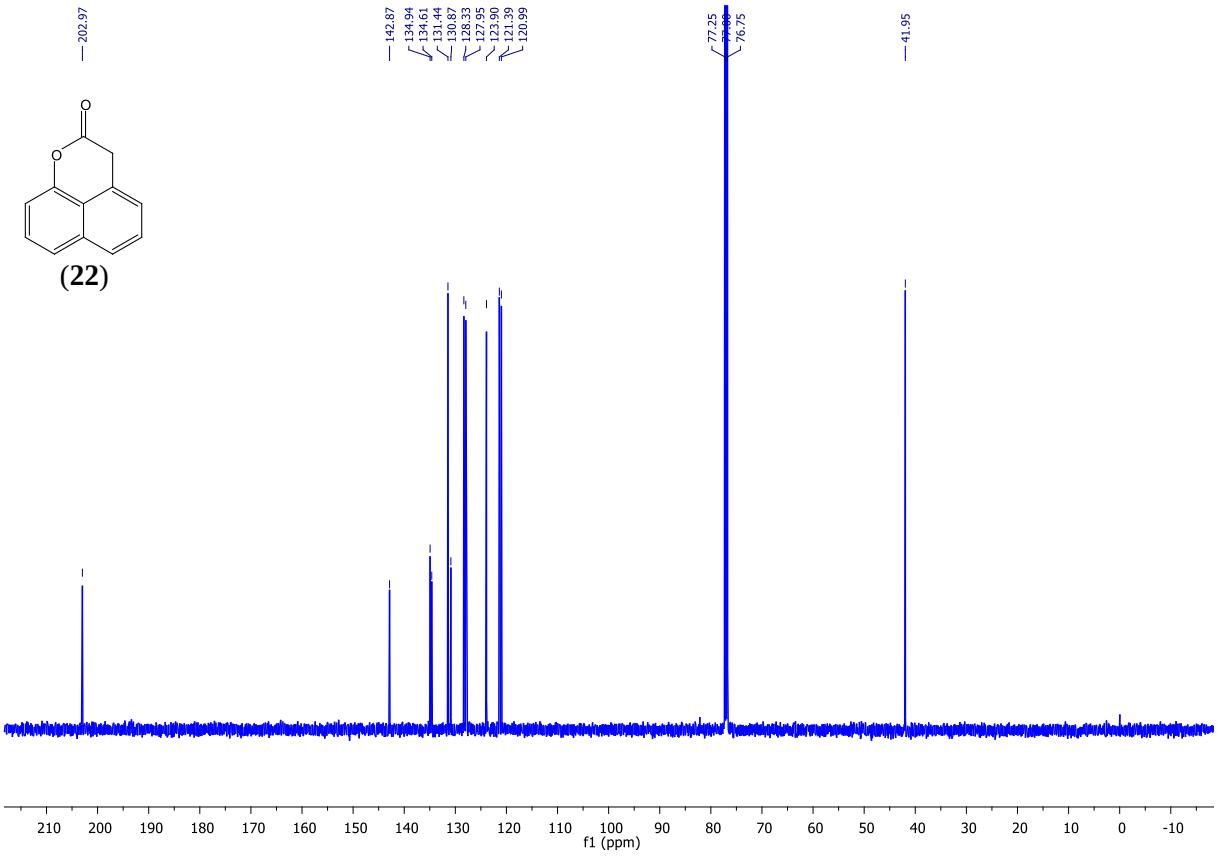
(**21**)

^{13}C NMR-APT spektrum látky **21**.

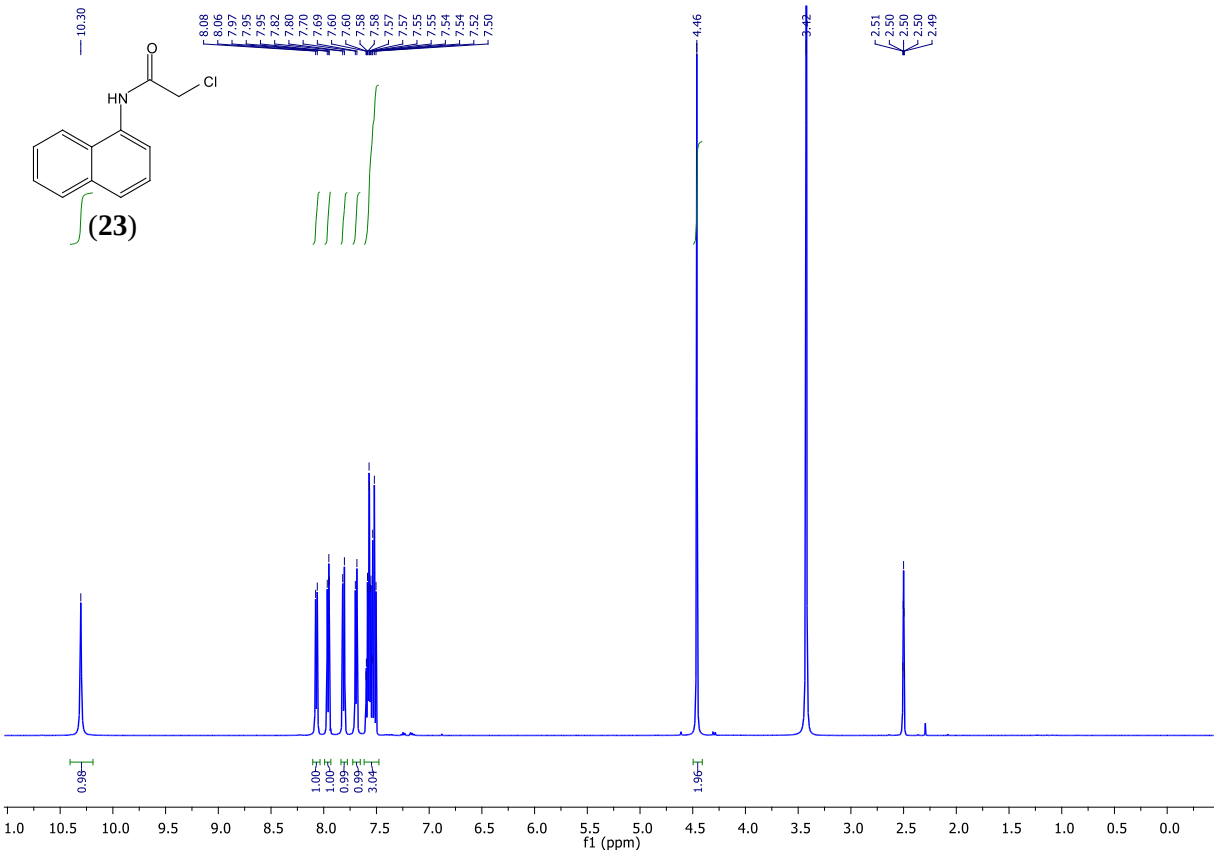


(**22**)

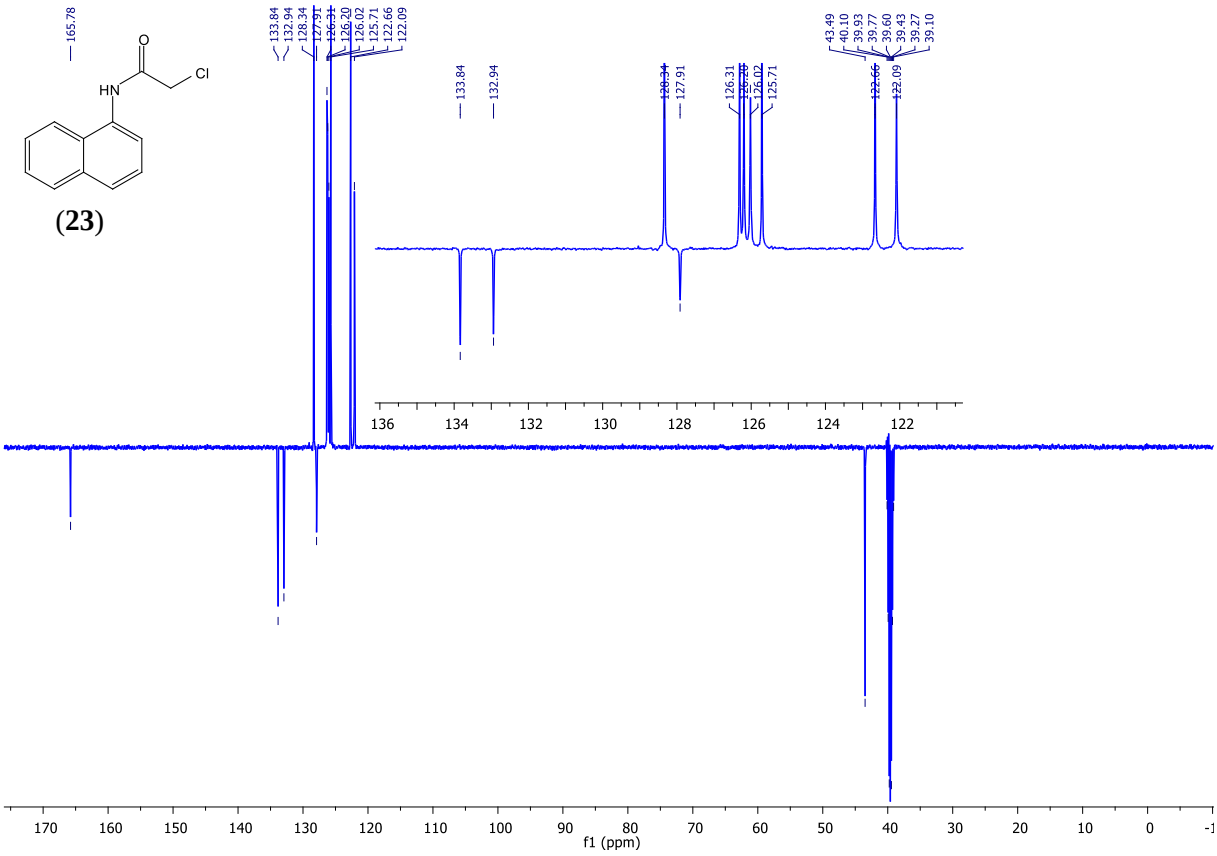
^{1}H NMR spektrum látky **22**.



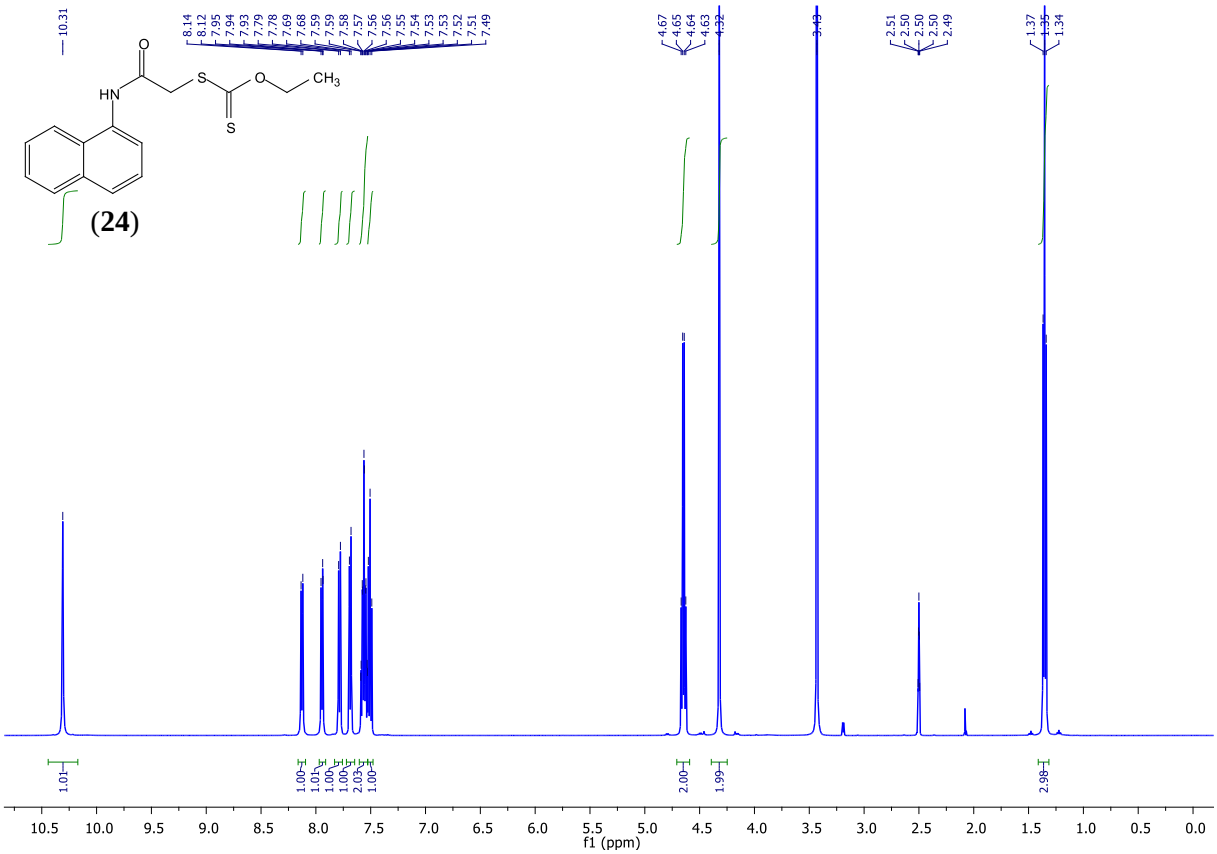
^{13}C NMR spektrum látky **22**.



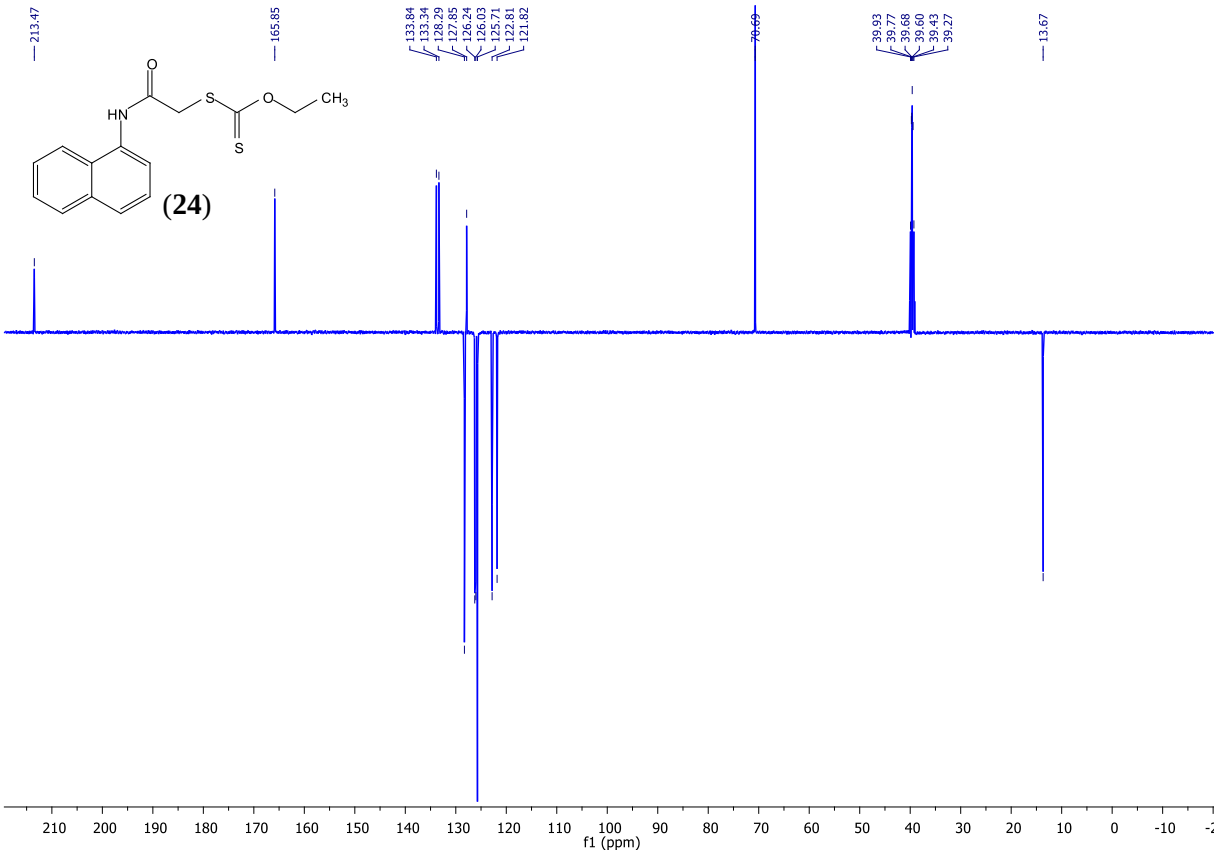
^{1}H NMR spektrum látky **23**.



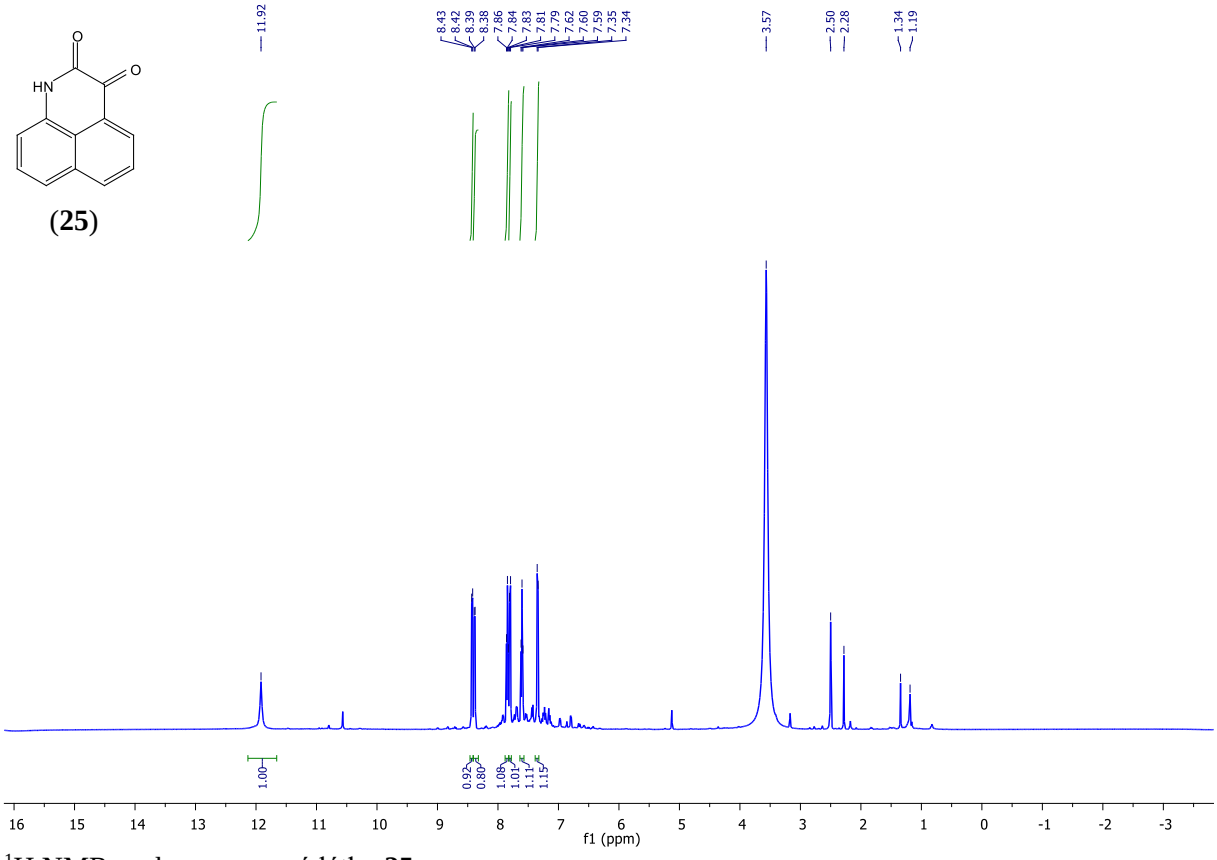
^{13}C NMR-APT spektrum látky **23**.



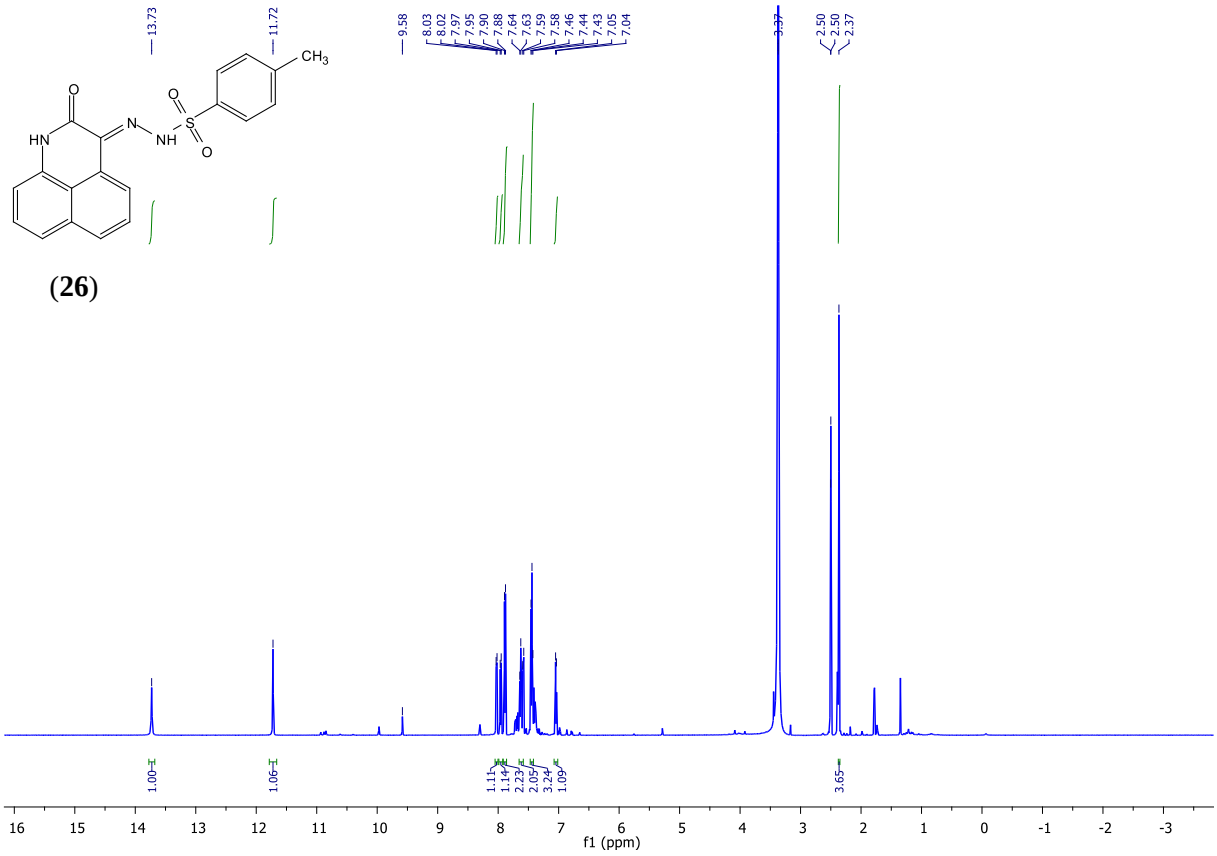
^{1}H NMR spektrum látky **24**.



^{13}C NMR-APT spektrum látky **24**.

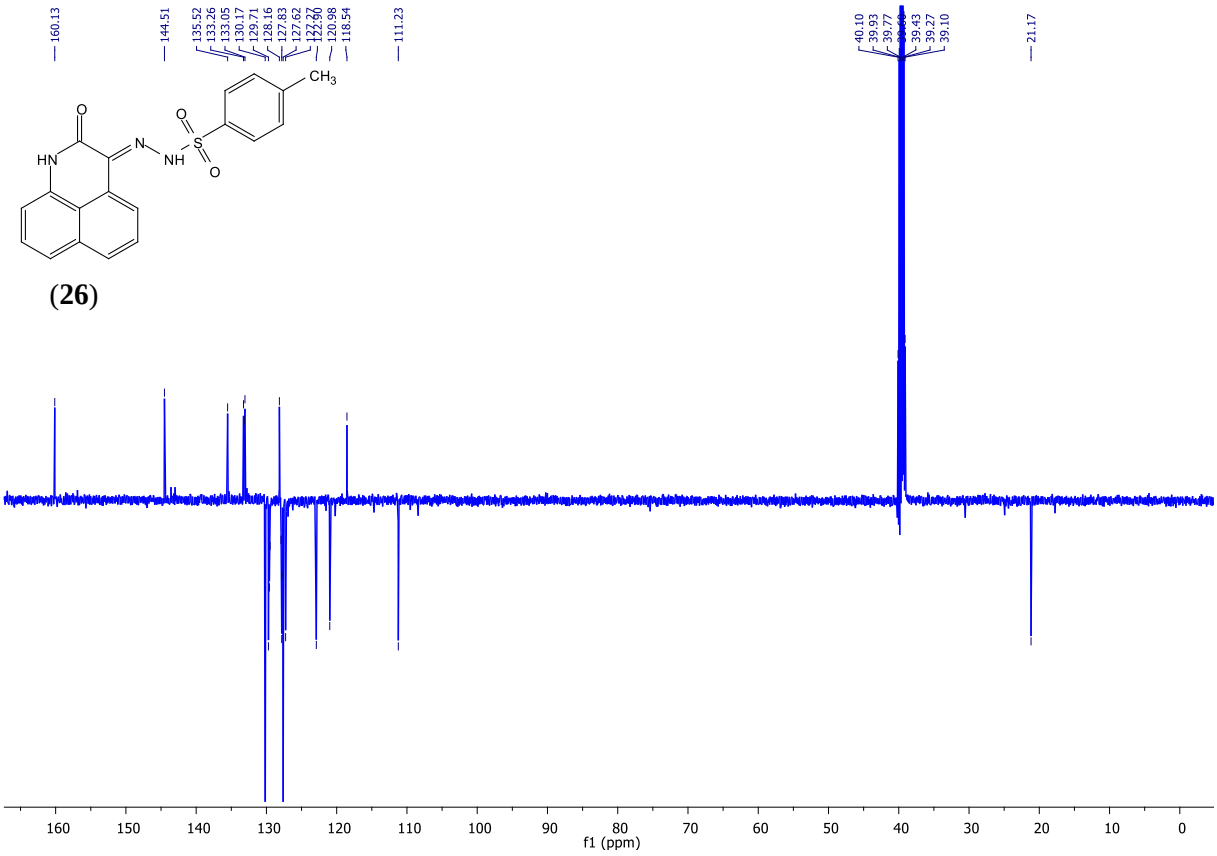


^{1}H NMR spektrum surové látky **25**.



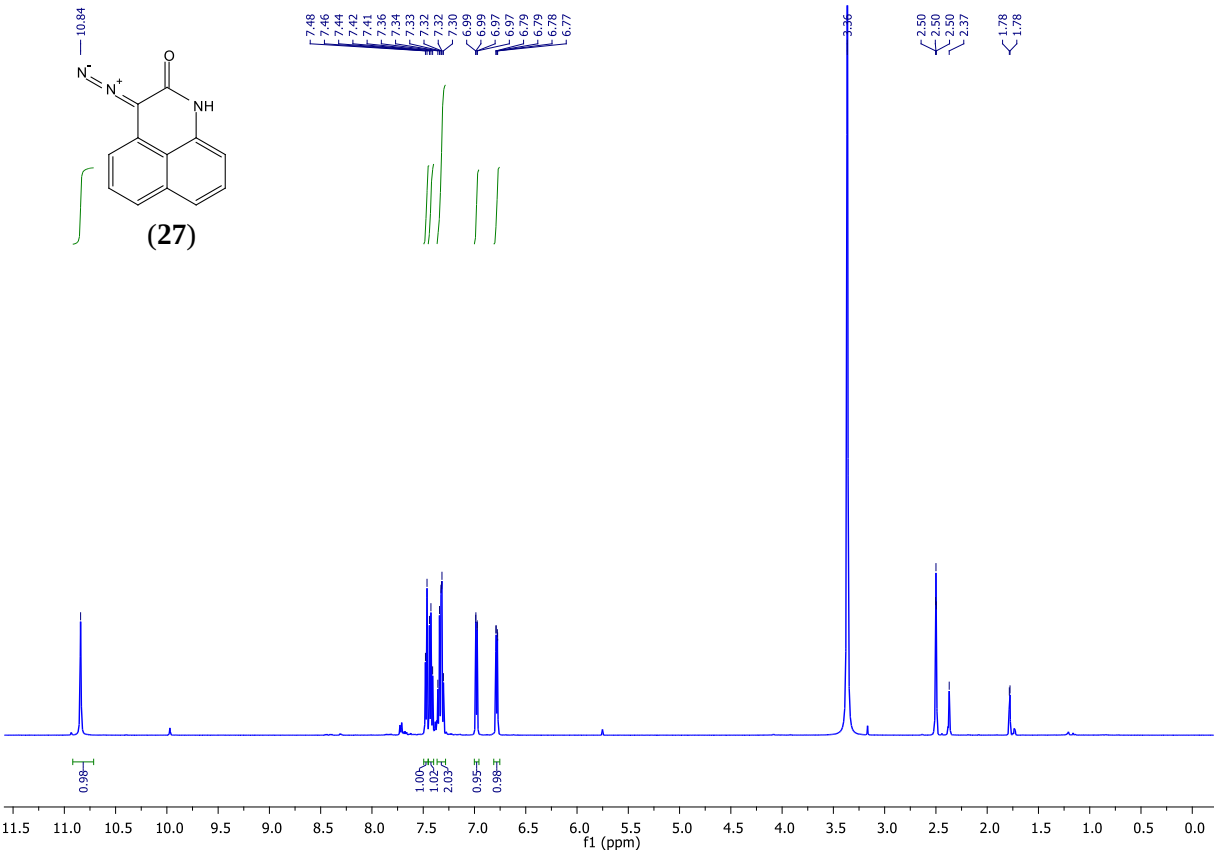
(**26**)

^{1}H NMR spektrum látky **26**.



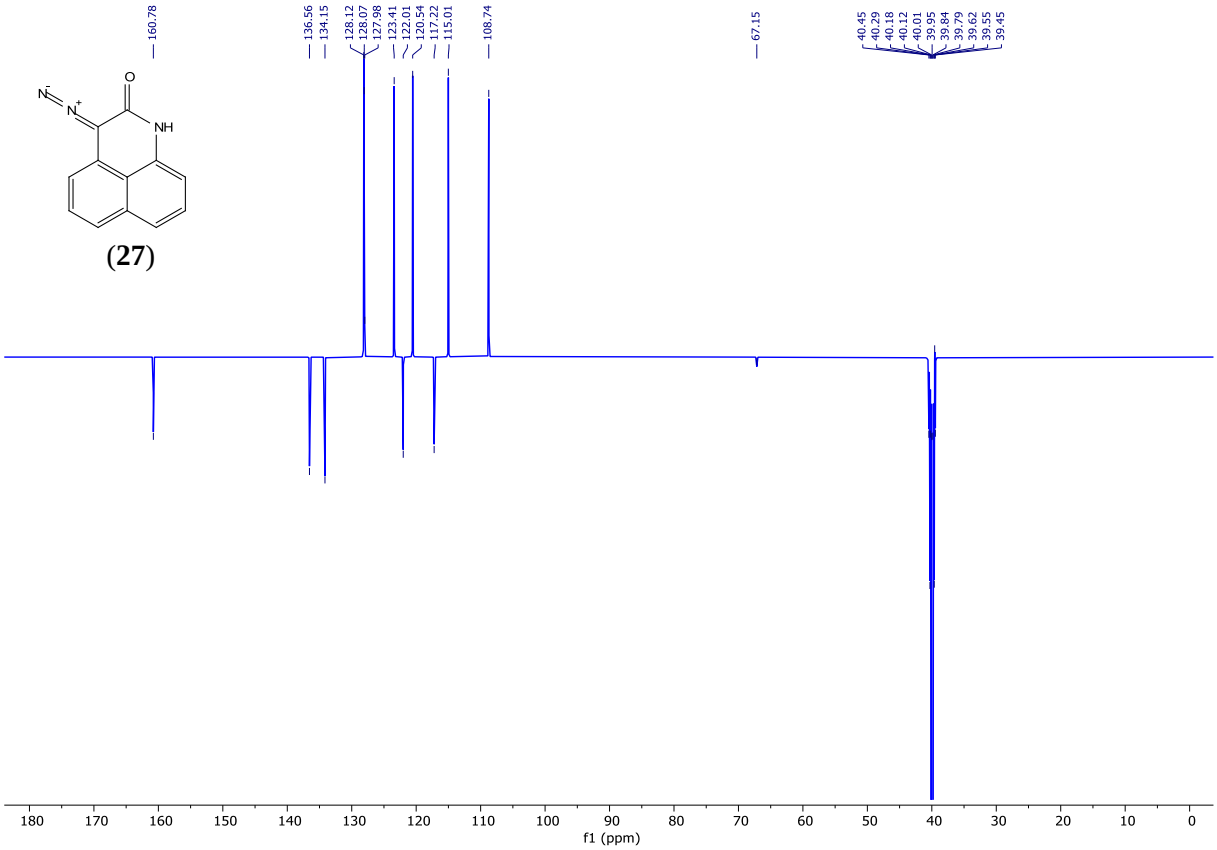
(**26**)

^{13}C NMR-APT spektrum látky **26**.



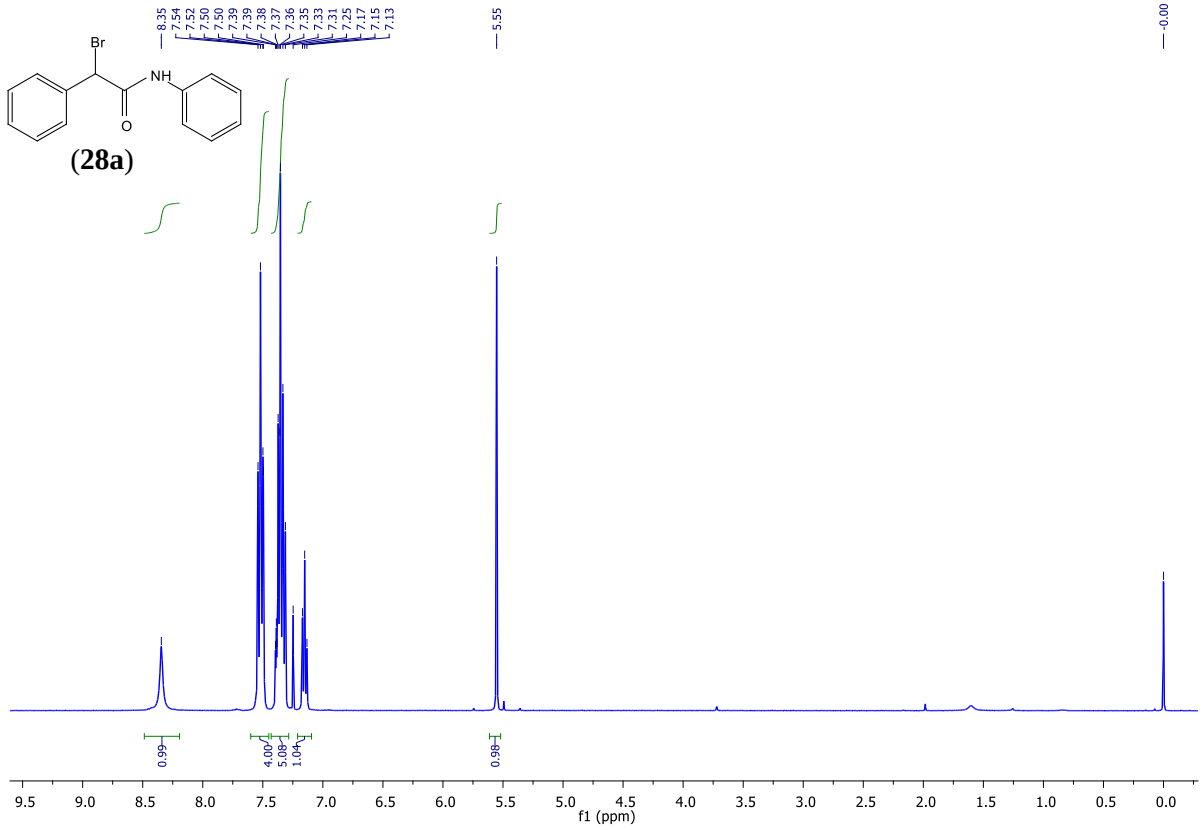
(**27**)

^{1}H NMR spektrum látky **27**.

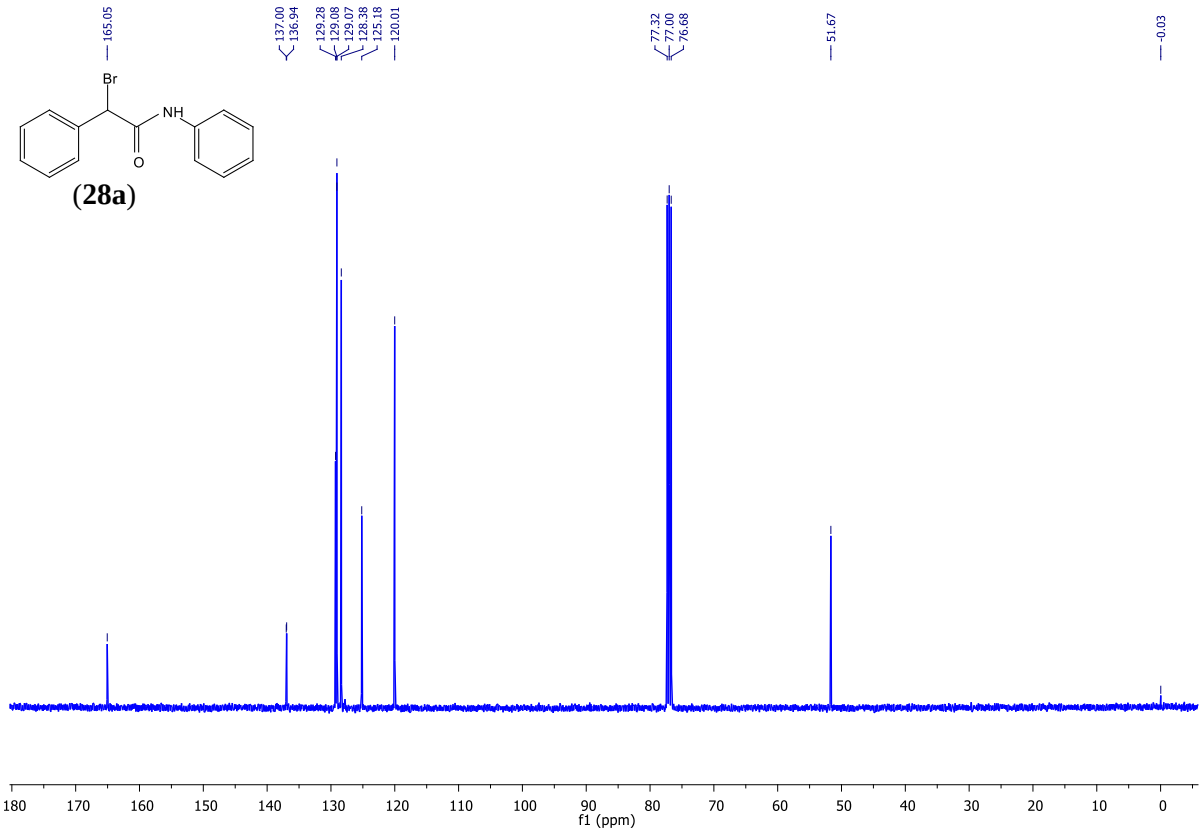


(**27**)

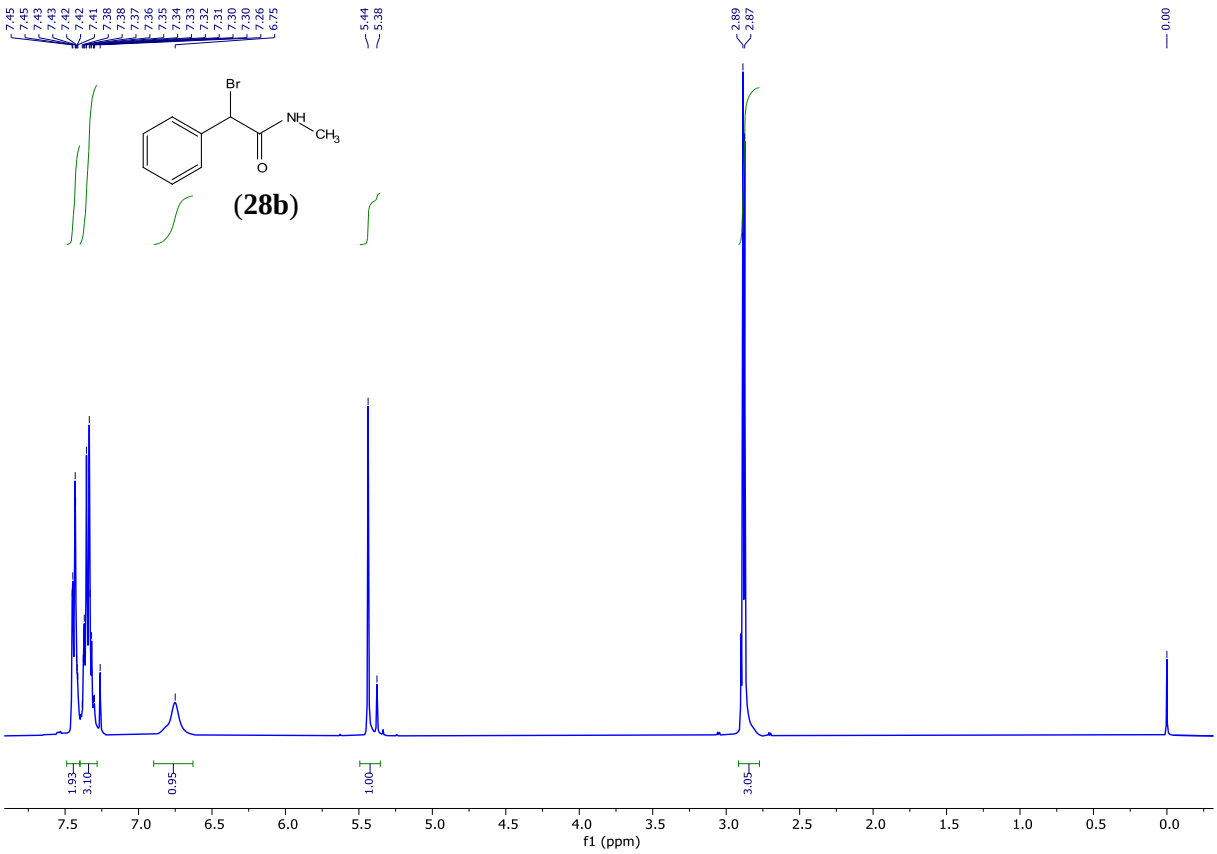
^{13}C NMR-APT spektrum látky **27**.



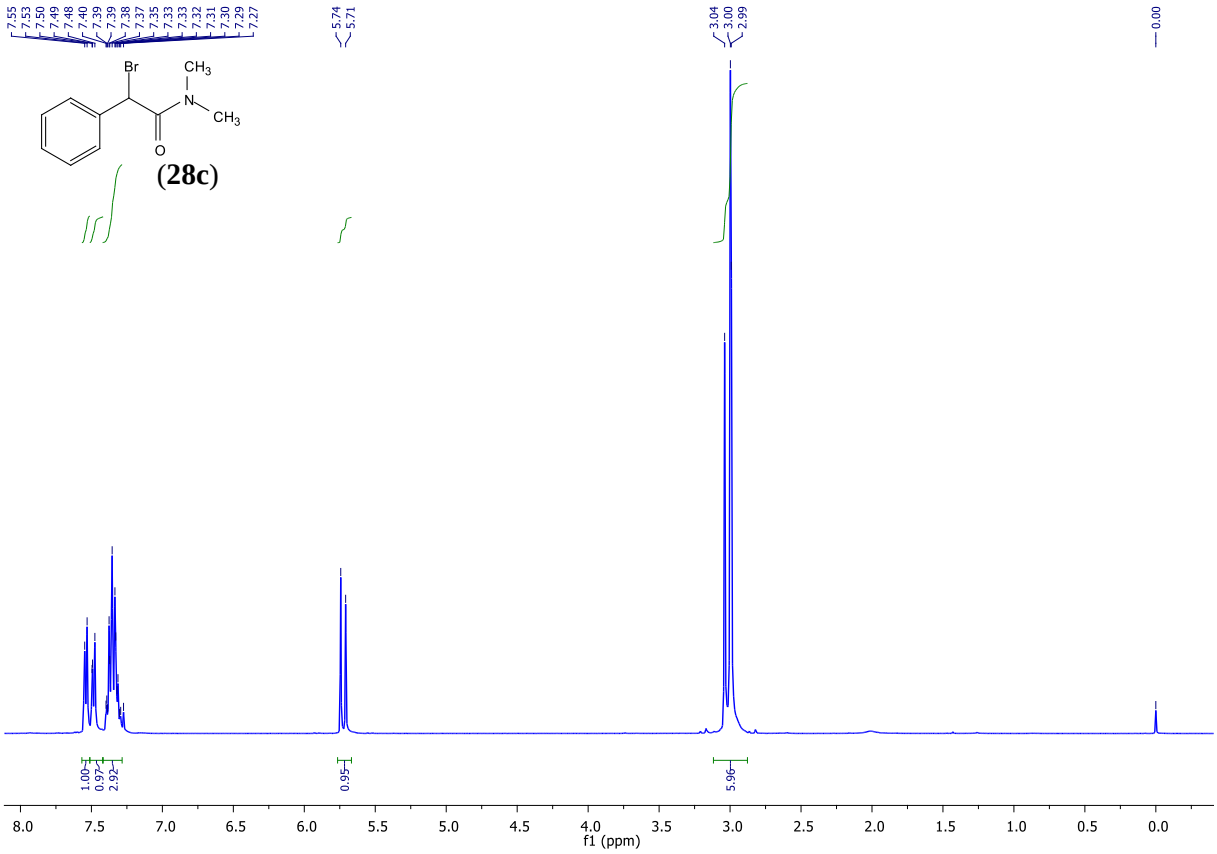
^{1}H NMR spektrum látky **28a**.



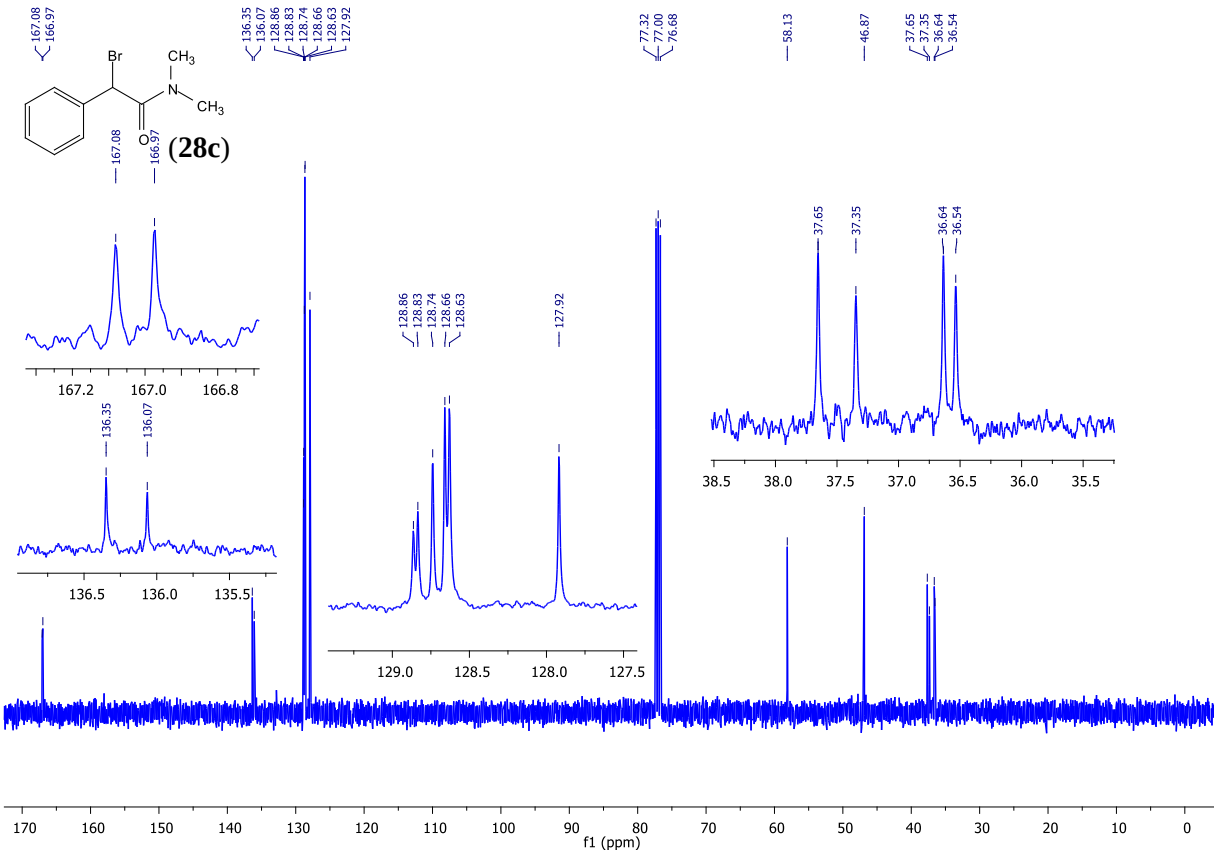
^{13}C NMR spektrum látky **28a**.



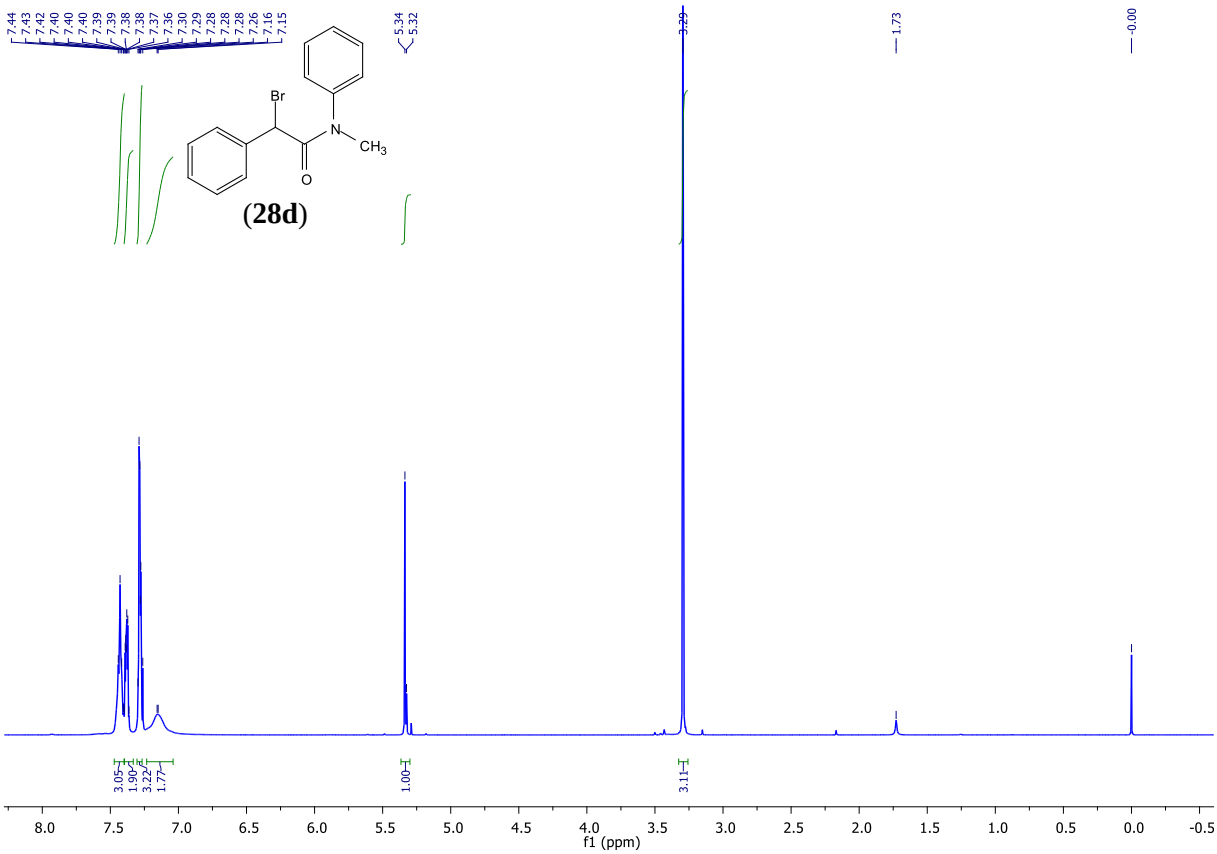
^{1}H NMR spektrum látky **28b**.



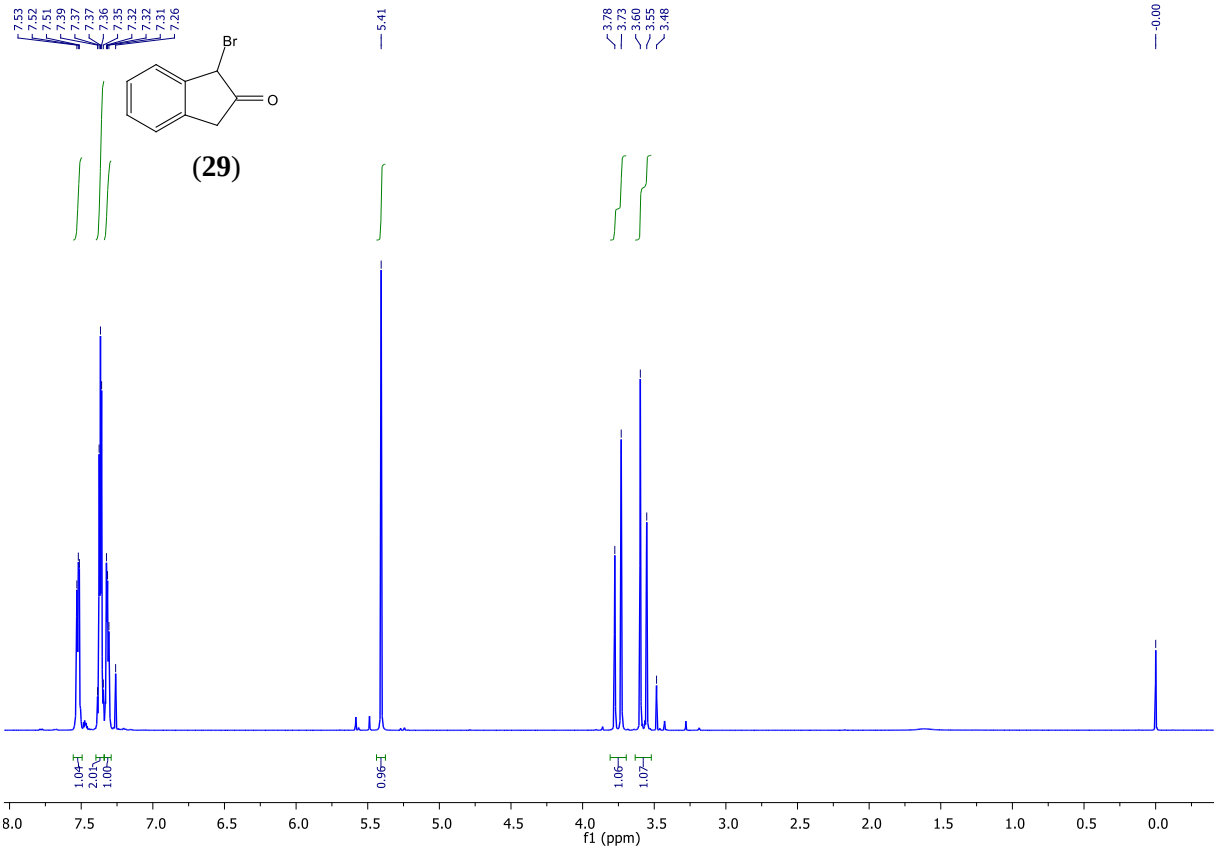
^{1}H NMR spektrum látky **28c**.



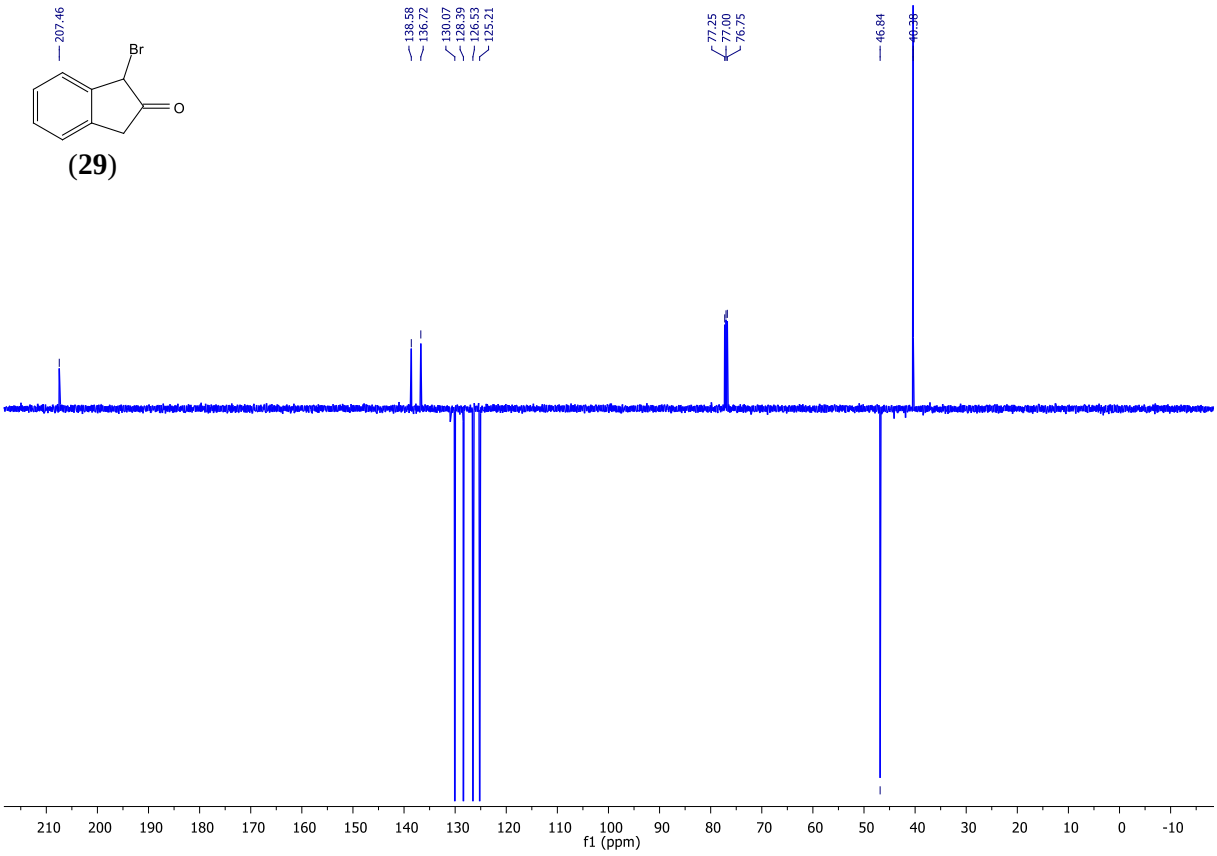
^{13}C NMR spektrum látky **28c**.



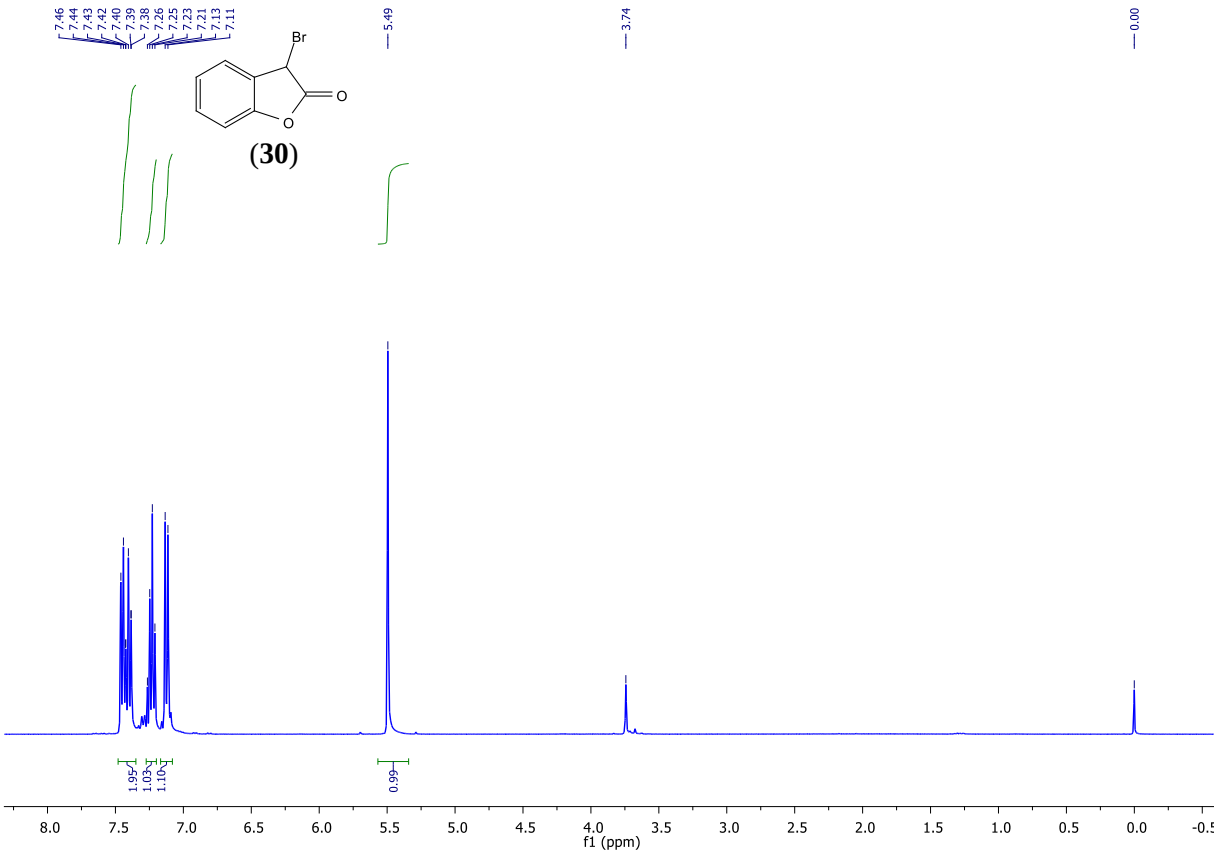
^{1}H NMR spektrum látky **28d**.



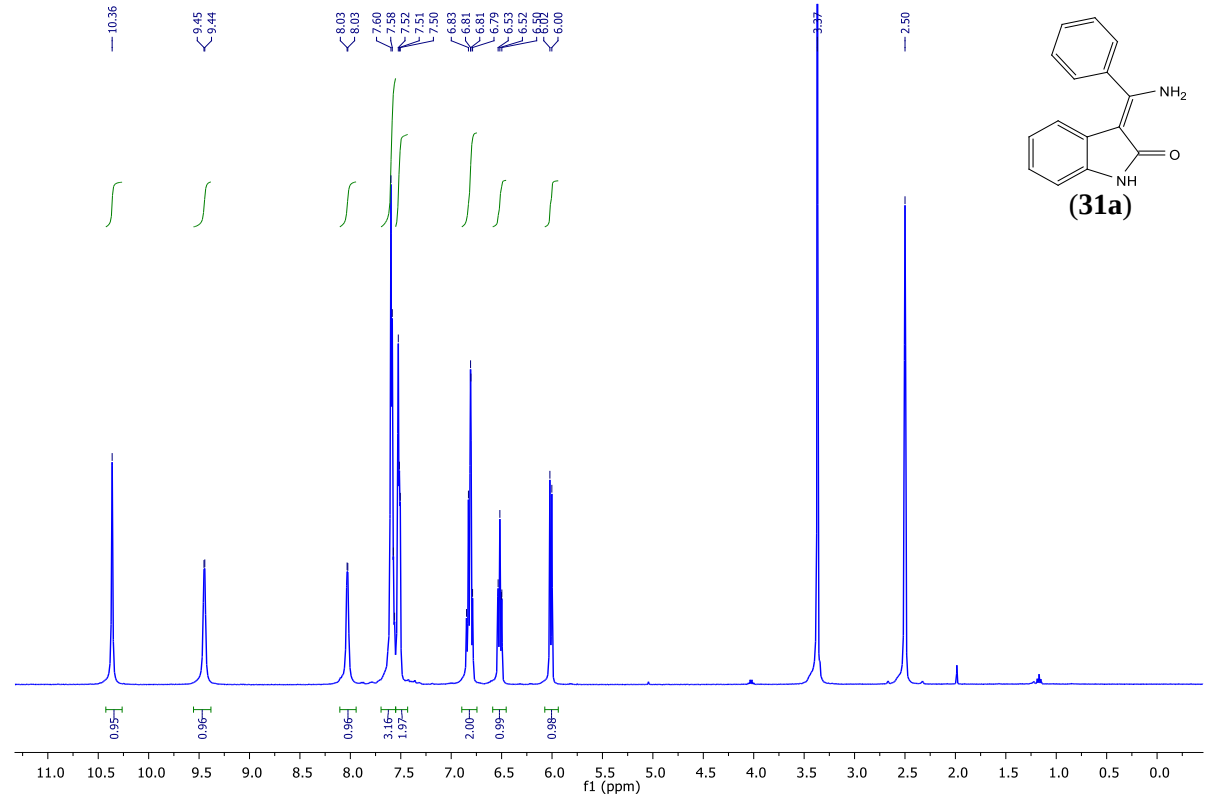
^{1}H NMR spektrum látky **29**.



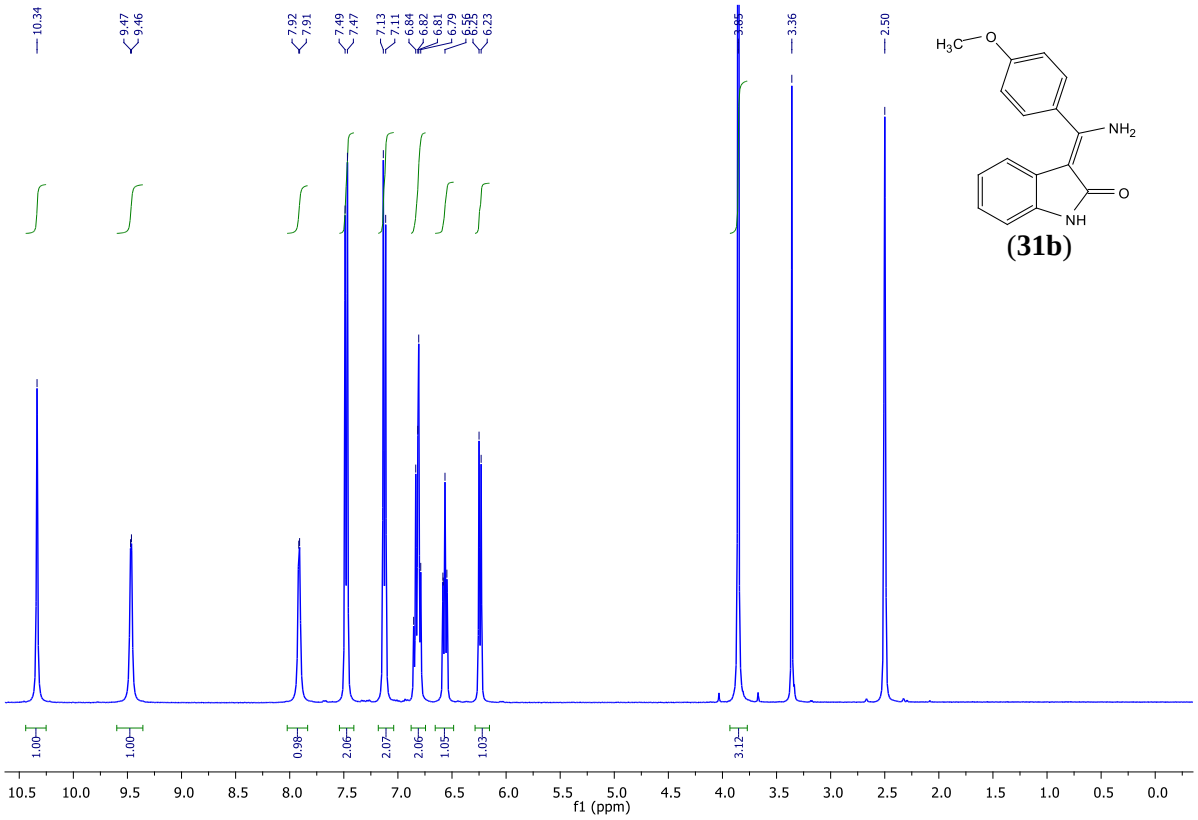
^{13}C NMR-APT spektrum látky **29**.



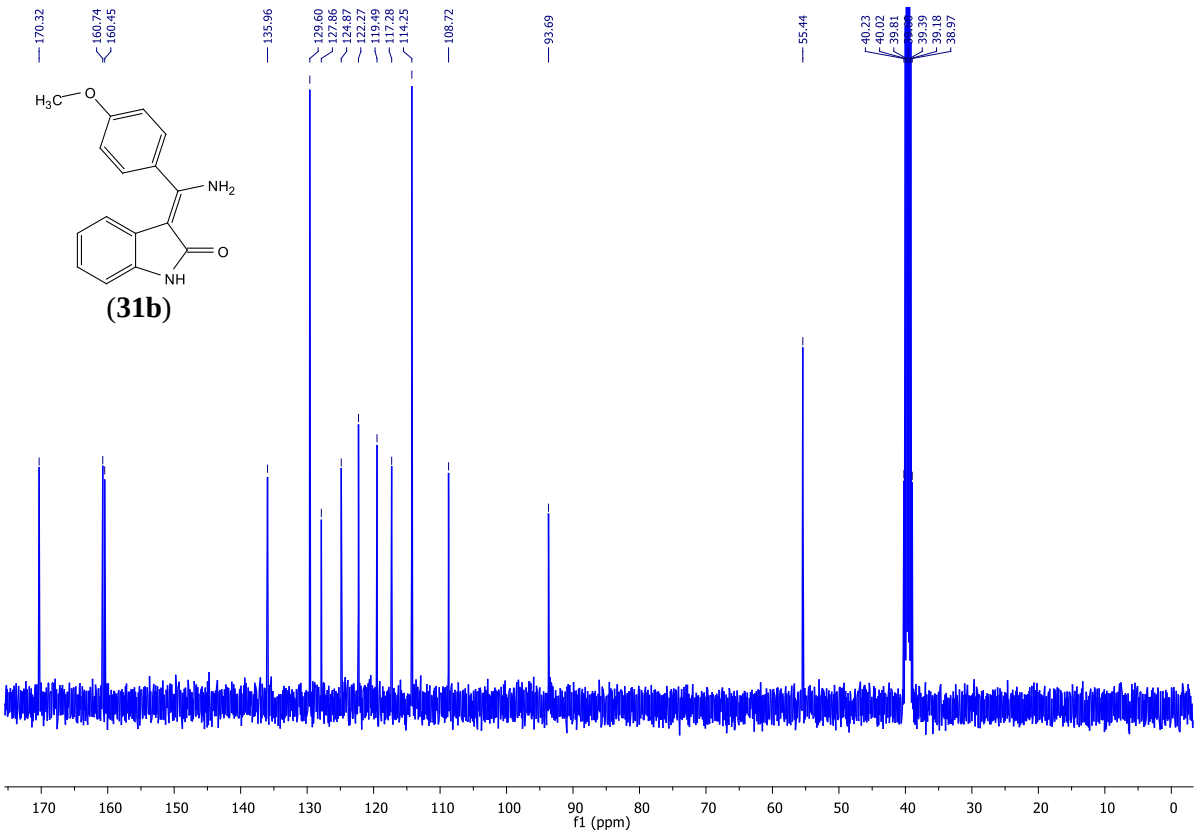
^{1}H NMR spektrum látky **30**.



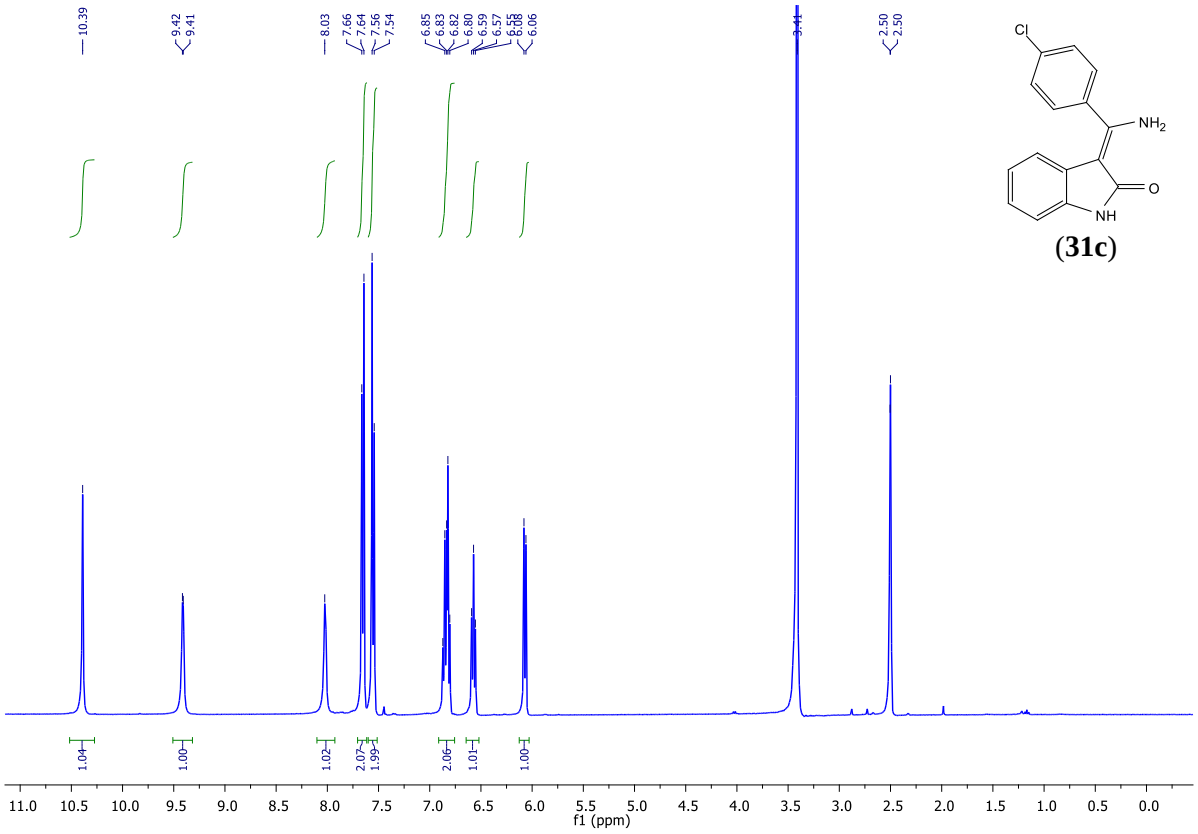
^{1}H NMR spektrum látky **31a**.



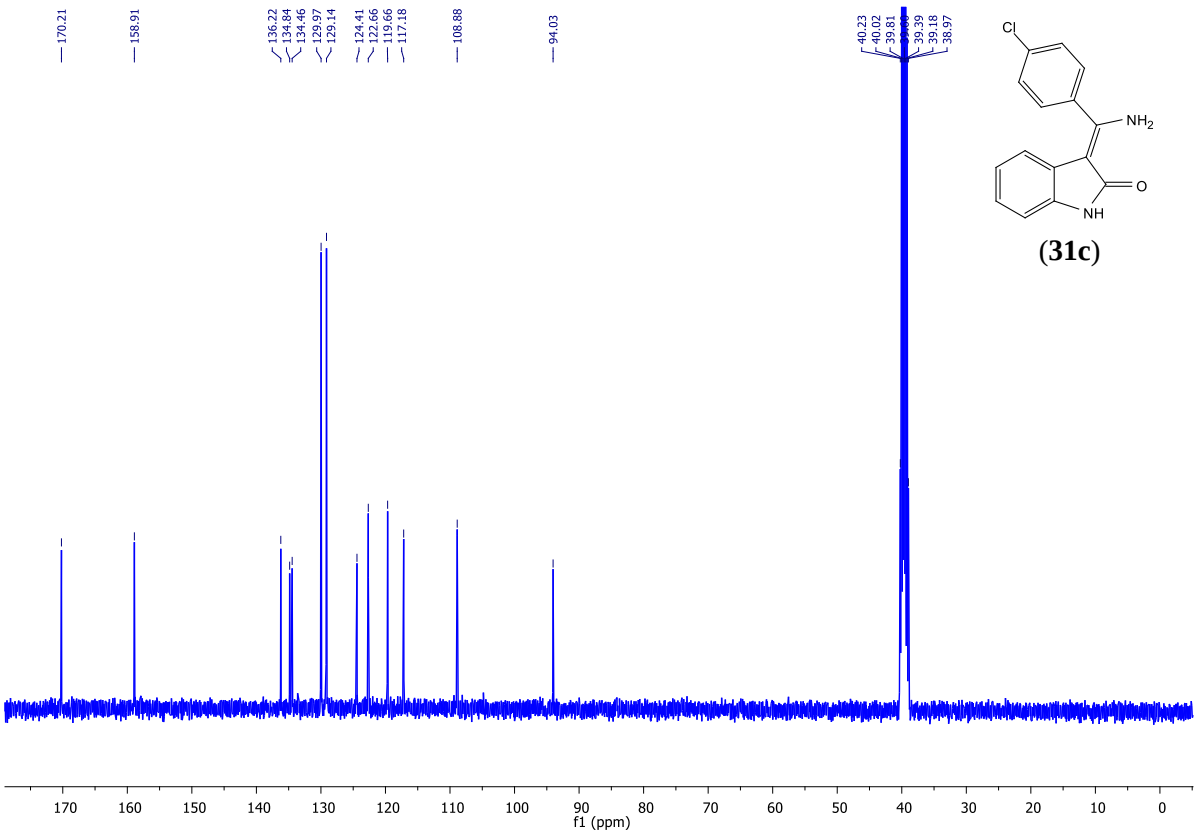
[1]H NMR spektrum látky **31b**.



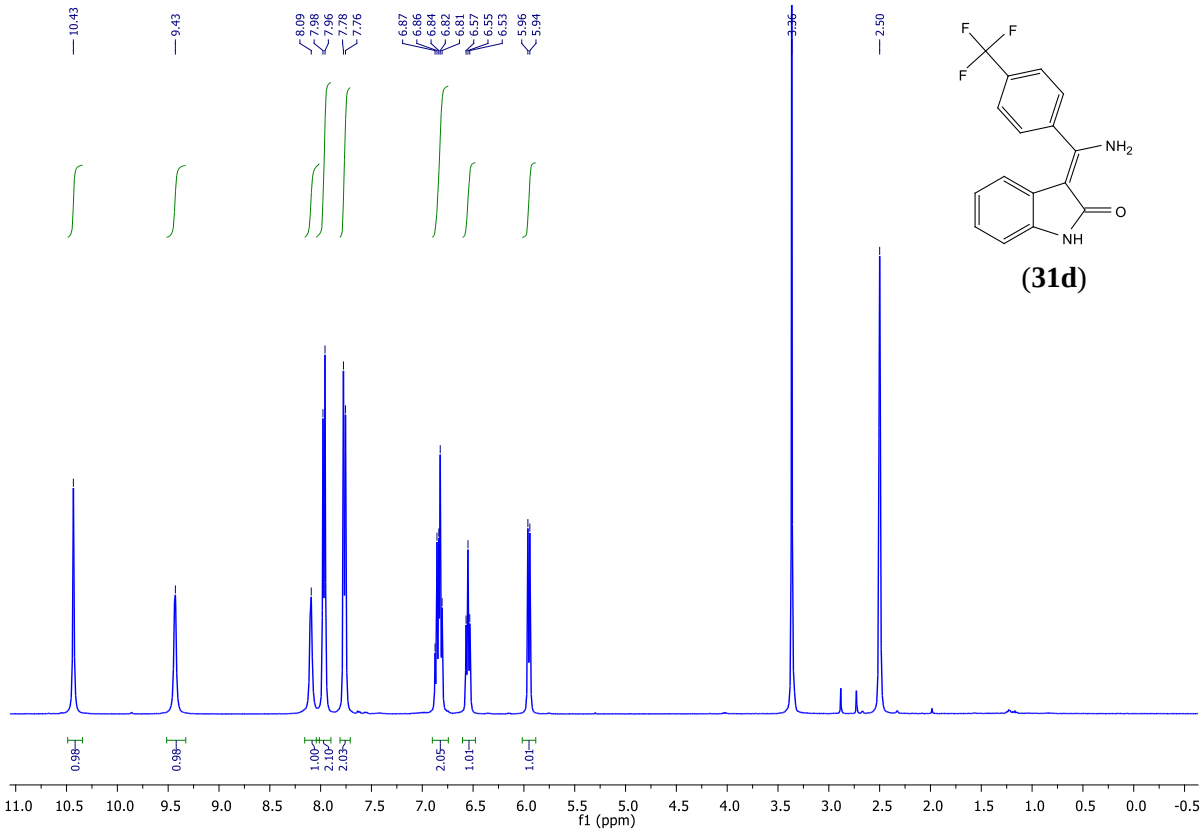
[13]C NMR spektrum látky **31b**.



[1]H NMR spektrum látky **31c**.

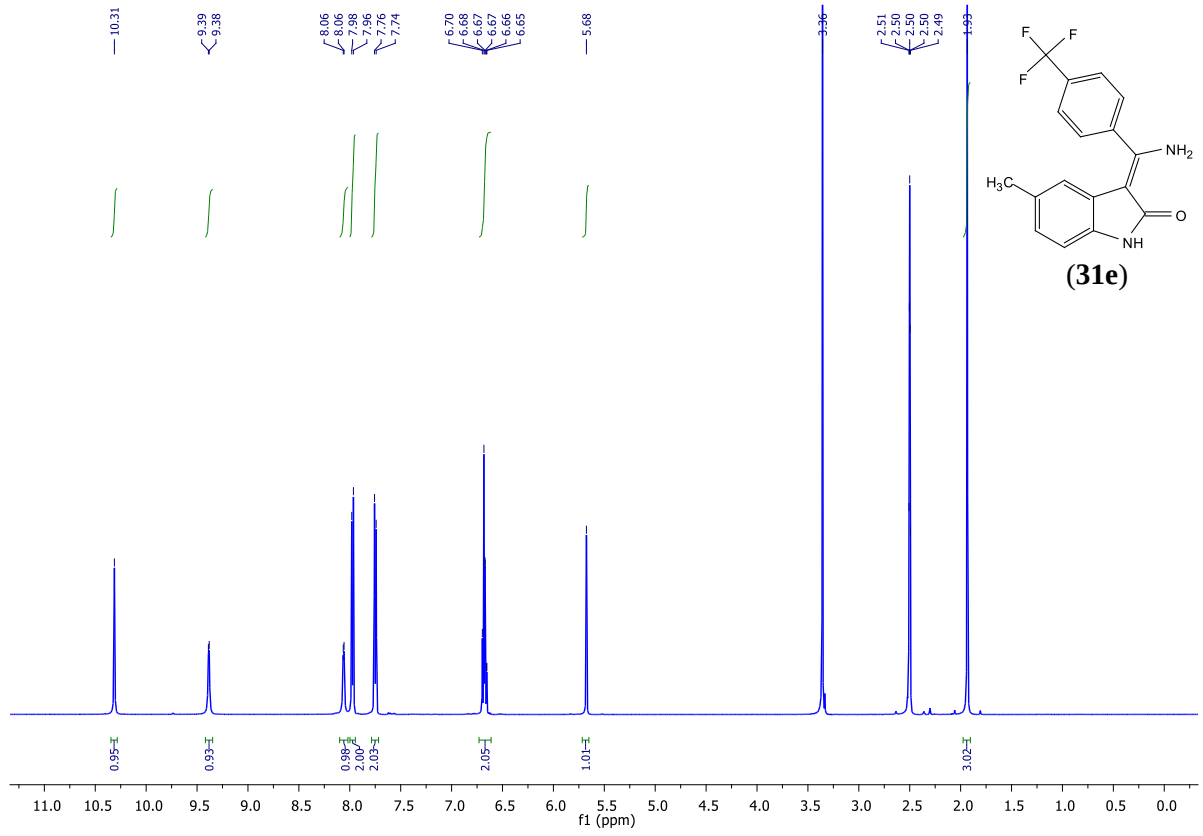


[13]C NMR spektrum látky **31c**.



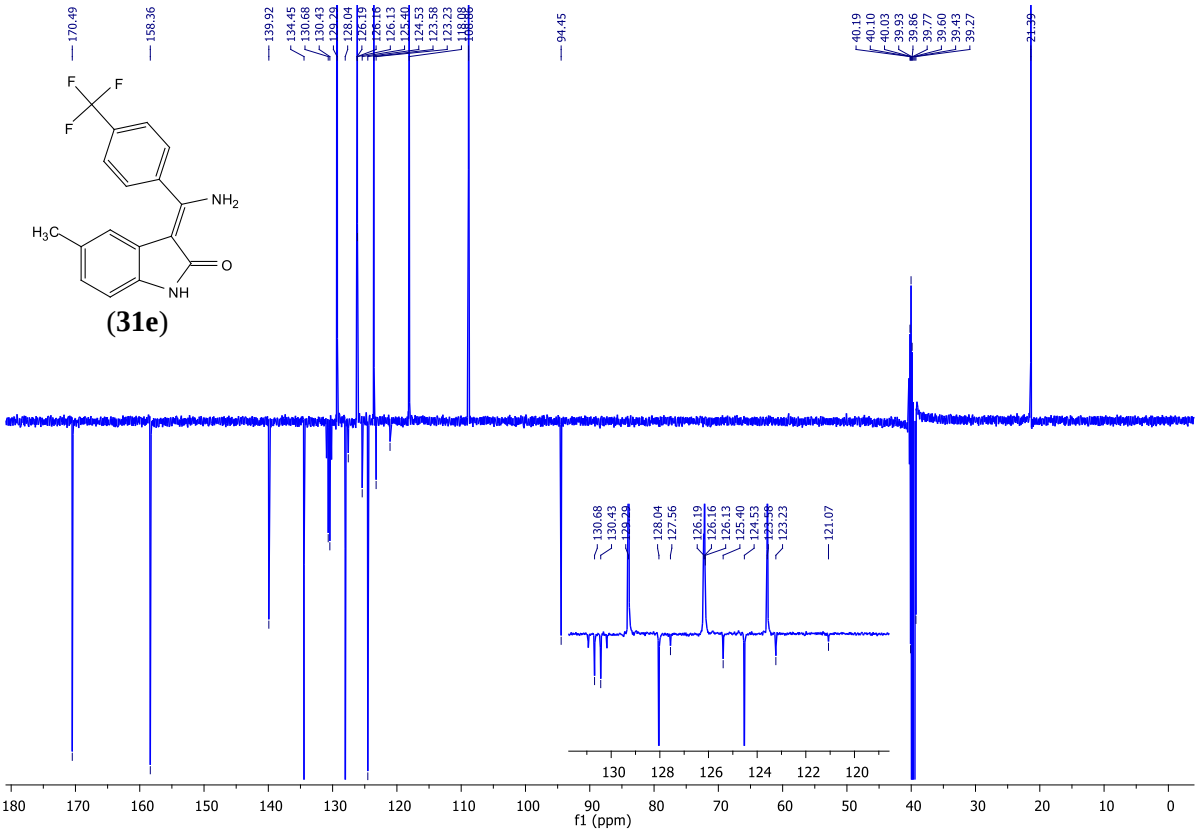
(31d)

^{1}H NMR spektrum látky **31d**.

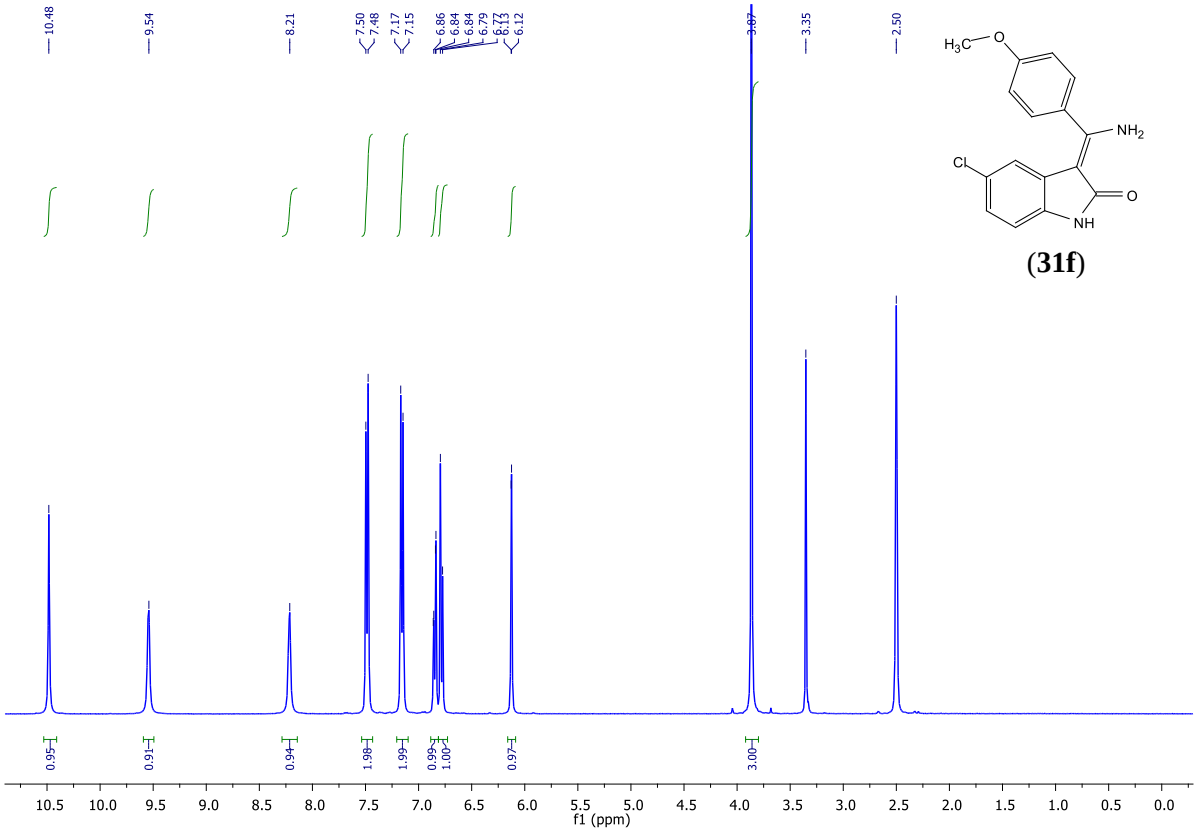


(31e)

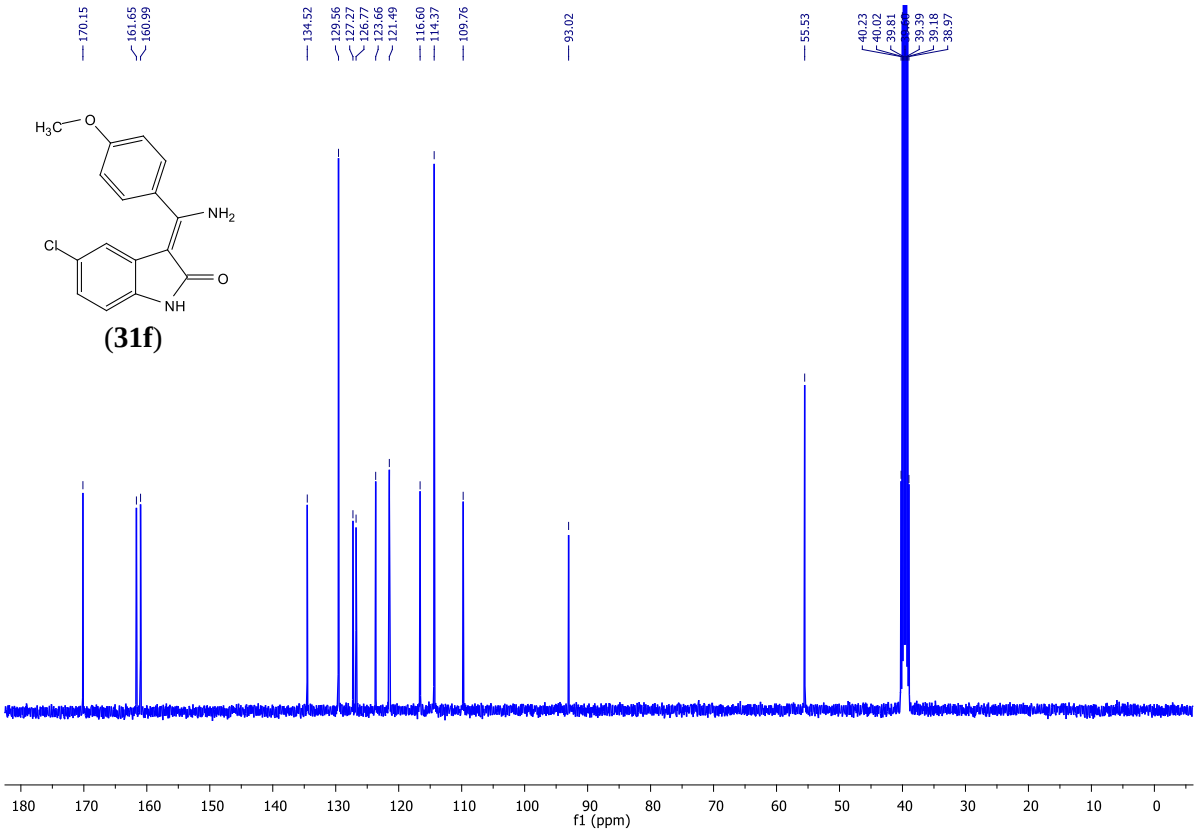
^{1}H NMR spektrum látky **31e**.



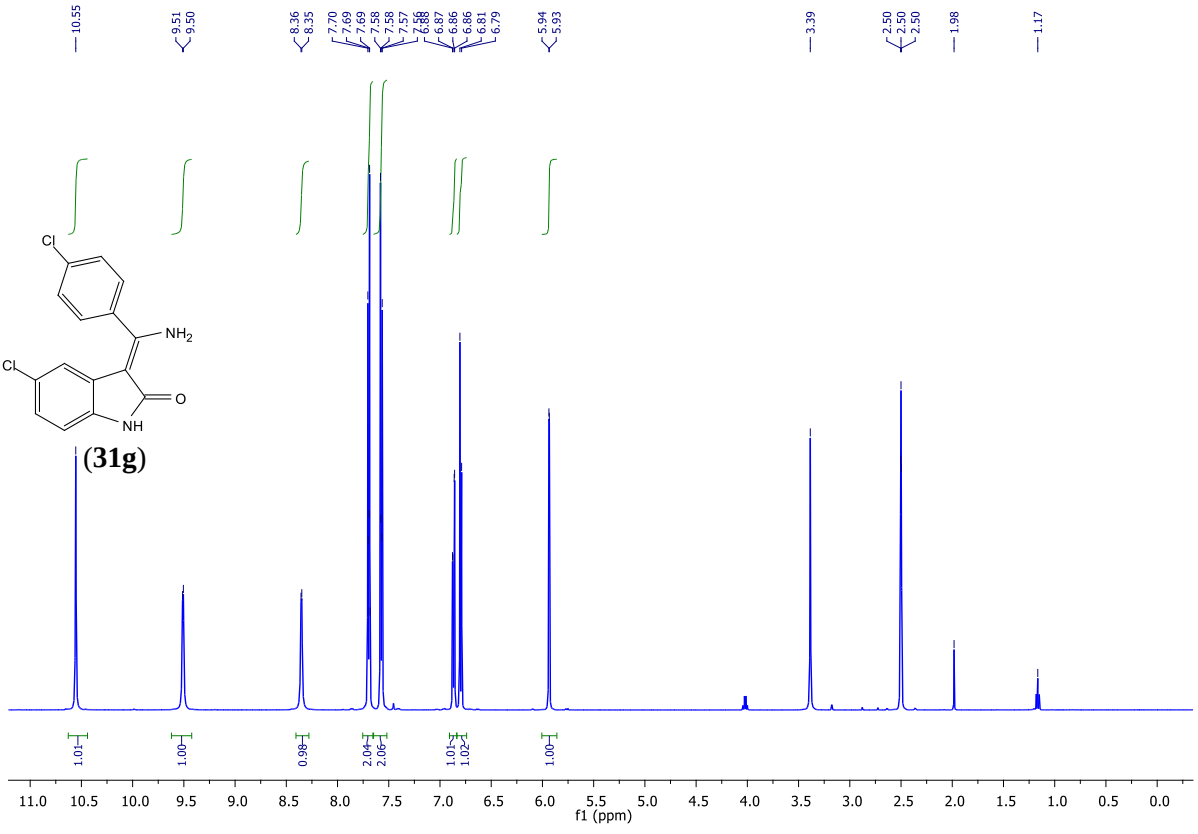
^{13}C NMR-APT spektrum látky **31e**.



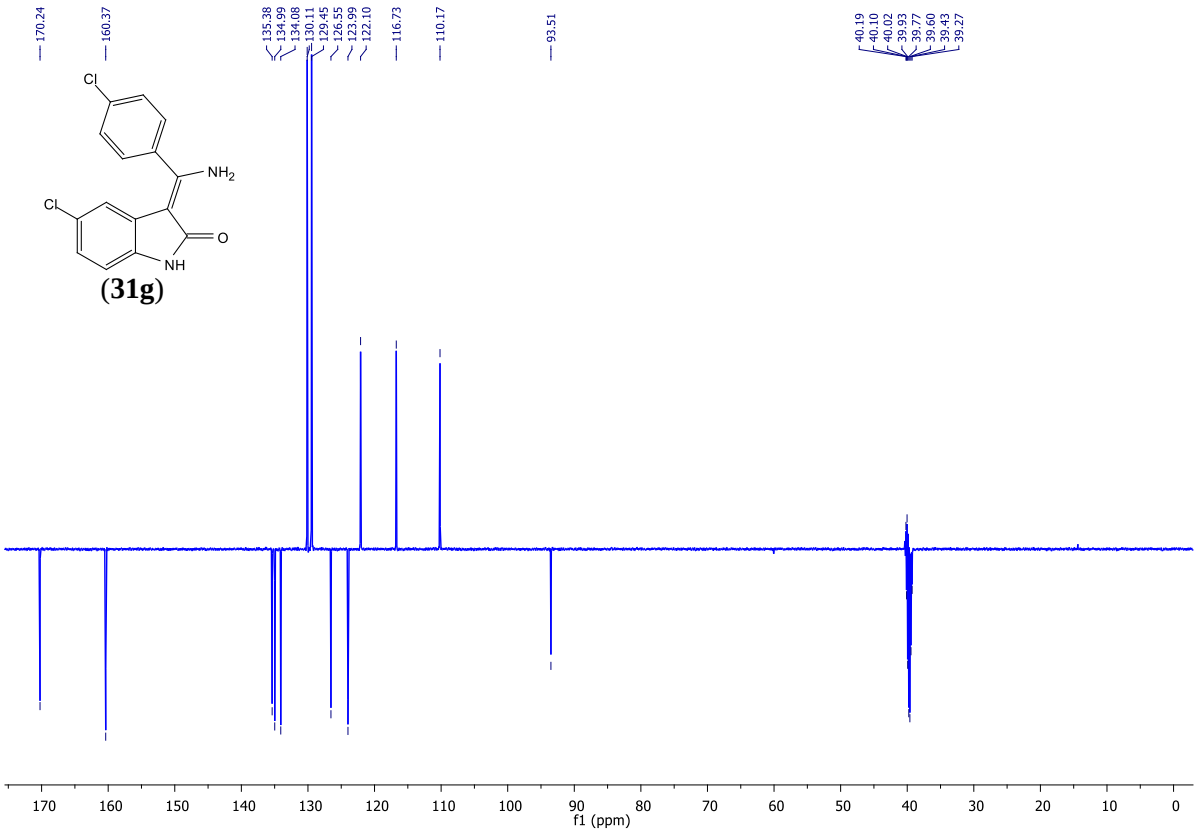
^{1}H NMR spektrum látky **31f**.



^{13}C NMR spektrum látky **31f**.

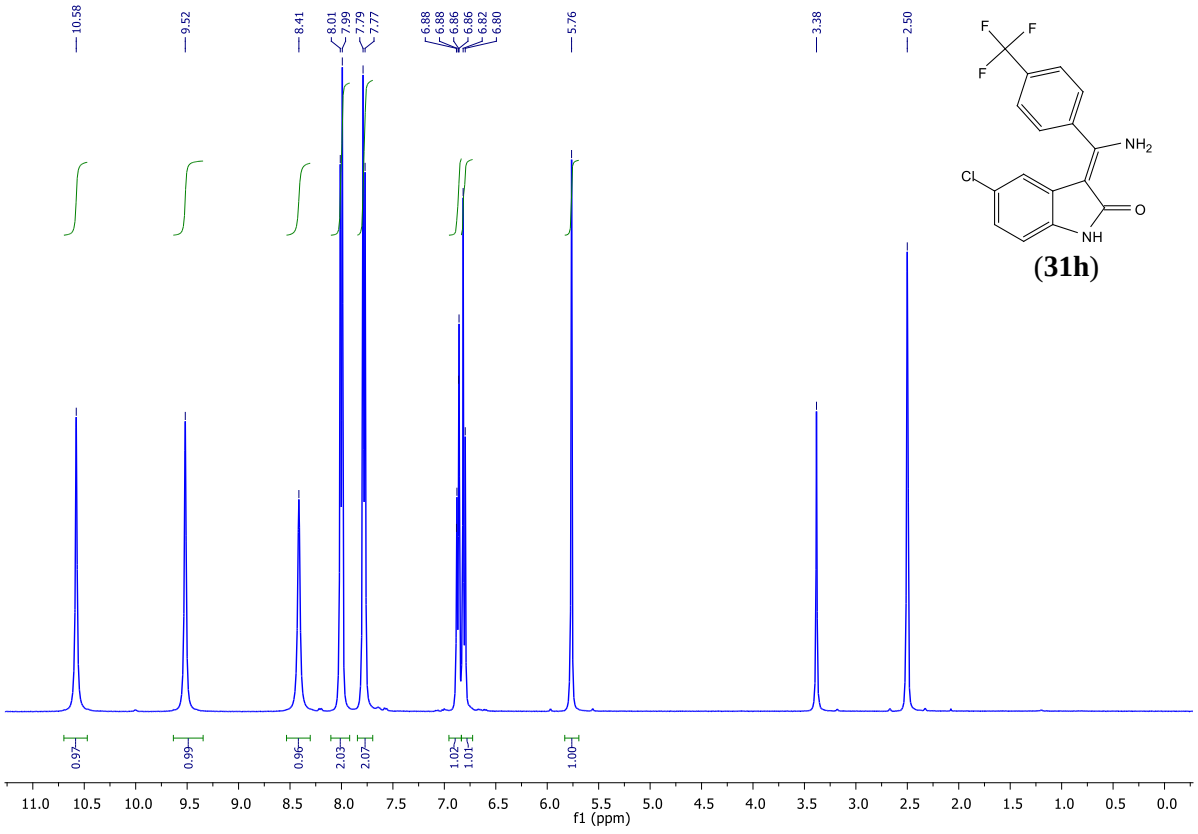


^{1}H NMR spektrum látky **31g**.



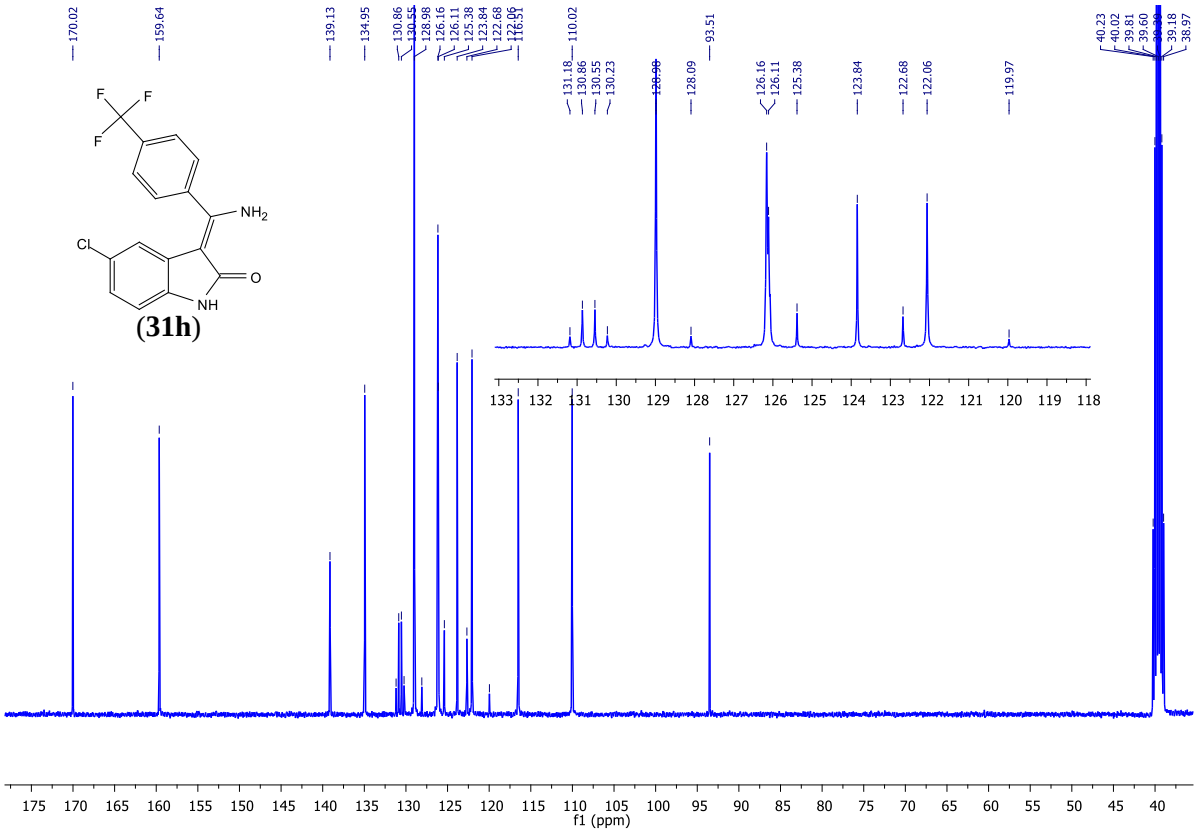
(31g)

^{13}C NMR-APT spektrum látky **31g**.

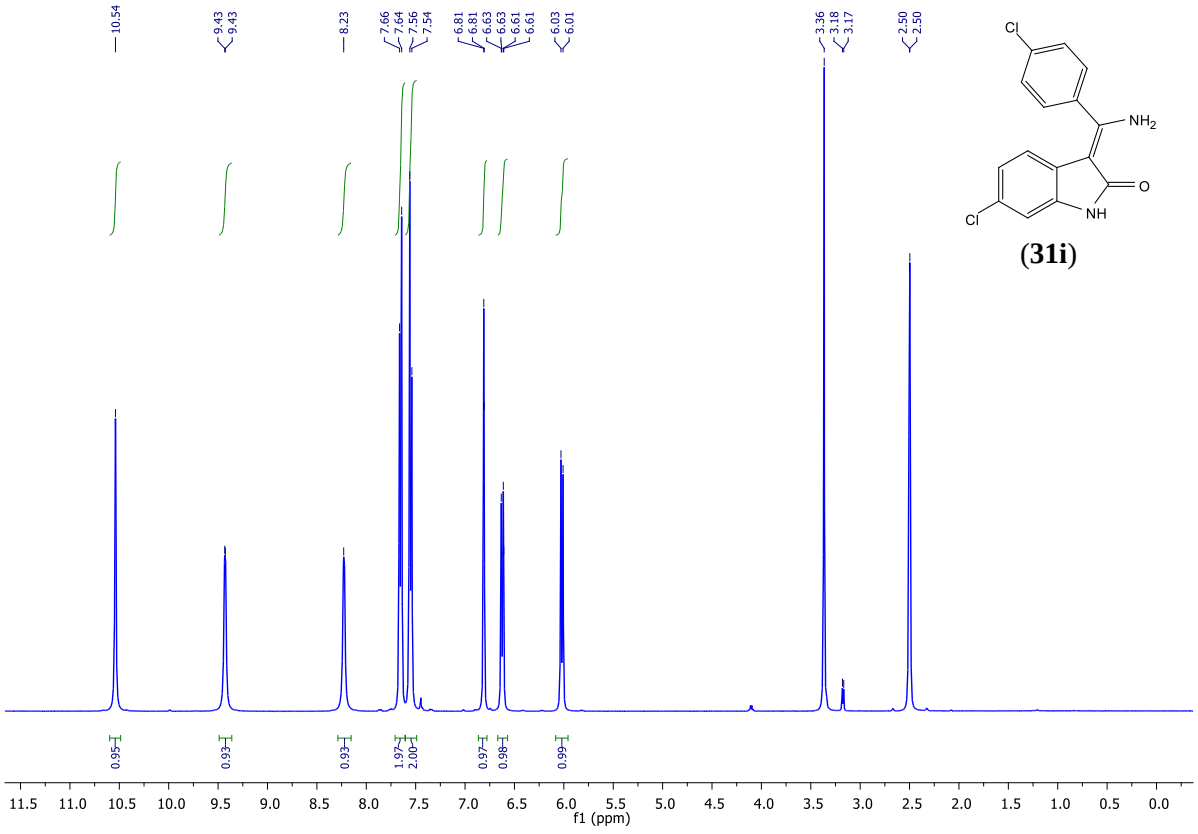


(31h)

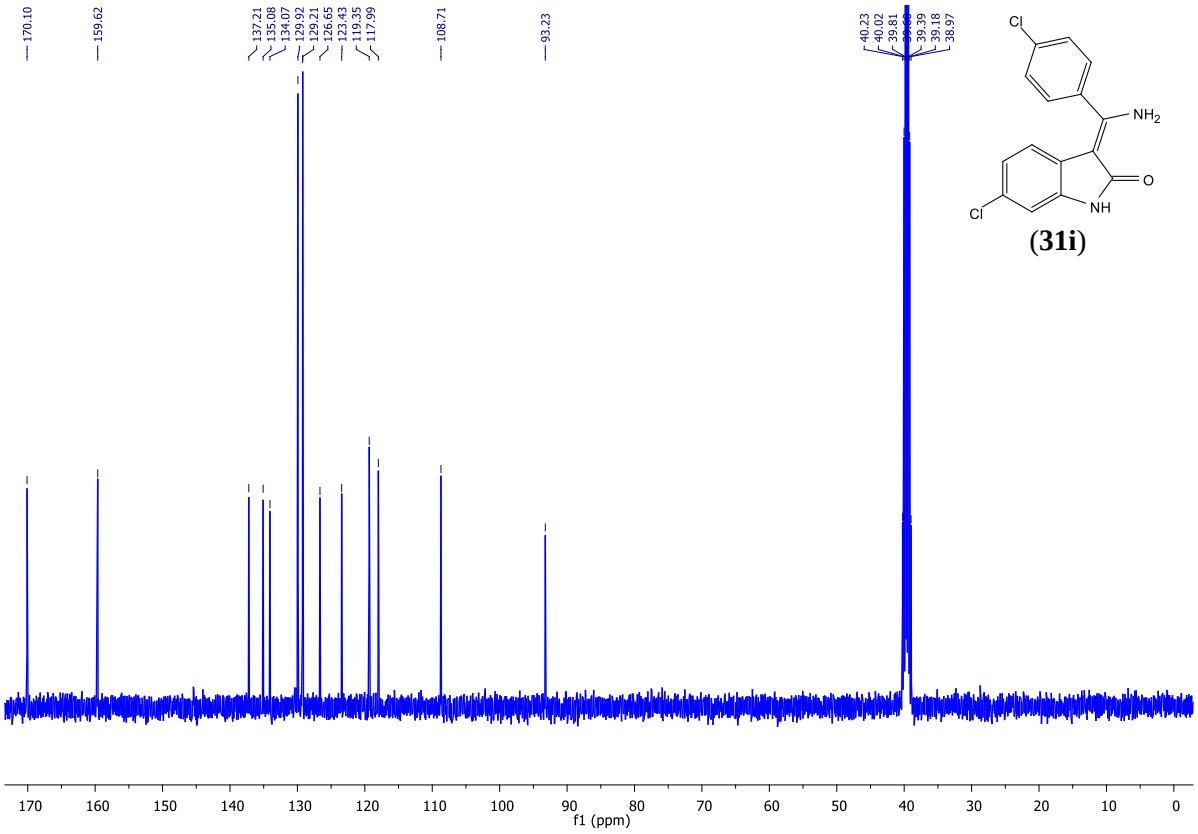
^{1}H NMR spektrum látky **31h**.



^{13}C NMR spektrum látky **31h**.

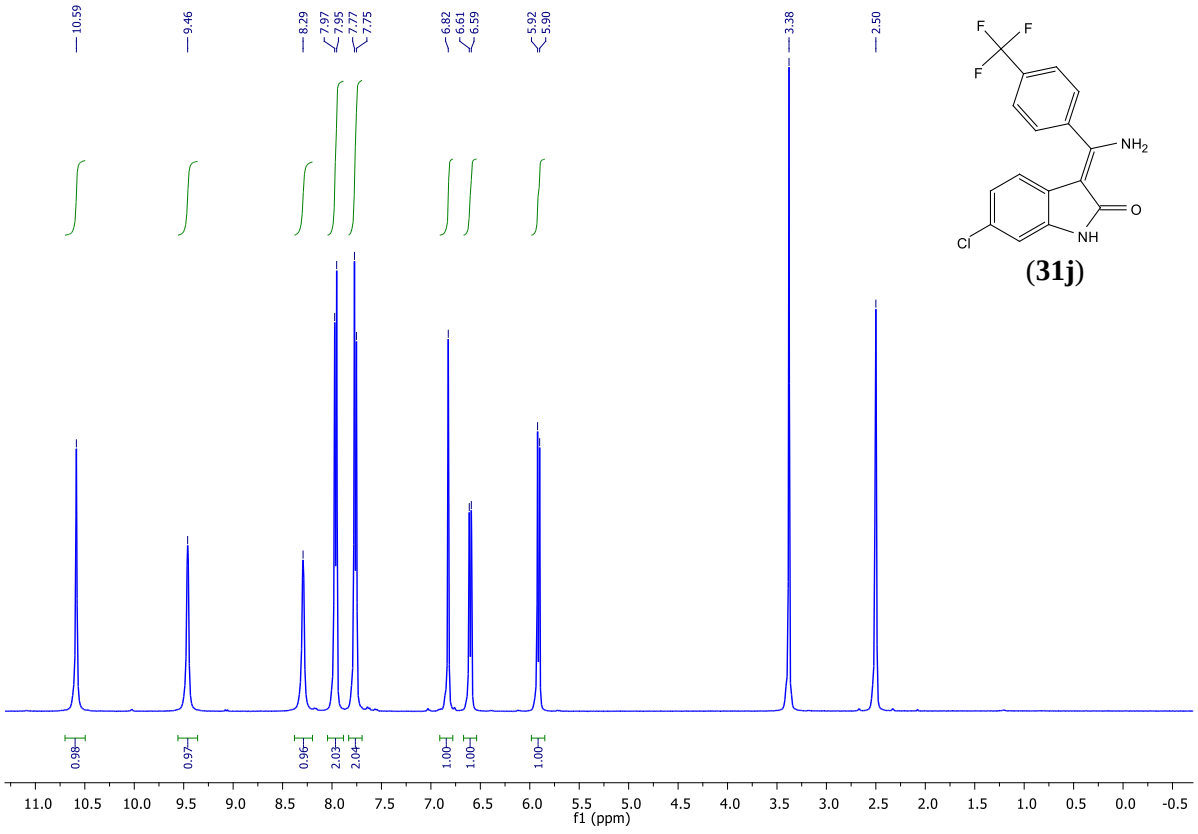


^{1}H NMR spektrum látky **31i**.



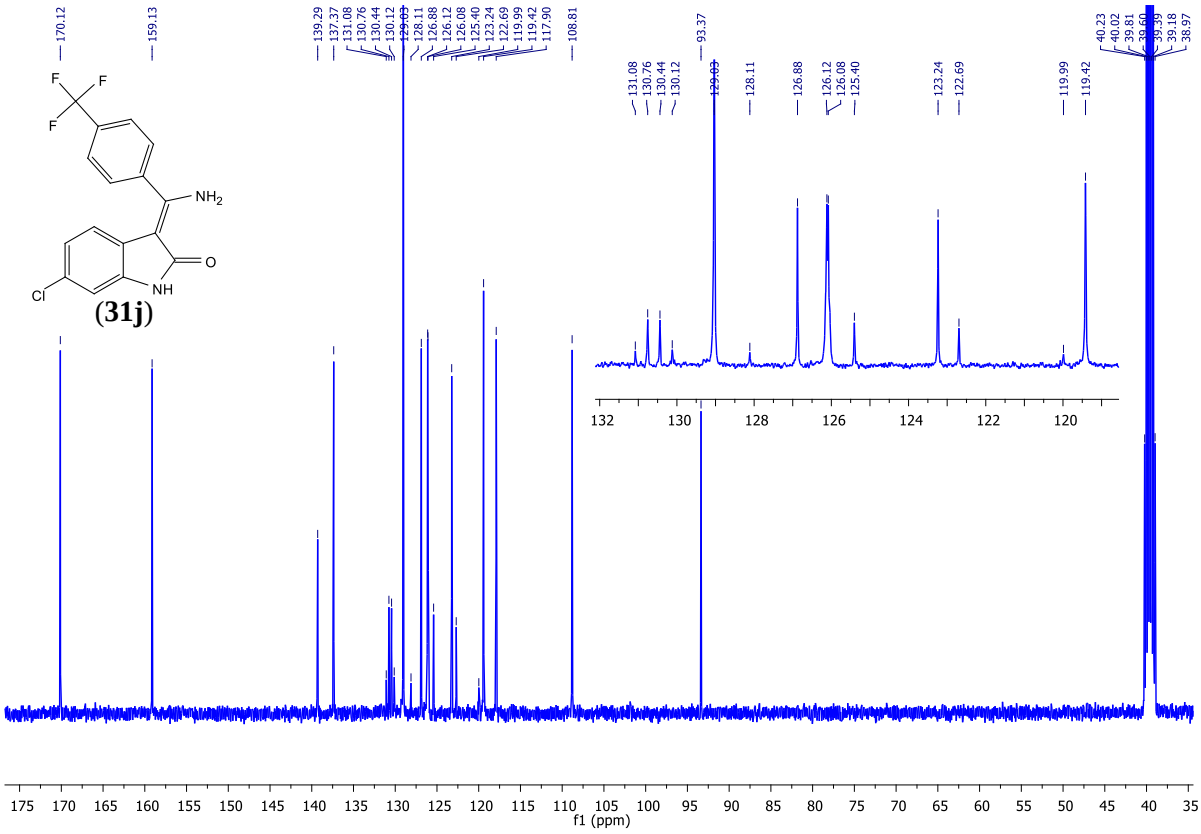
(31i)

^{13}C NMR spektrum látky **31i**.

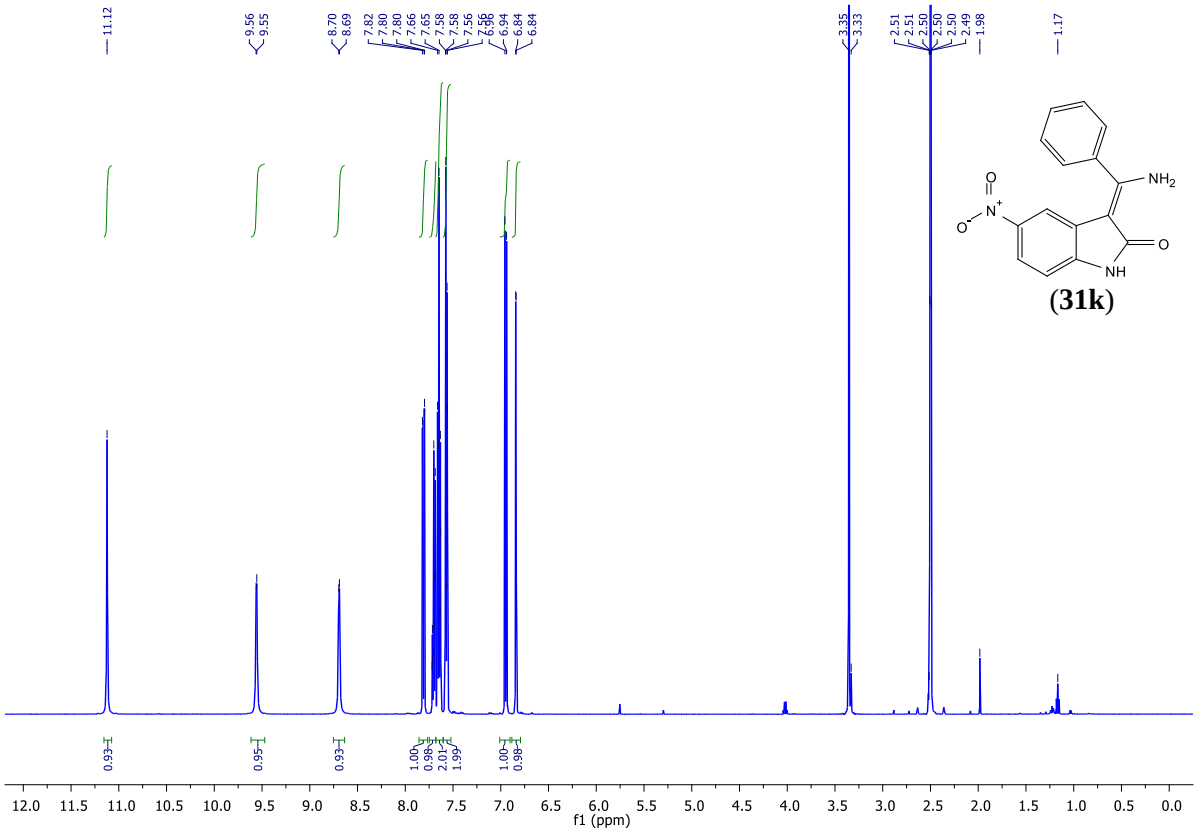


(31j)

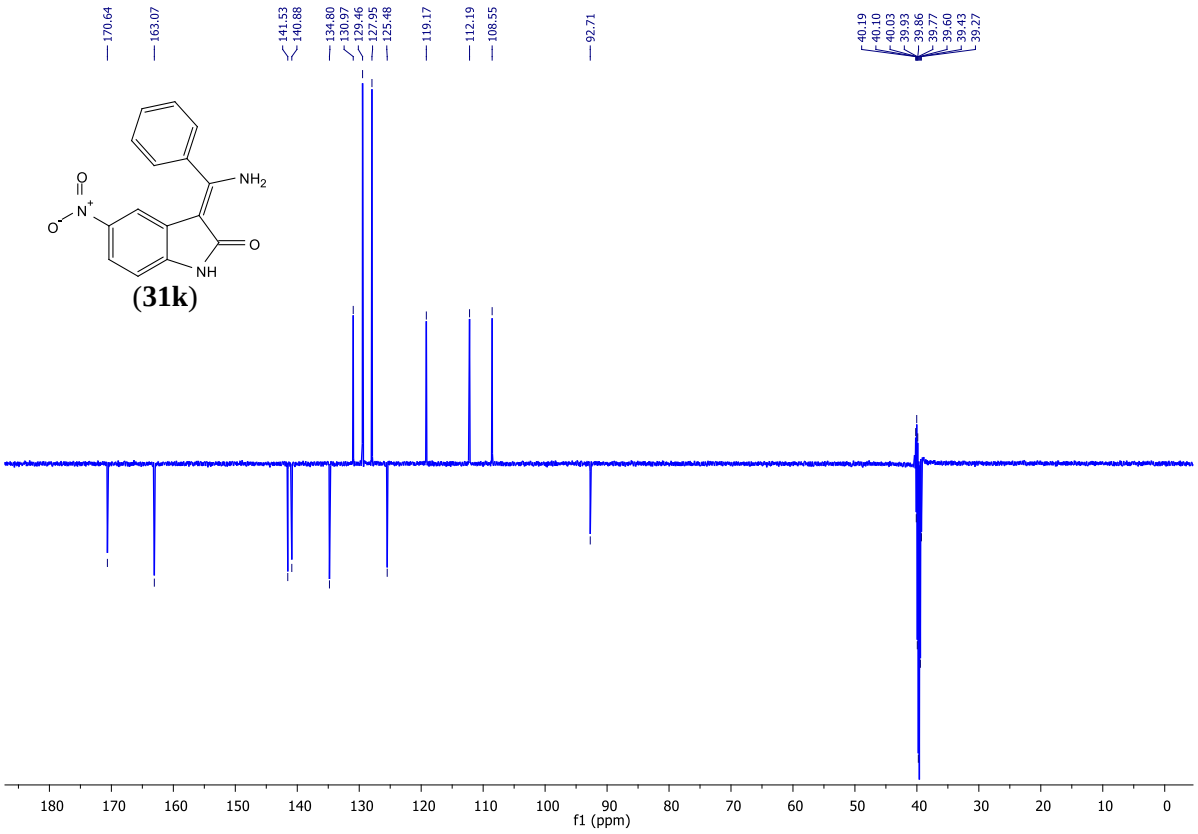
^{1}H NMR spektrum látky **31j**.



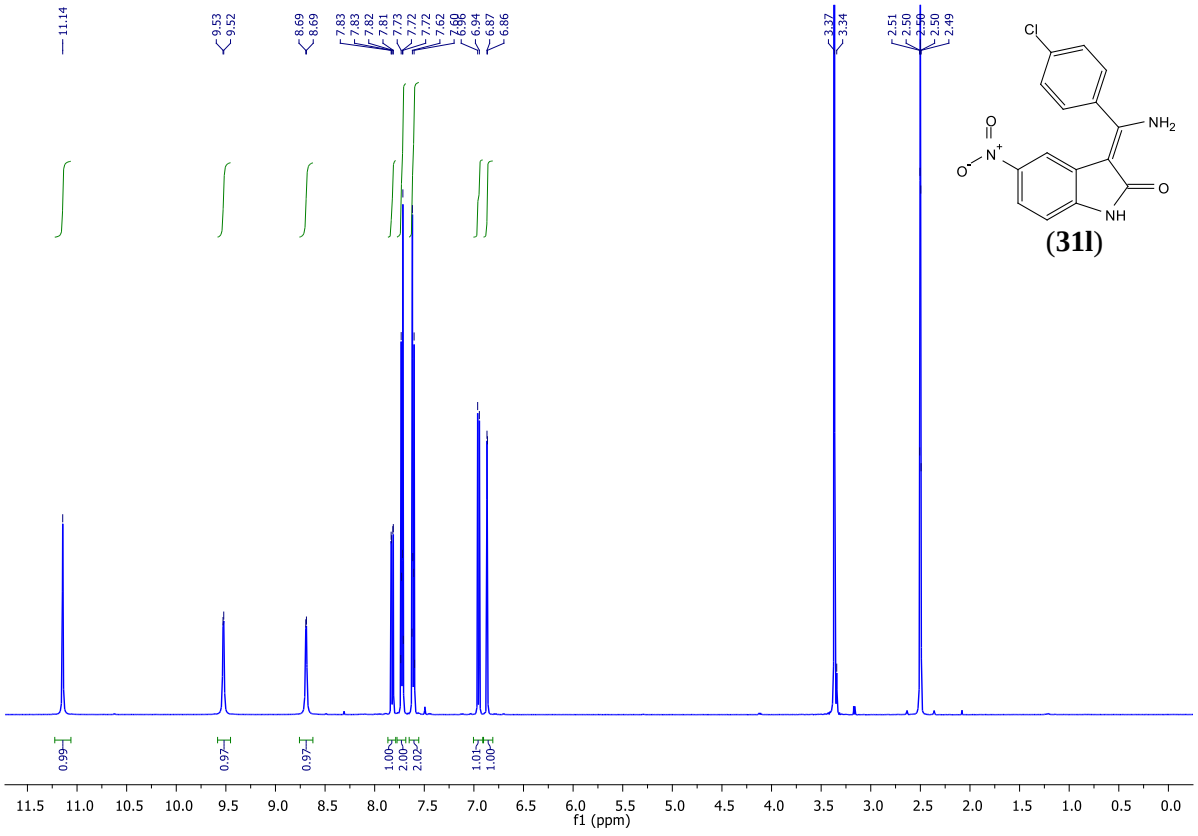
^{13}C NMR spektrum látky **31j**.



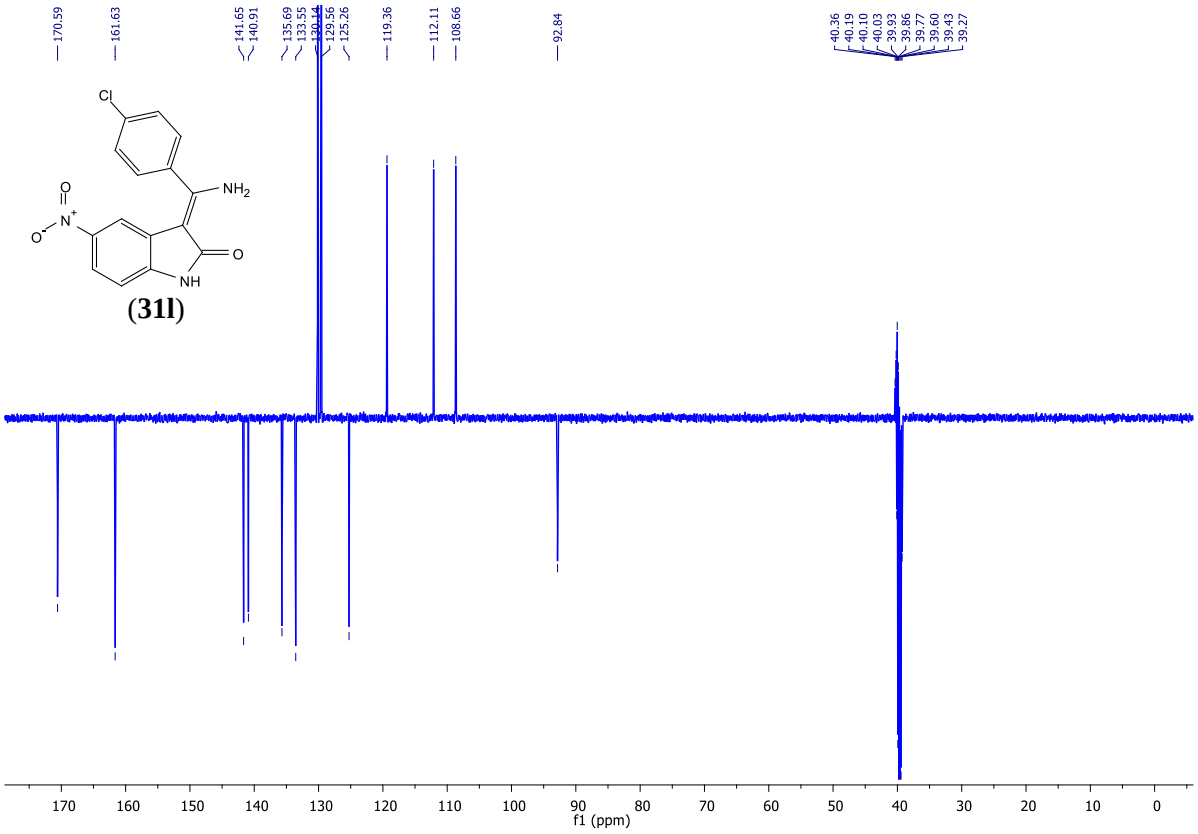
^{1}H NMR spektrum látky **31k**.



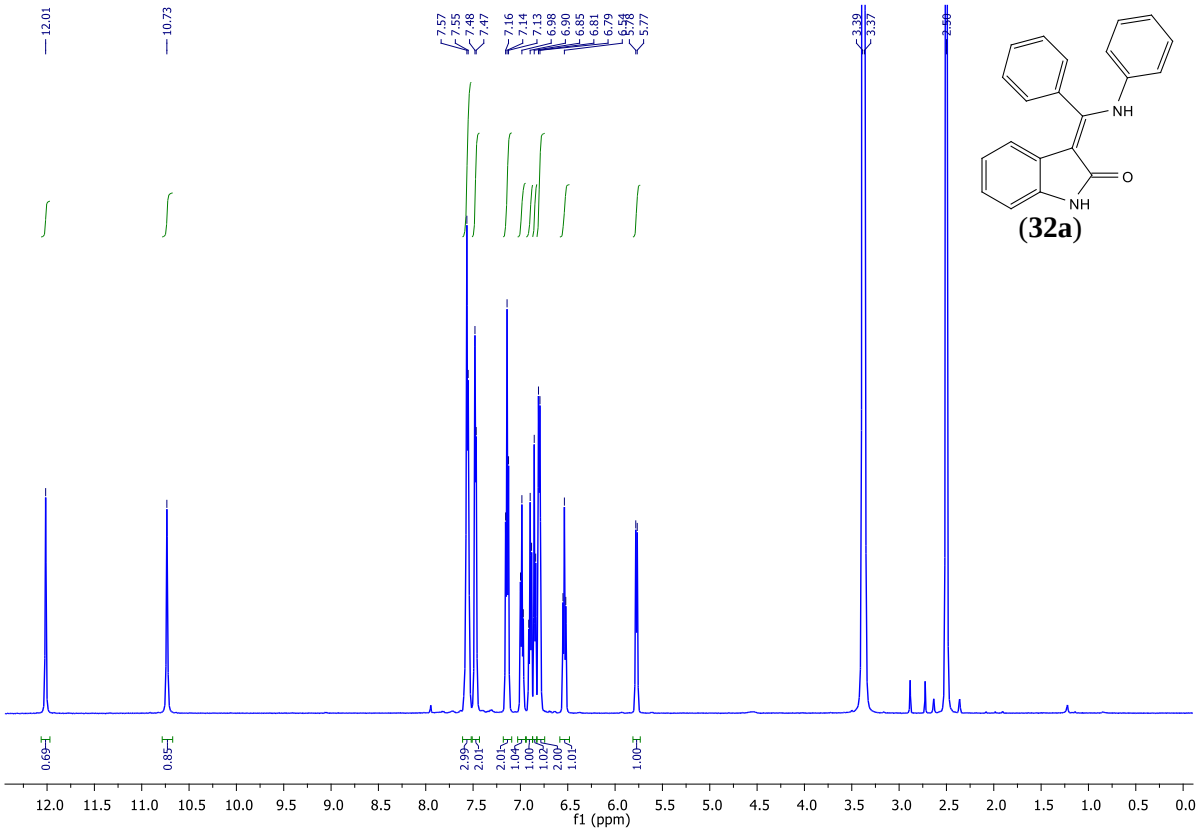
^{13}C NMR-APT spektrum látky **31k**.



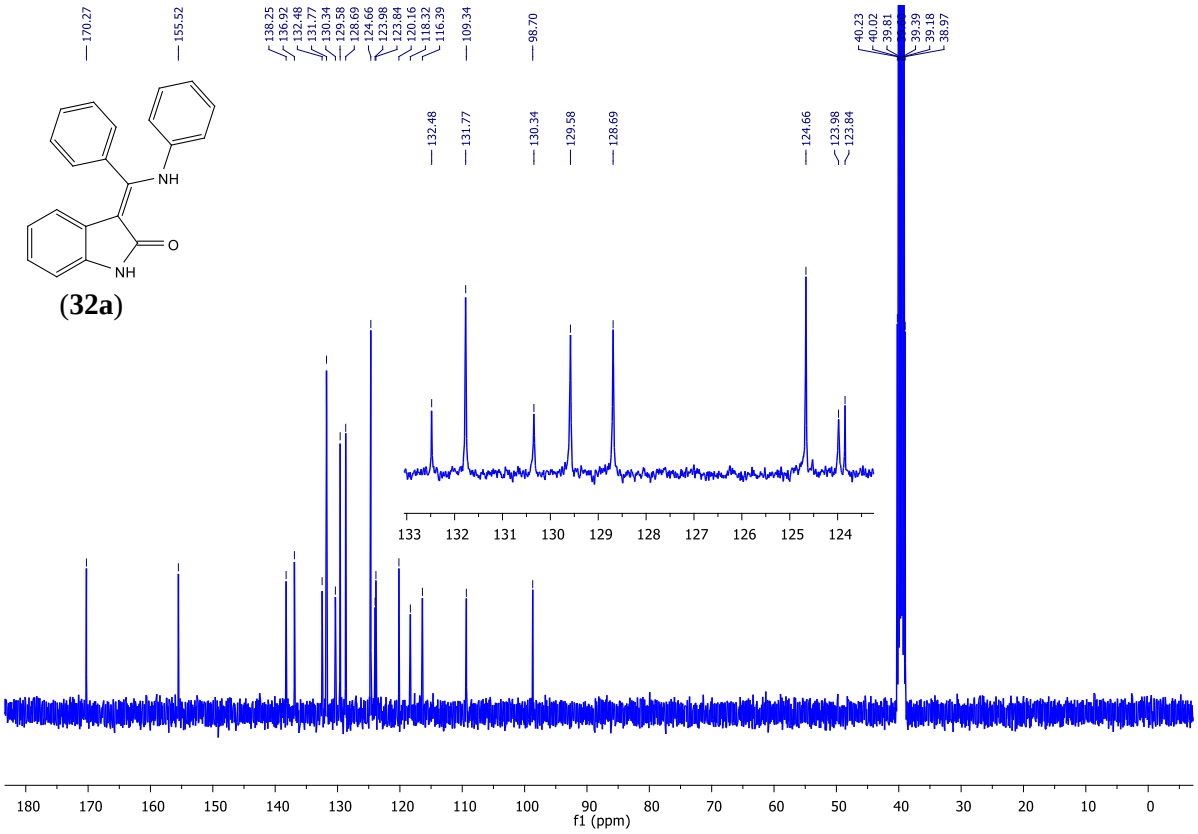
^{1}H NMR spektrum látky **31l**.



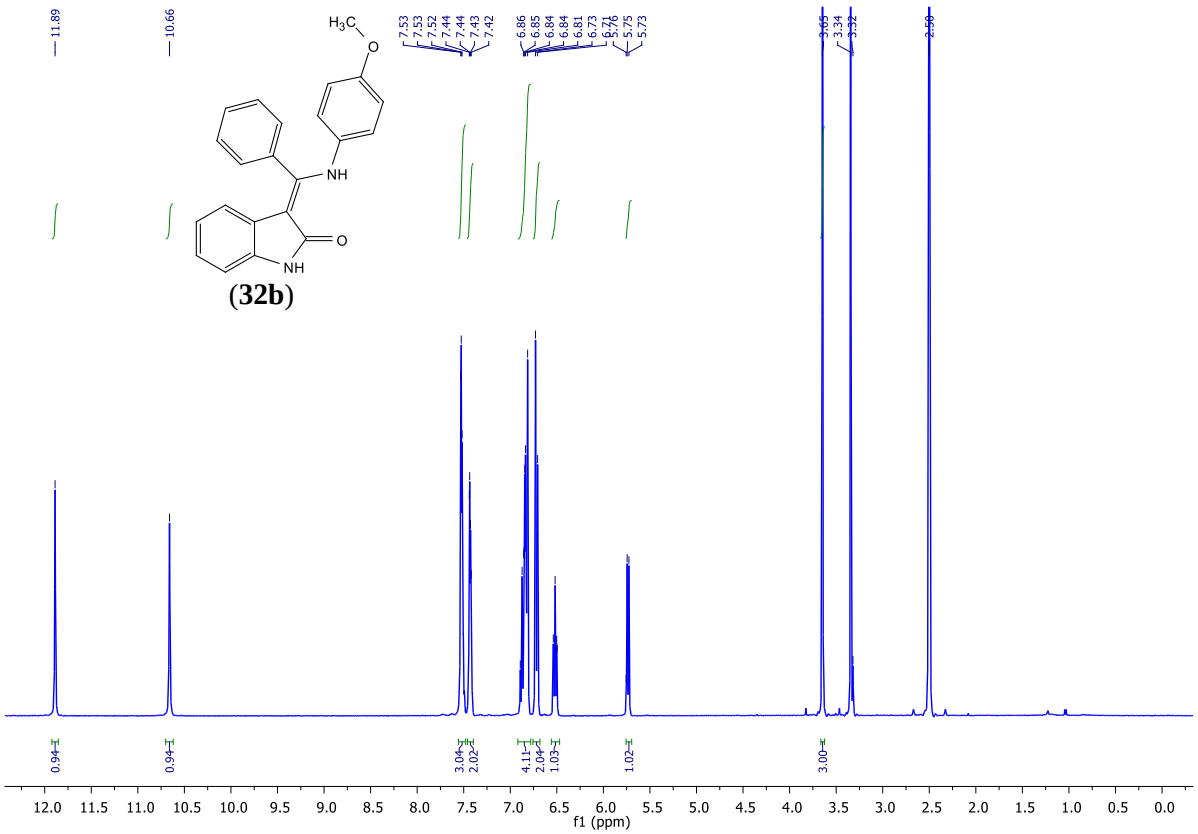
^{13}C NMR-APT spektrum látky **31l**.



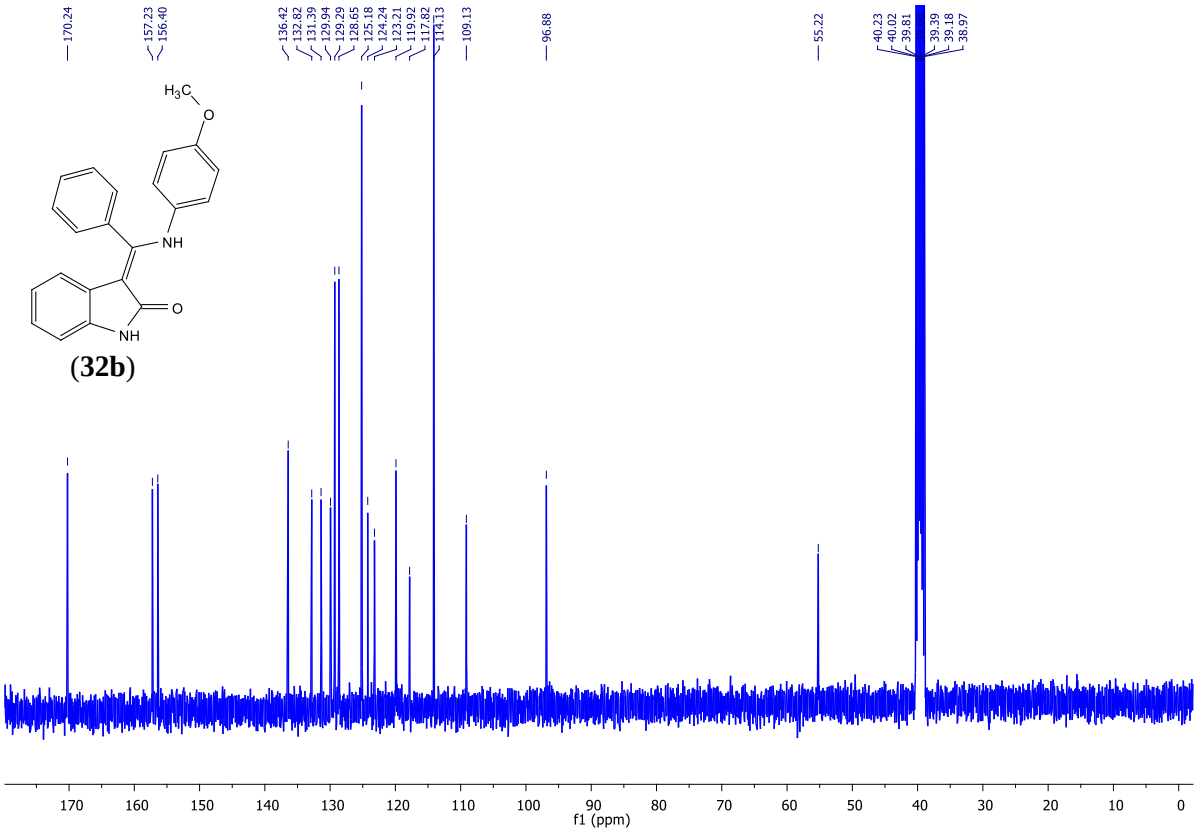
^{1}H NMR spektrum látky **32a**.



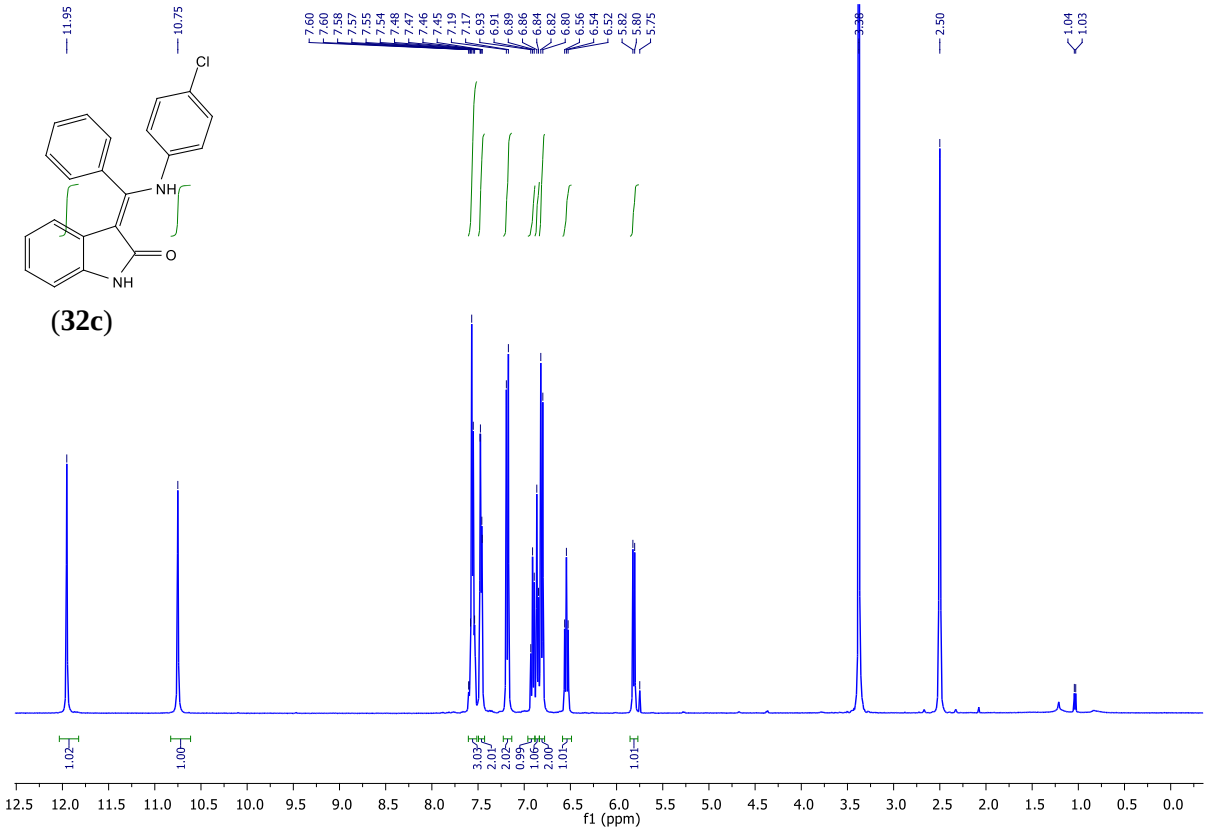
^{13}C NMR spektrum látky **32a**.



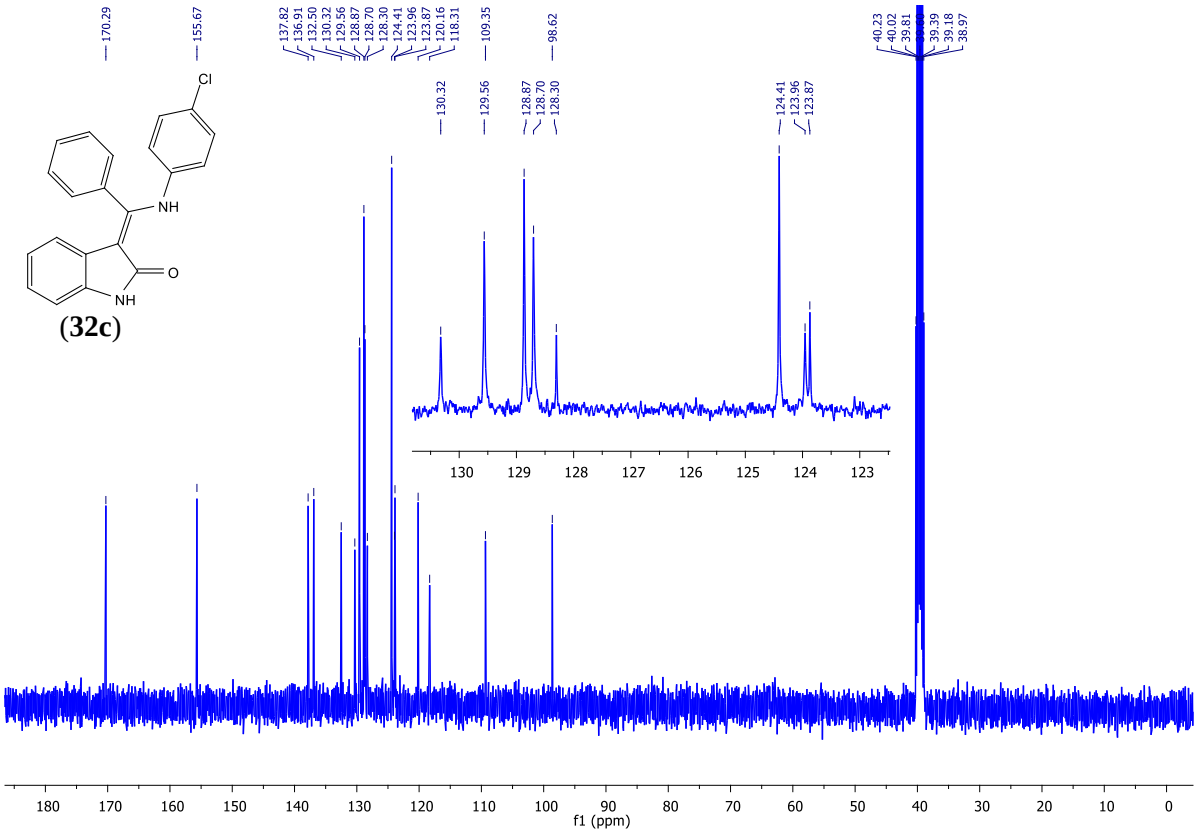
^{1}H NMR spektrum látky **32b**.



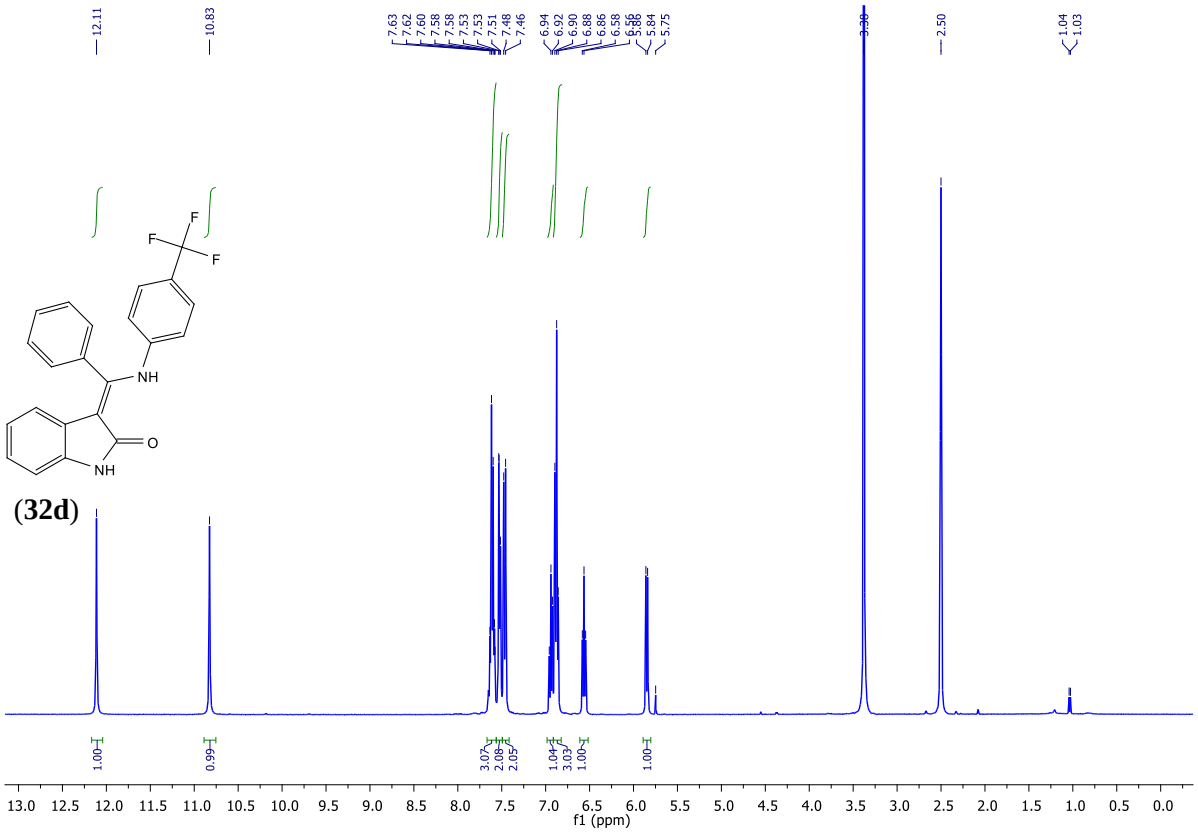
^{13}C NMR spektrum látky **32b**.



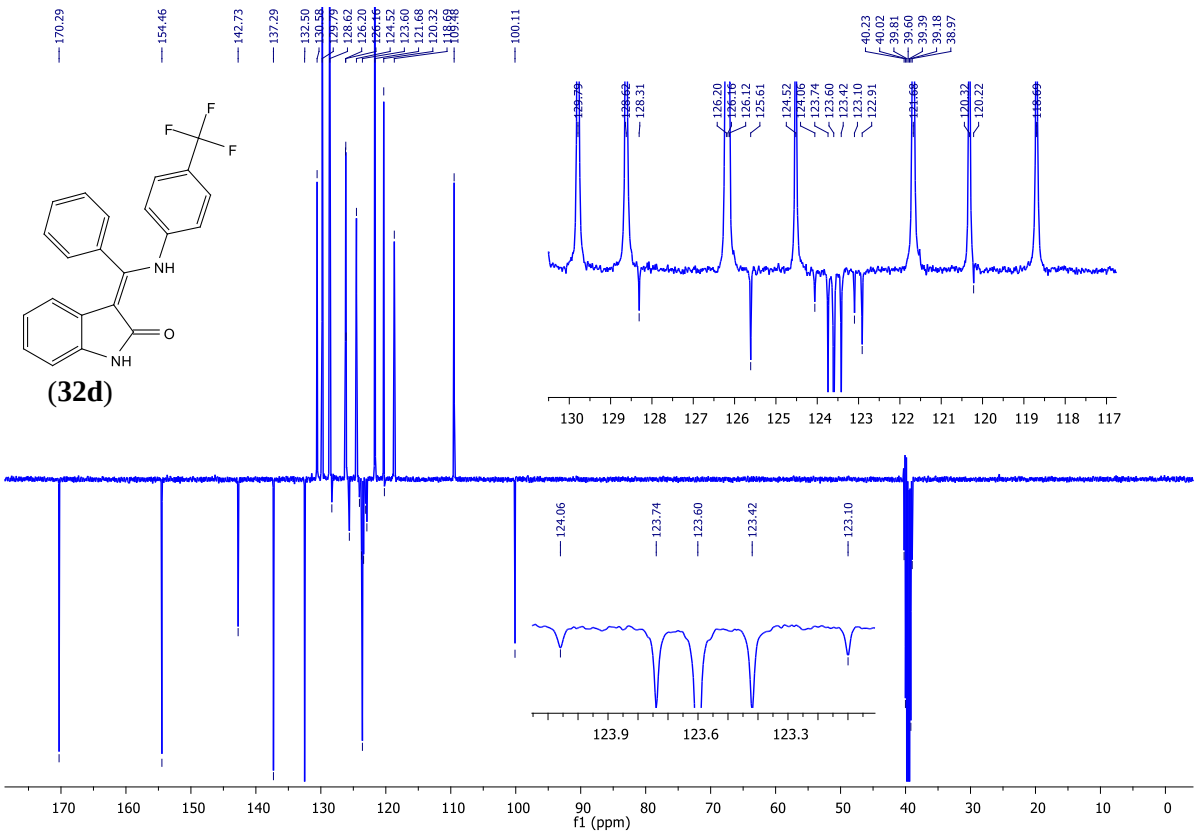
^{1}H NMR spektrum látky **32c**.



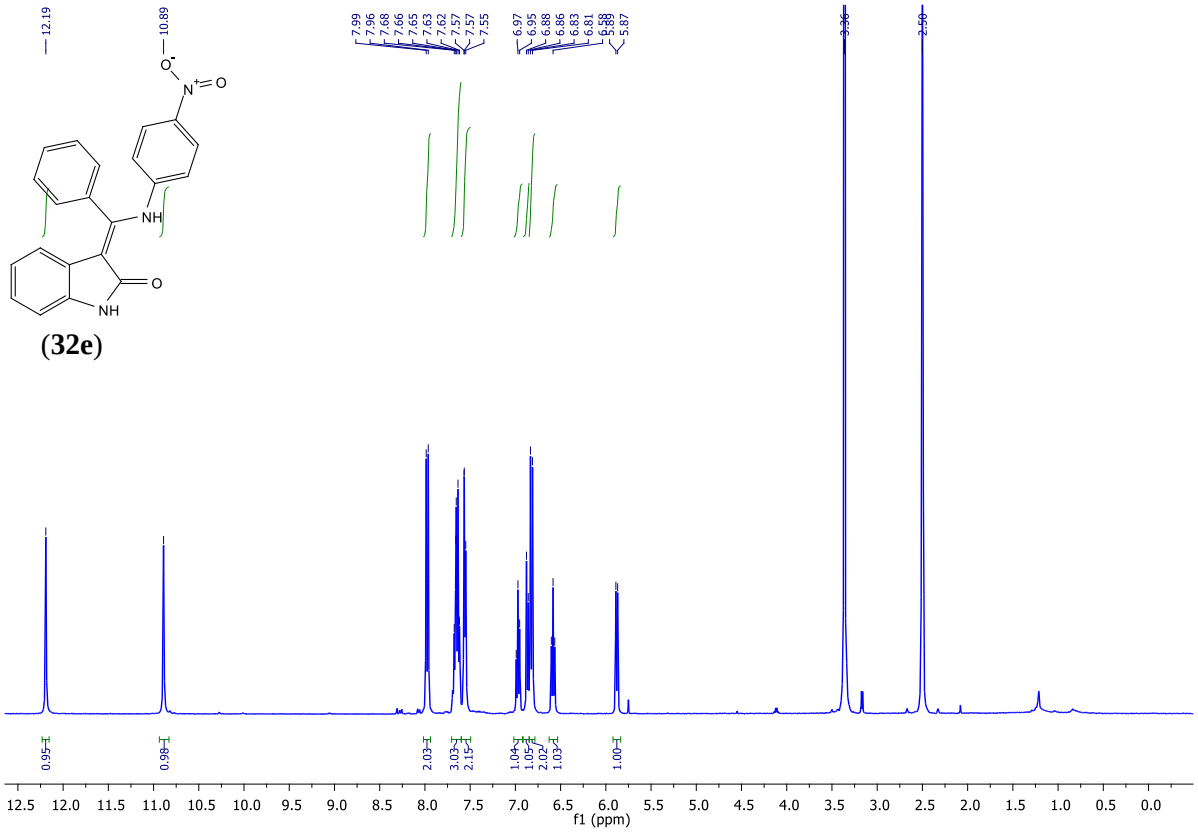
^{13}C NMR spektrum látky **32c**.



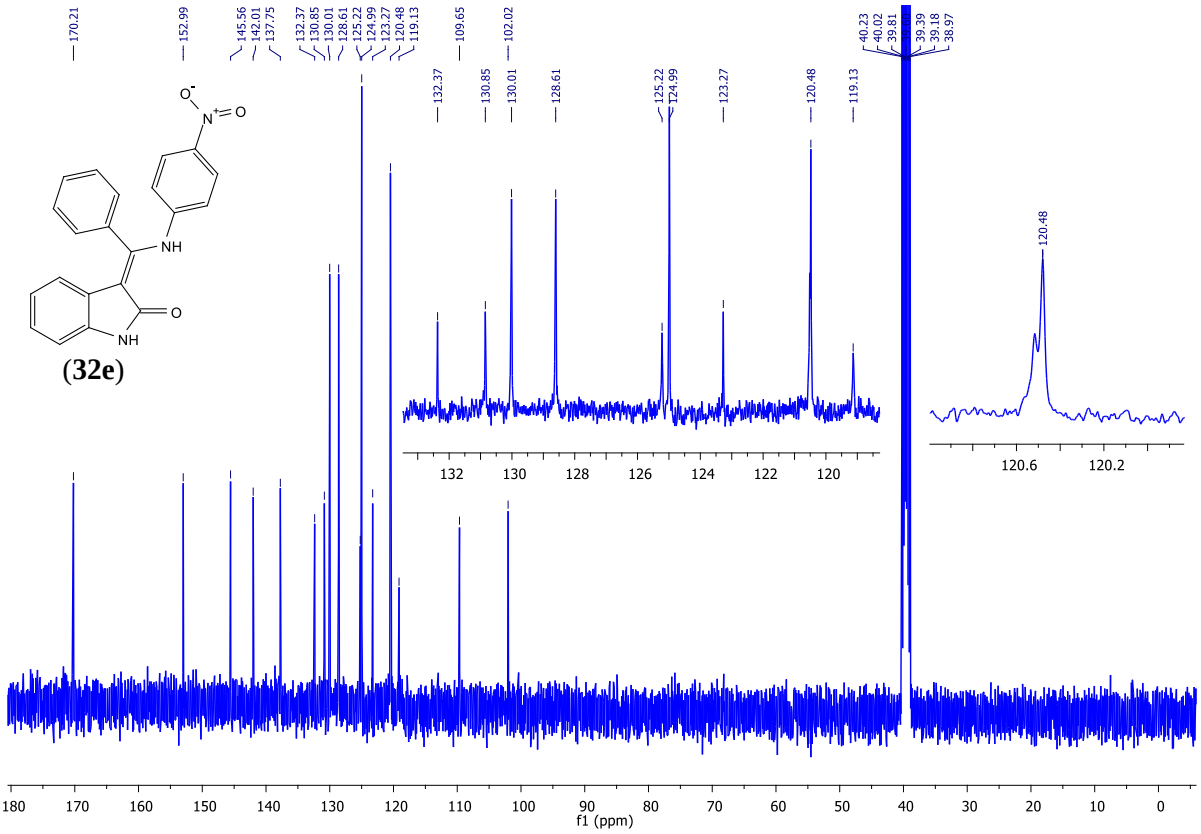
^{1}H NMR spektrum látky **32d**.



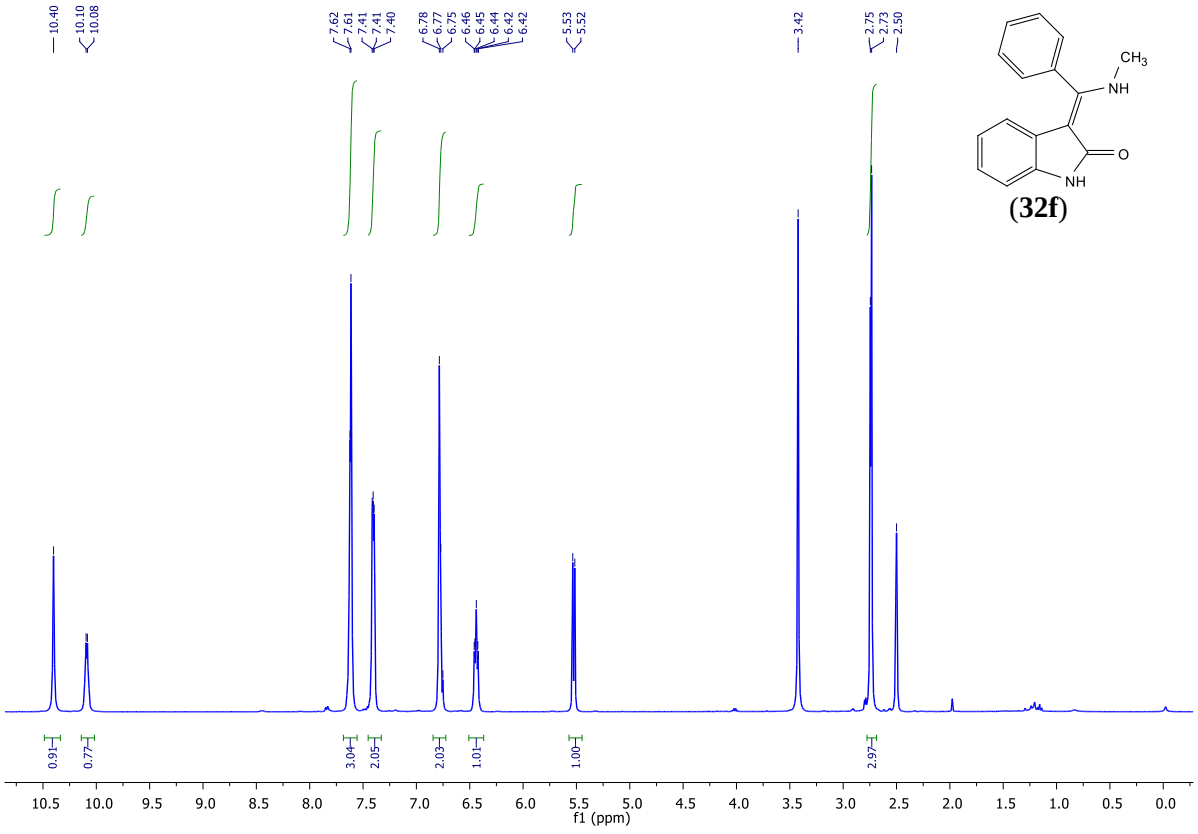
^{13}C NMR-APT spektrum látky **32d**.



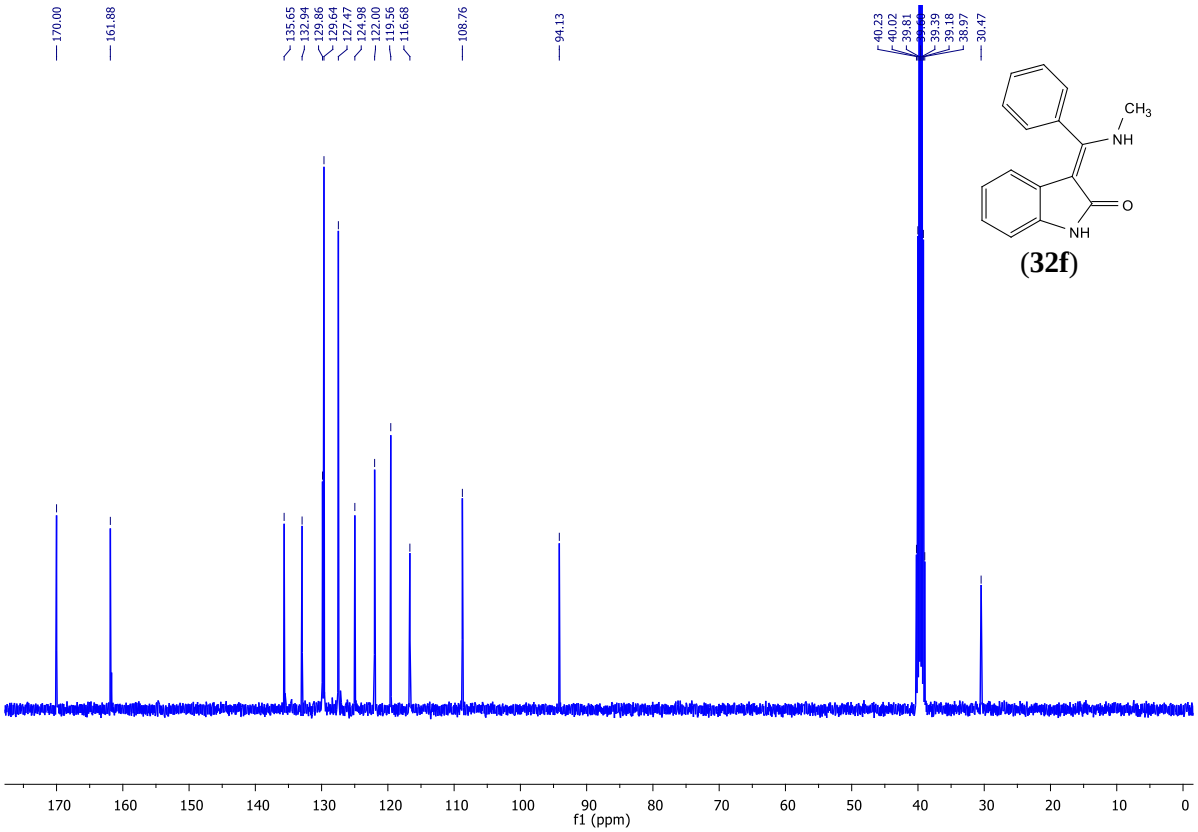
^{1}H NMR spektrum látky **32e**.



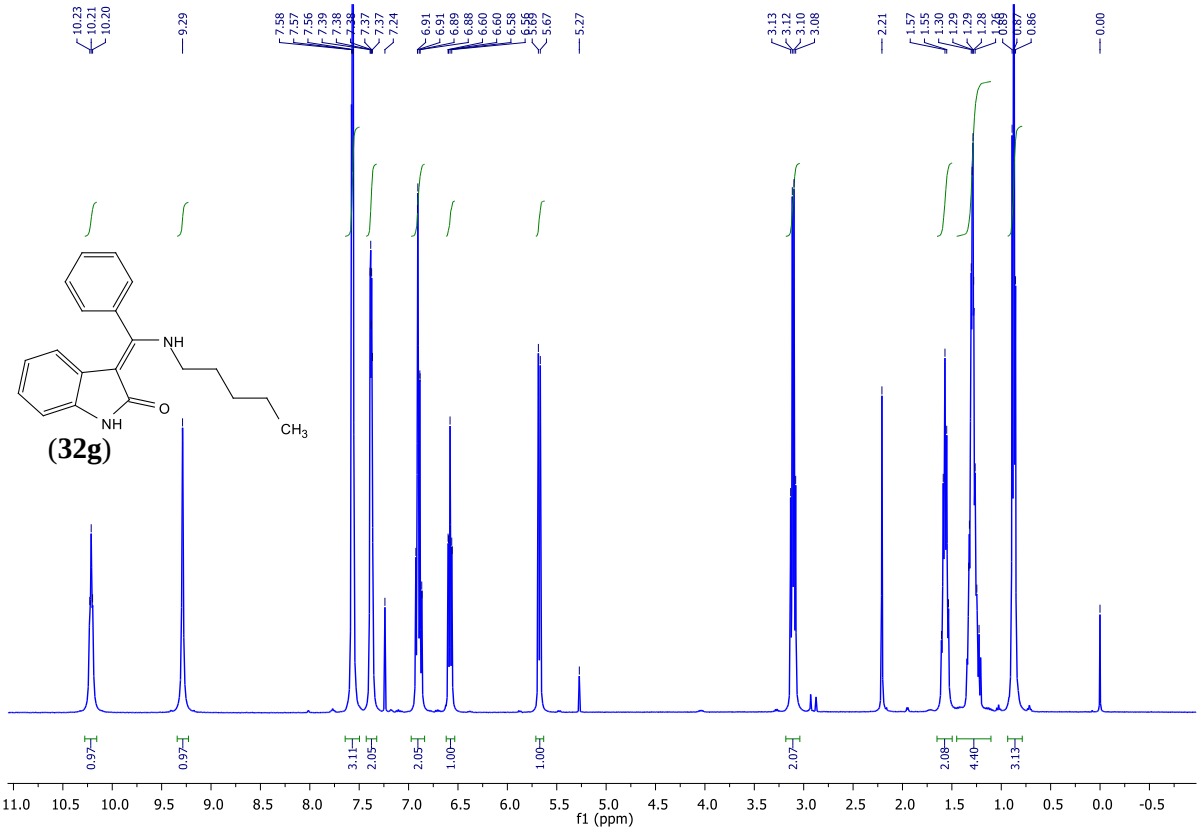
^{13}C NMR spektrum látky **32e**.



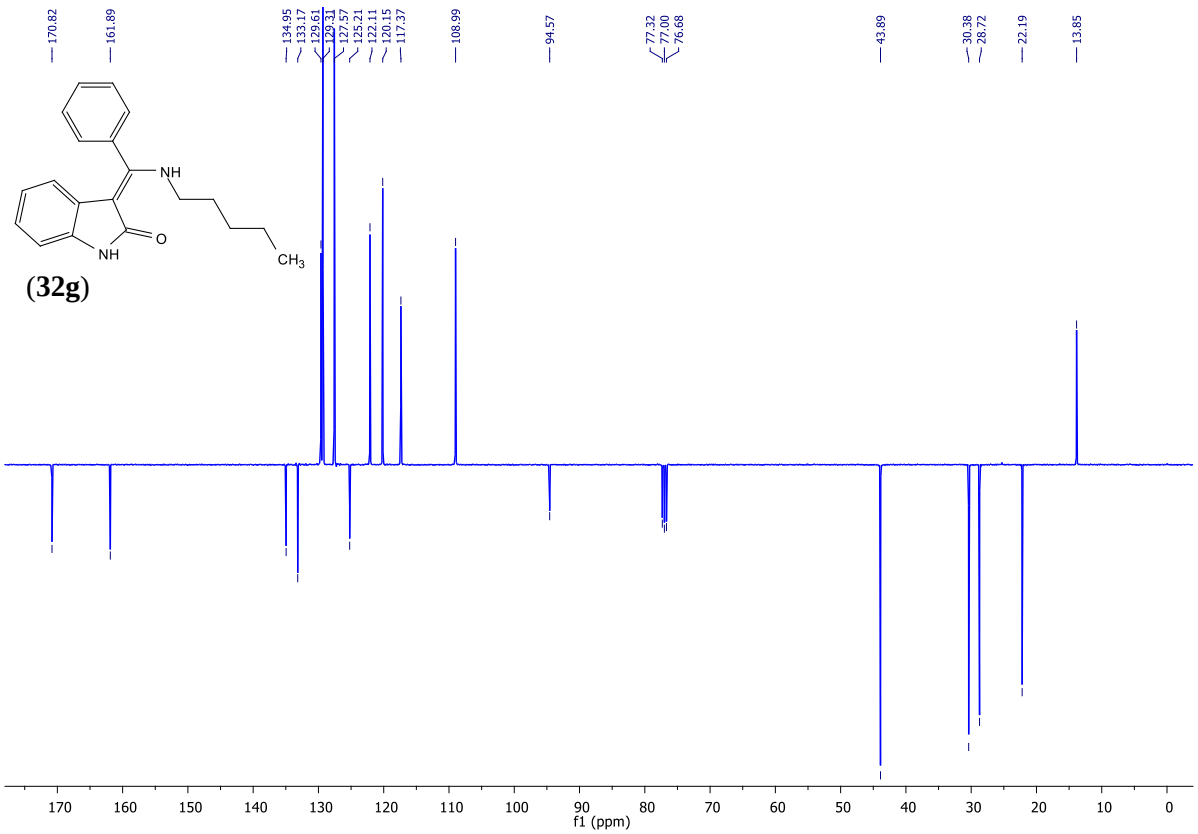
^{1}H NMR spektrum látky **32f**.



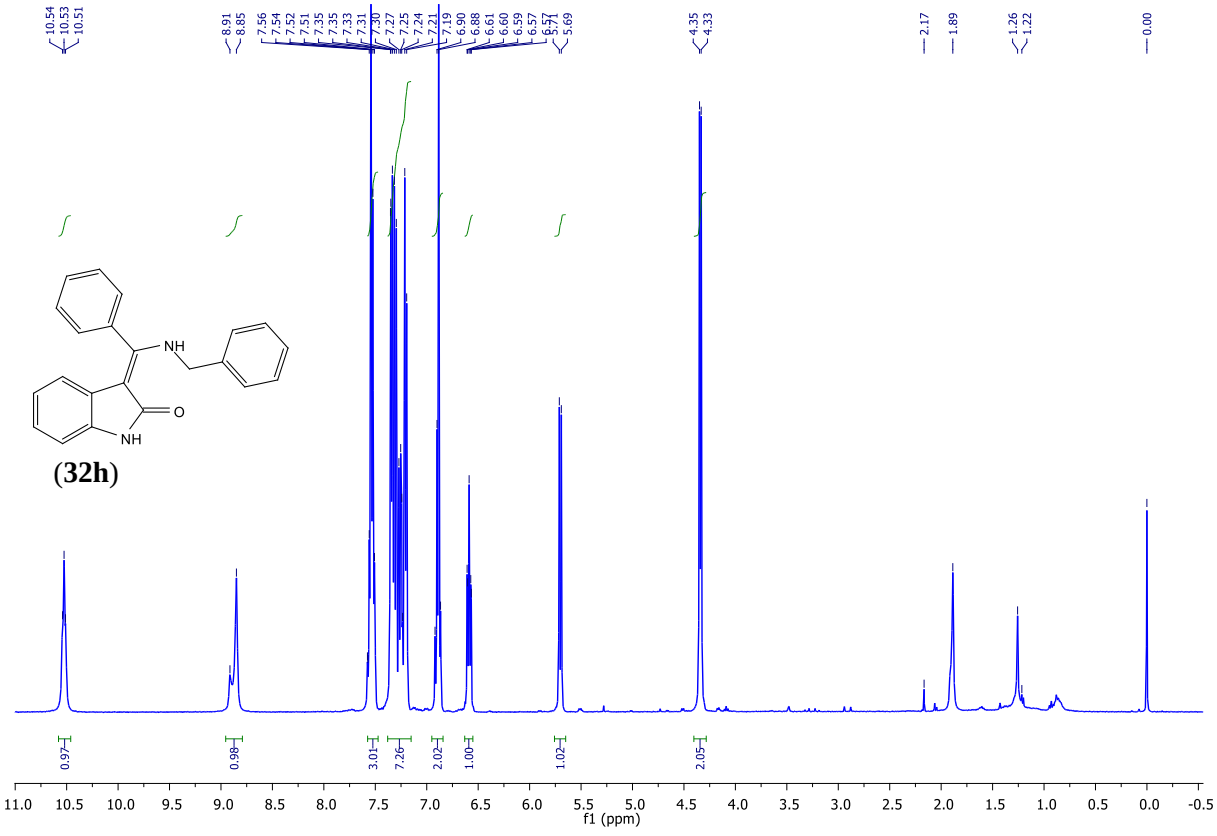
^{13}C NMR spektrum látky **32f**.



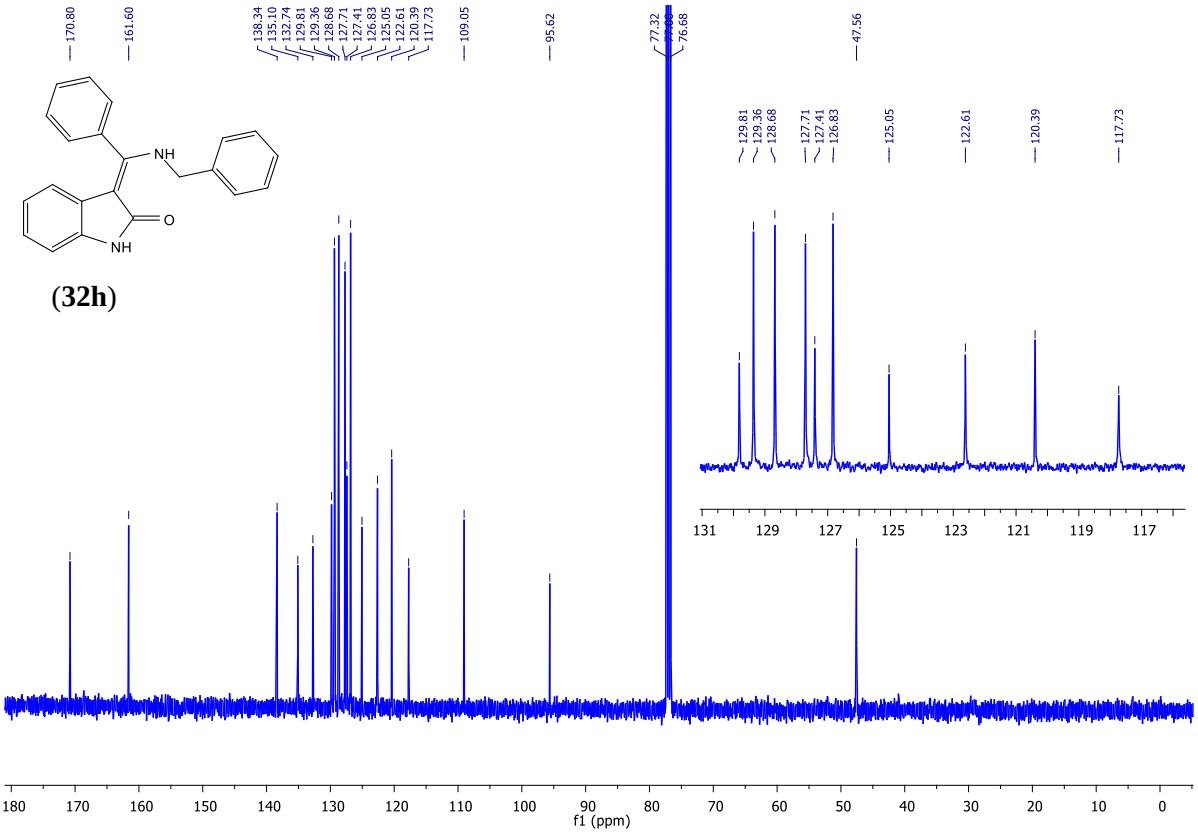
^{1}H NMR spektrum látky **32g**.



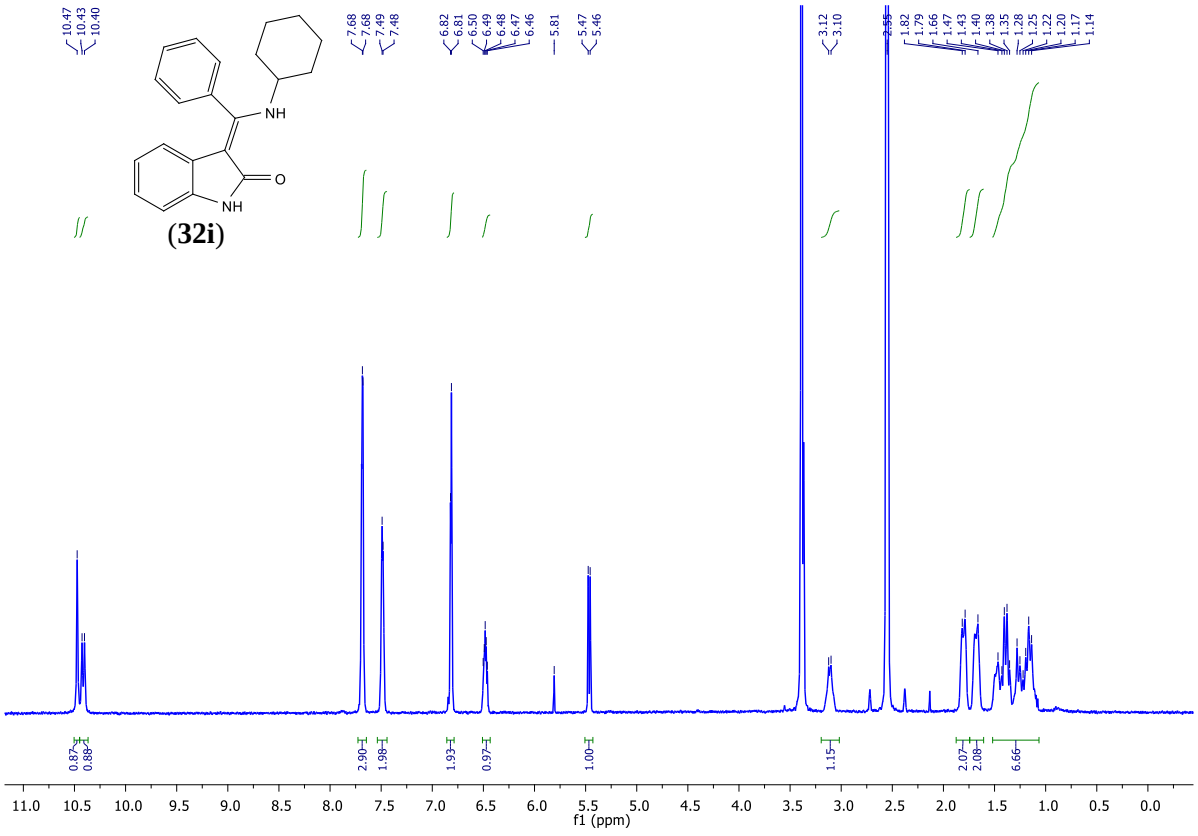
^{13}C NMR-APT spektrum látky **32g**.



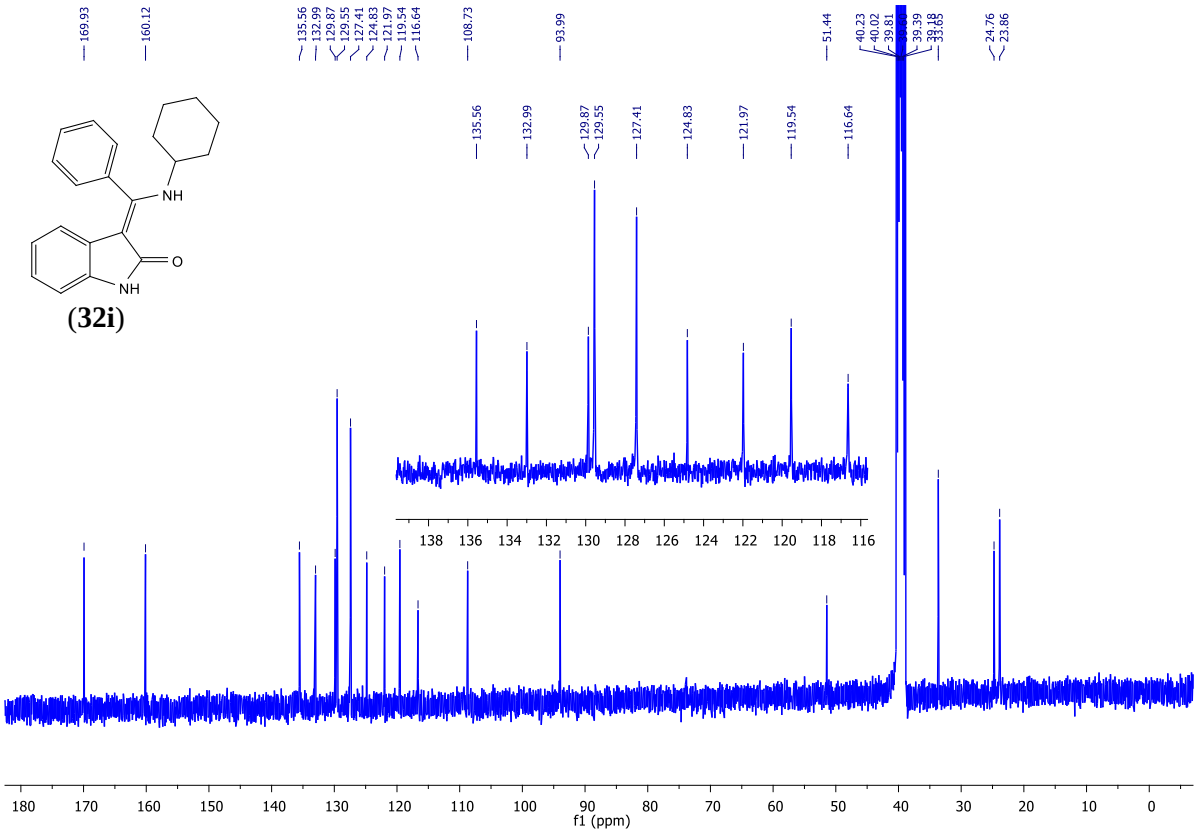
^{1}H NMR spektrum látky **32h**.



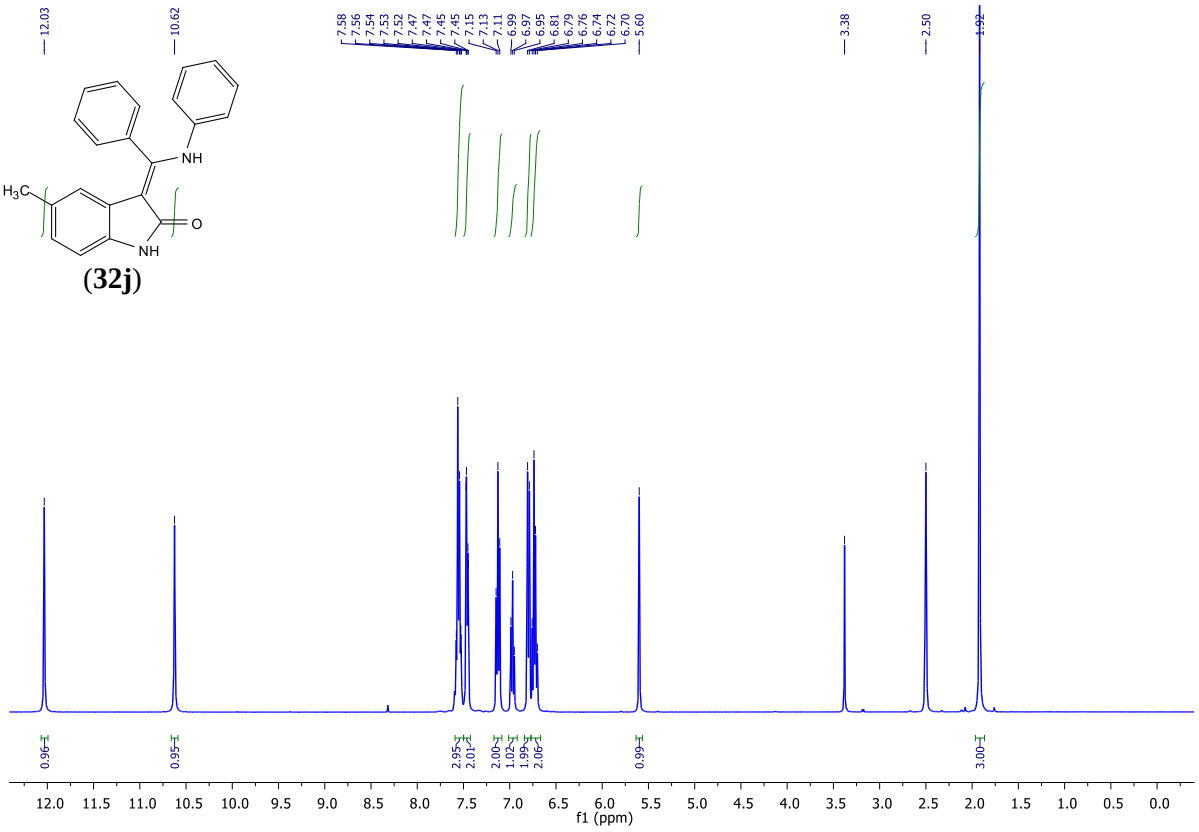
^{13}C NMR spektrum látky **32h**.



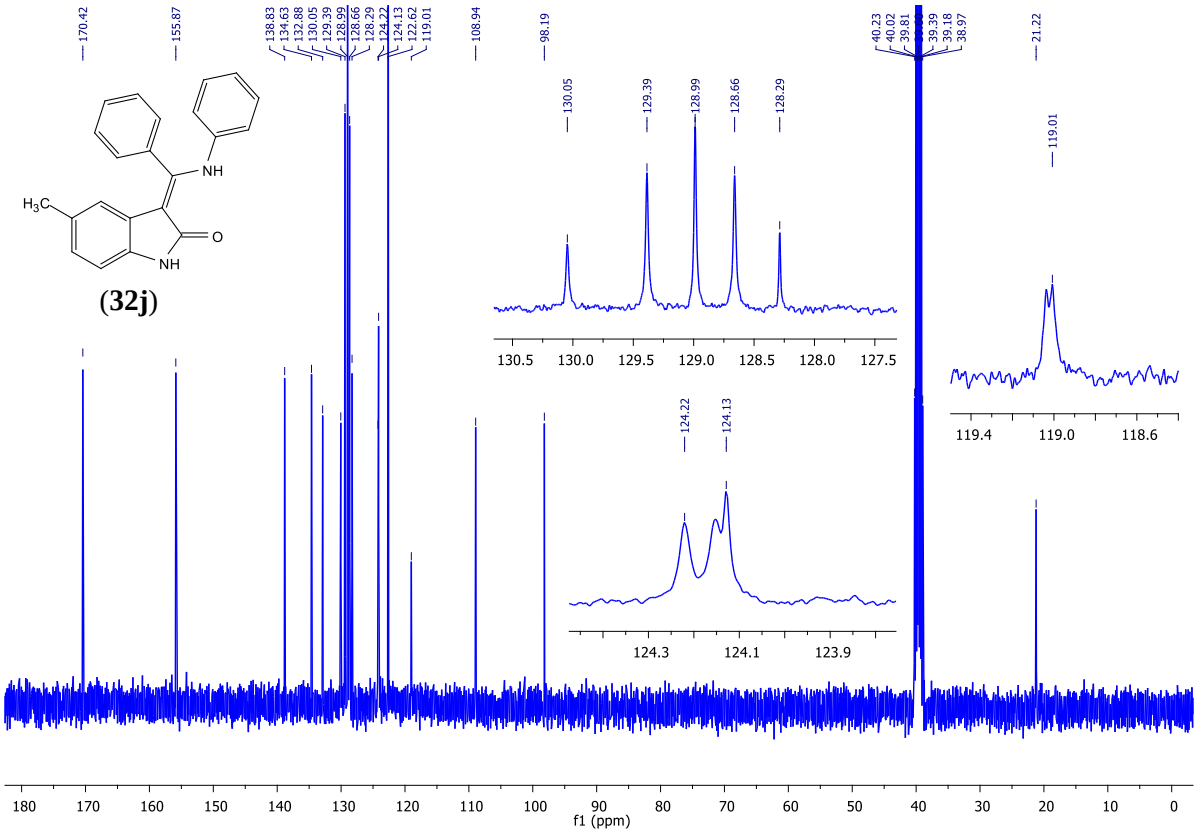
^{1}H NMR spektrum látky **32i**.



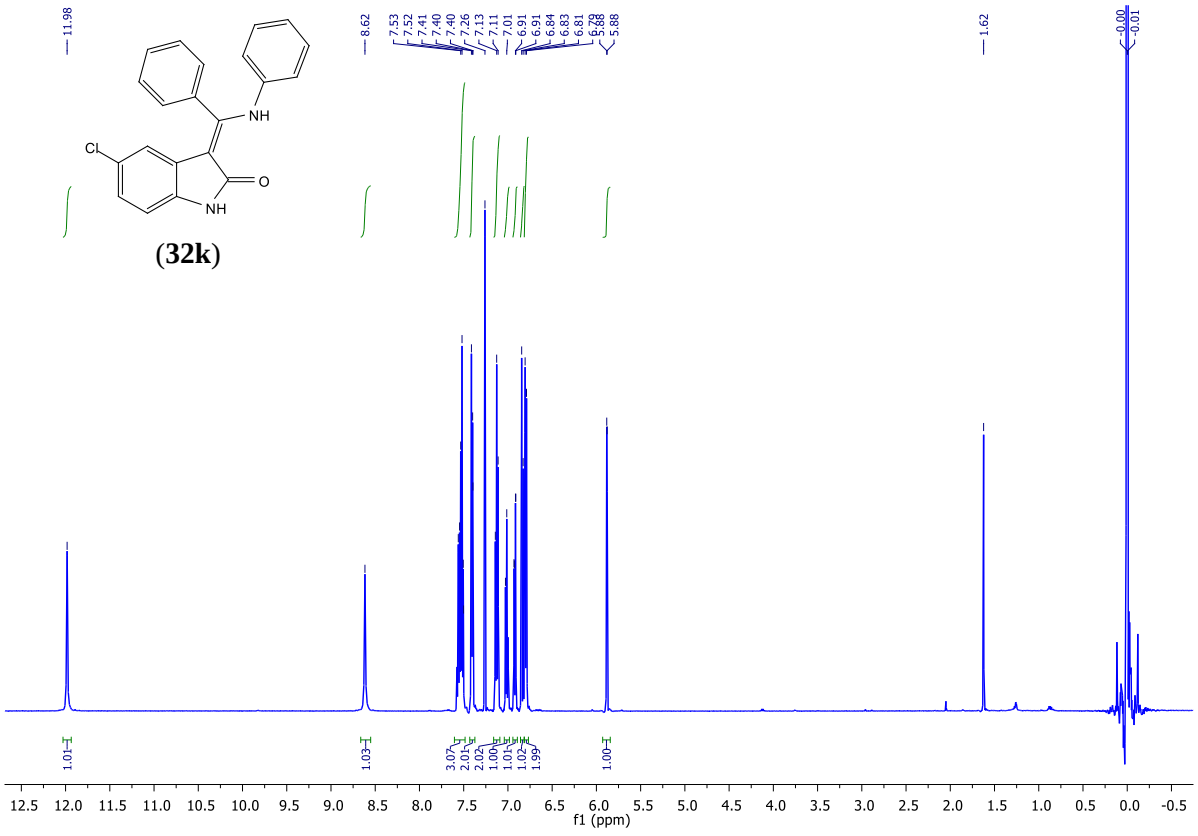
^{13}C NMR spektrum látky **32i**.



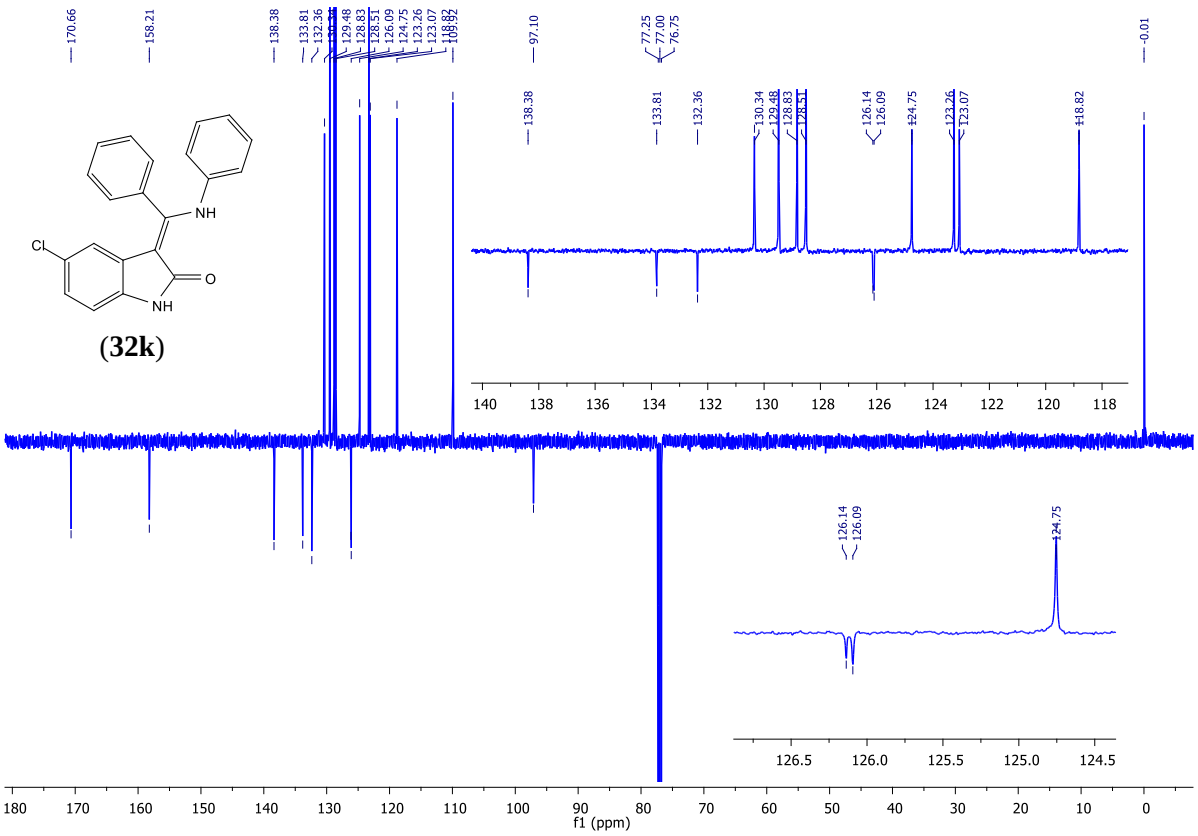
^{1}H NMR spektrum látky **32j**.



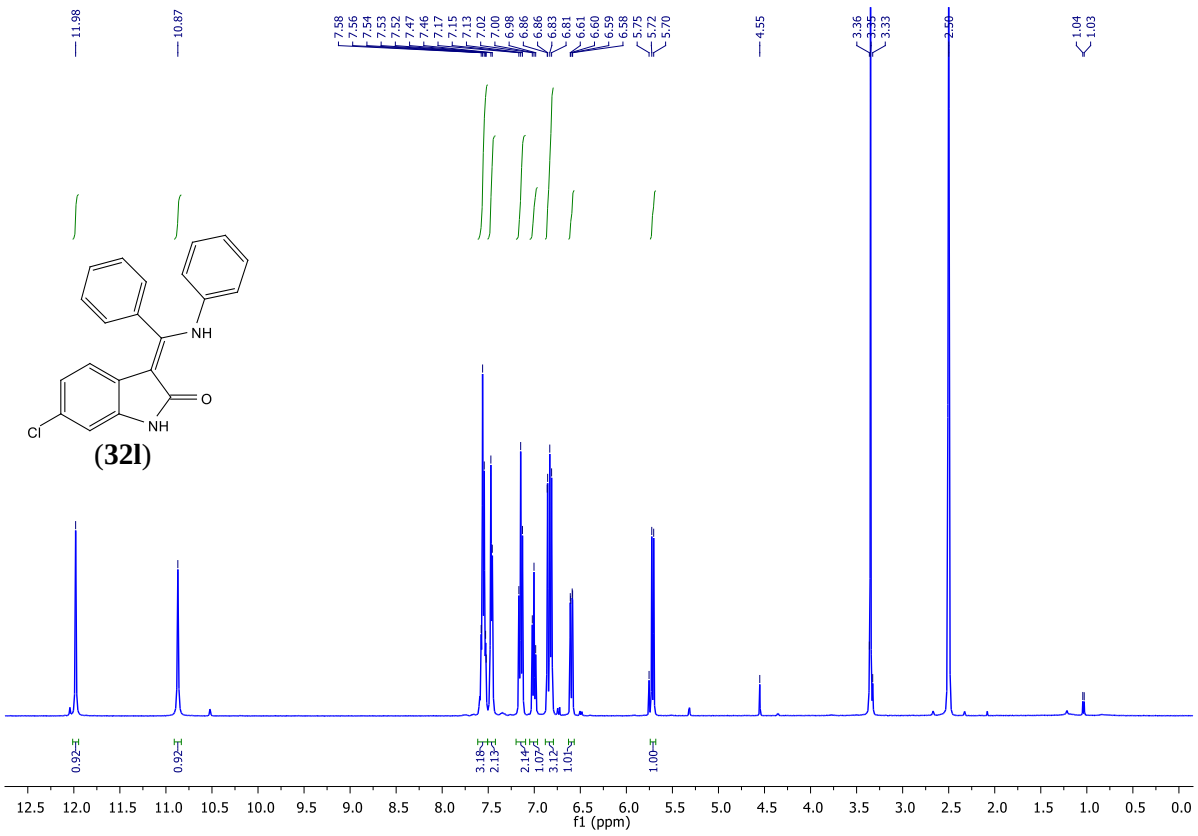
^{13}C NMR spektrum látky **32j**.



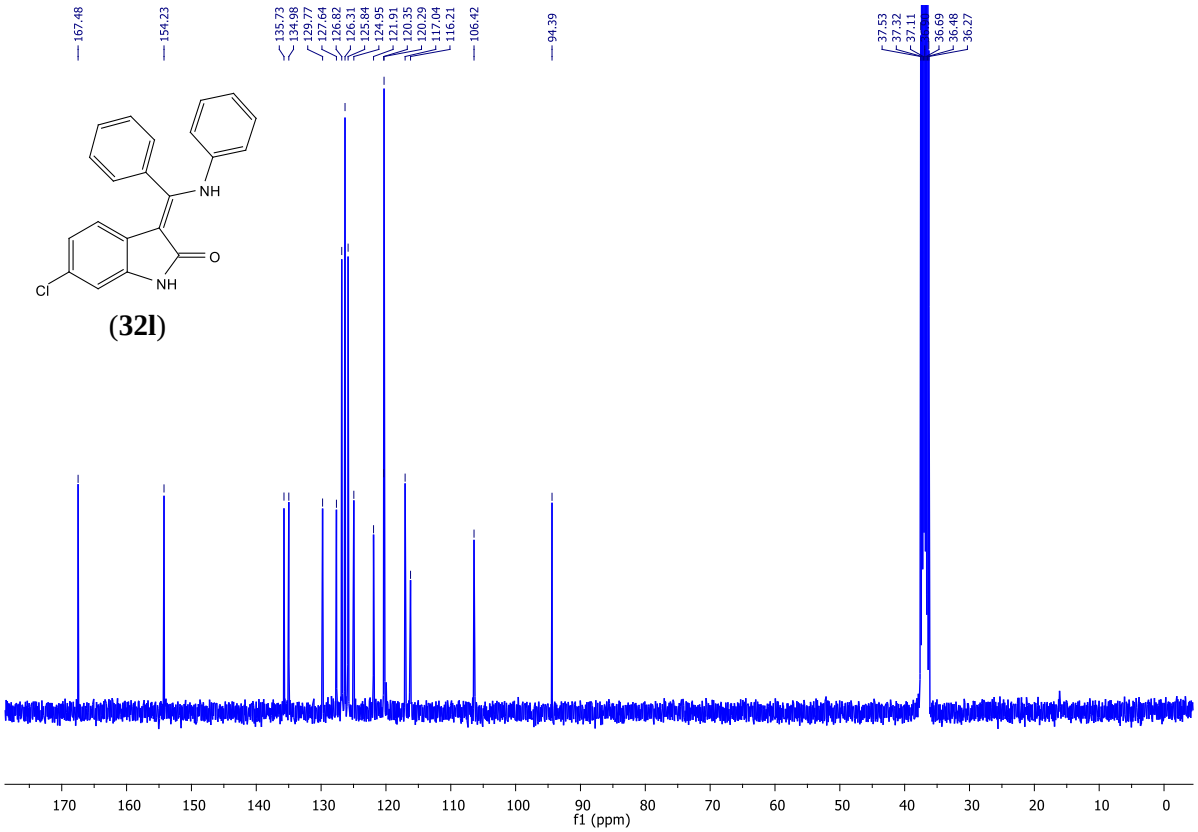
^{1}H NMR spektrum látky **33k**.



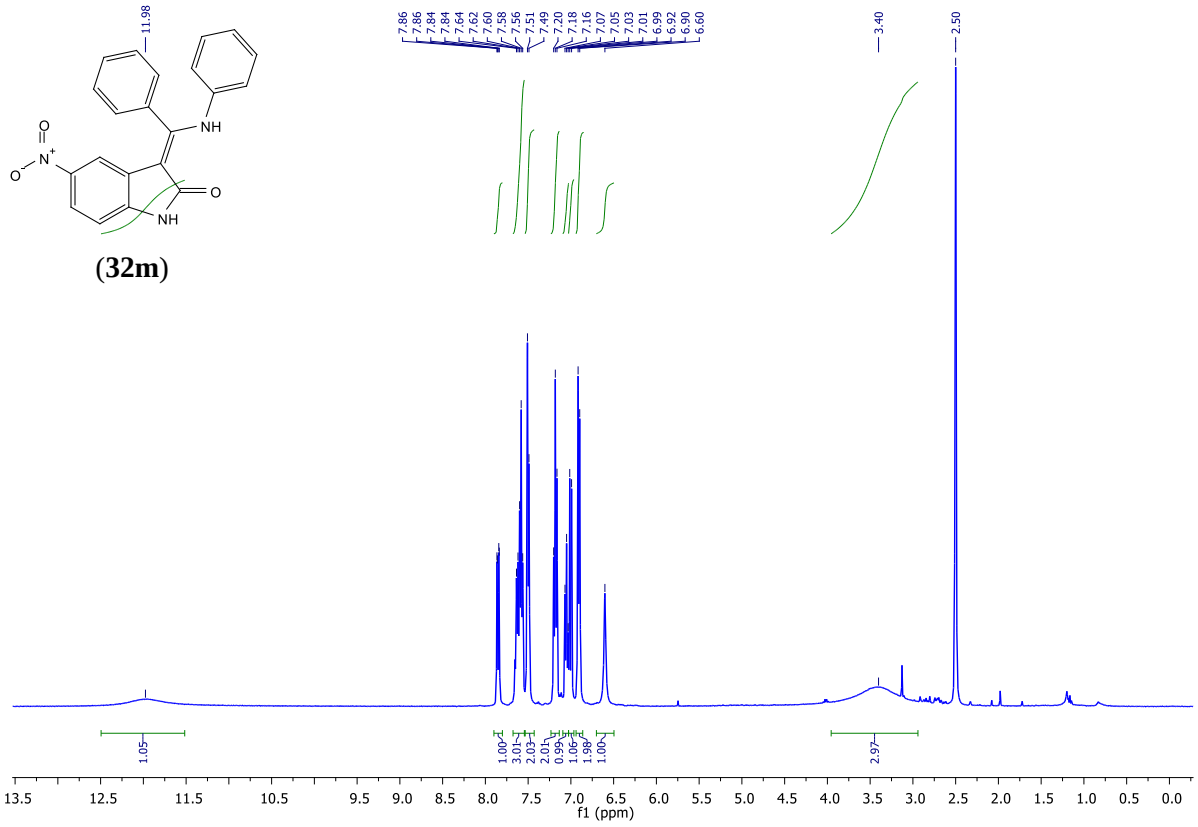
^{13}C NMR-APT spektrum látky **32k**.



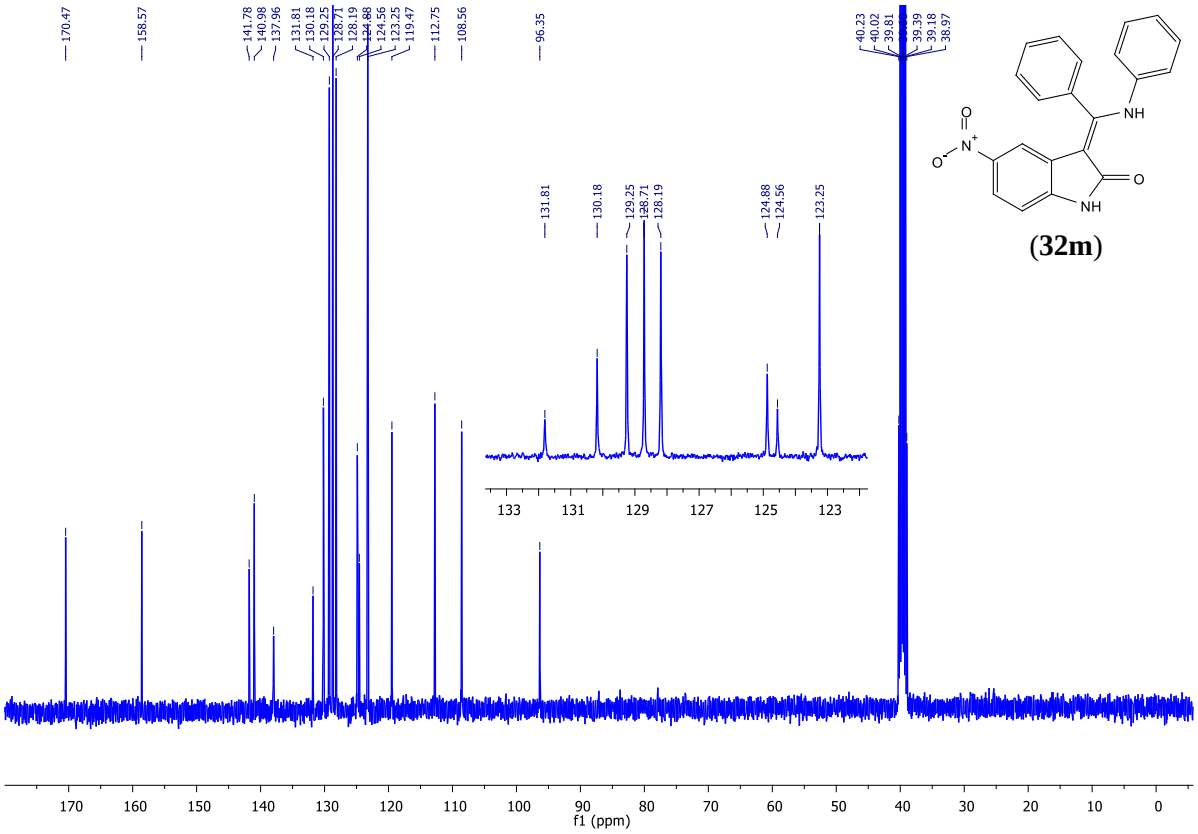
^{1}H NMR spektrum látky **32l**.



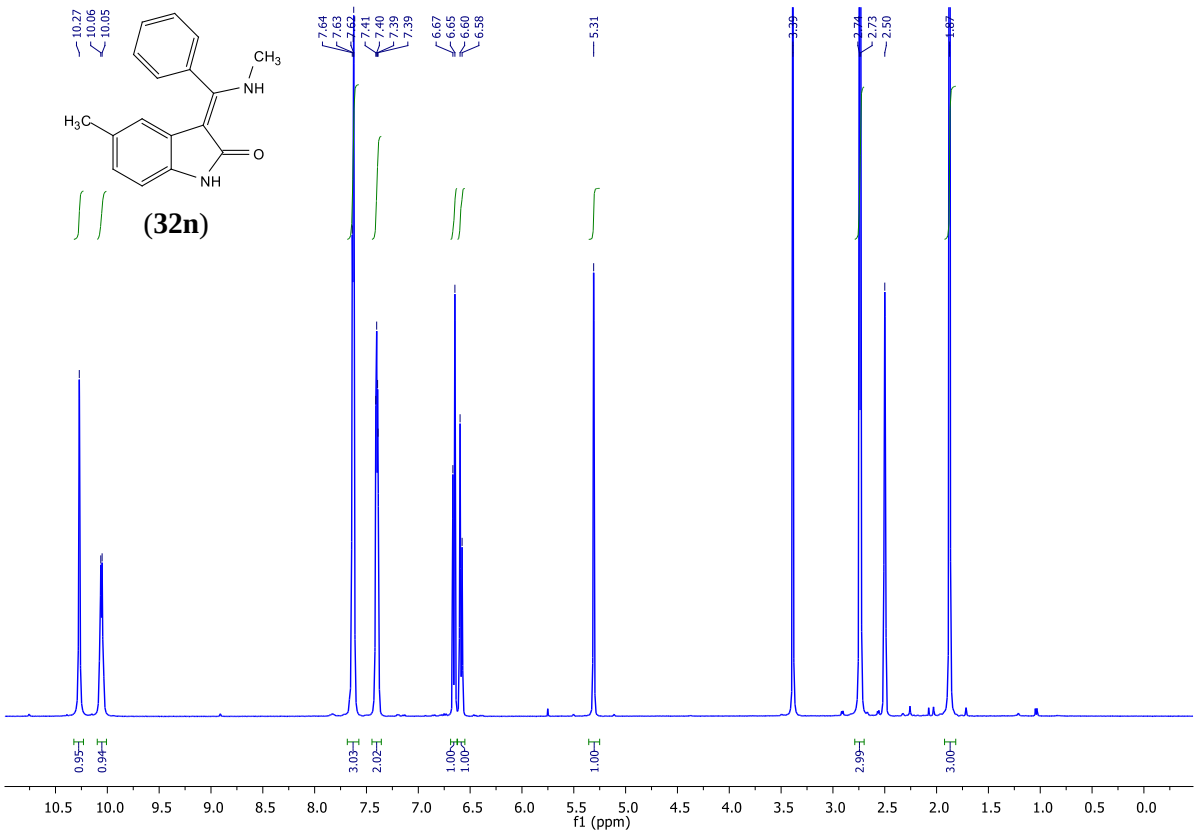
^{13}C NMR spektrum látky **32l**.



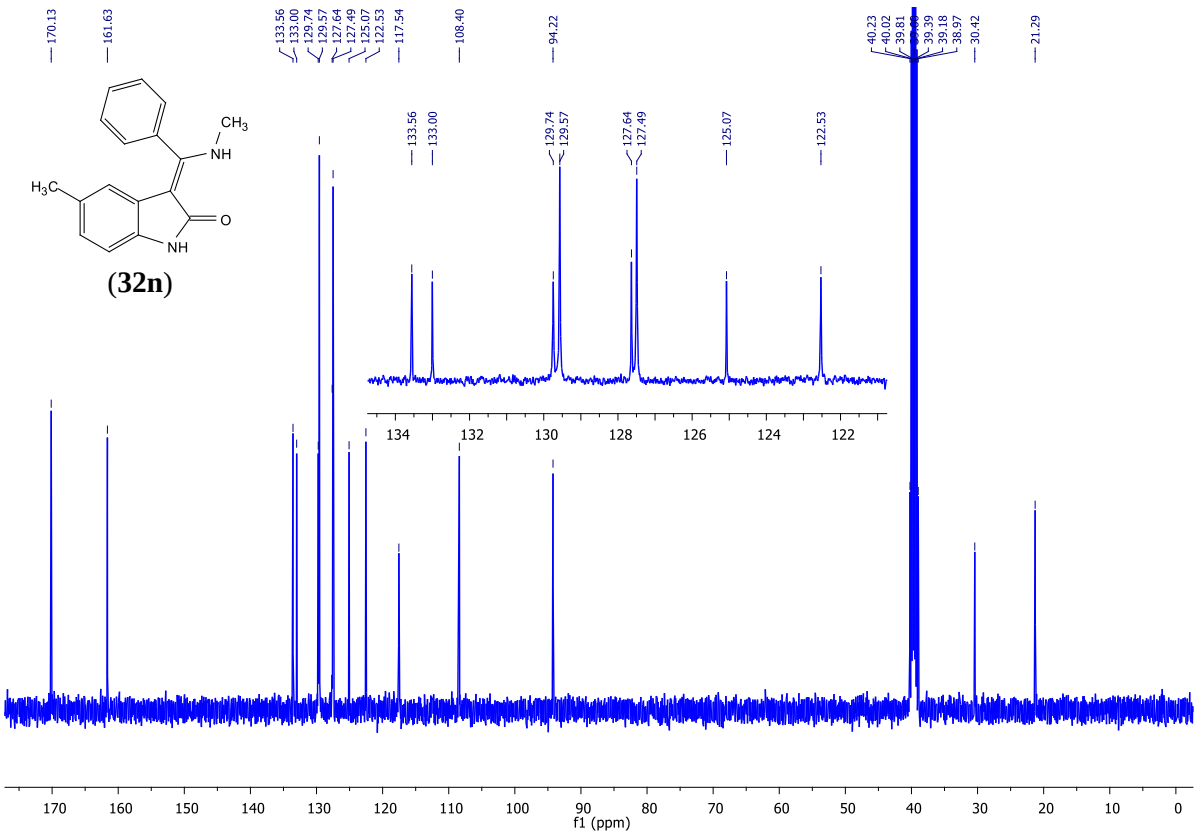
^{1}H NMR spektrum látky **32m**.



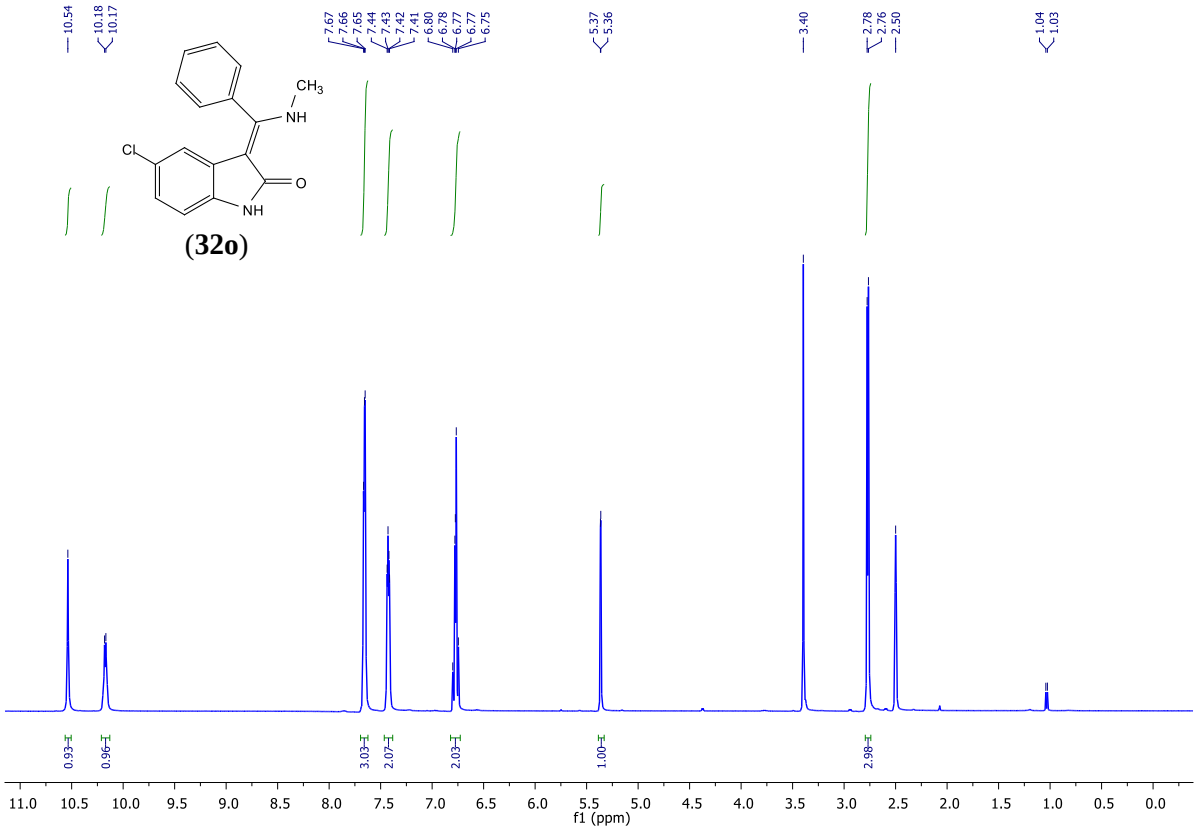
^{13}C NMR spektrum látky **32m**.



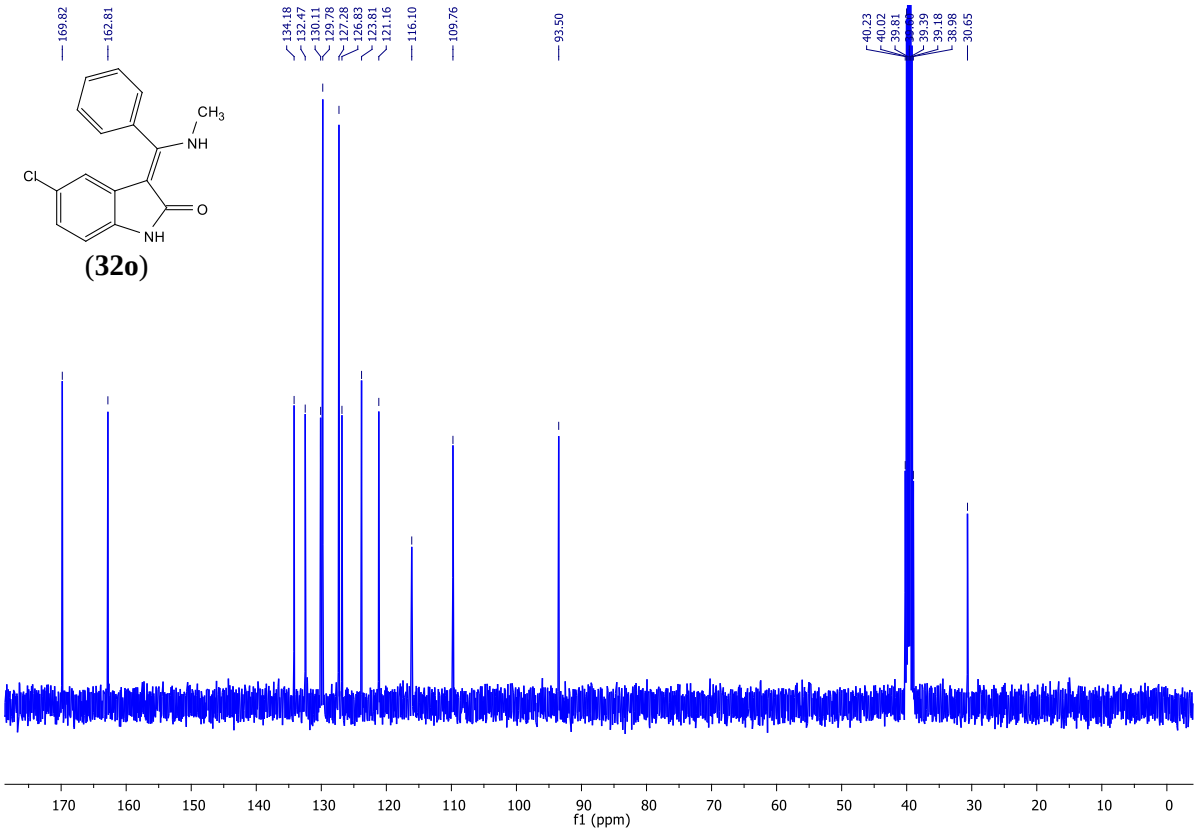
^{1}H NMR spektrum látky **32n**.



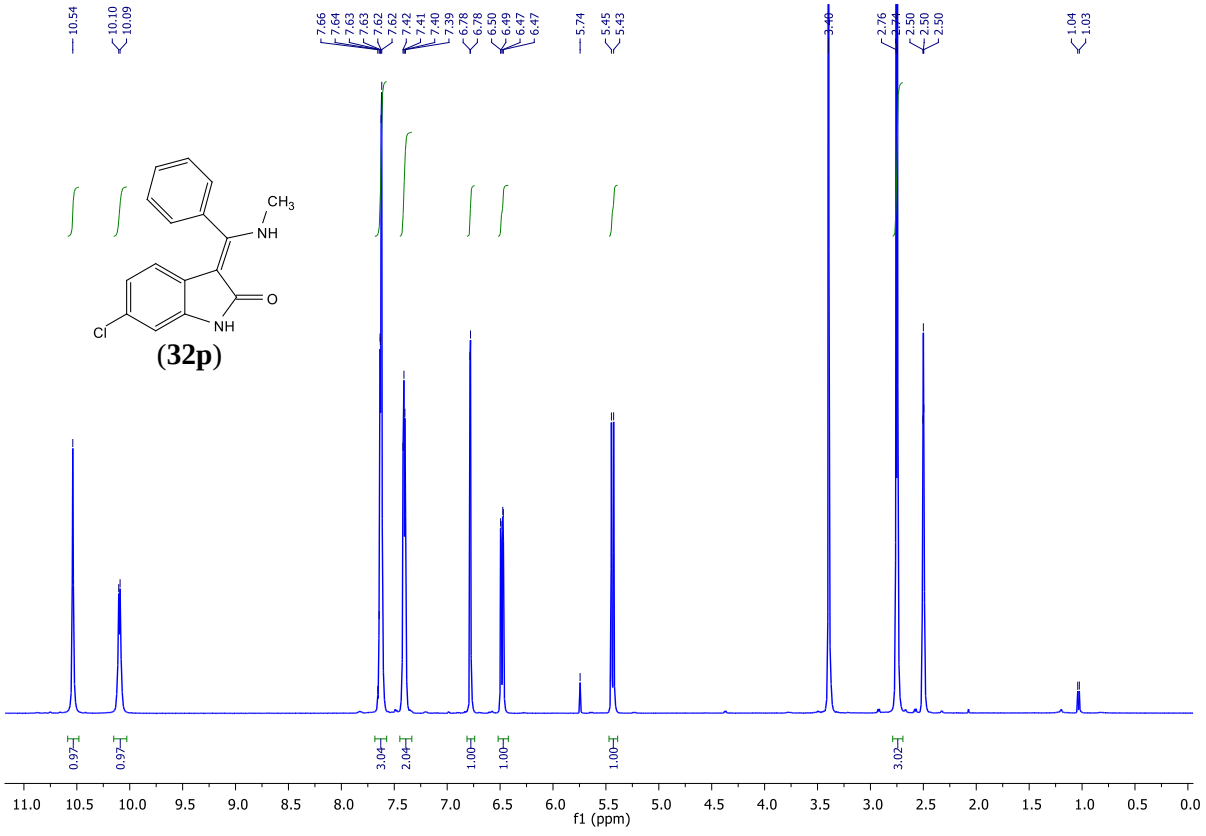
^{13}C NMR spektrum látky **32n**.



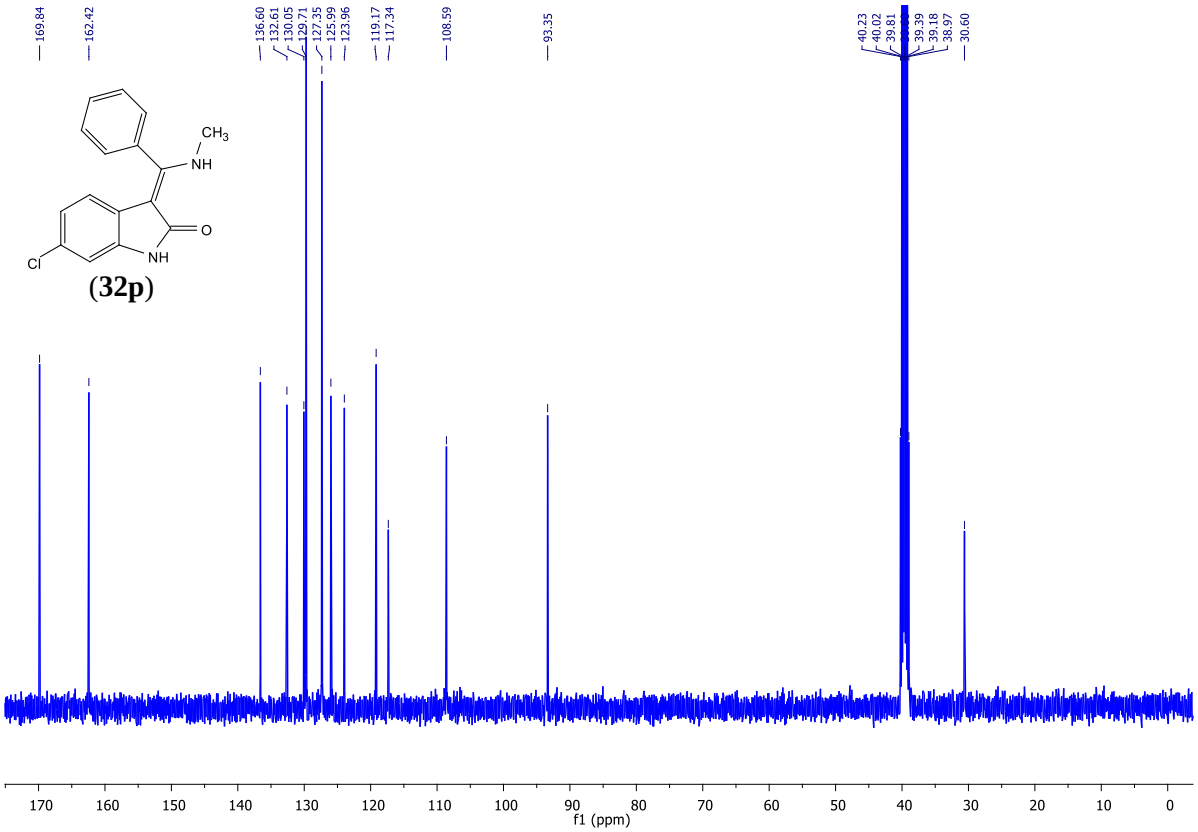
^{1}H NMR spektrum látky **32o**.



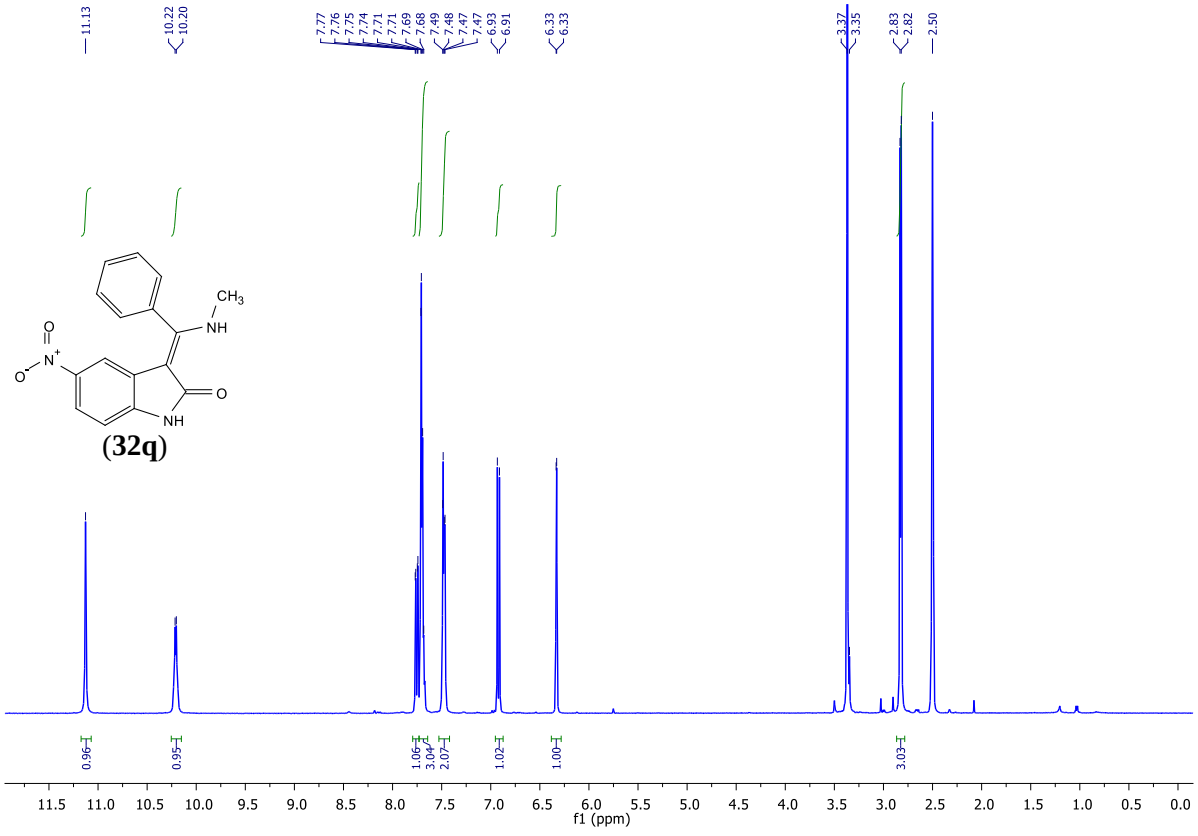
^{13}C NMR spektrum látky **32o**.



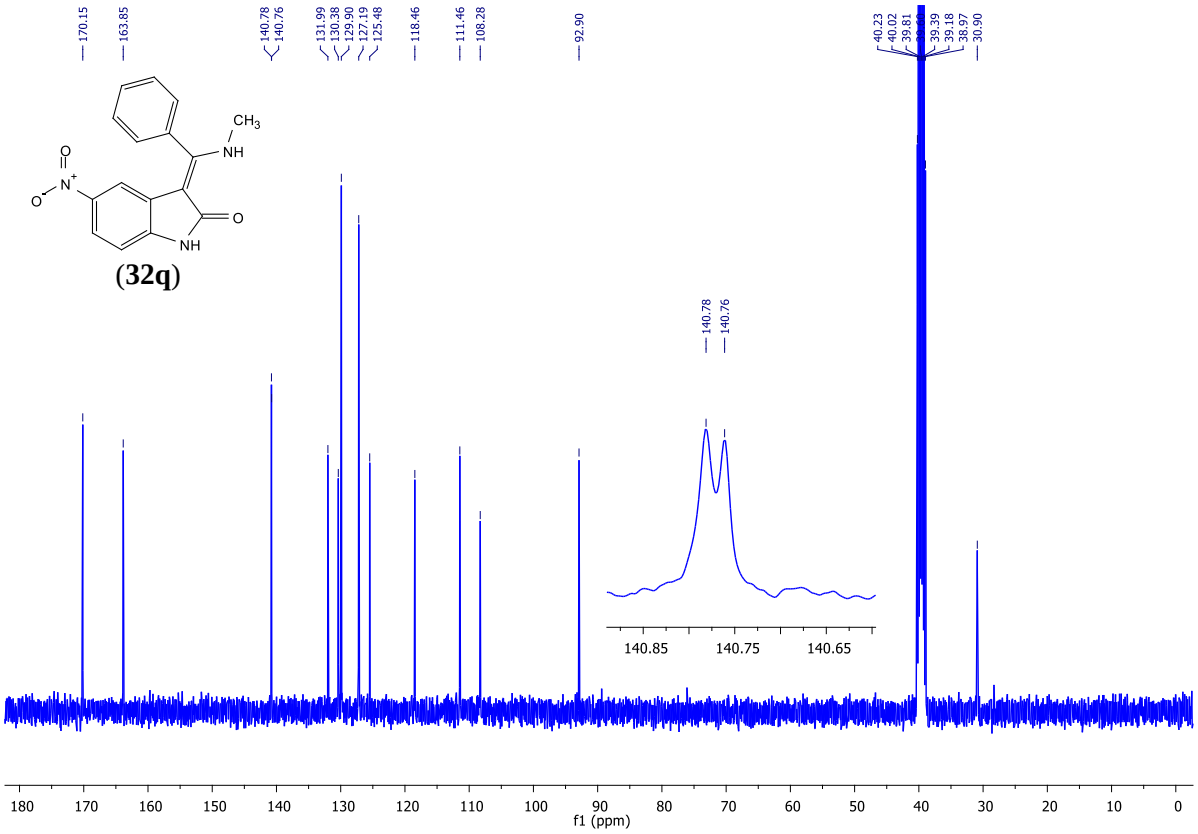
^{1}H NMR spektrum látky **32p**.



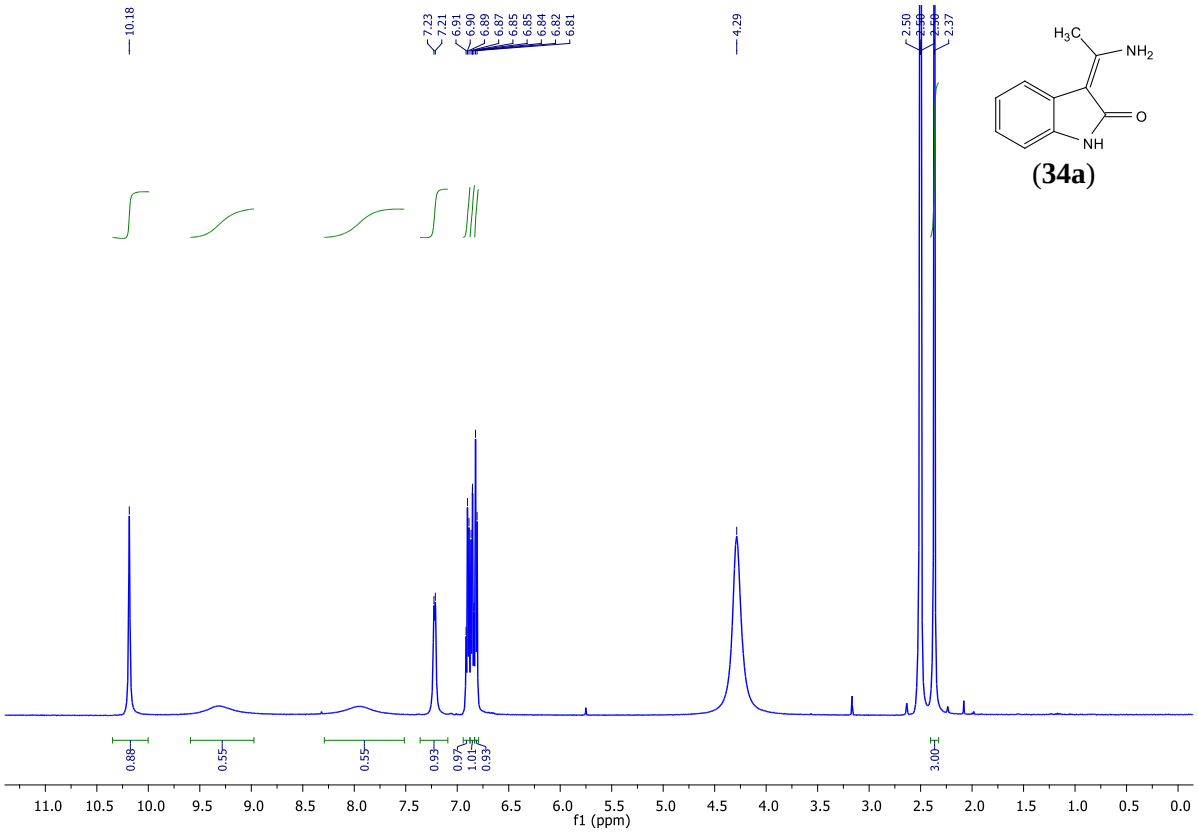
^{13}C NMR spektrum látky **32p**.



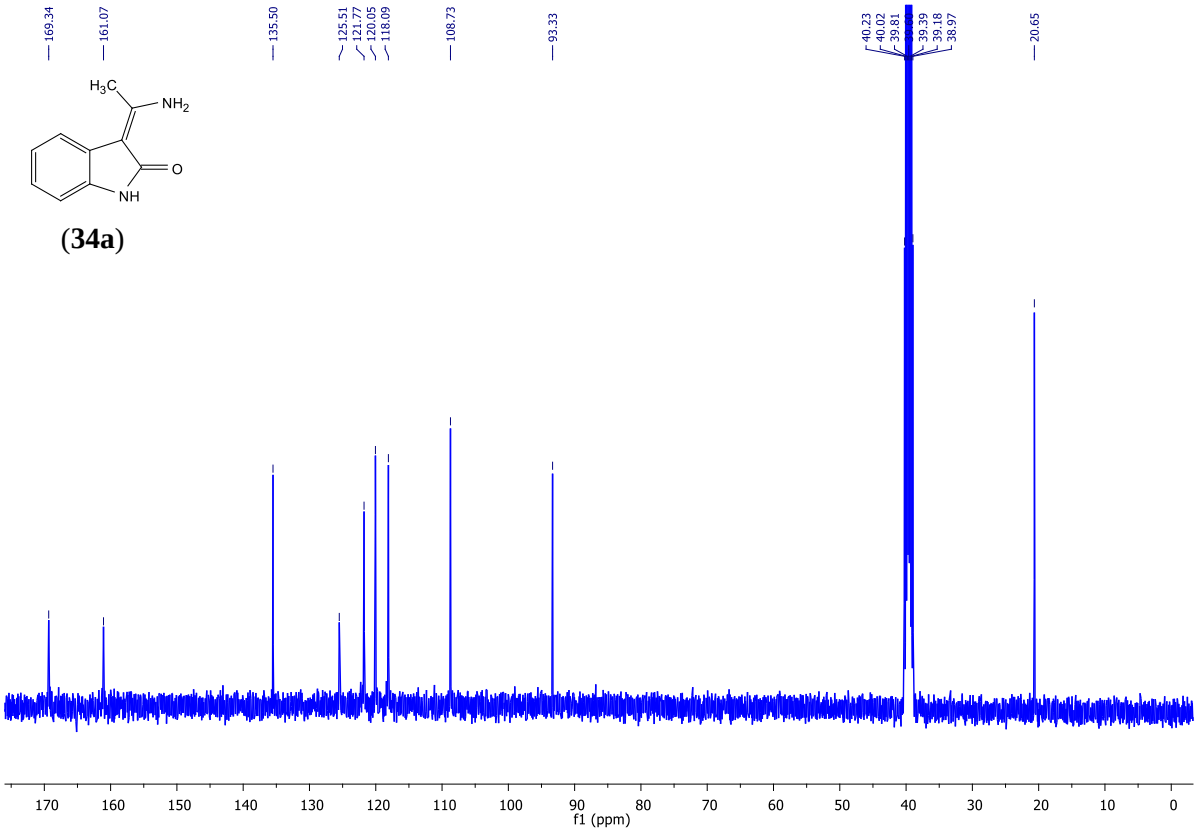
^{1}H NMR spektrum látky **32q**.



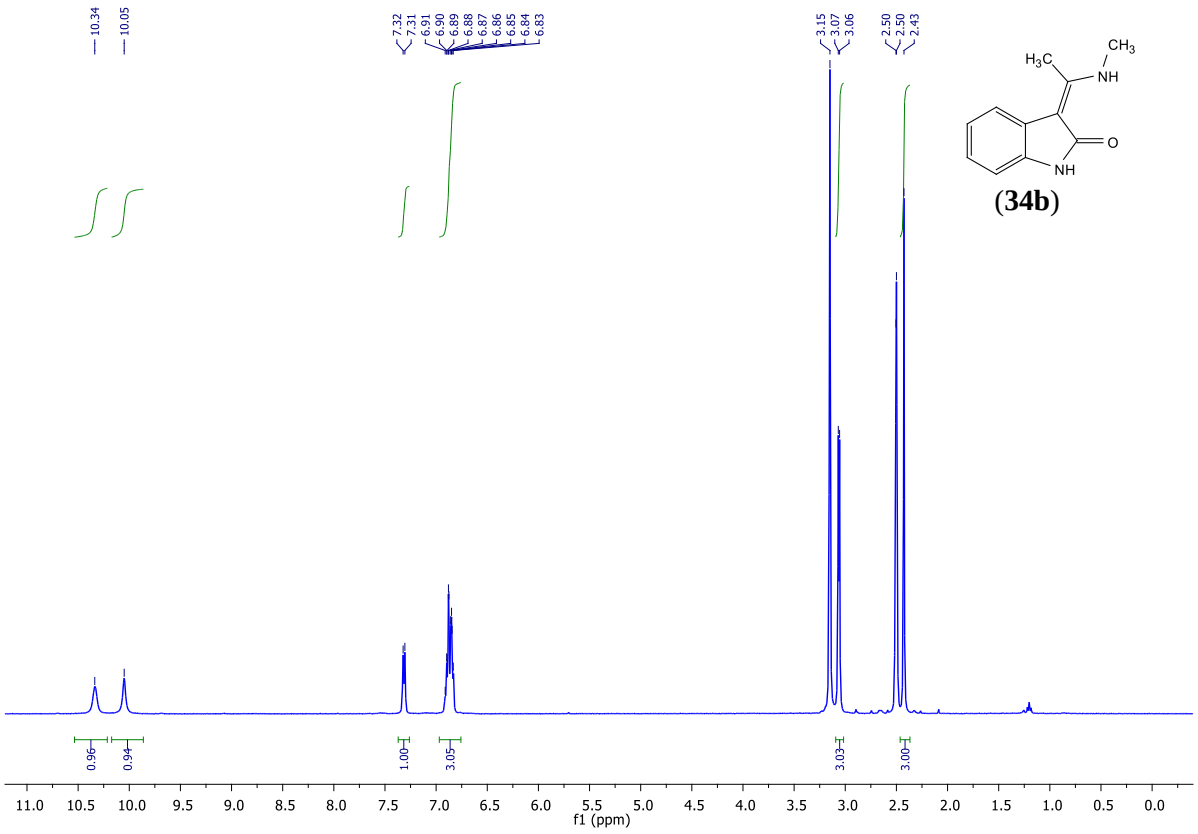
^{13}C NMR spektrum látky **32q**.



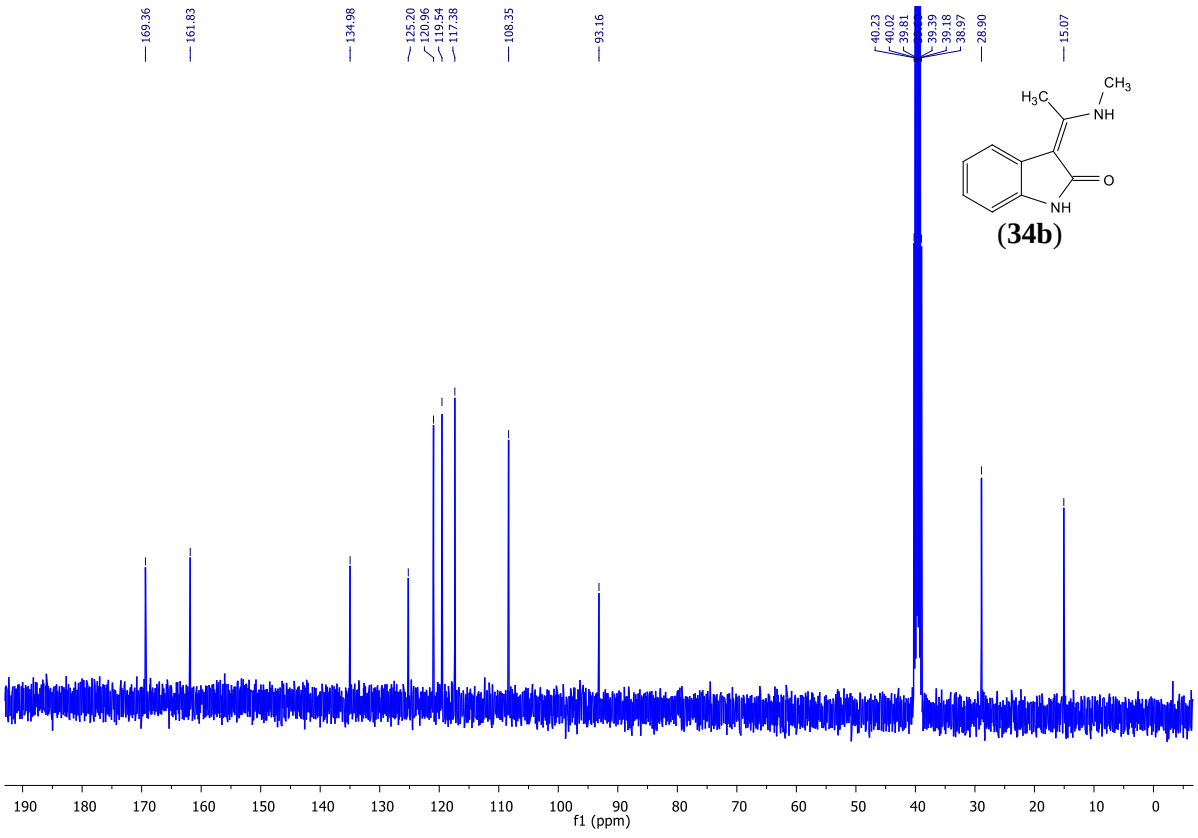
^{1}H NMR spektrum látky **34a**.



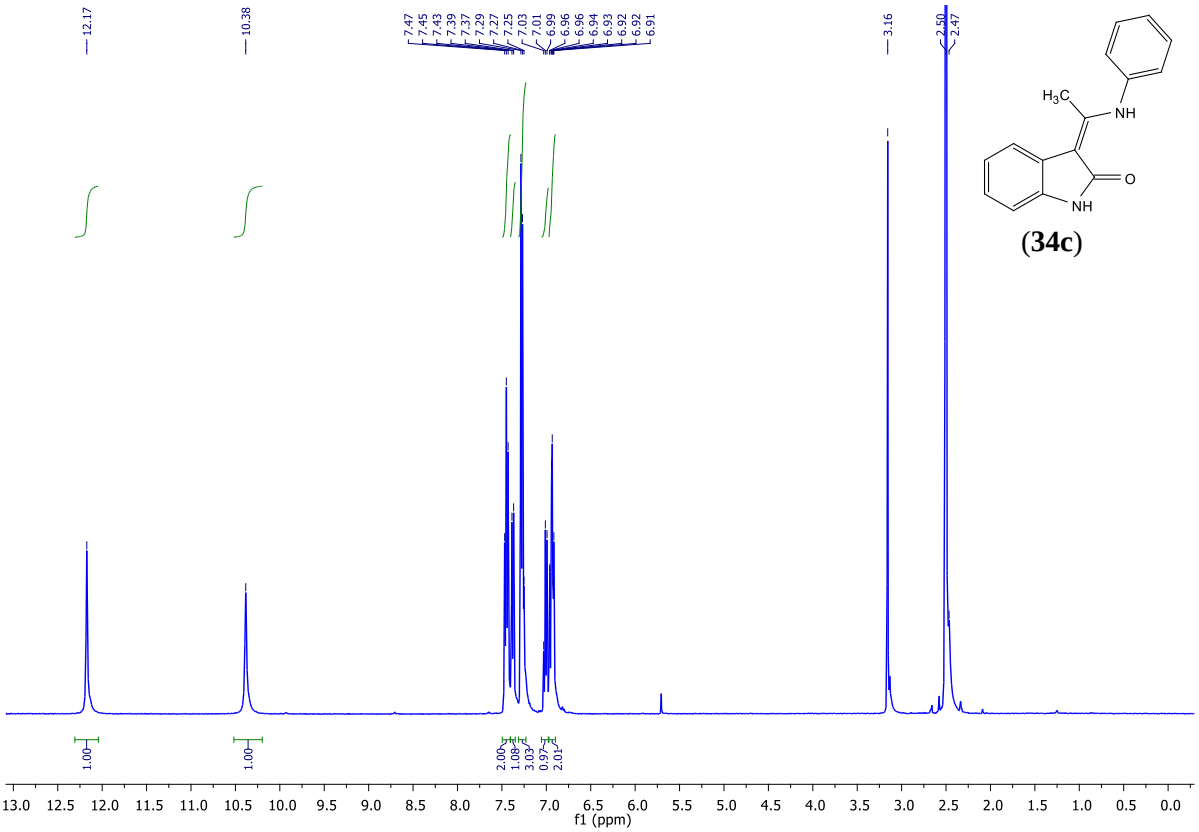
^{13}C NMR spektrum látky **34a**.



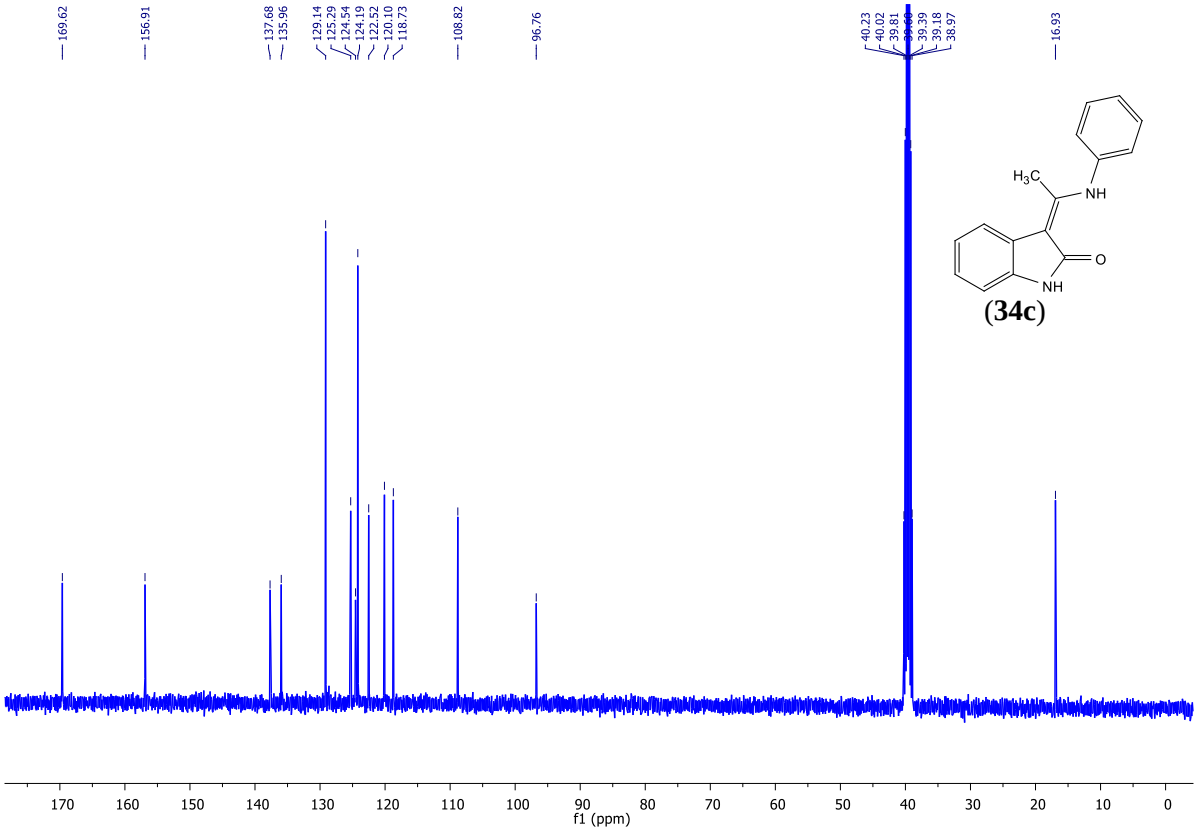
^{1}H NMR spektrum látky **34b**.



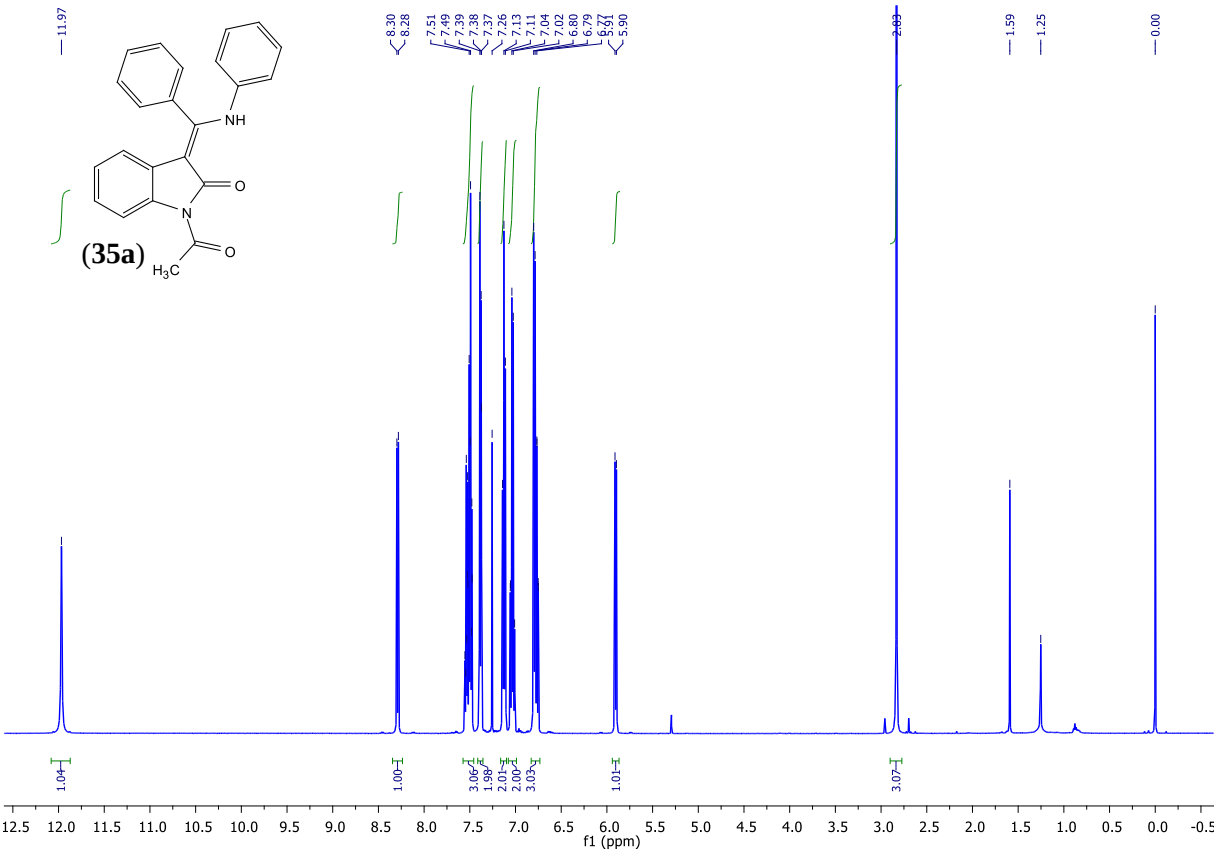
^{13}C NMR spektrum látky **34b**.



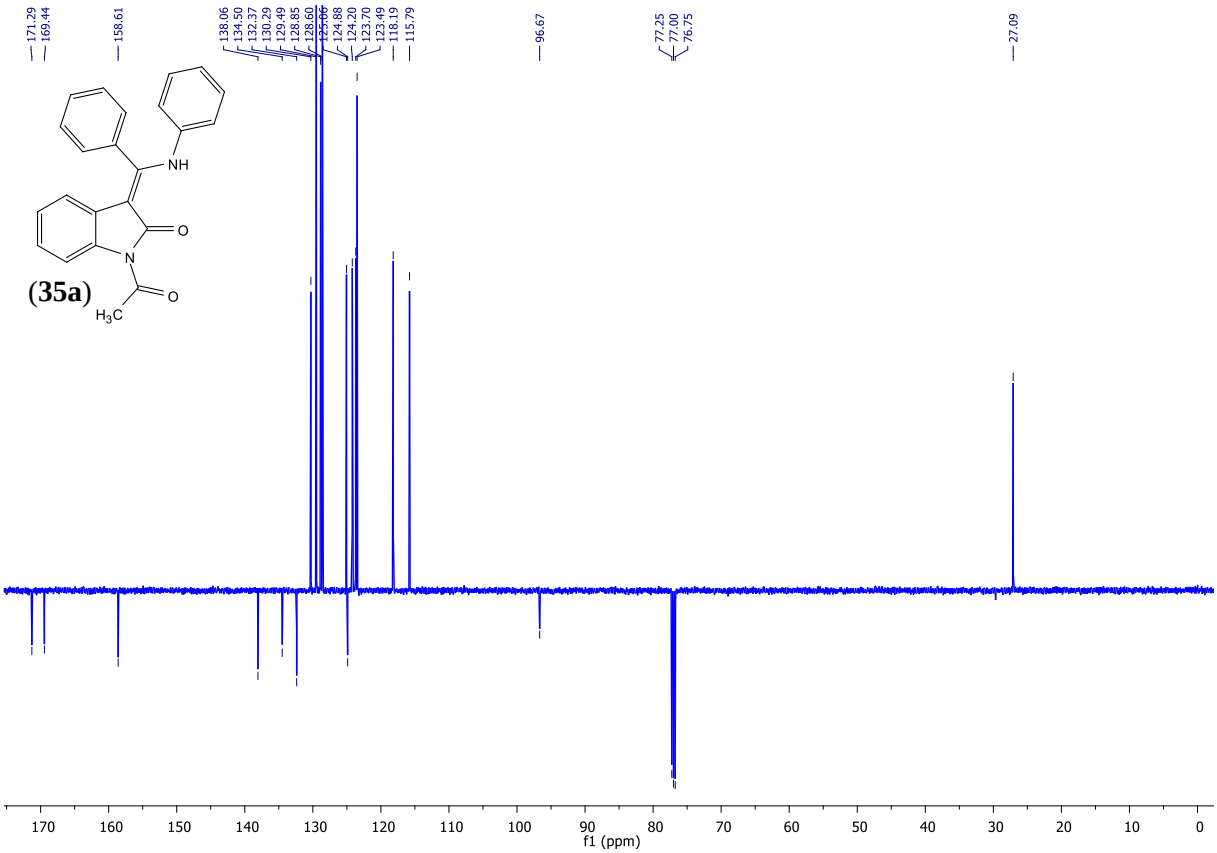
^{1}H NMR spektrum látky **34c**.



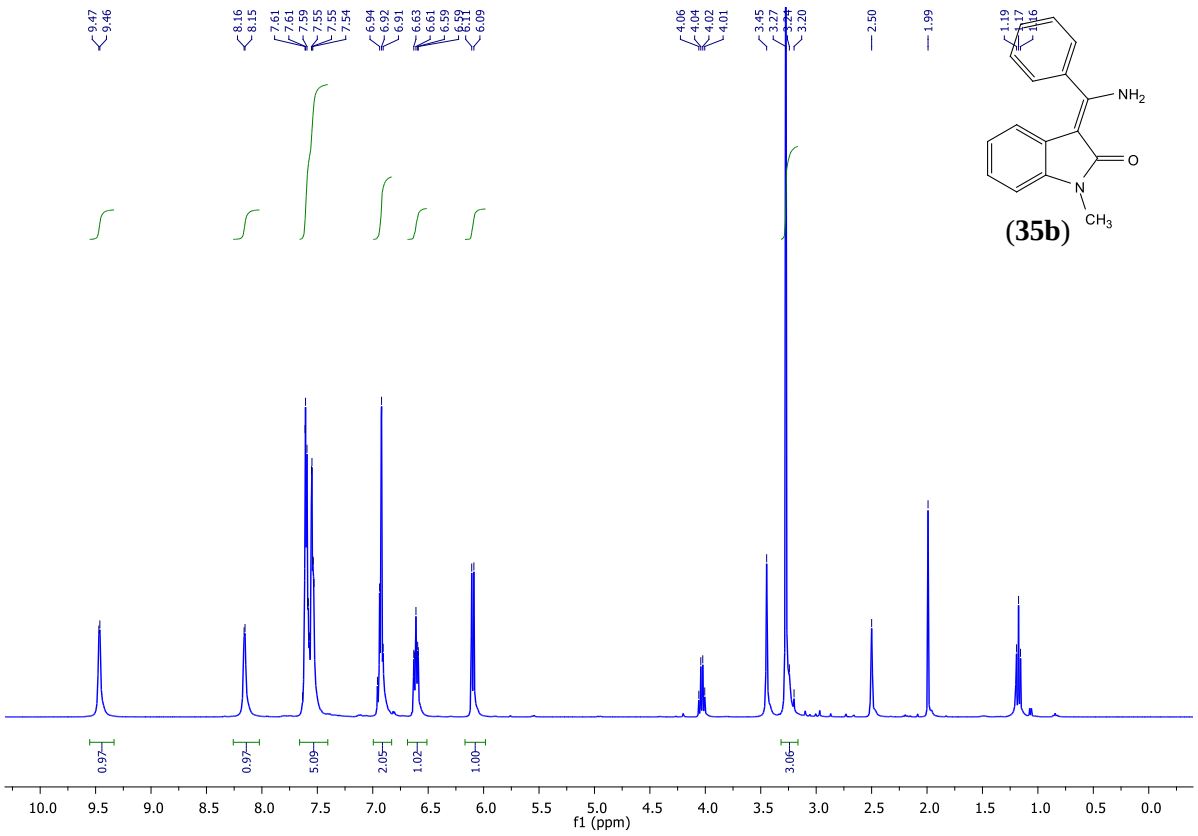
^{13}C NMR spektrum látky **34c**.



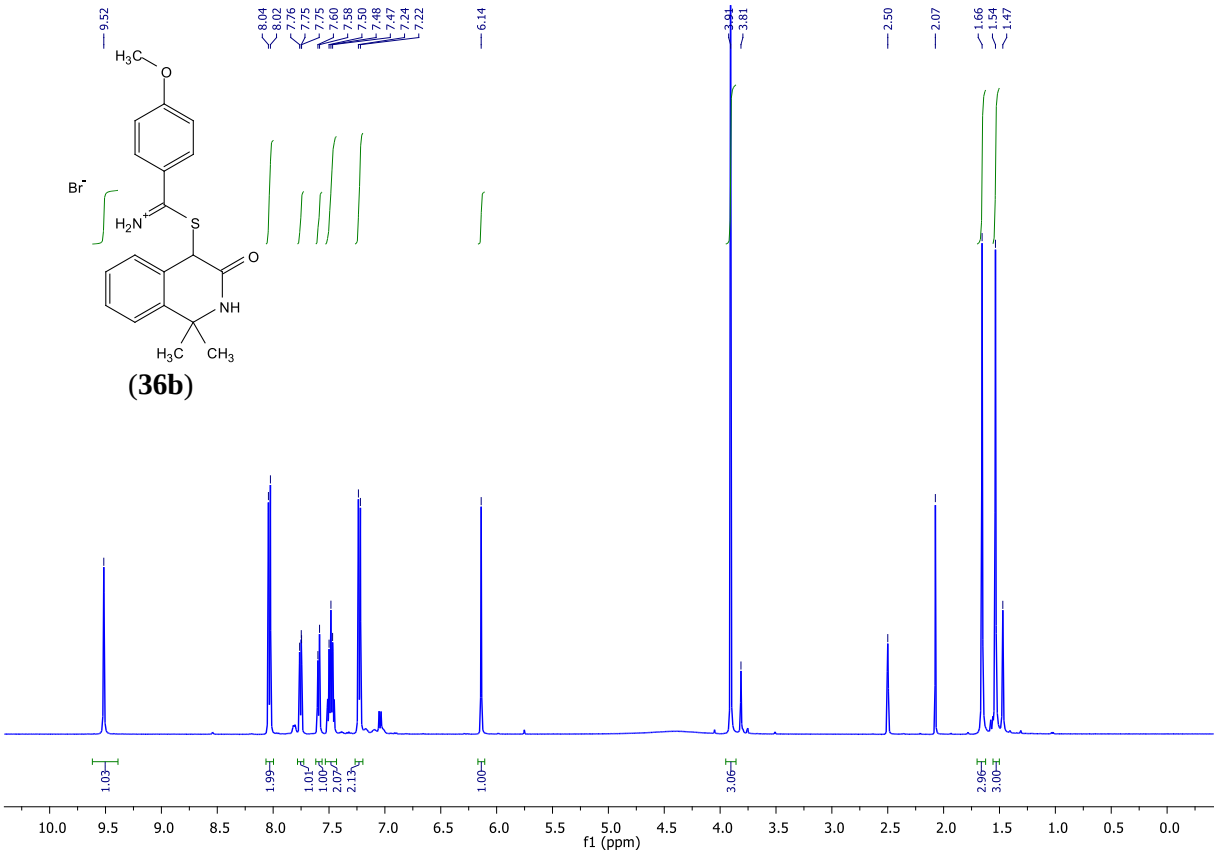
^{1}H NMR spektrum látky **35a**.



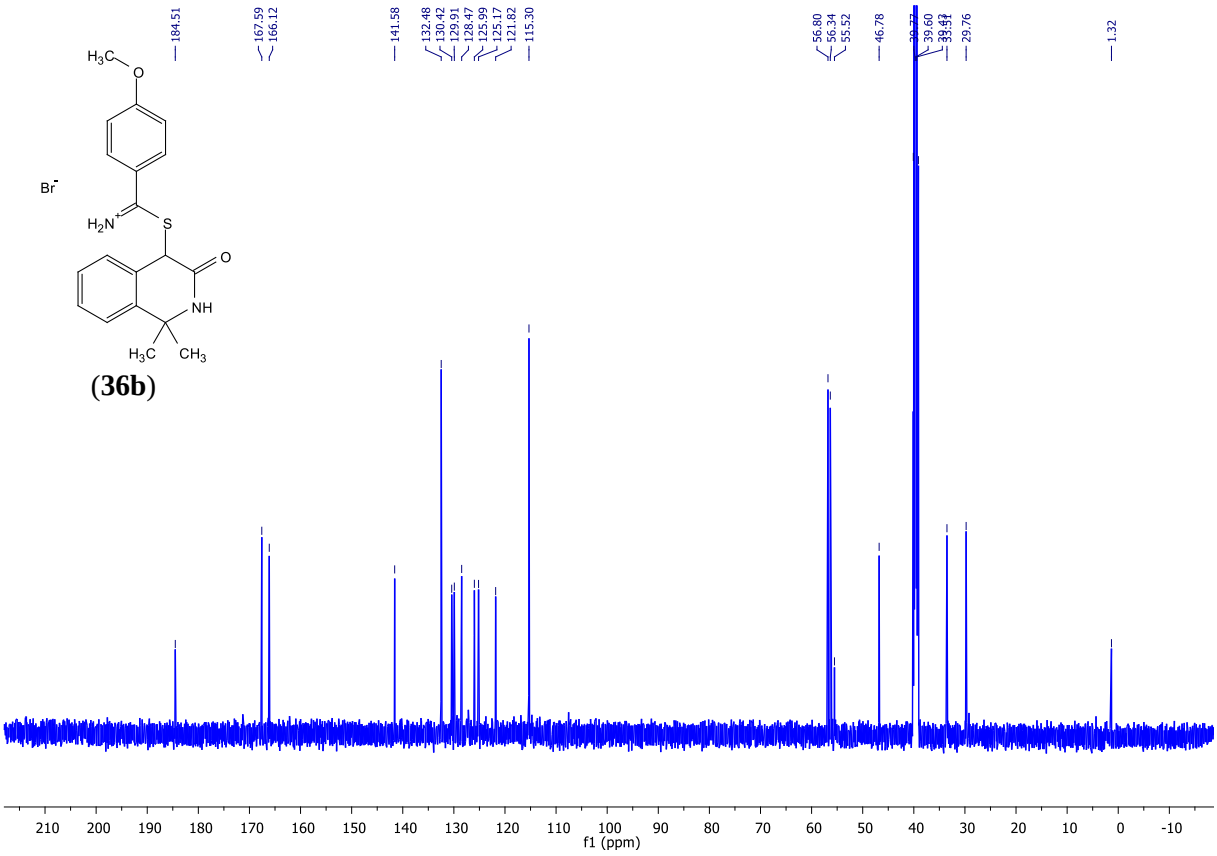
^{13}C NMR-APT spektrum látky **35a**.



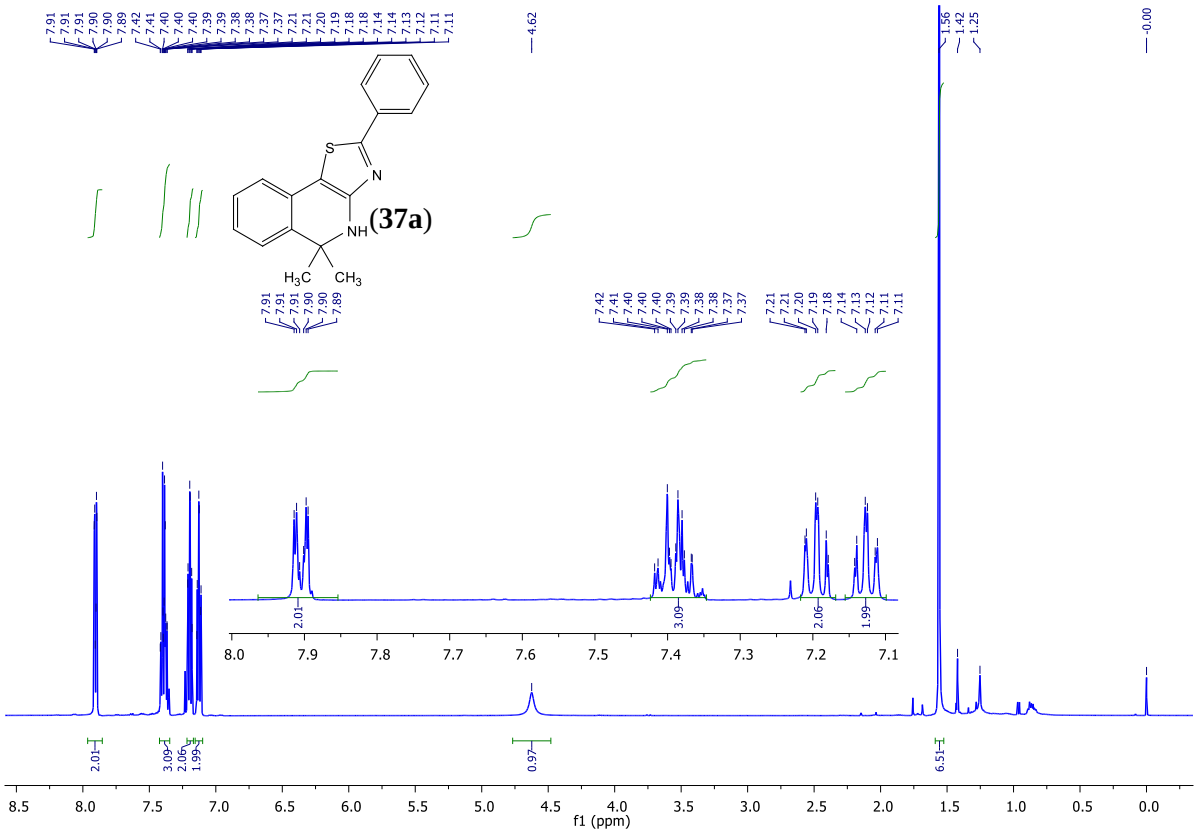
^{1}H NMR spektrum látky **35b**.



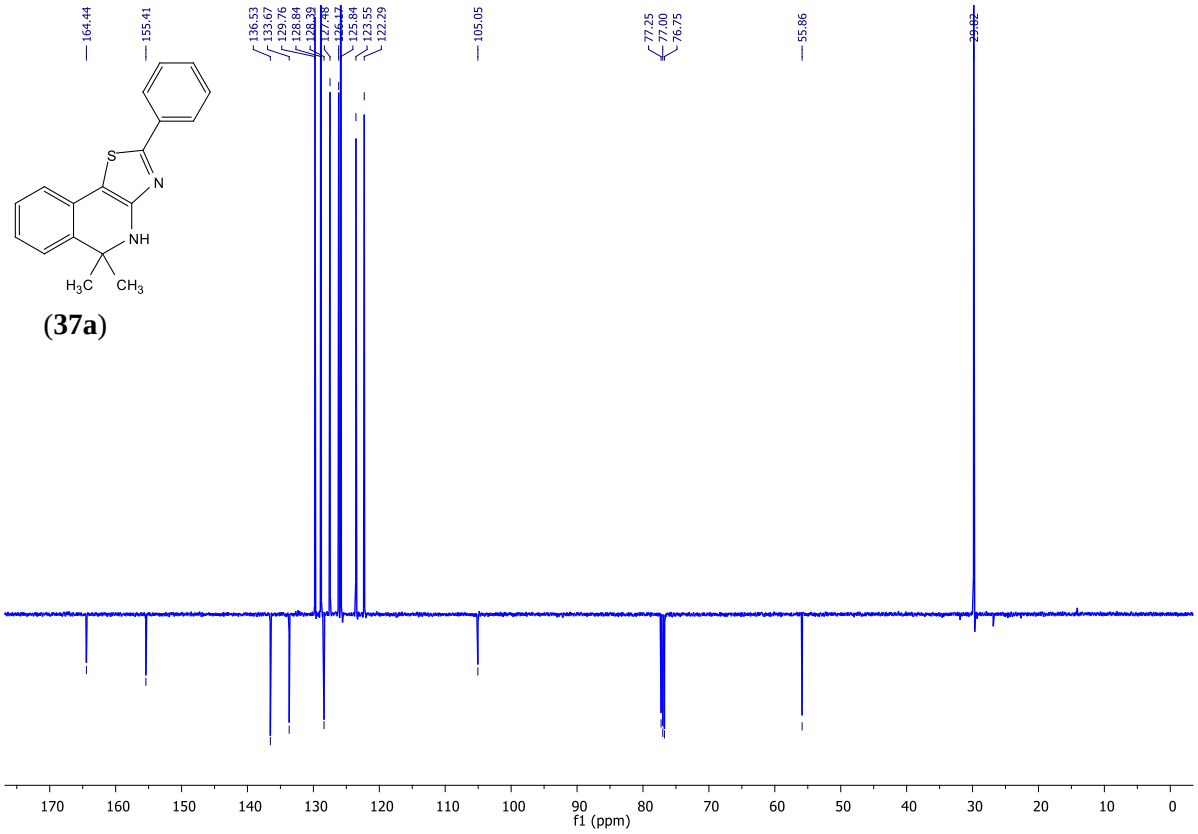
^{1}H NMR spektrum látky **36b**.



^{13}C NMR-APT spektrum látky **36b**.

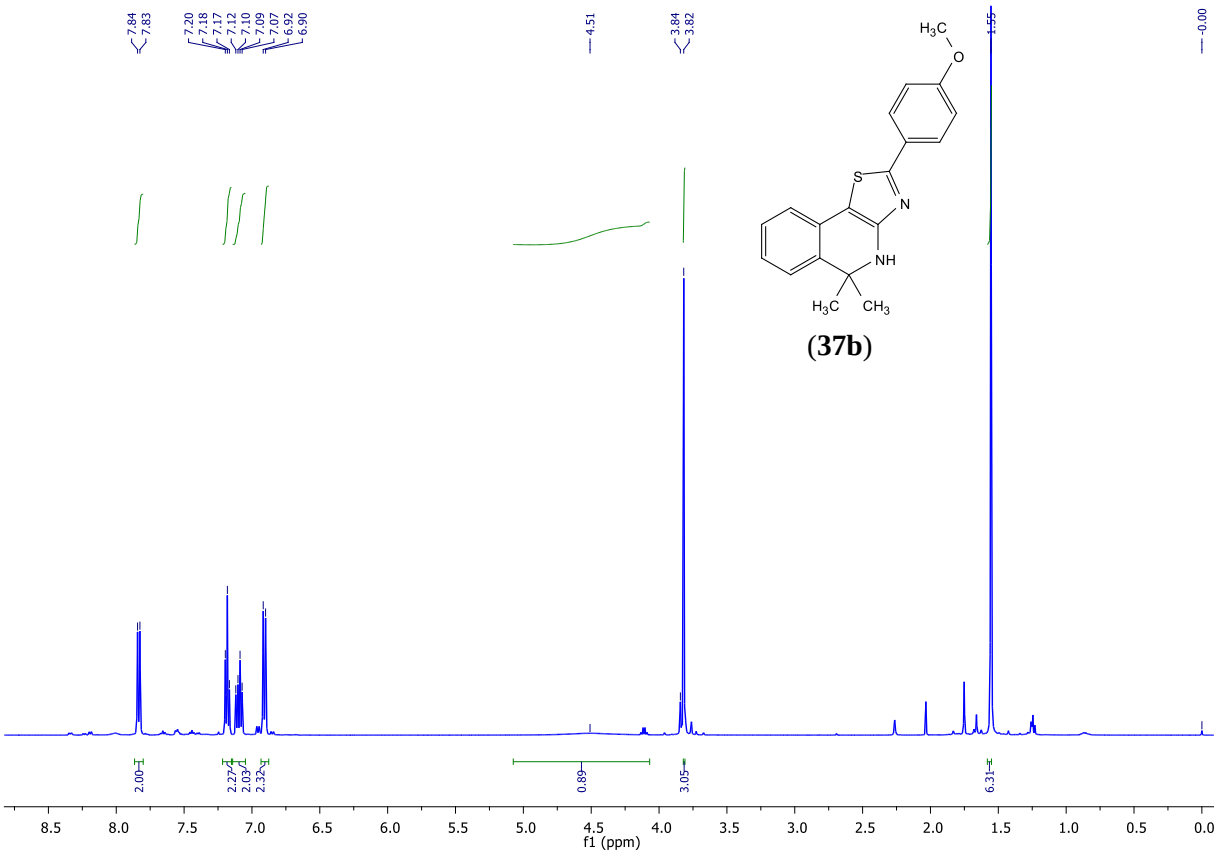


^{1}H NMR spektrum látky **37a**.



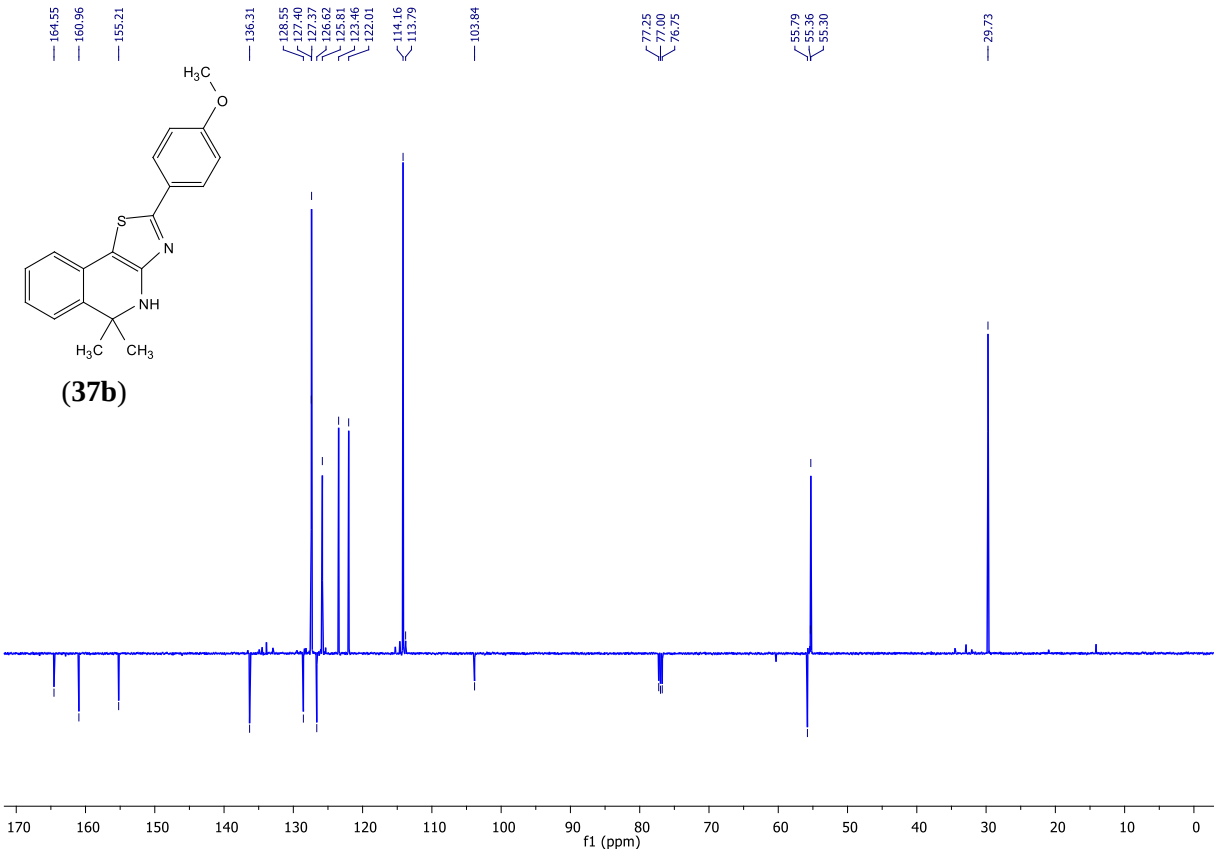
(37a)

^{13}C NMR-APT spektrum látky **37a**.



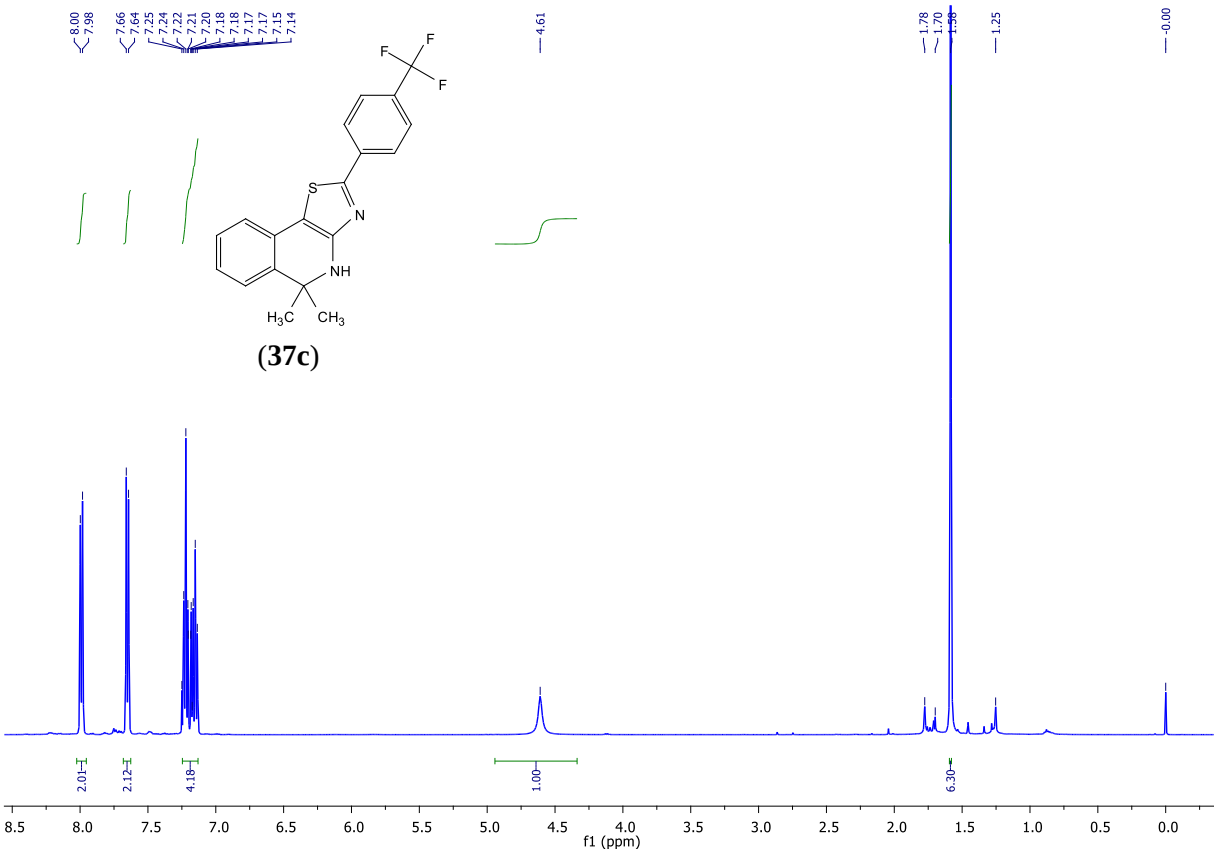
(37b)

^{1}H NMR spektrum látky **37b**.



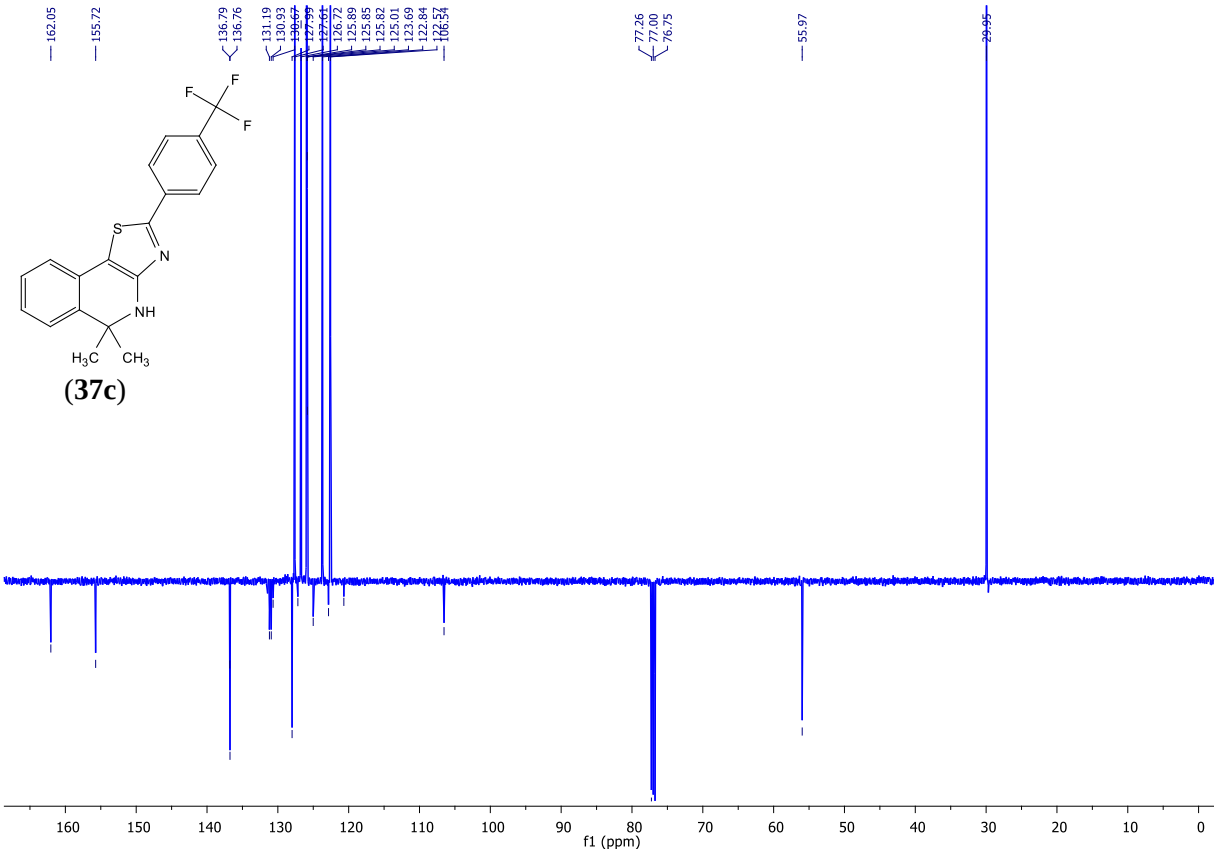
(37b)

^{13}C NMR-APT spektrum látky **37b**.



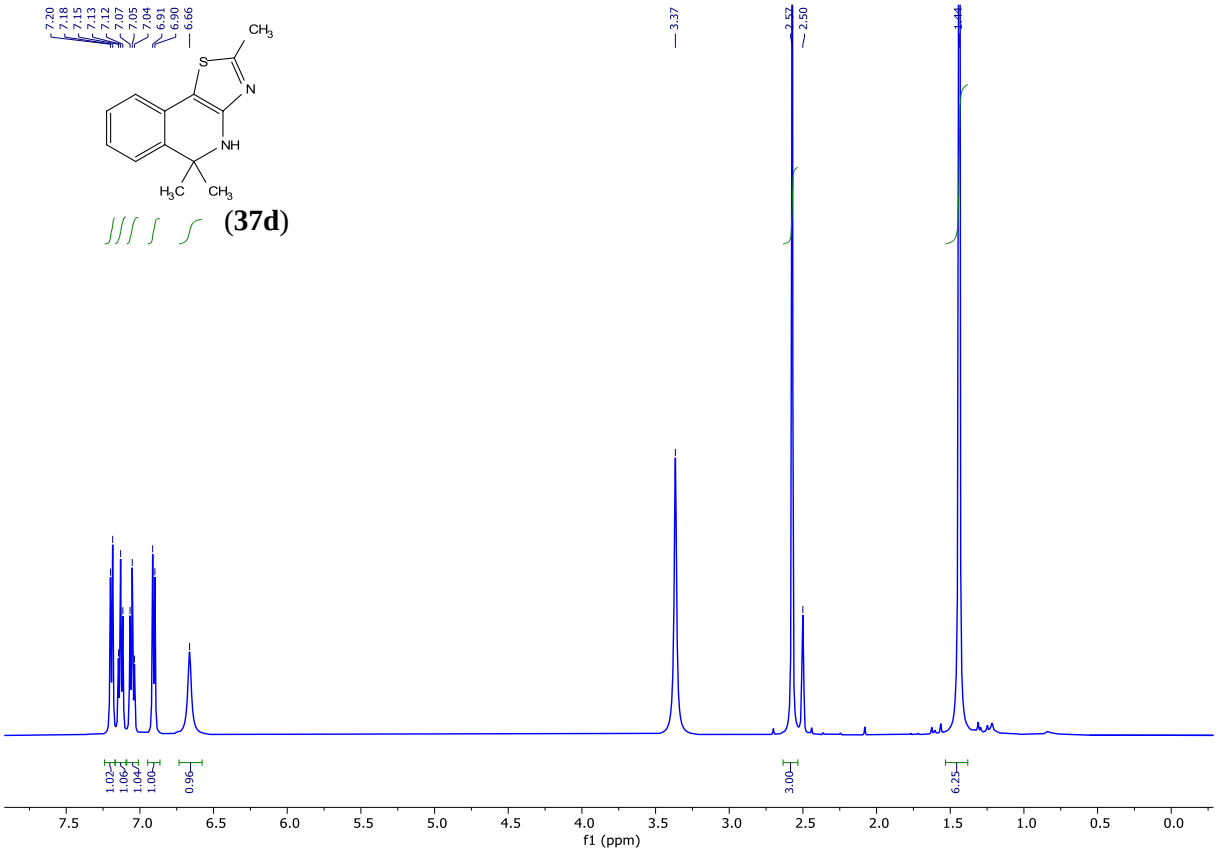
(37c)

^{1}H NMR spektrum látky **37c**.



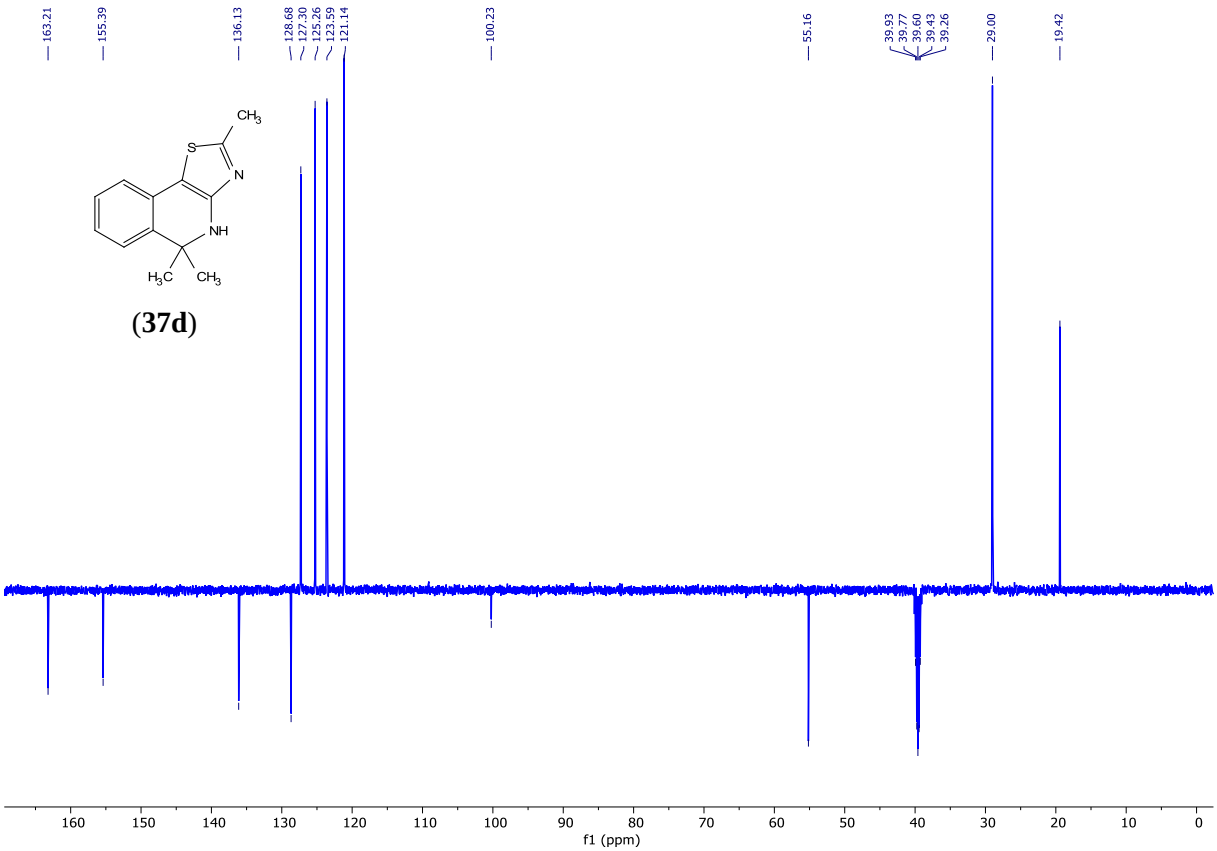
(37c)

^{13}C NMR-APT spektrum látky **37c**.

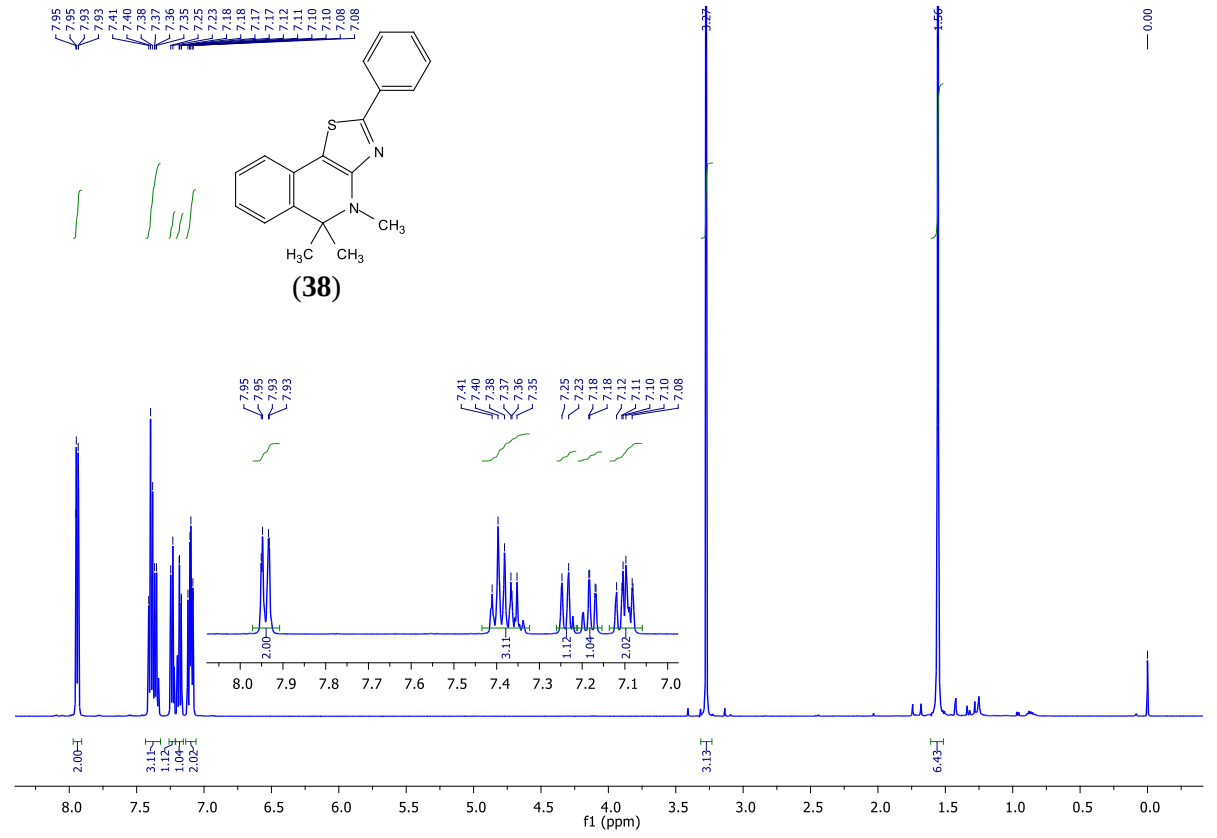


(37d)

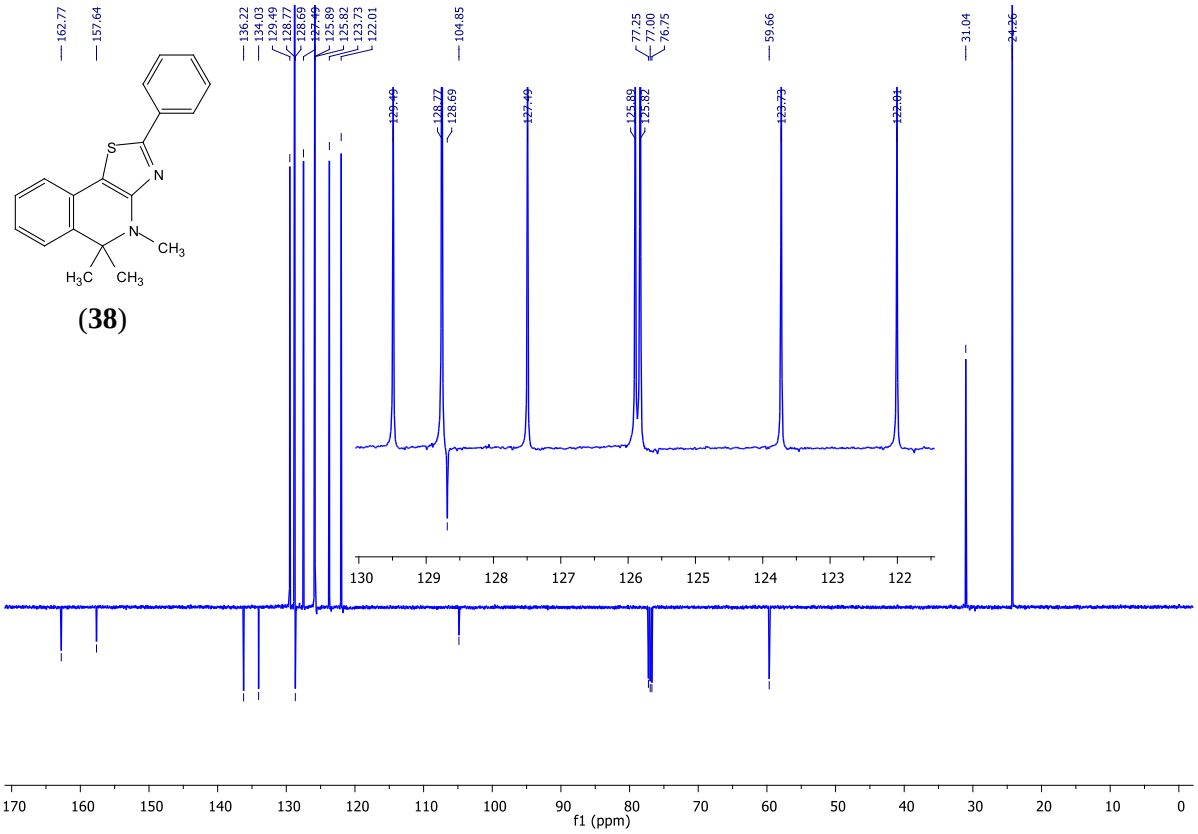
^{1}H NMR spektrum látky **37d**.



^{13}C NMR-APT spektrum látky **37d**.

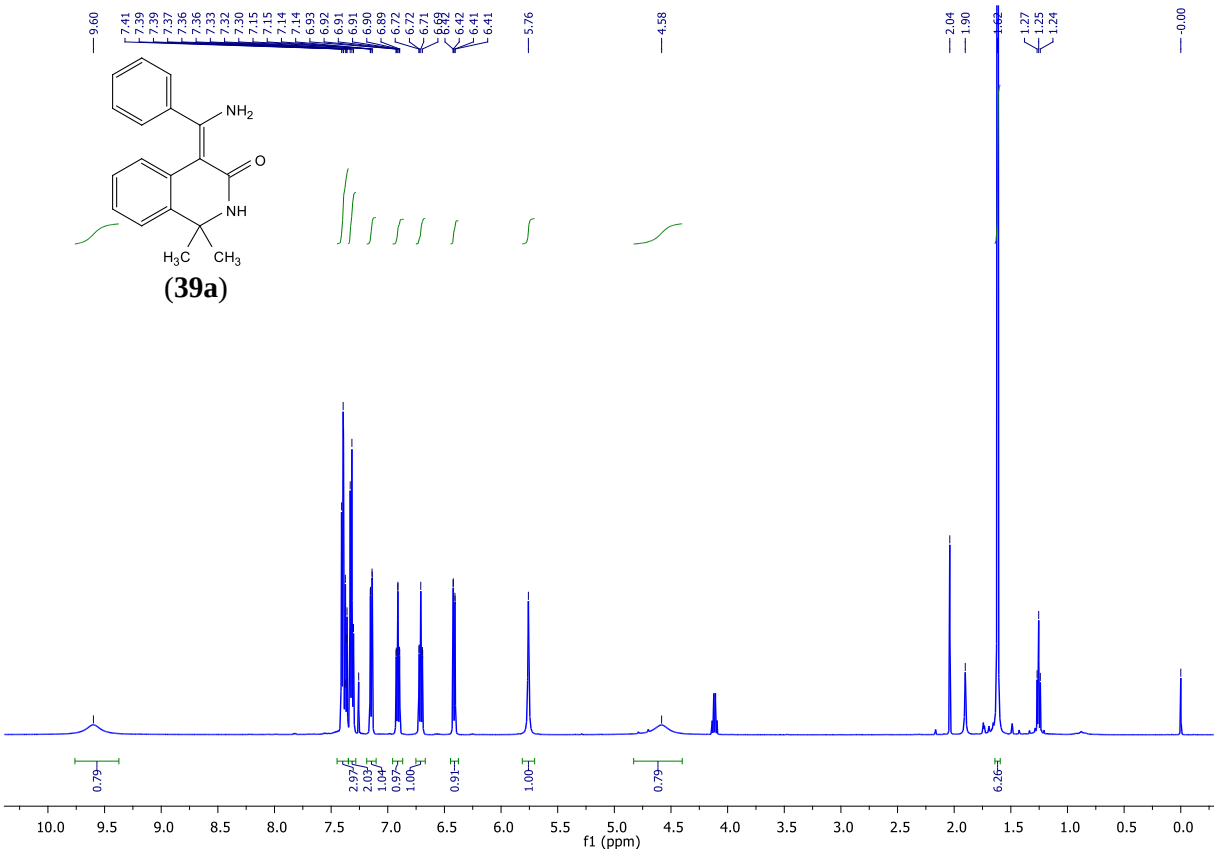


^{1}H NMR spektrum látky **38**.



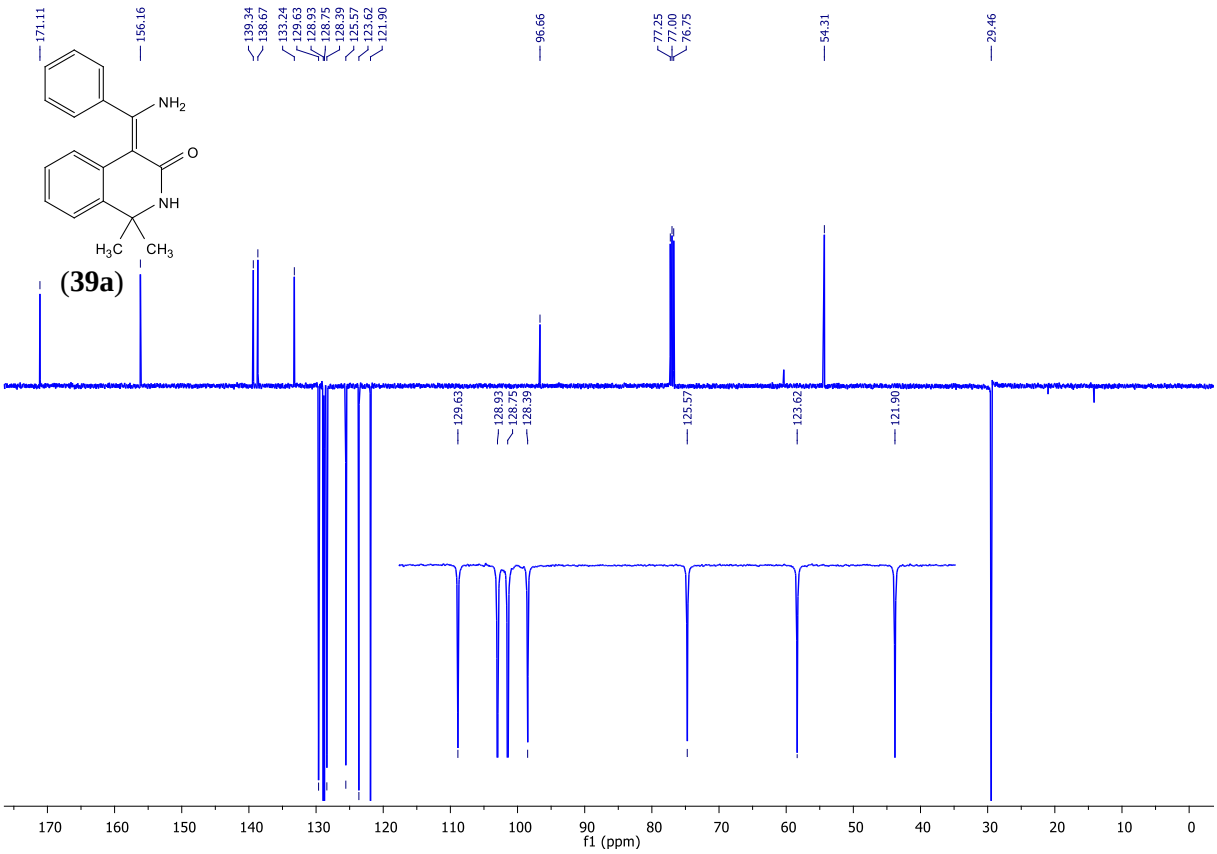
(**38**)

^{13}C NMR-APT spektrum látky **38**.

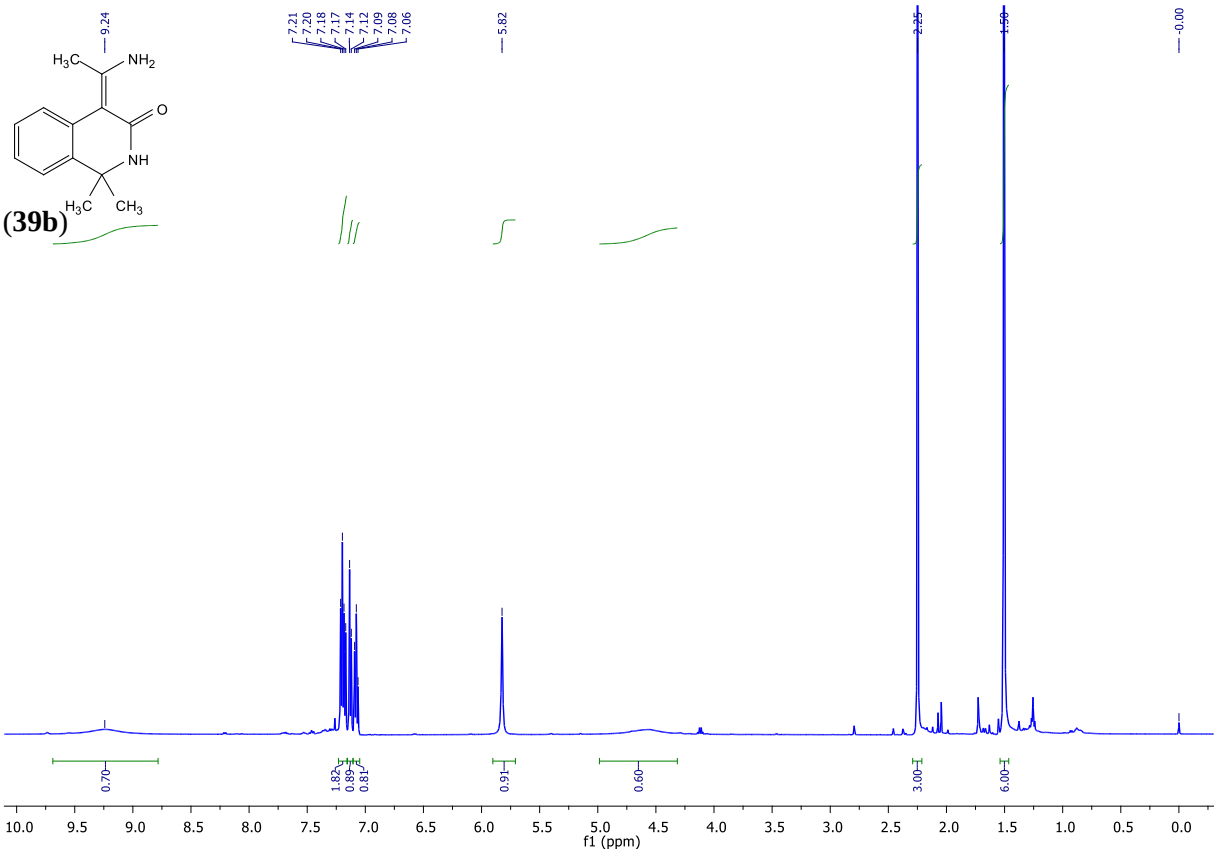


(**39a**)

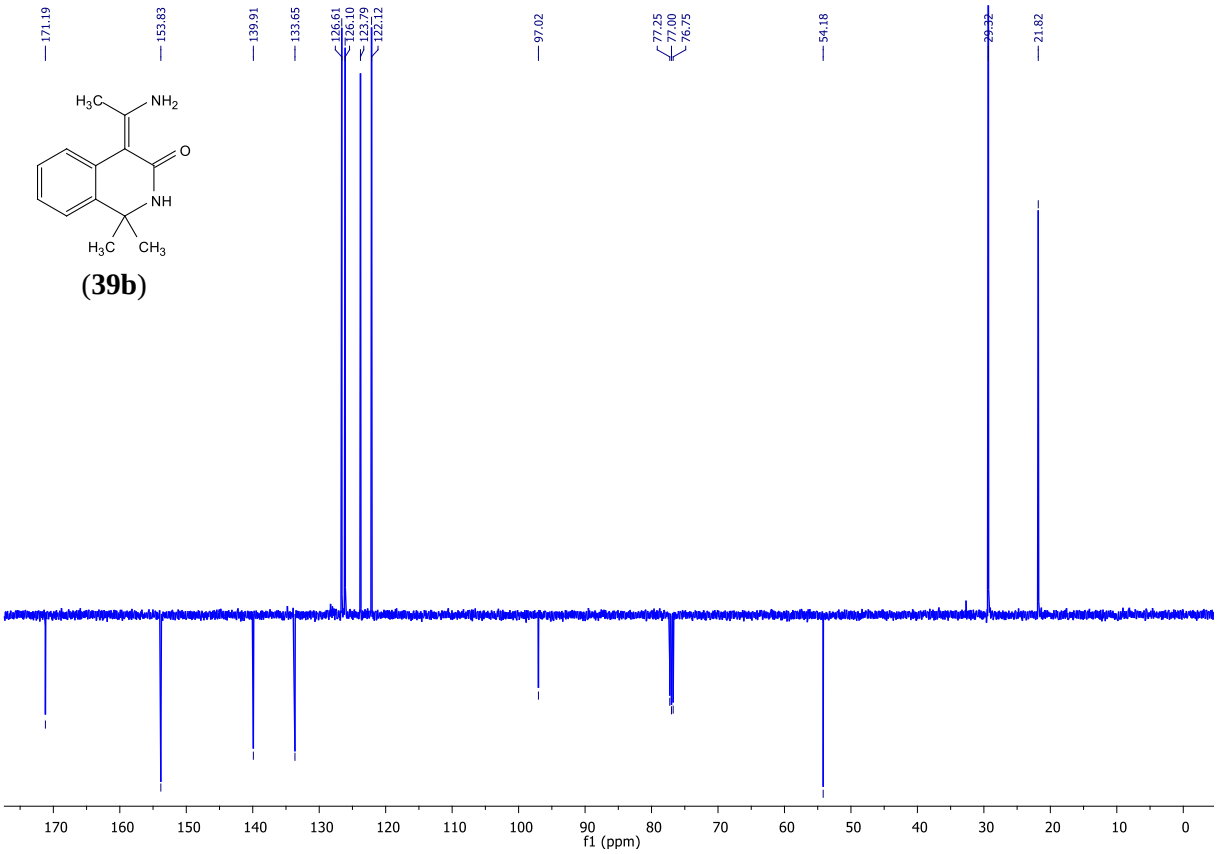
^{1}H NMR spektrum látky **39a**.



^{13}C NMR-APT spektrum látky **39a**.

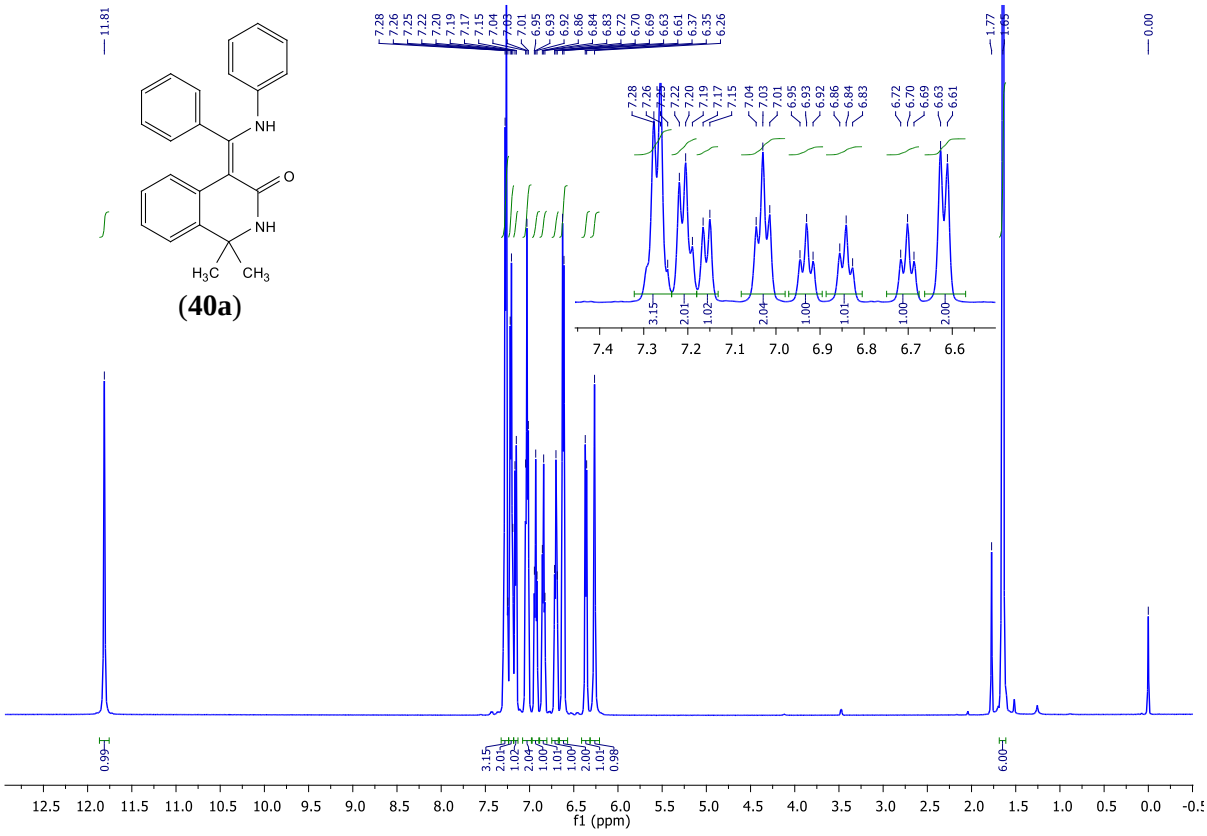


^{1}H NMR spektrum látky **39b**.



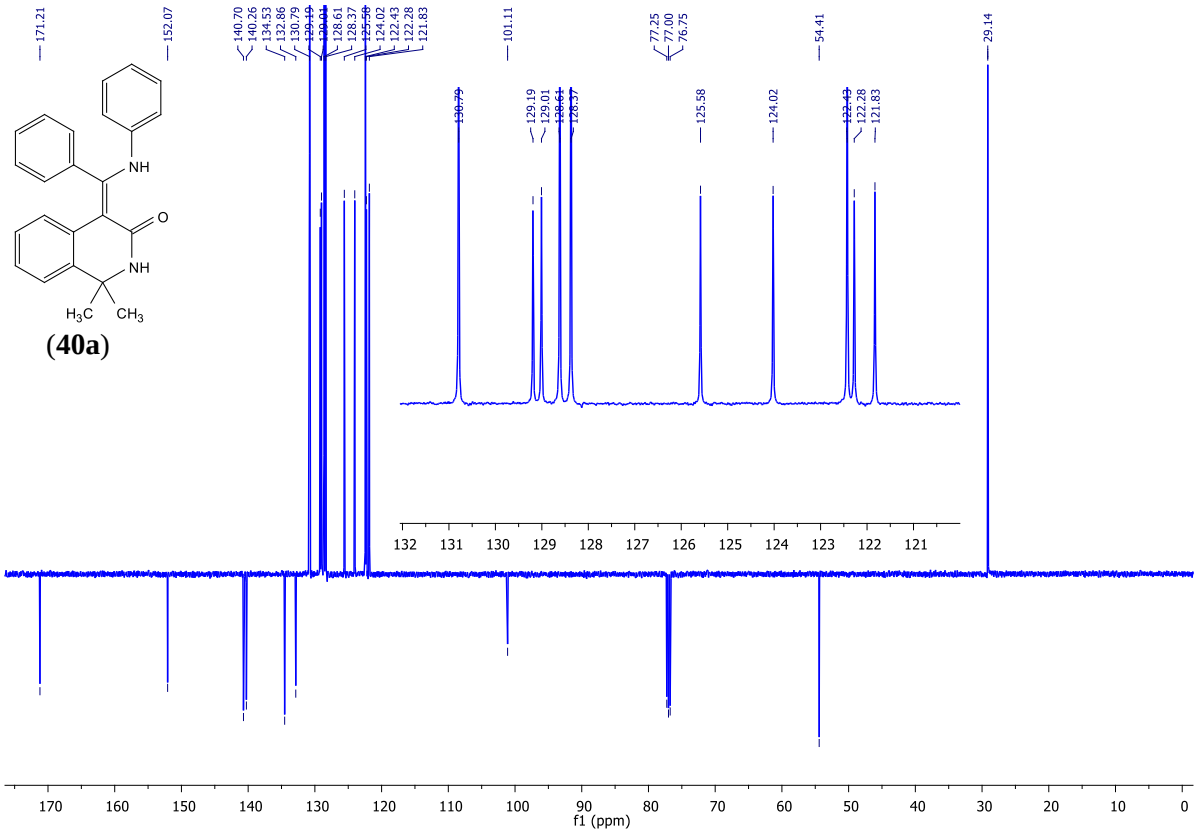
(39b)

^{13}C NMR-APT spektrum látky **39b**.

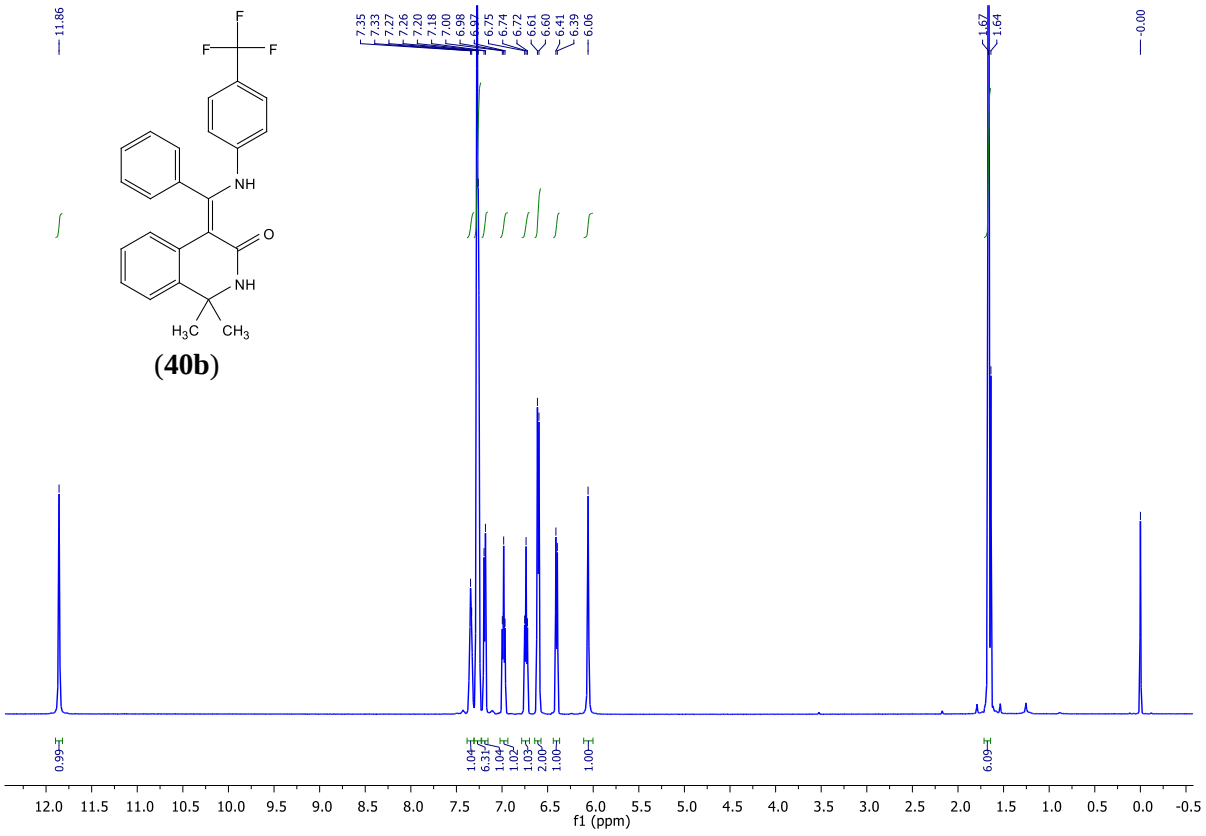


(40a)

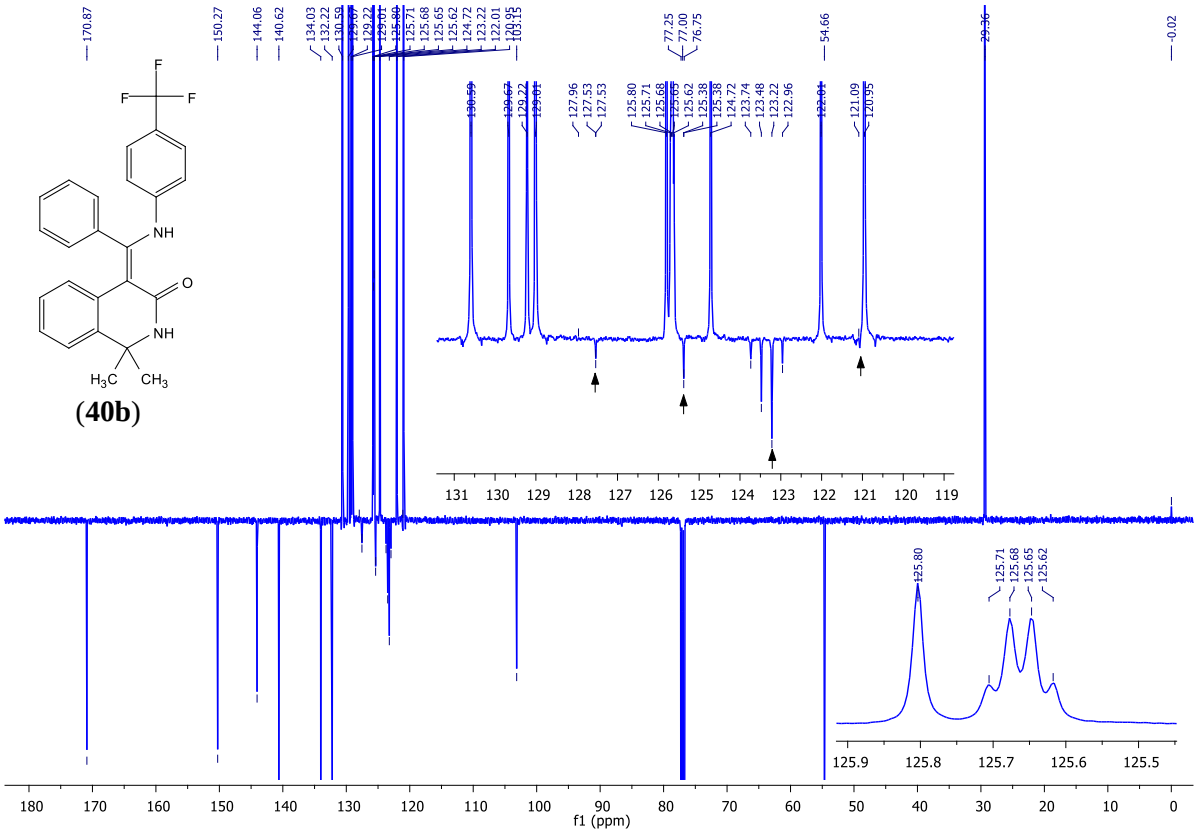
^{1}H NMR spektrum látky **40a**.



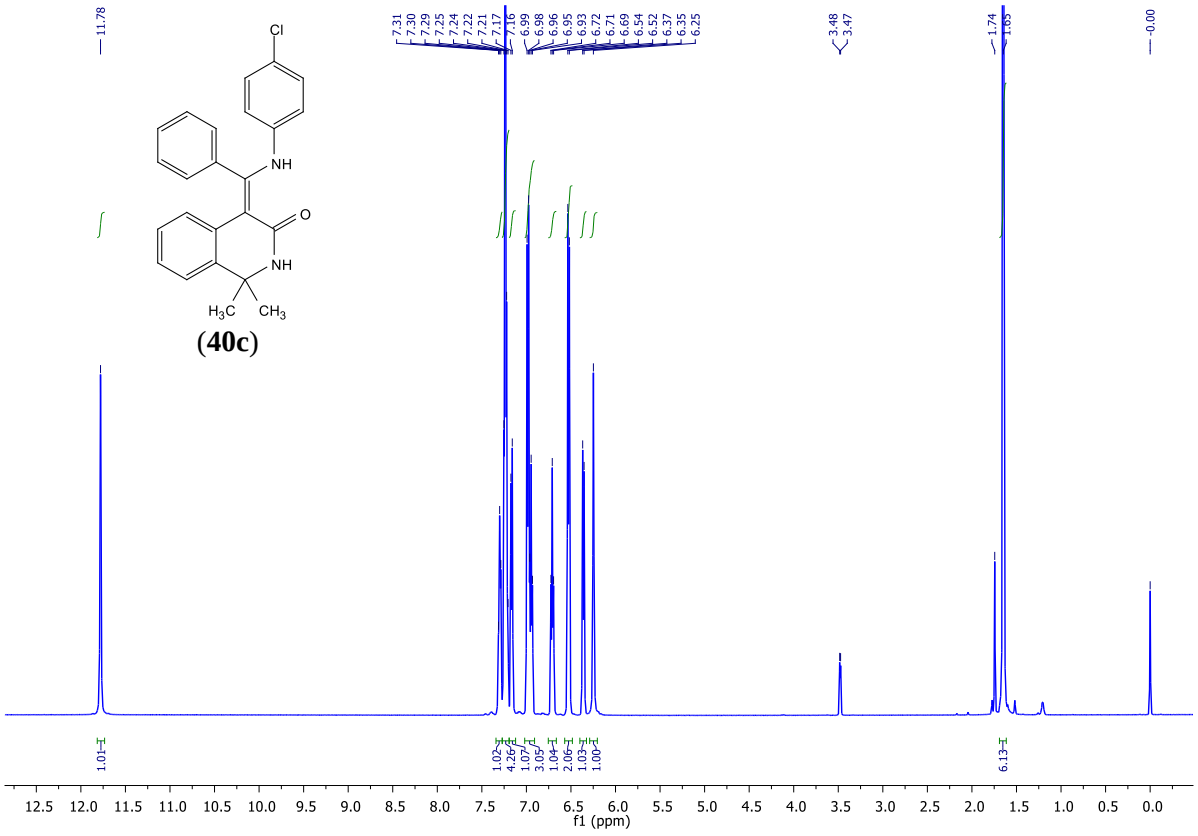
^{13}C NMR-APT spektrum látky **40a**.



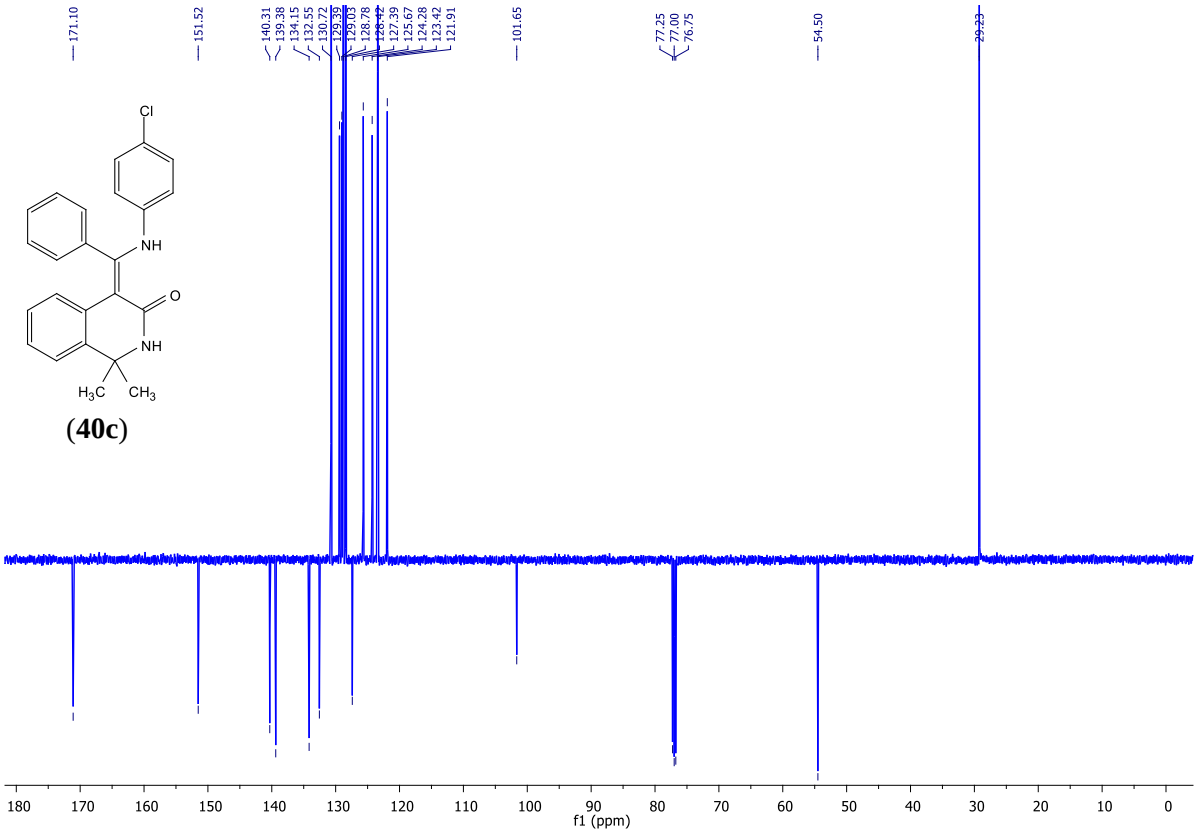
^{1}H NMR spektrum látky **40b**.



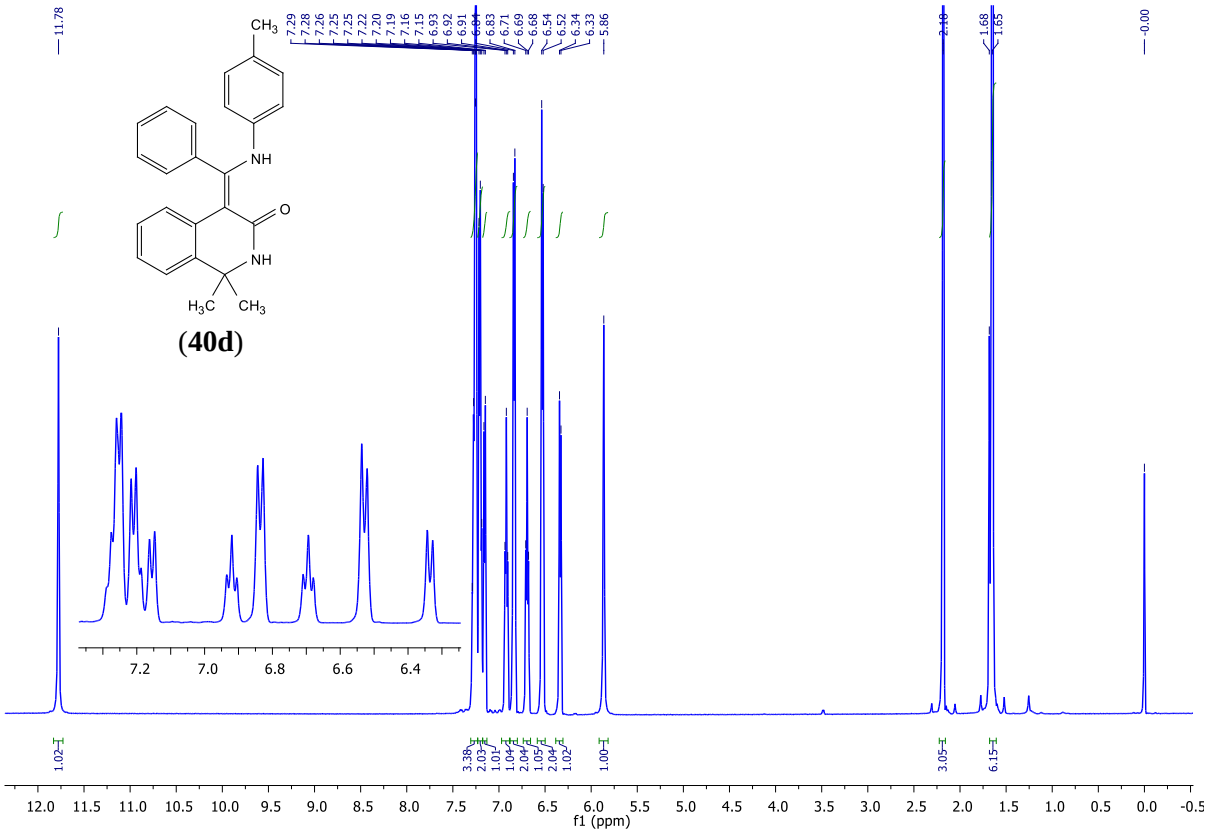
^{13}C NMR-APT spektrum látky **40b**.



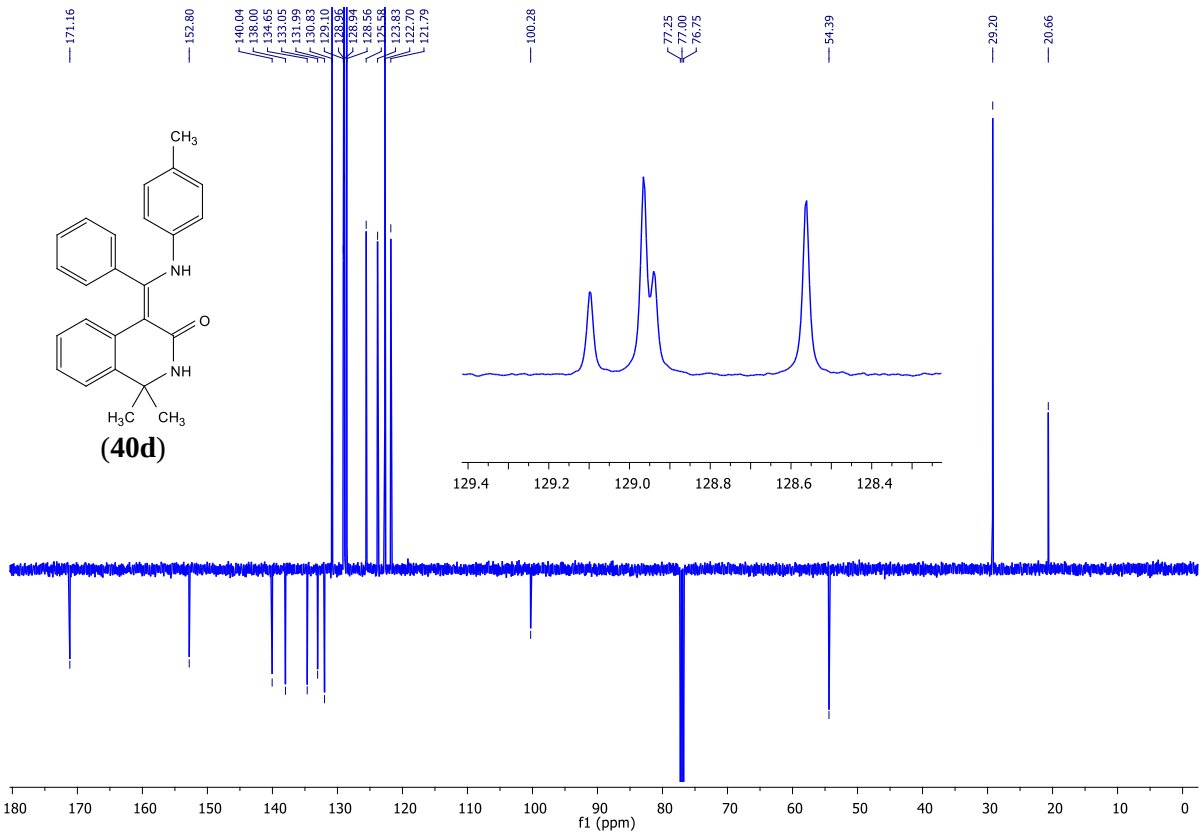
^{1}H NMR spektrum látky **40c**.



^{13}C NMR-APT spektrum látky **40c**.

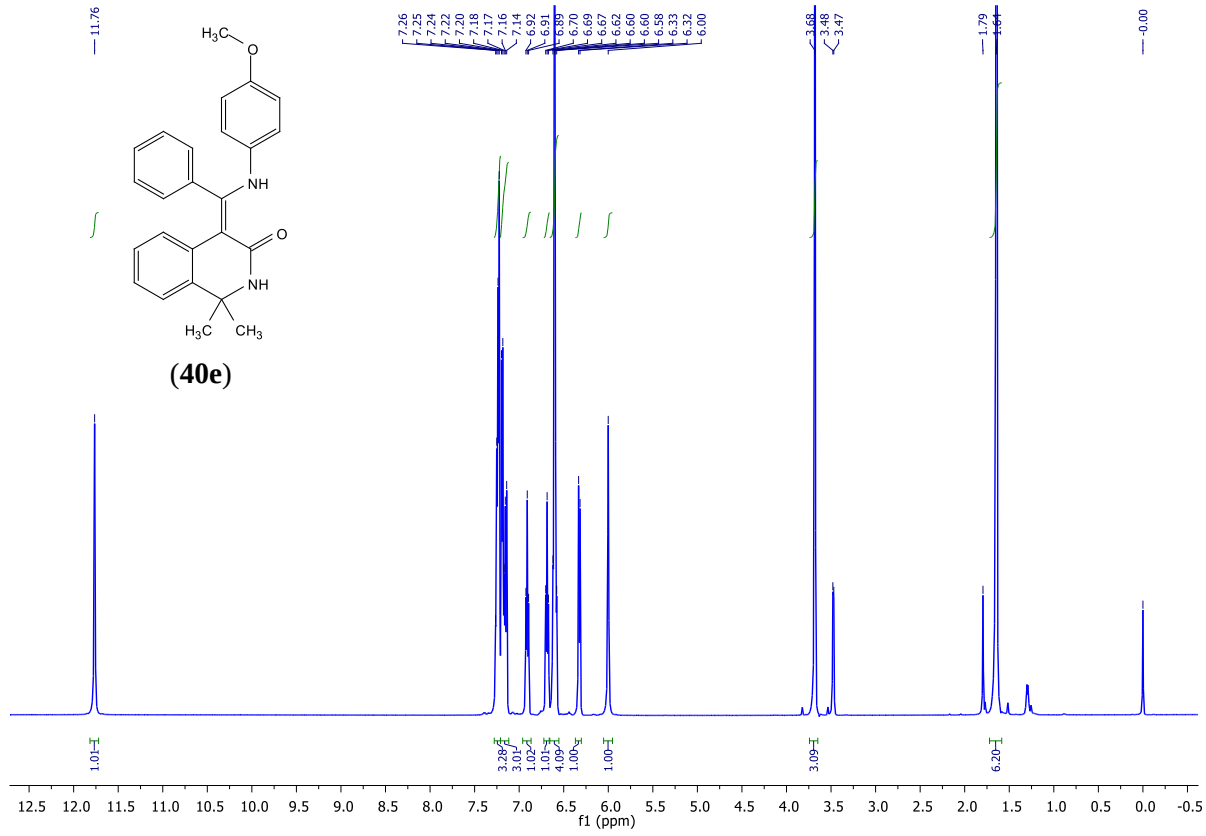


^{1}H NMR spektrum látky **40d**.



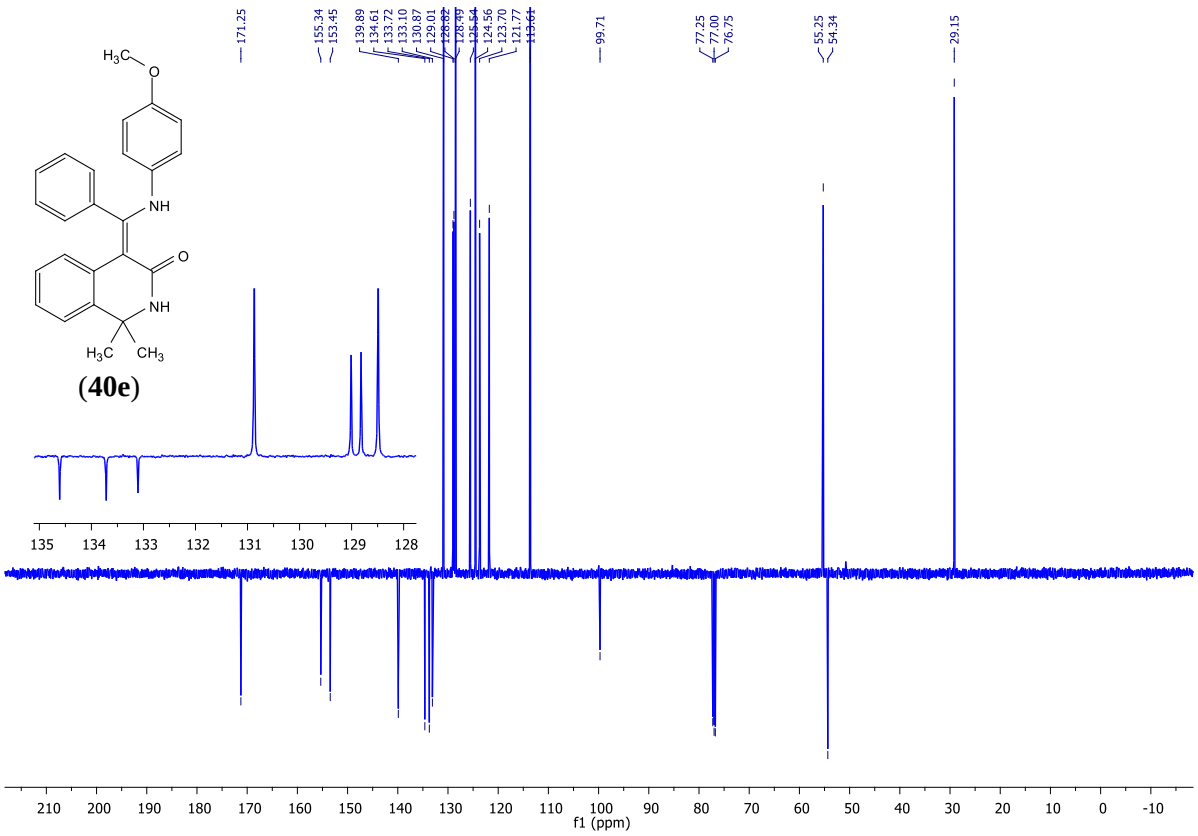
(**40d**)

^{13}C NMR-APT spektrum látky **40d**.

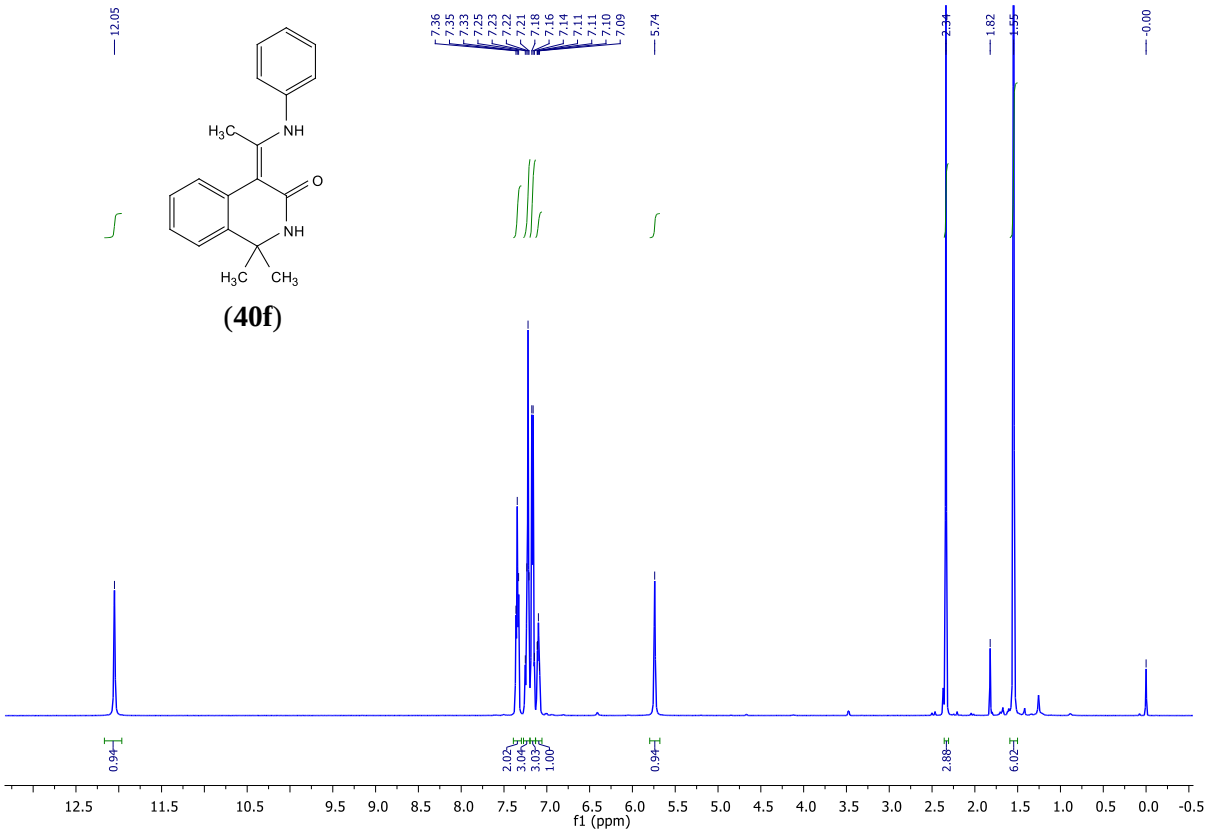


(**40e**)

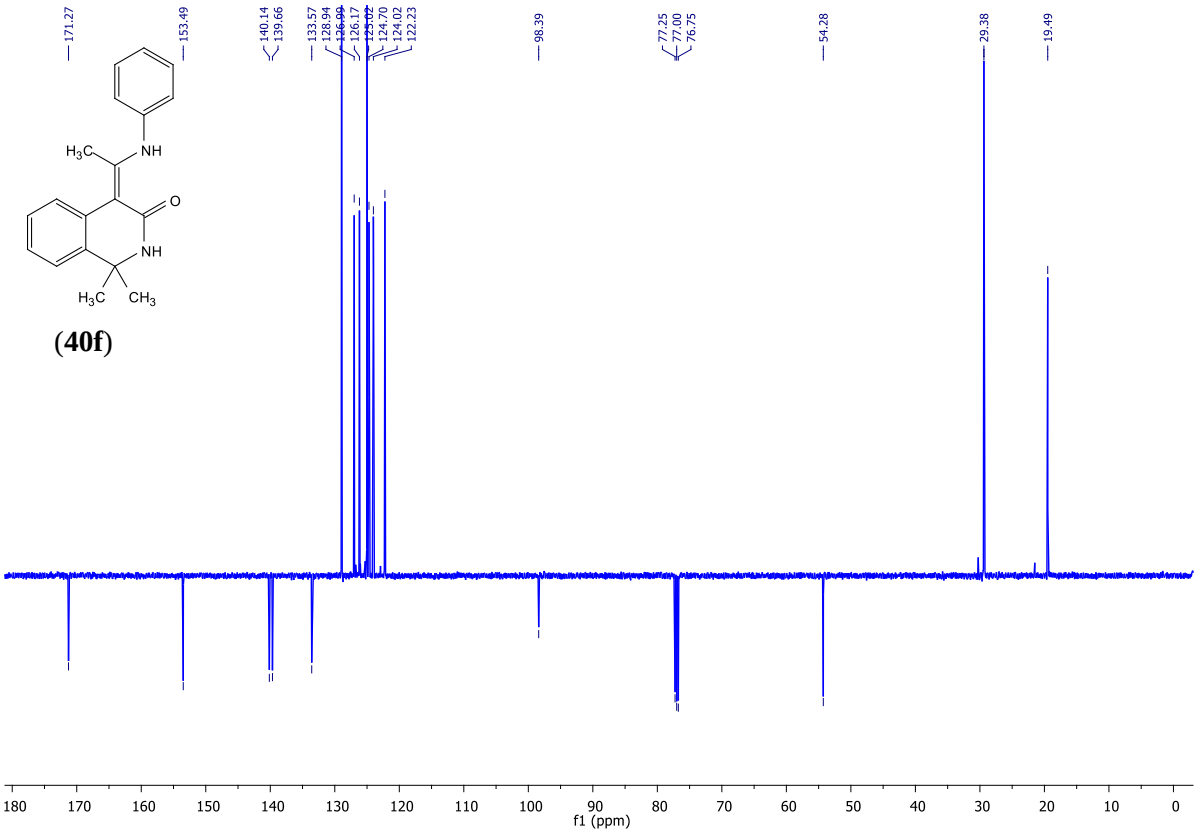
^{1}H NMR spektrum látky **40e**.



^{13}C NMR-APT spektrum látky **40e**.

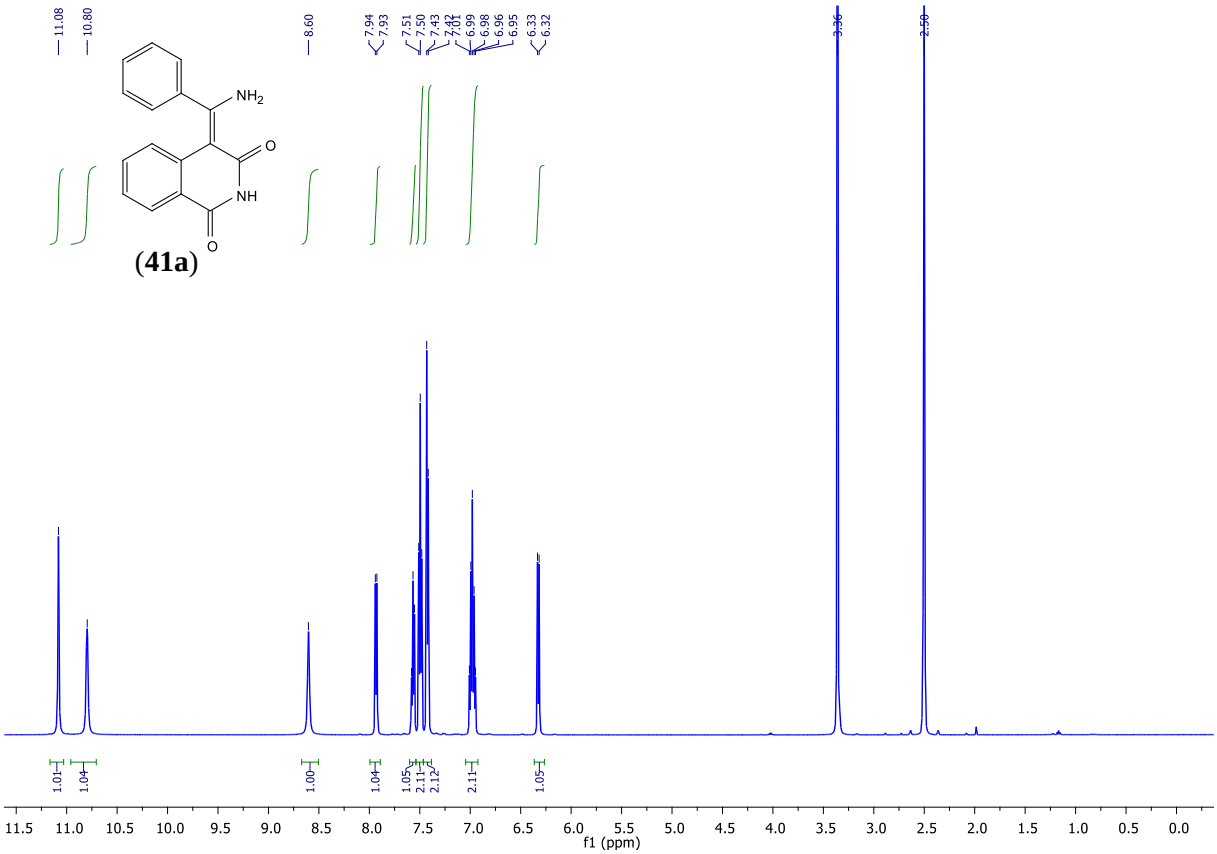


^{1}H NMR spektrum látky **40f**.



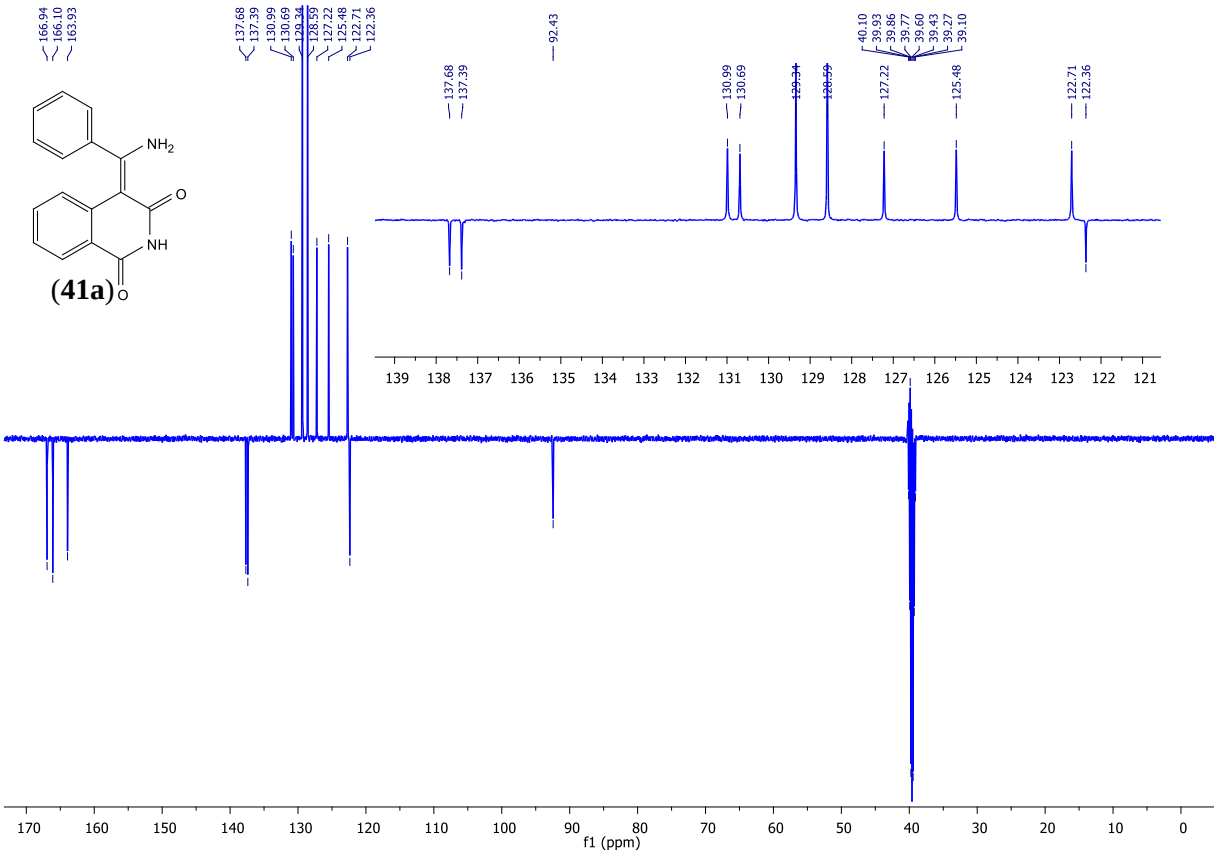
(**40f**)

^{13}C NMR-APT spektrum látky **40f**.

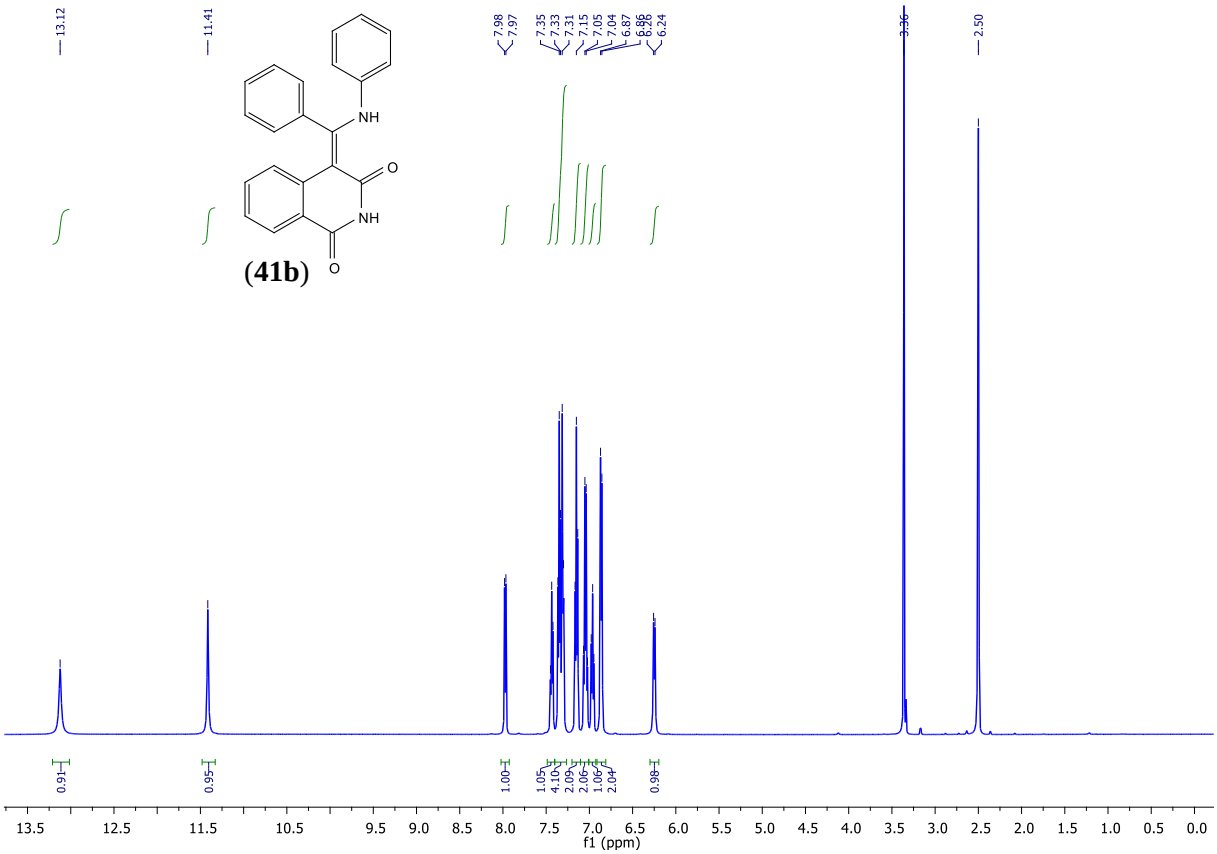


(**41a**)

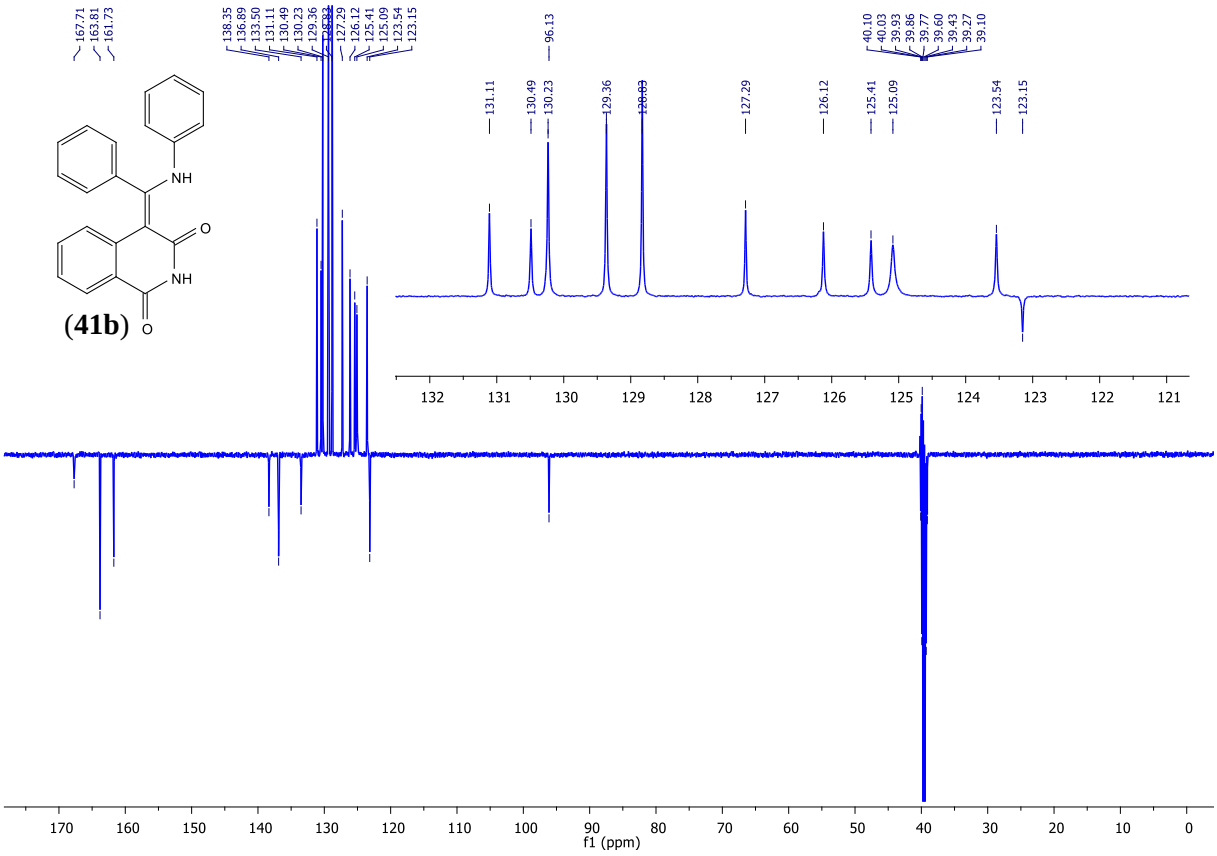
^{1}H NMR spektrum látky **41a**.



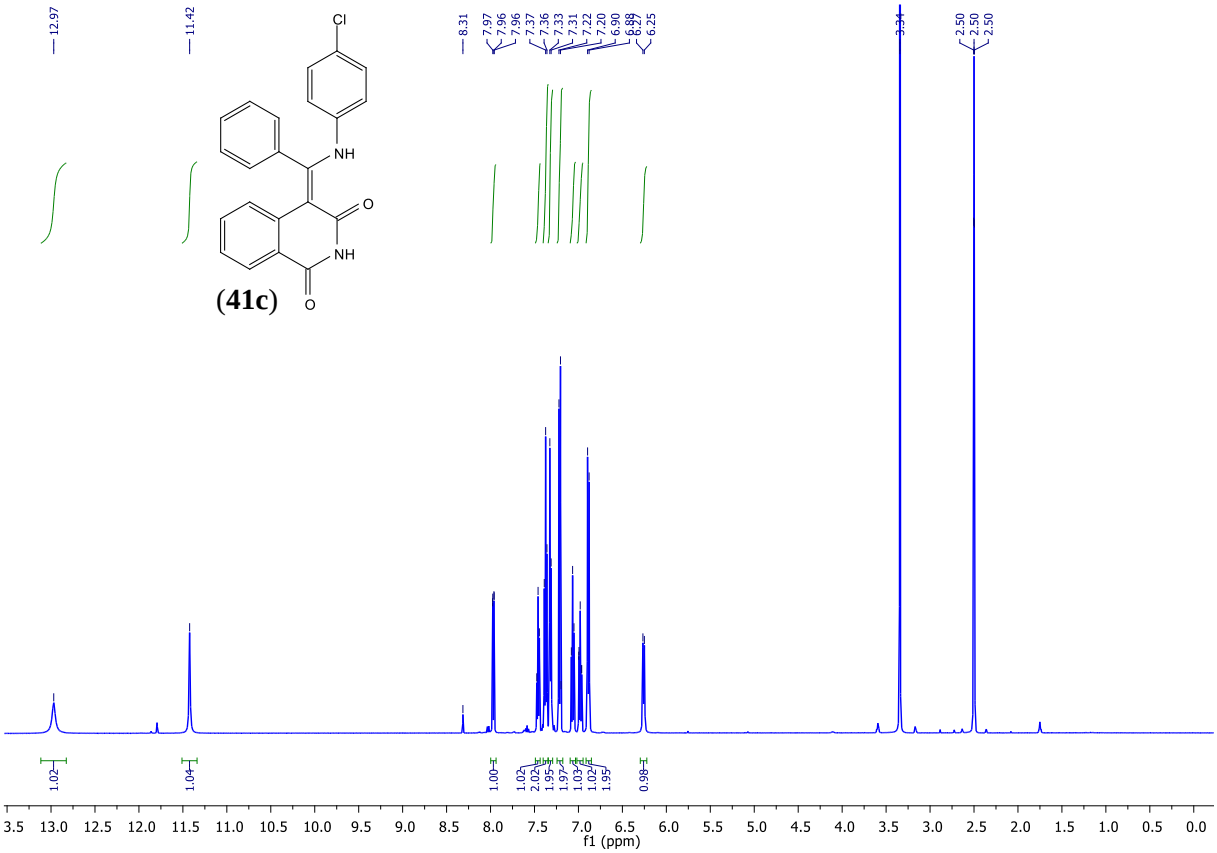
^{13}C NMR-APT spektrum látky **41a**.



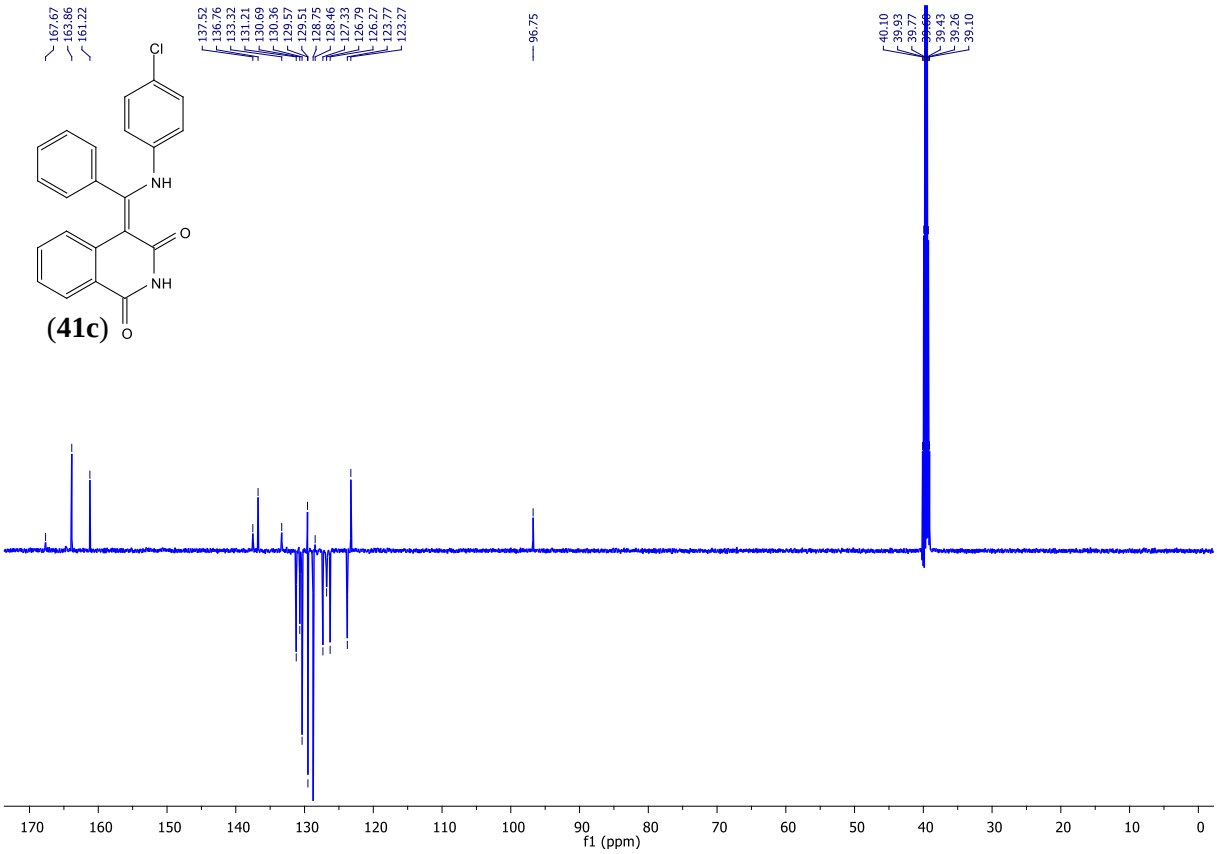
^{1}H NMR spektrum látky **41b**.



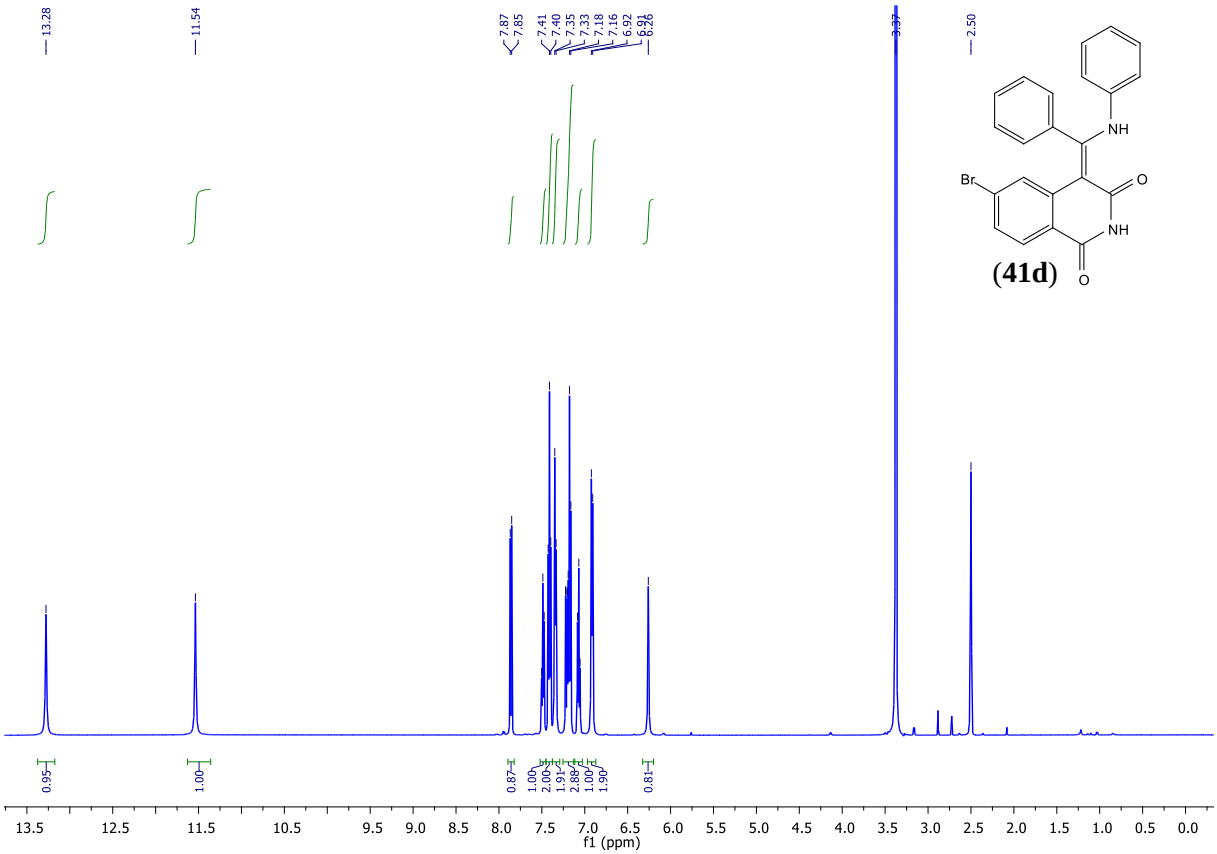
^{13}C NMR-APT spektrum látky **41b**.



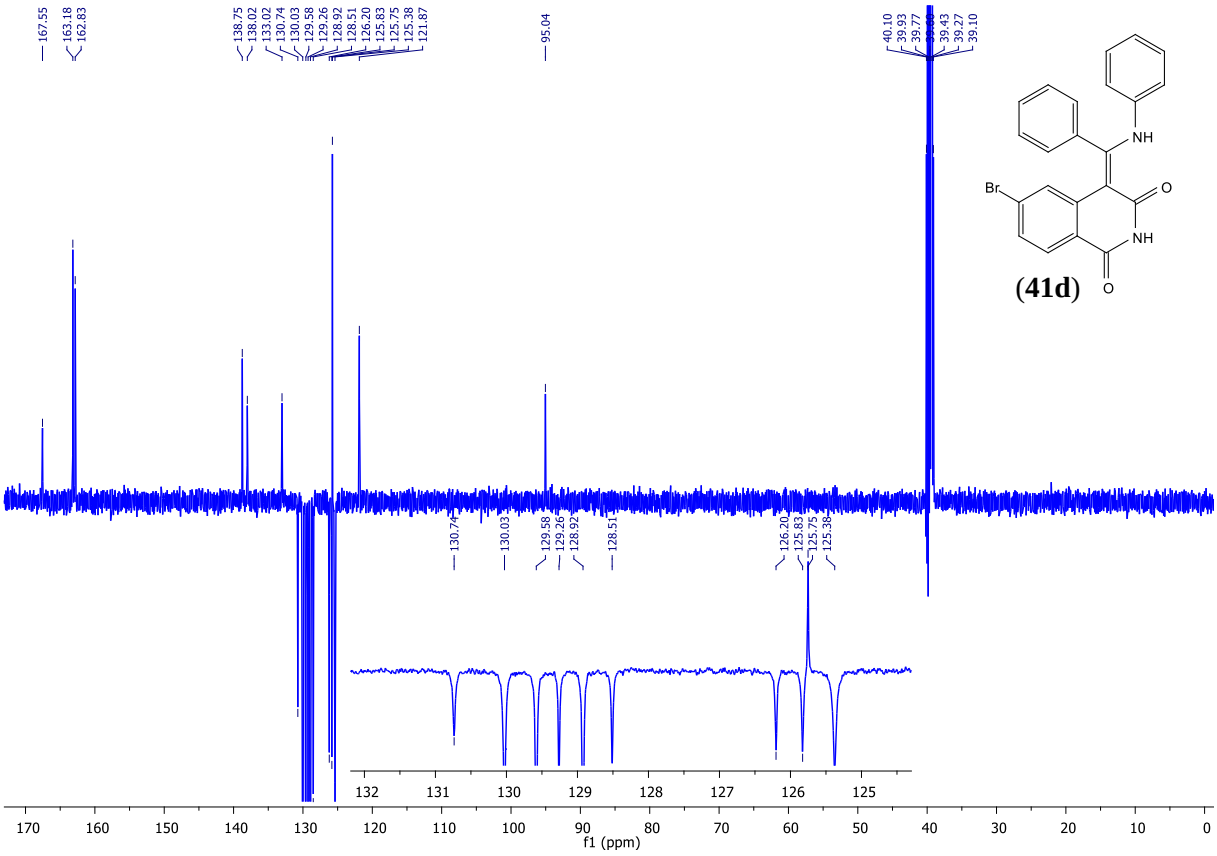
^{1}H NMR spektrum látky **41c**.



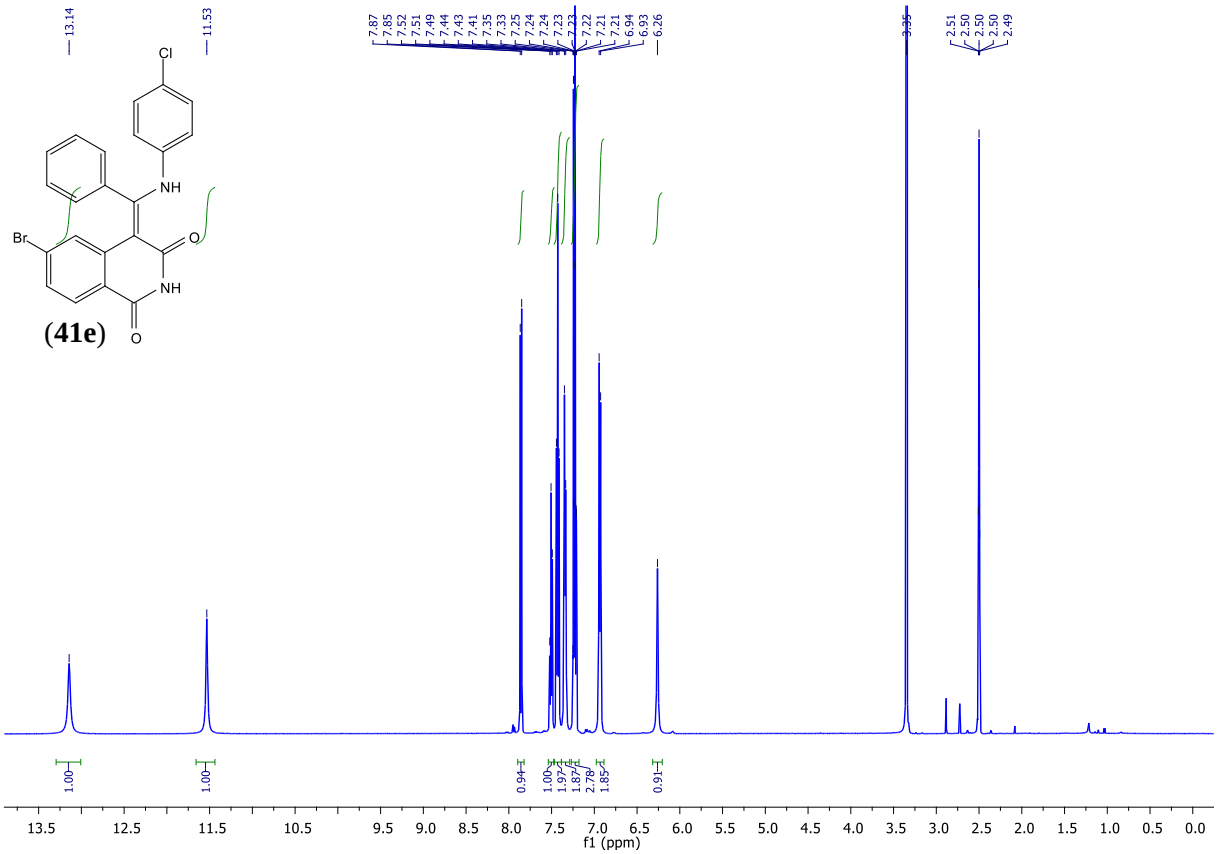
^{13}C NMR-APT spektrum látky **41c**.



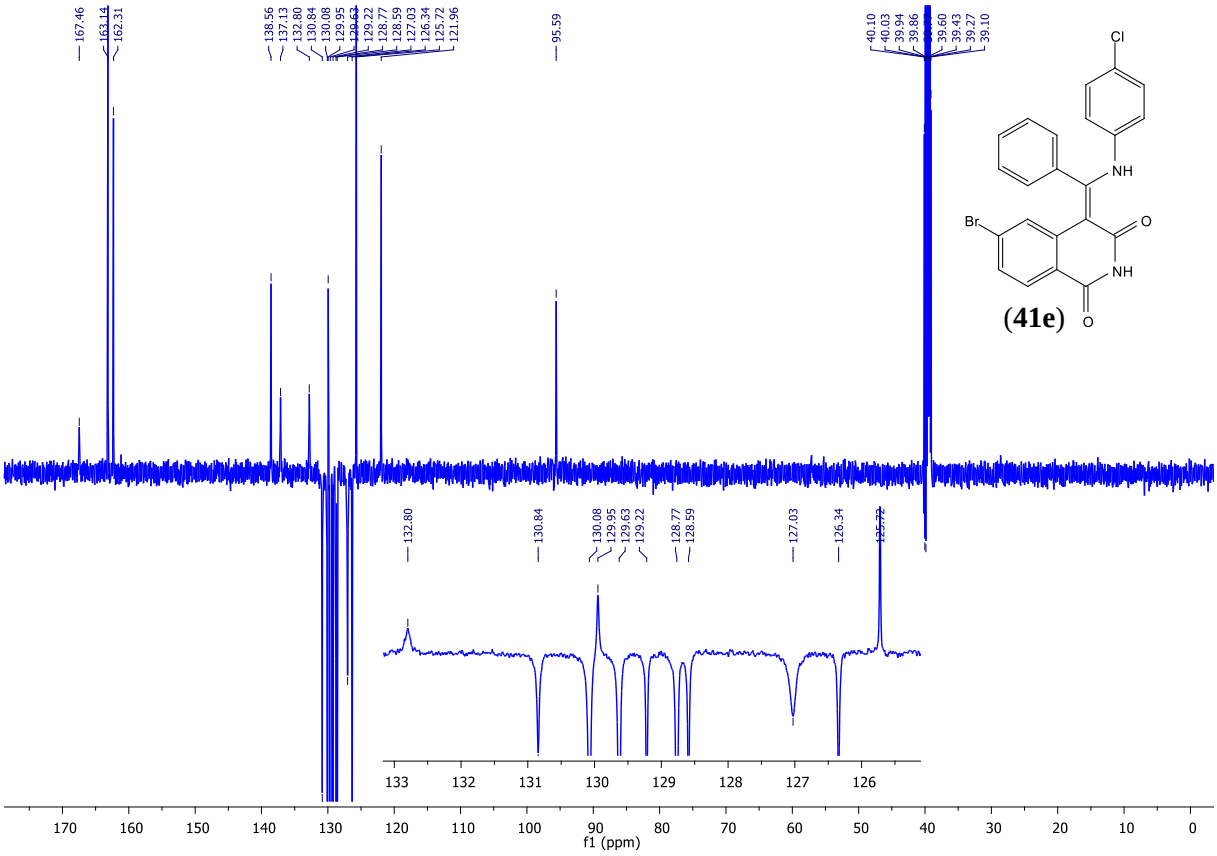
^{1}H NMR spektrum látky **41d**.



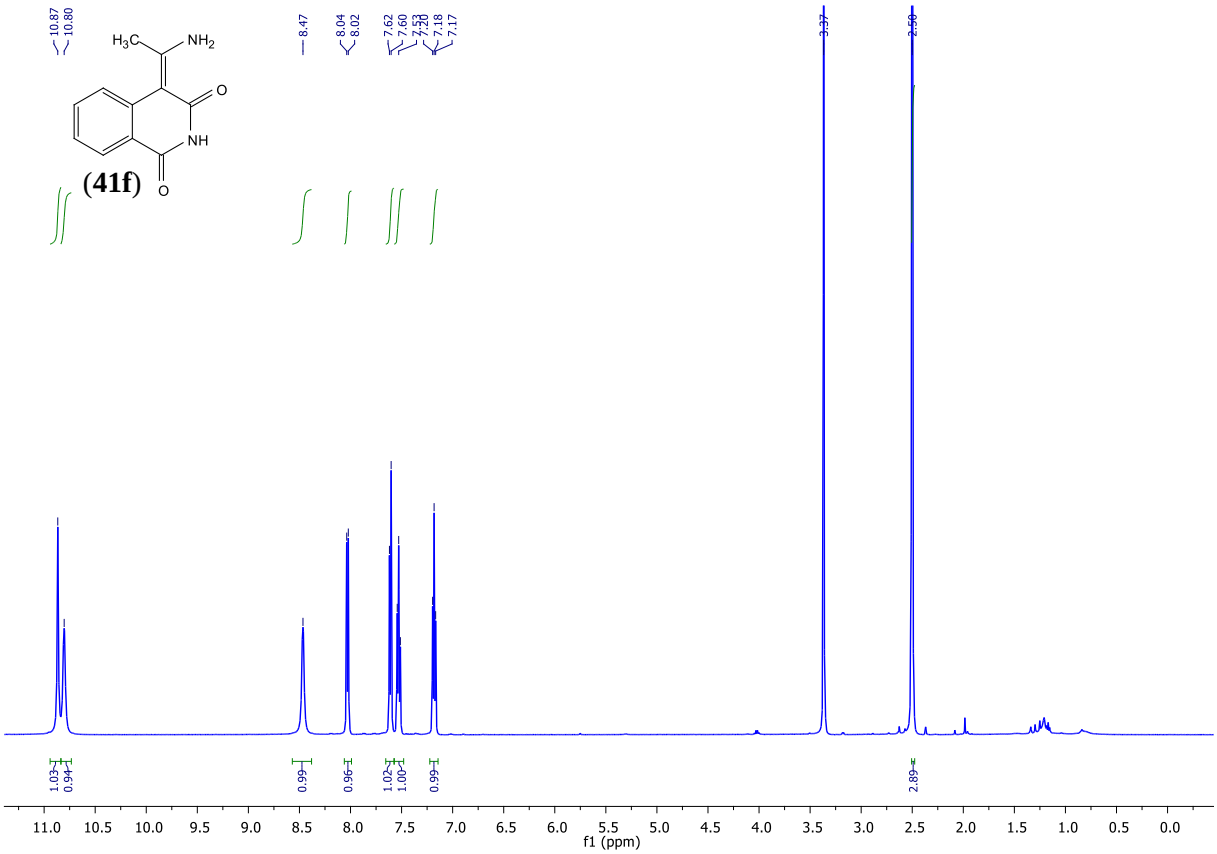
^{13}C NMR-APT spektrum látky **41d**.



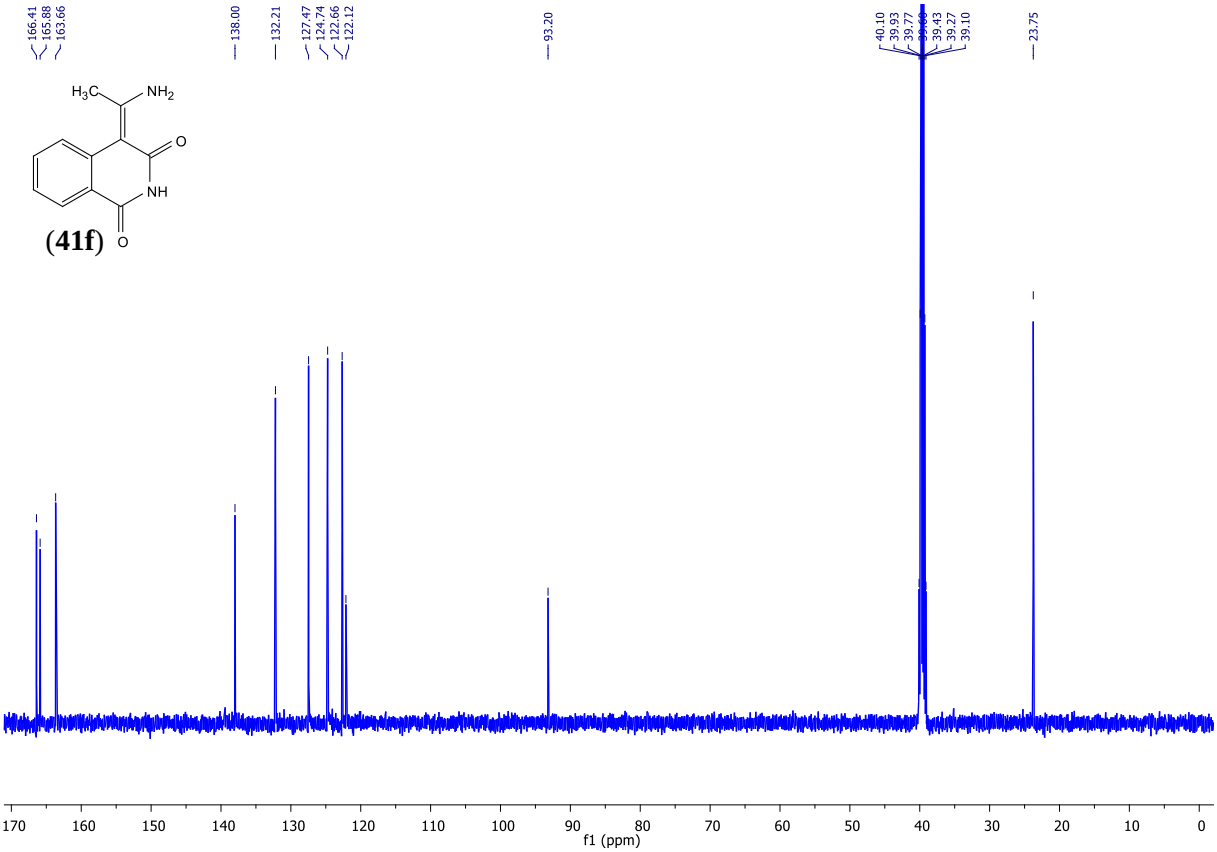
^{1}H NMR spektrum látky **41e**.



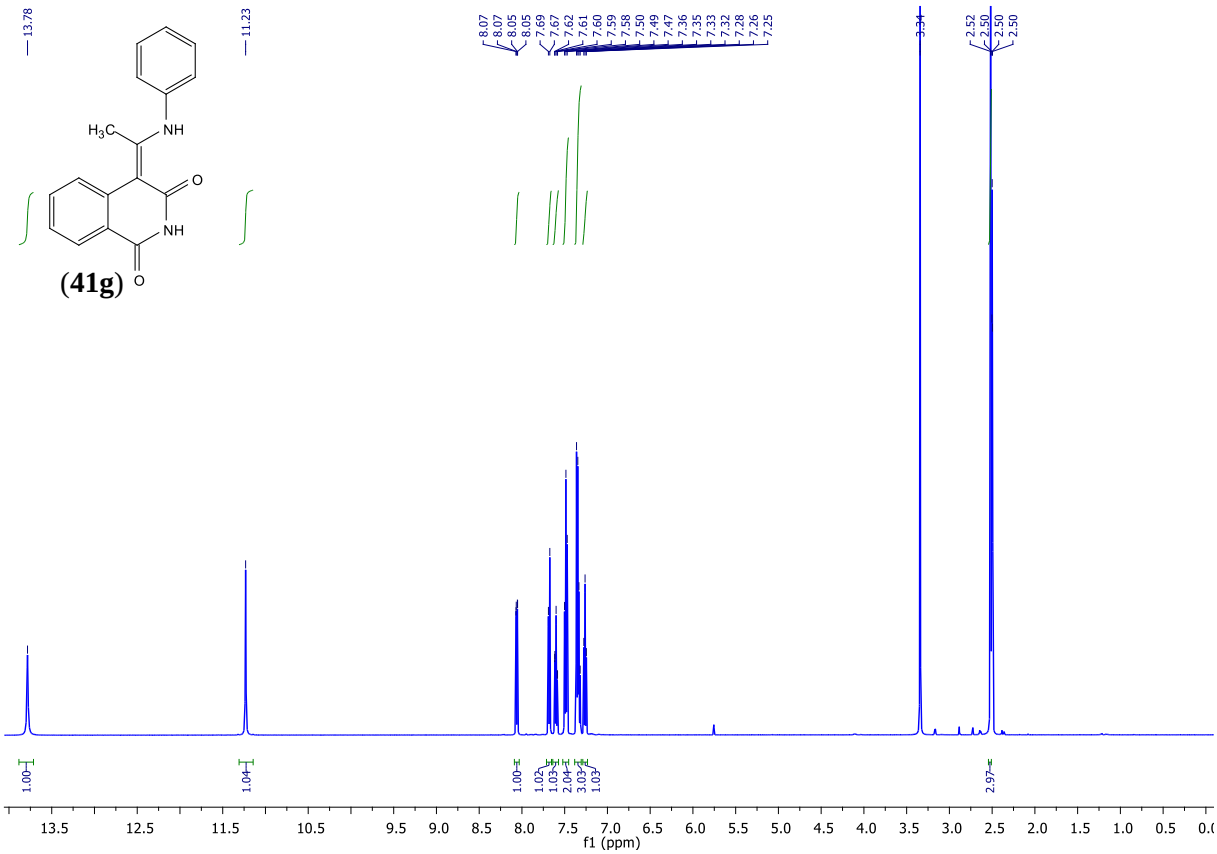
^{13}C NMR-APT spektrum látky **41e**.



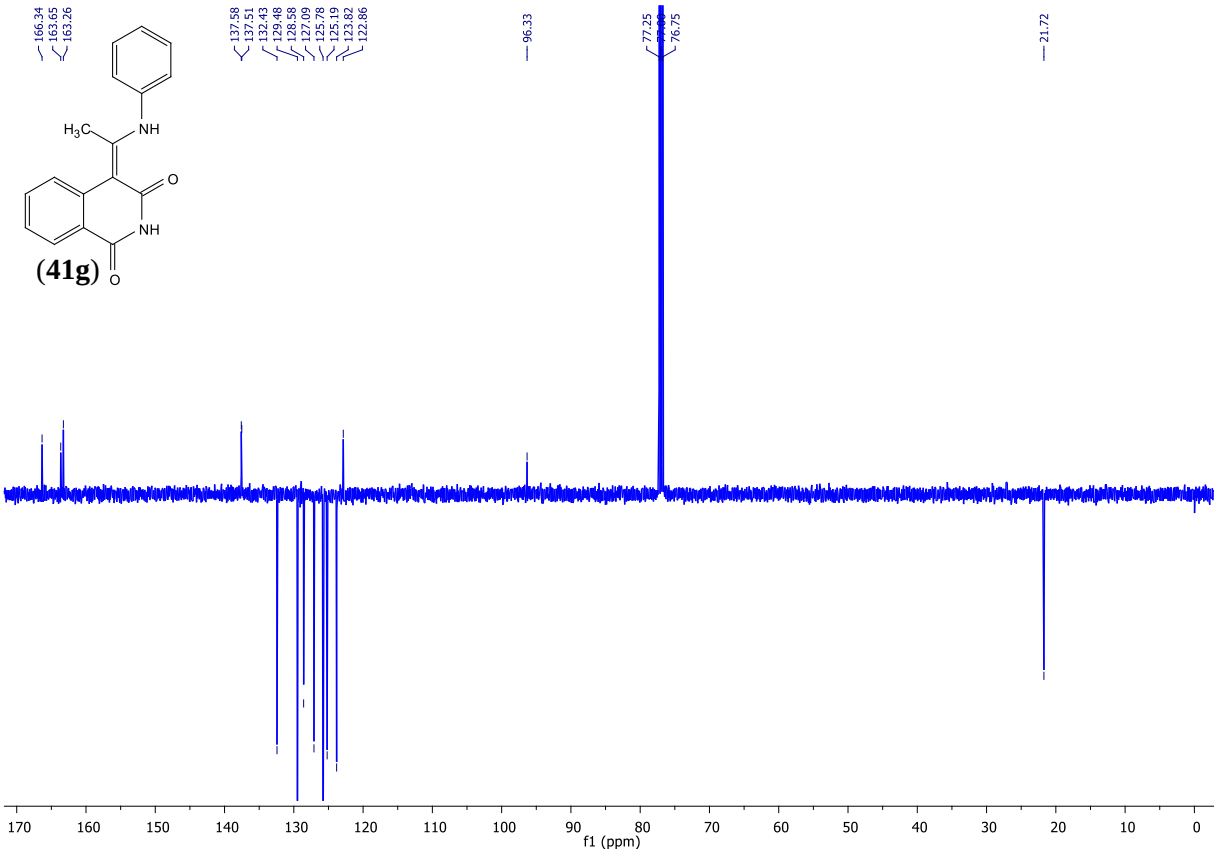
^{1}H NMR spektrum látky **41f**.



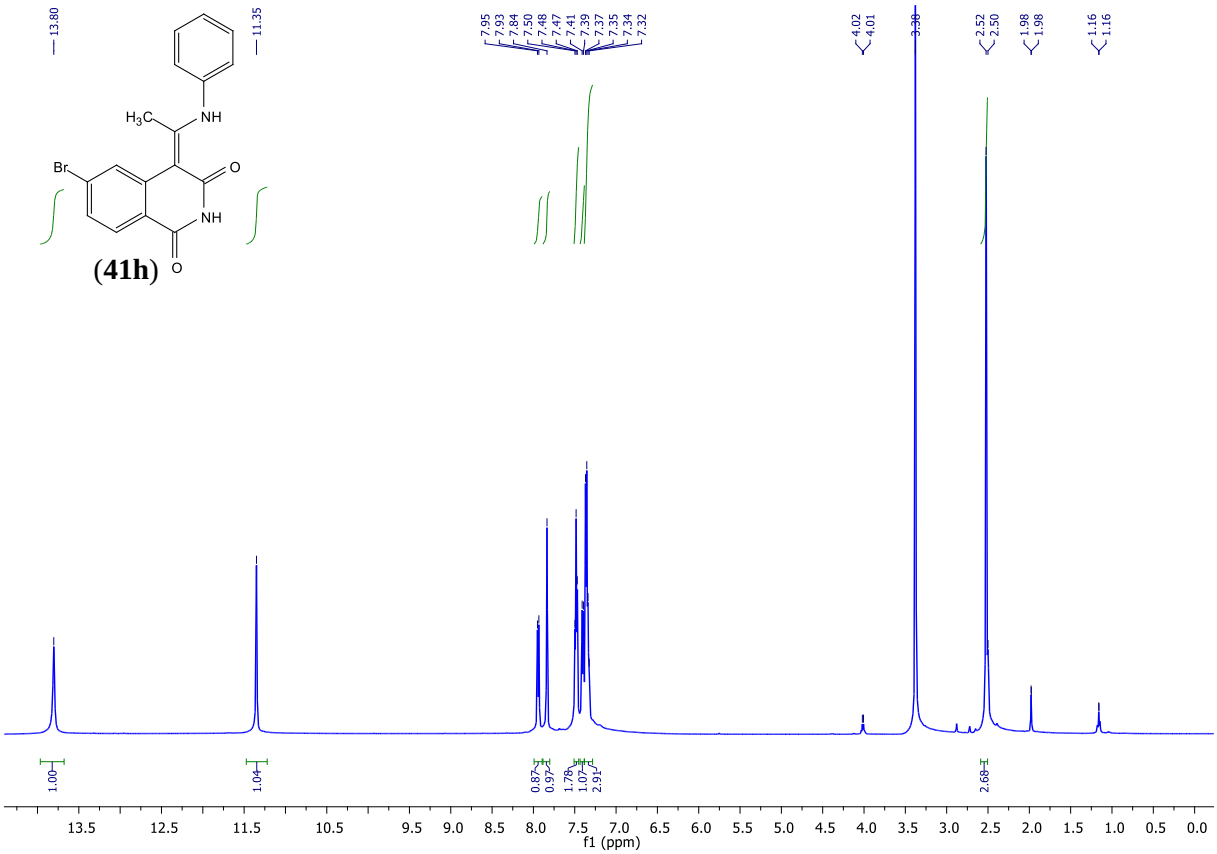
^{13}C NMR spektrum látky **41f**.



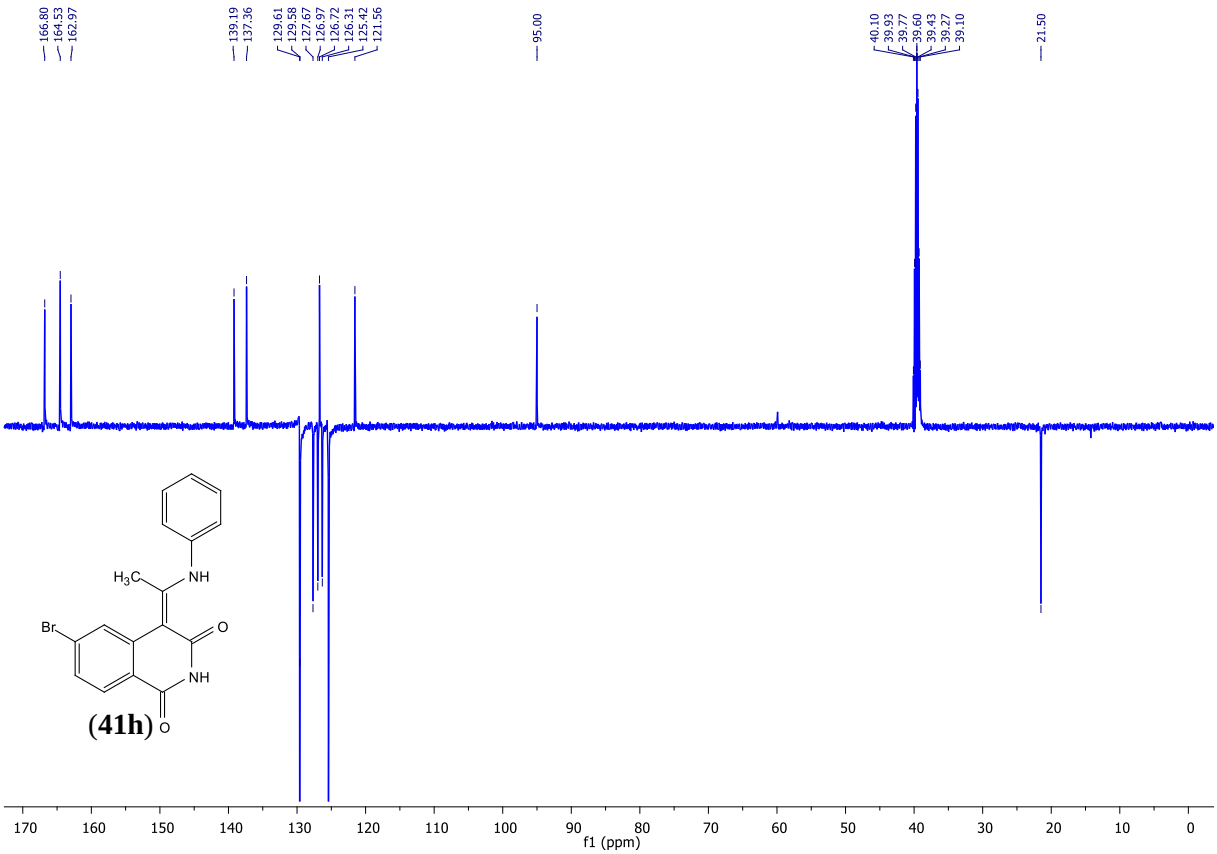
^{1}H NMR spektrum látky **41g**.



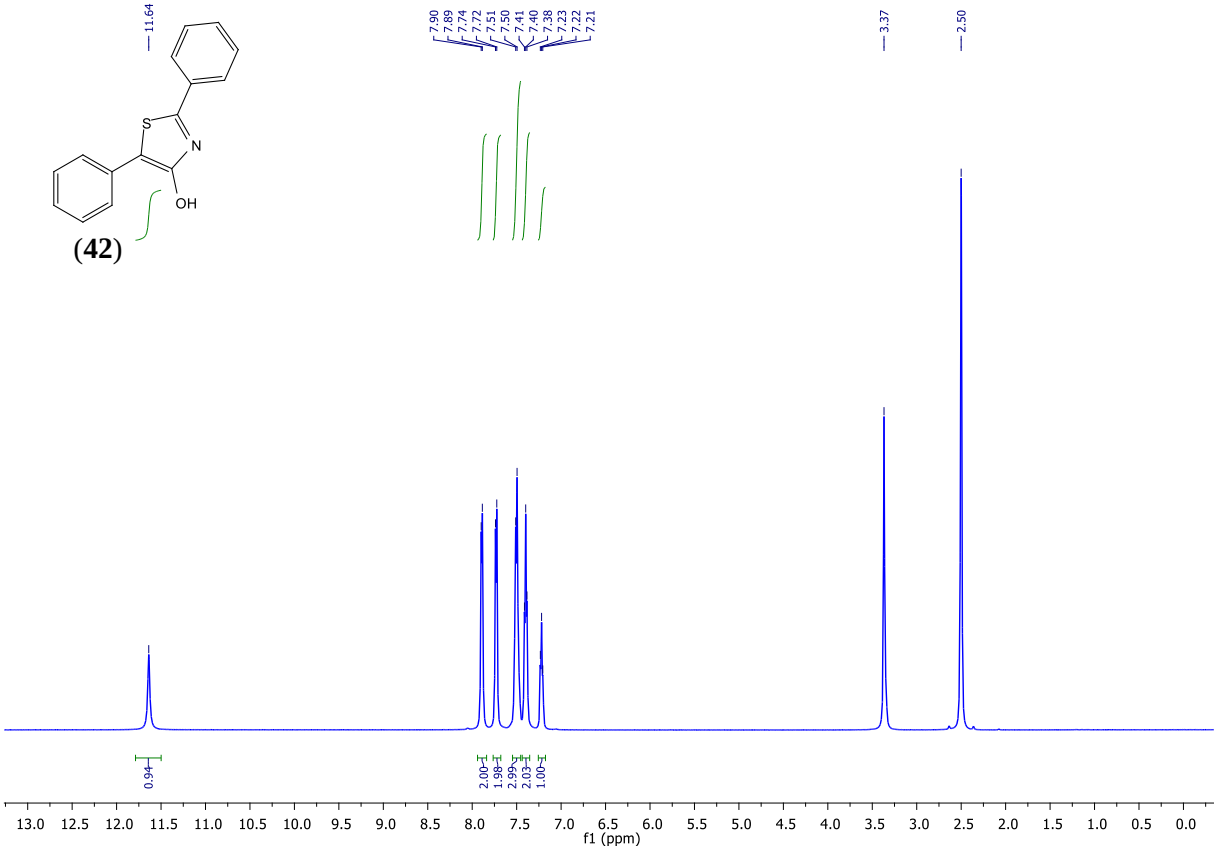
^{13}C NMR-APT spektrum látky **41g**.



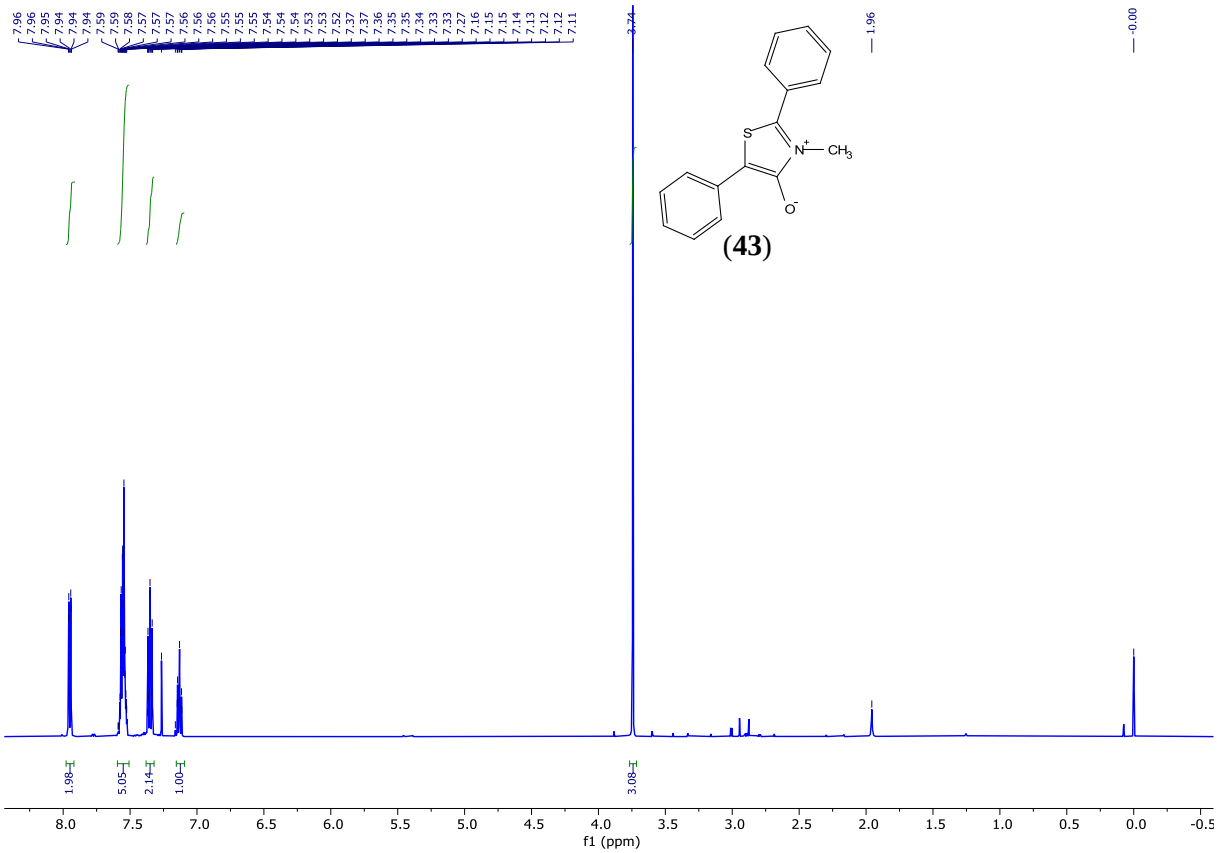
^{1}H NMR spektrum látky **41h**.



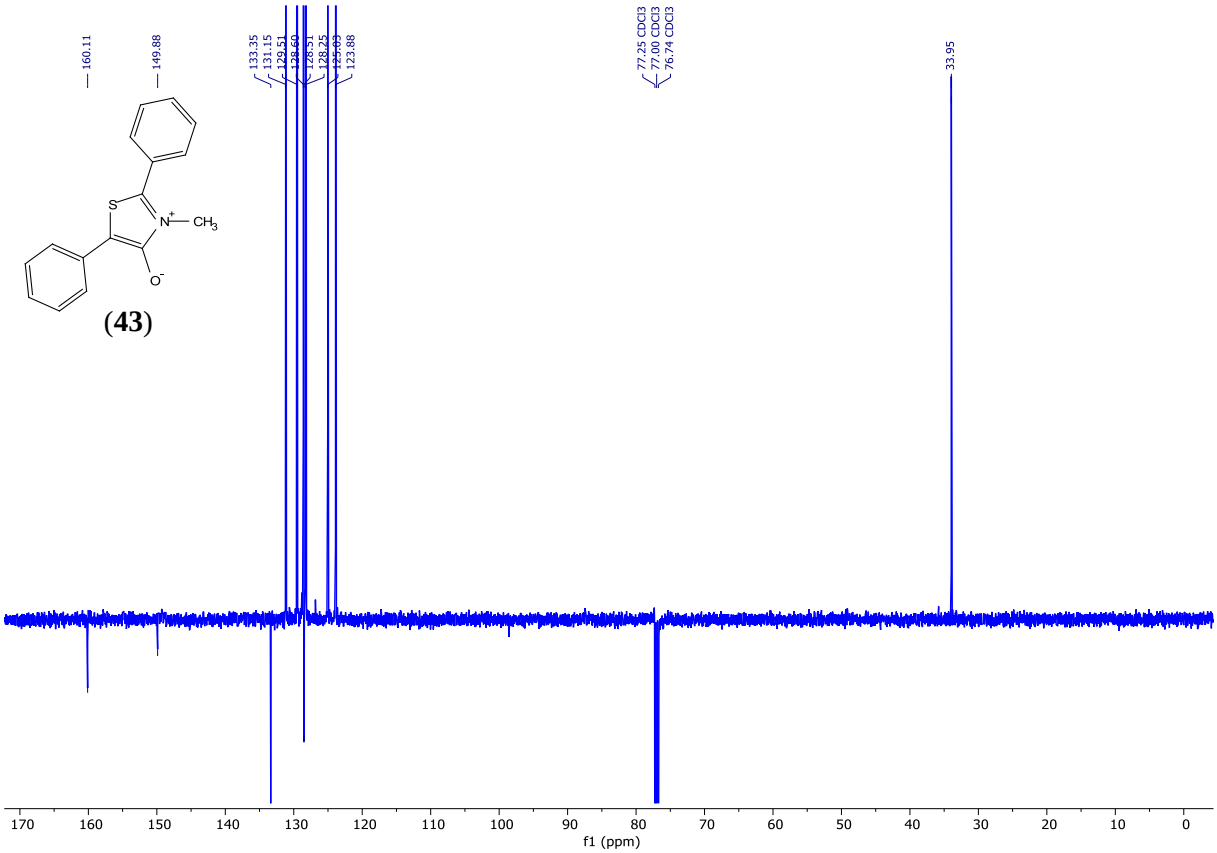
^{13}C NMR-APT spektrum látky **41h**.



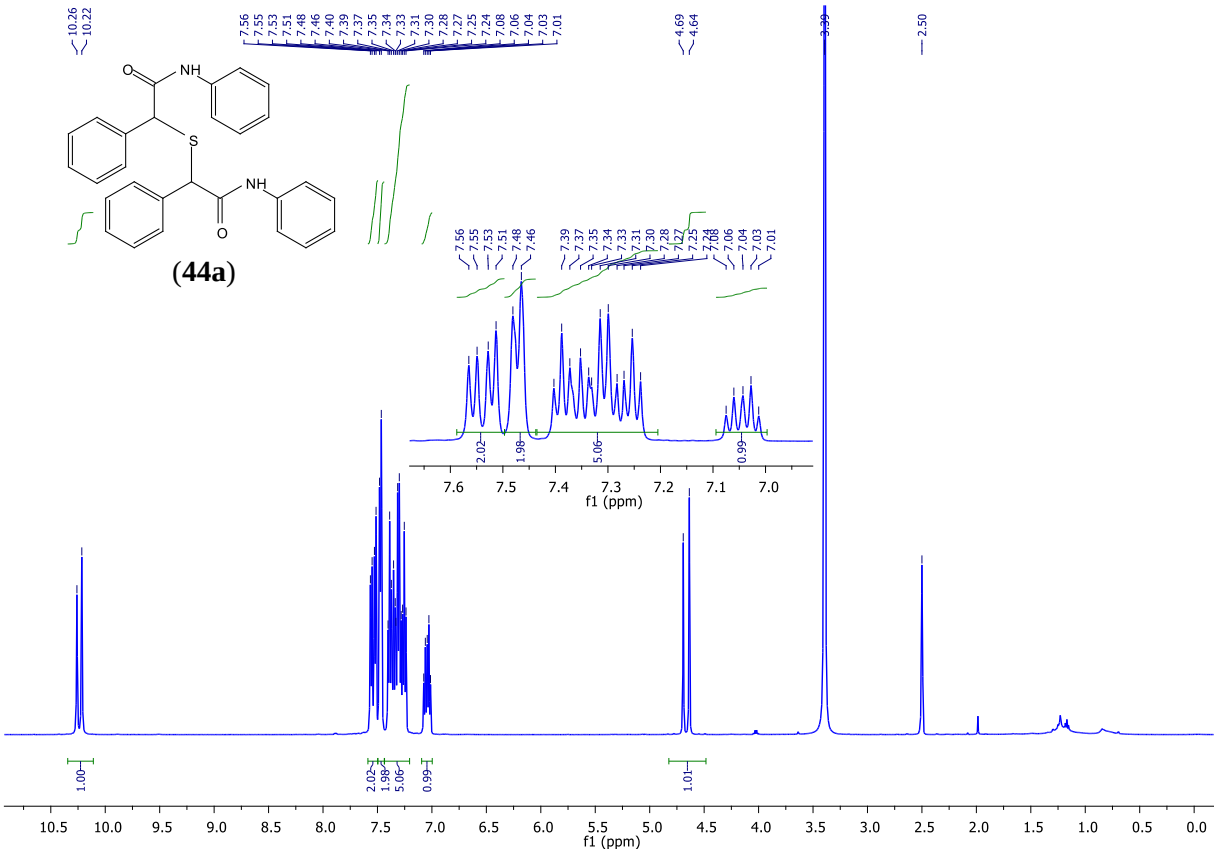
^{1}H NMR spektrum látky **42**.



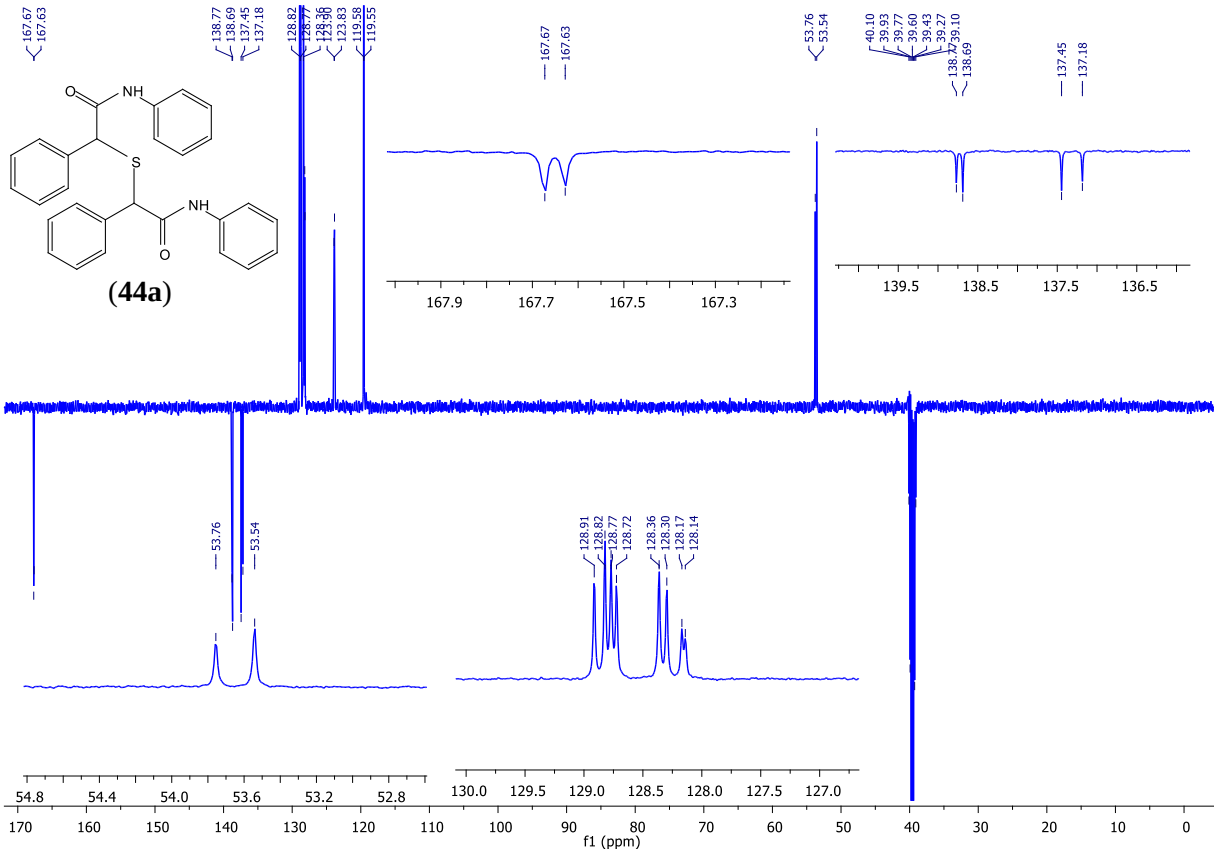
^{1}H NMR spektrum látky **43**.



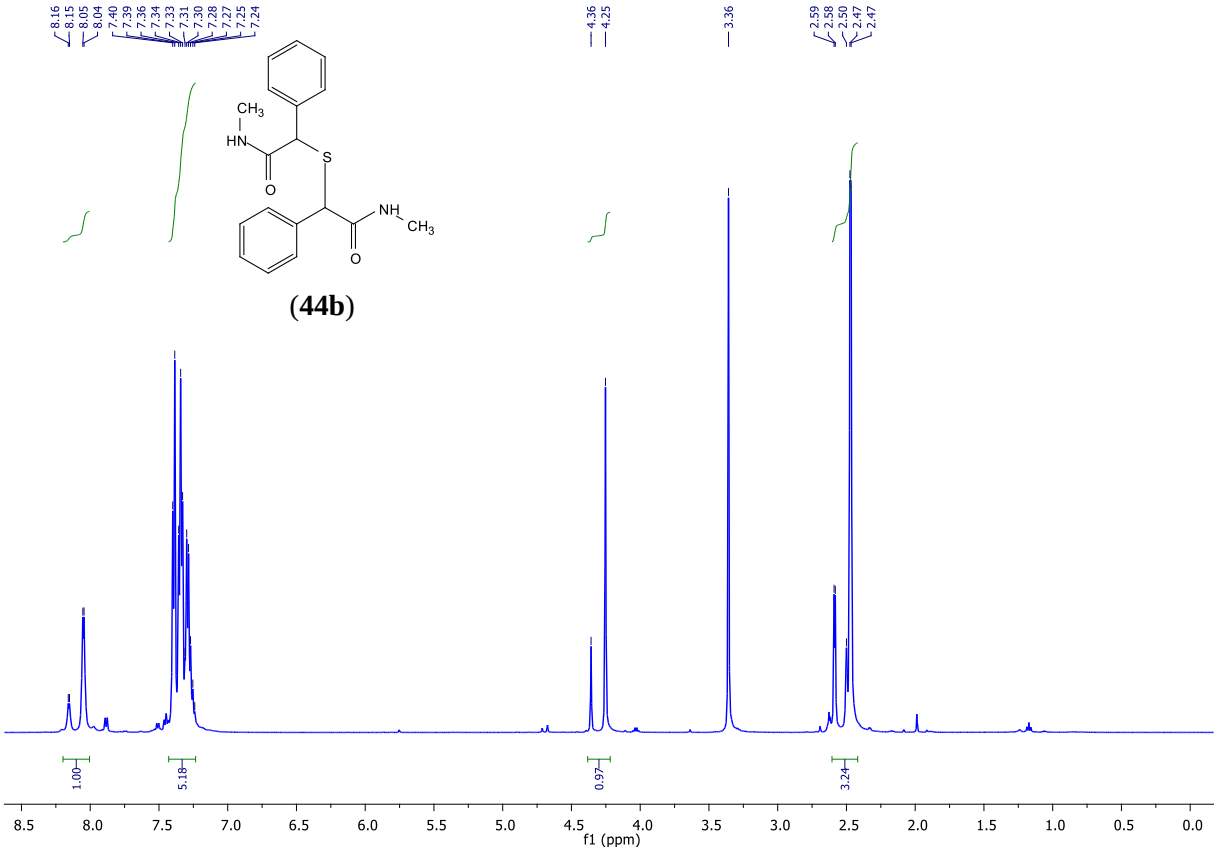
^{13}C NMR-APT spektrum látky **43**.



^{1}H NMR spektrum látky **44a**.

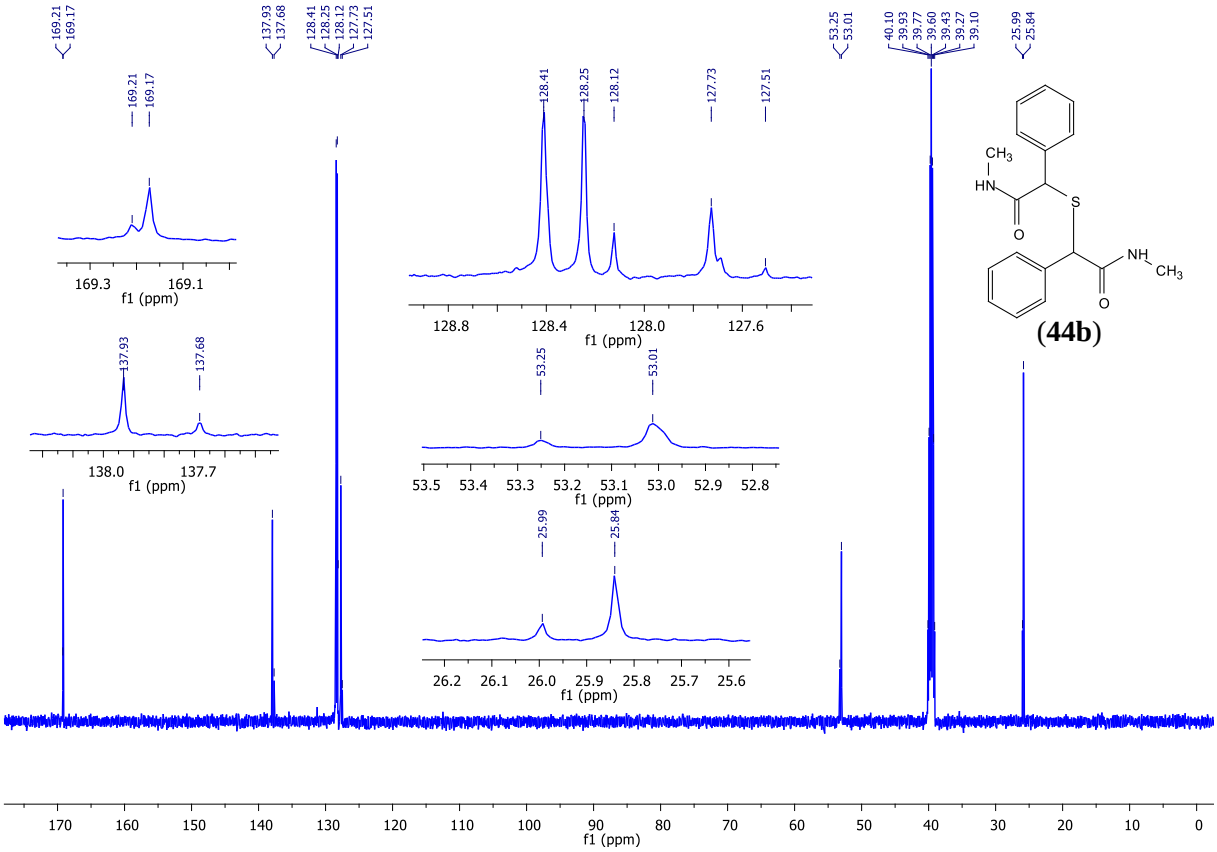


^{13}C NMR-APT spektrum látky **44a**.



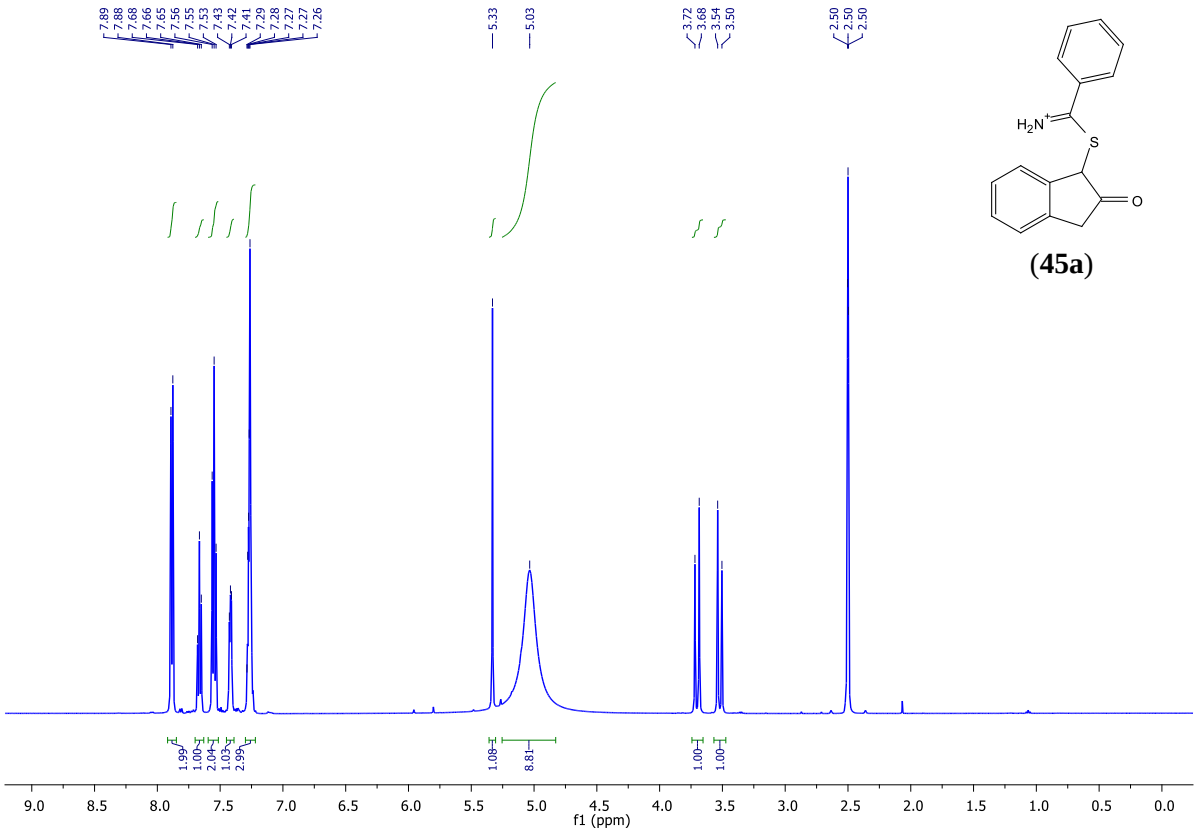
(**44b**)

^{1}H NMR spektrum látky **44b**.

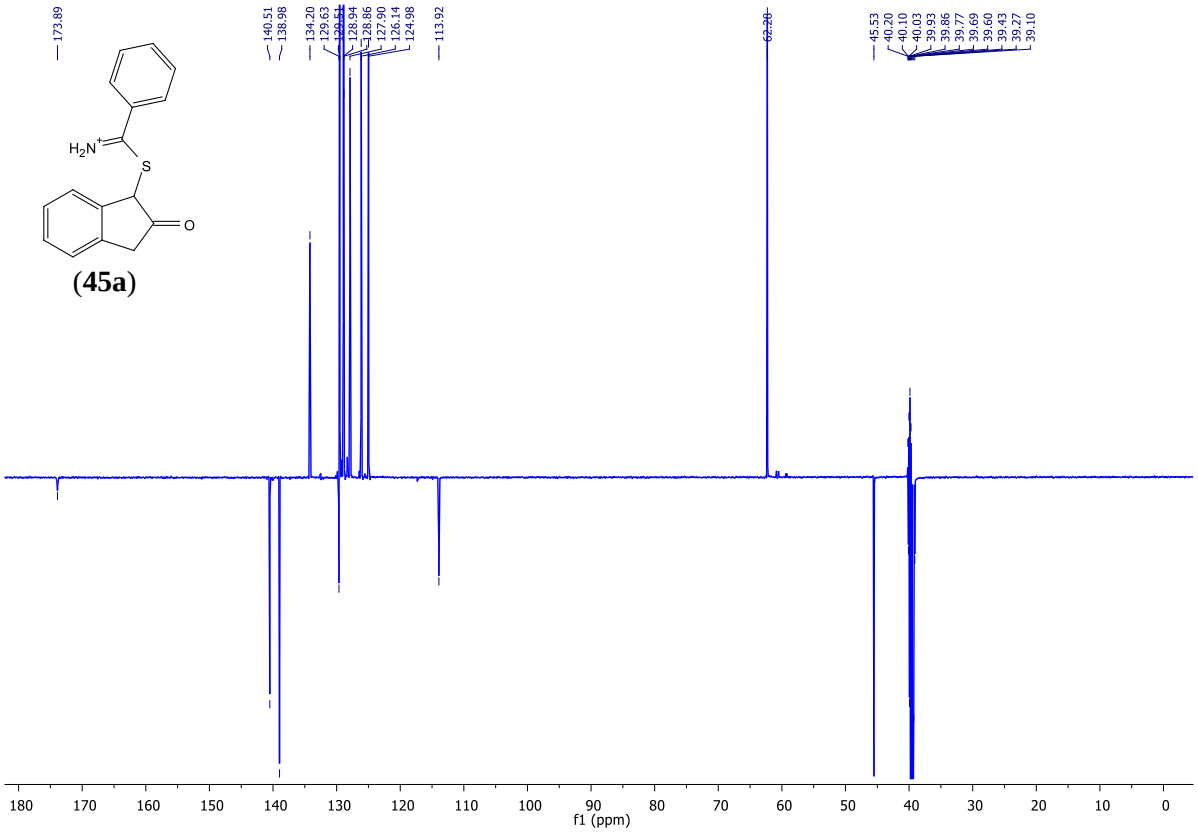


(**44b**)

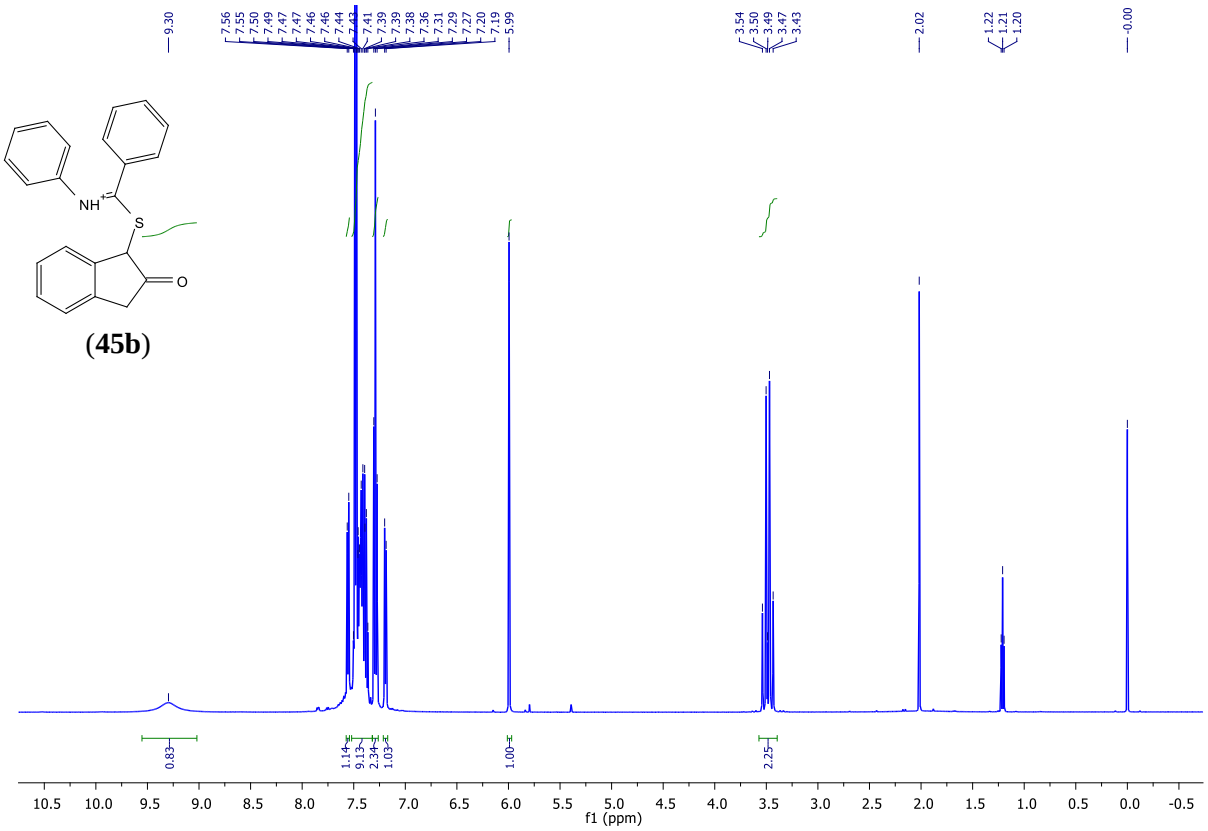
^{13}C NMR spektrum látky **44b**.



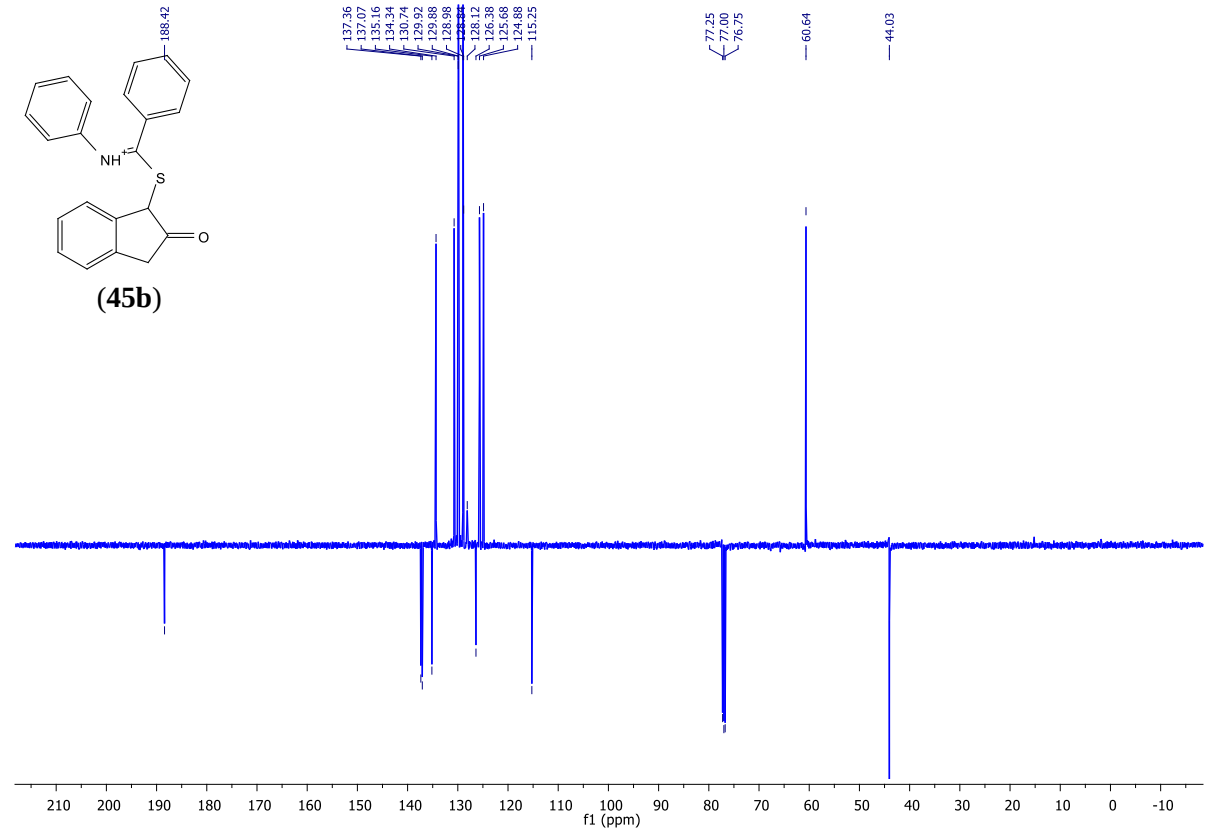
^{1}H NMR spektrum látky **45a**.



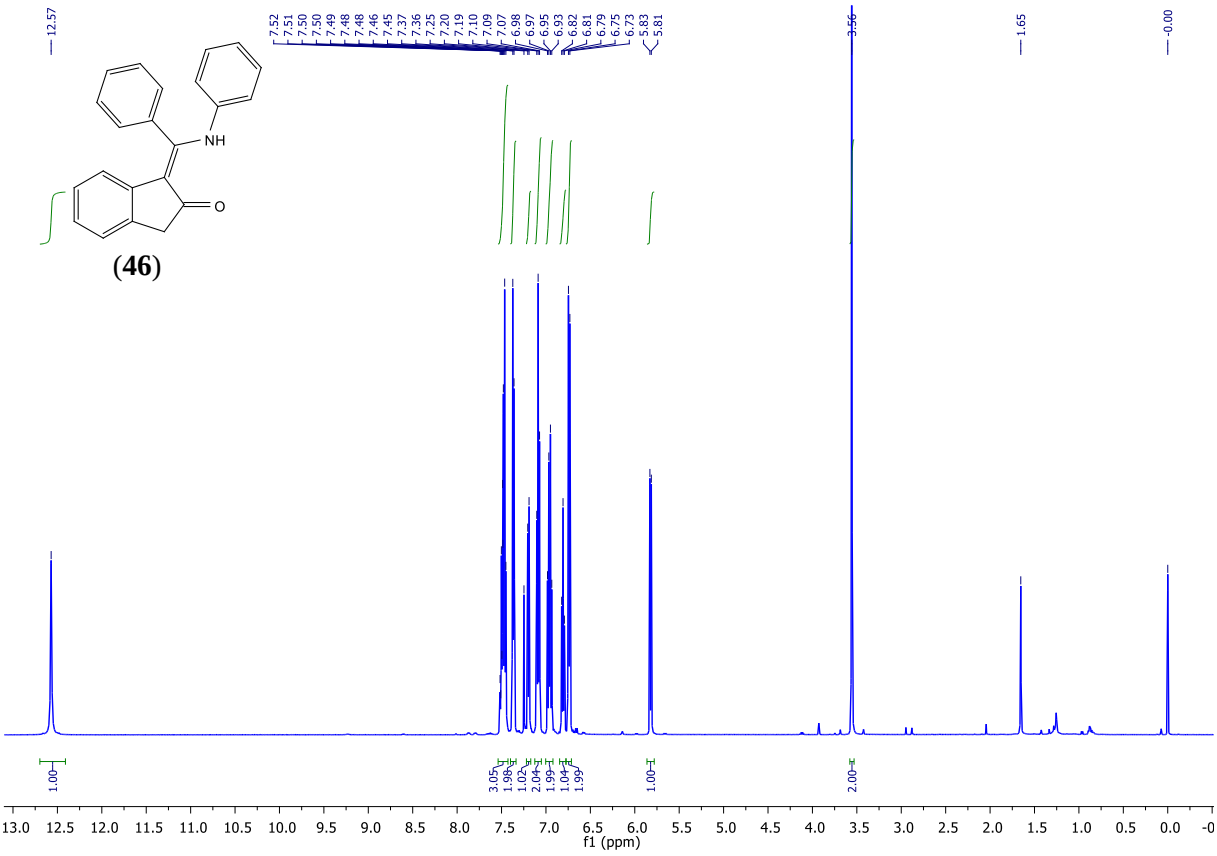
^{13}C NMR-APT spektrum látky **45a**.



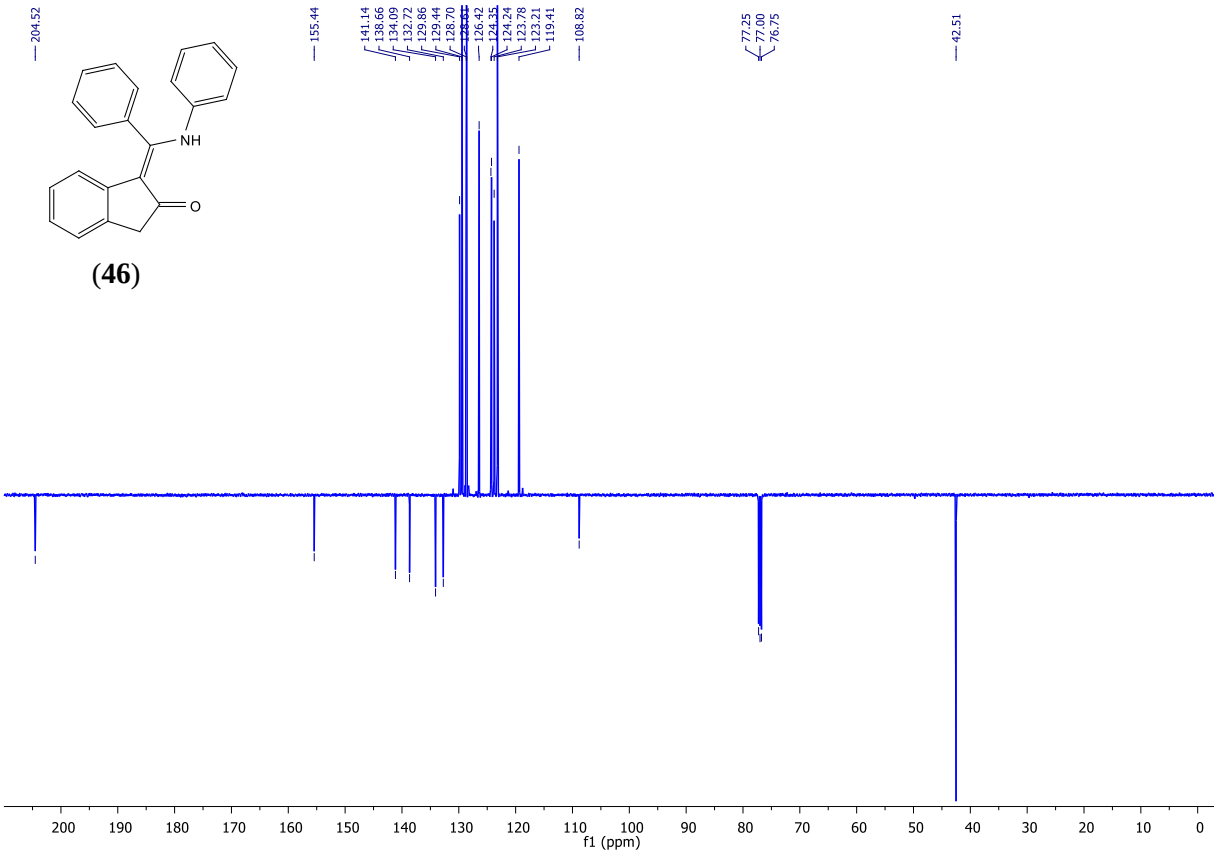
^{1}H NMR spektrum látky **45b**.



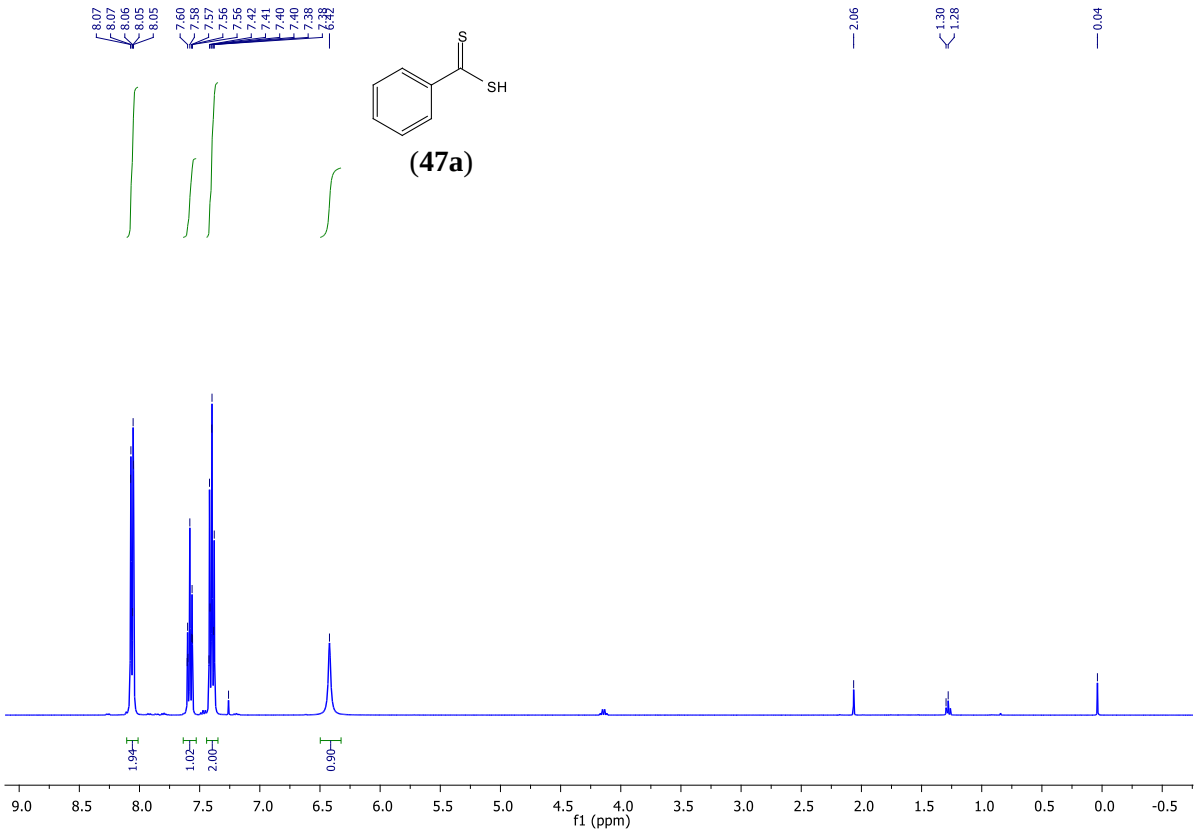
^{13}C NMR-APT spektrum látky **45b**.



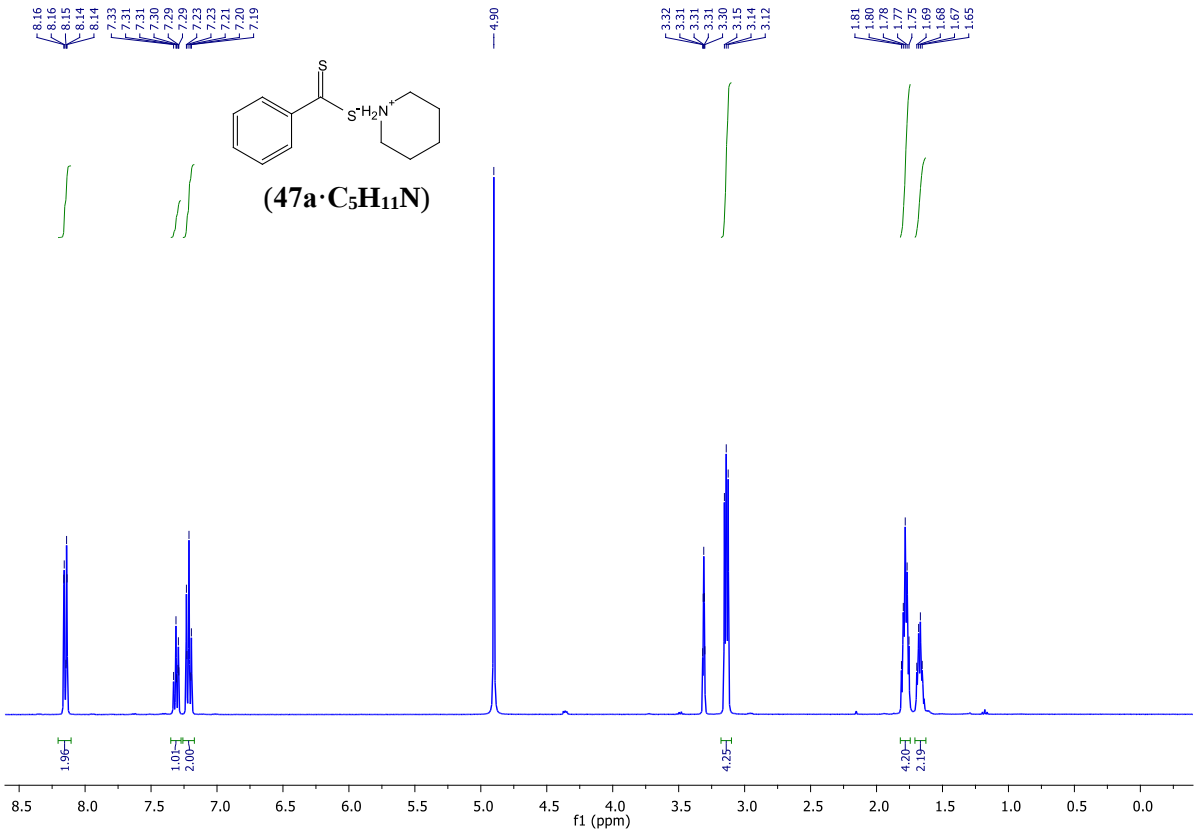
^{1}H NMR spektrum látky **46**.



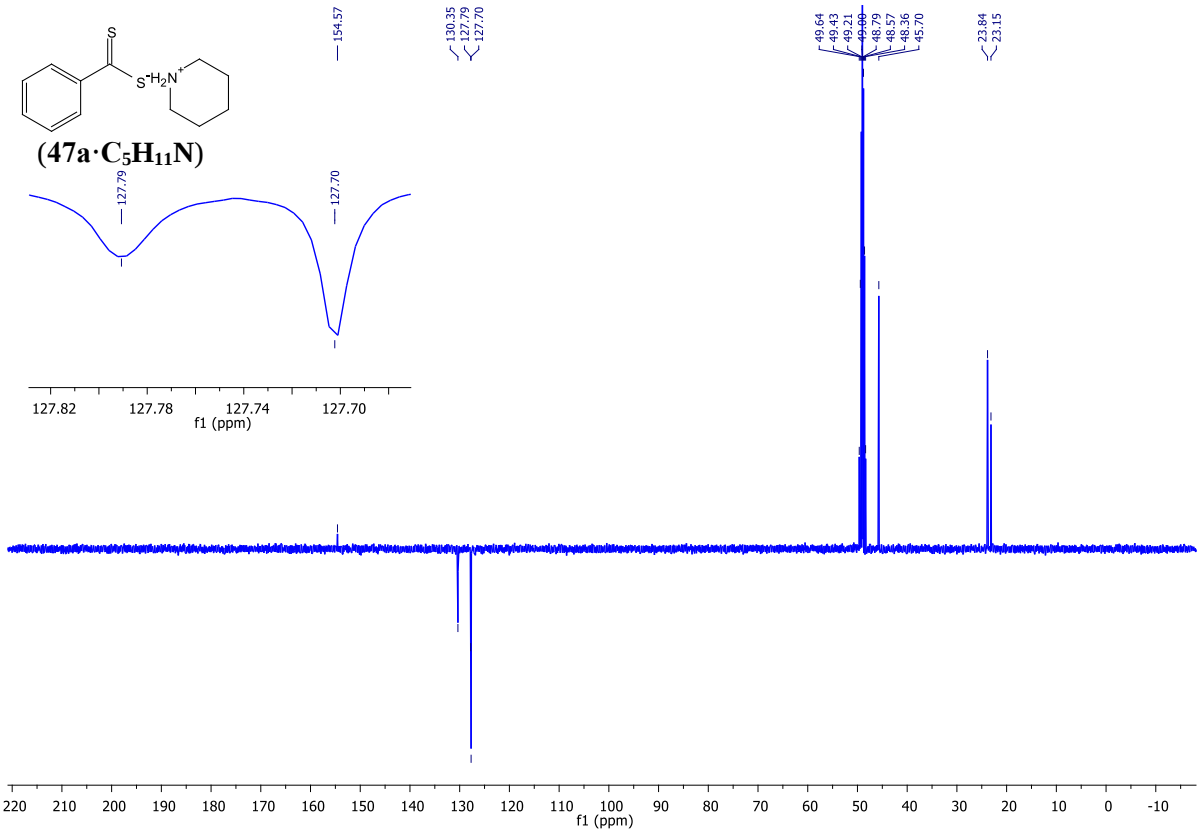
^{13}C NMR-APT spektrum látky **46**.



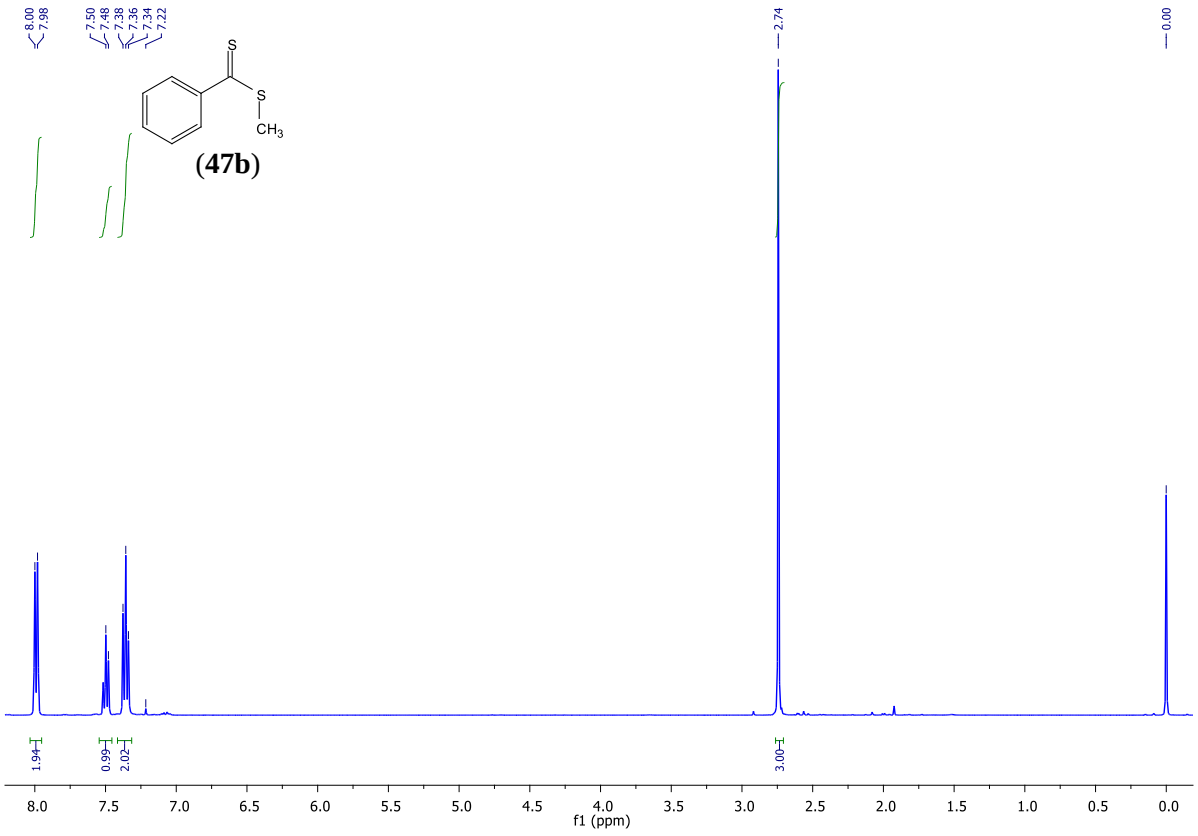
^{1}H NMR spektrum látky **47a**.



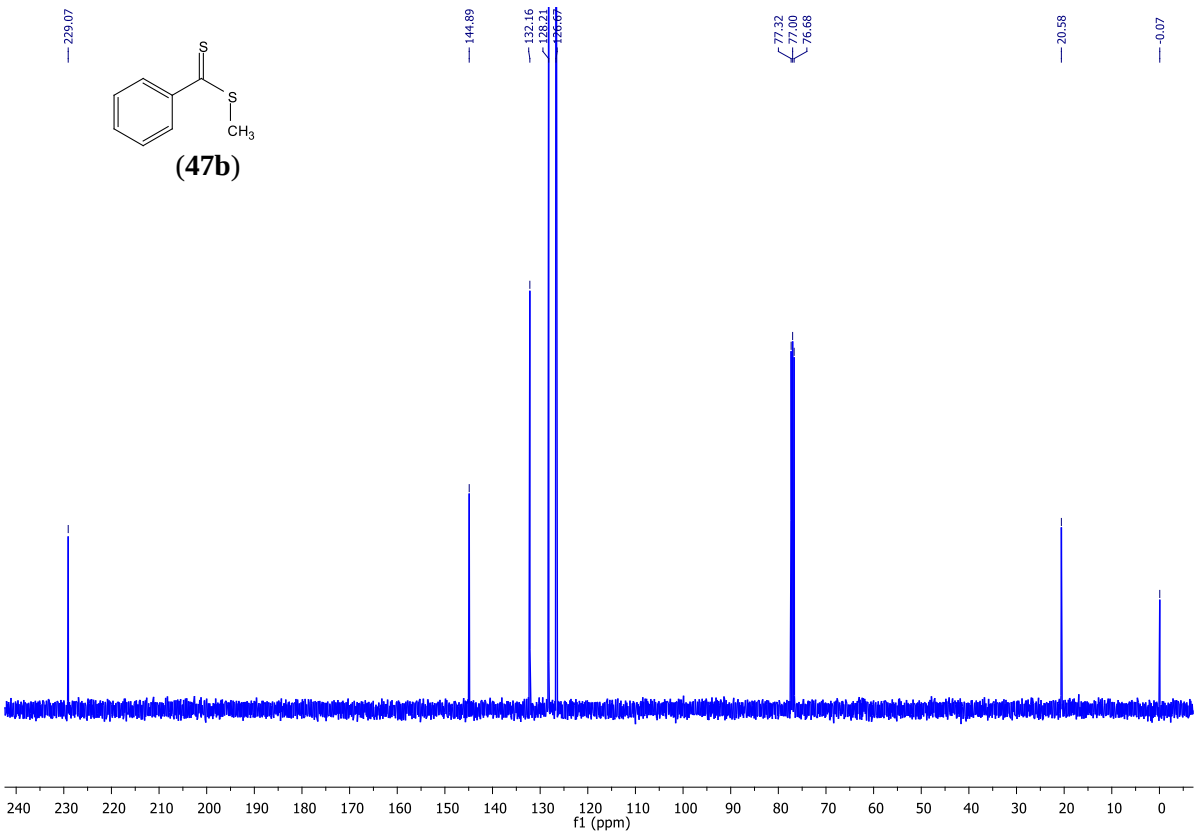
^{1}H NMR spektrum látky **47a·C$_5$H$_{11}$N**.



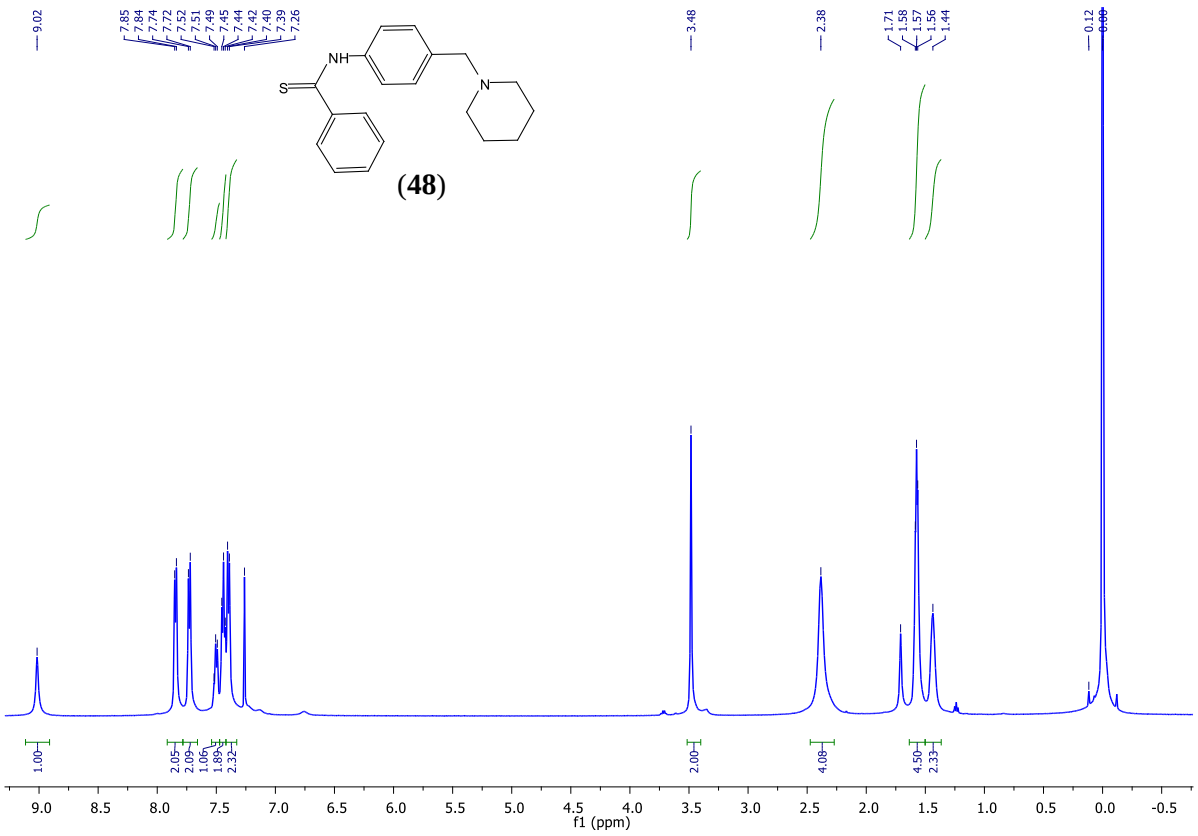
^{13}C NMR-APT spektrum látky **47a·$C_5H_{11}N$**.



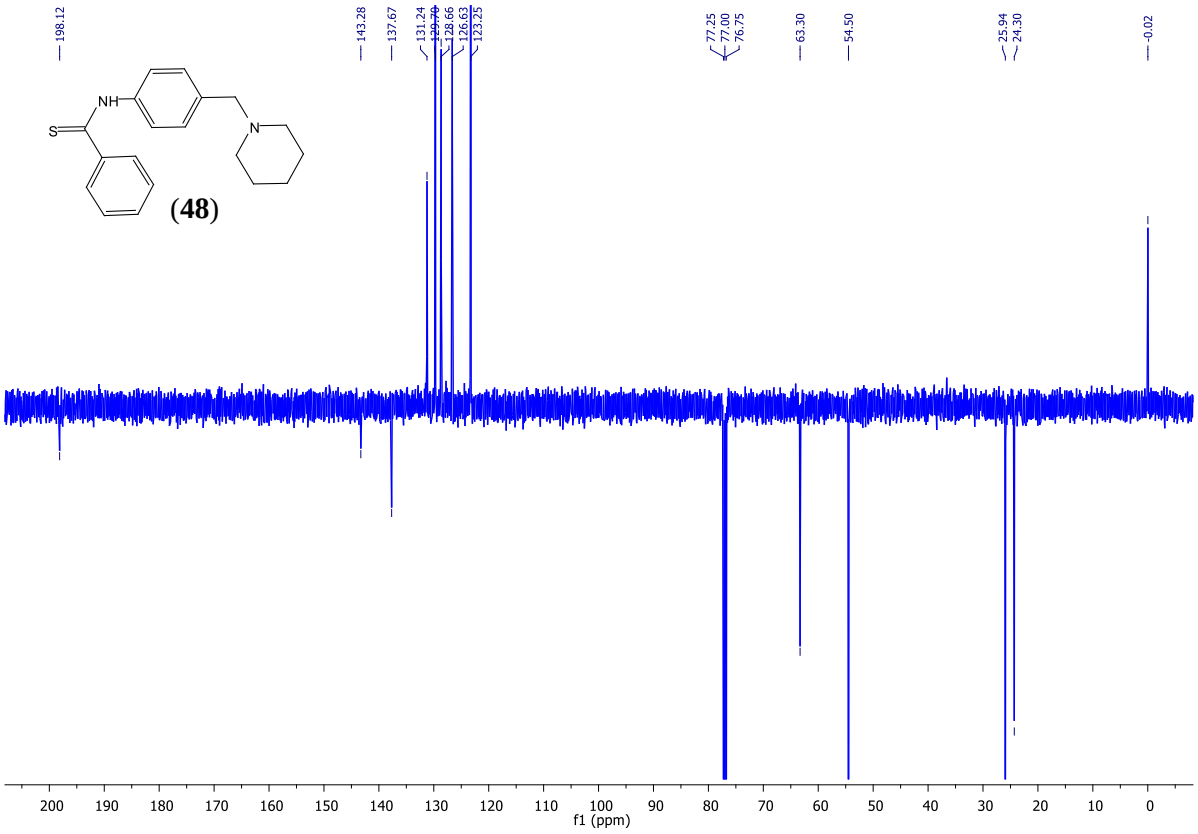
^{1}H NMR spektrum látky **47b**.



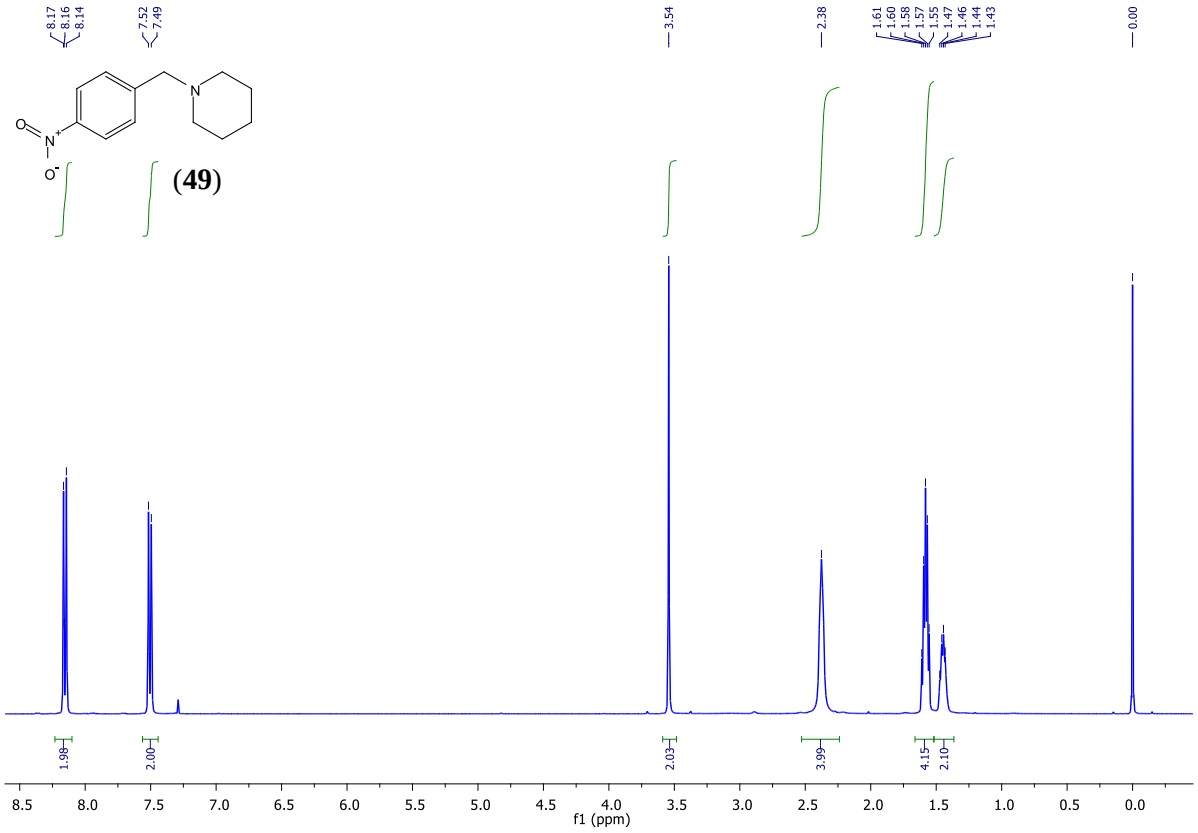
^{13}C NMR spektrum látky **47b**.



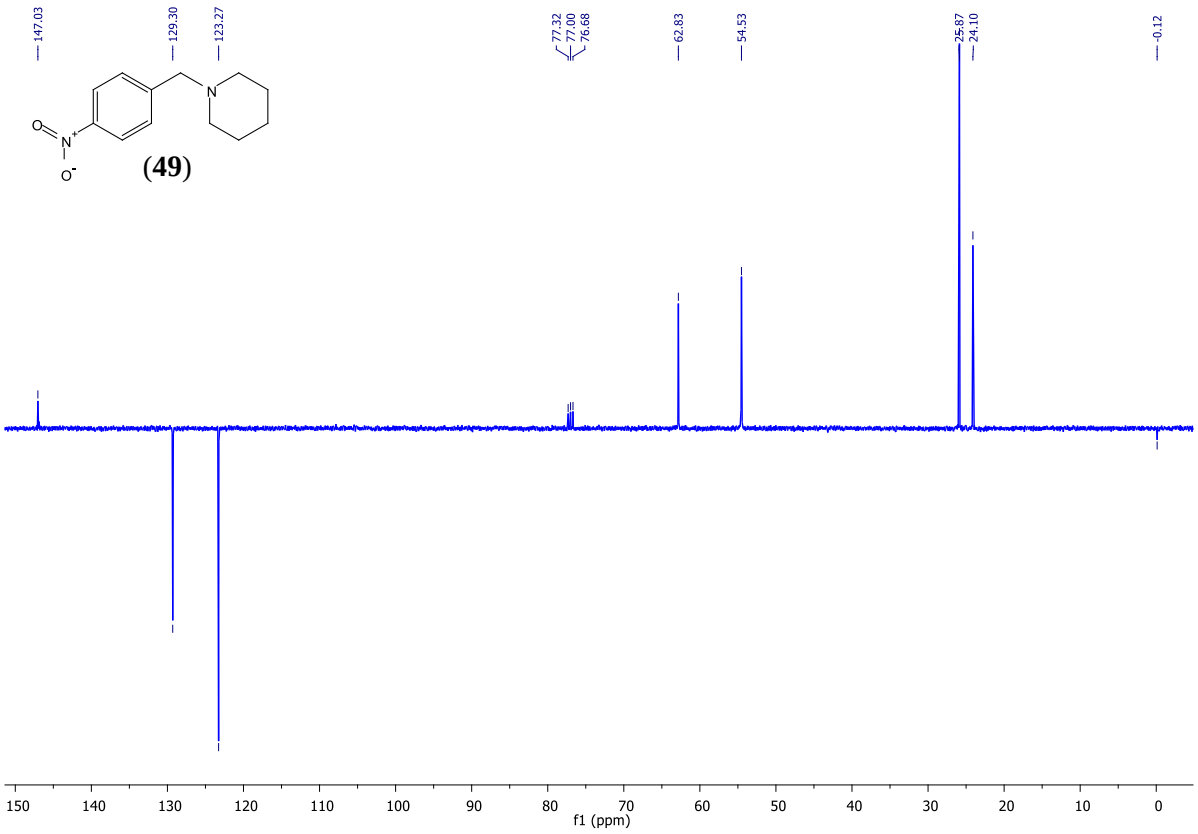
^{1}H NMR spektrum látky **48**.



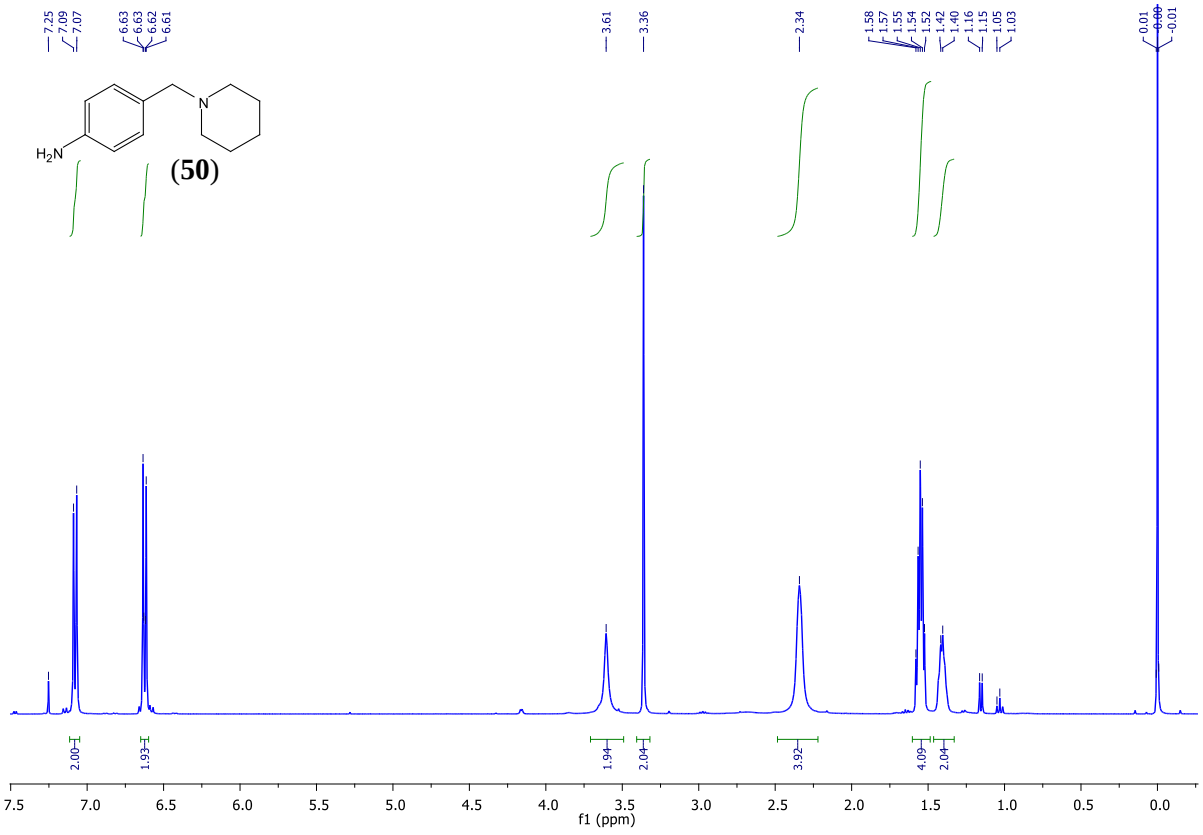
^{13}C NMR-APT spektrum látky **48**.



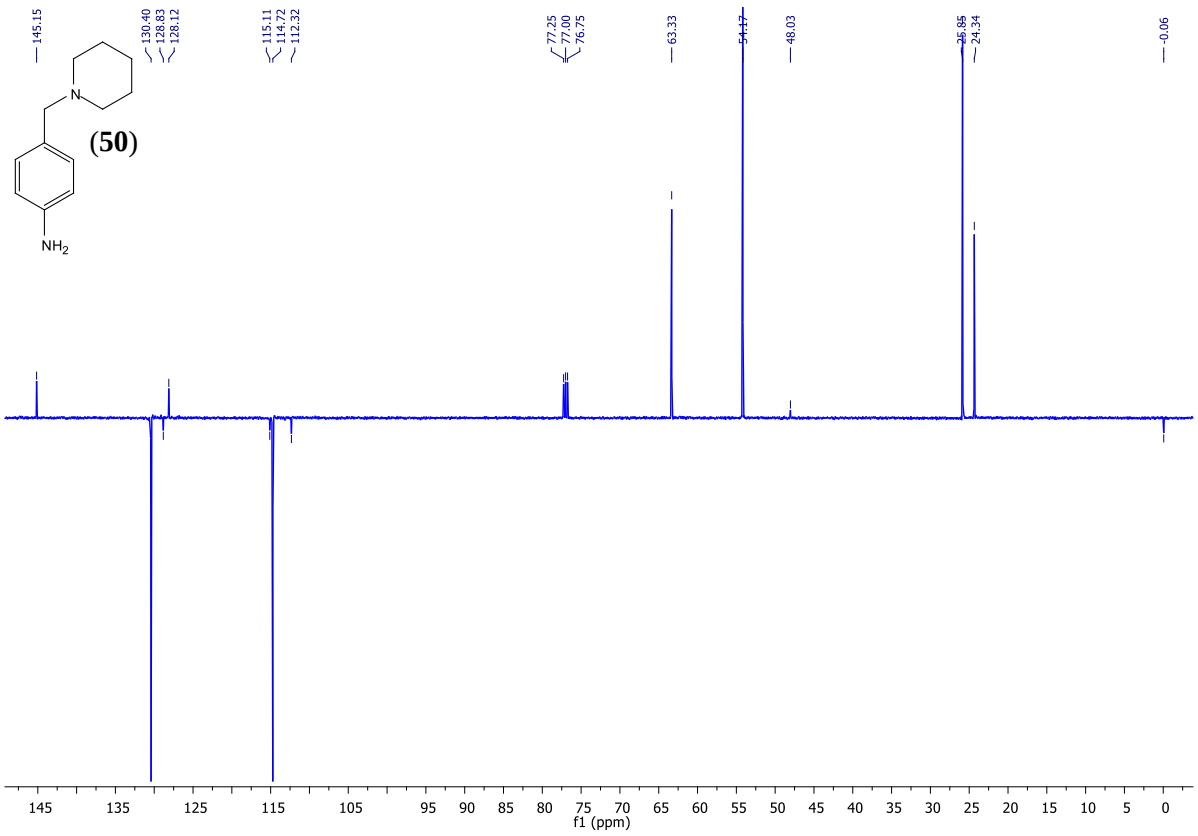
^{1}H NMR spektrum látky **49**.



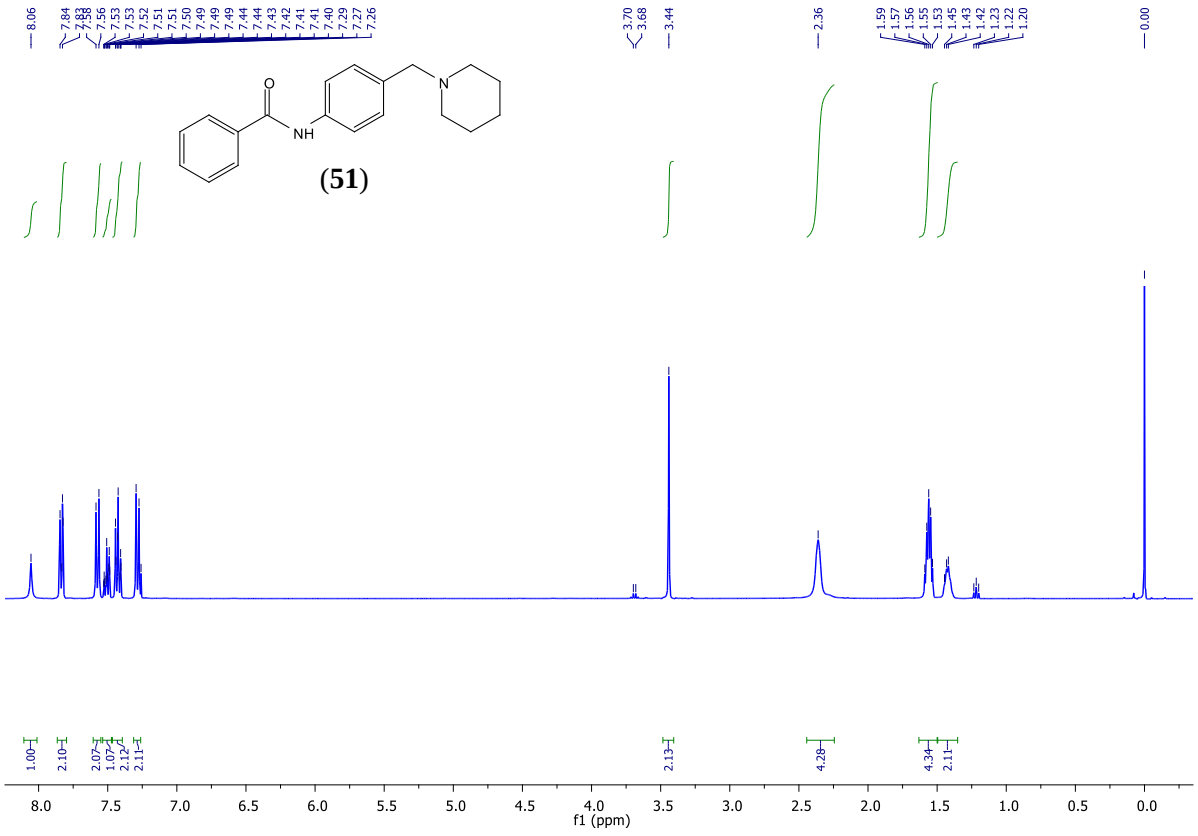
^{13}C NMR-APT spektrum látky **49**.



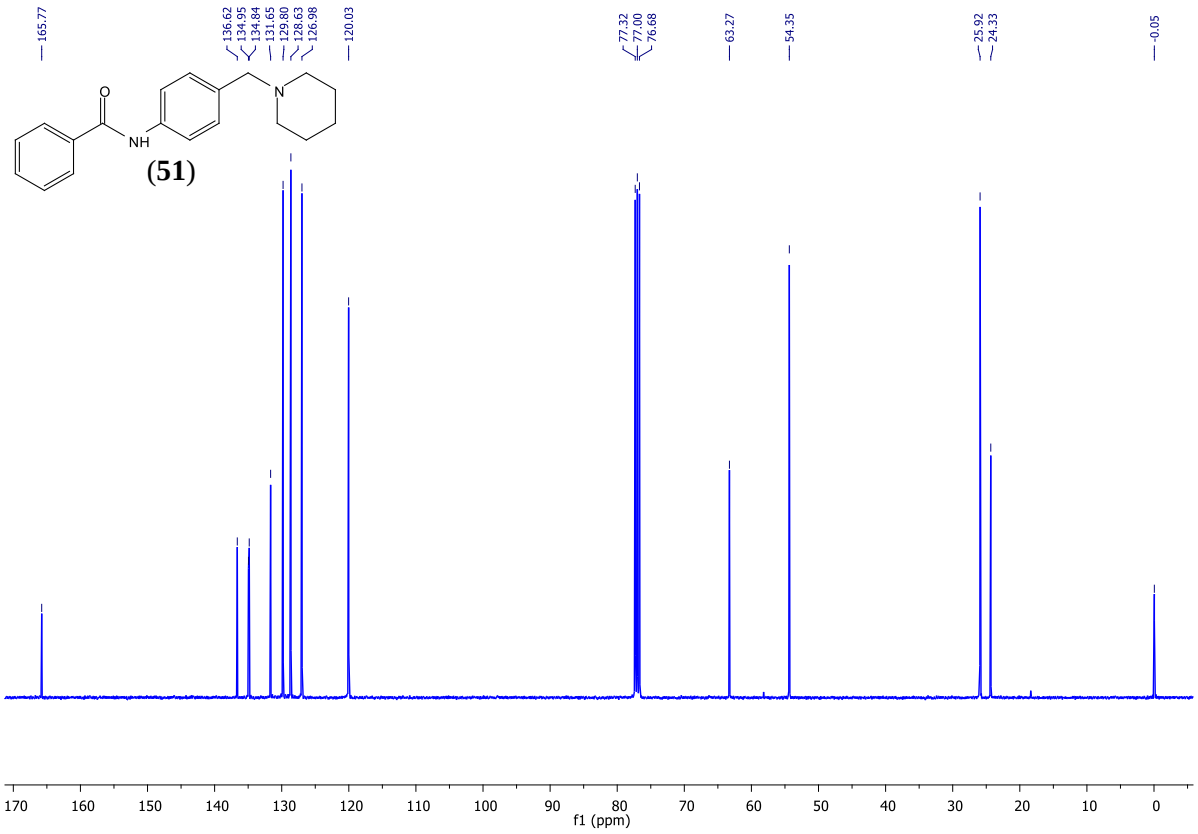
^{1}H NMR spektrum látky **50**.



^{13}C NMR-APT spektrum látky **50**.

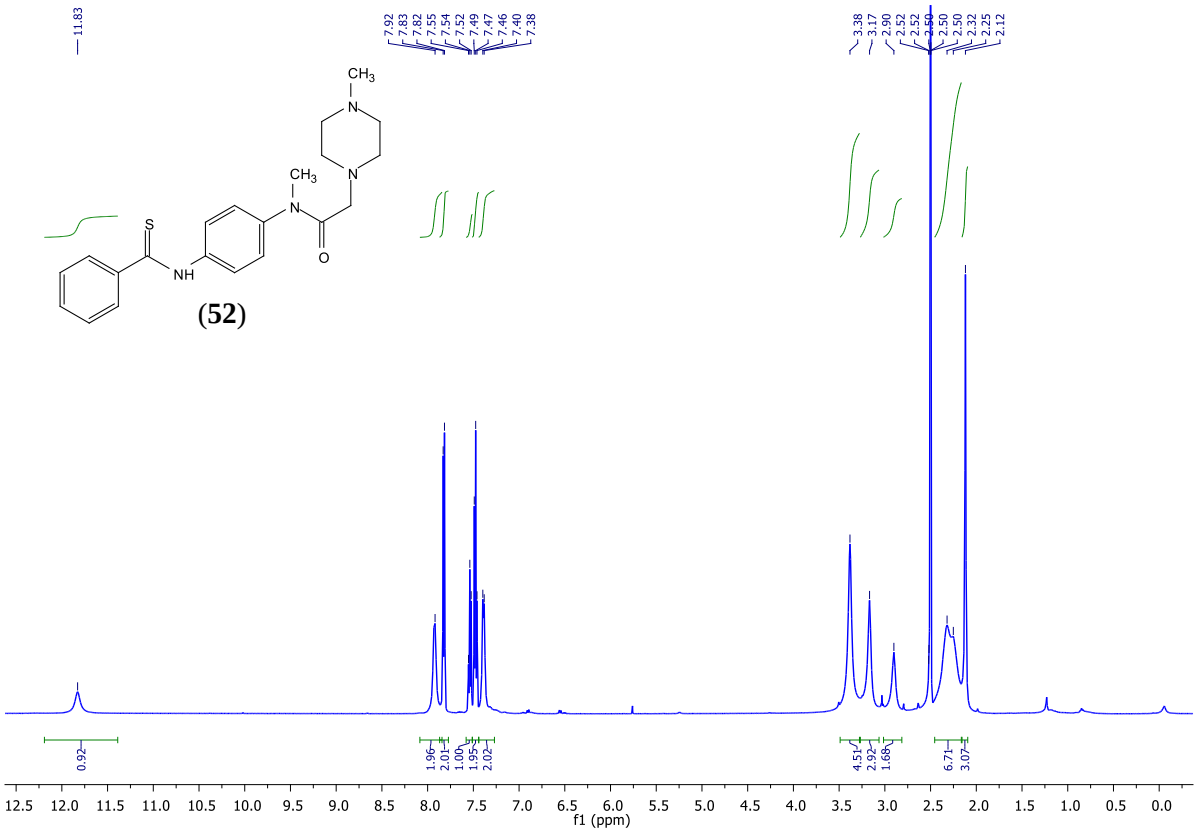


^{1}H NMR spektrum látky **51**.



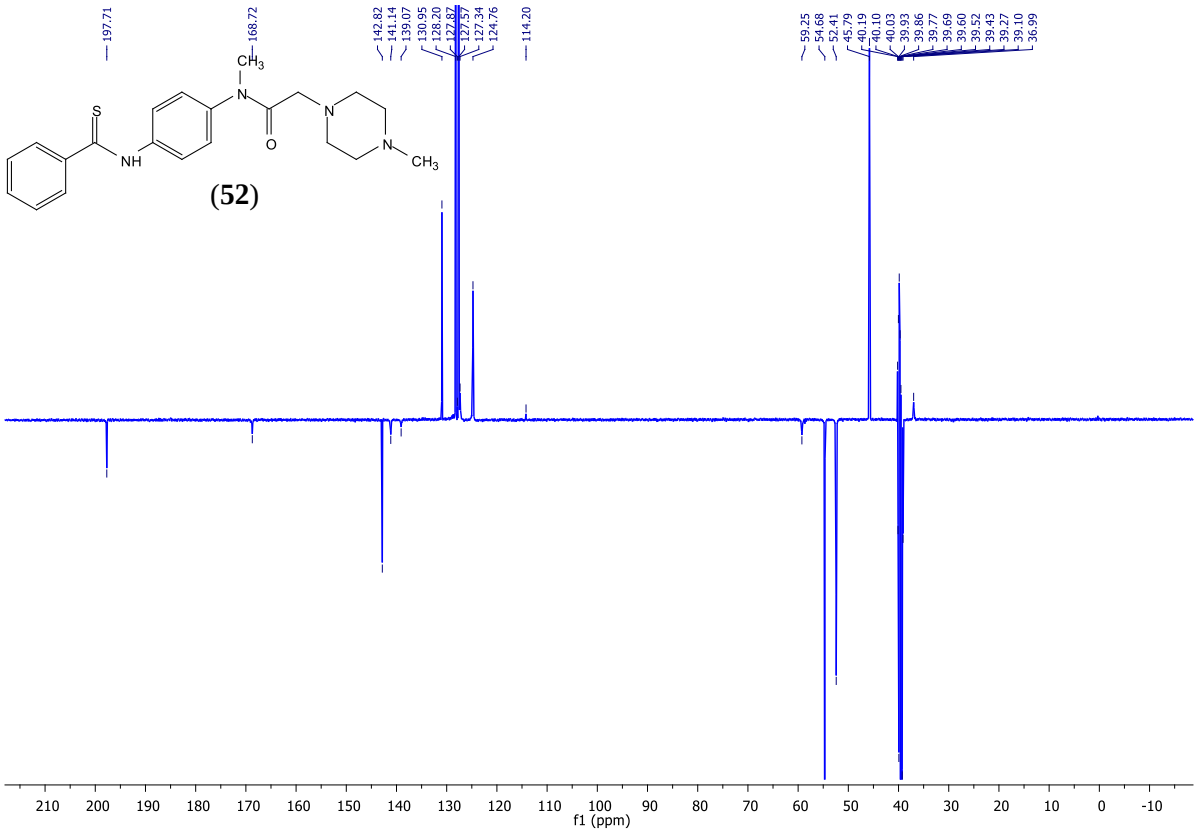
(**51**)

^{13}C NMR spektrum látky **51**.

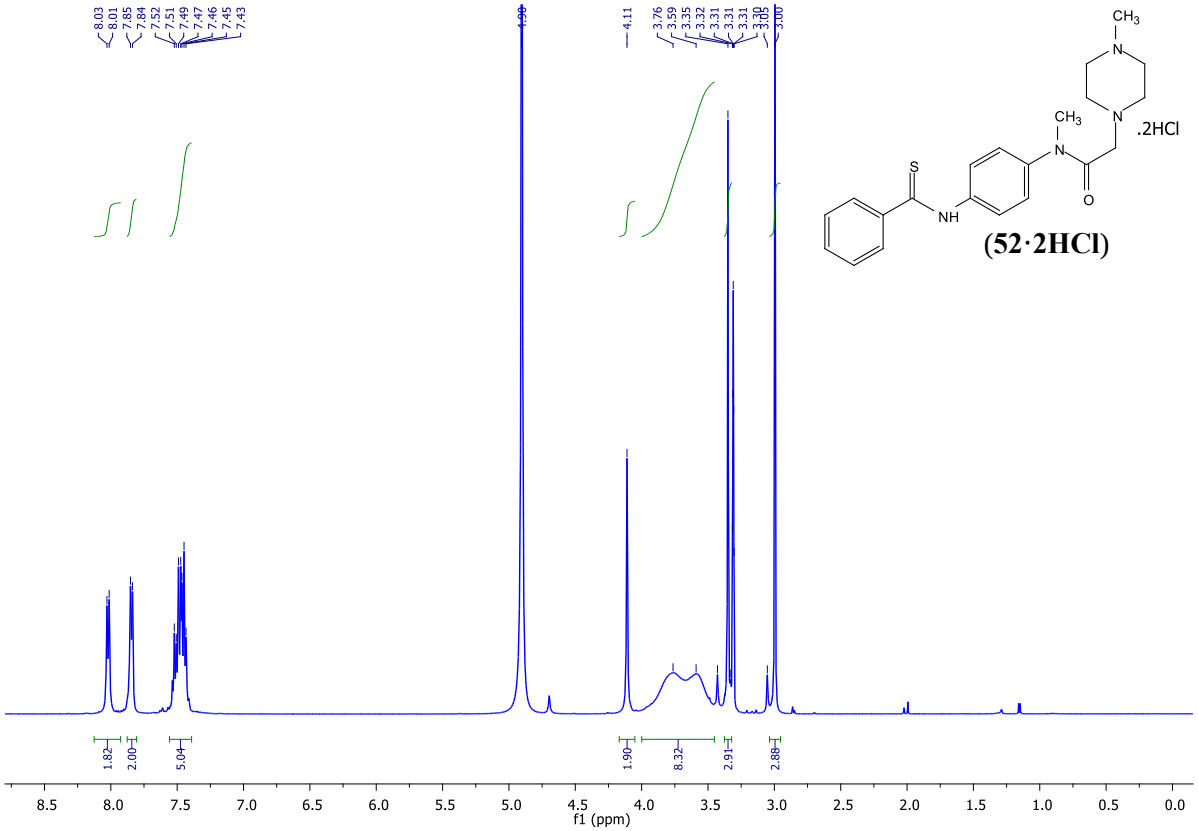


(**52**)

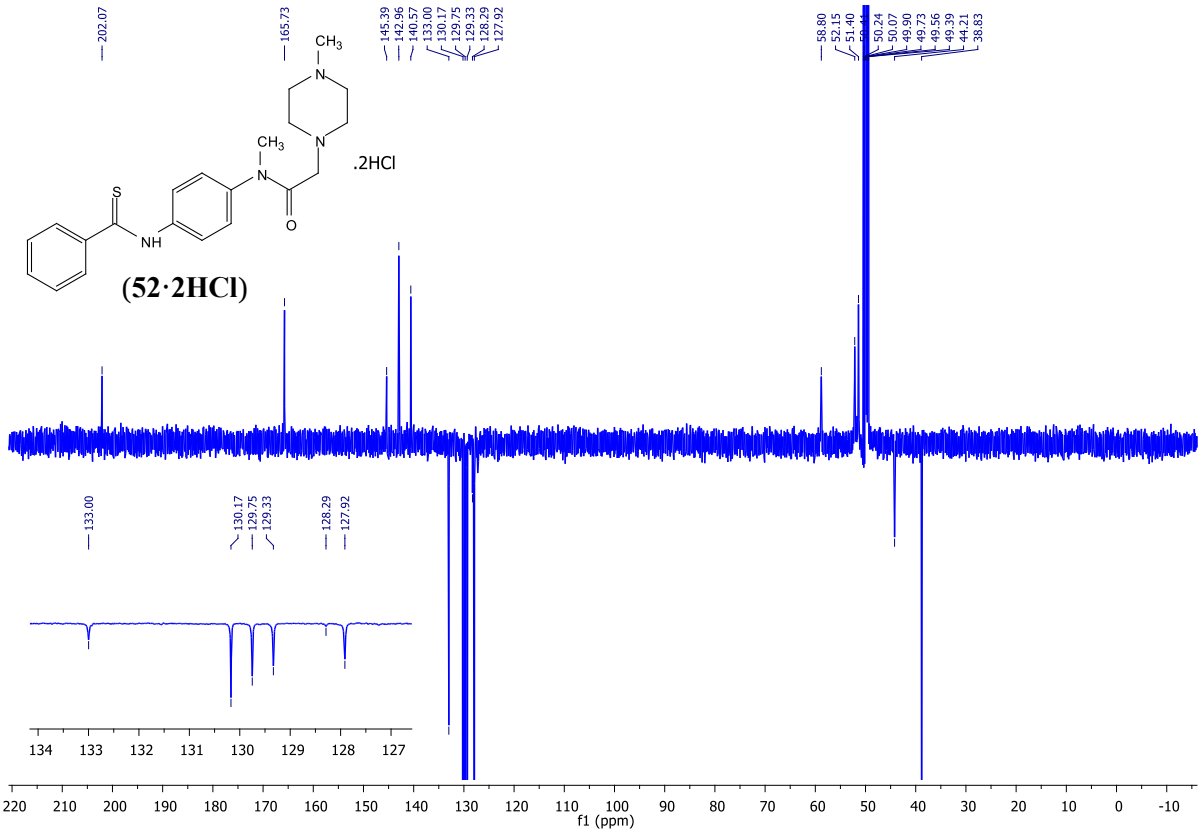
^{1}H NMR spektrum látky **52**.



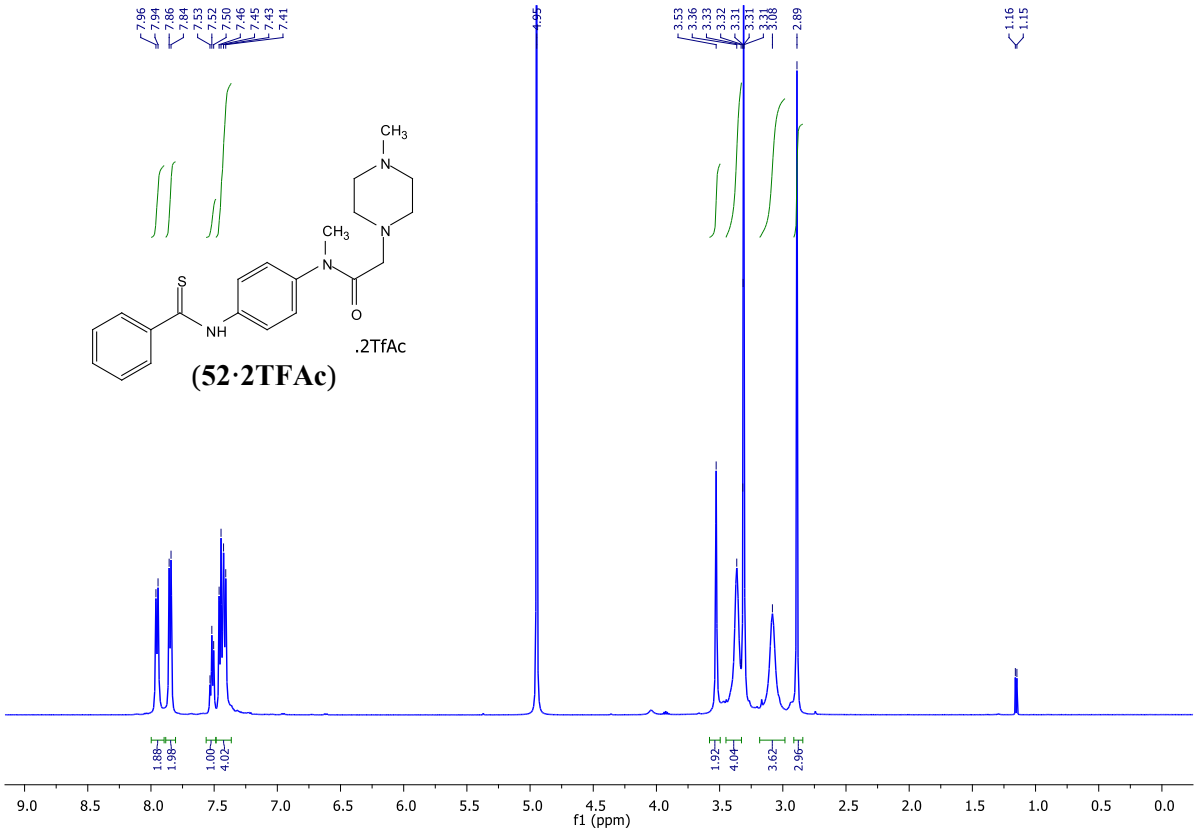
^{13}C NMR-APT spektrum látky **52**.



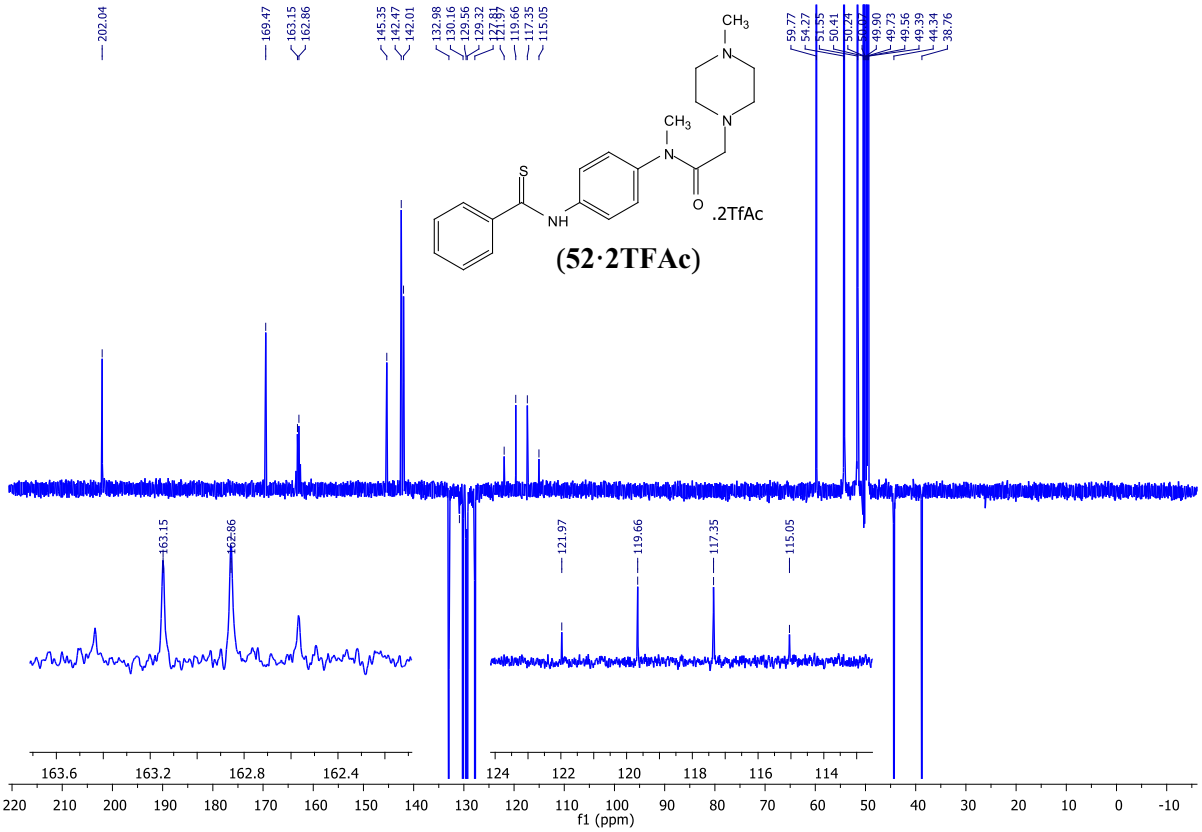
^{1}H NMR spektrum látky **52·2HCl**.



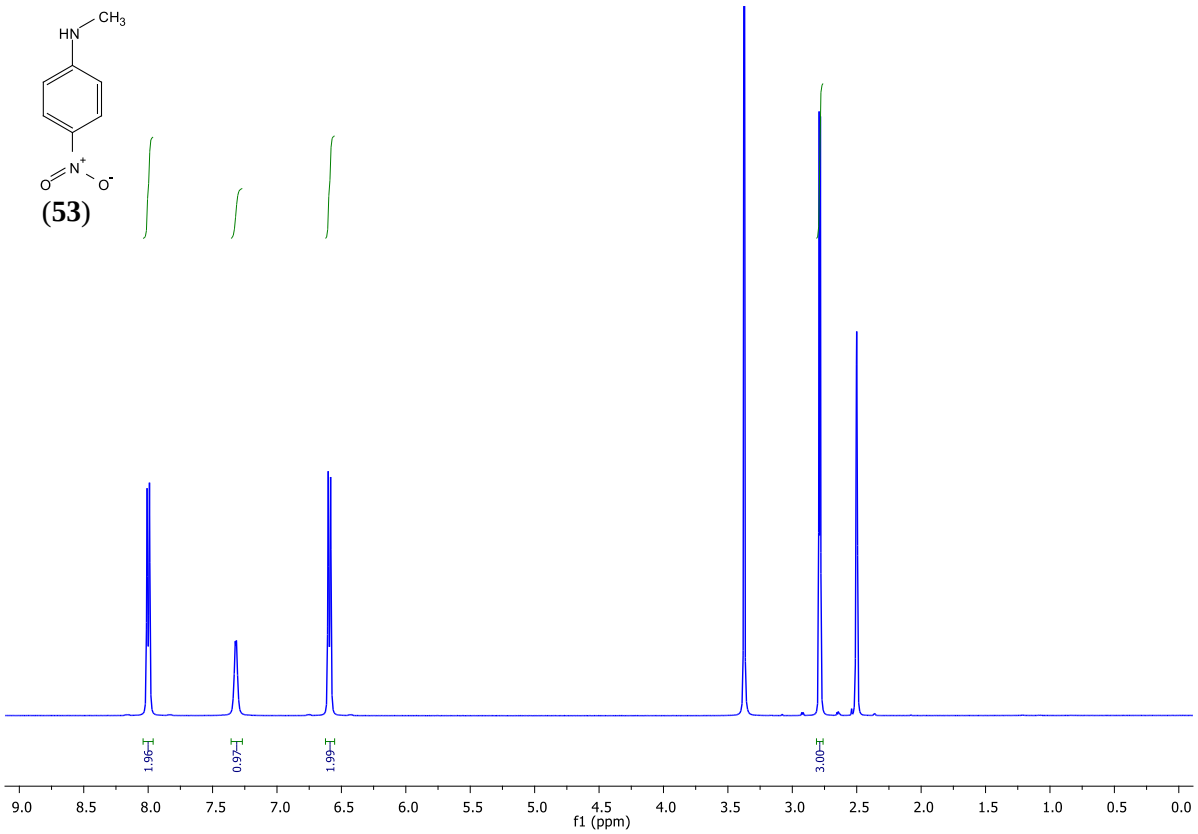
^{13}C NMR-APT spektrum látky **52·2HCl**.



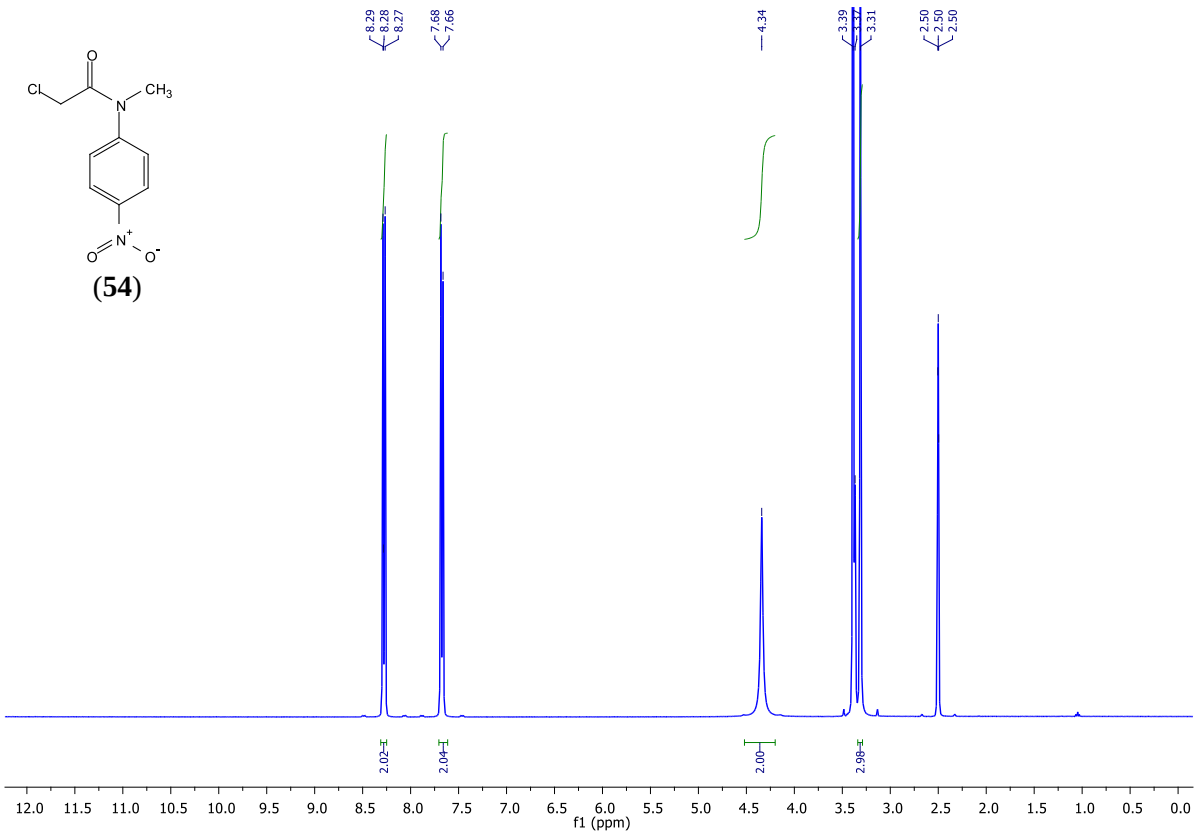
^{1}H NMR spektrum látky **52·2TFAc**.



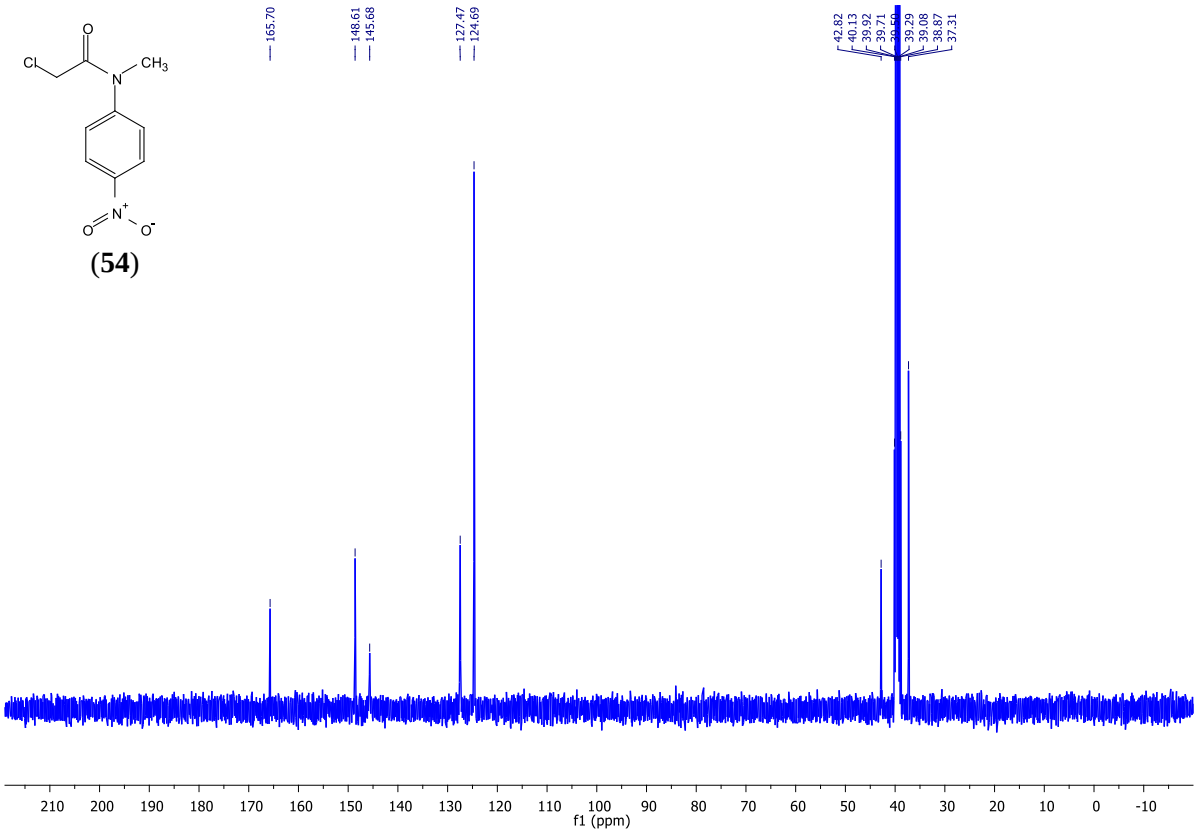
^{13}C NMR-APT spektrum látky **52·2TFAc**.



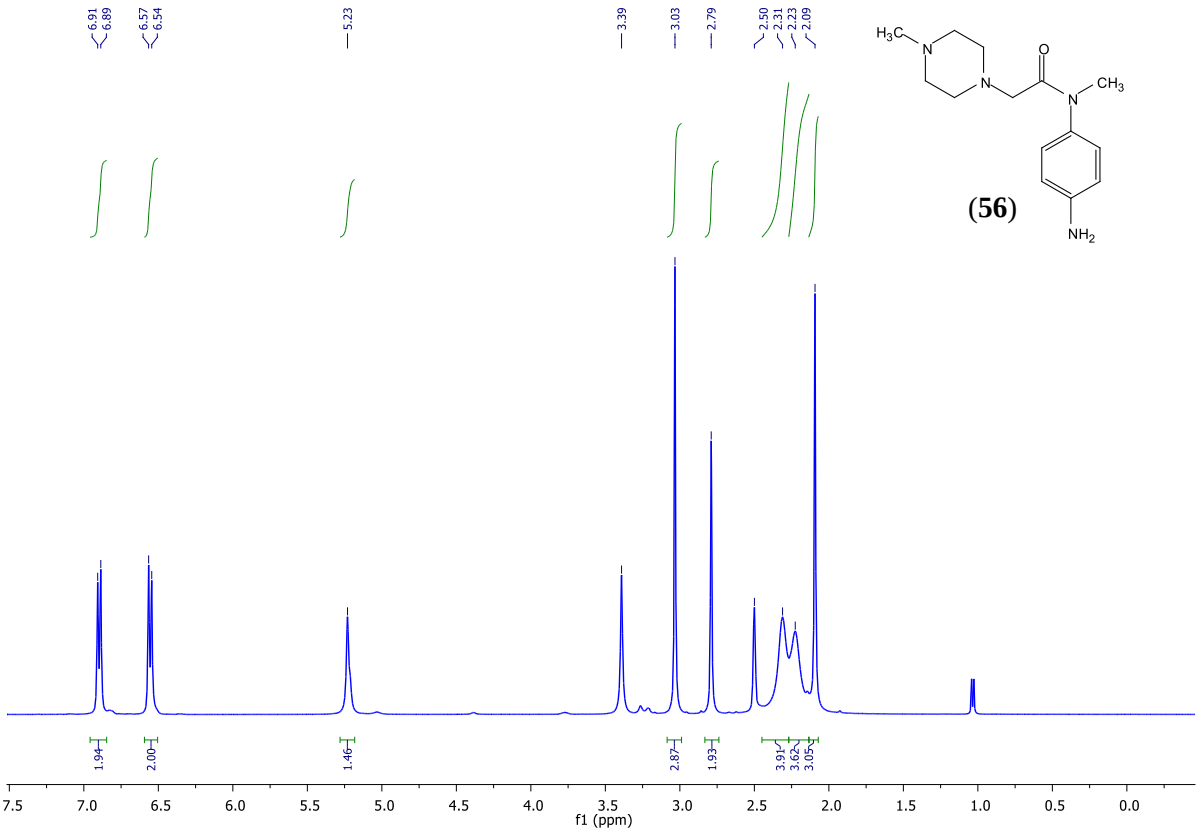
^{1}H NMR spektrum látky **53**.



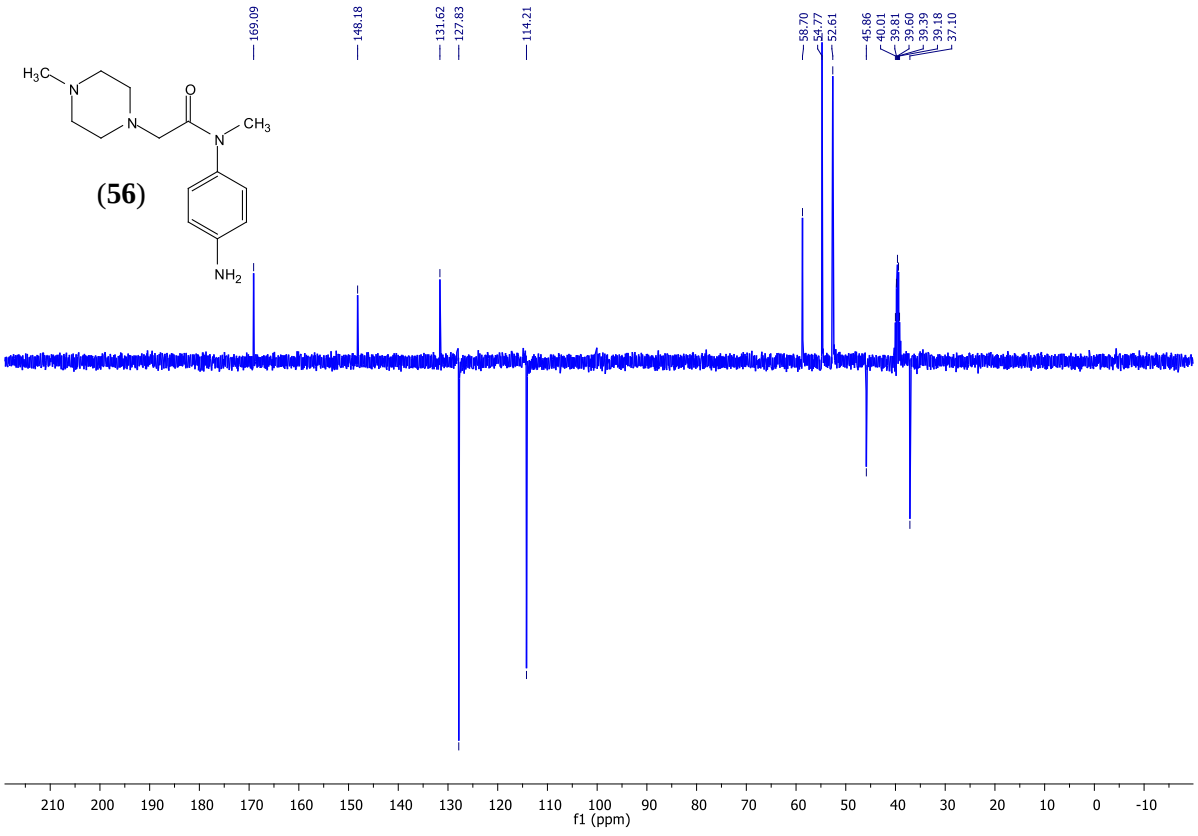
^{1}H NMR spektrum látky **54**.



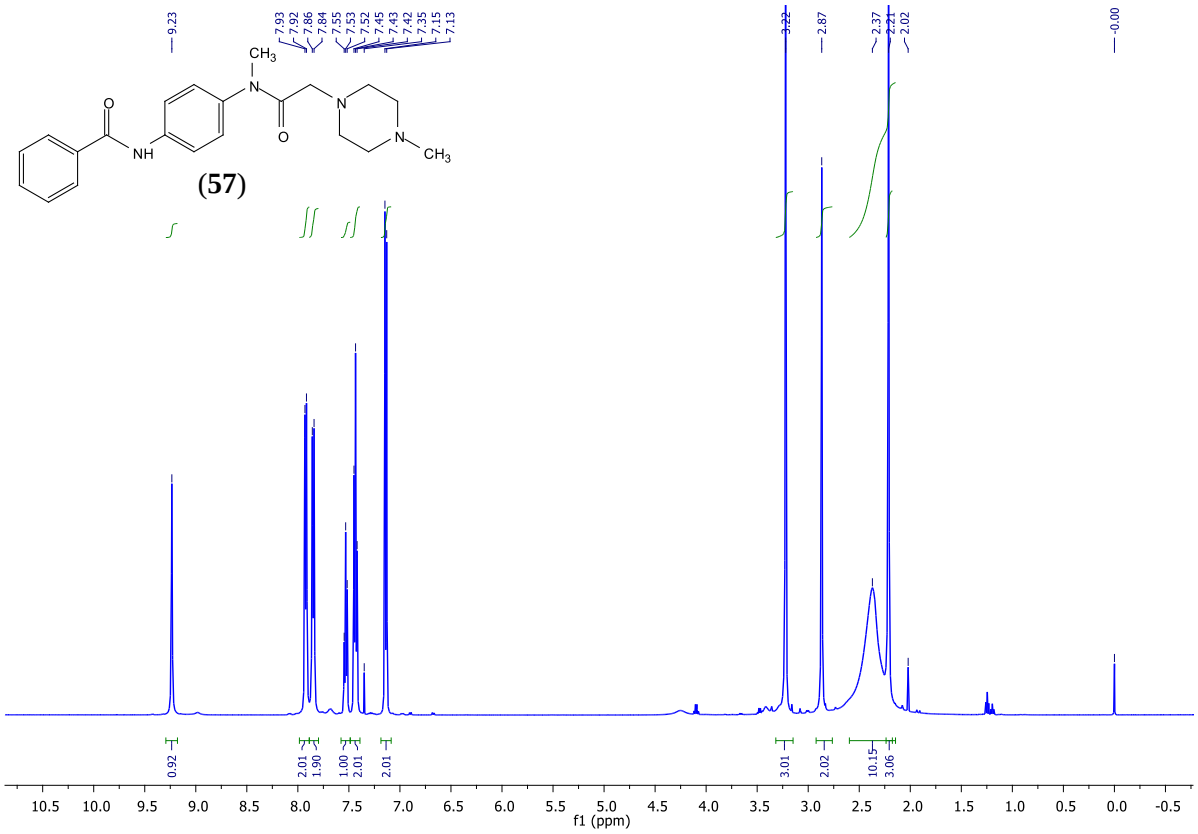
^{13}C NMR spektrum látky **54**.



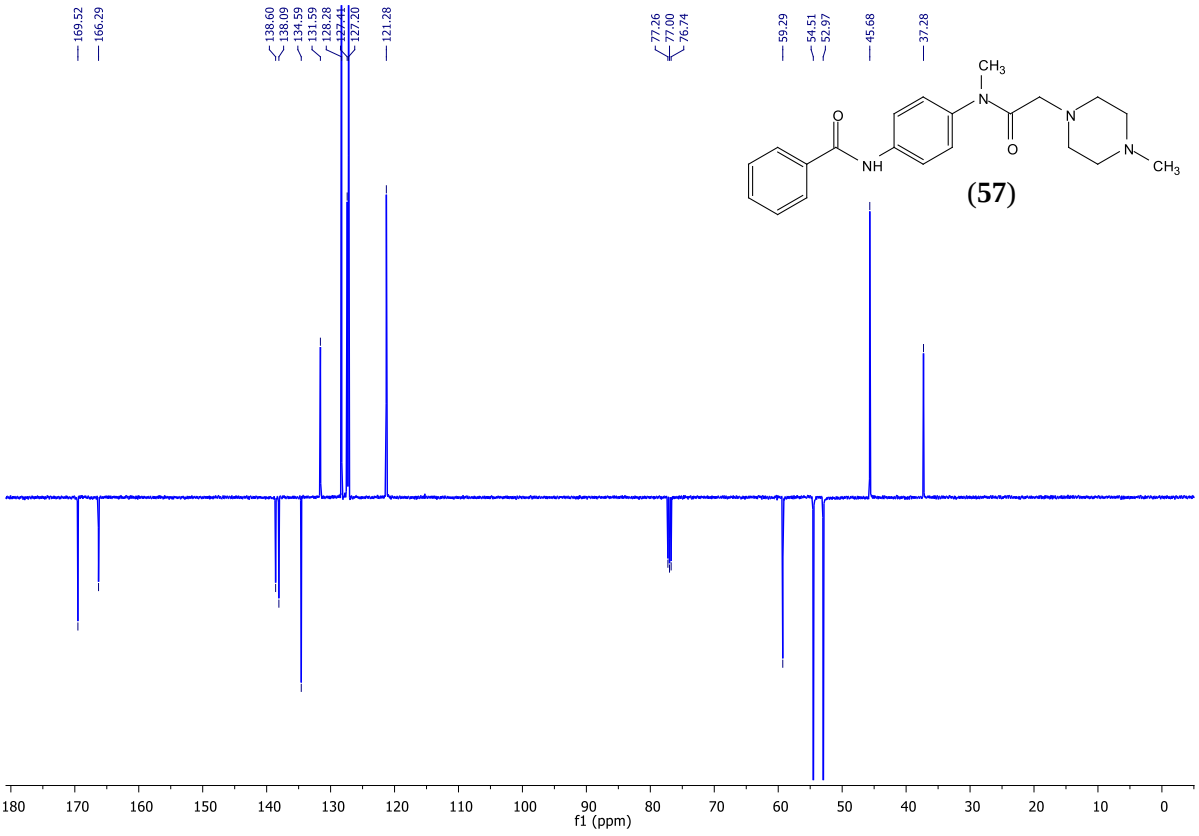
^{1}H NMR spektrum látky **56**.



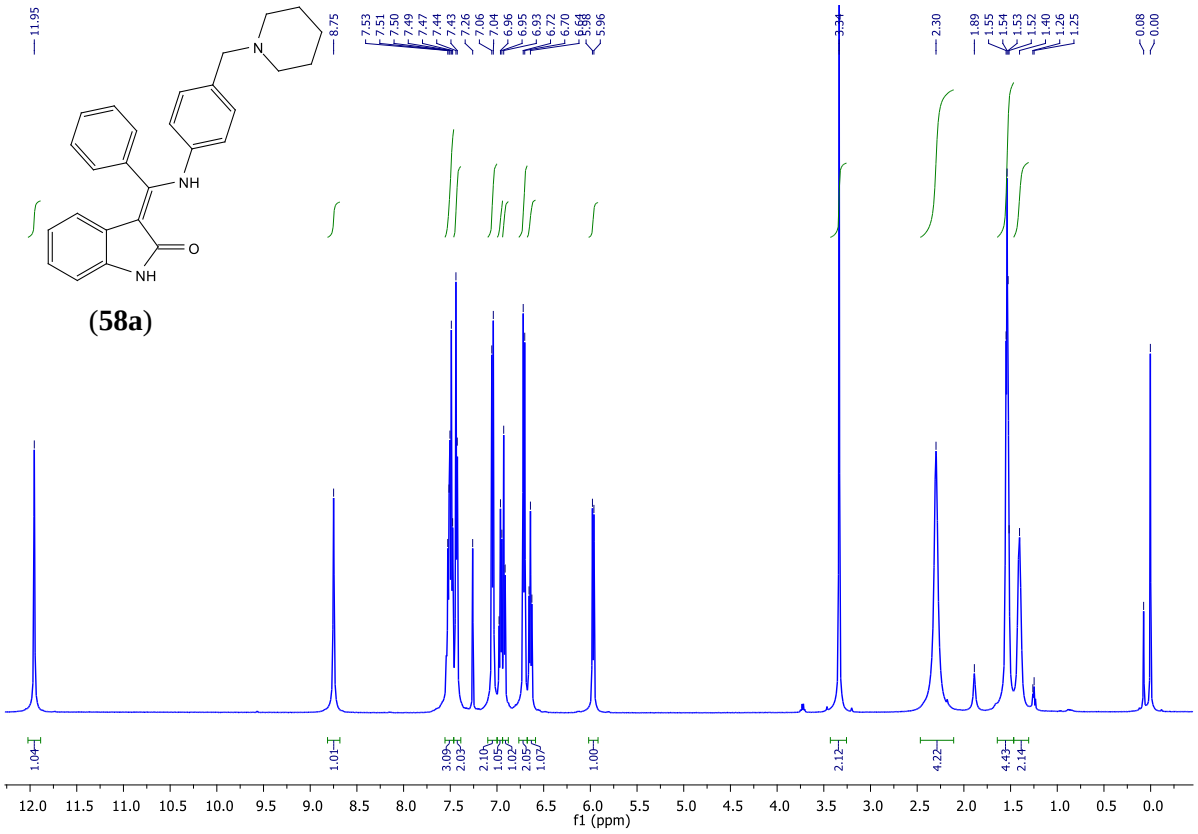
^{13}C NMR-APT spektrum látky **56**.



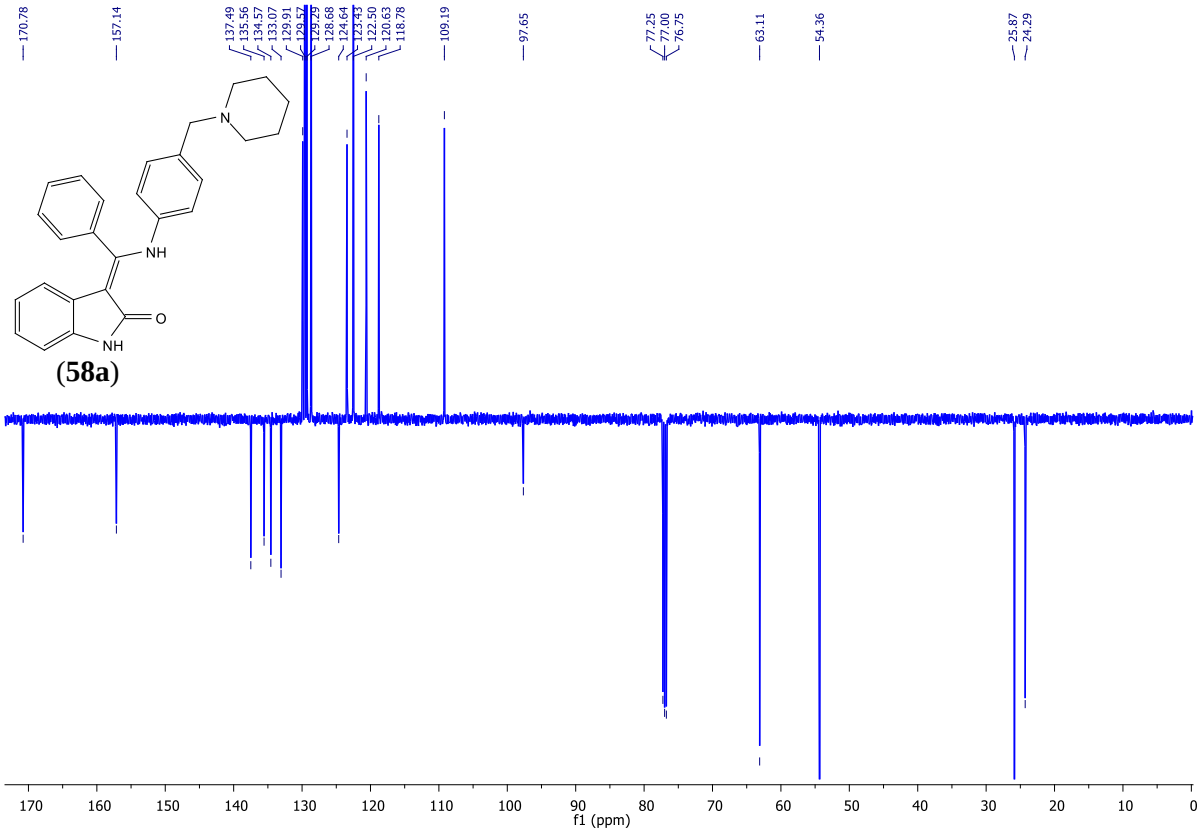
^{1}H NMR spektrum látky **57**.



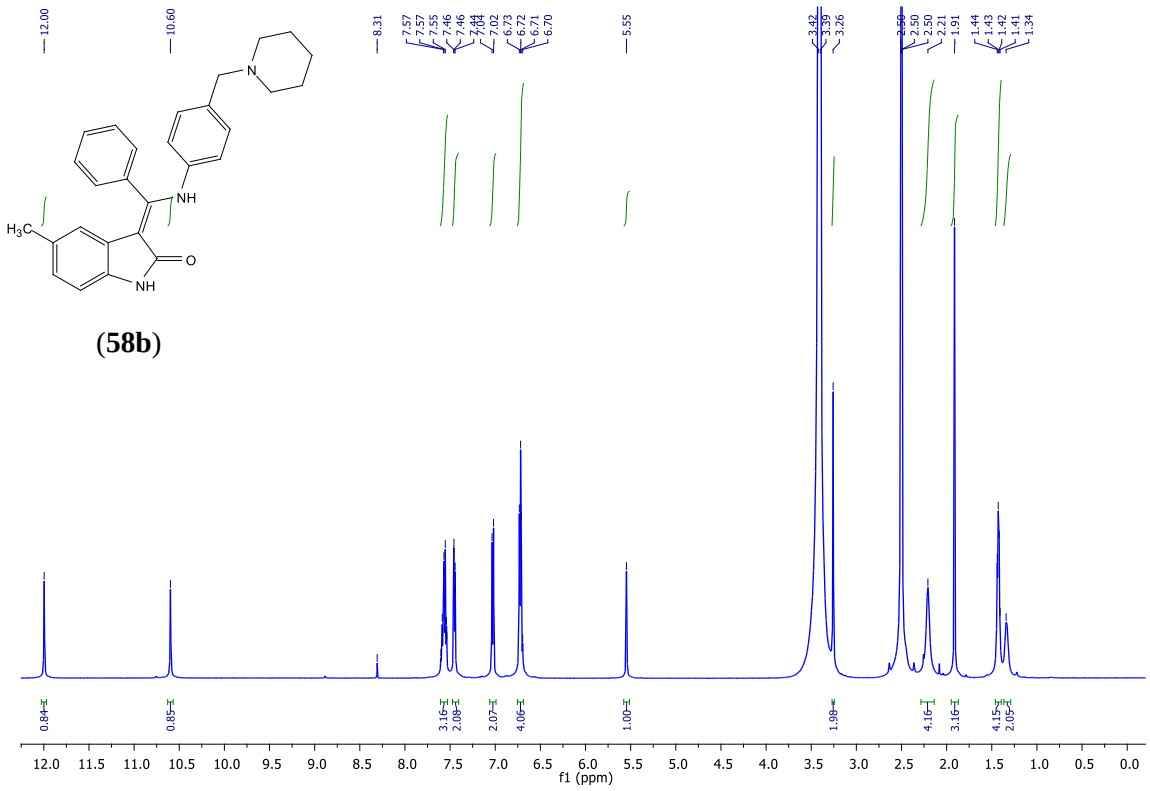
^{13}C NMR-APT spektrum látky **57**.



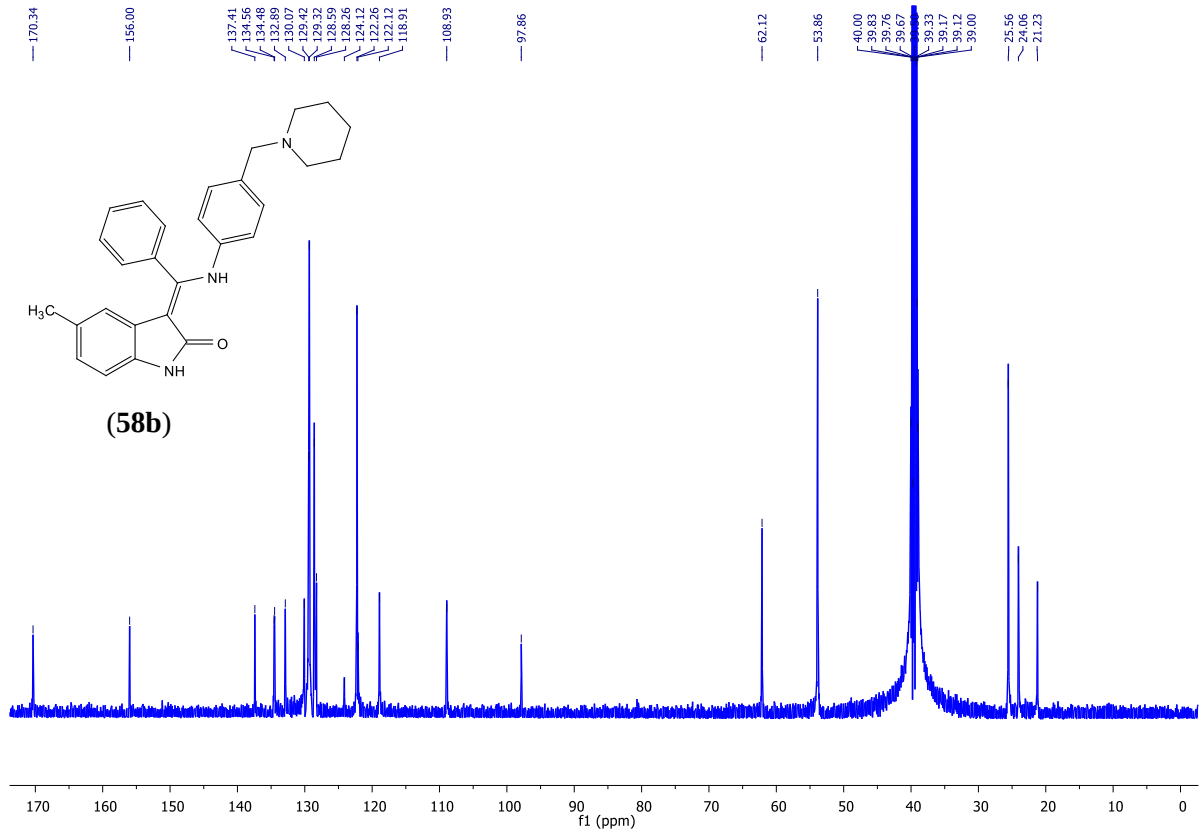
^{1}H NMR spektrum látky **58a**.



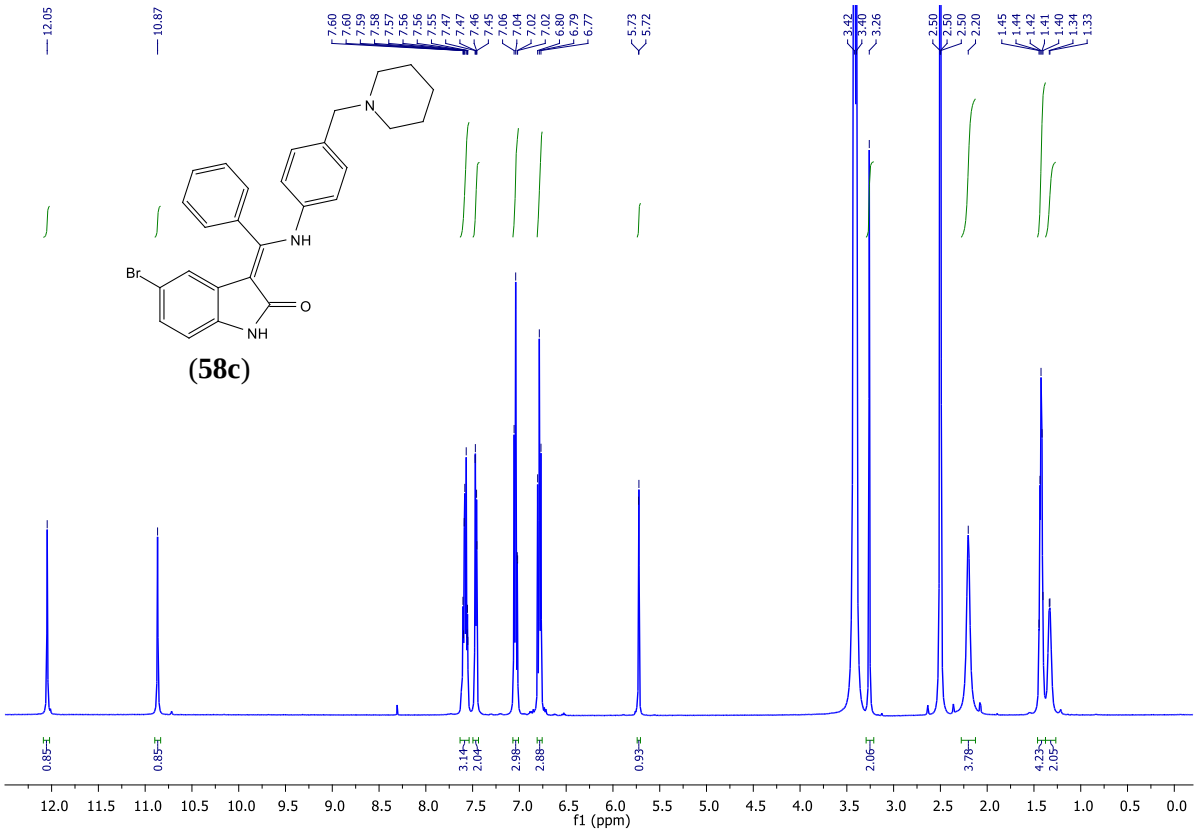
^{13}C NMR-APT spektrum látky **58a**.



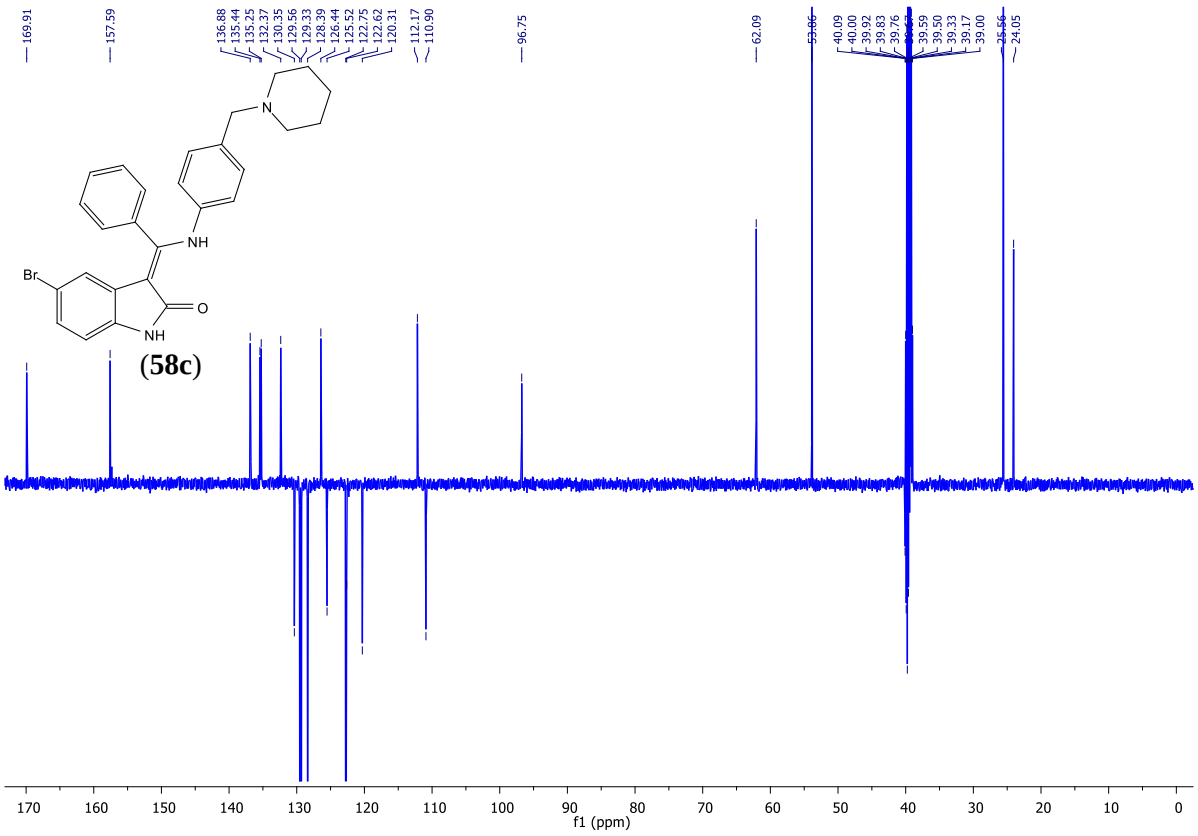
^{1}H NMR spektrum látky **58b**.



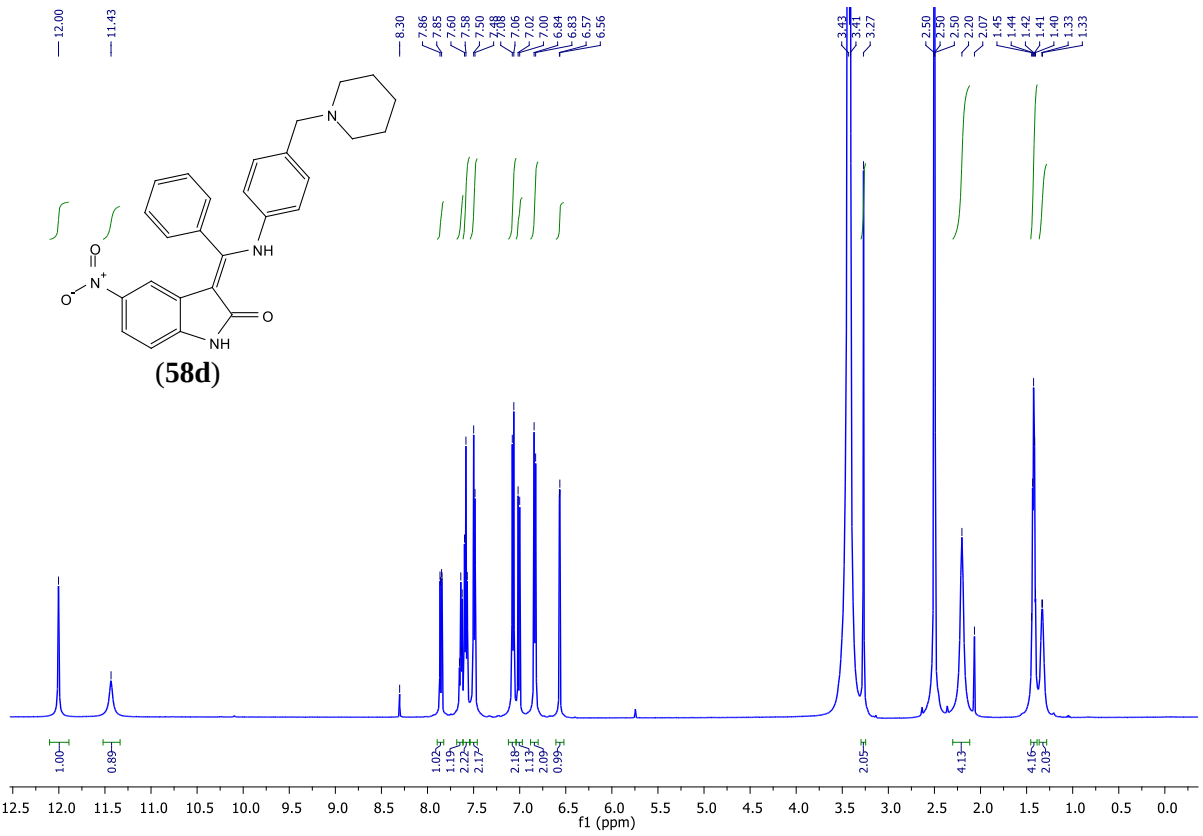
^{13}C NMR spektrum látky **58b**.



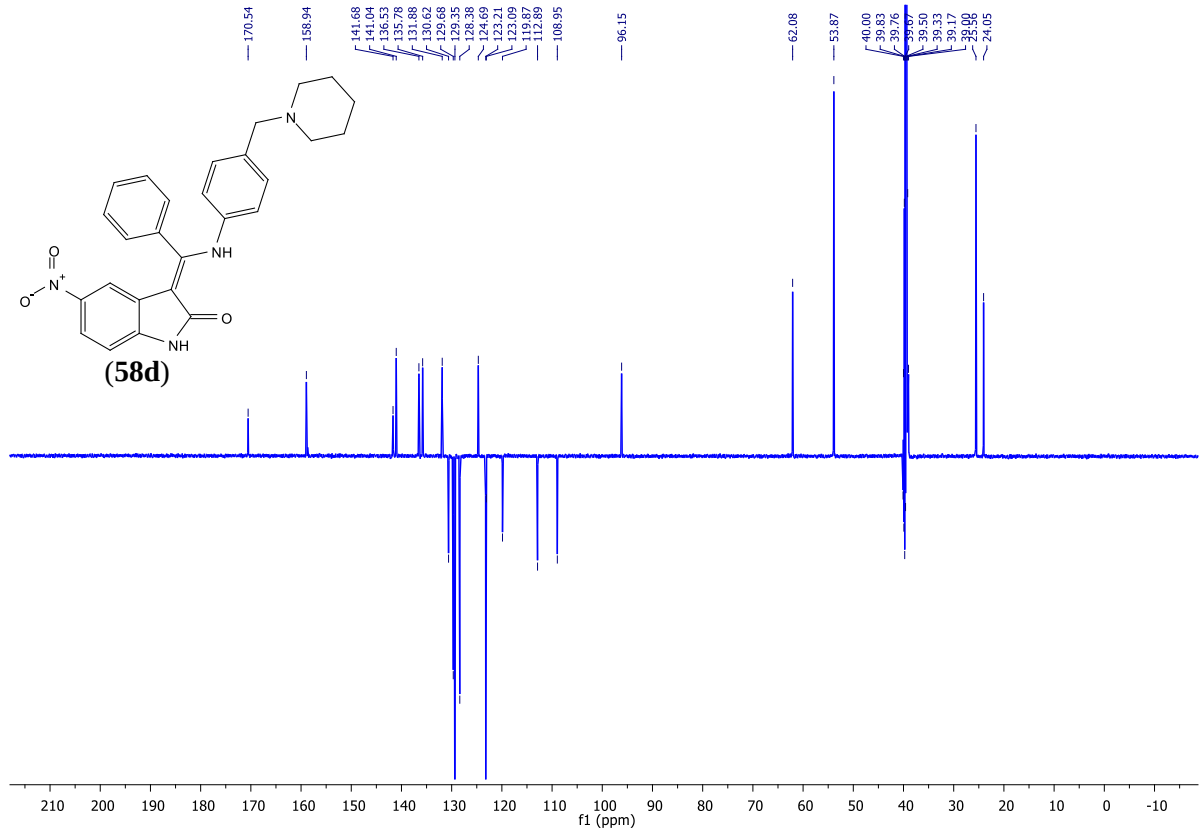
^{1}H NMR spektrum látky **58c**.



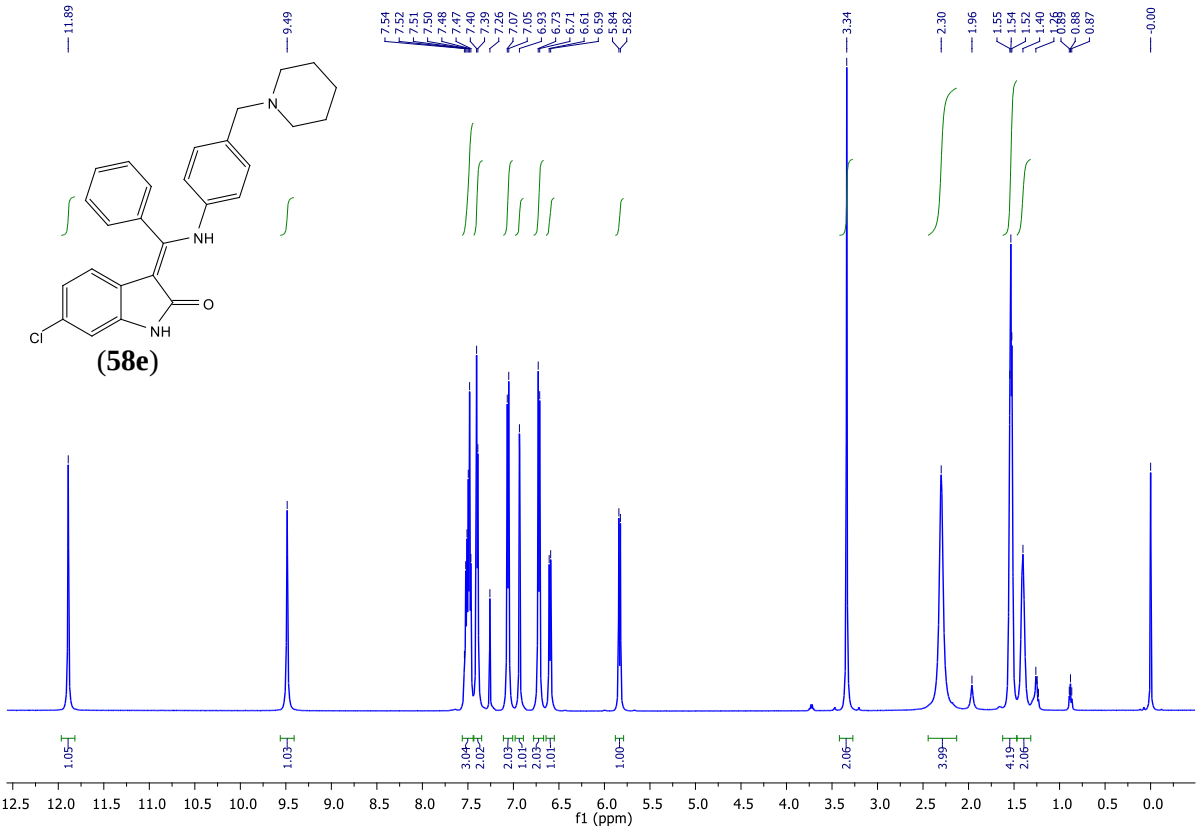
^{13}C NMR-APT spektrum látky **58c**.



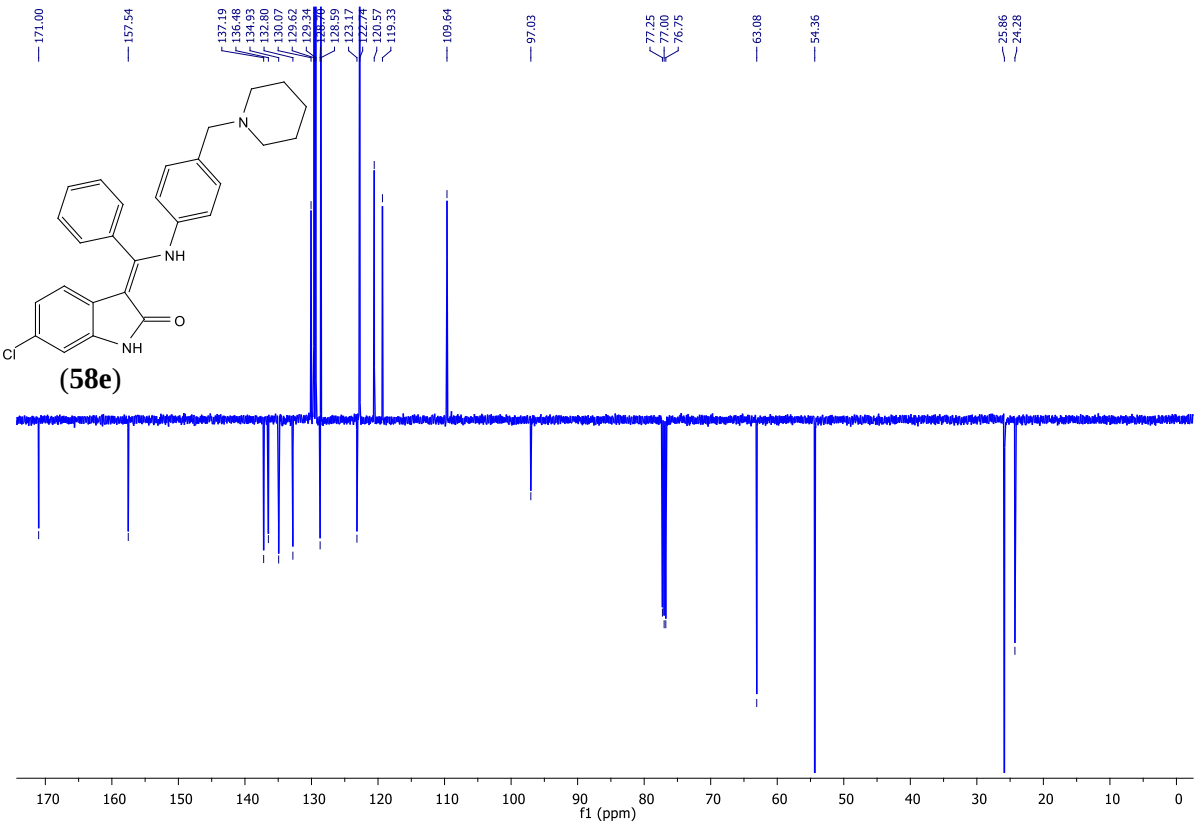
^{1}H NMR spektrum látky **58d**.



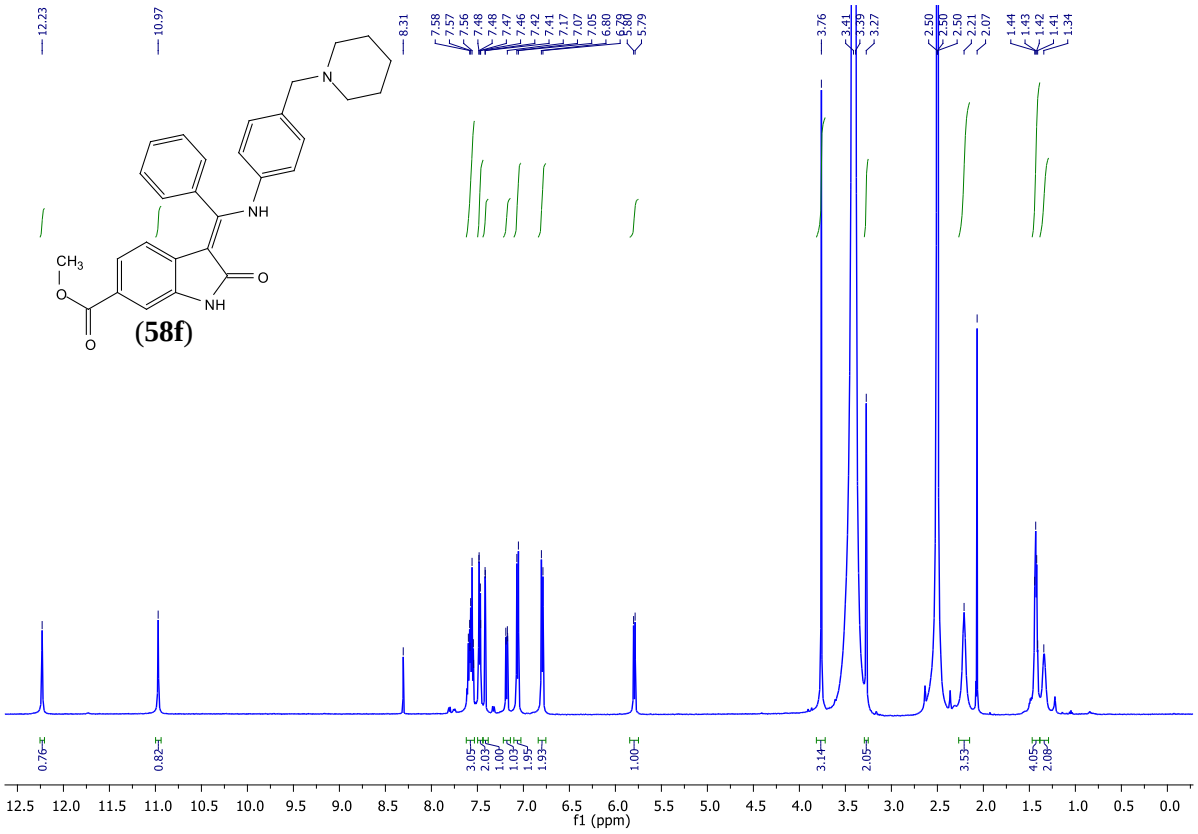
^{13}C NMR-APT spektrum látky **58d**.



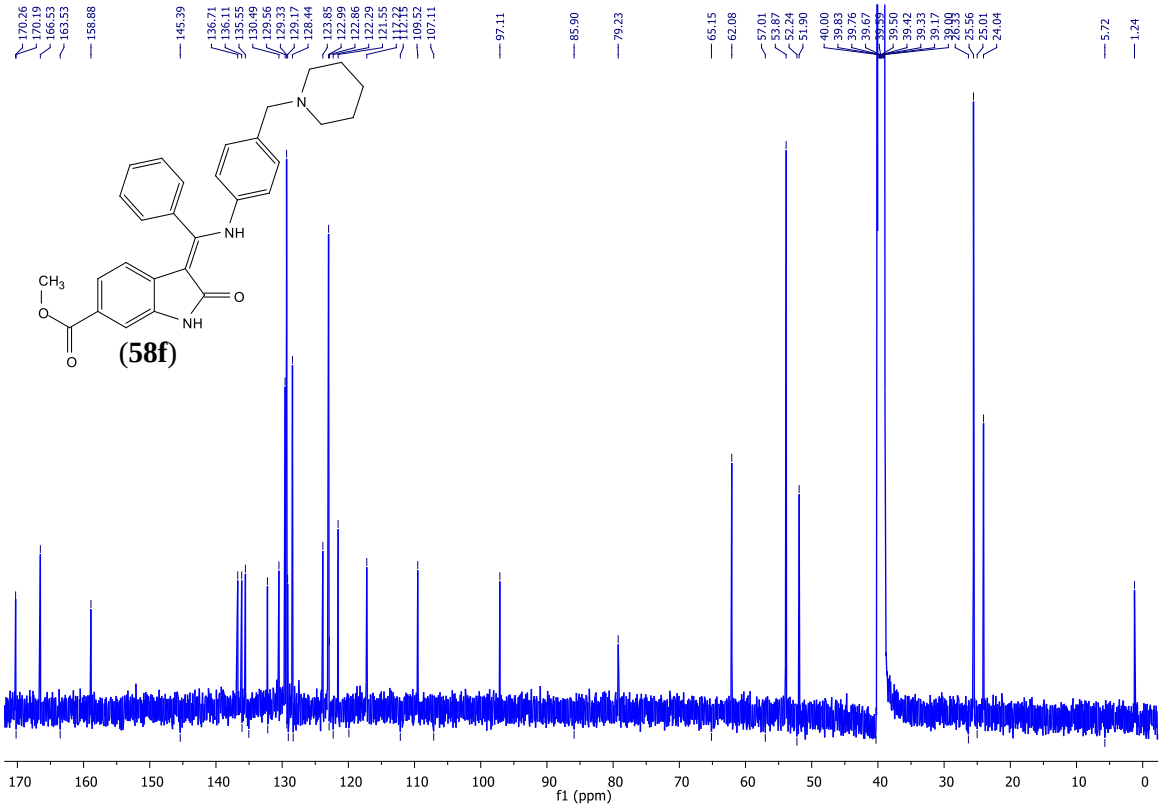
^{1}H NMR spektrum látky **58e**.



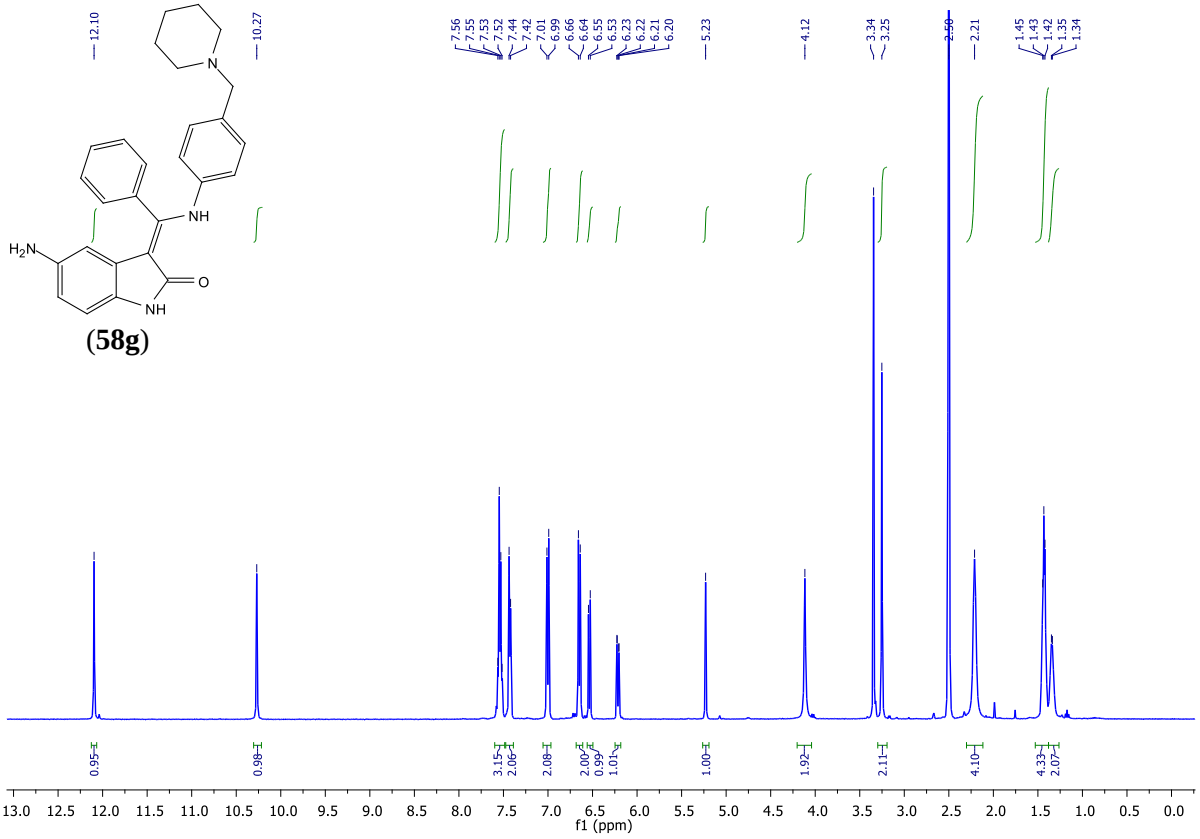
^{13}C NMR-APT spektrum látky **58e**.



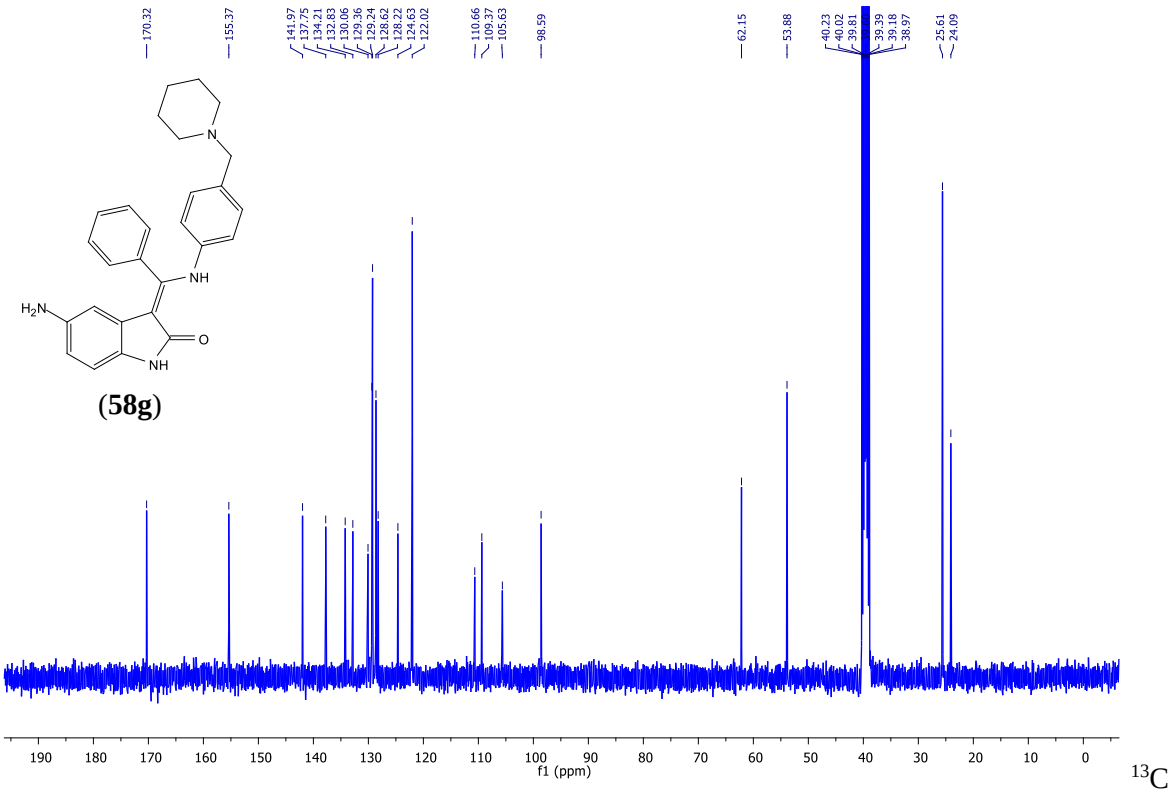
^{1}H NMR spektrum látky **58f**.



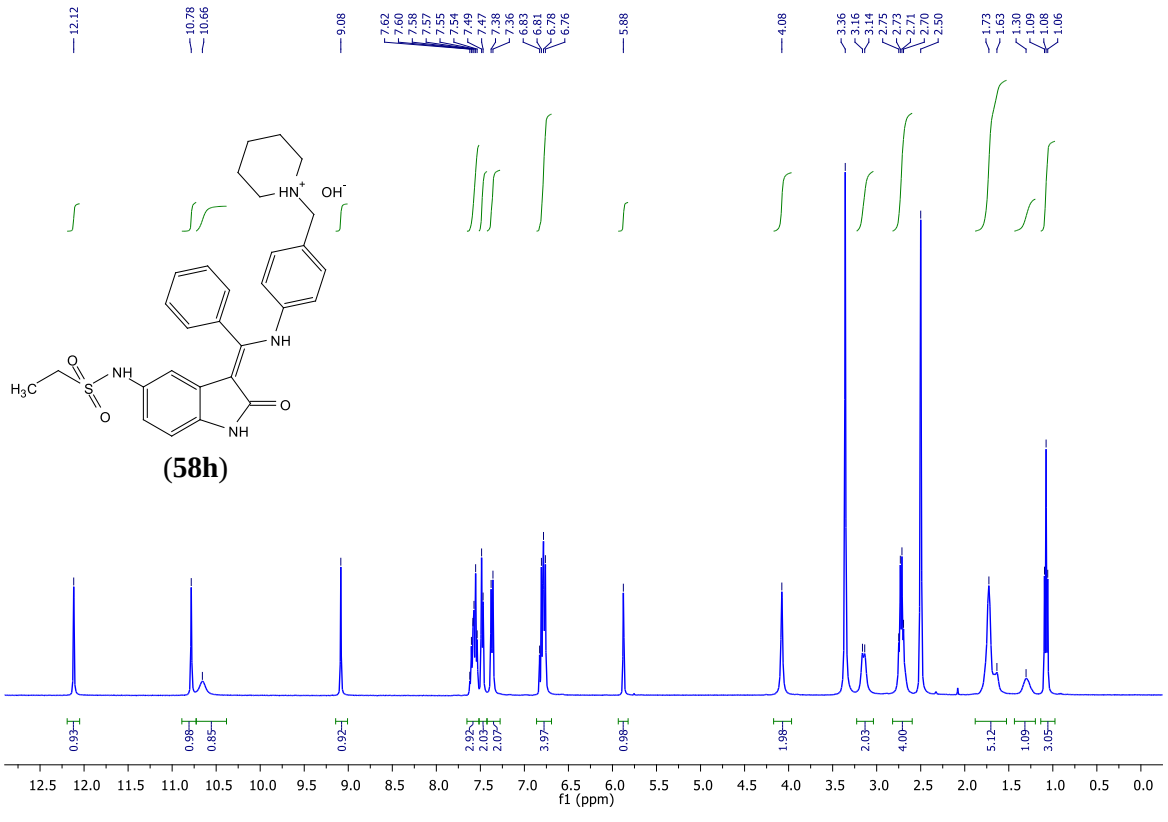
^{13}C NMR spektrum látky **58f**.



^{1}H NMR spektrum látky **58g**.



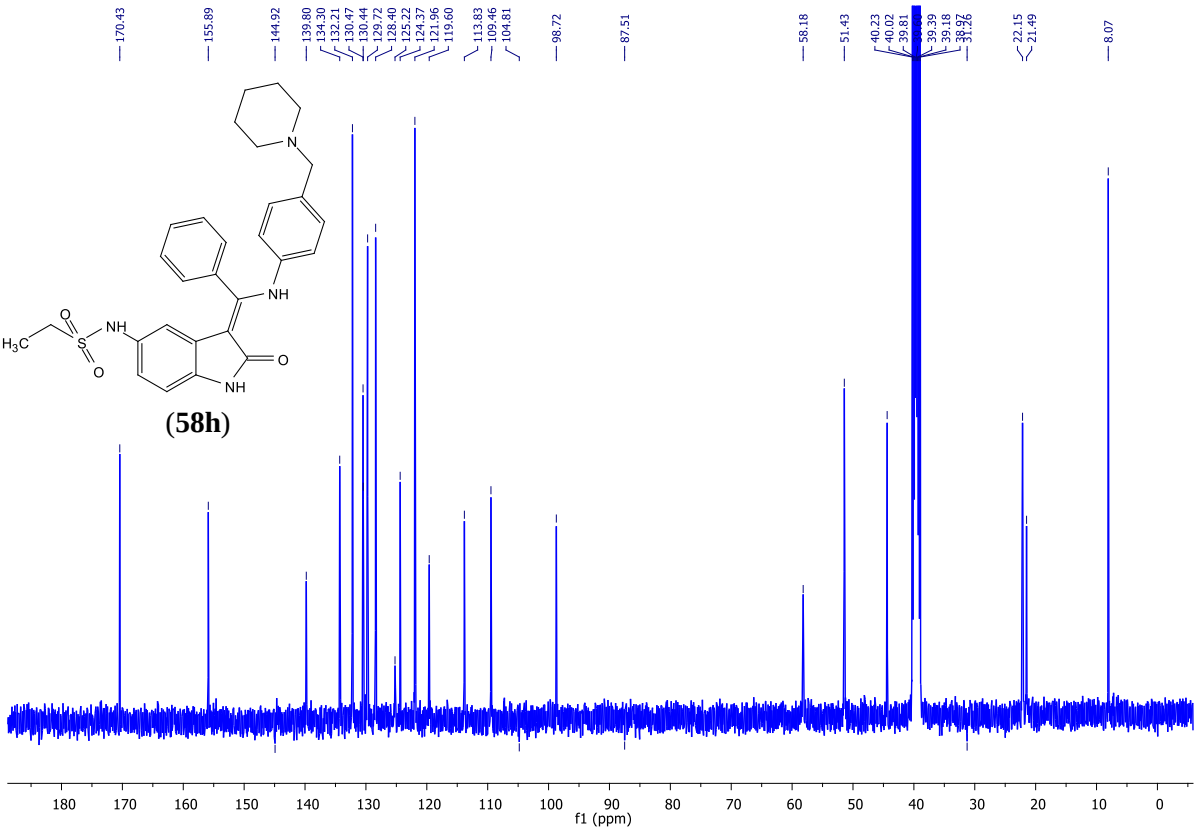
^{13}C NMR spektrum látky **58g**.



(58h)

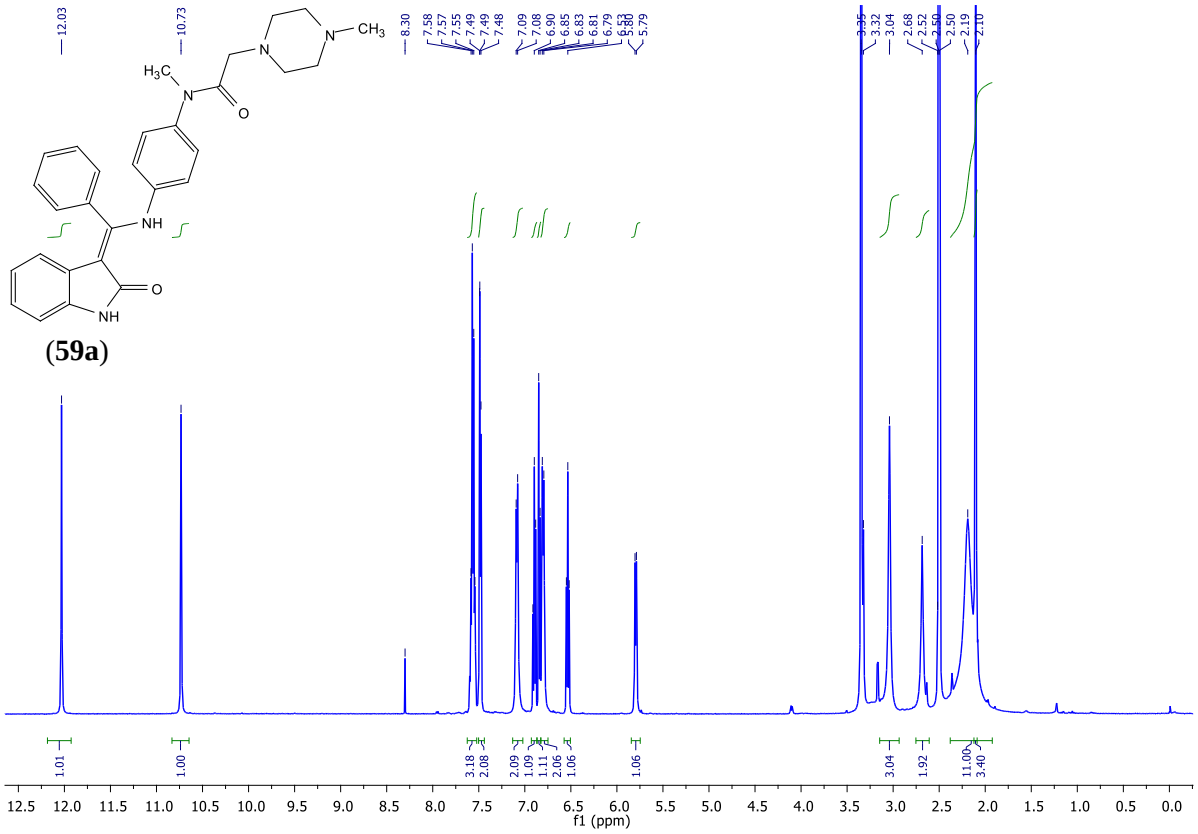
^{1}H

^{1}H NMR spektrum látky **58h**.

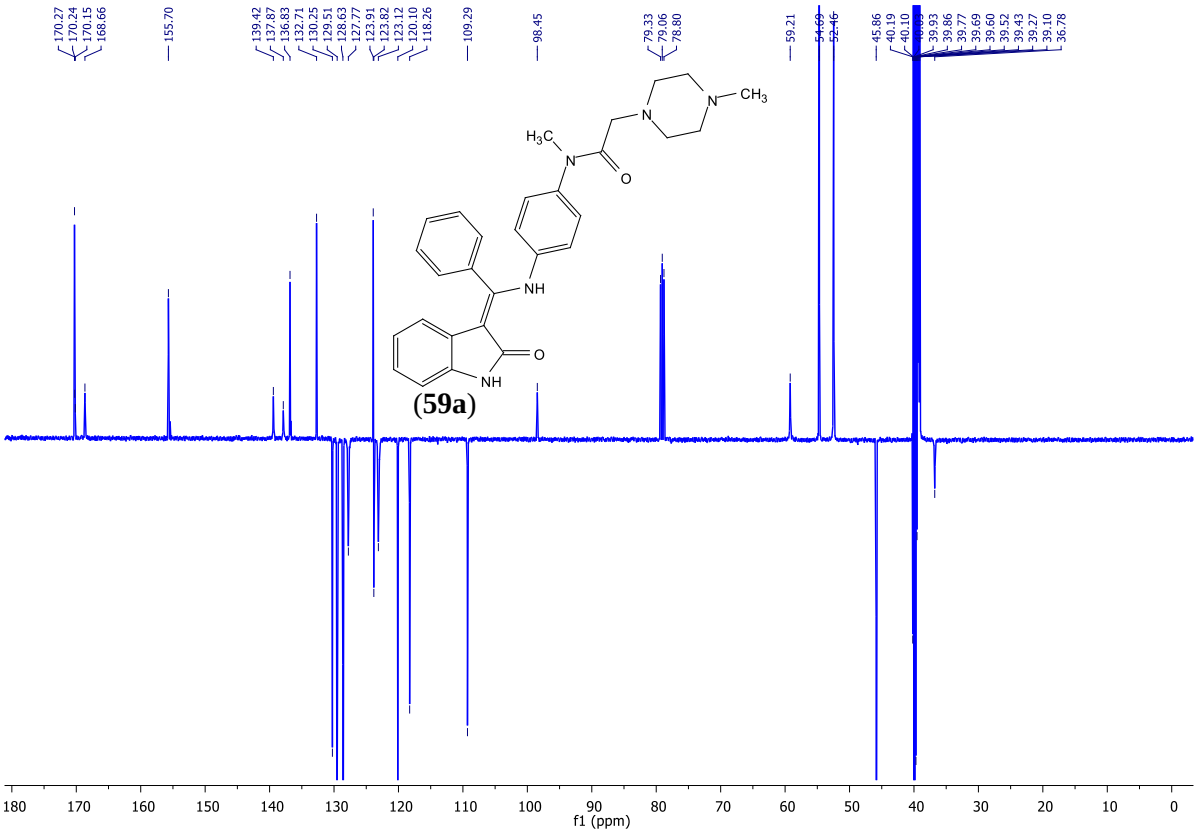


(58h)

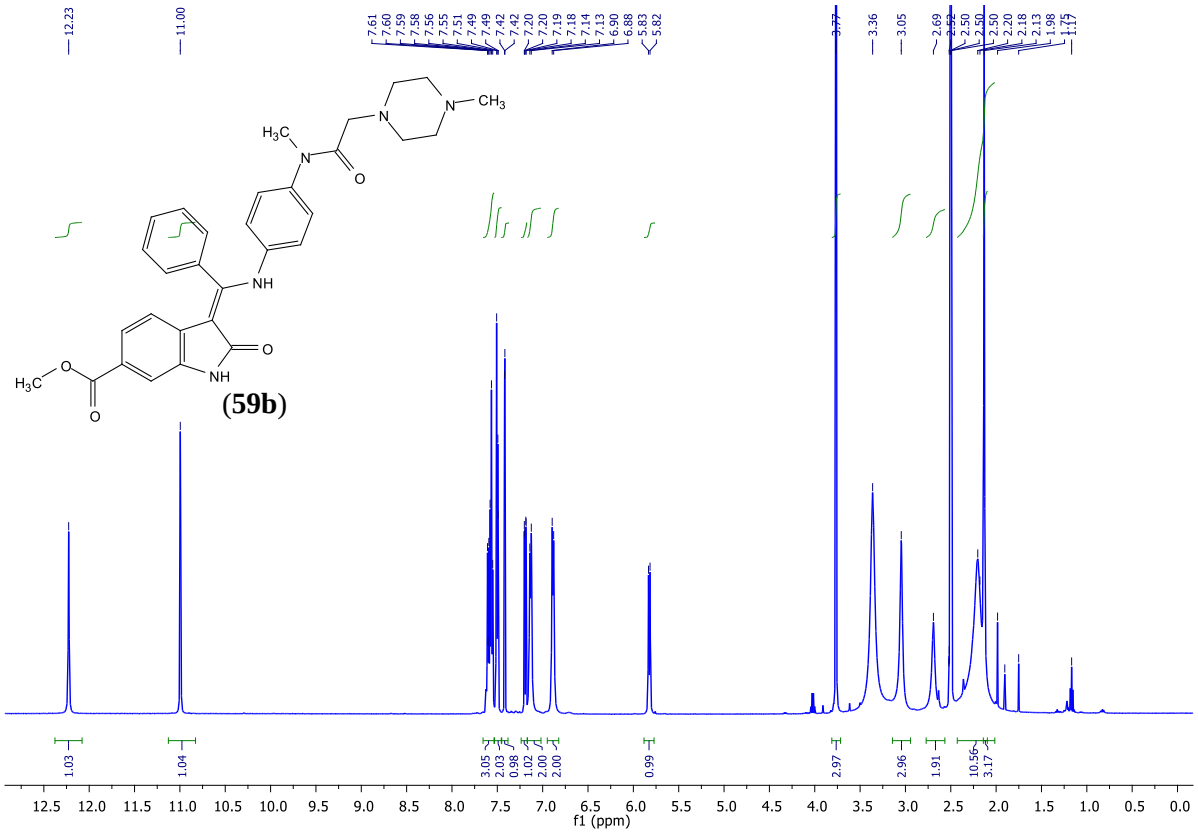
^{13}C NMR spektrum látky **58h**.



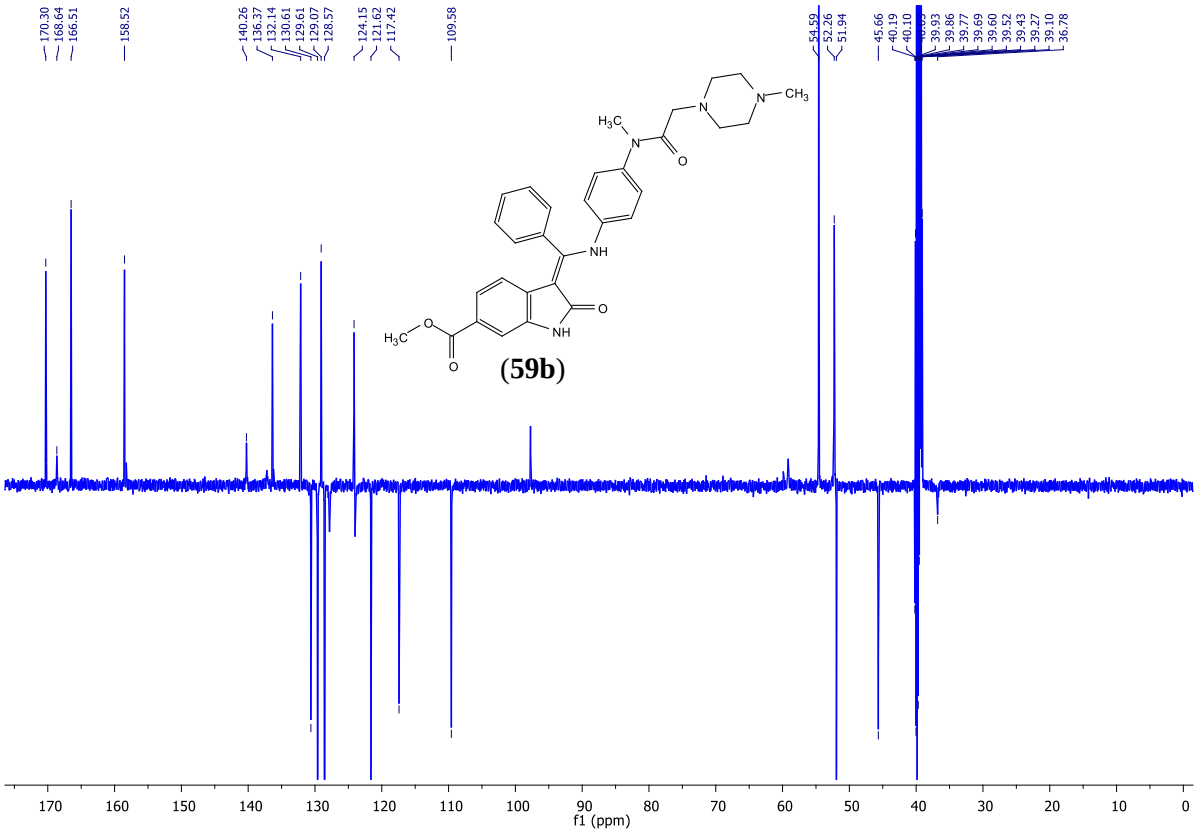
^{1}H NMR spektrum látky **59a**.



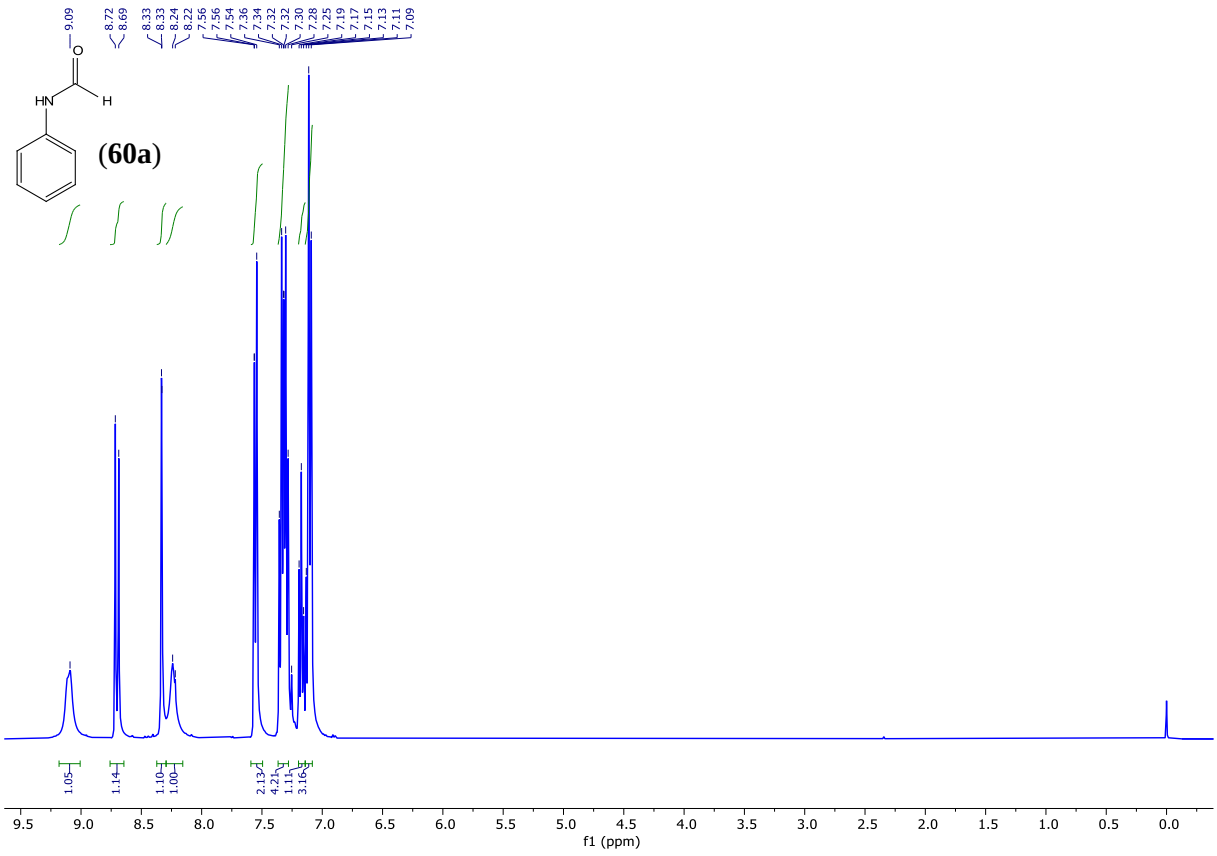
^{13}C NMR-APT spektrum látky **59a**.



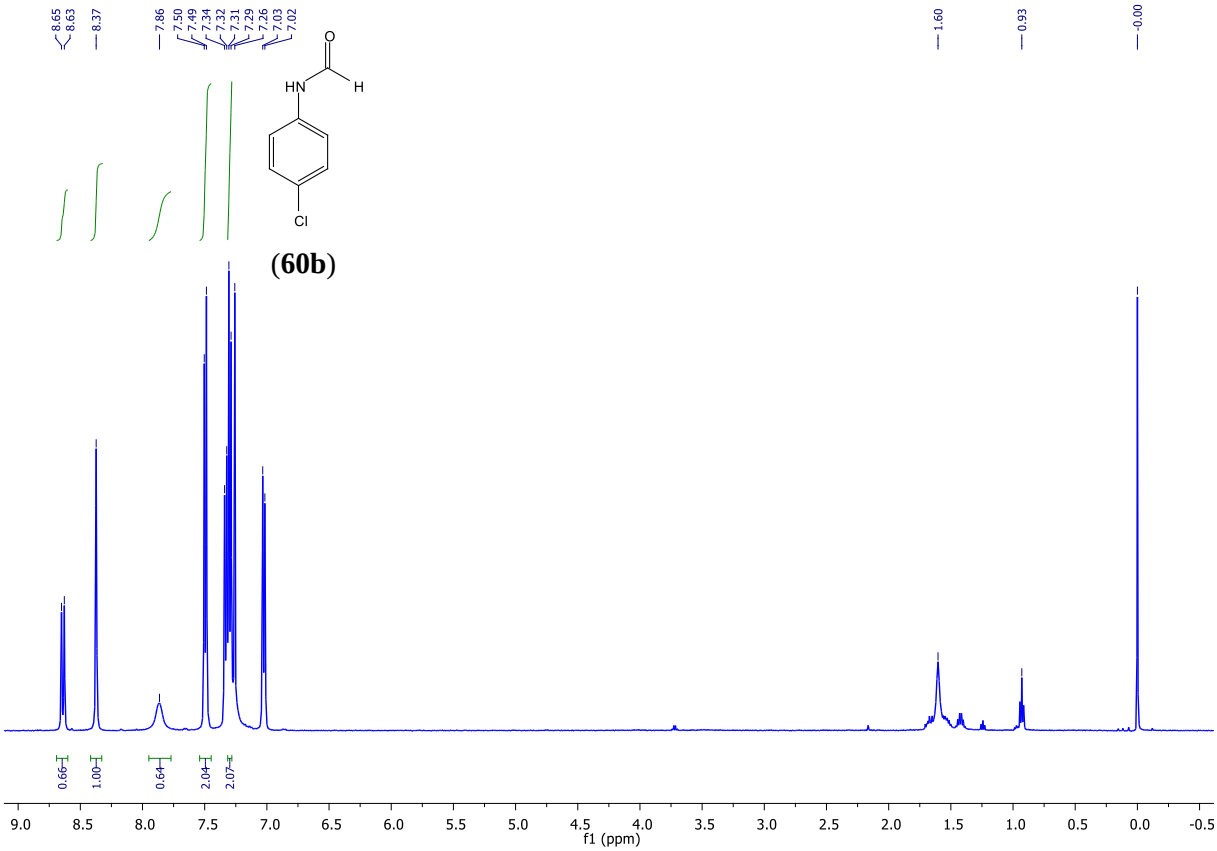
^{1}H NMR spektrum látky **59b**.



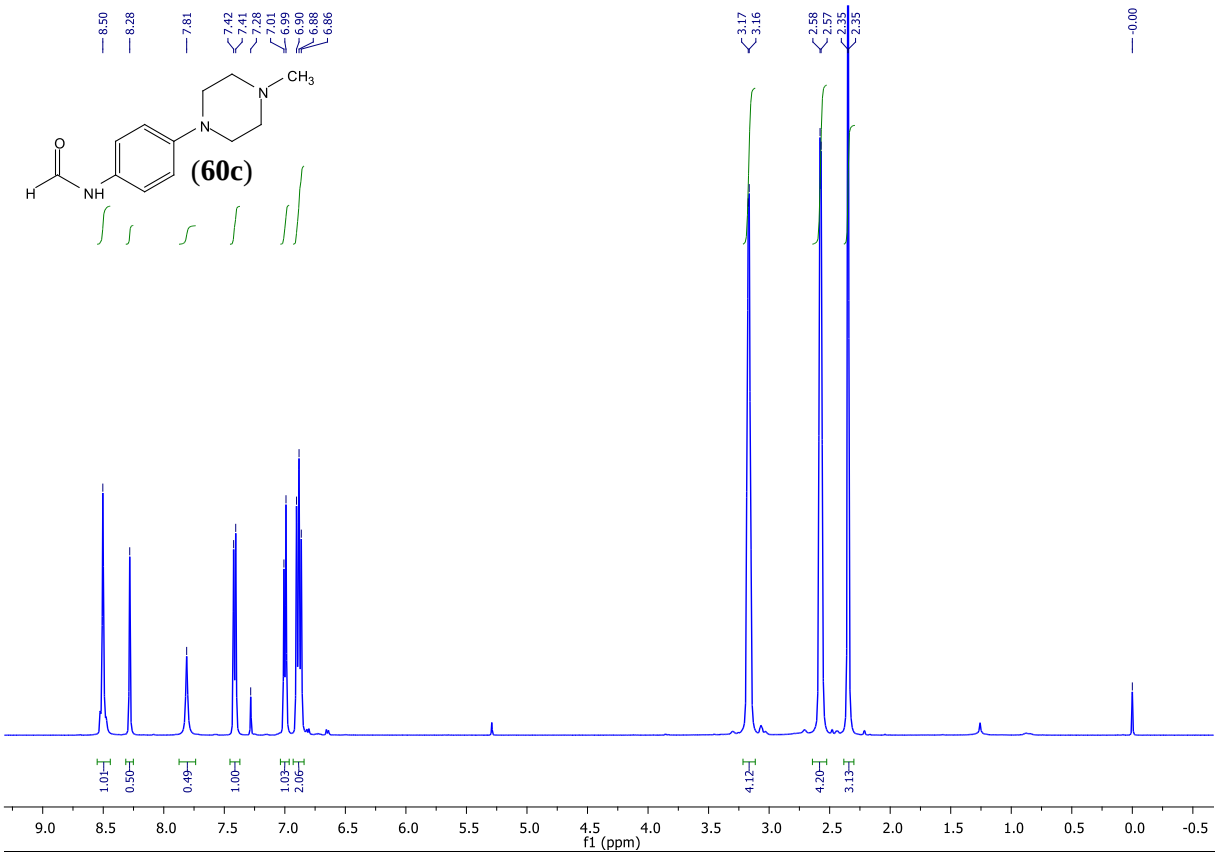
^{13}C NMR-APT spektrum látky **59b**.



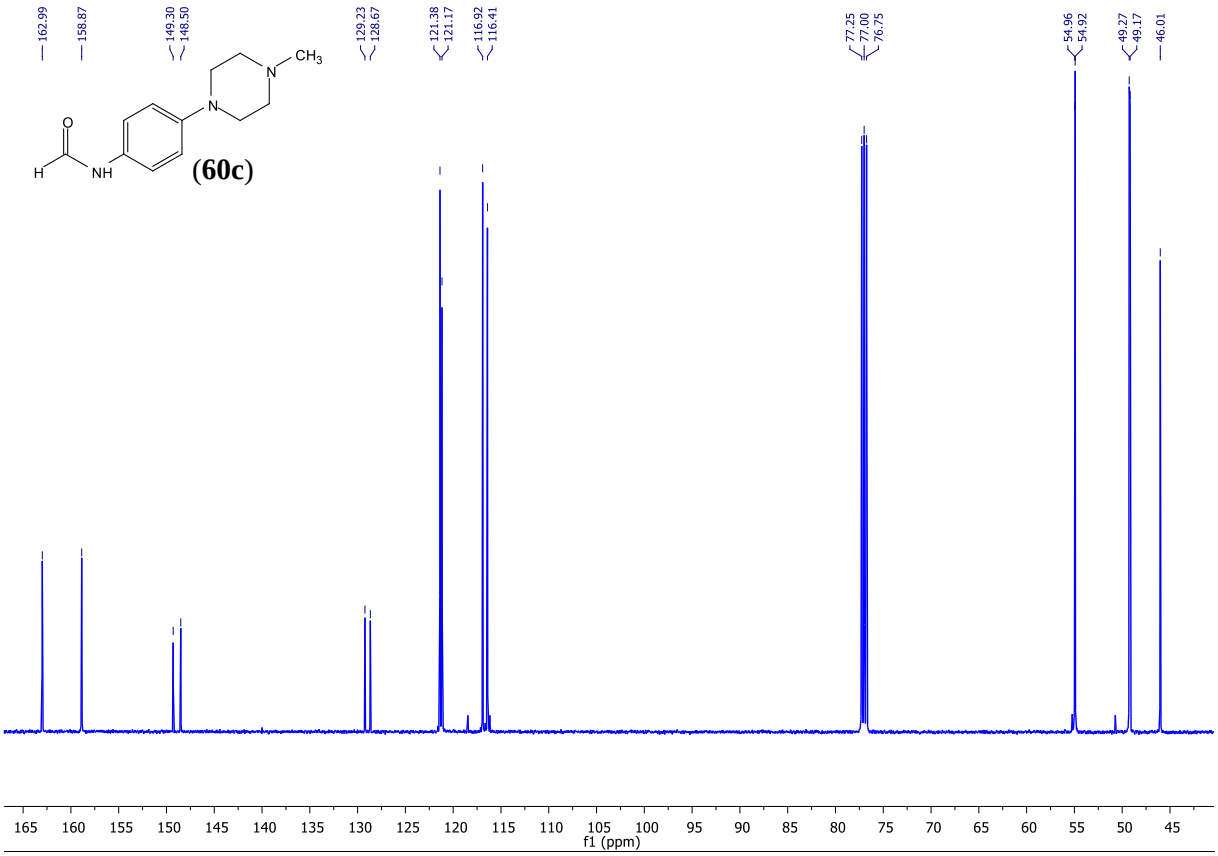
^{1}H NMR spektrum látky **60a**.



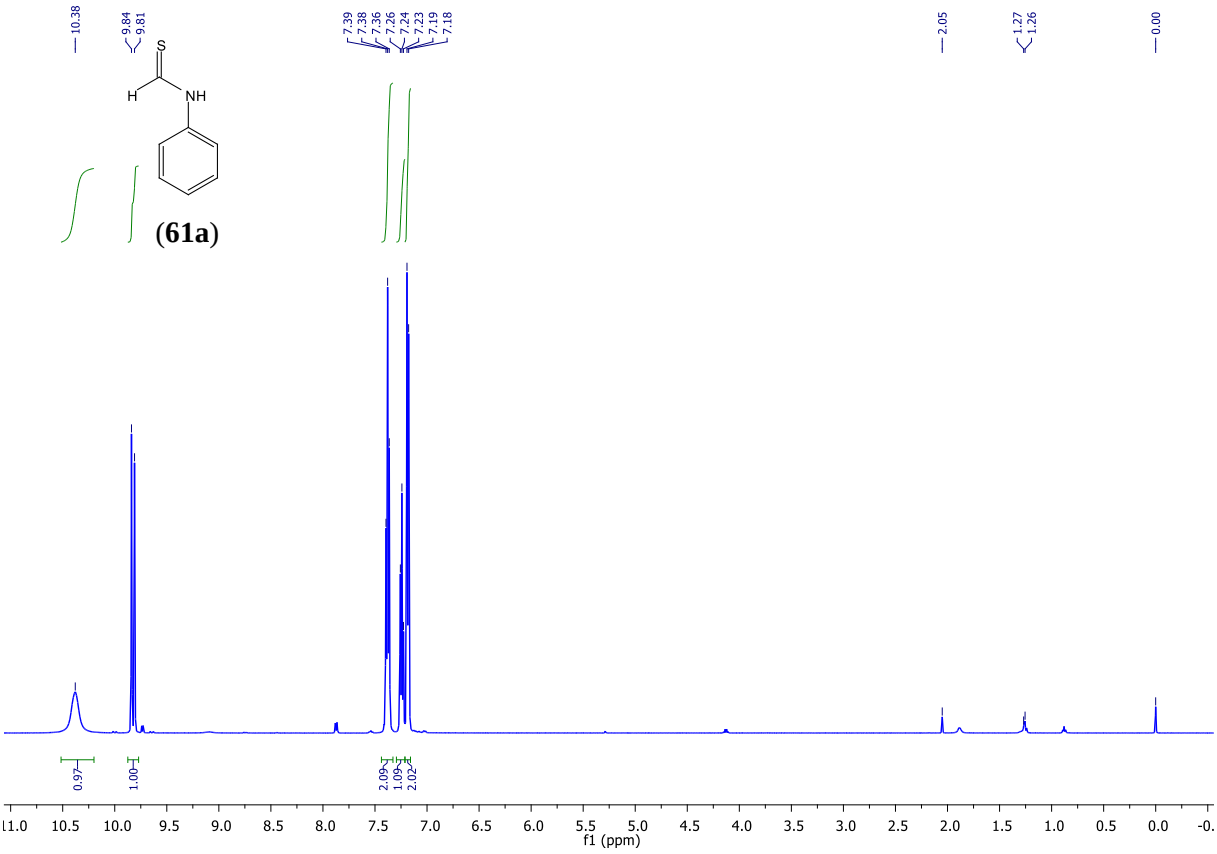
^{1}H NMR spektrum látky **60b**.



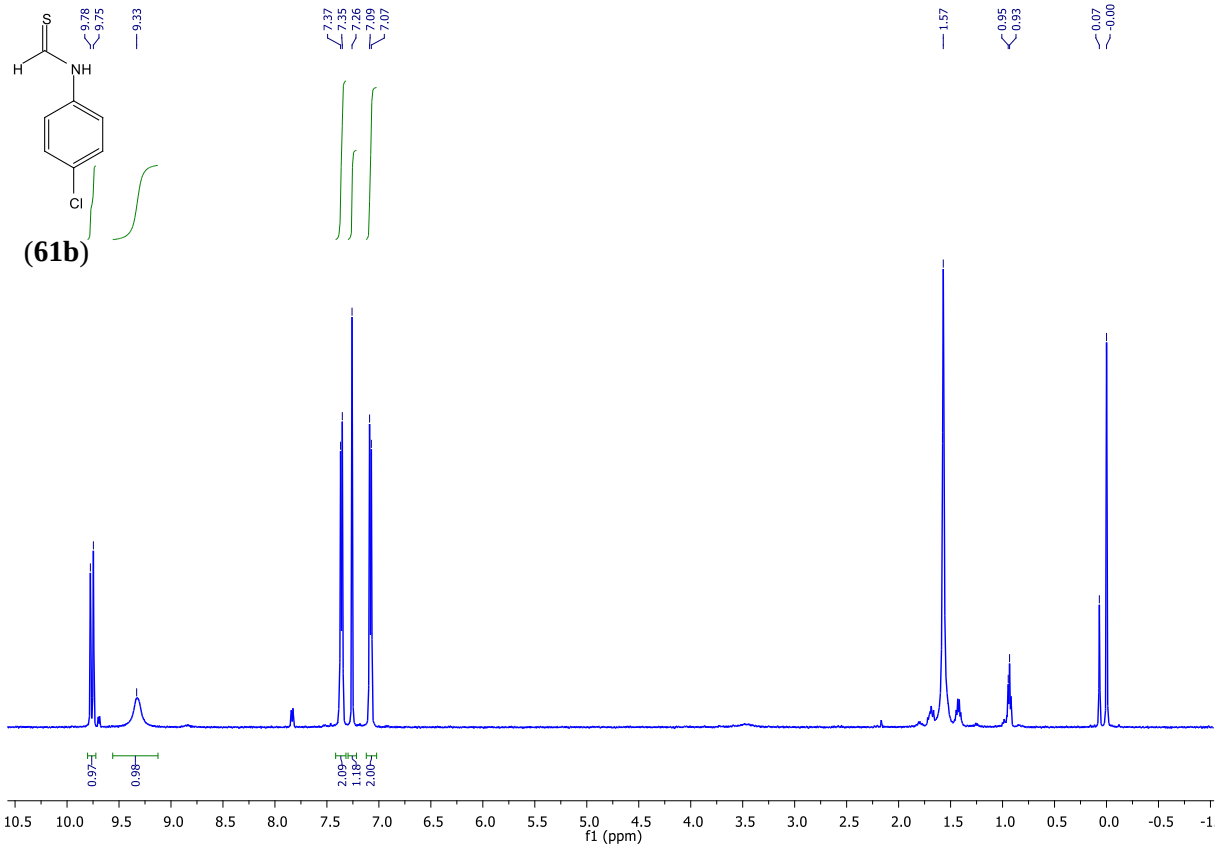
^{1}H NMR spektrum látky **60c**.



^{13}C NMR spektrum látky **60c**.



^{1}H NMR spektrum látky **61a**.



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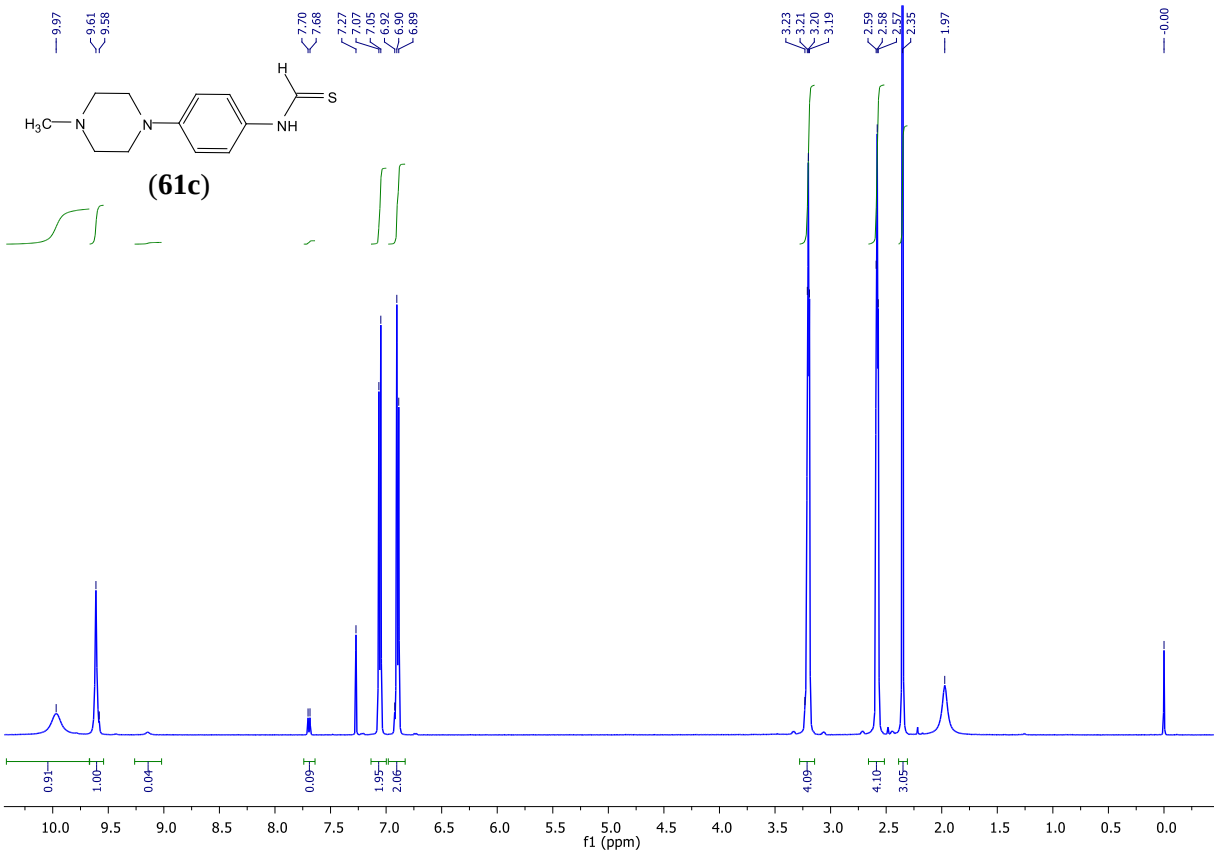
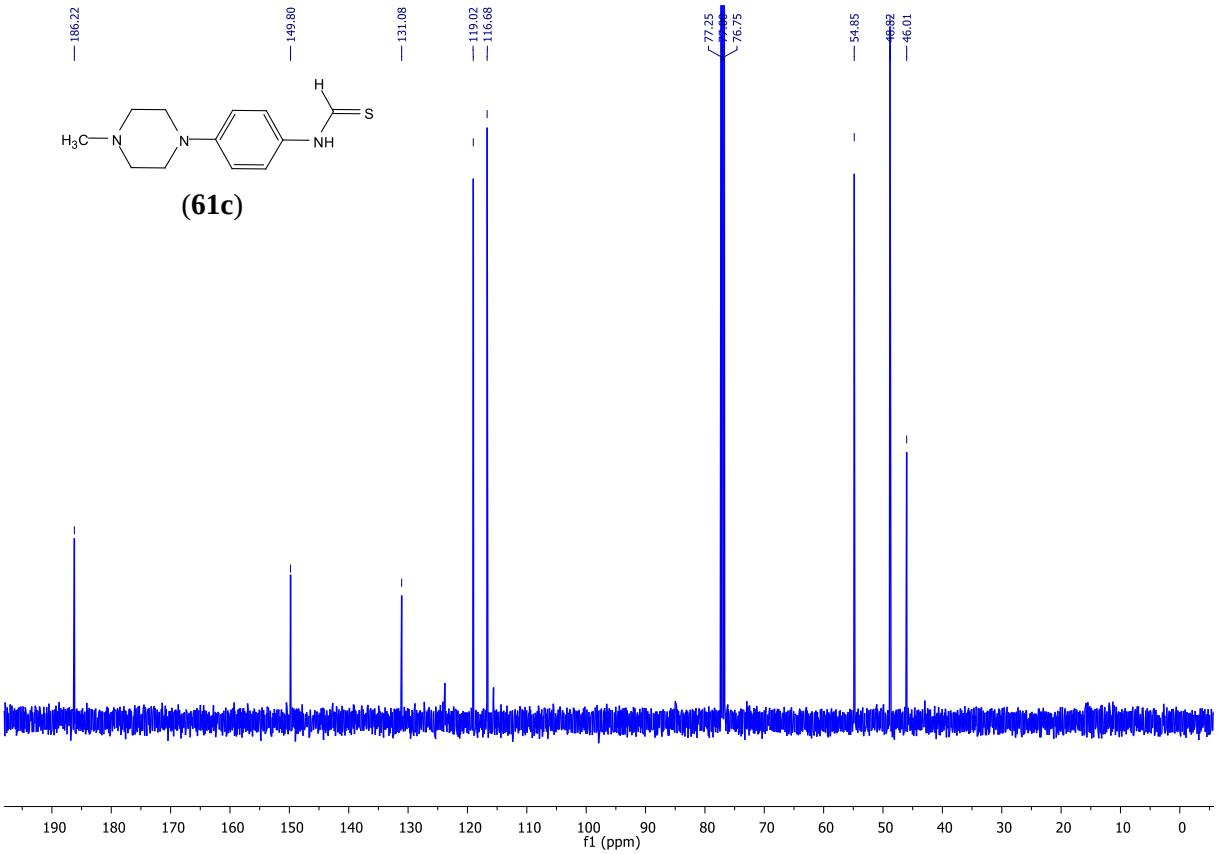
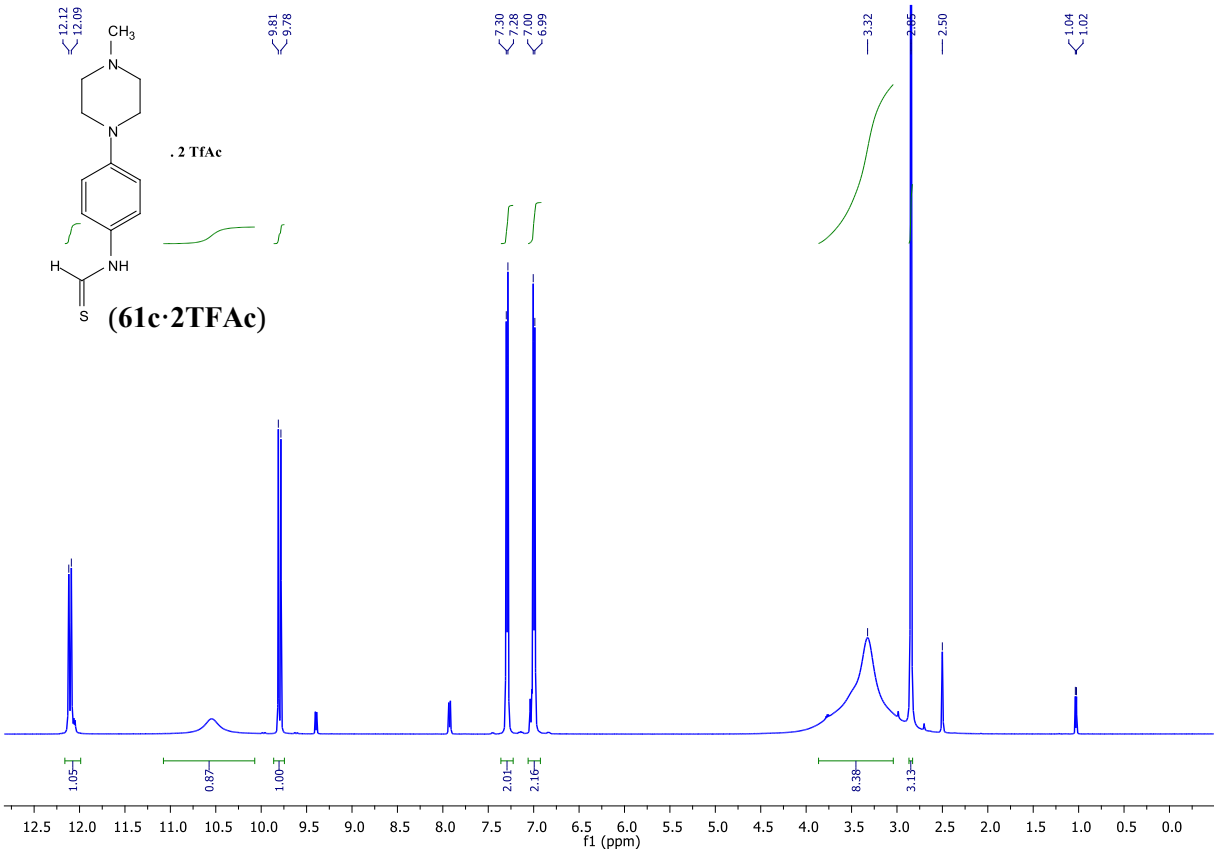


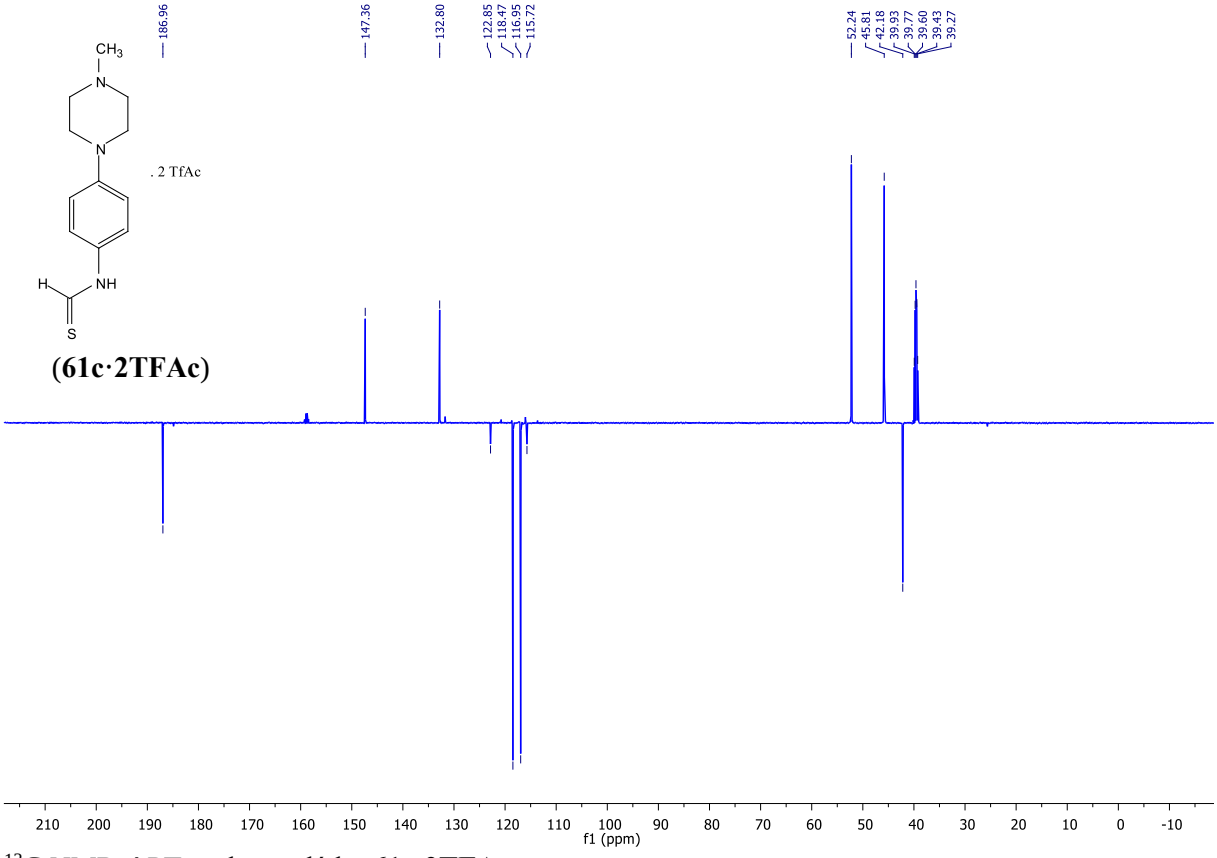
^{1}H NMR spektrum látky **61c**.



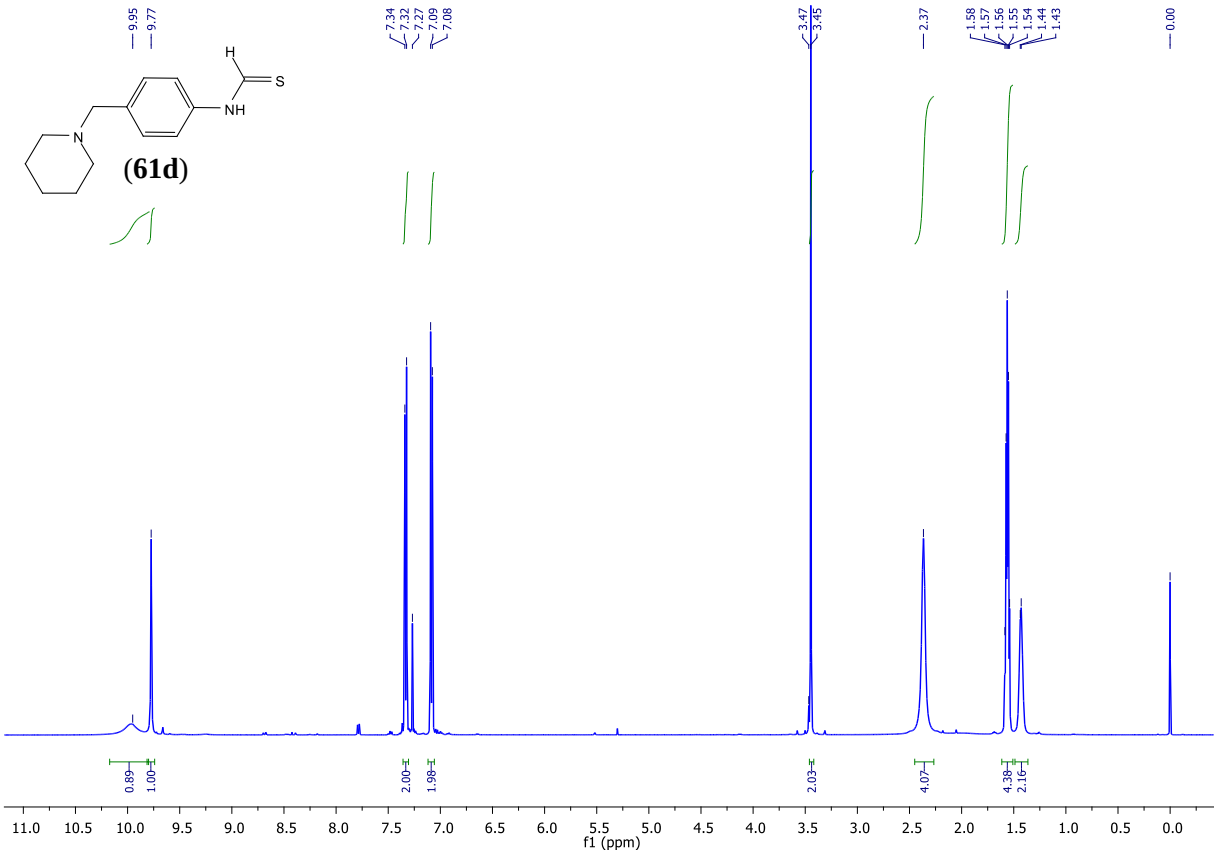
^{13}C NMR spektrum látky **61c**.



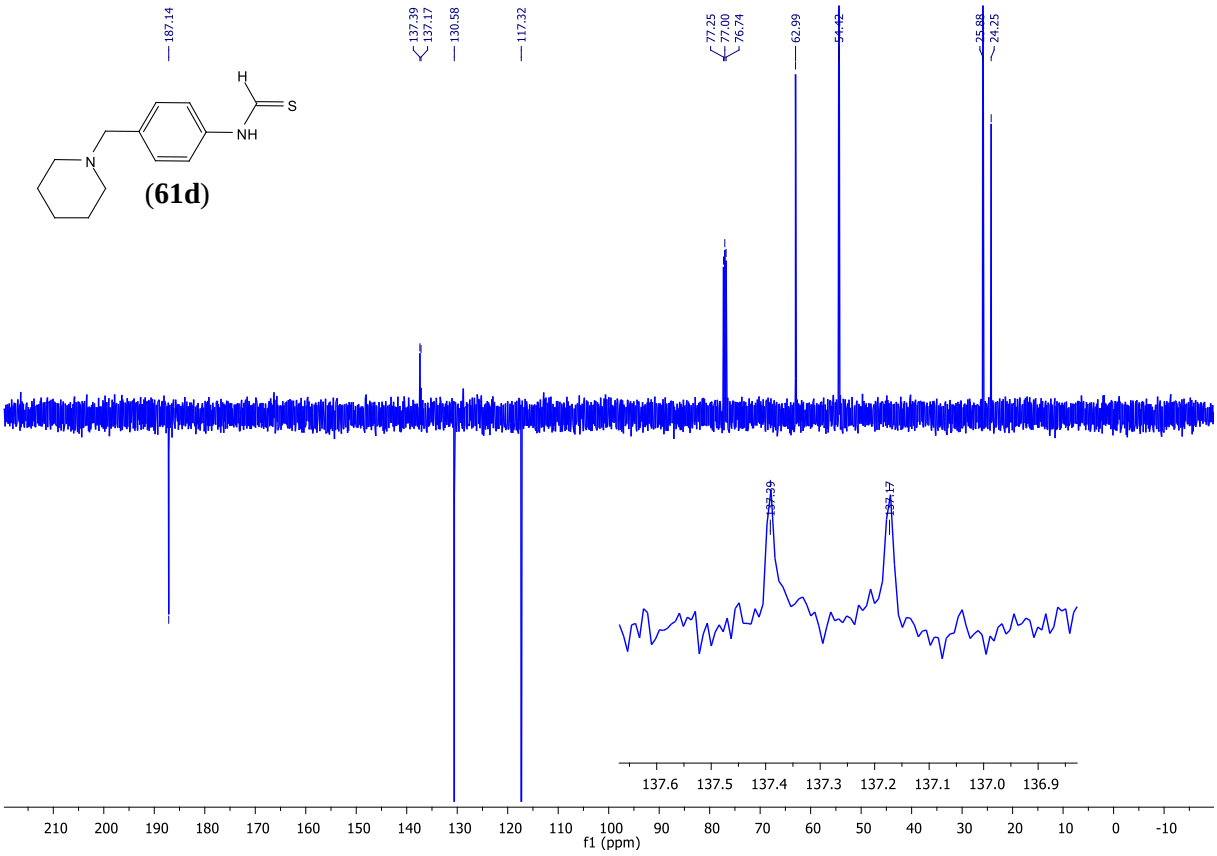
^{1}H NMR spektrum látky **61c·2TFAc**.



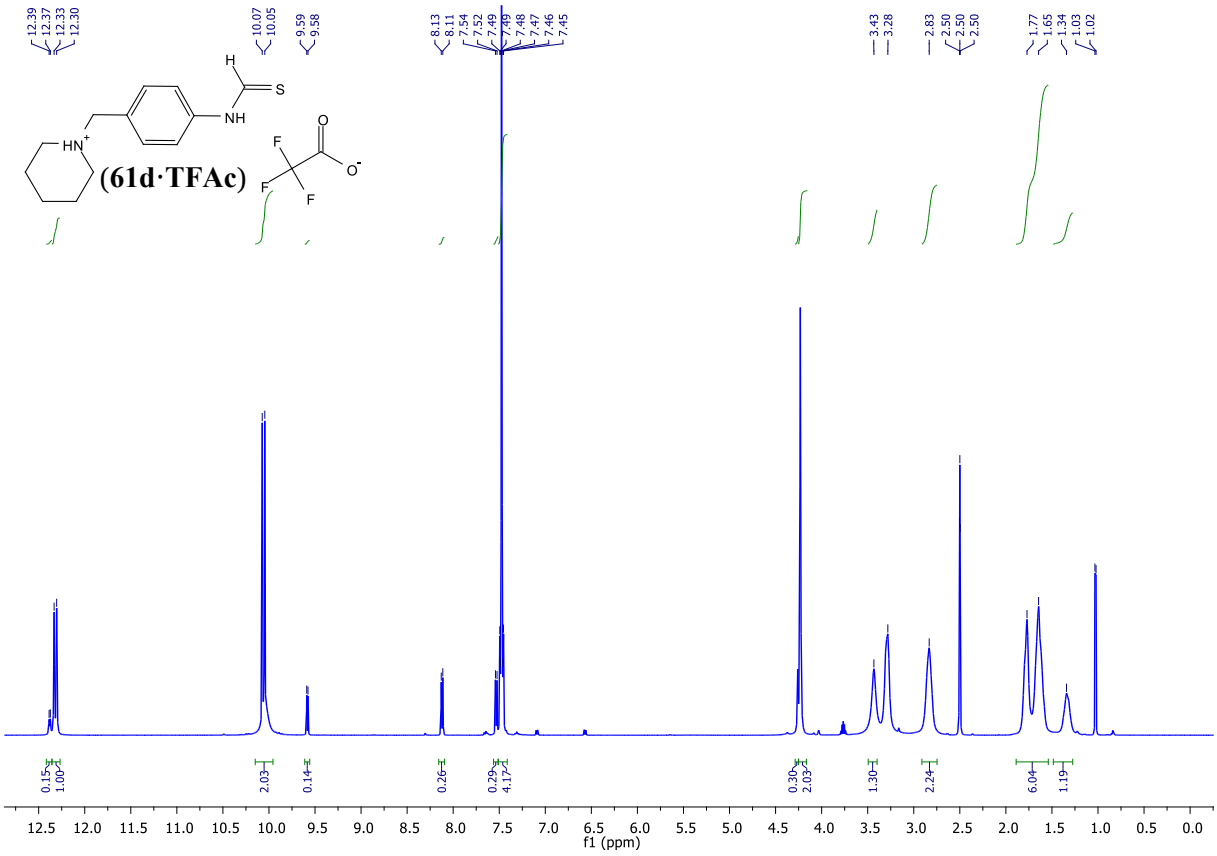
^{13}C NMR-APT spektrum látky **61c·2TFAc**.



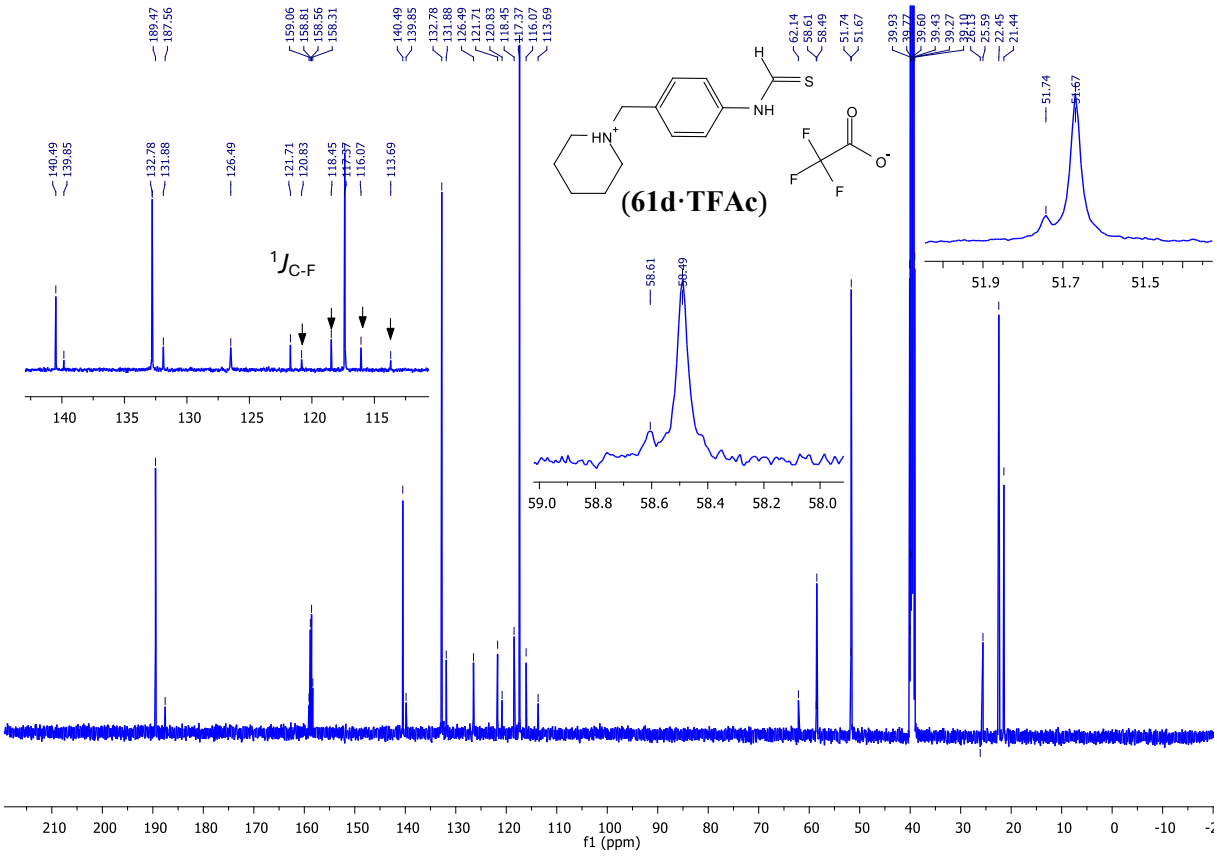
^{1}H NMR spektrum látky **61d**.



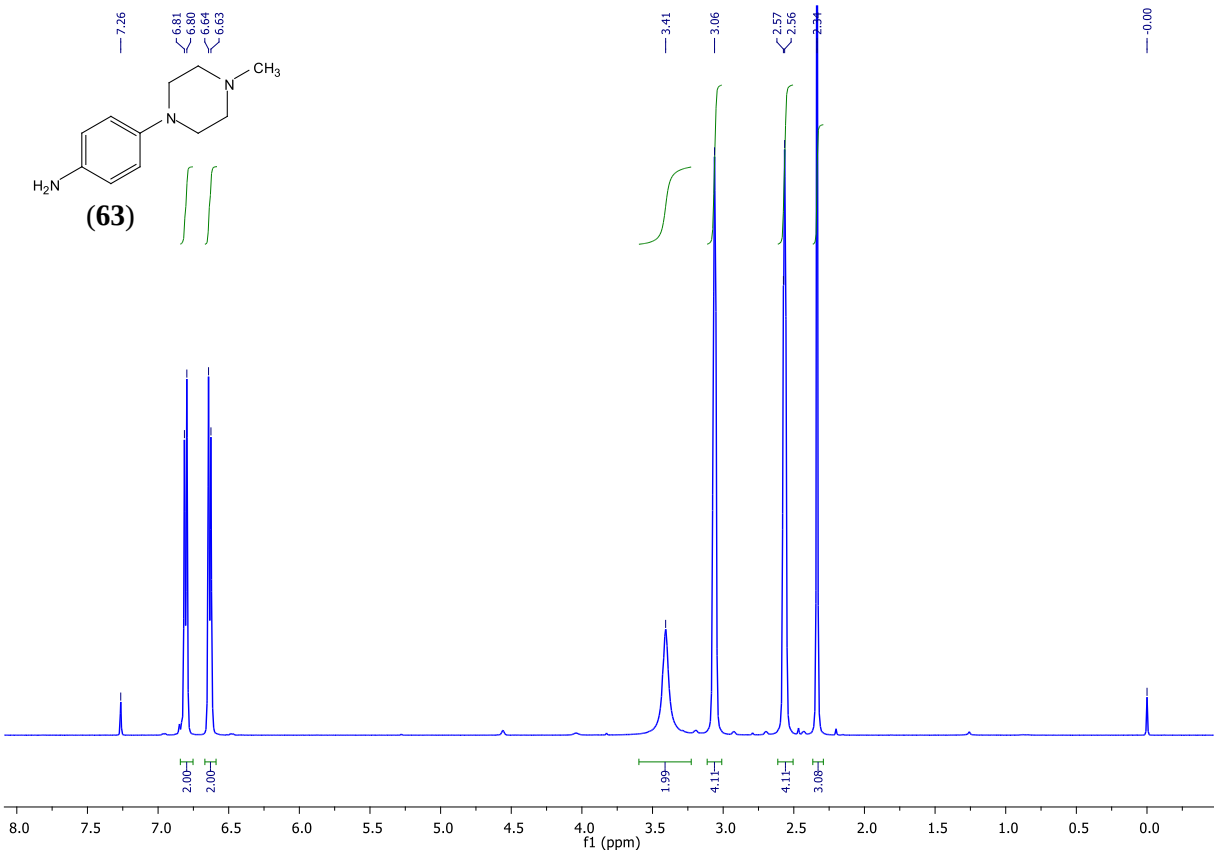
^{13}C NMR-APT spektrum látky **61d**.



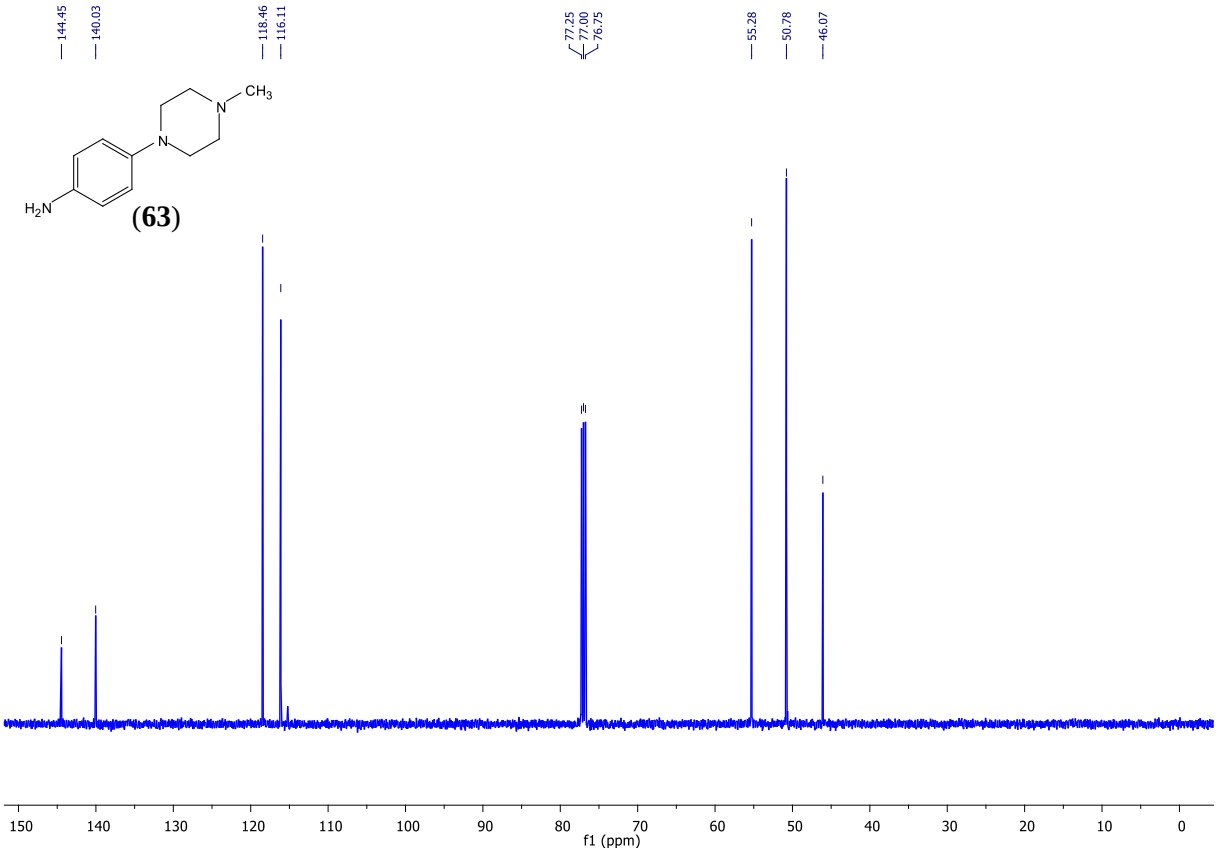
^{1}H NMR spektrum látky **61d·TFAc**.



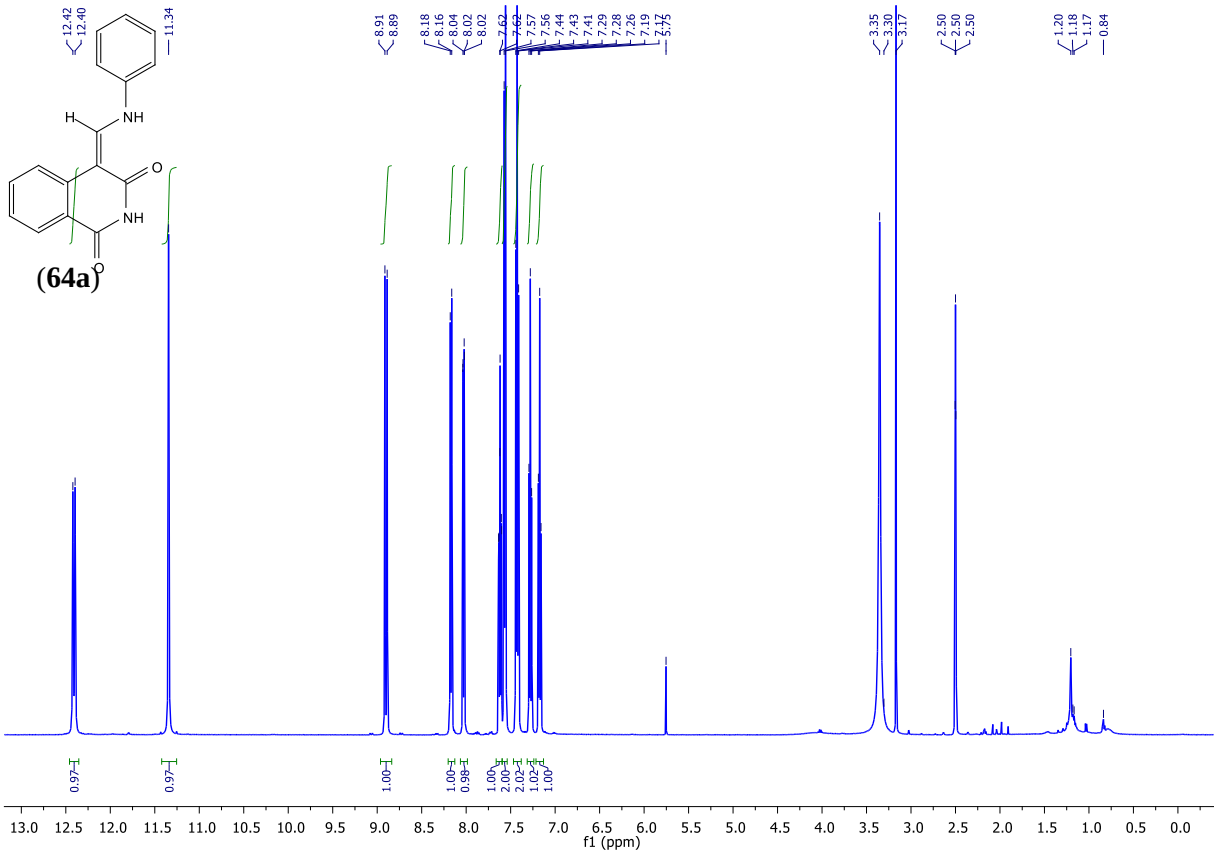
^{13}C NMR spektrum látky **61d·TFAc**.



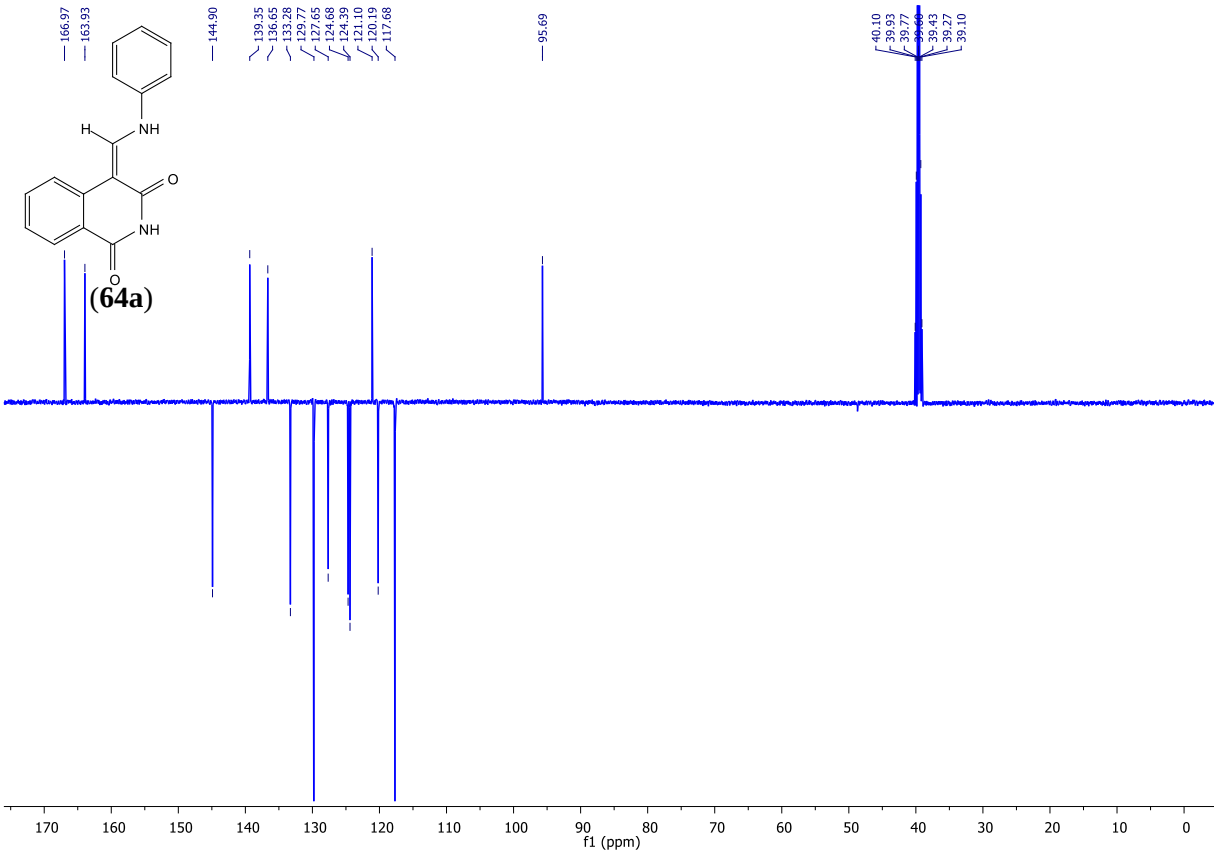
^{1}H NMR spektrum látky **63**.



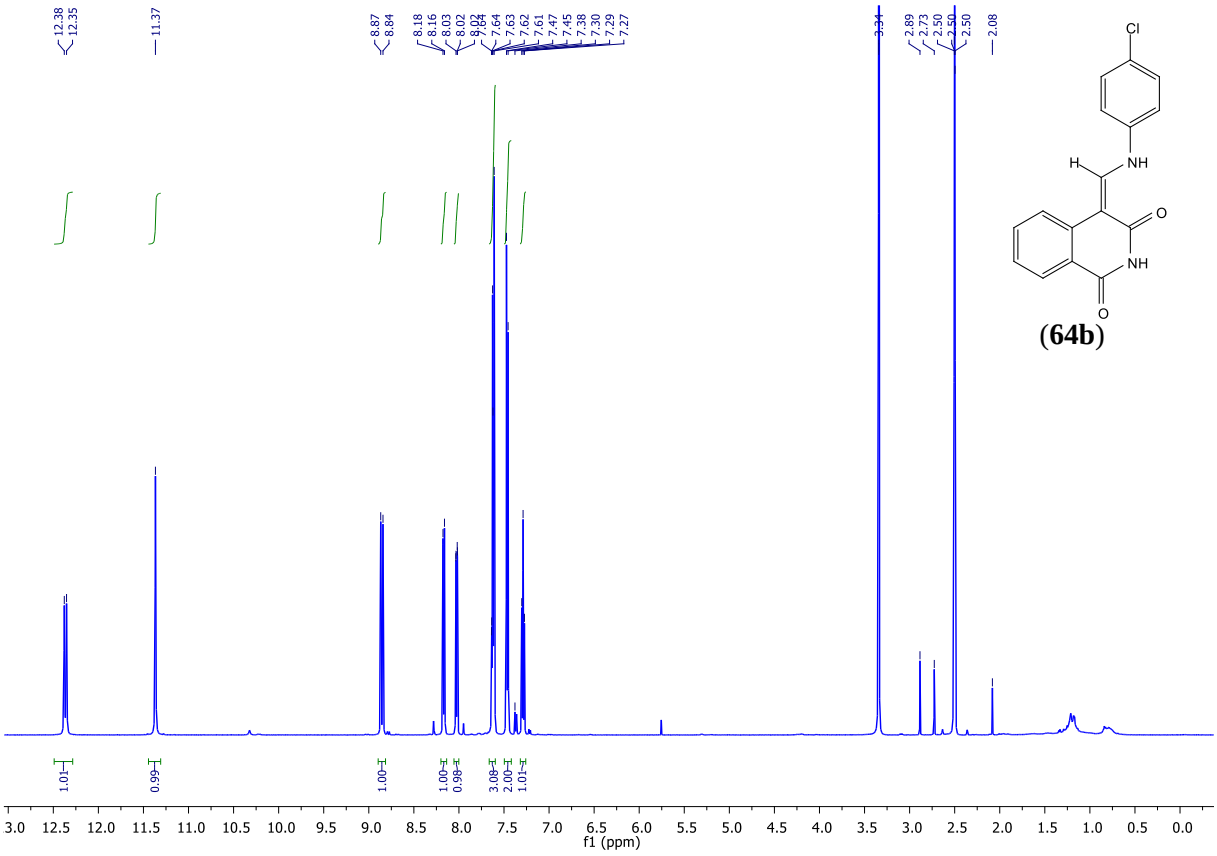
^{13}C NMR spektrum látky **63**.



^{1}H NMR spektrum látky **64a**.

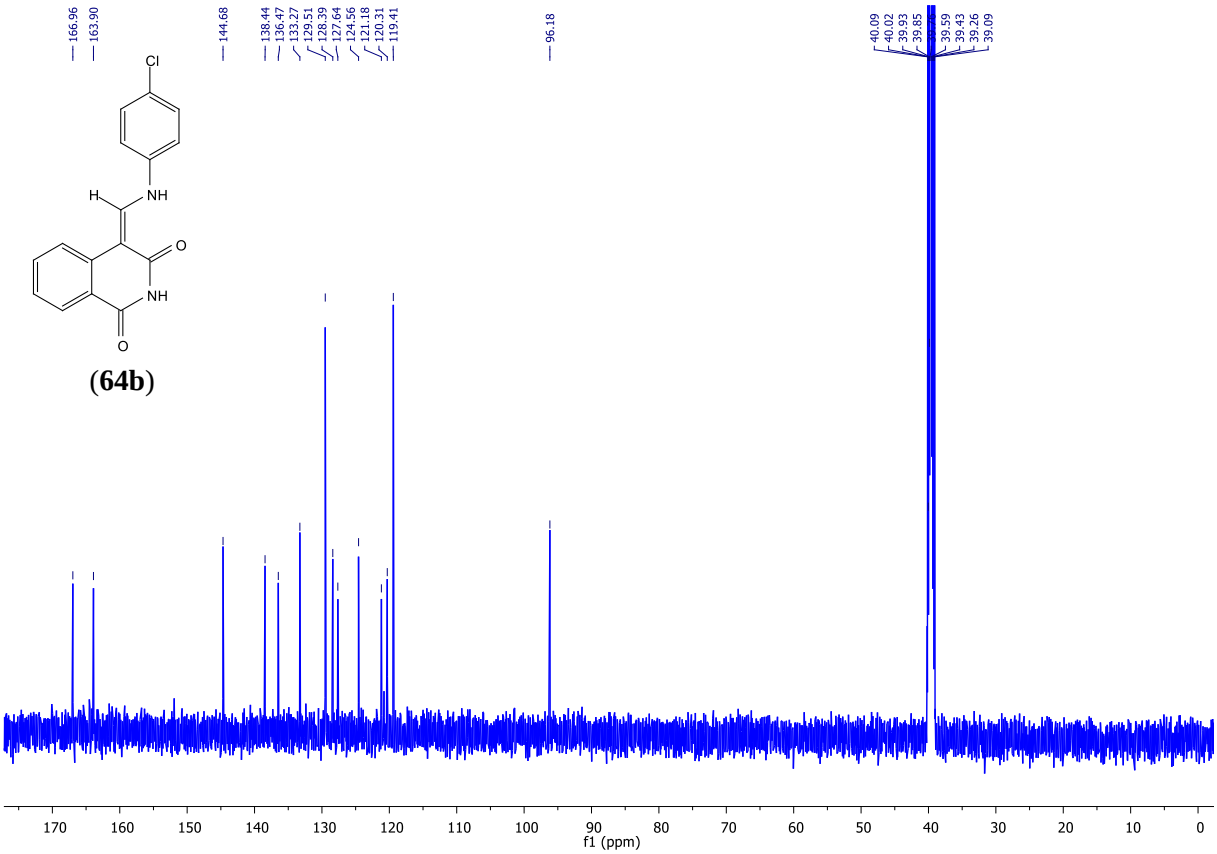


^{13}C NMR-APT spektrum látky **64a**.



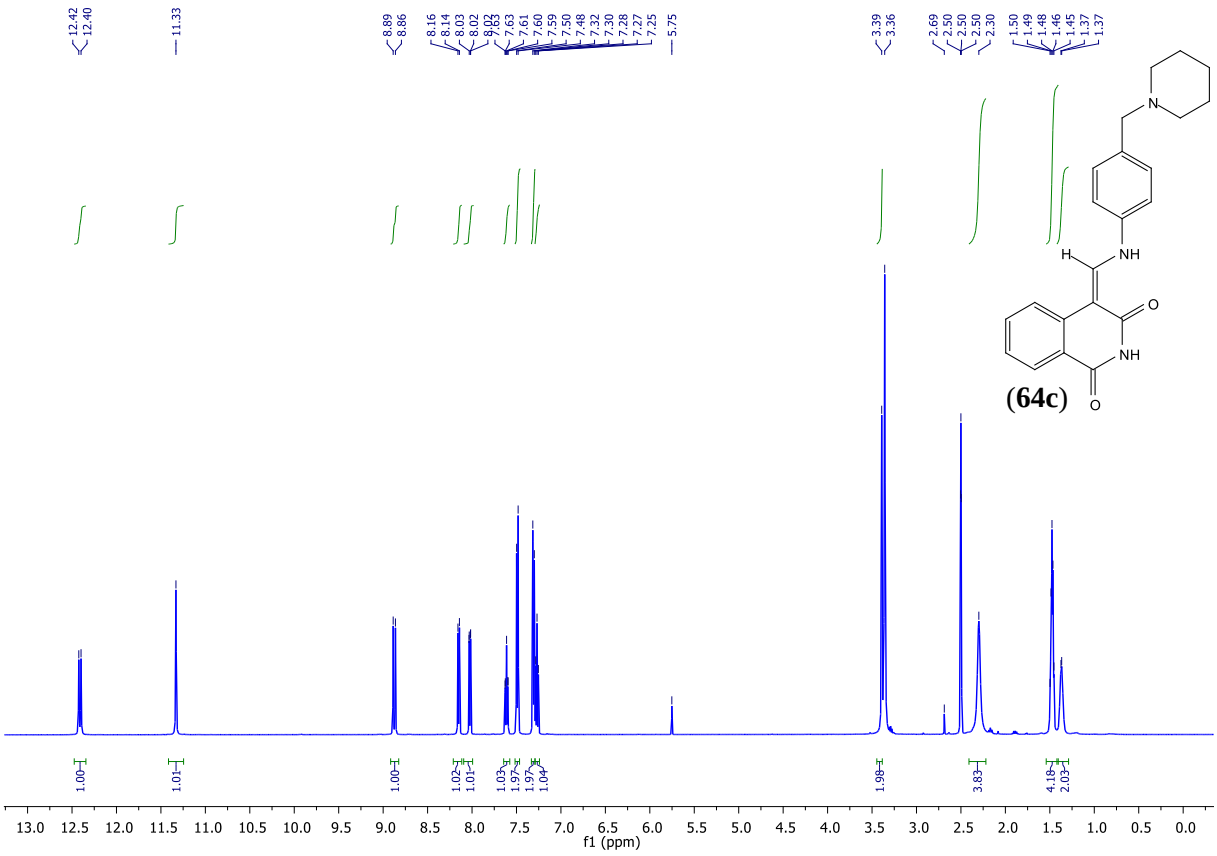
(**64b**)

^{1}H NMR spektrum látky **64b**.

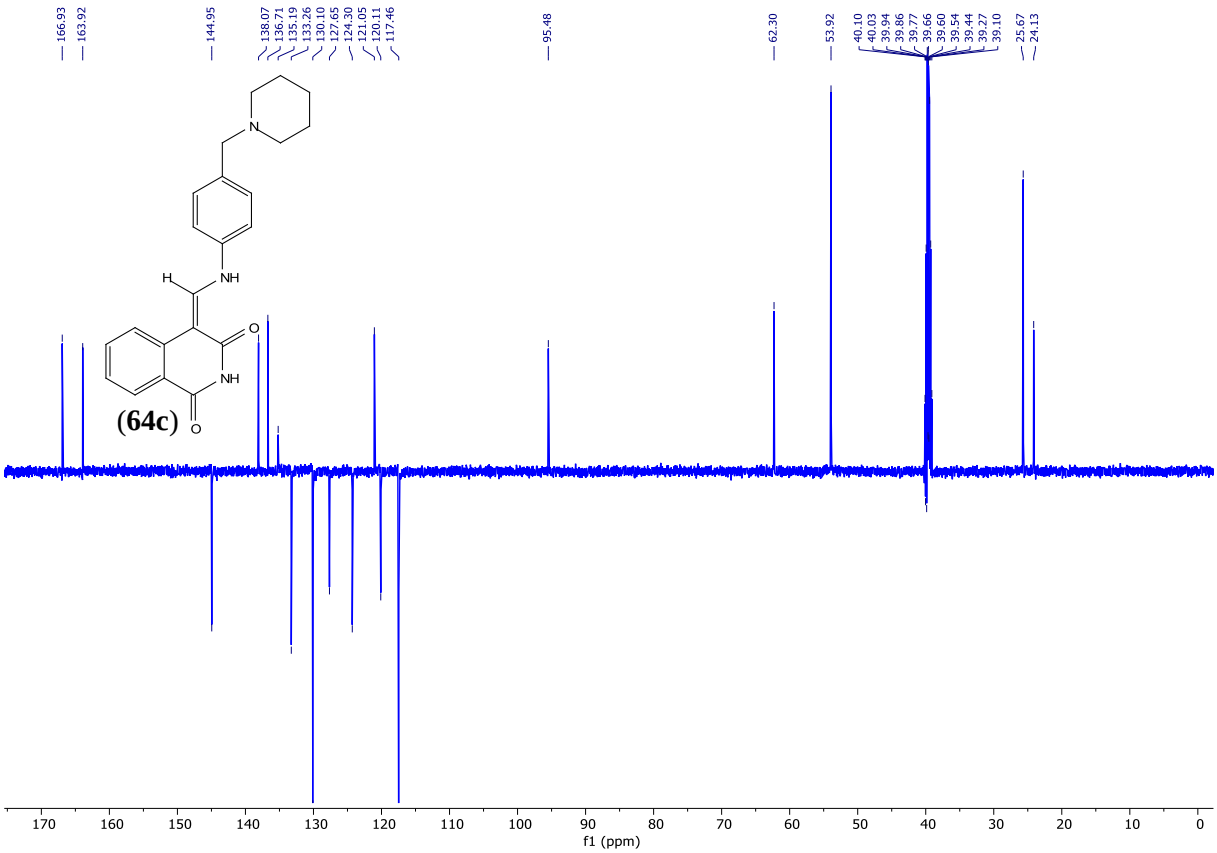


(**64b**)

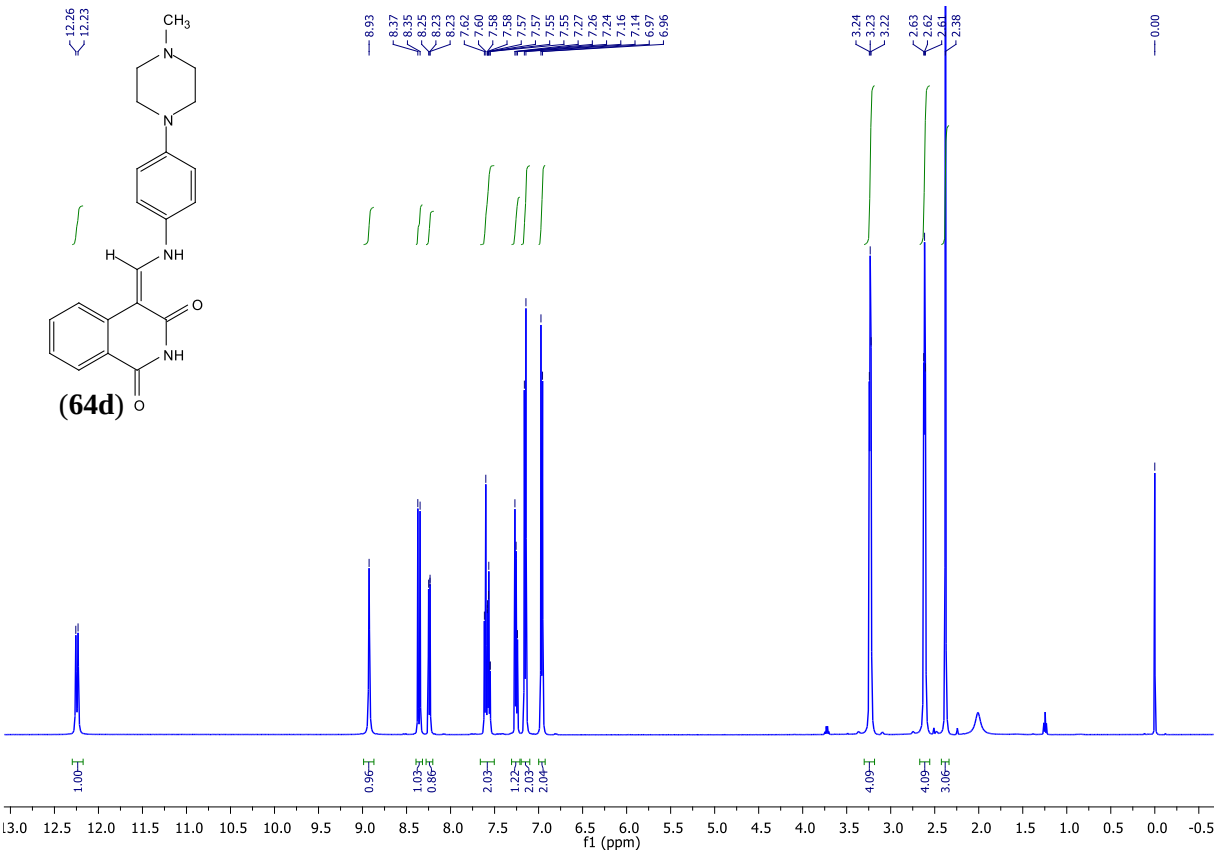
^{13}C NMR-APT spektrum látky **64b**.



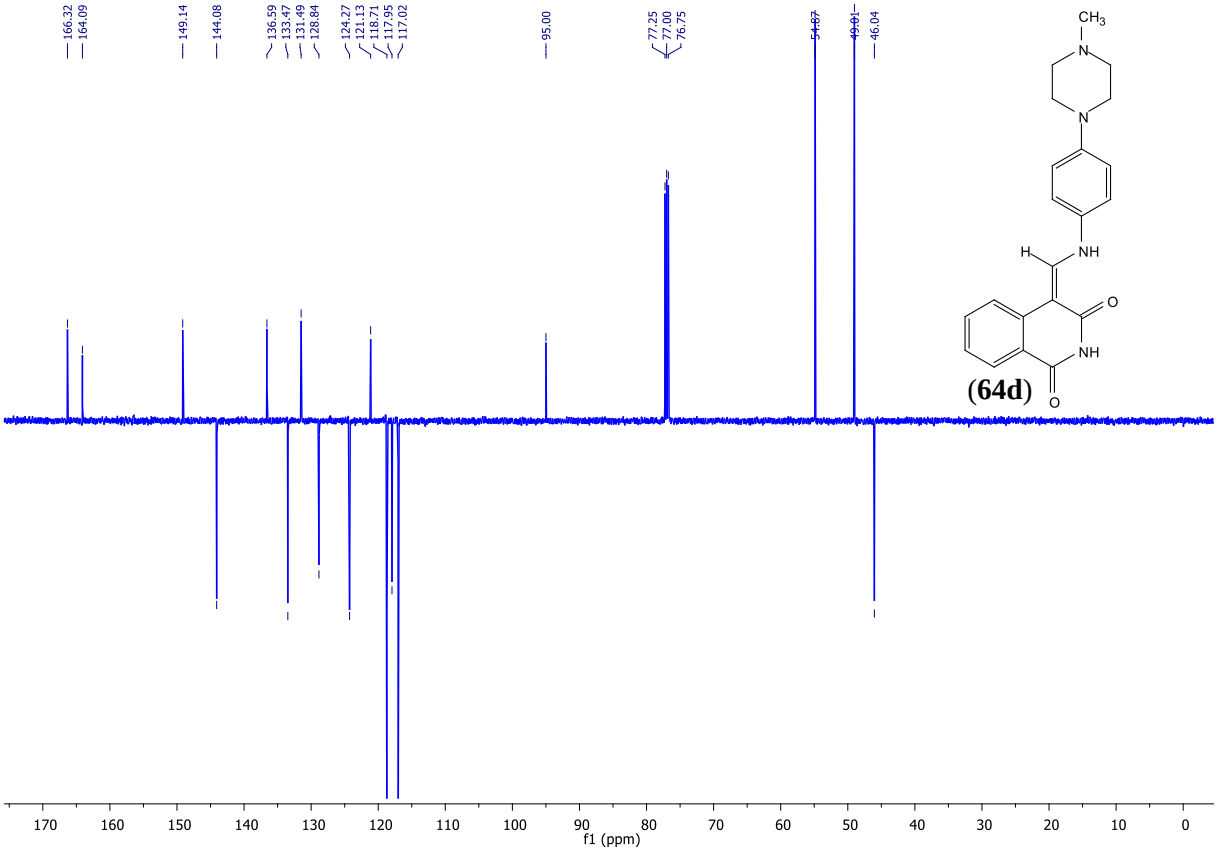
^{1}H NMR spektrum látky **64c**.



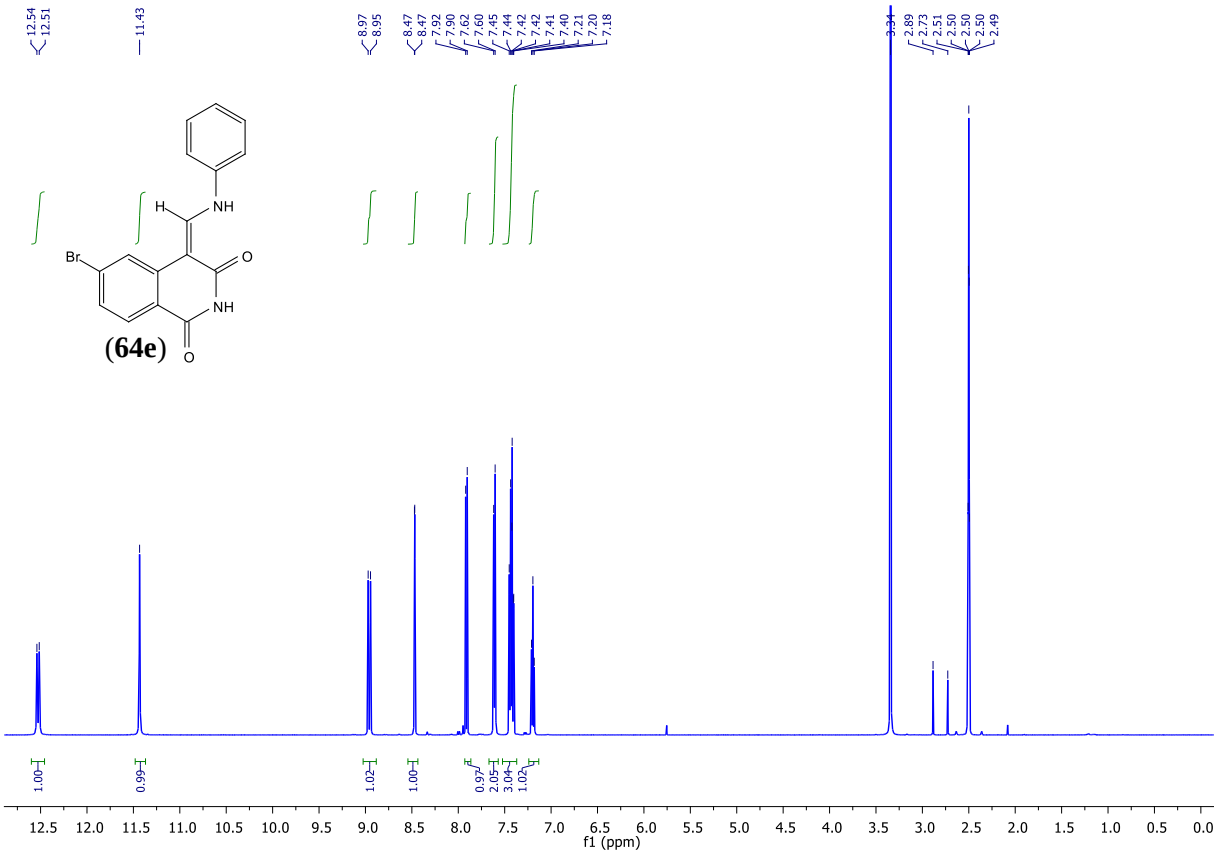
^{13}C NMR-APT spektrum látky **64c**.



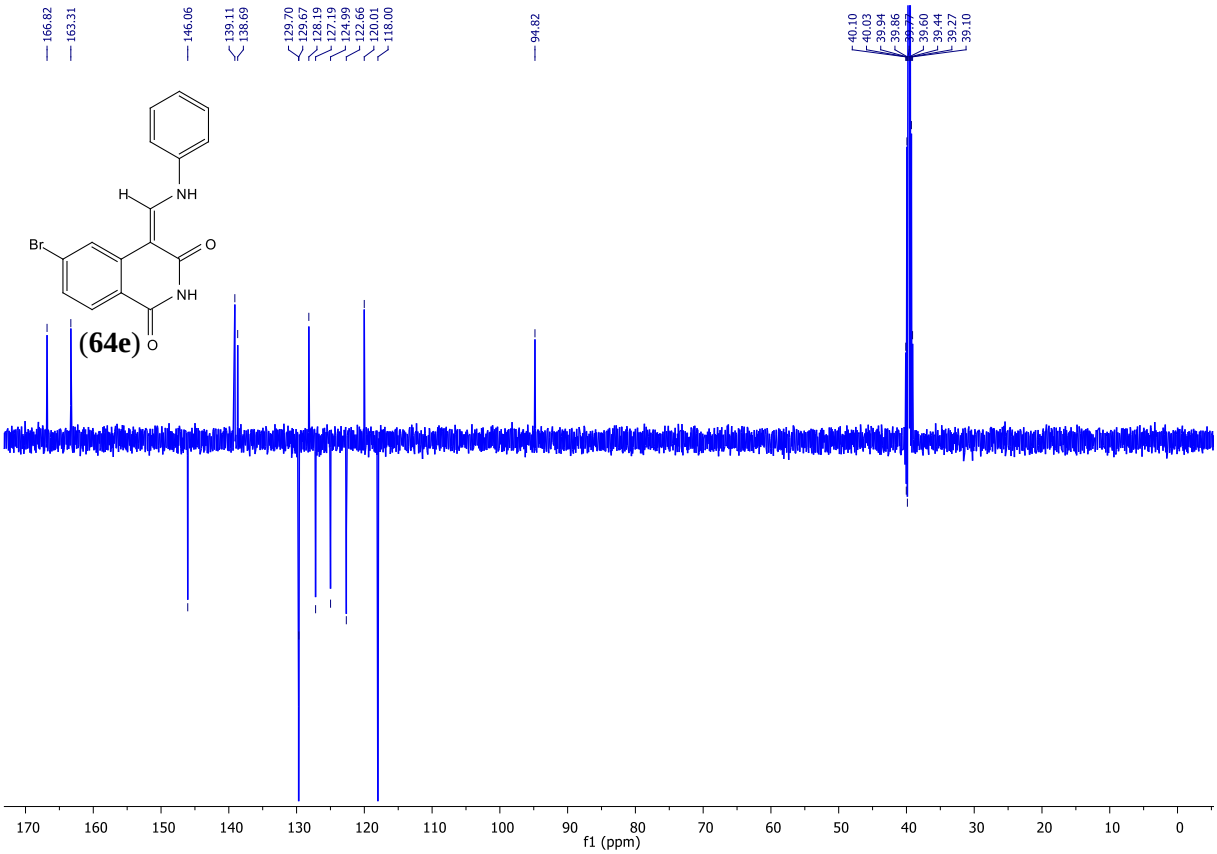
^{1}H NMR spektrum látky **64d**.



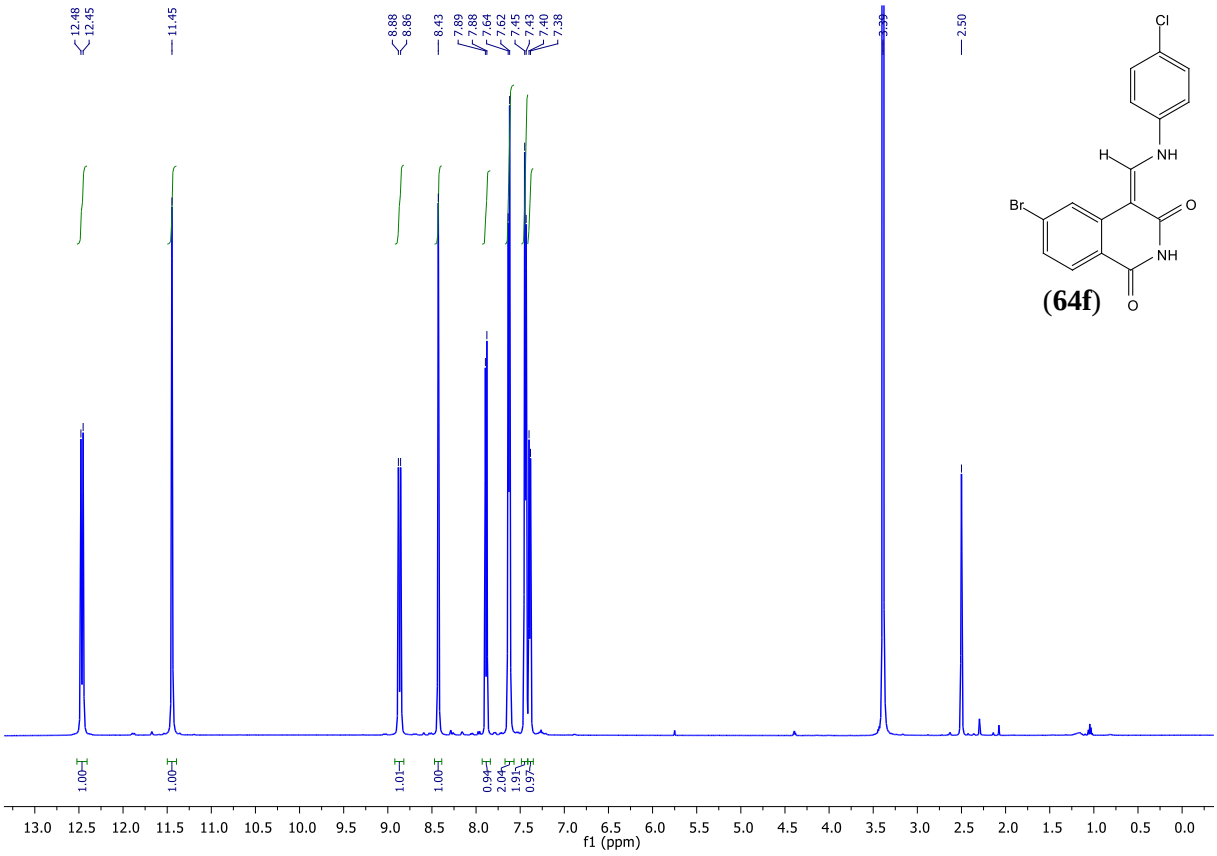
^{13}C NMR-APT spektrum látky **64d**.



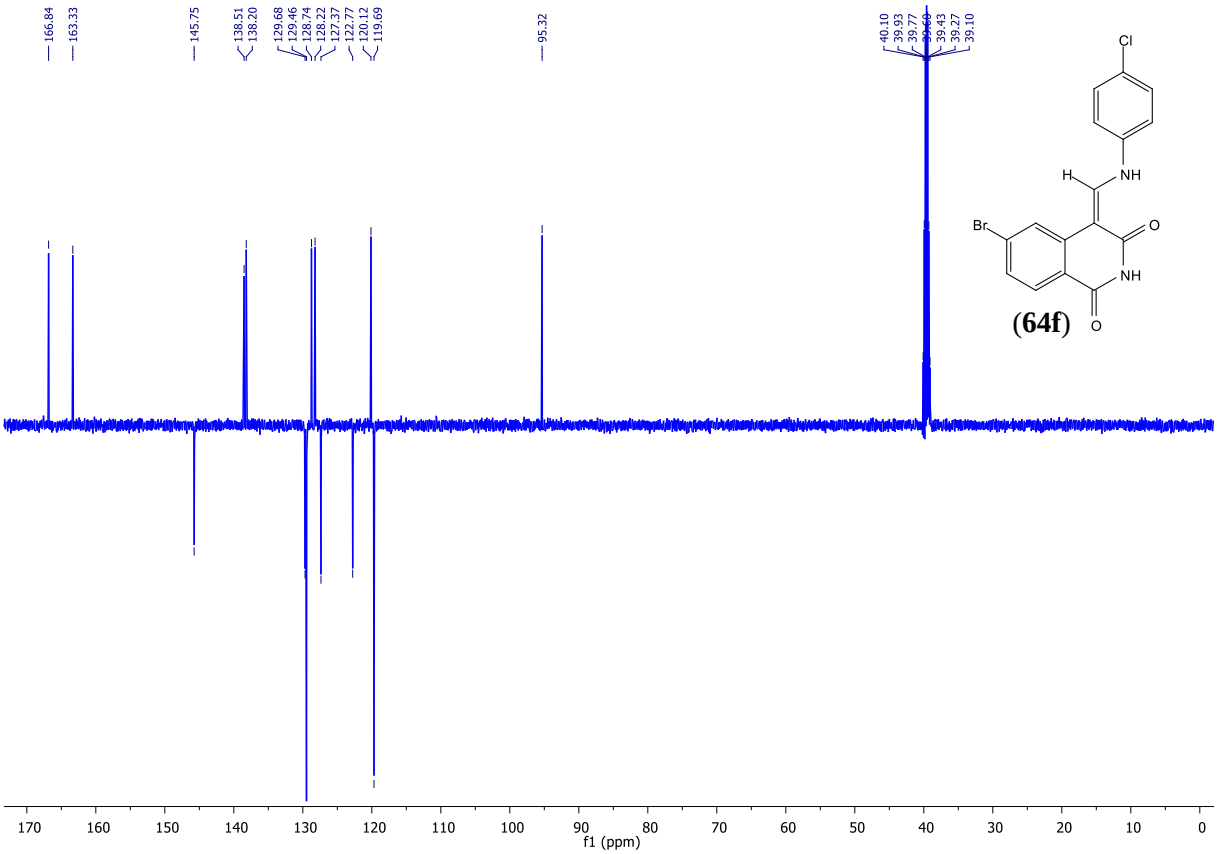
^{1}H NMR spektrum látky **64e**.



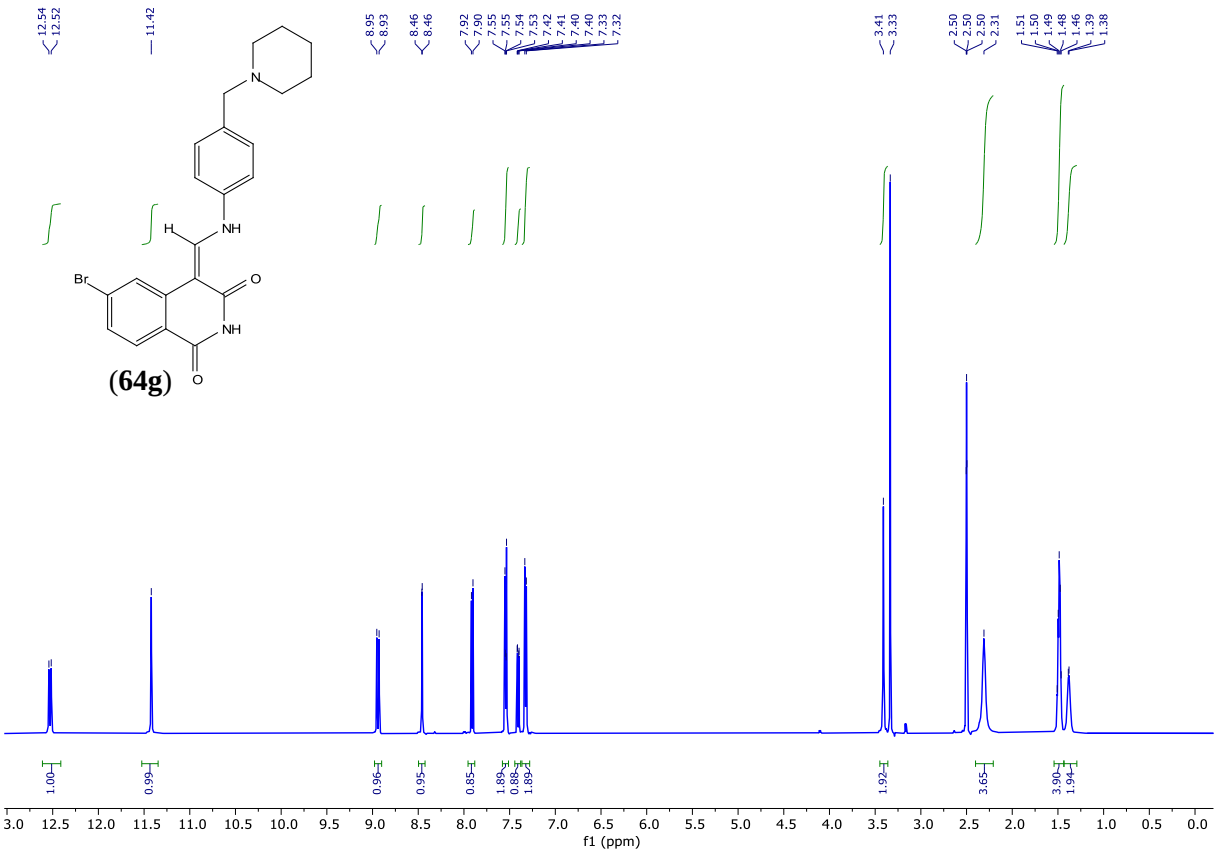
^{13}C NMR-APT spektrum látky **64e**.



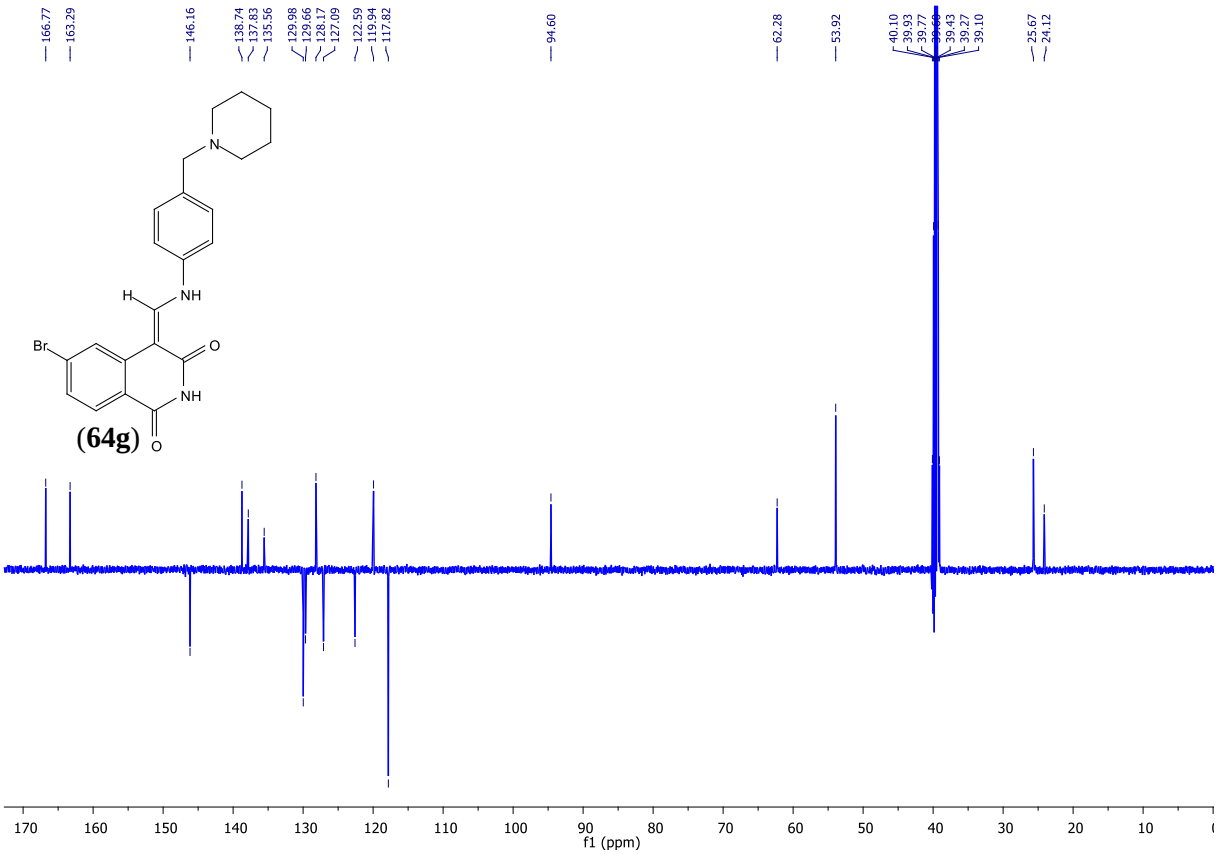
^{1}H NMR spektrum látky **64f**.



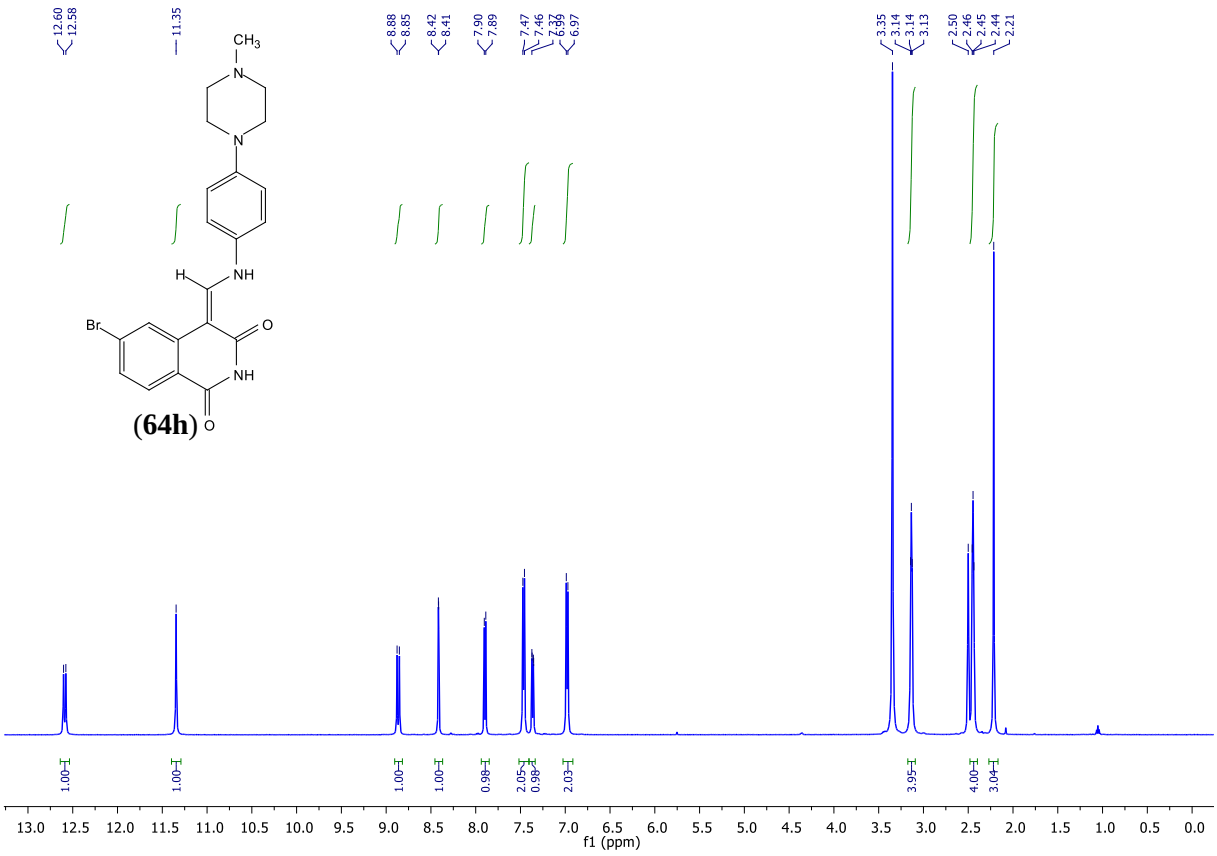
^{13}C NMR-APT spektrum látky **64f**.



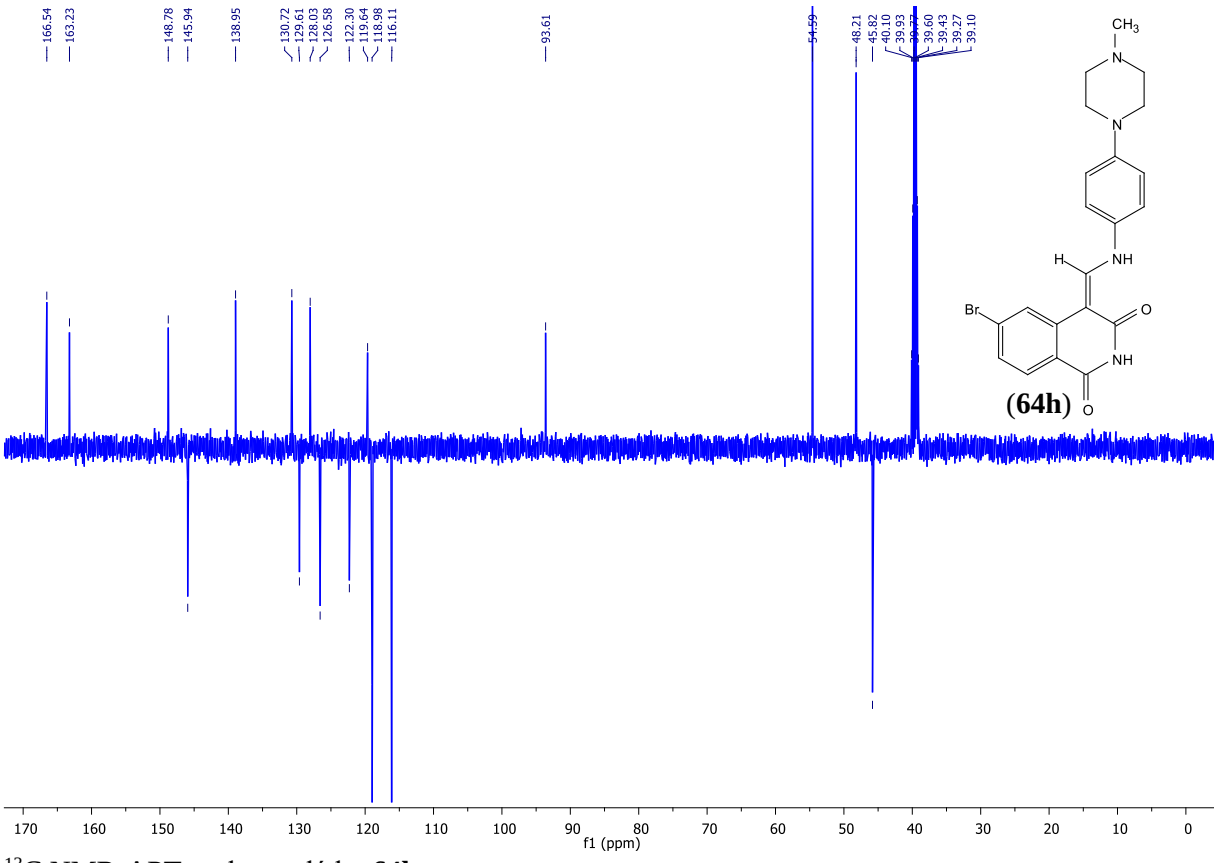
^{1}H NMR spektrum látky **64g**.



^{13}C NMR-APT spektrum látky **64g**.

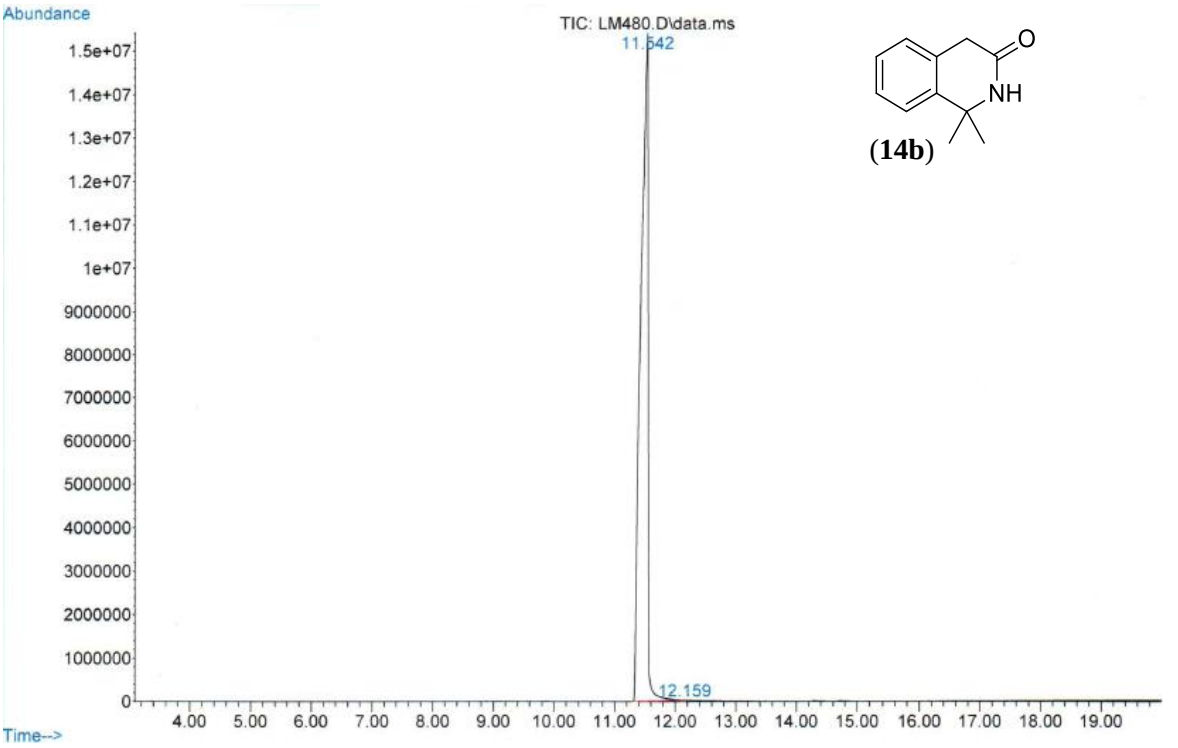


^{1}H NMR spektrum látky **64h**.

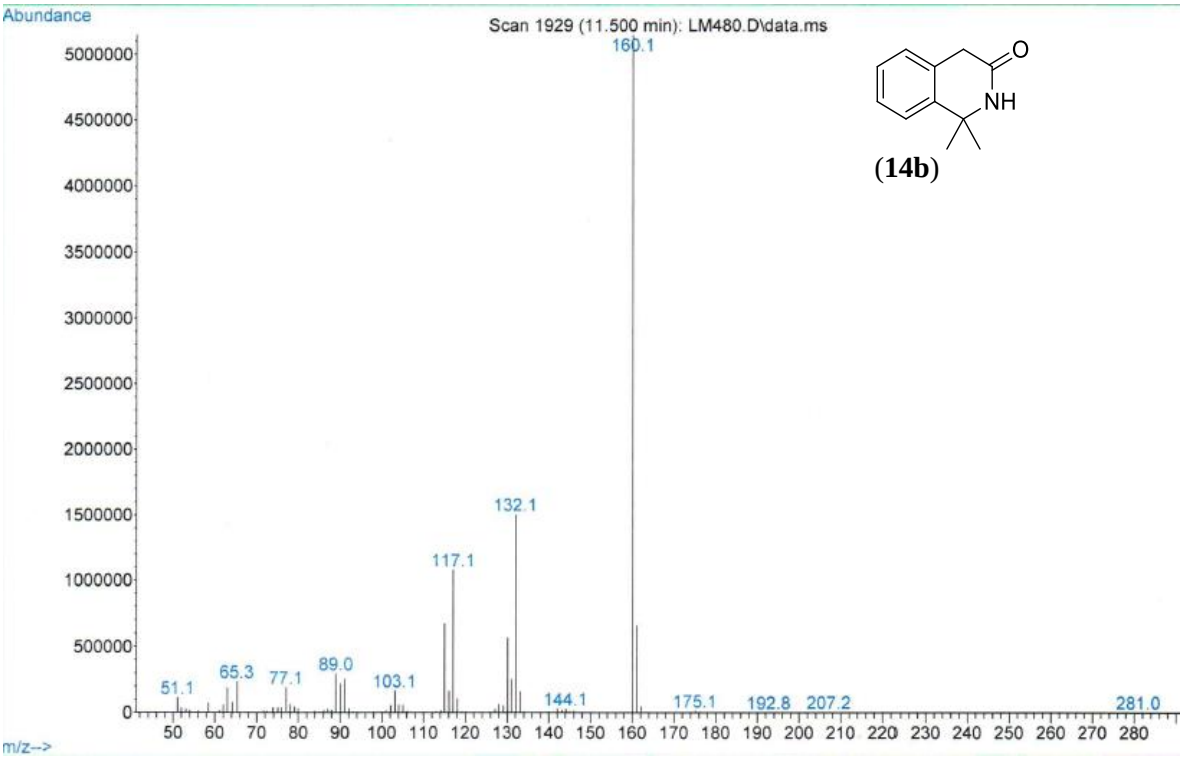


^{13}C NMR-APT spektrum látky **64h**.

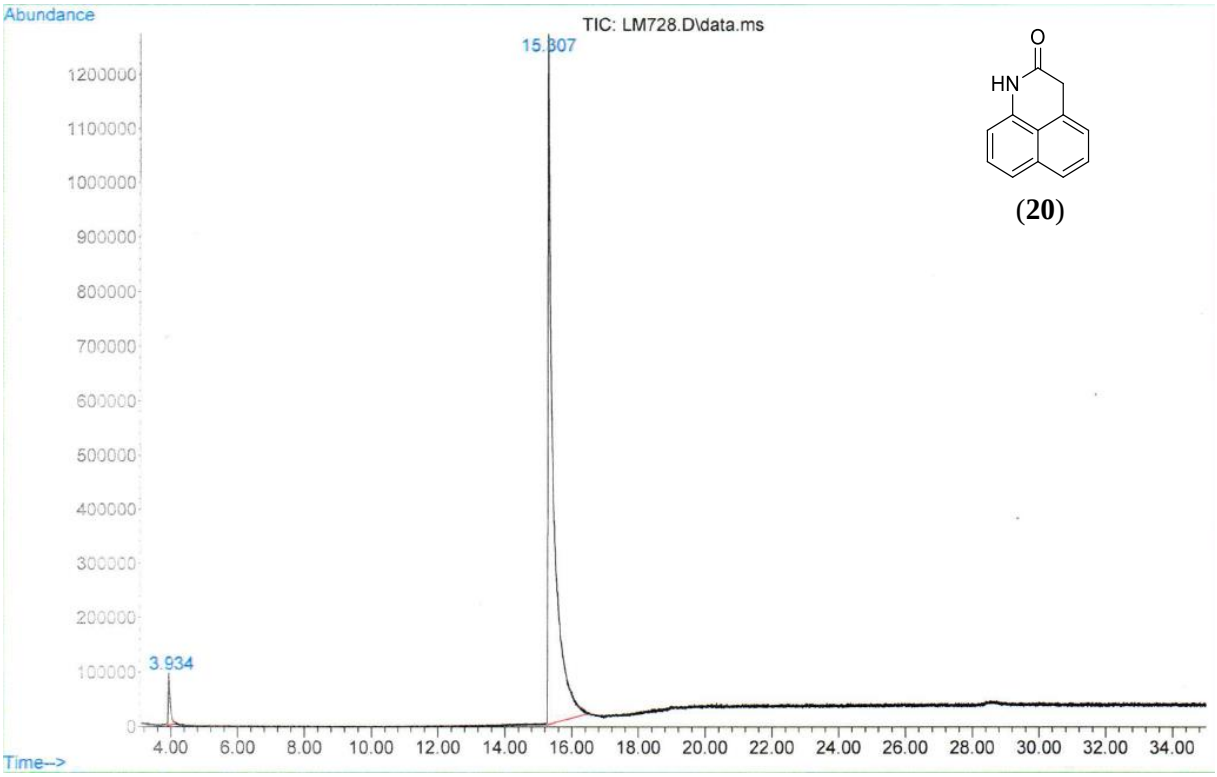
GC chromatogramy a EI-MS spektra



GC chromatogram látky **14b**.

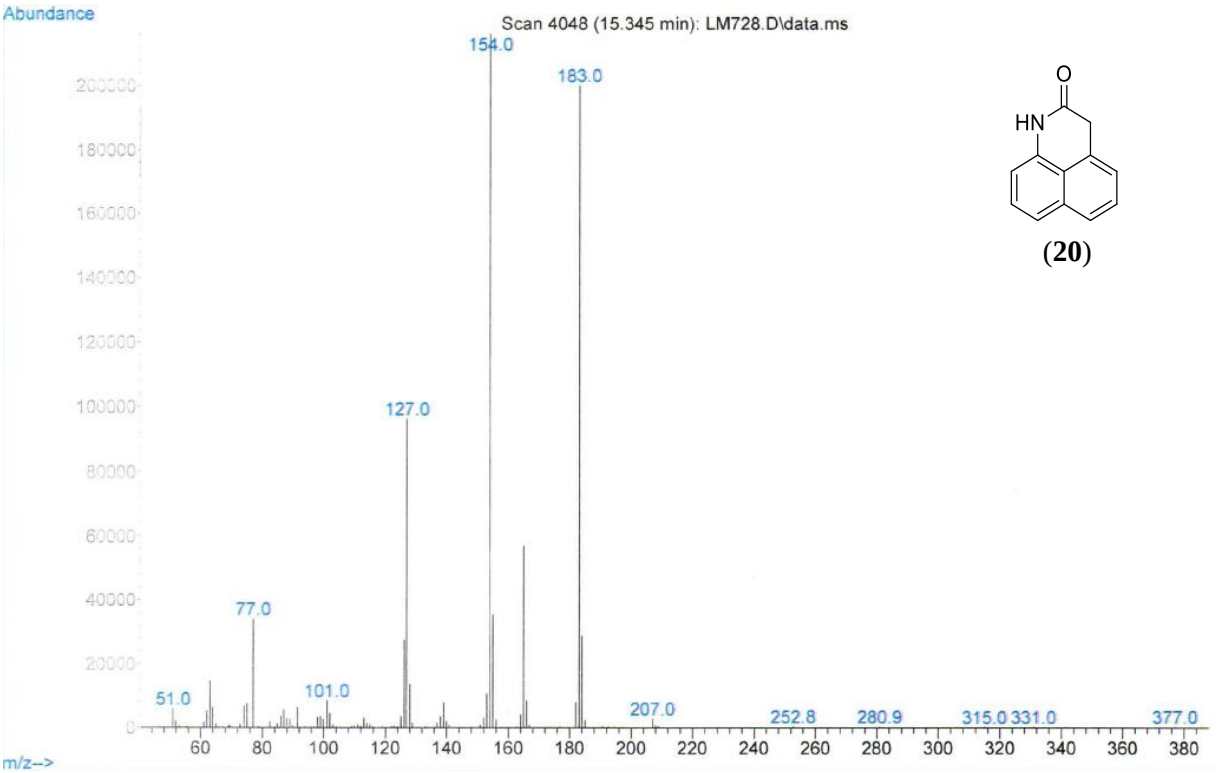


EI-MS (70 eV) spektrum látky **14b**.



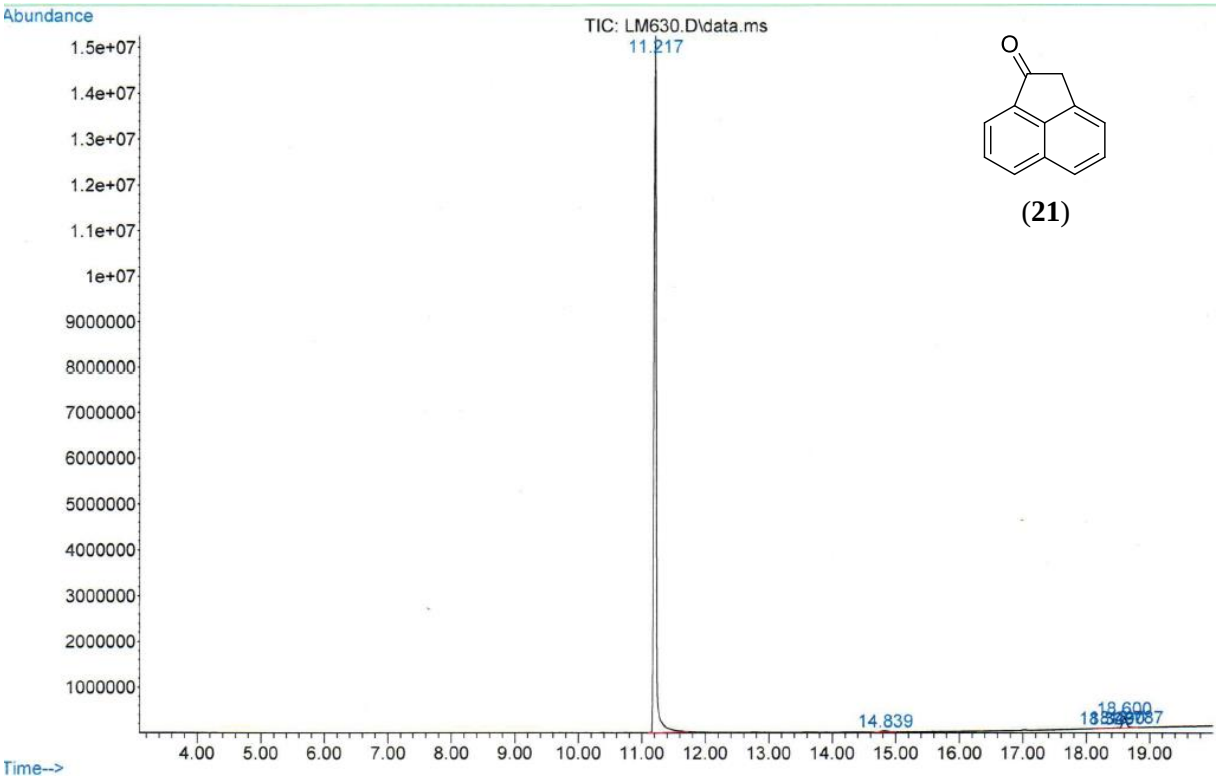
(**20**)

GC chromatogram látky **20**.



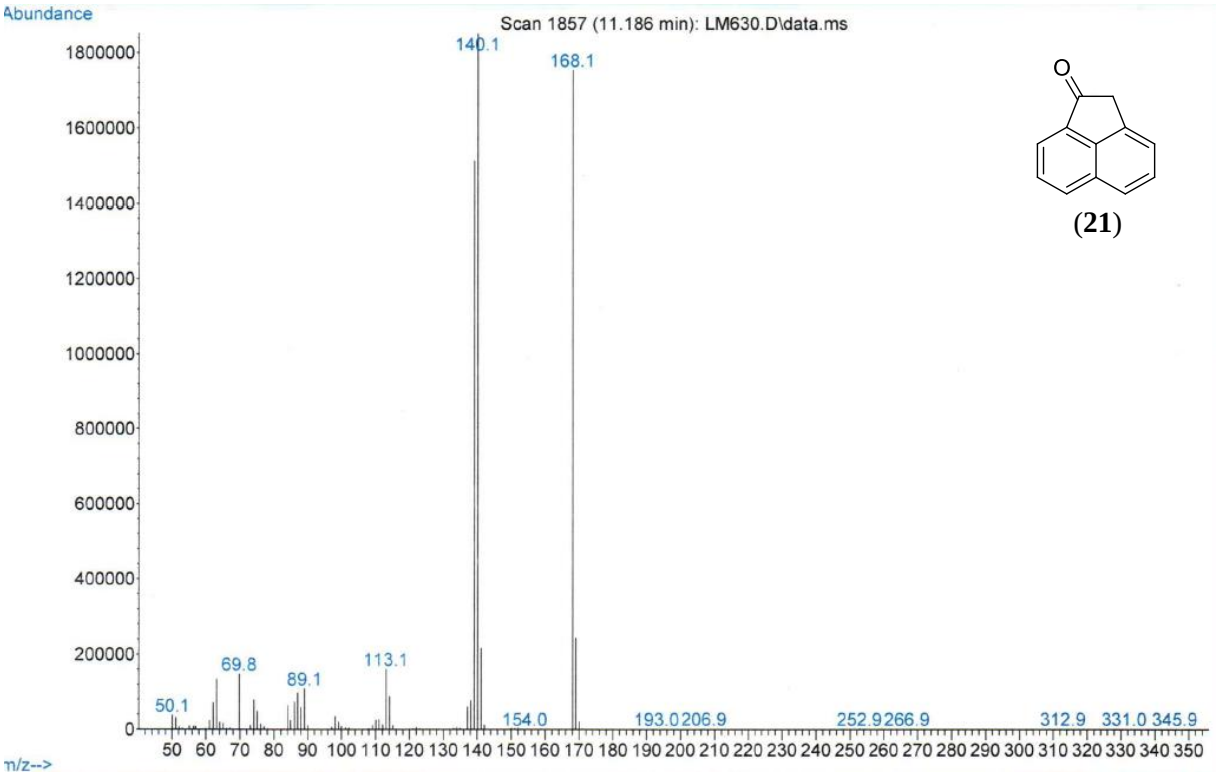
(**20**)

EI-MS (70 eV) spektrum látky **20**.



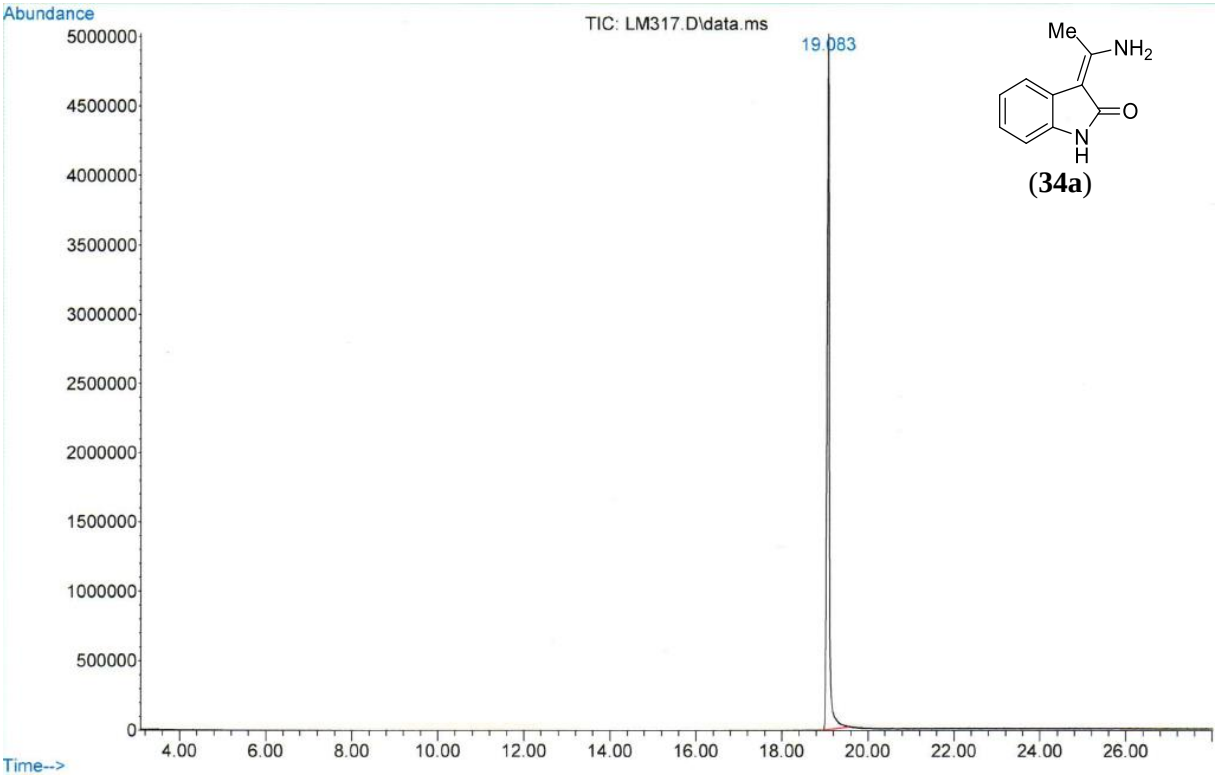
(**21**)

GC chromatogram látky **21**.

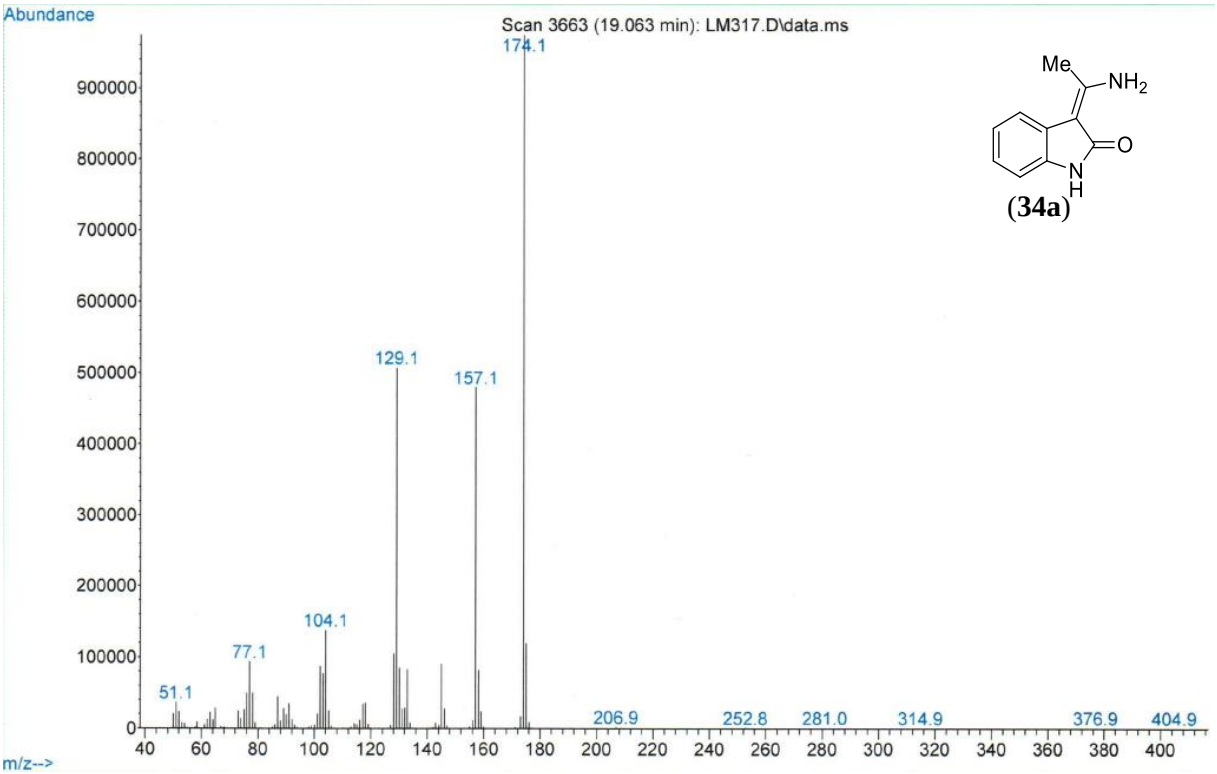


(**21**)

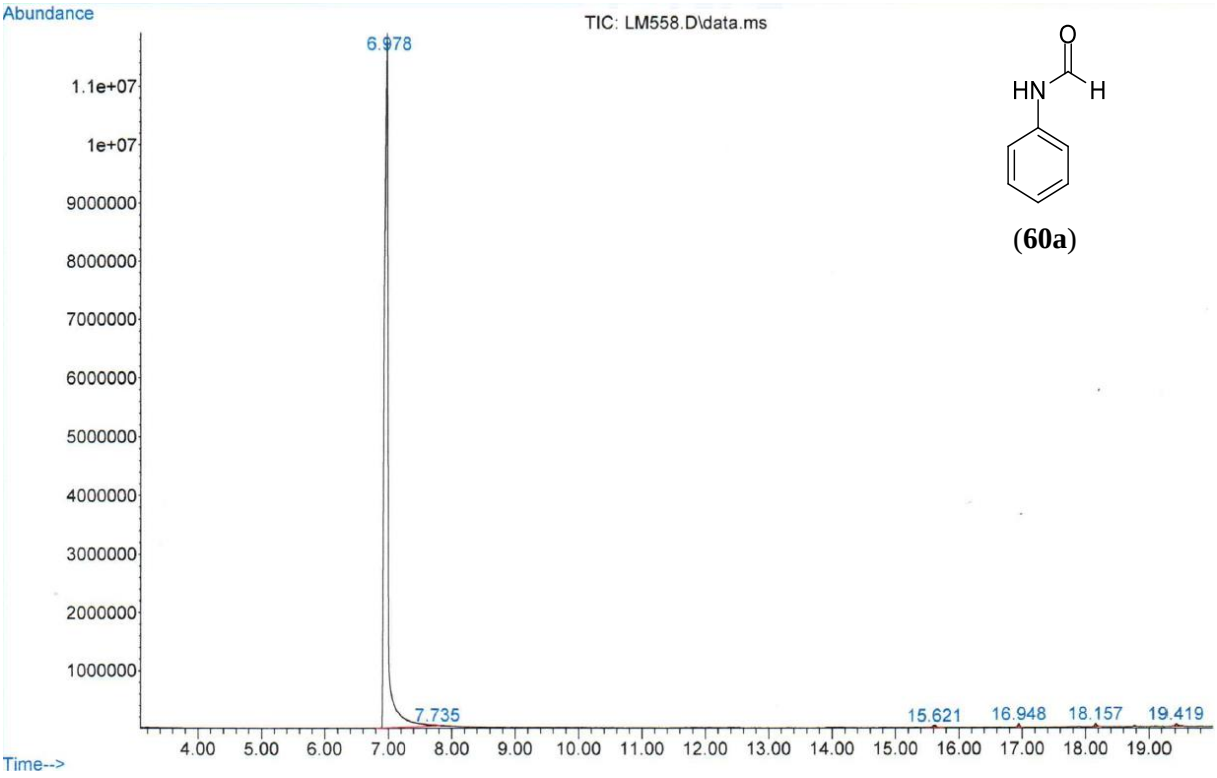
EI-MS (70 eV) spektrum látky **21**.



GC chromatogram látky **34a**.

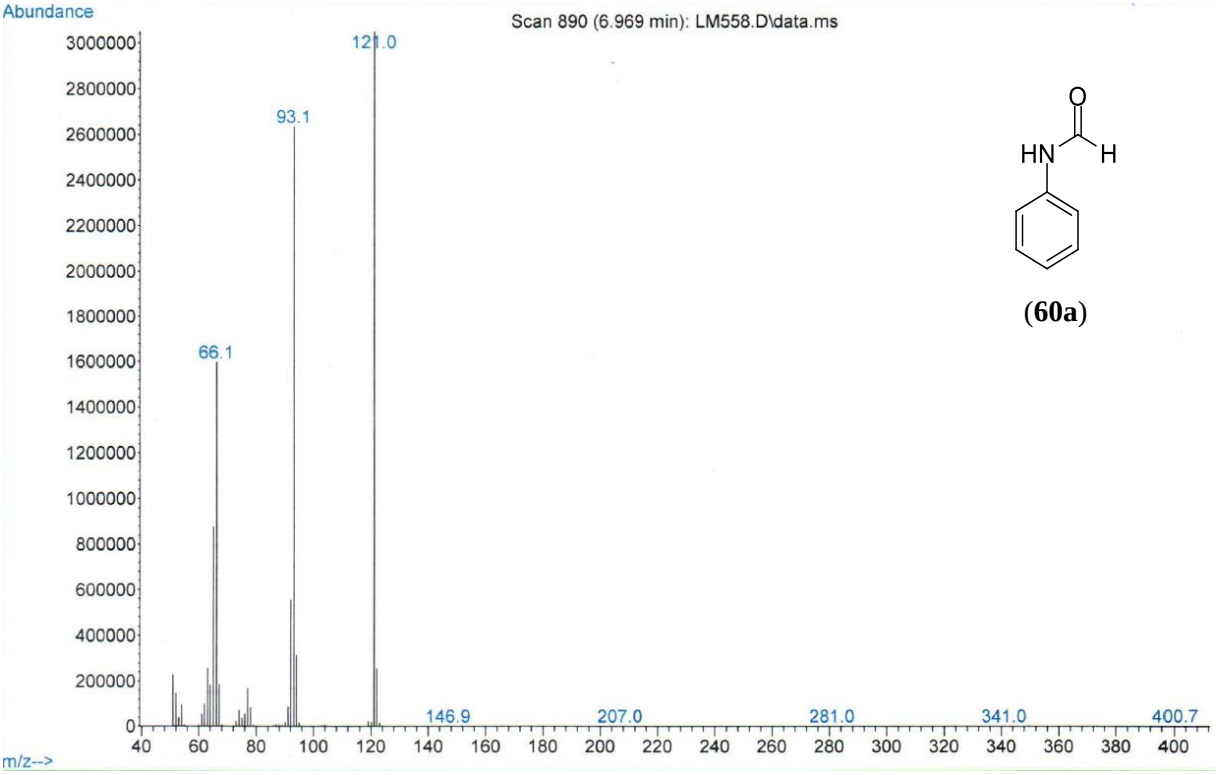


EI-MS (70 eV) spektrum látky **34a**.



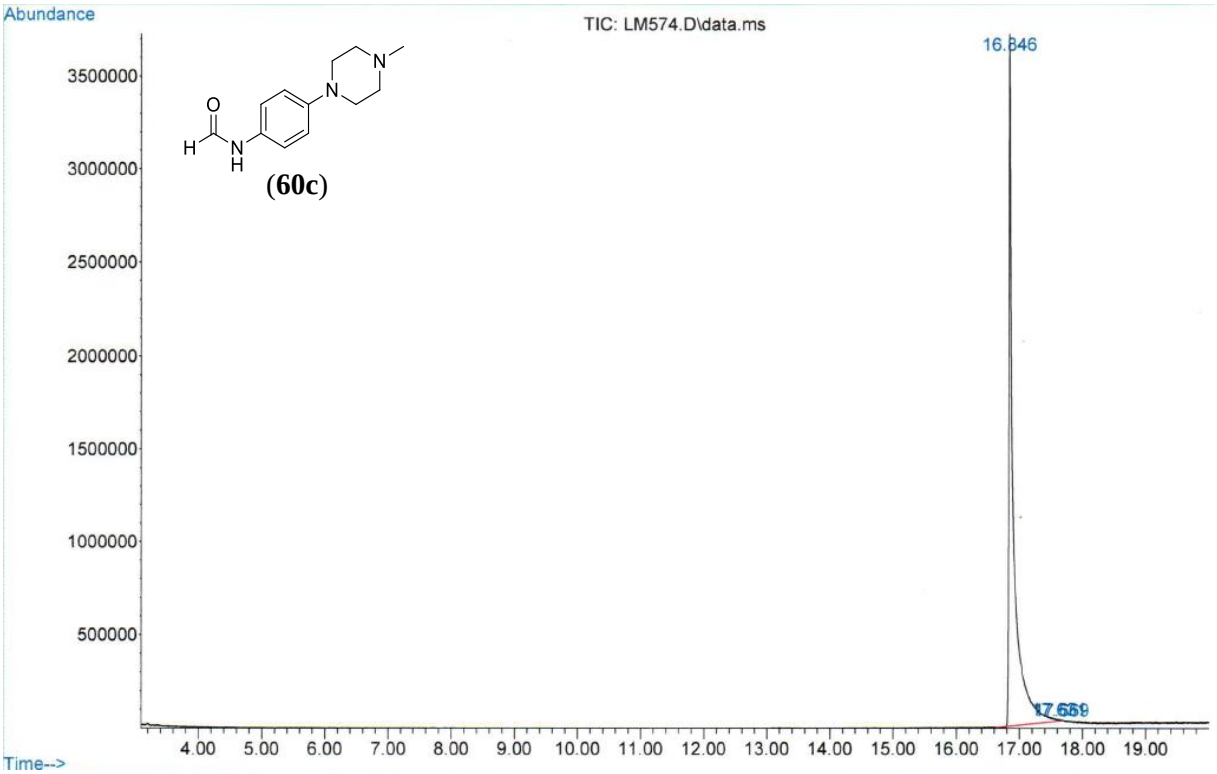
(**60a**)

GC chromatogram látky **60a**.

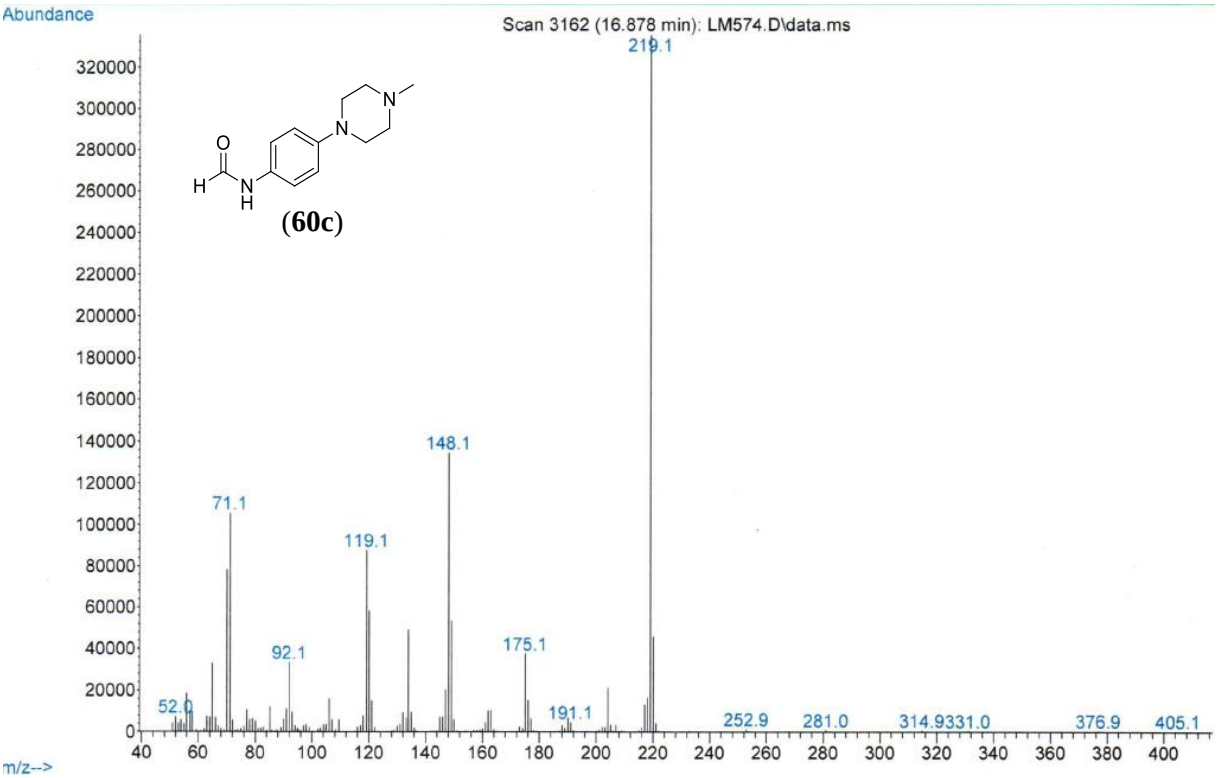


(**60a**)

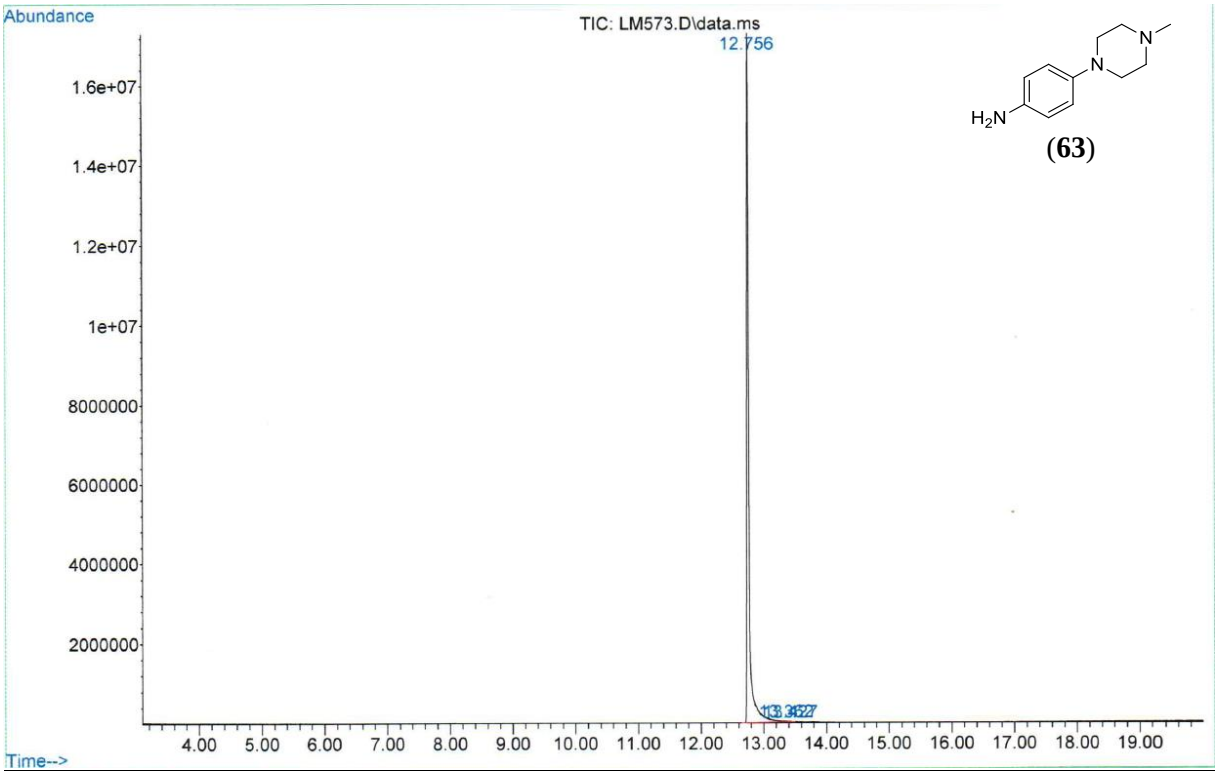
EI-MS (70 eV) spektrum látky **60a**.



GC chromatogram látky **60c**.

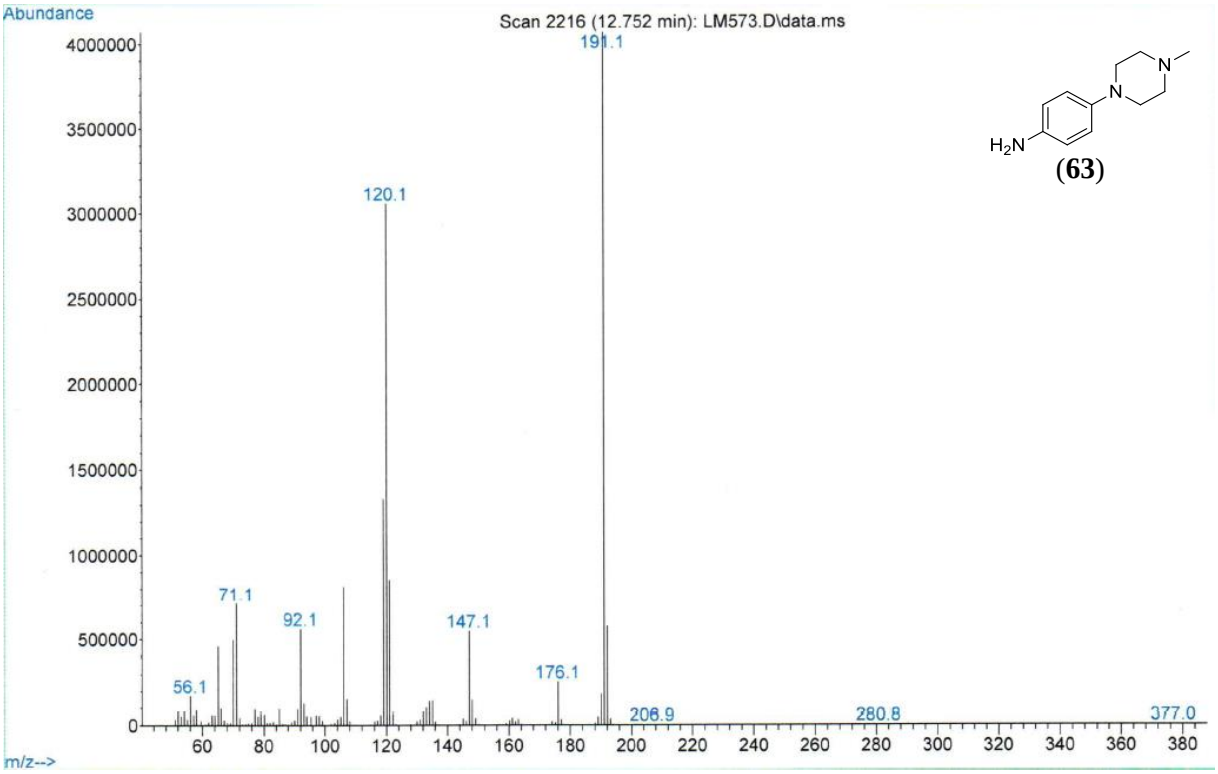


EI-MS (70 eV) spektrum látky **60c**.



(63)

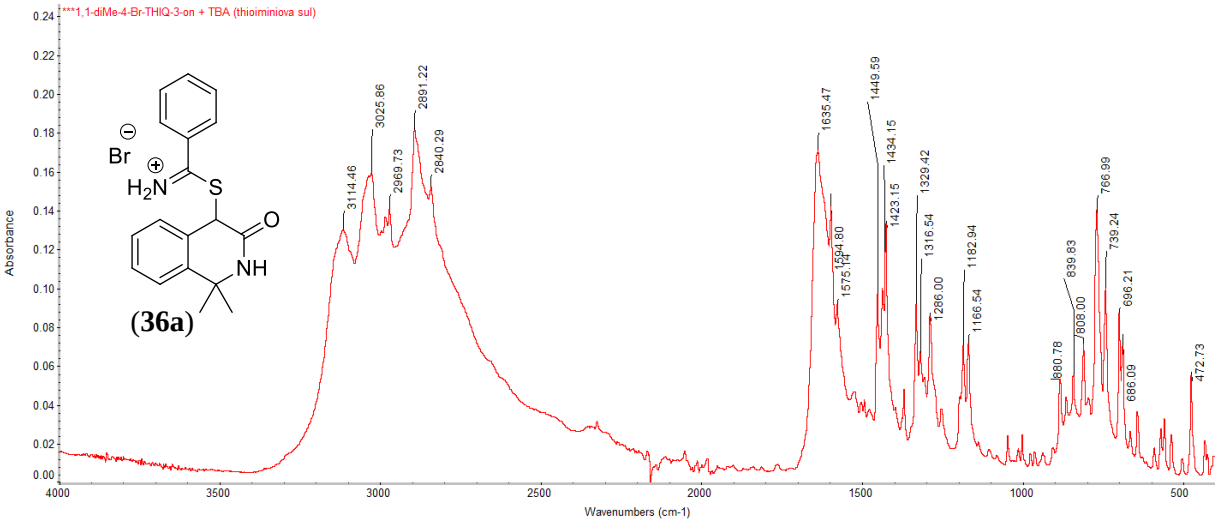
GC chromatogram látky **63**.



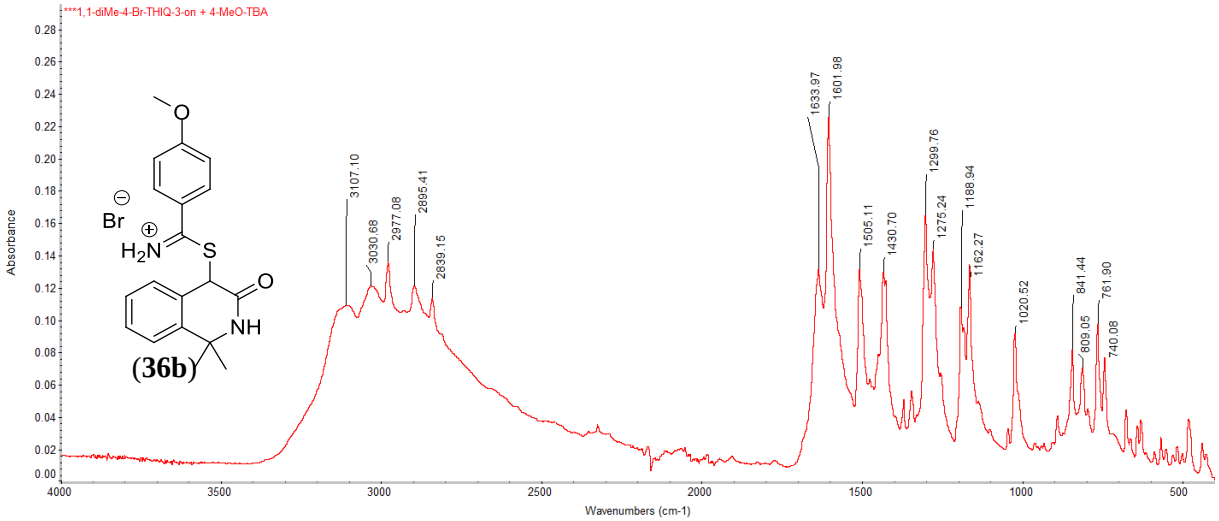
(63)

EI-MS (70 eV) spektrum látky **63**.

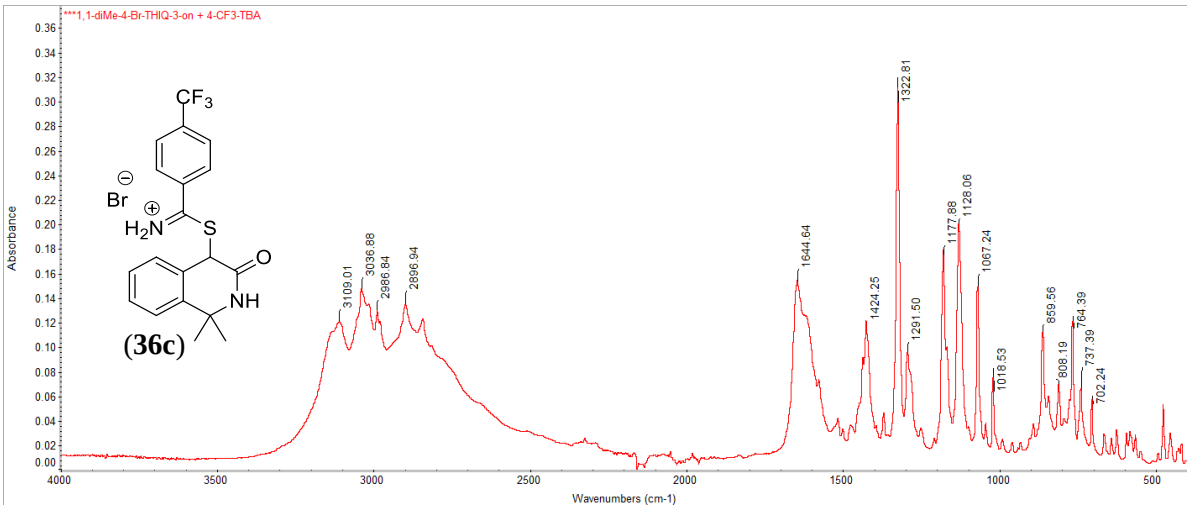
IR spektra



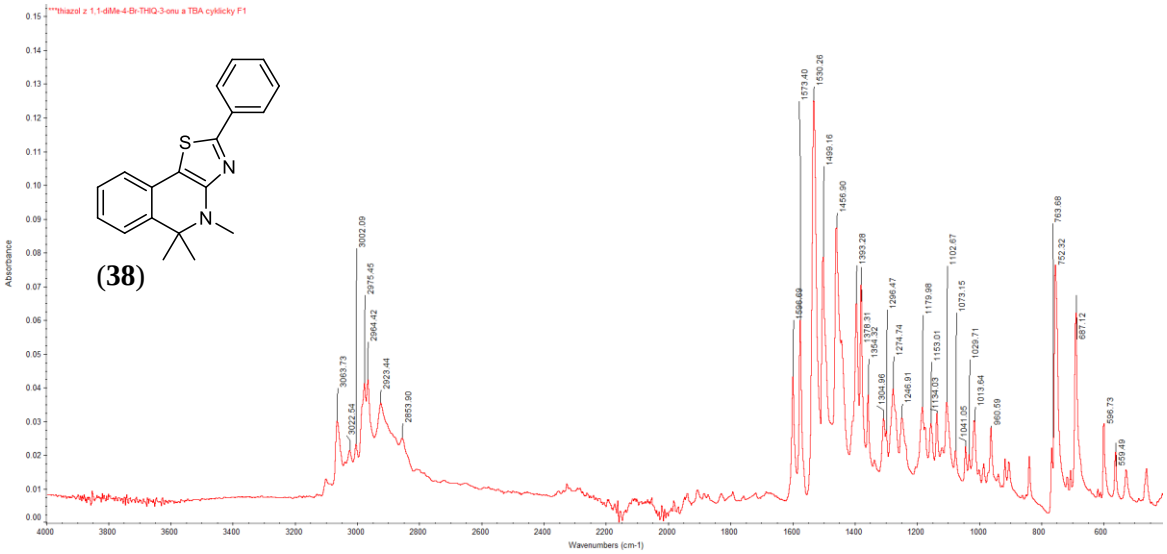
IR-ATR spektrum látky **36a**.



IR-ATR spektrum látky **36b**.



IR-ATR spektrum látky **36c**.



IR-ATR spektrum látky **38**.