

SUPPLEMENTARY MATERIAL

Synthesis and biological screening of a library of macamides as TNF- α inhibitors

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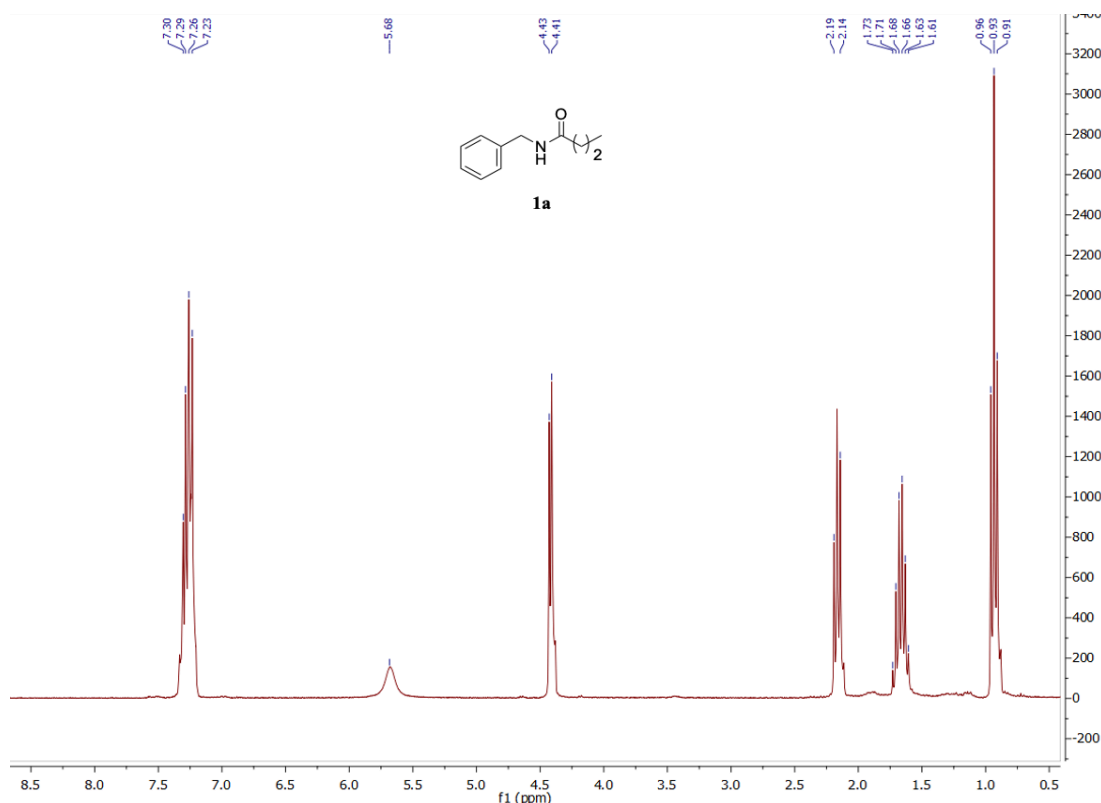
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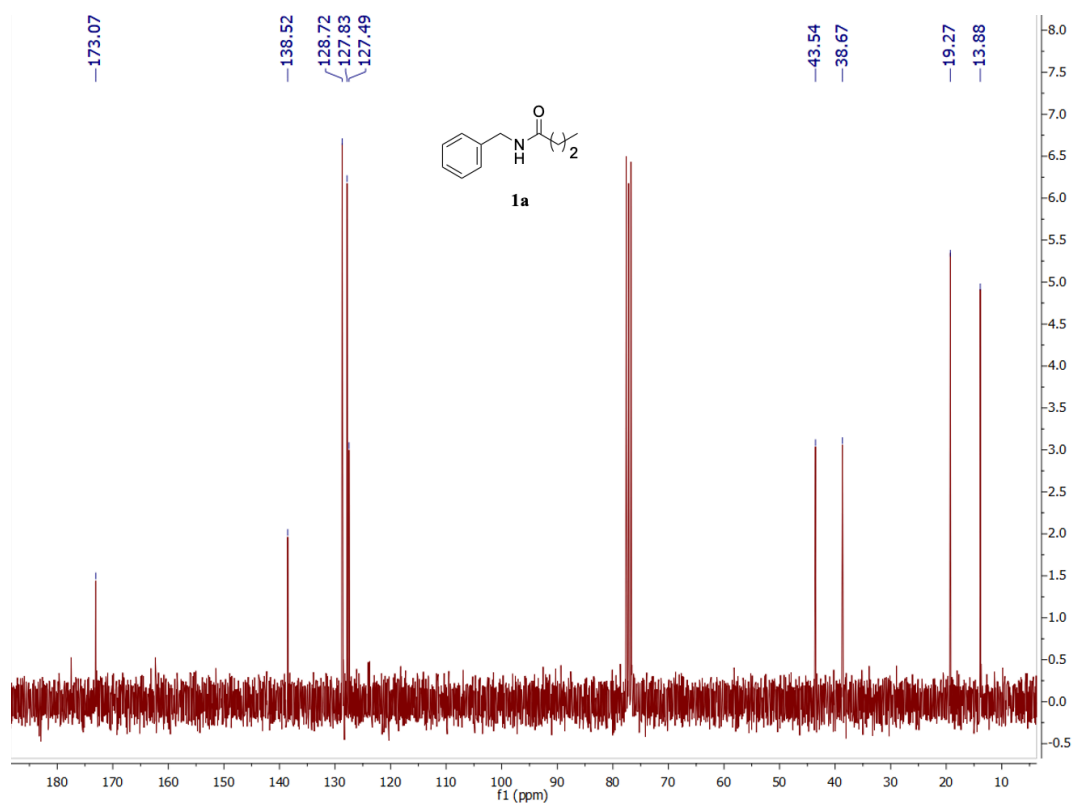
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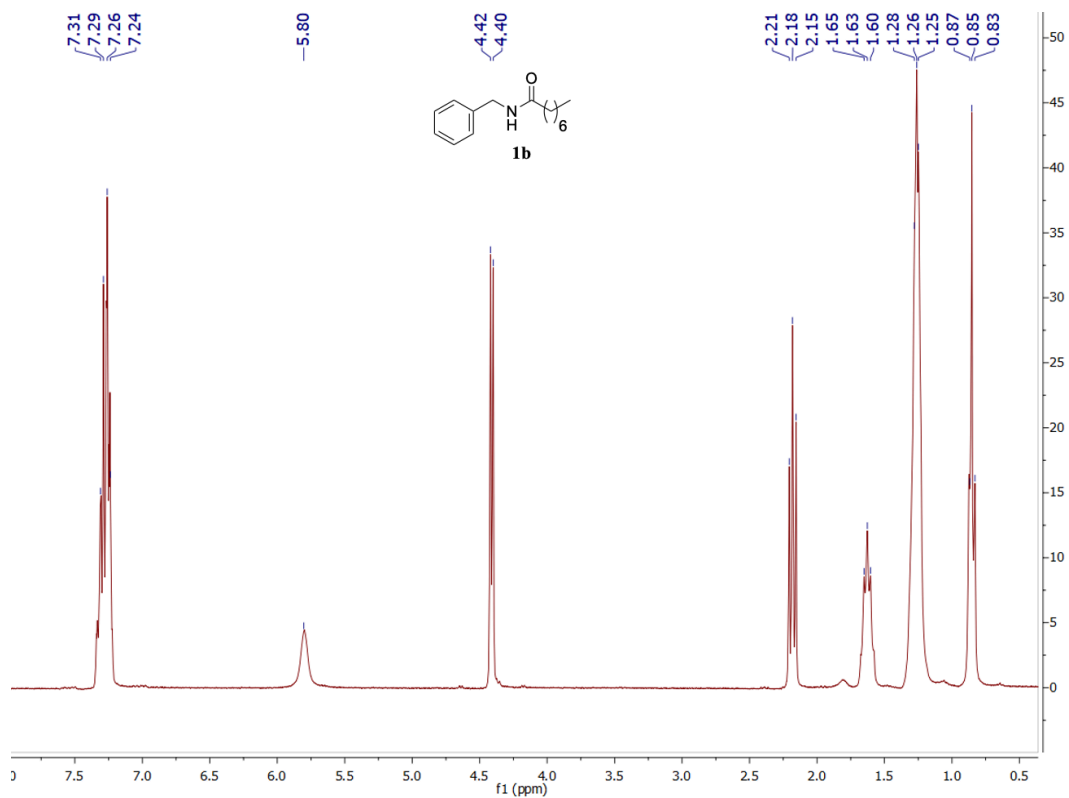
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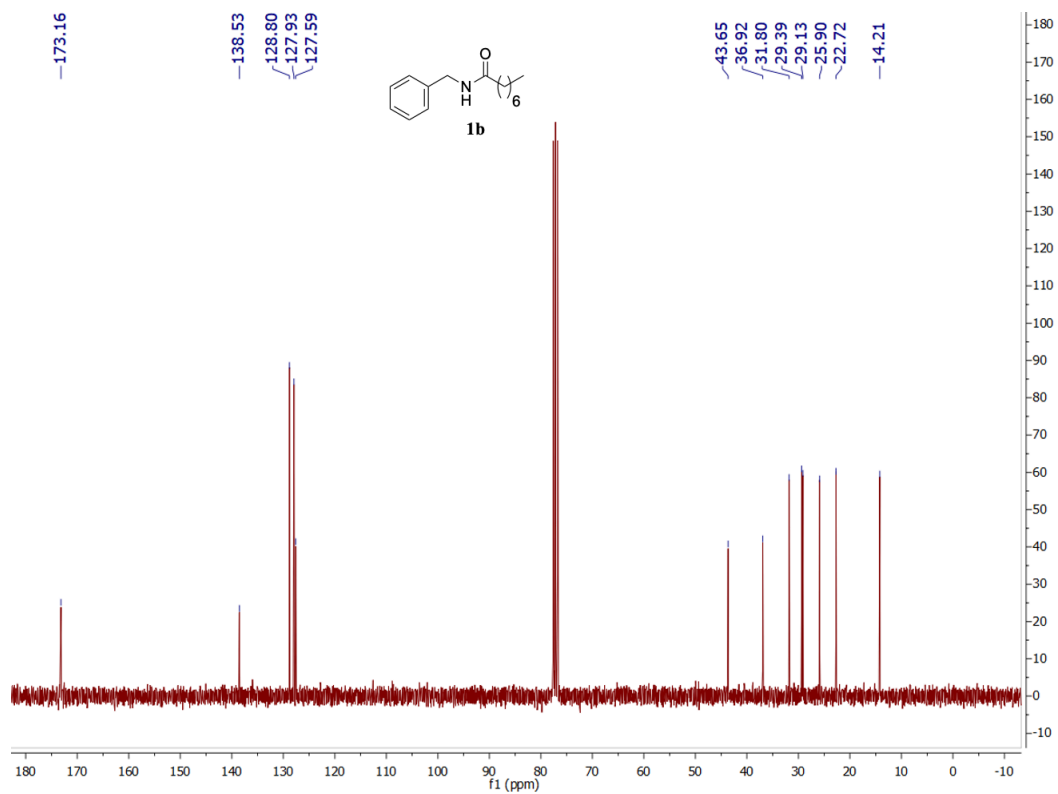
- Figure 1S. ¹H NMR (CDCl₃, 300 MHz) spectrum of *N*-benzylbutyramide (**1a**).



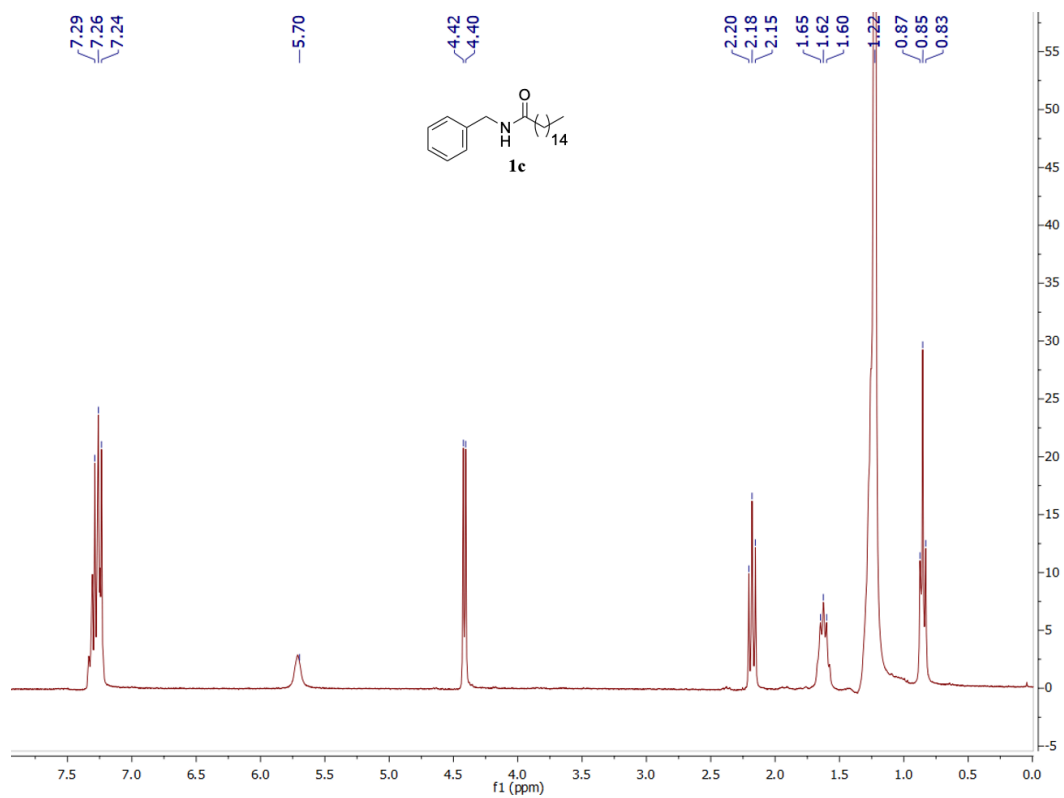
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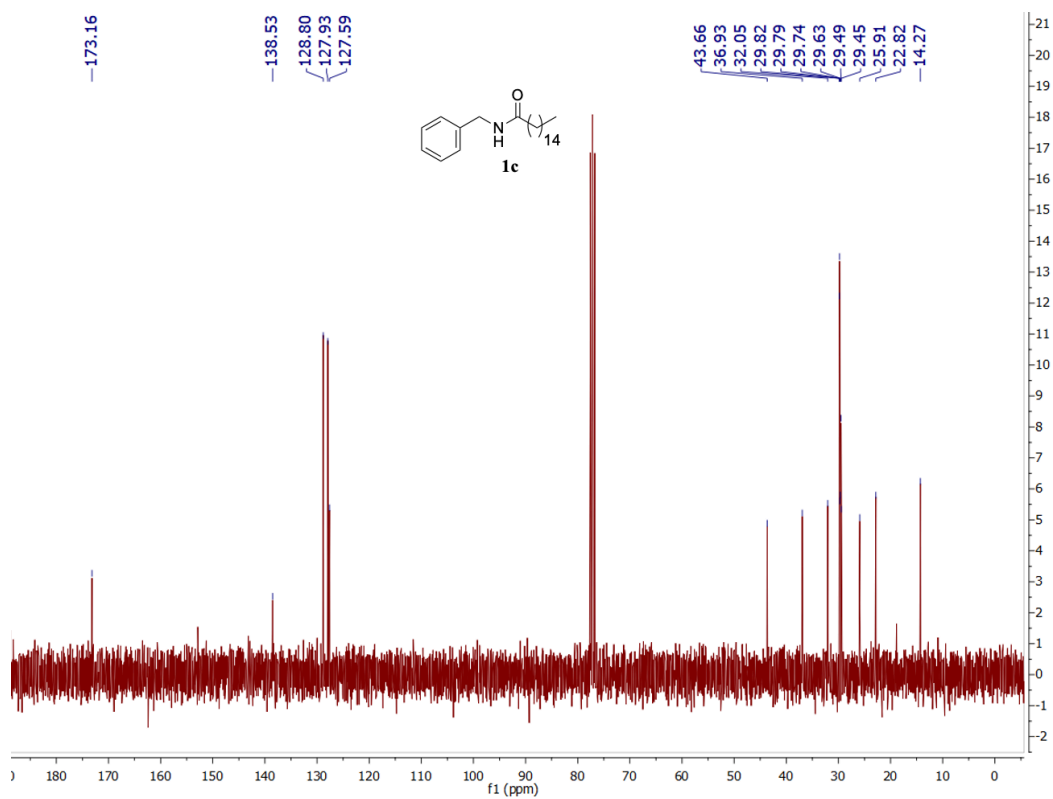
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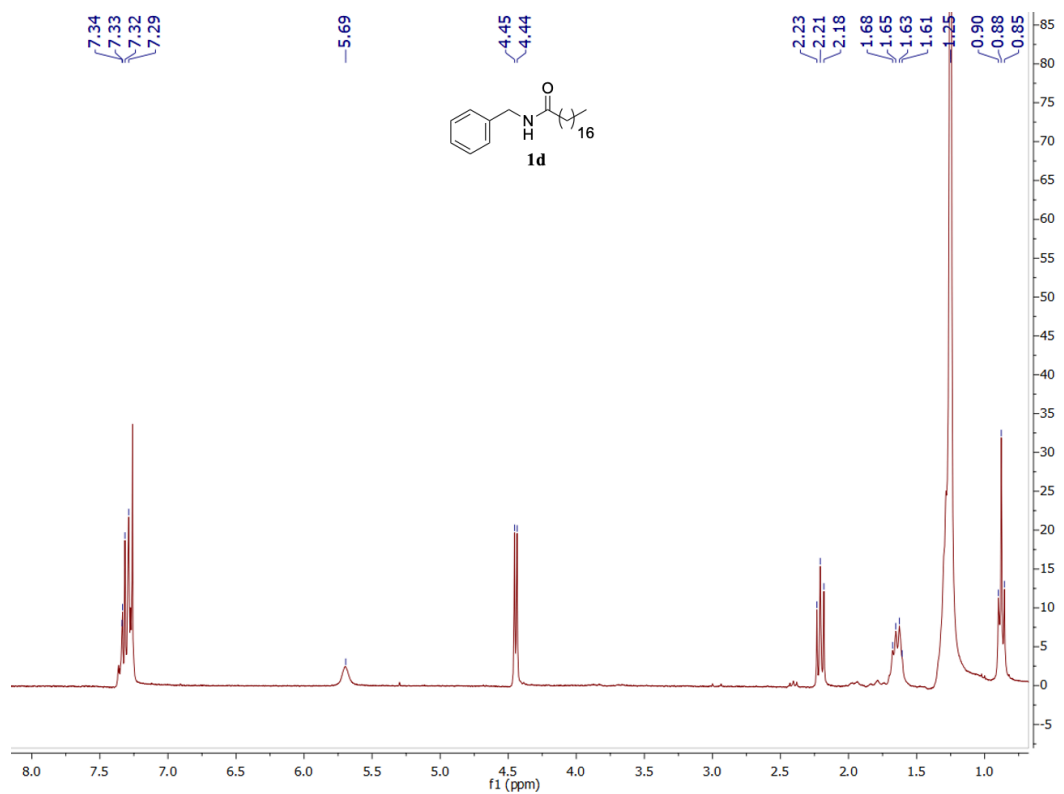
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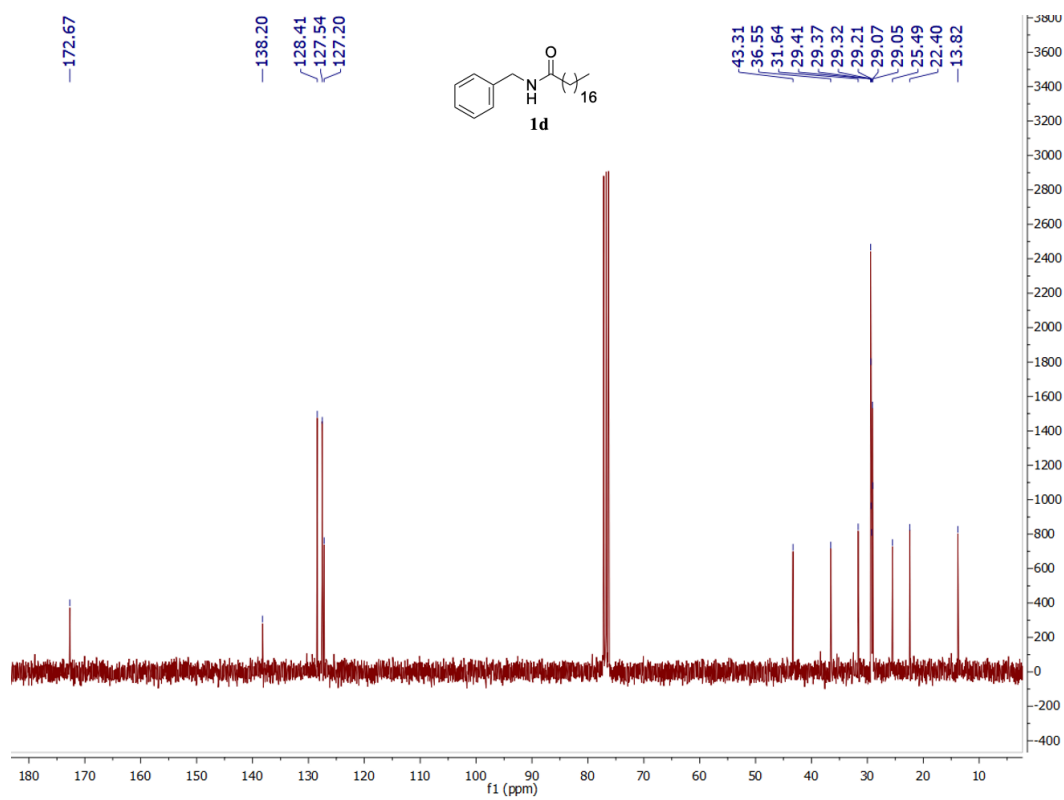
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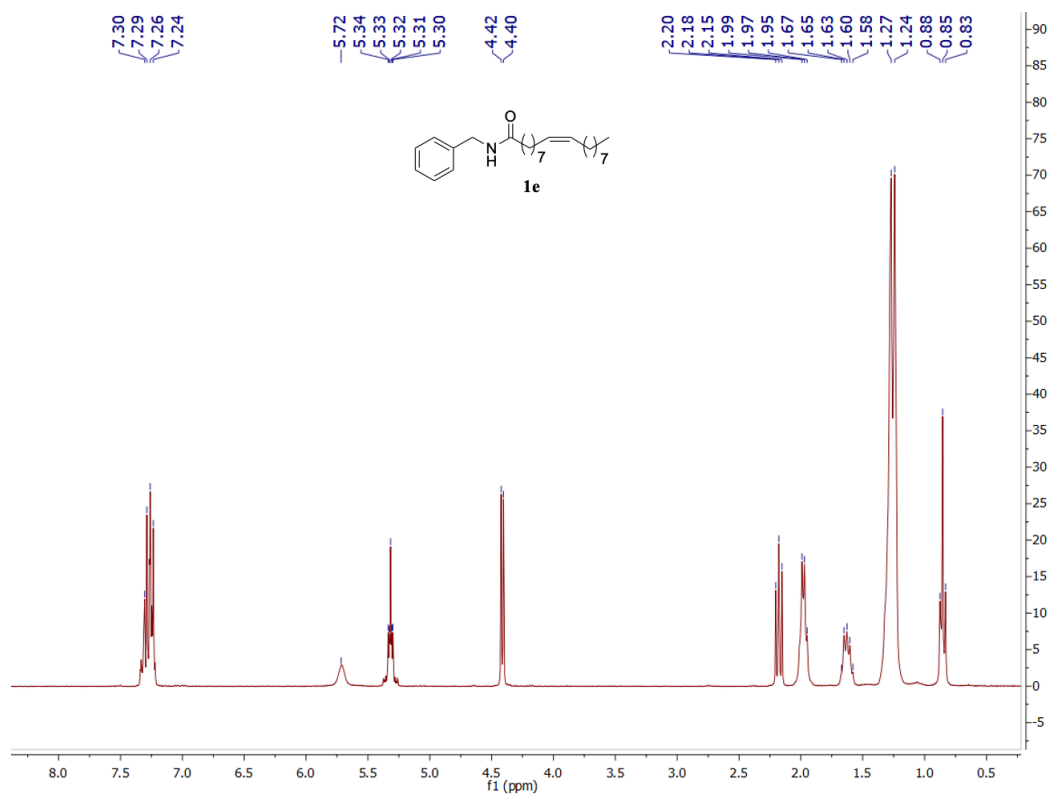
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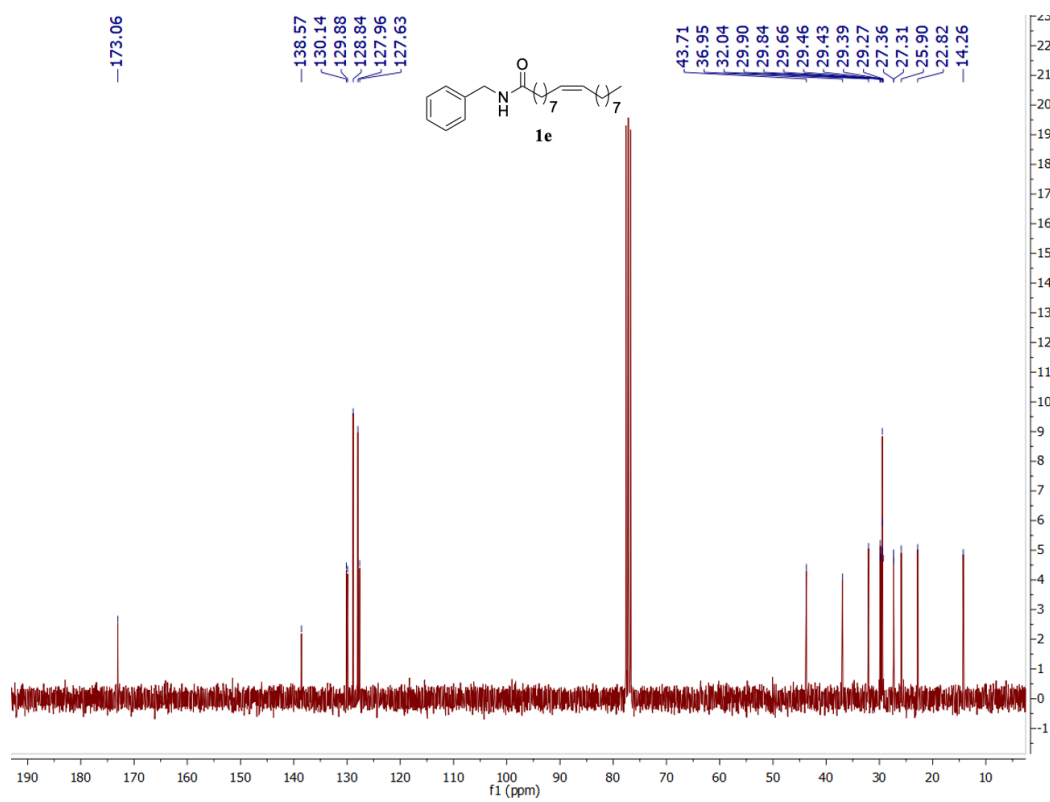
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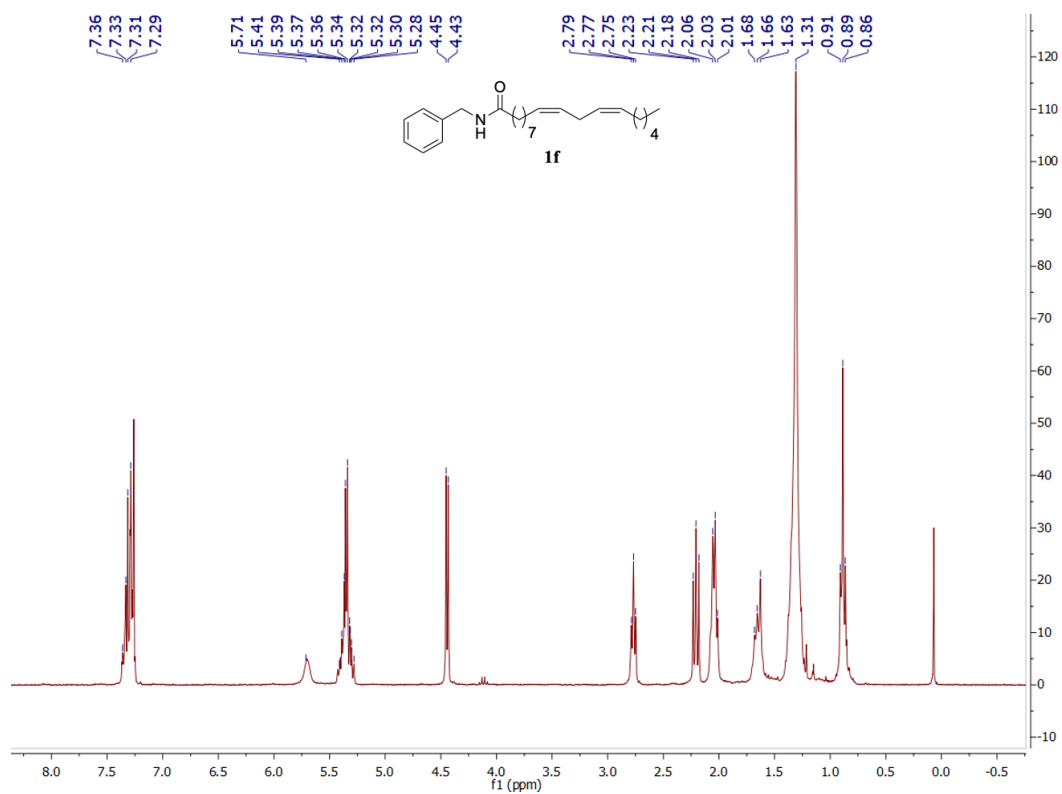
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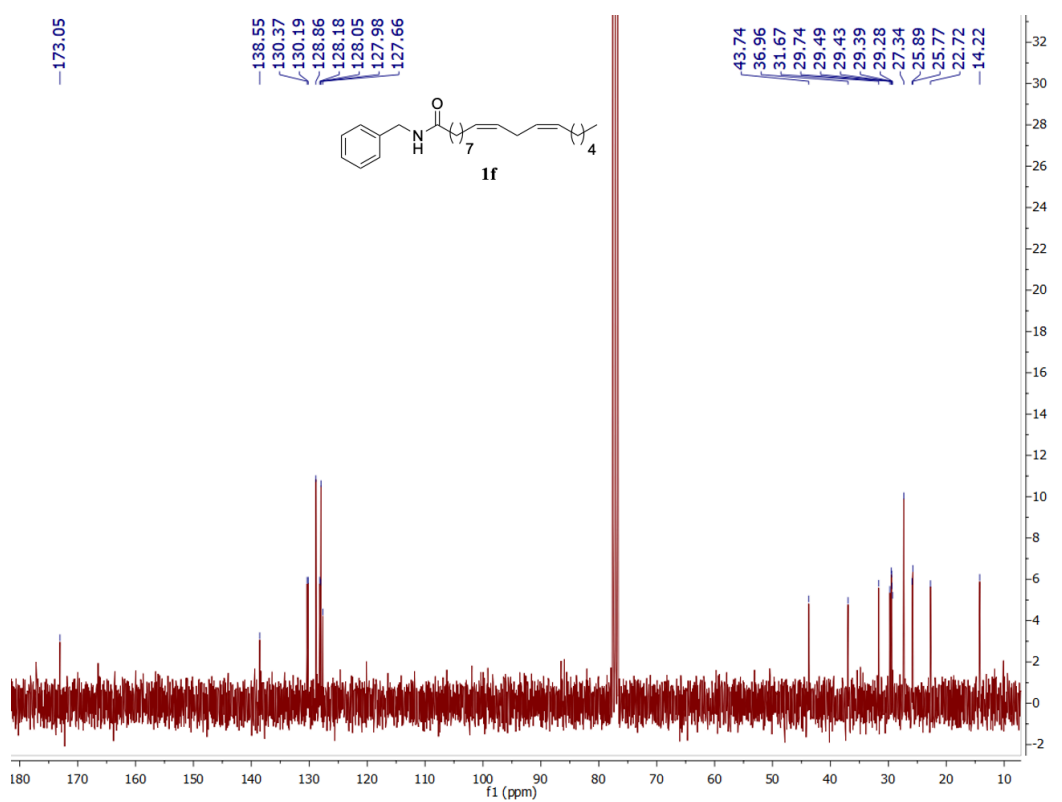
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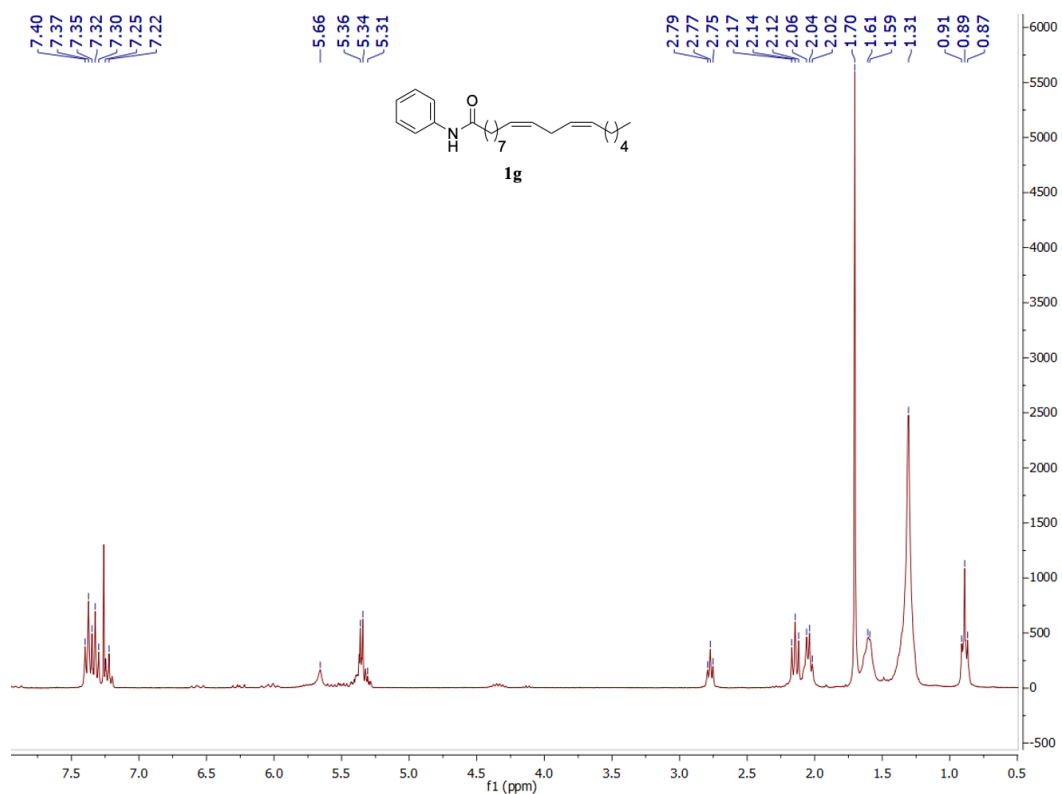
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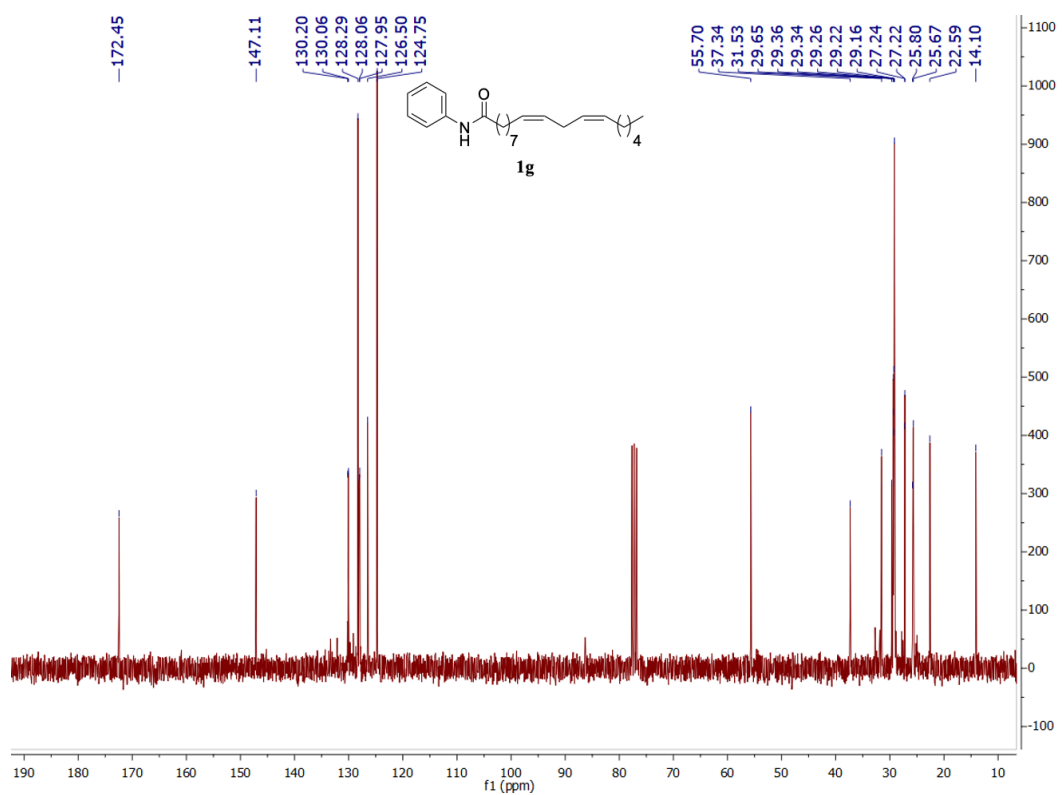
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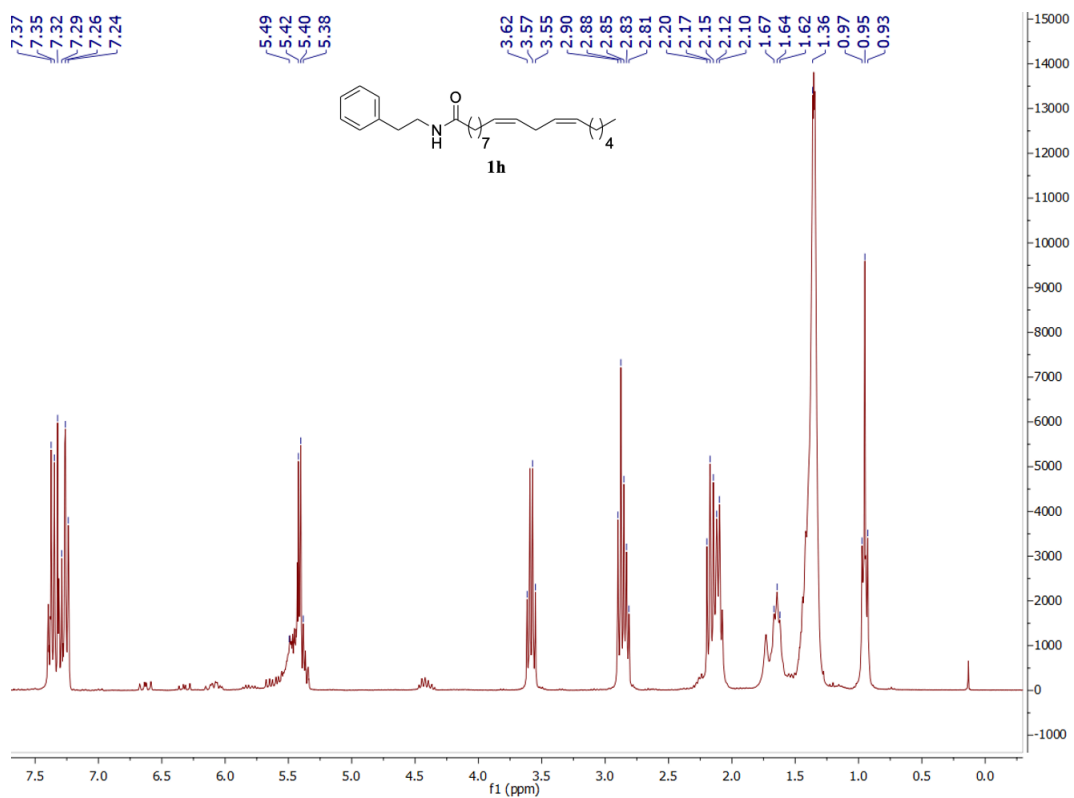
- Figure 12S. ^{13}C NMR (CDCl_3 , 75 MHz) spectrum of (9Z,12Z)-N-benzyl octadeca-9,12-dienamide (**1f**).



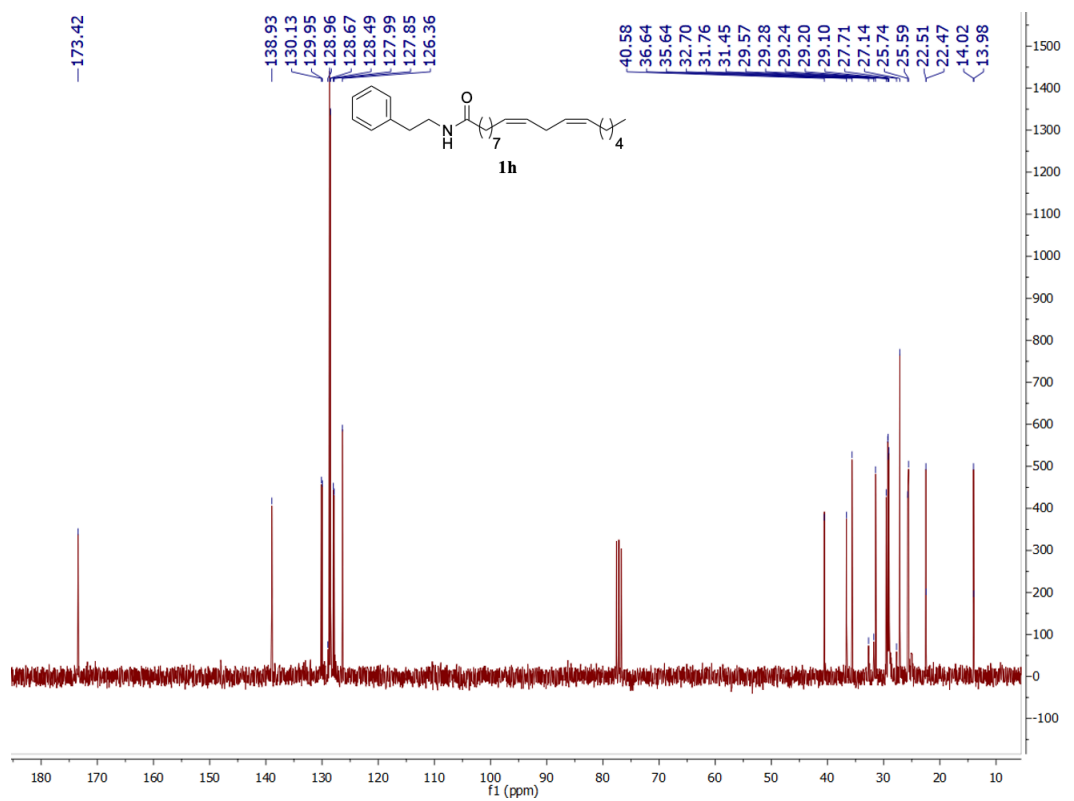
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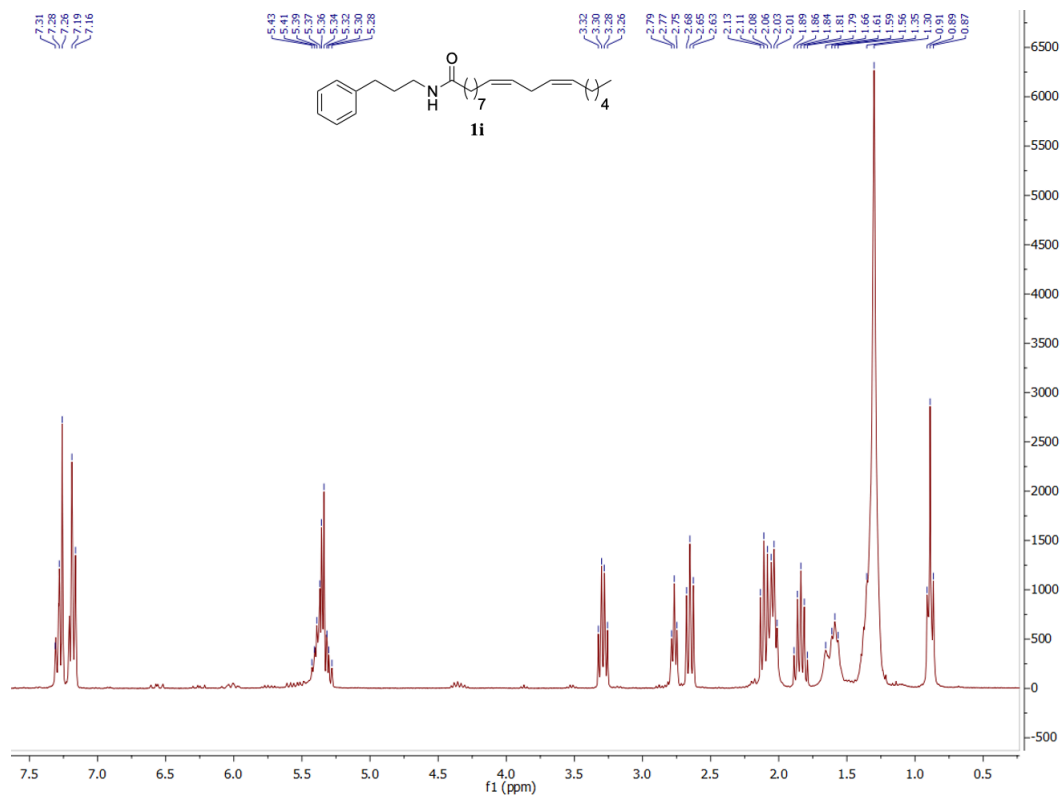
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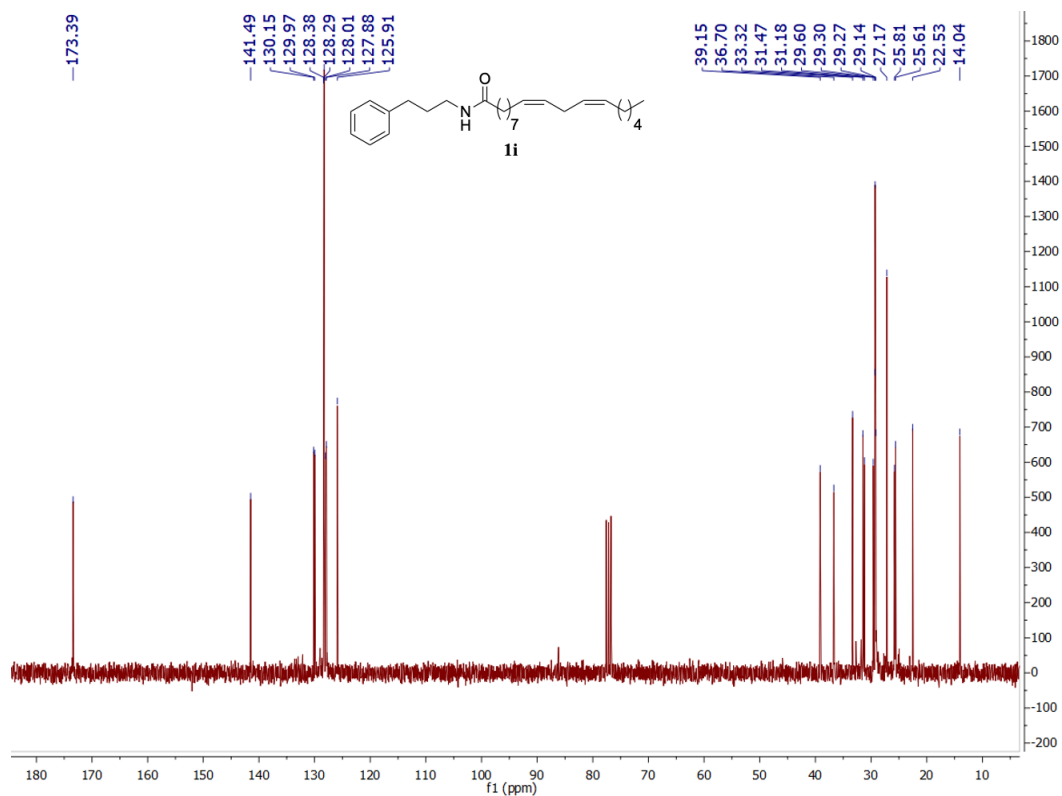
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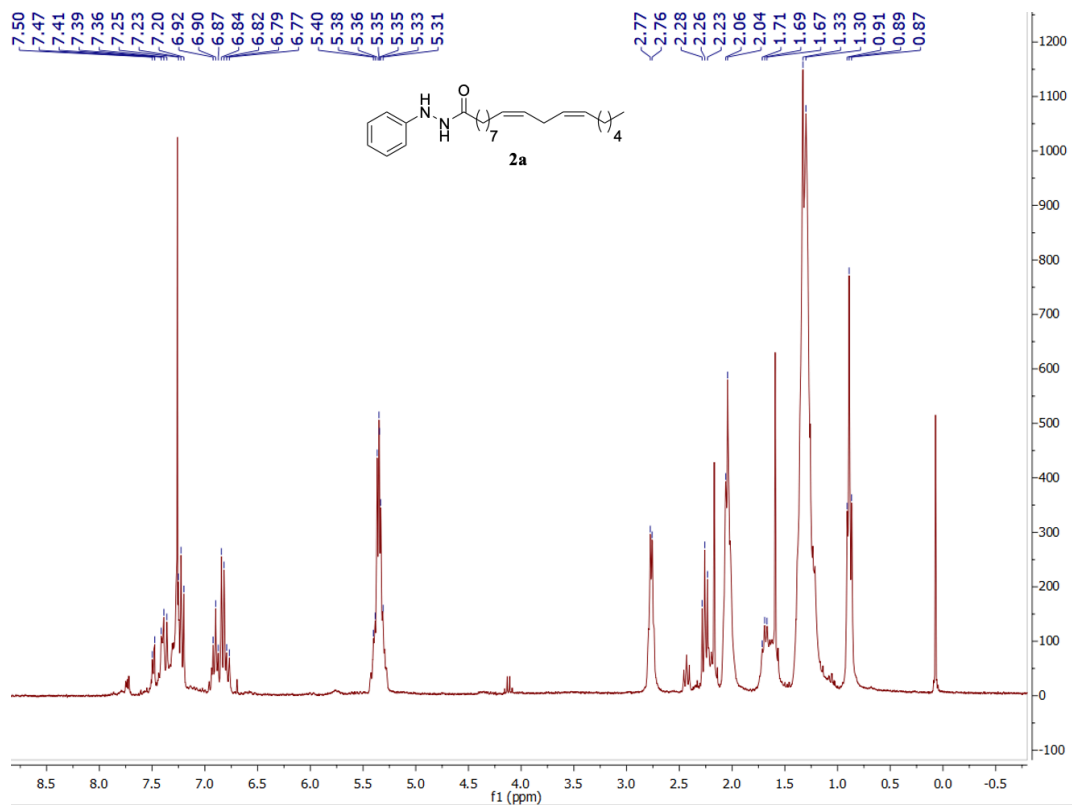
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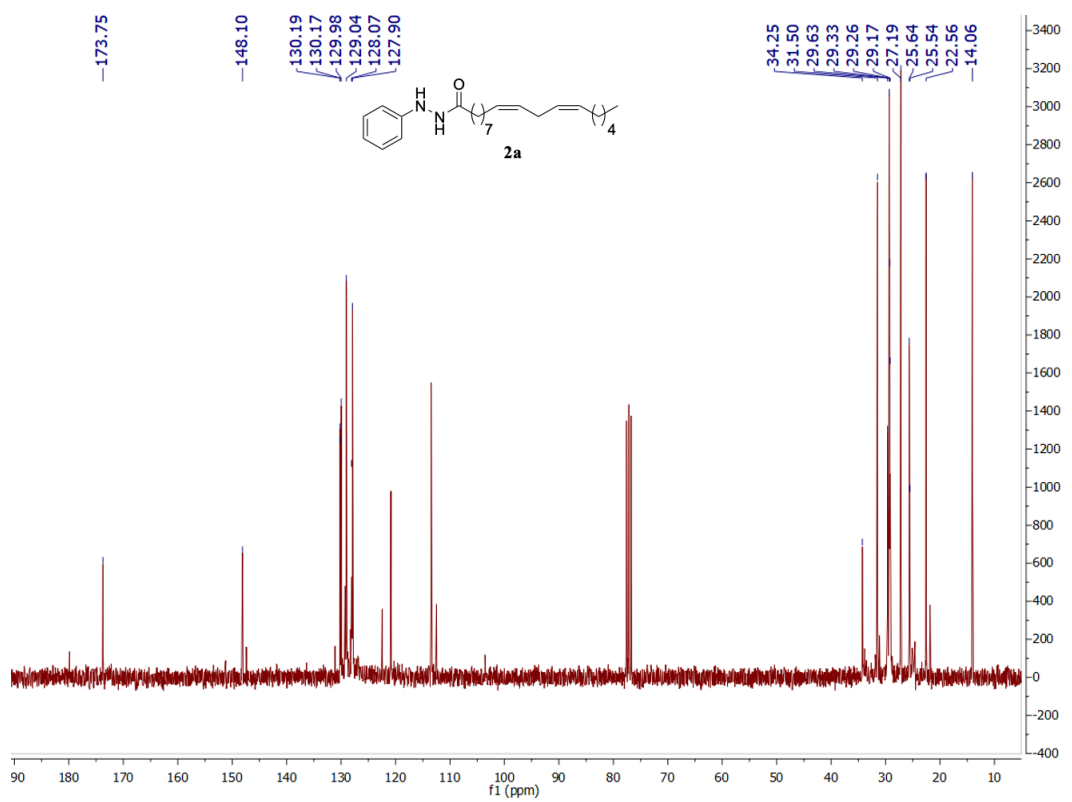
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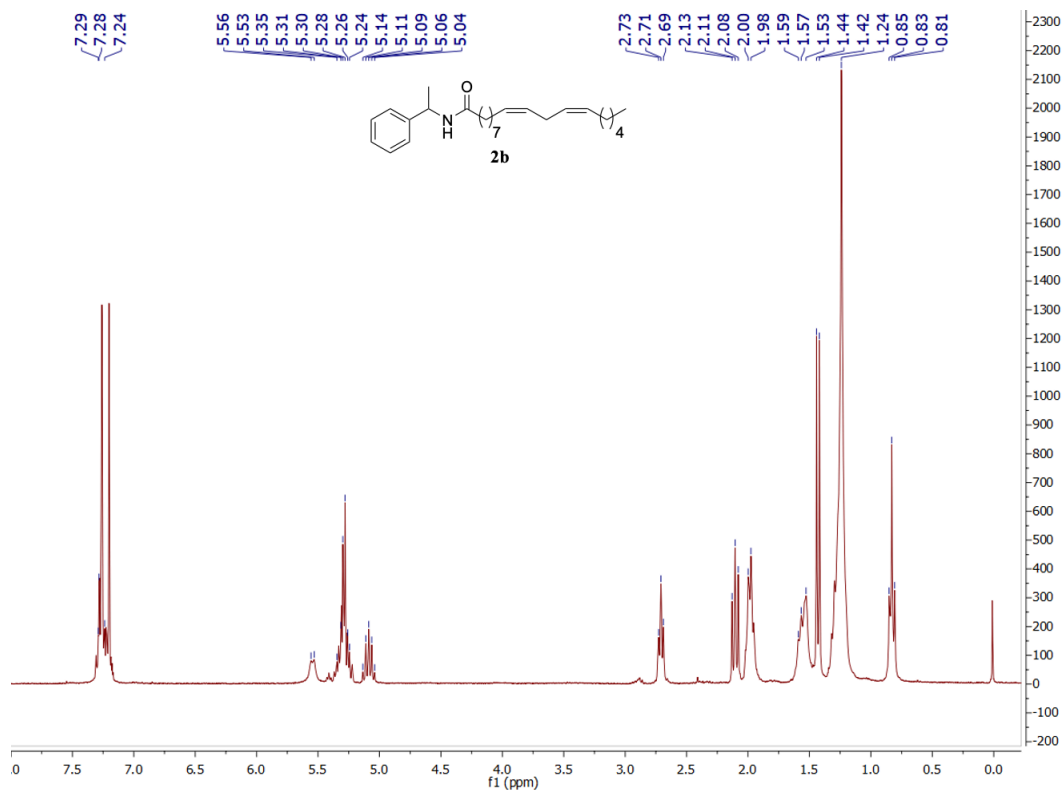
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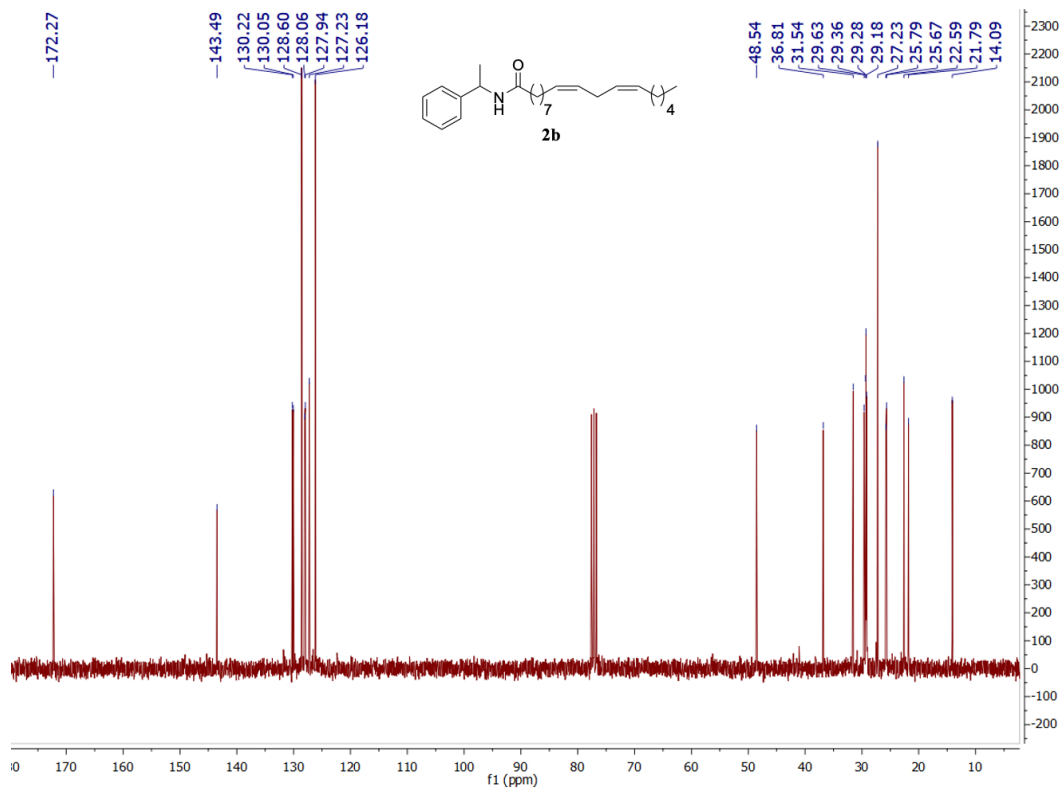
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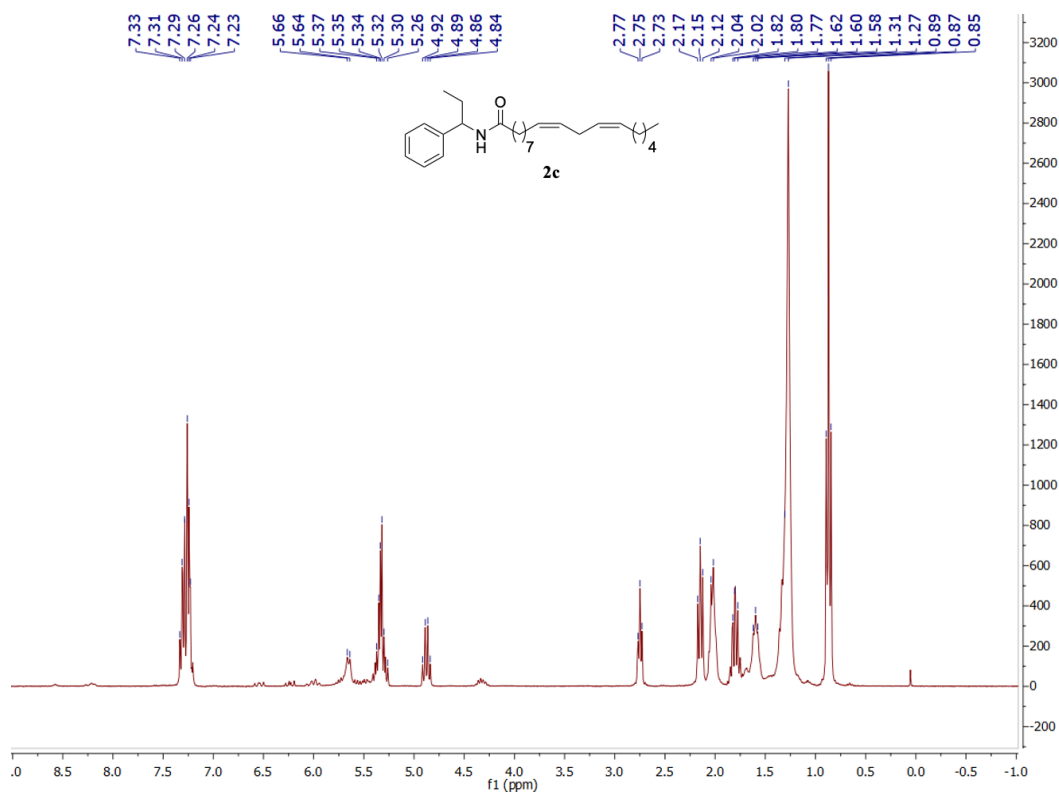
- Figure 20S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N'-phenyloctadeca-9,12-dienehydrazide (**2a**).



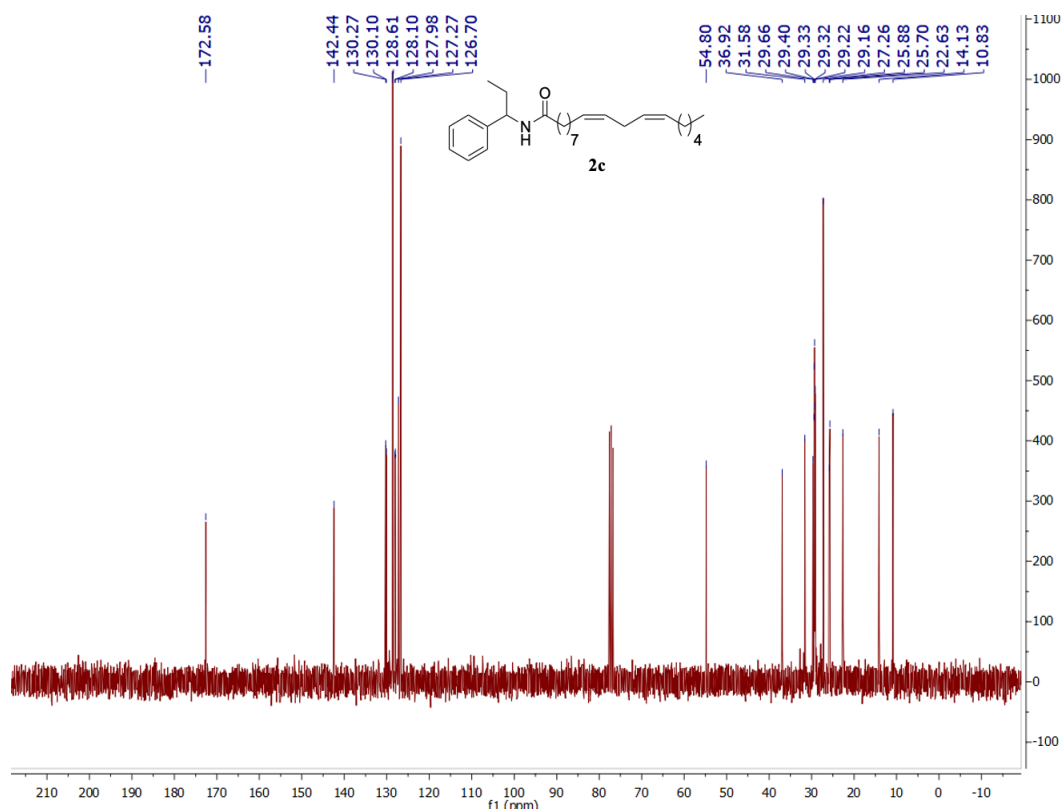
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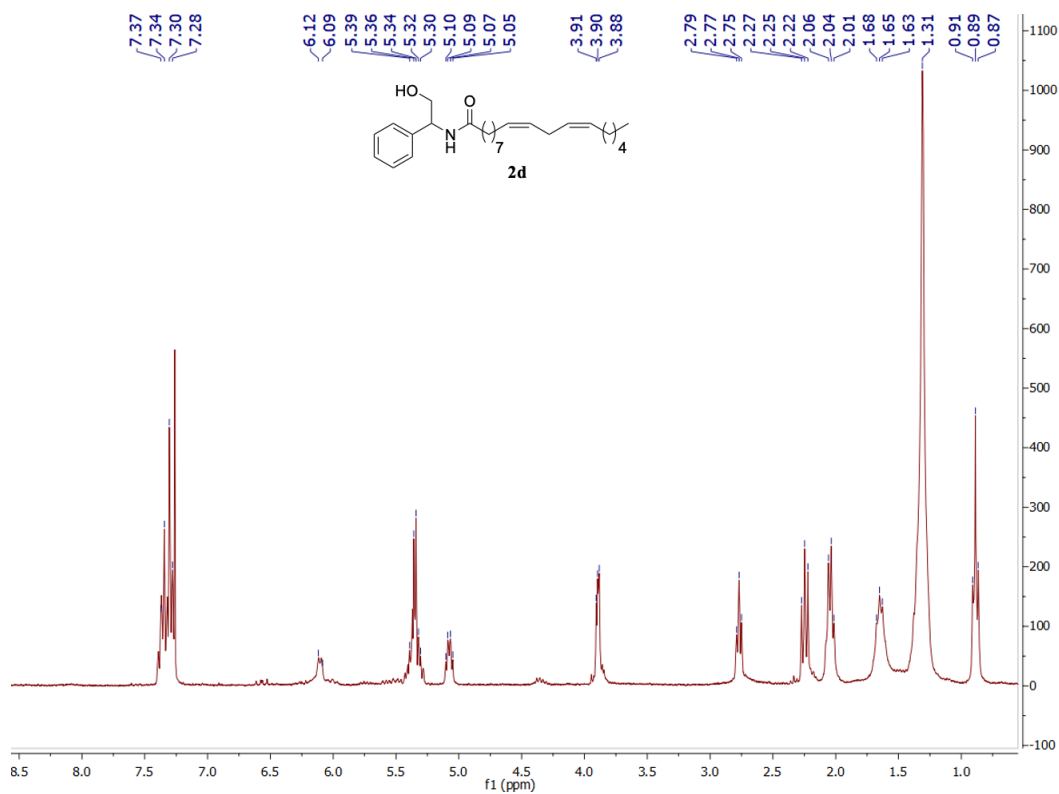
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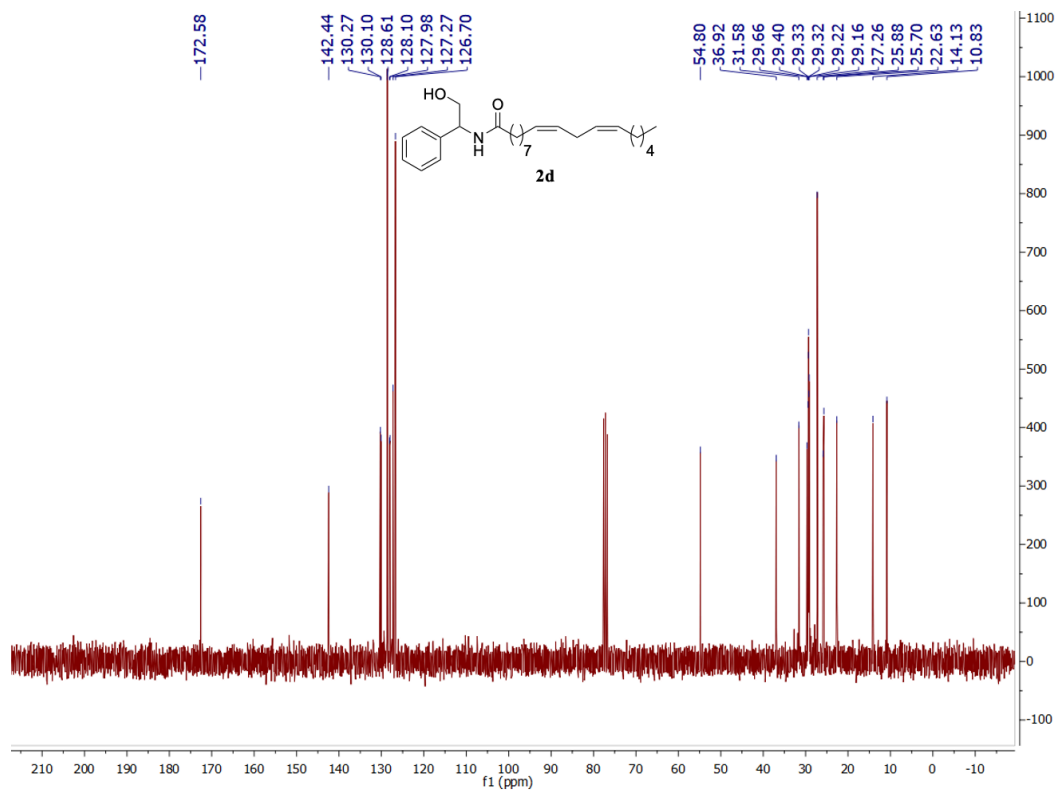
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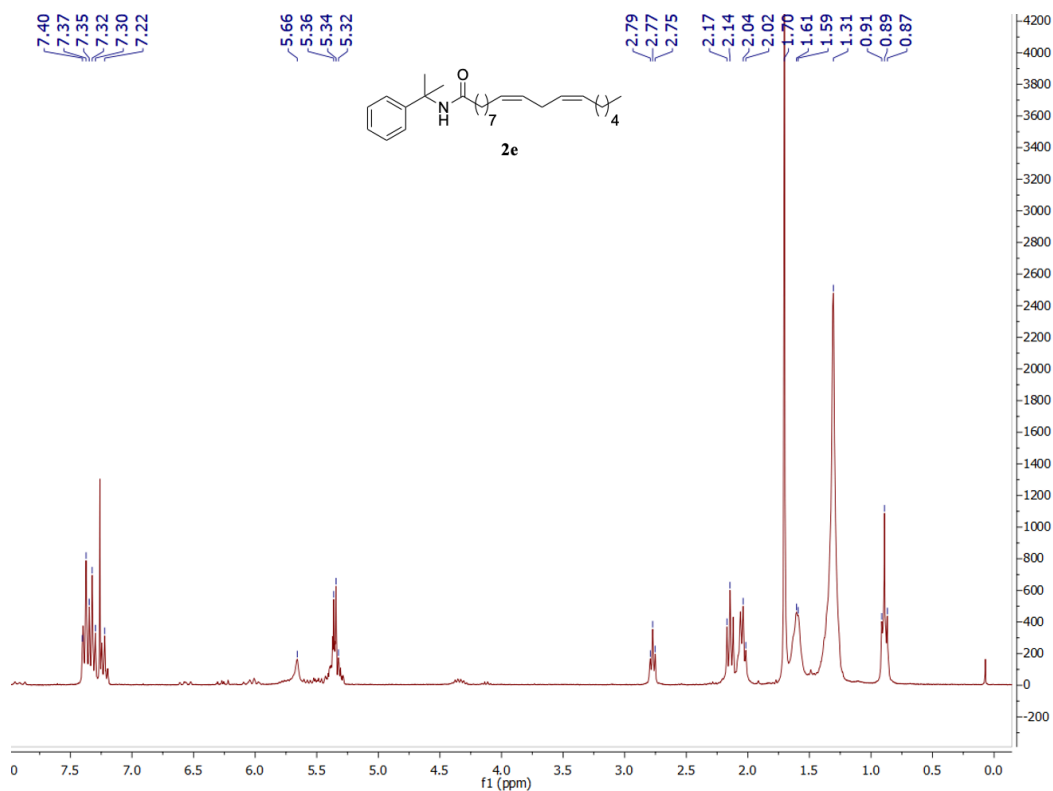
- Figure 24S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-phenylpropyl)-octadeca-9,12-dienamide (**2c**).



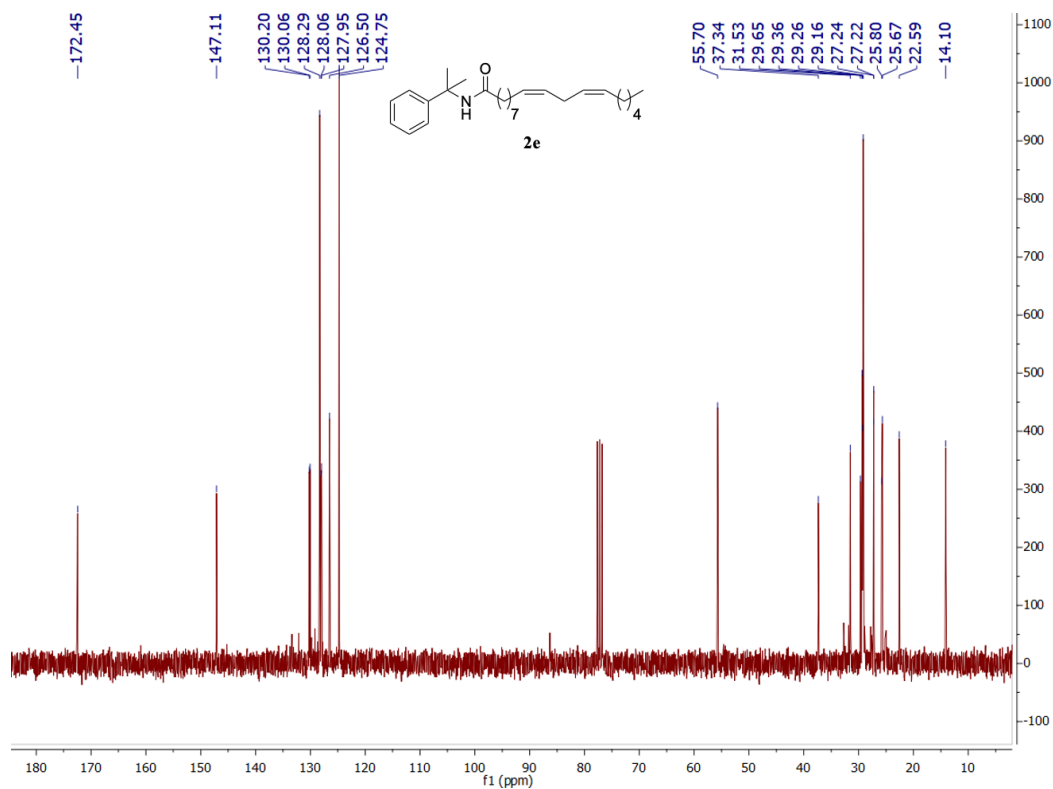
- Figure 25S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(2-hydroxy-1-phenylethyl)-octadeca-9,12-dienamide (**2d**).



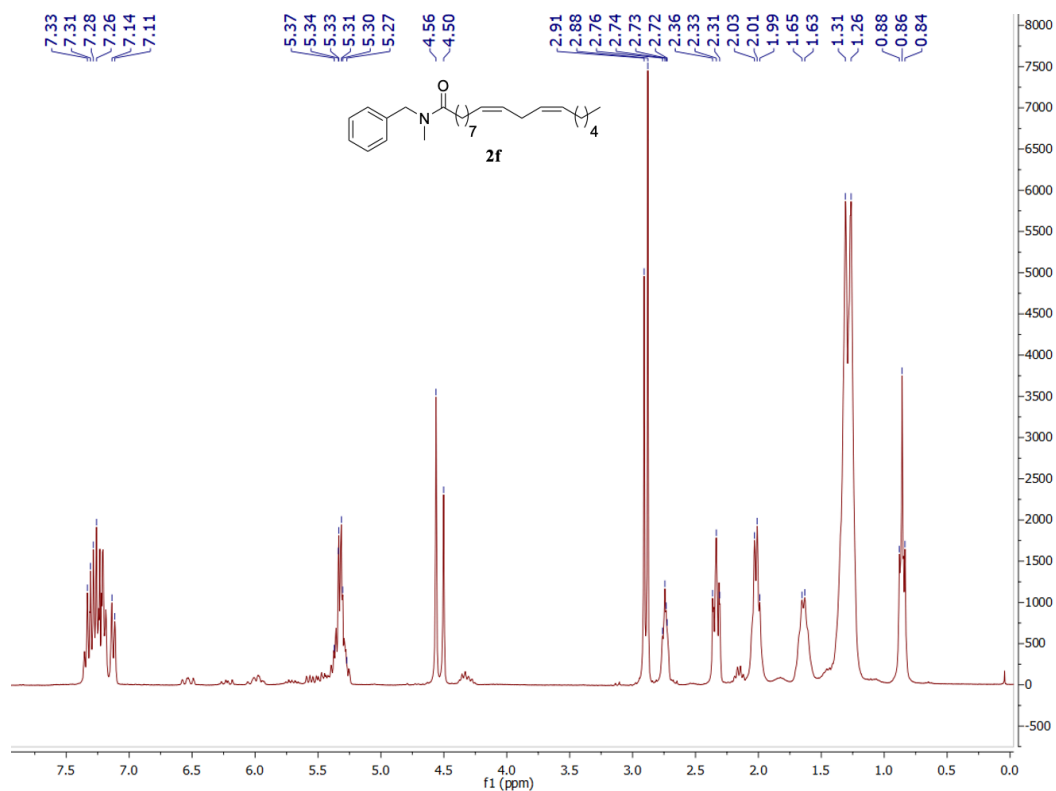
- Figure 26S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(2-hydroxy-1-phenylethyl)-octadeca-9,12-dienamide (**2d**).



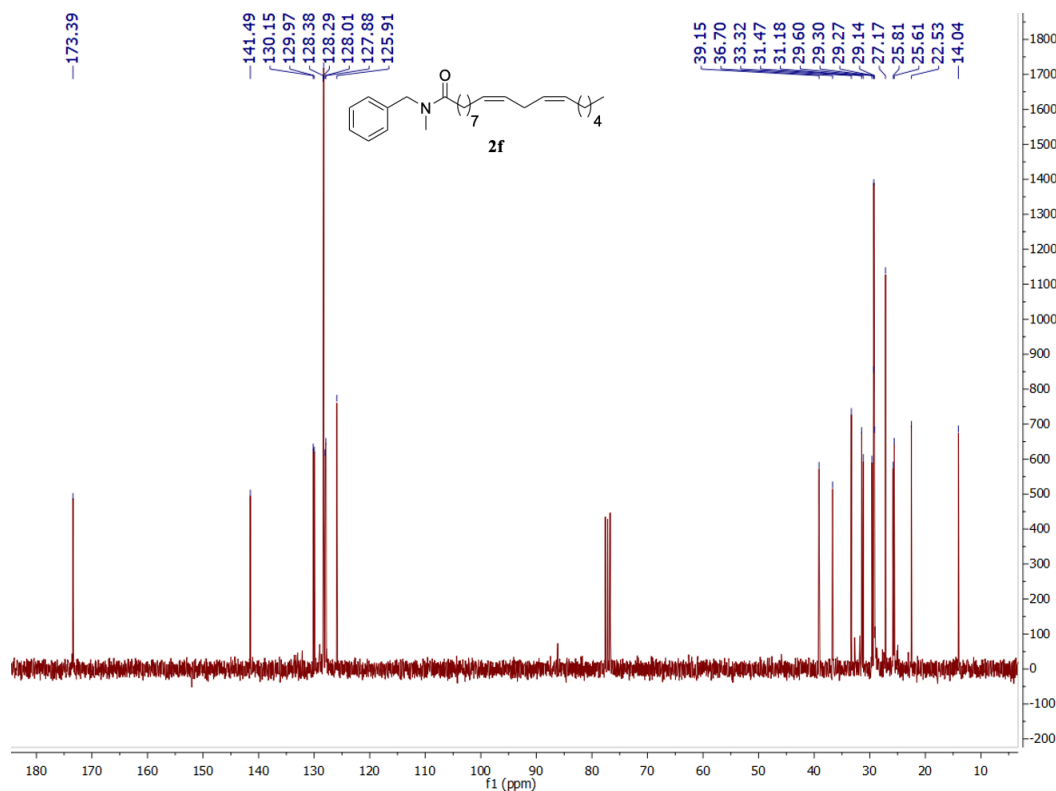
- Figure 27S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(2-phenylpropan-2-yl)-octadeca-9,12-dienamide (**2e**).



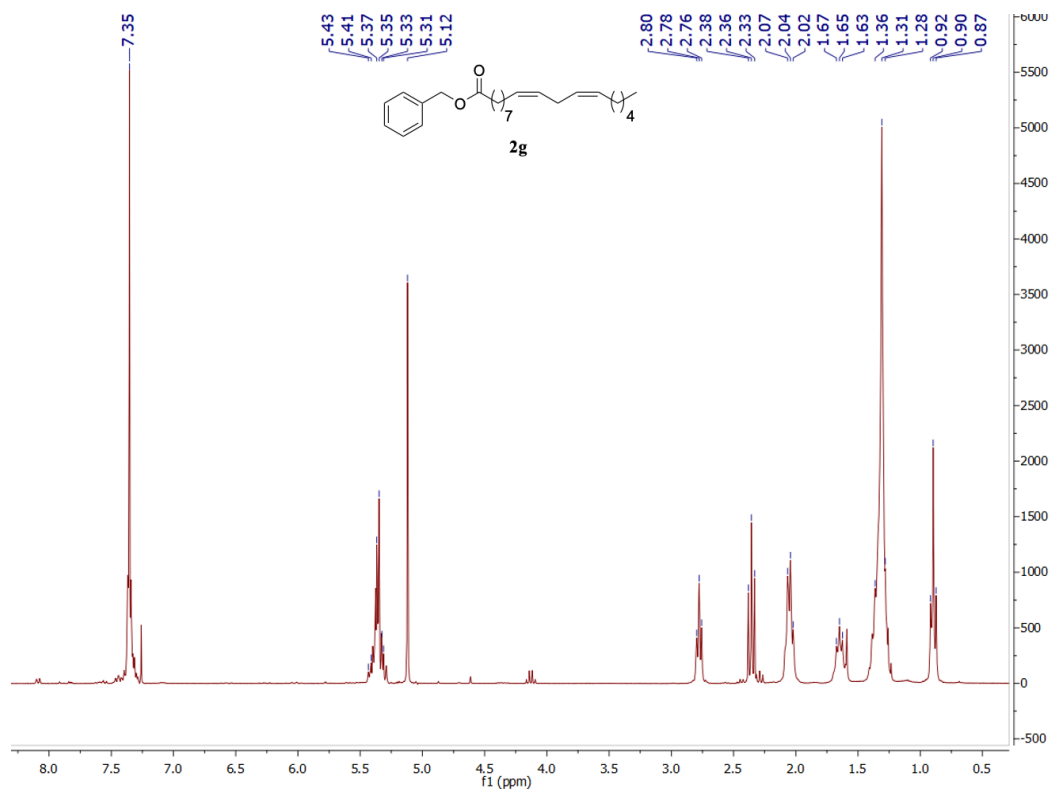
- Figure 28S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(2-phenylpropan-2-yl)-octadeca-9,12-dienamide (**2e**).



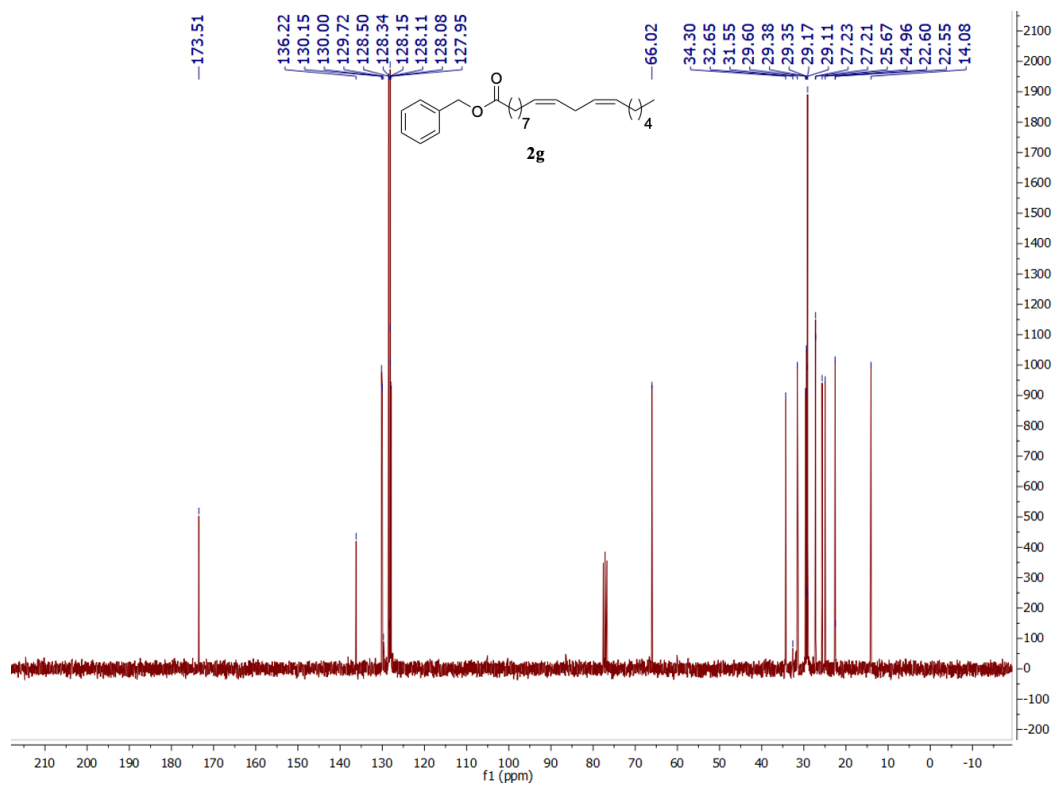
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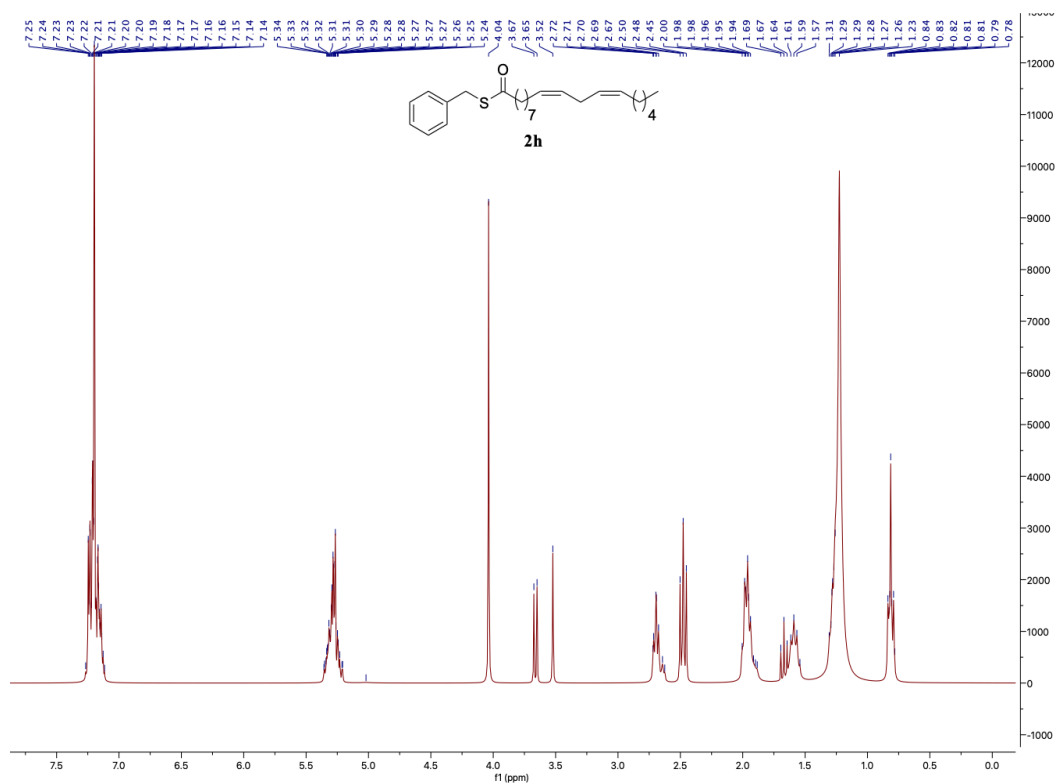
- Figure 30S. ^{13}C NMR (CDCl_3 , 75 MHz) spectrum of (9Z,12Z)-*N*-benzyl-*N*-methyloctadeca-9,12-dienamide (**2f**).



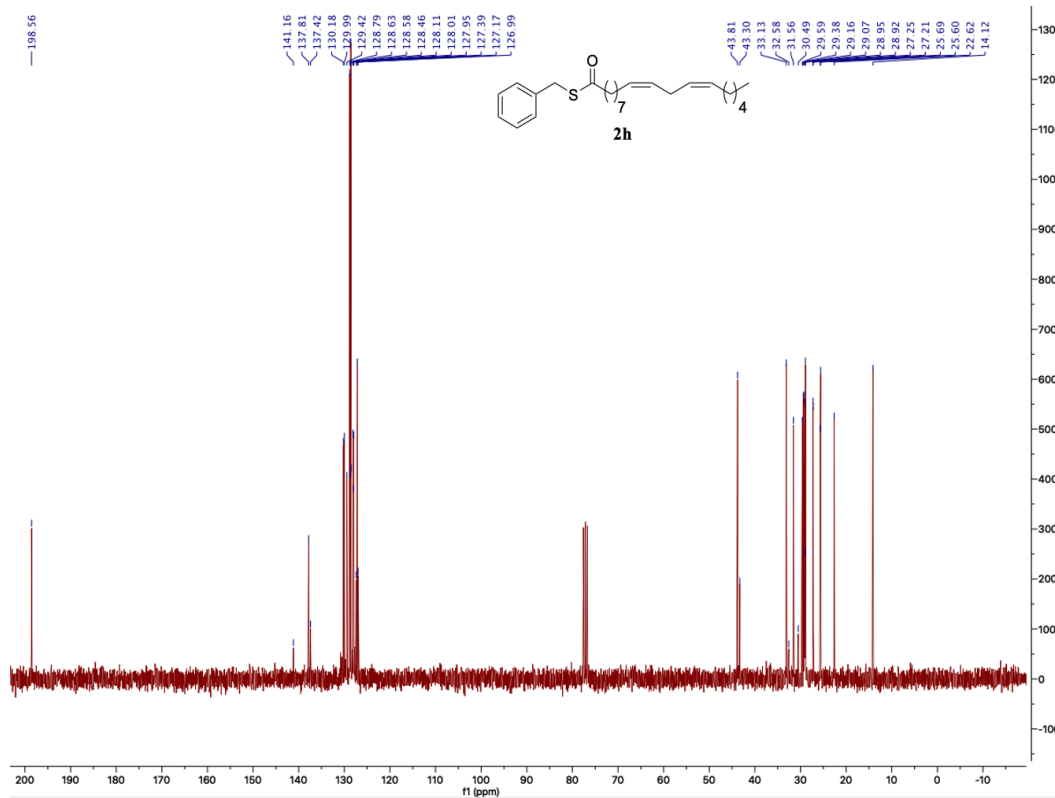
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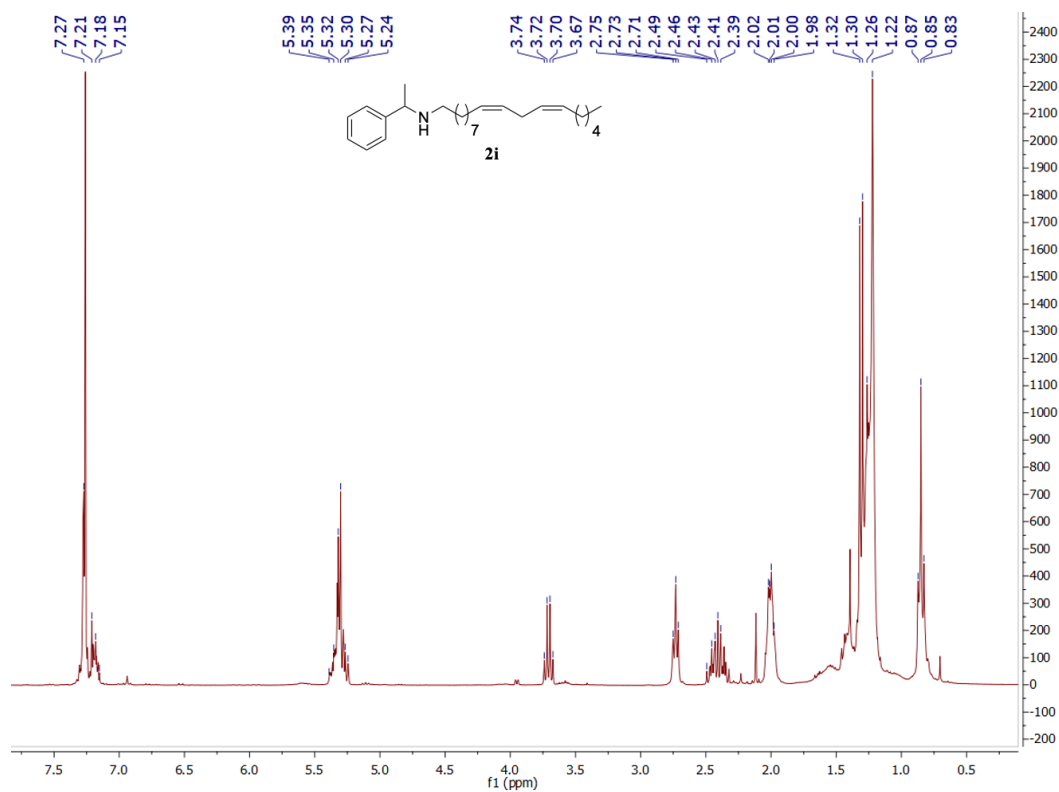
- Figure 32S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-1-(benzyloxy)-octadeca-9,12-dien-1-olate (**2g**).



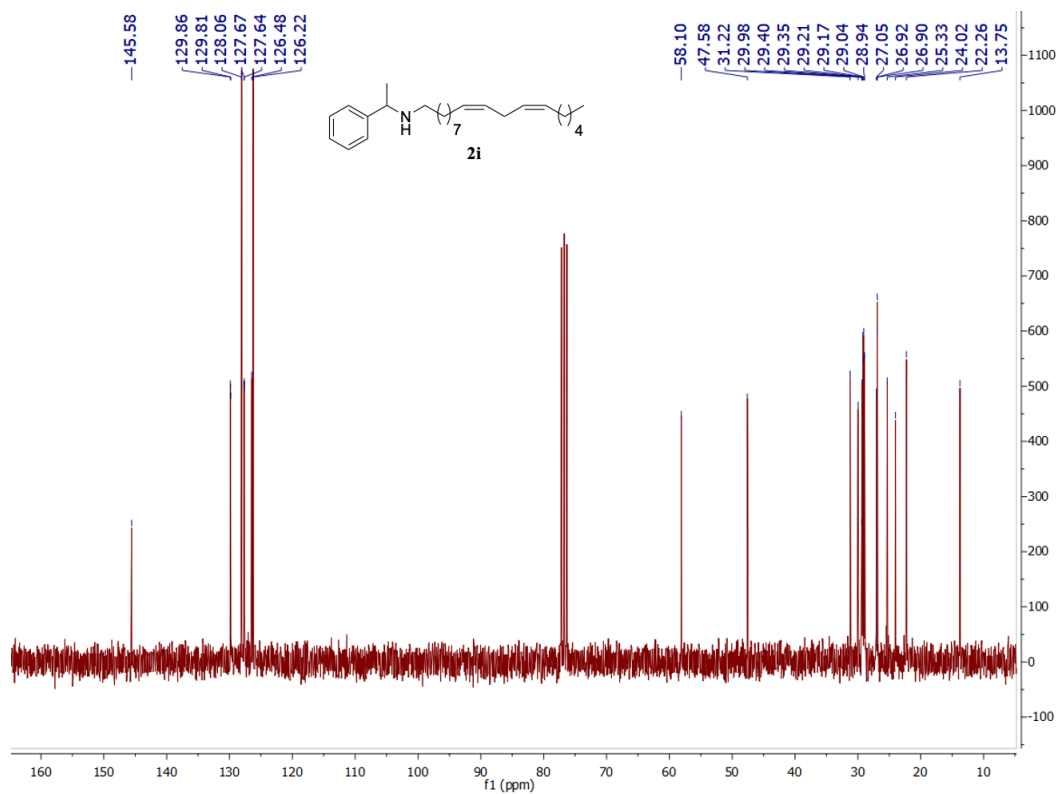
- Figure 33S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-1-(benzylthio)-octadeca-9,12-dien-1-olate (**2h**).



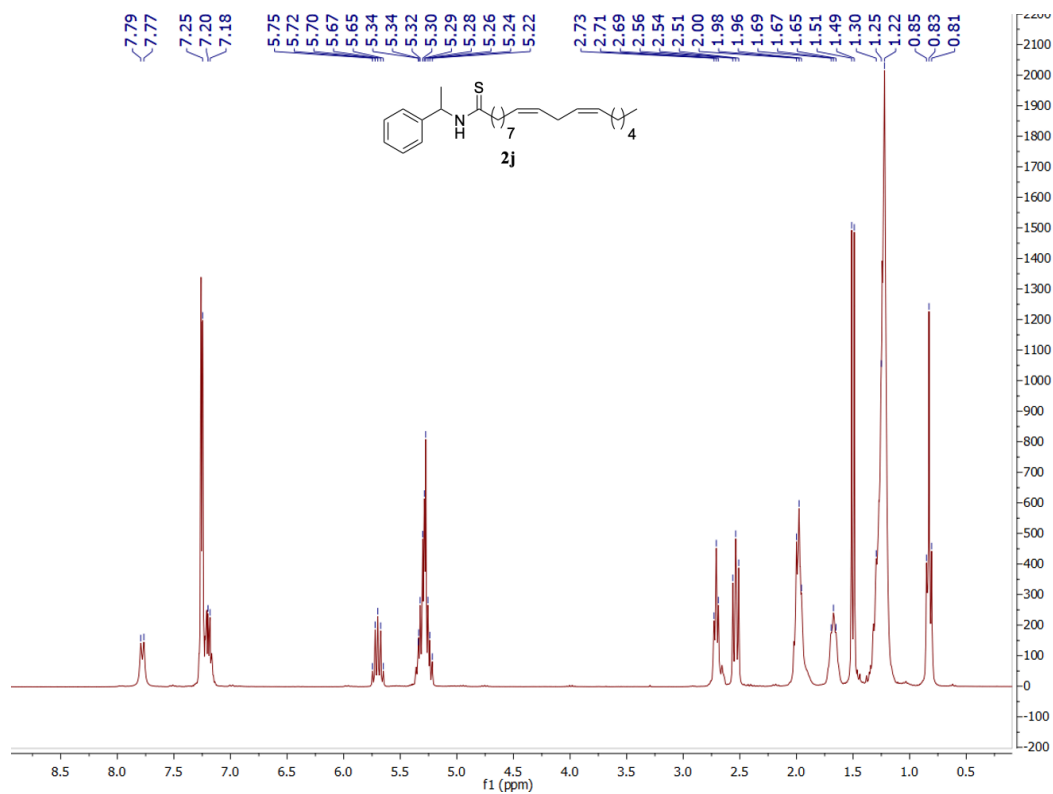
- Figure 34S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-1-(benzylthio)-octadeca-9,12-dien-1-olate (**2h**).



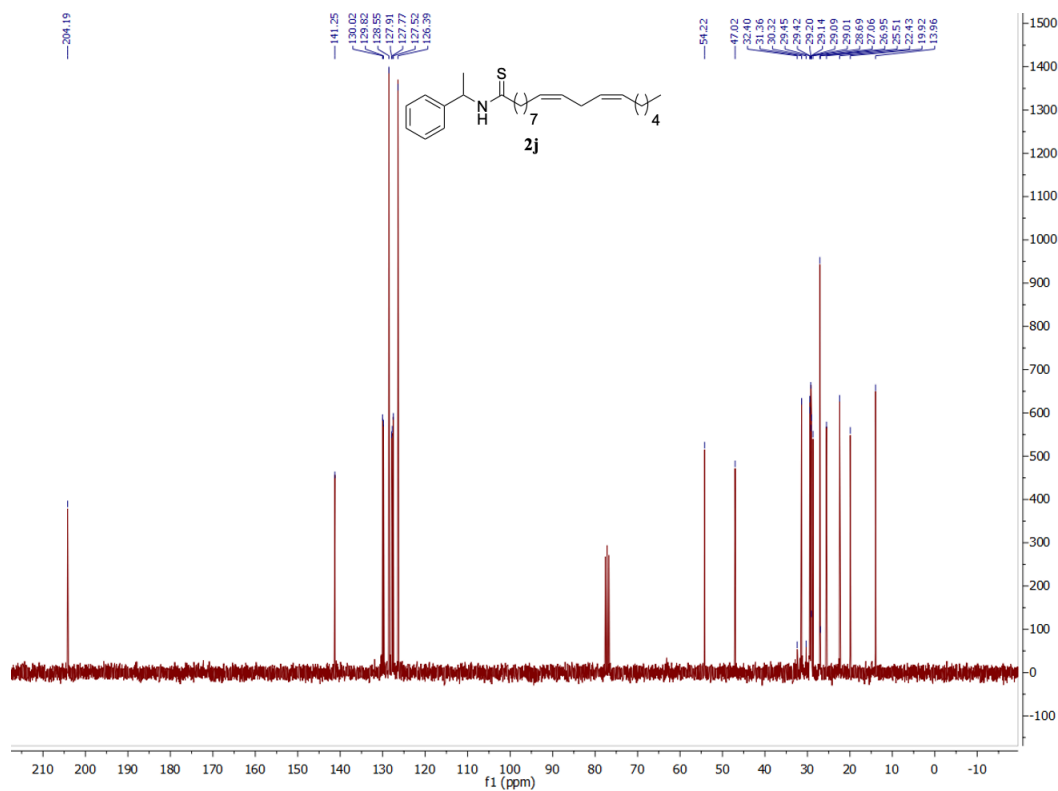
- Figure 35S. ^1H NMR (CDCl_3 , 300 MHz) spectrum of (9Z,12Z)-N-(1-phenylethyl)-octadeca-9,12-dien-1-amine (**2i**).



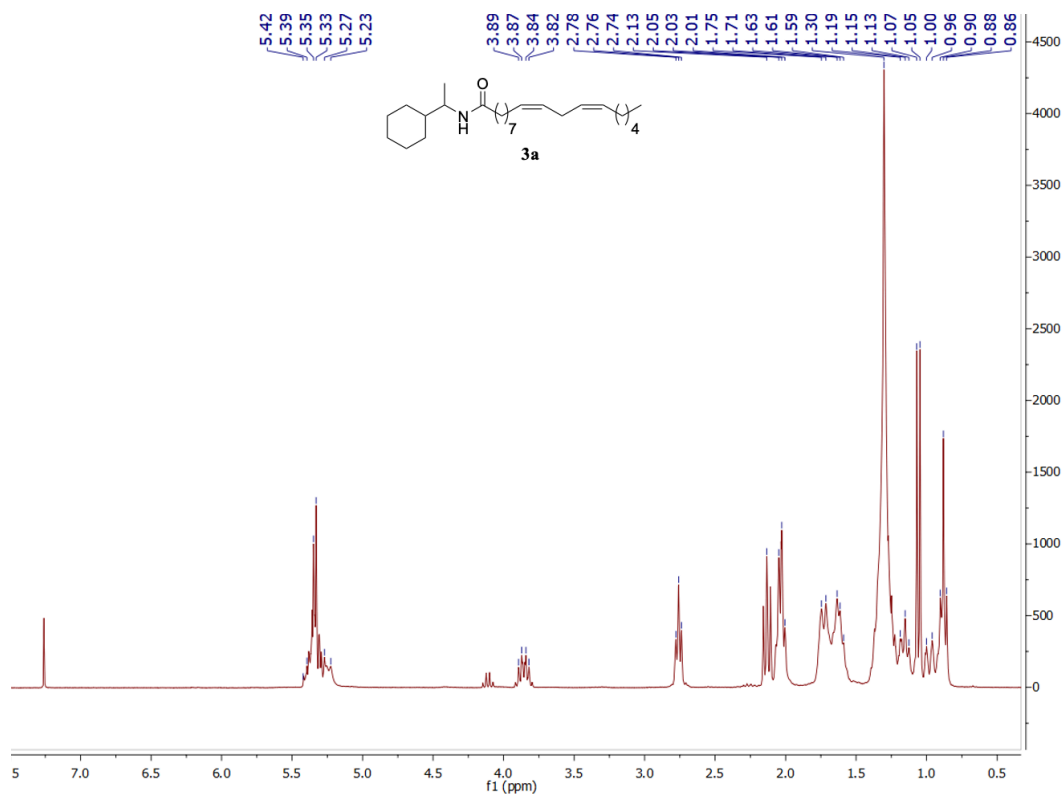
- Figure 36S. ^{13}C NMR (CDCl_3 , 75 MHz) spectrum of (9Z,12Z)-N-(1-phenylethyl)-octadeca-9,12-dien-1-amine (**2i**).



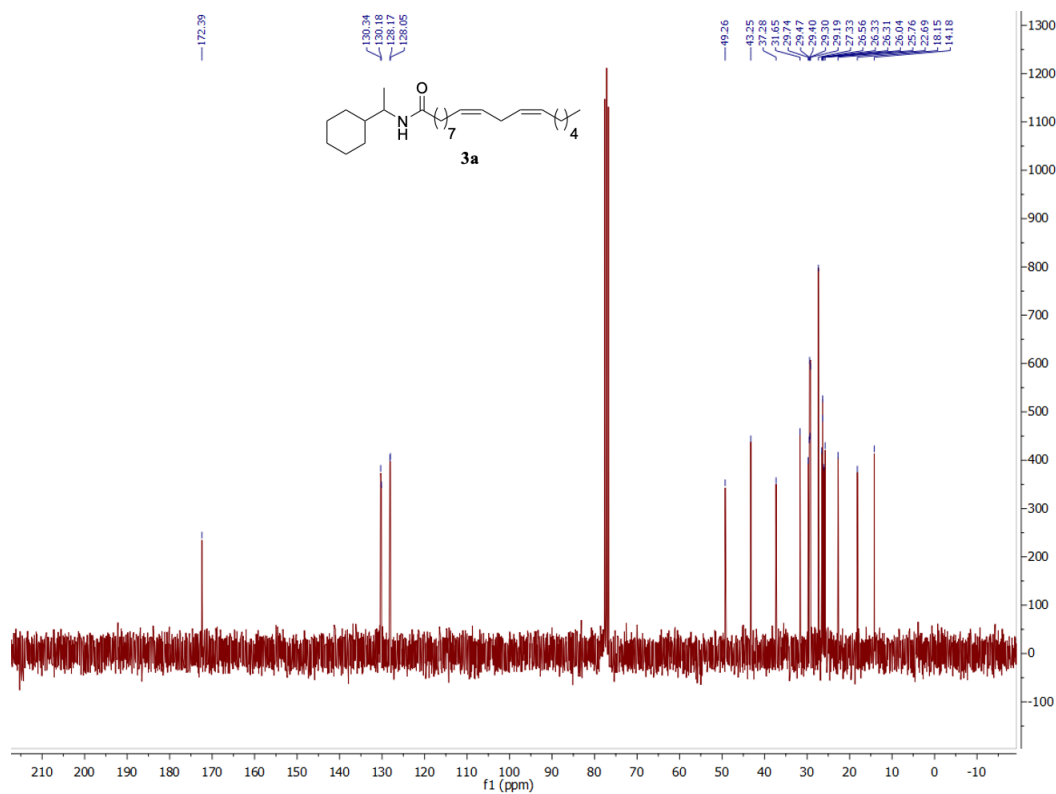
- Figure 37S. ^1H NMR (CDCl_3 , 300 MHz) spectrum of (9Z,12Z)-N-(1-phenylethyl)-octadeca-9,12-dienothiamide (**2j**).



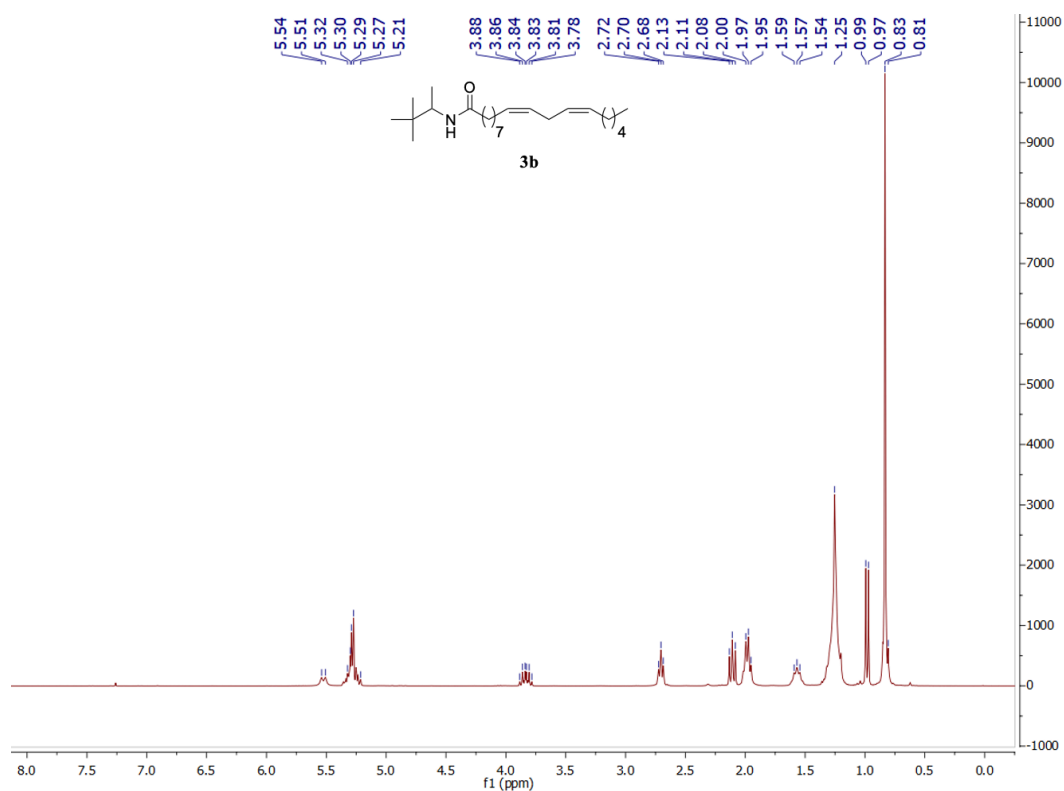
- Figure 38S. ^{13}C NMR (CDCl_3 , 75 MHz) spectrum of (9Z,12Z)-N-(1-phenylethyl)-octadeca-9,12-dienothiamide (**2j**).



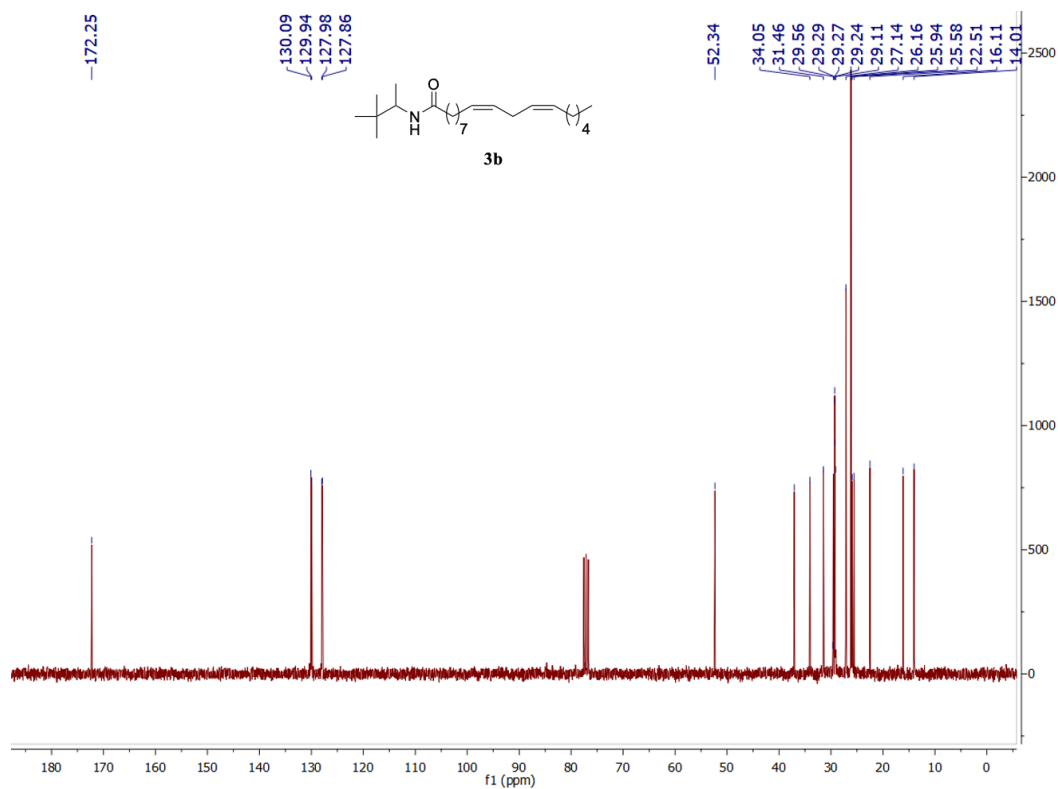
- Figure 39S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-cyclohexylethyl)-octadeca-9,12-dienamide (**3a**).



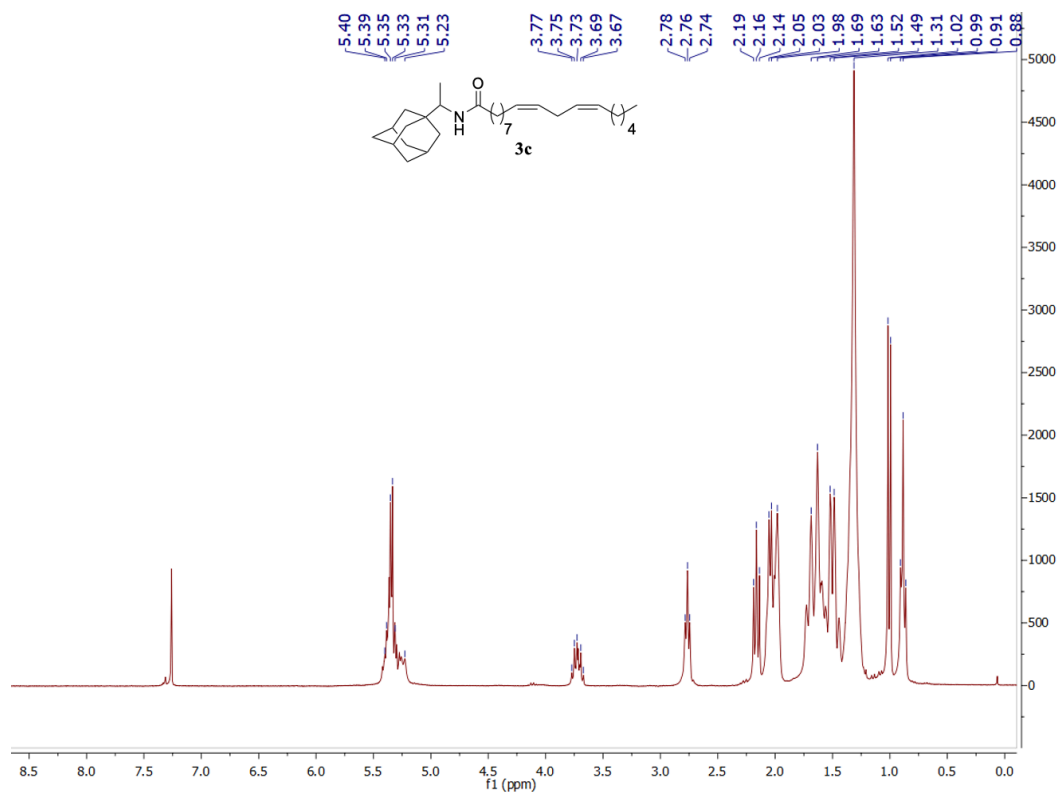
- Figure 40S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-cyclohexylethyl)-octadeca-9,12-dienamide (**3a**).



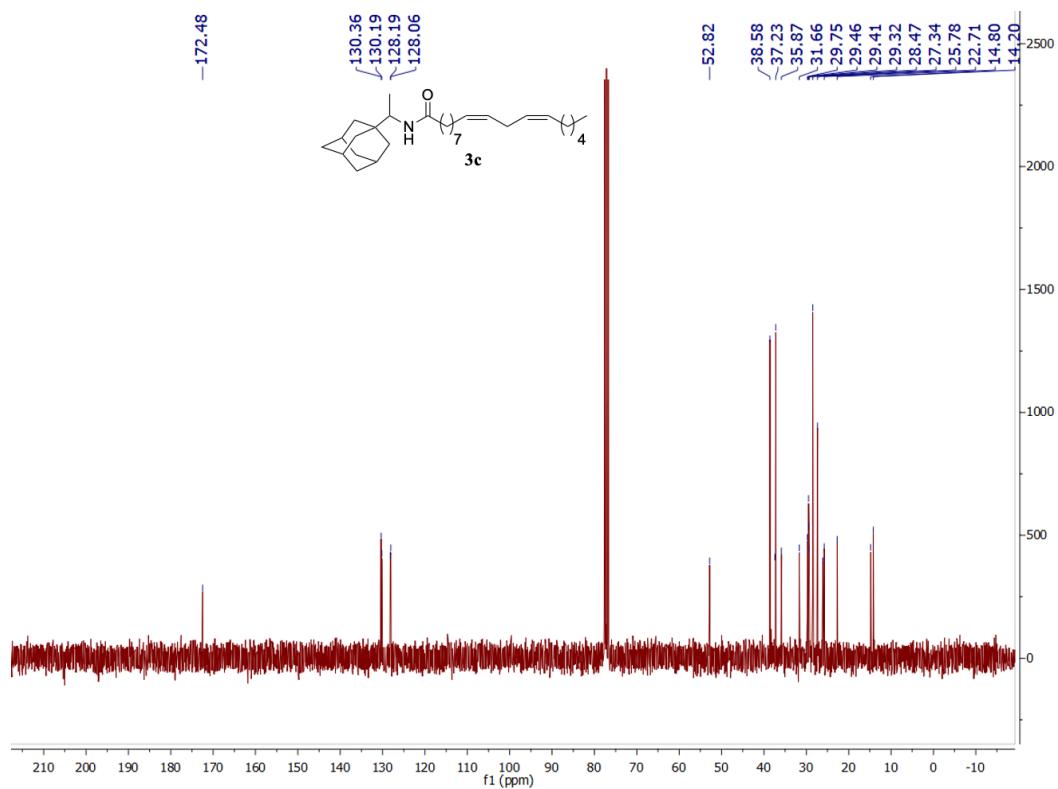
- Figure 41S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(3,3-dimethylbutan-2-yl)-octadeca-9,12-dienamide (**3b**).



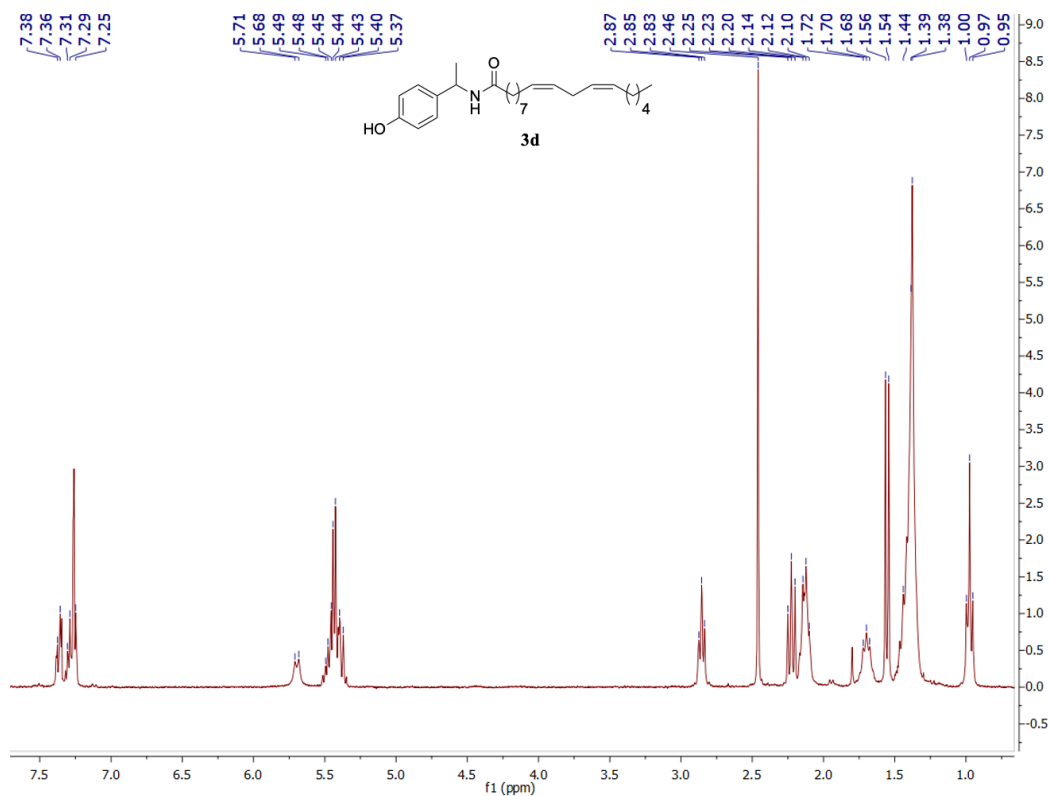
- Figure 42S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(3,3-dimethylbutan-2-yl)-octadeca-9,12-dienamide (**3b**).



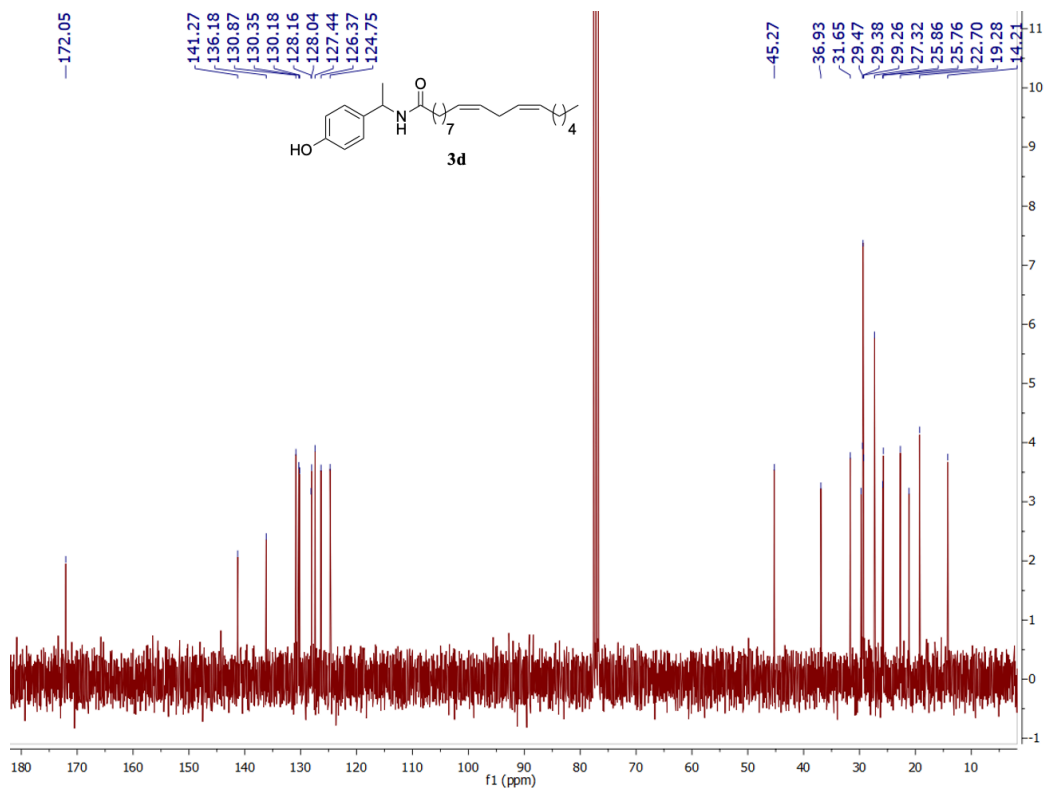
- Figure 43S. ^1H NMR (CDCl_3 , 300 MHz) spectrum of (9Z,12Z)-N-(1-((3r,5r,7r)-adamantan-1-yl)-ethyl)-octadeca-9,12-dienamide (**3c**).



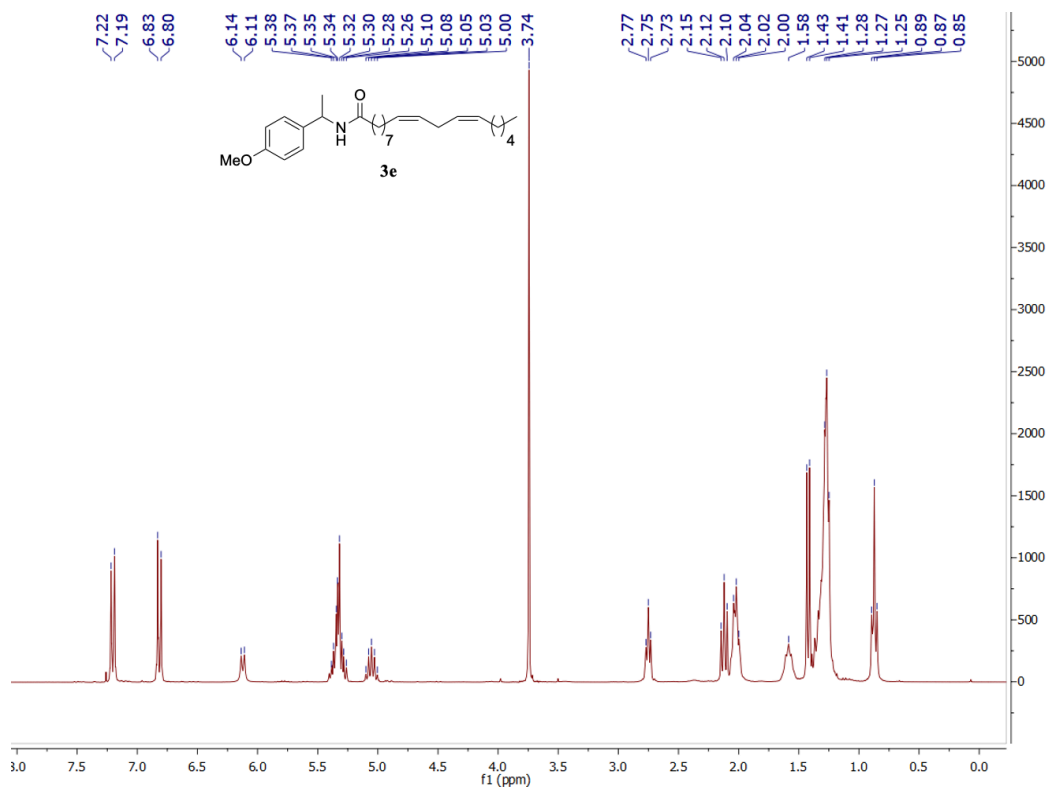
- Figure 44S. ^{13}C NMR (CDCl_3 , 75 MHz) spectrum of (9Z,12Z)-N-(1-((3r,5r,7r)-adamantan-1-yl)-ethyl)-octadeca-9,12-dienamide (**3c**).



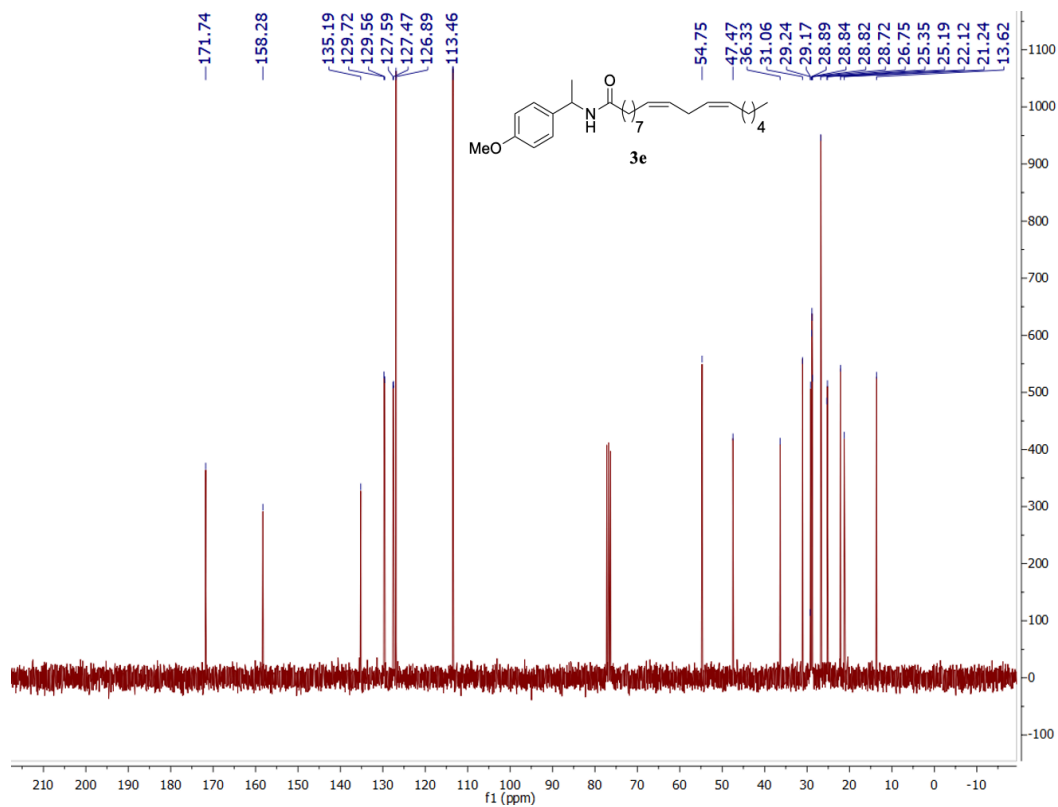
- Figure 45S. ^1H NMR (CDCl_3 , 300 MHz) spectrum of (9Z,12Z)-N-(1-(4-hydroxyphenyl)ethyl)-octadeca-9,12-dienamide (**3d**).



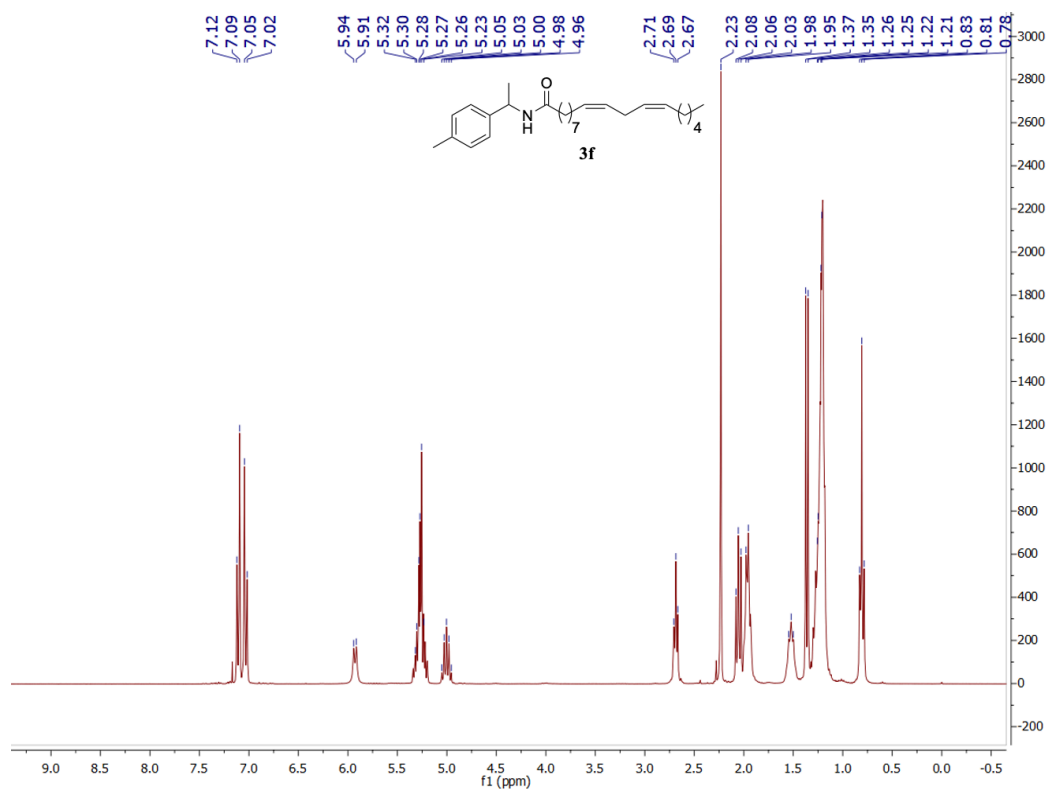
- Figure 46S. ^{13}C NMR (CDCl_3 , 75 MHz) spectrum of (9Z,12Z)-N-(1-(4-hydroxyphenyl)ethyl)-octadeca-9,12-dienamide (**3d**).



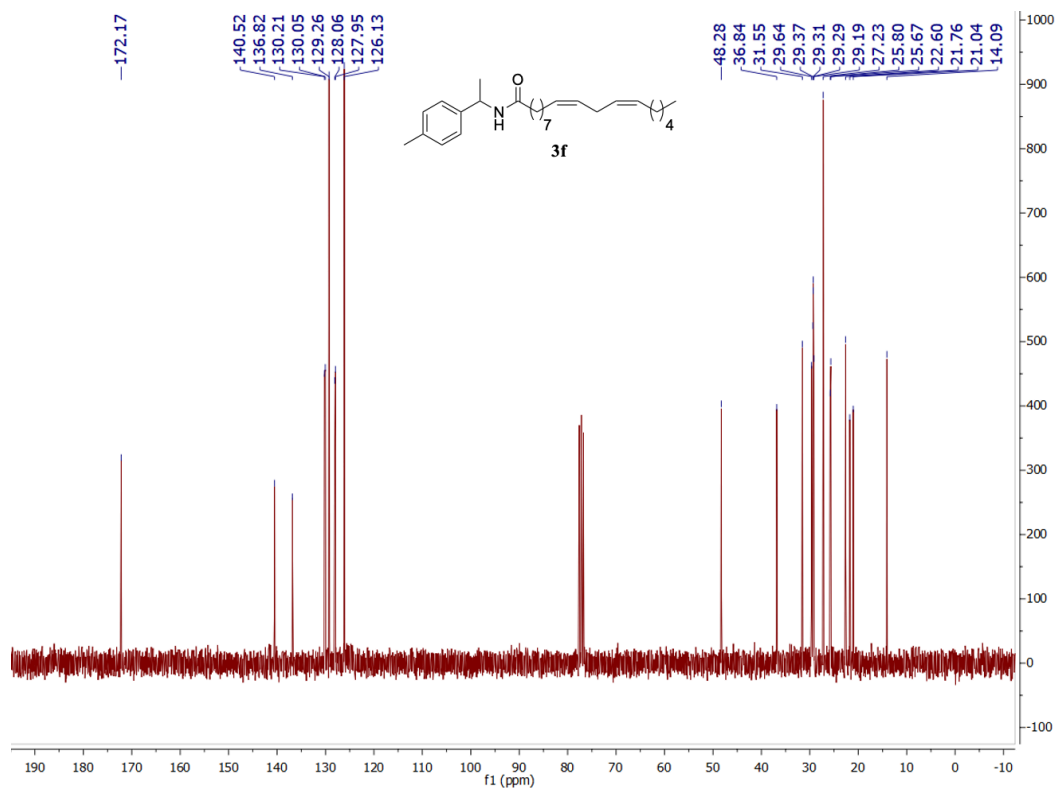
- Figure 47S. ^1H NMR (CDCl_3 , 300 MHz) spectrum of (9Z,12Z)-N-(1-(4-methoxyphenyl)-ethyl)-octadeca-9,12-dienamide (**3e**).



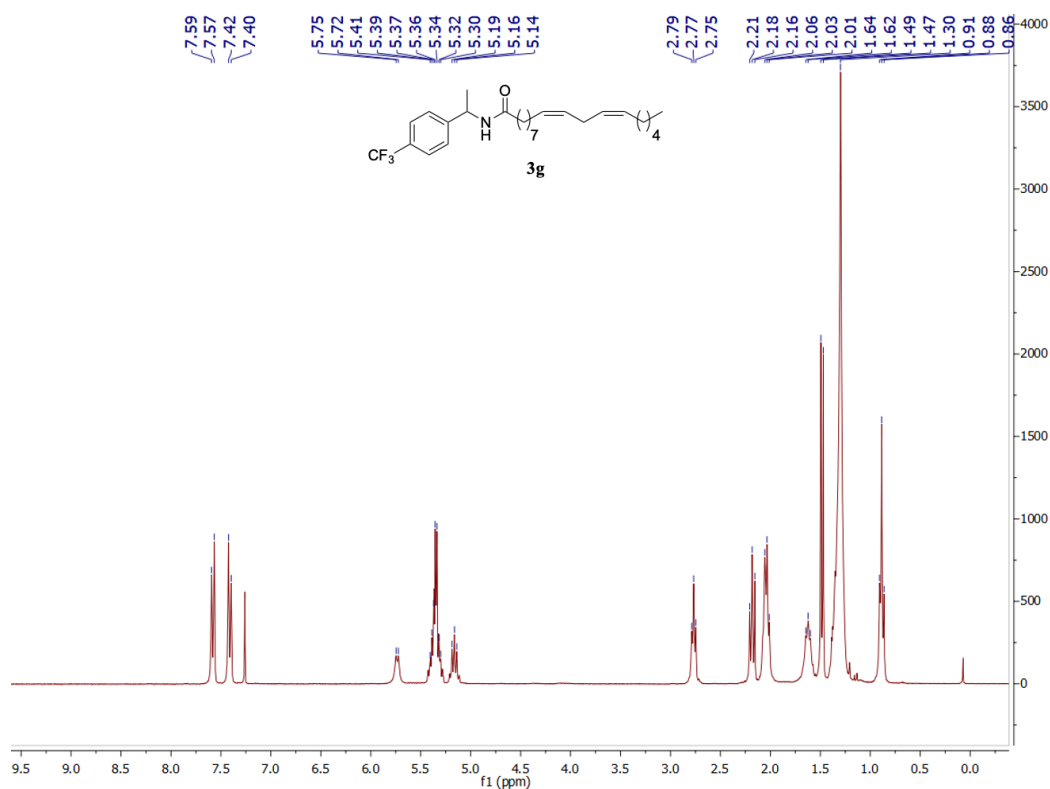
- Figure 48S. ^{13}C NMR (CDCl_3 , 75 MHz) spectrum of (9Z,12Z)-N-(1-(4-methoxyphenyl)-ethyl)-octadeca-9,12-dienamide (**3e**).



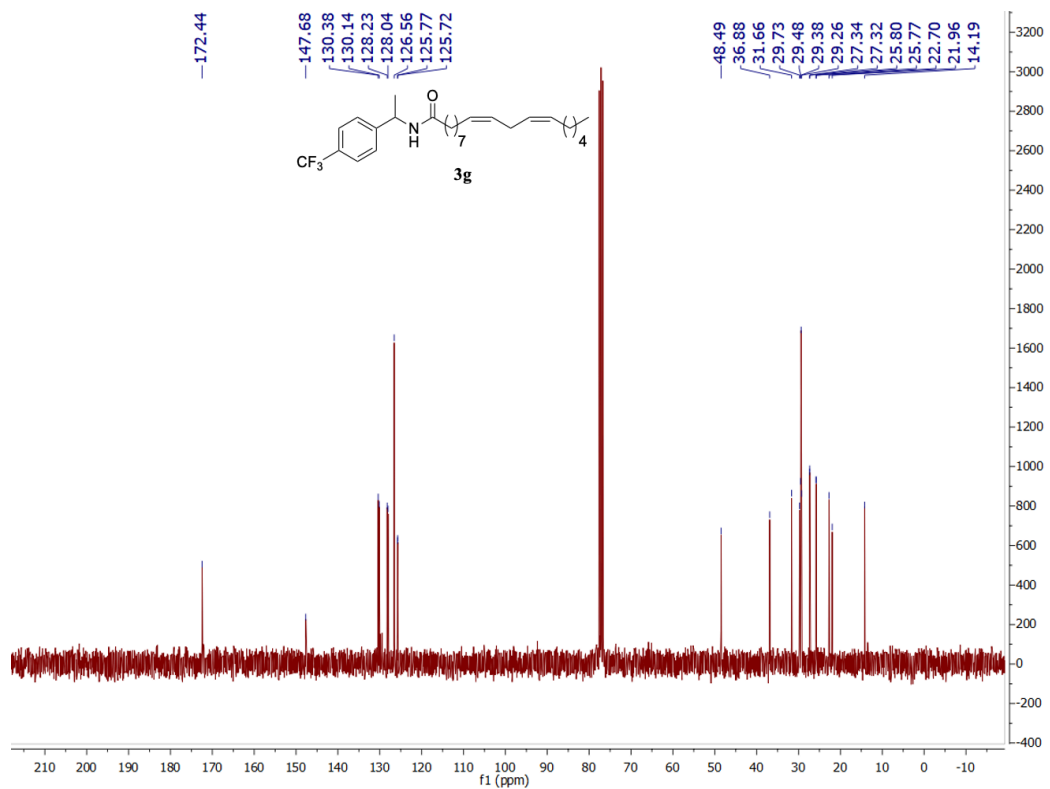
- Figure 49S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(p-tolyl)-ethyl)-octadeca-9,12-dienamide (**3f**).



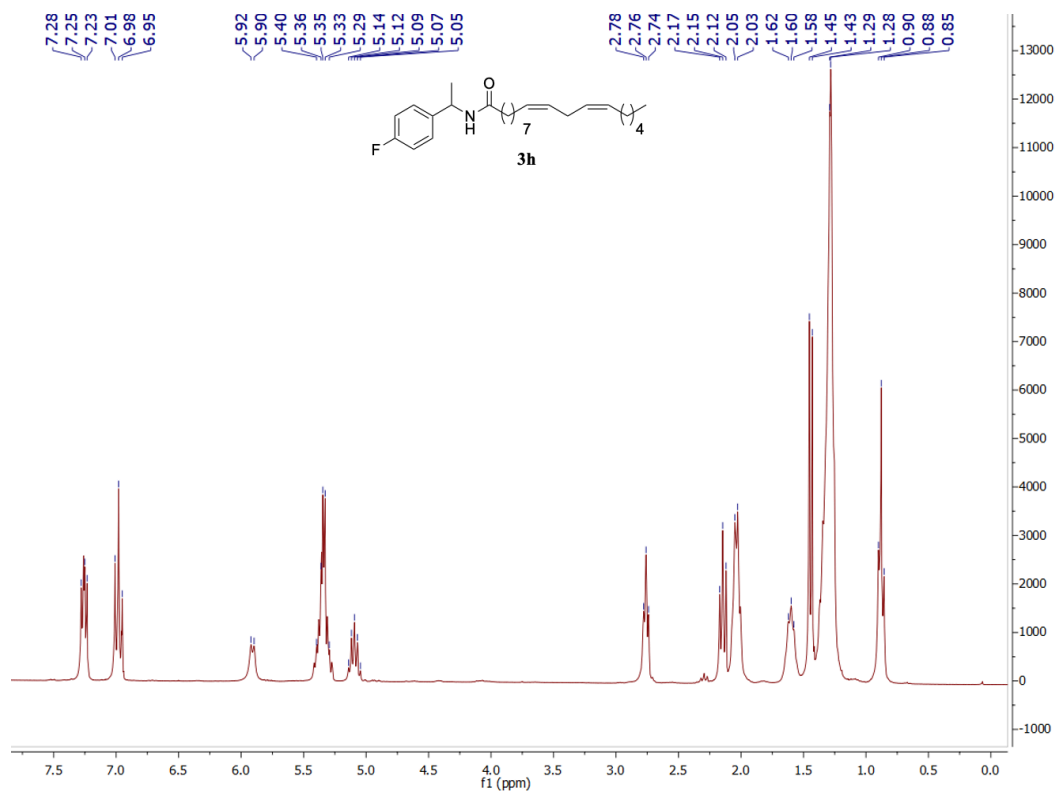
- Figure 50S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(p-tolyl)-ethyl)-octadeca-9,12-dienamide (**3f**).



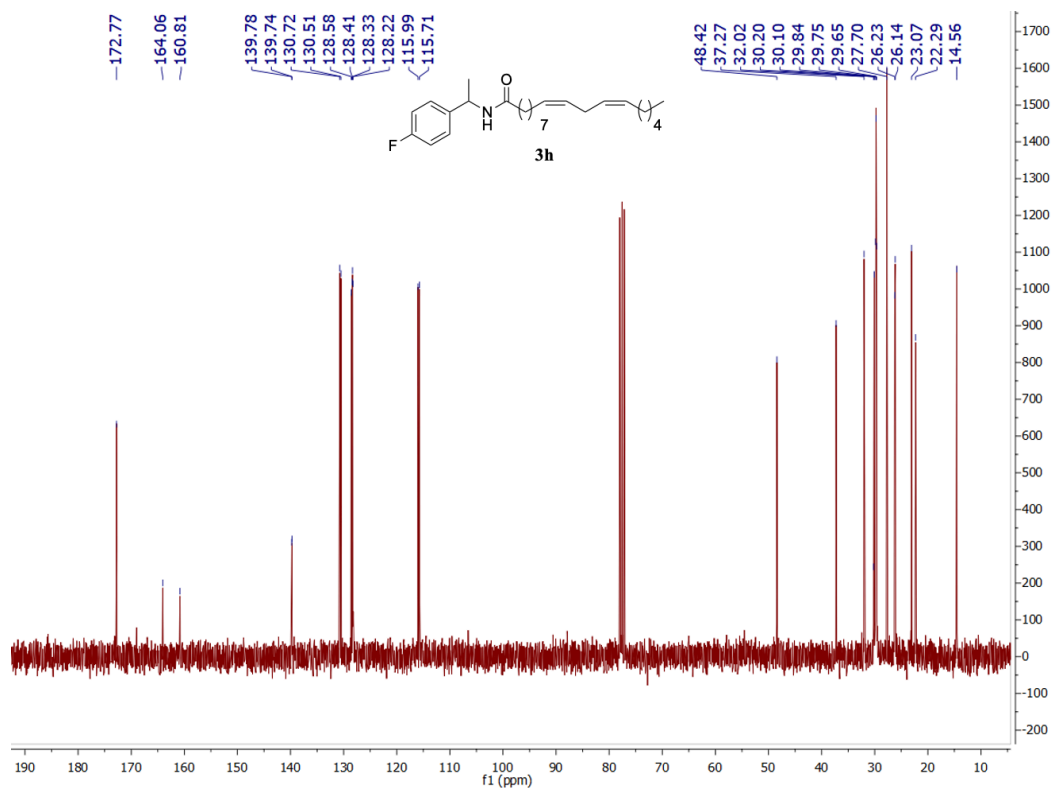
- Figure 51S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(4-(trifluoromethyl)-phenyl)-ethyl)-octadeca-9,12-dienamide (**3g**).



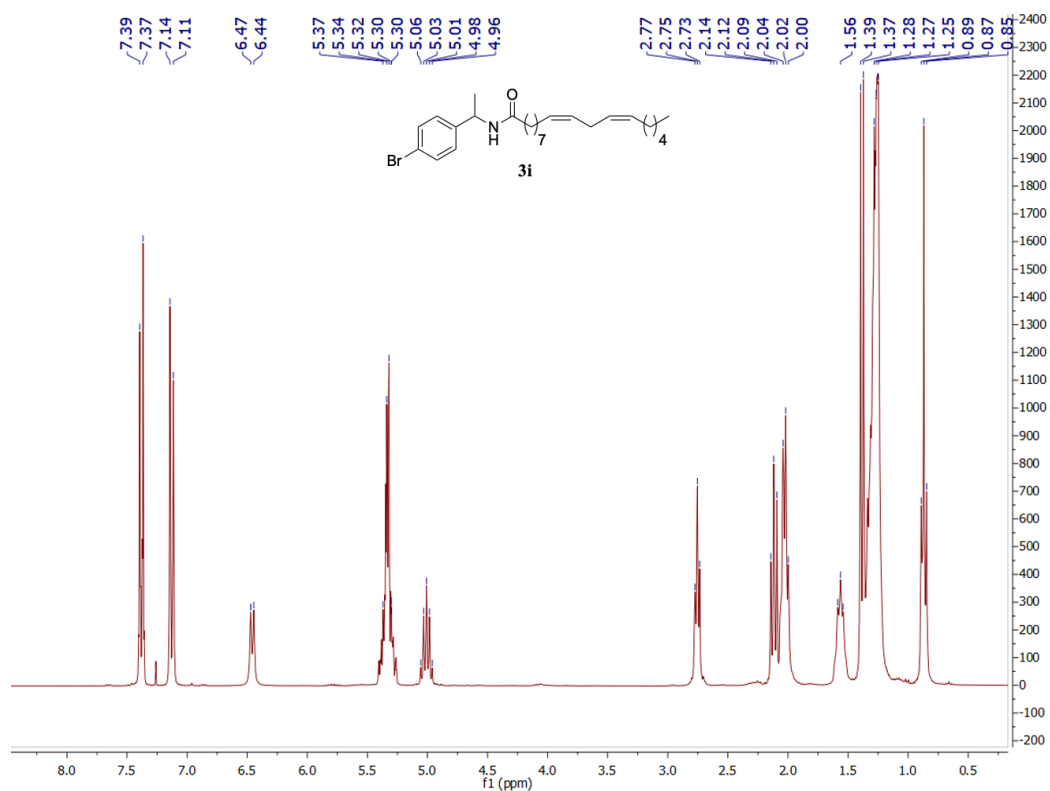
- Figure 52S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(4-(trifluoromethyl)-phenyl)-ethyl)-octadeca-9,12-dienamide (**3g**).



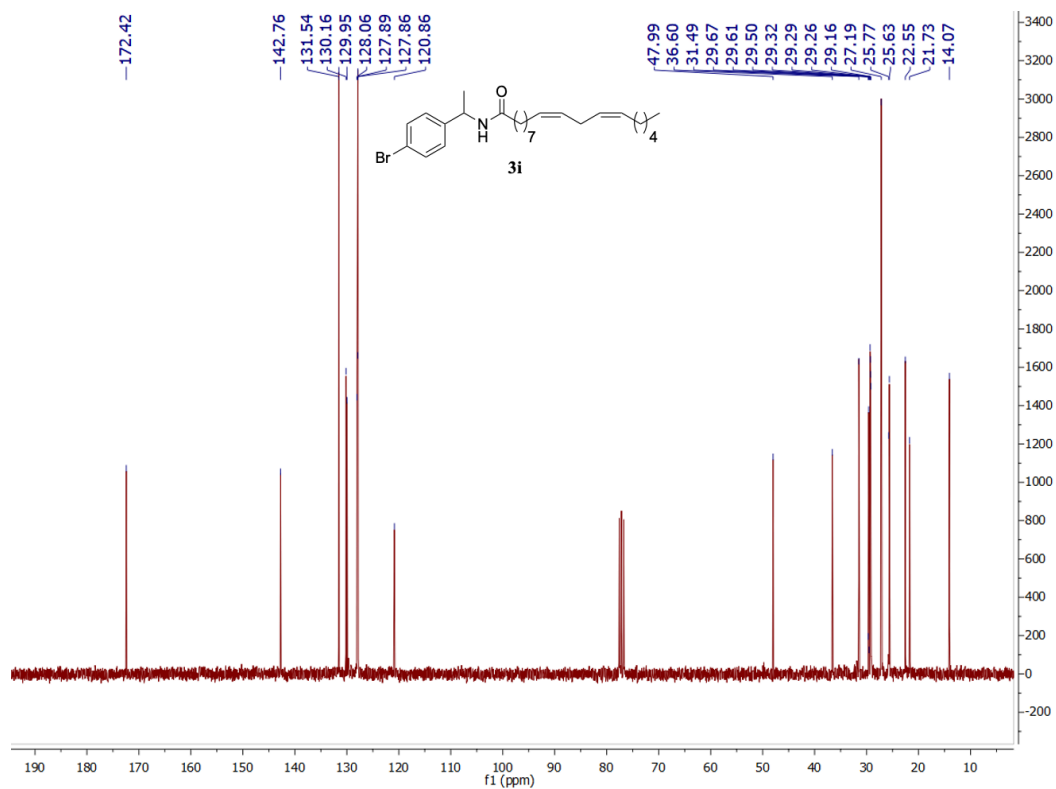
- Figure 53S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(4-fluorophenyl)ethyl)-octadeca-9,12-dienamide (**3h**).



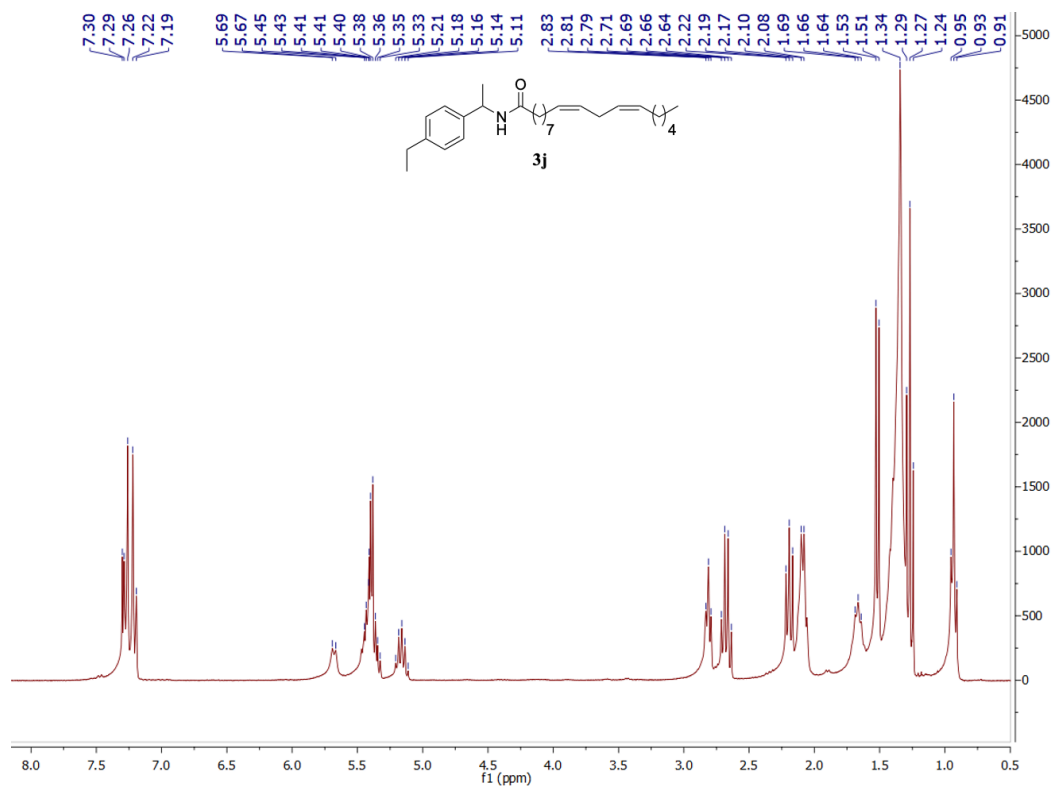
- Figure 54S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(4-fluorophenyl)ethyl)-octadeca-9,12-dienamide (**3h**).



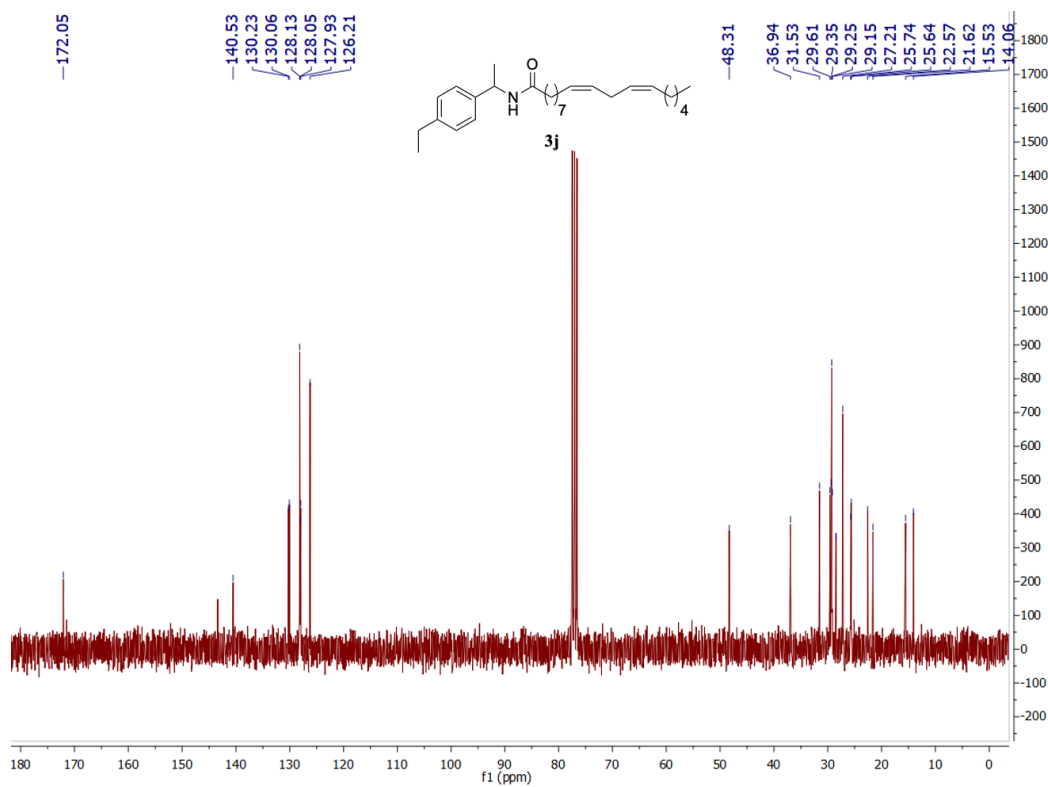
- Figure 55S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(4-bromophenyl)-ethyl)-octadeca-9,12-dienamide (**3i**).



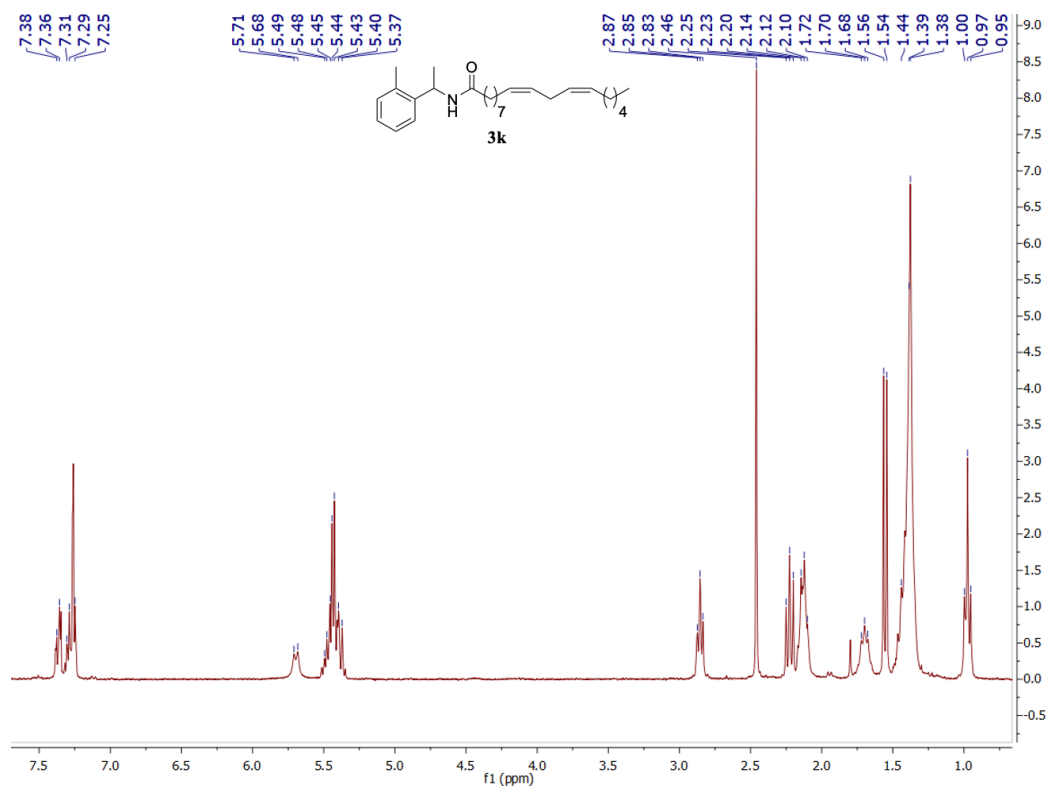
- Figure 56S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(4-bromophenyl)-ethyl)-octadeca-9,12-dienamide (**3i**).



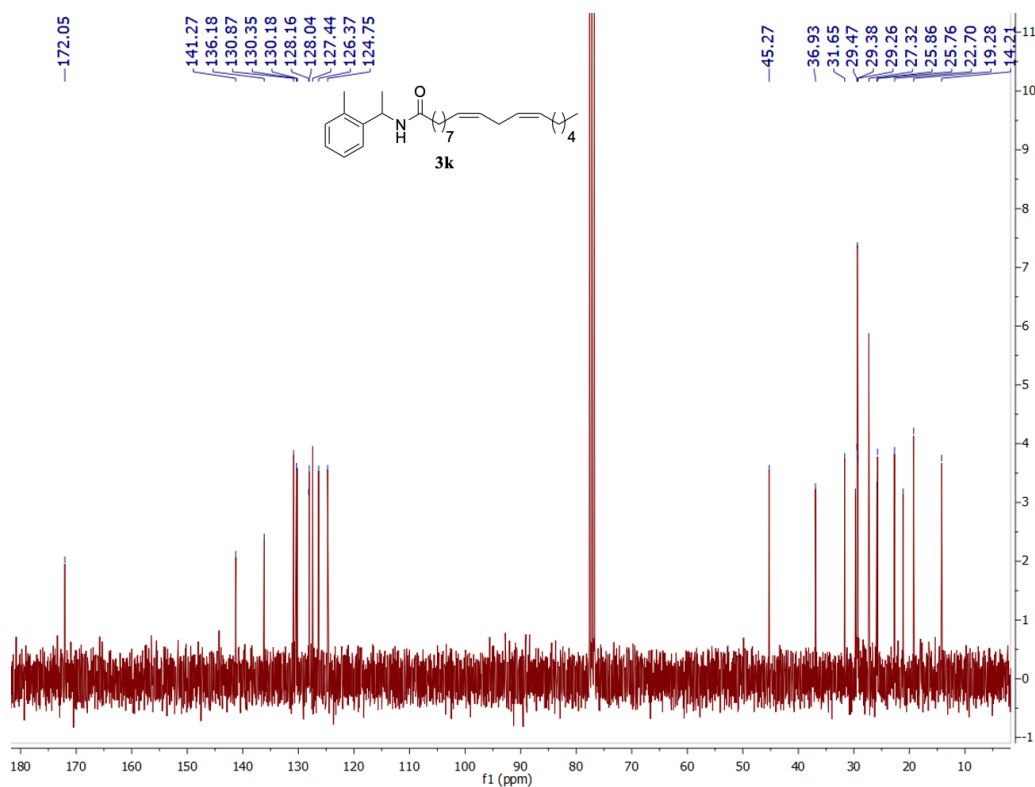
- Figure 57S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(4-ethylphenyl)-ethyl)-octadeca-9,12-dienamide (**3j**).



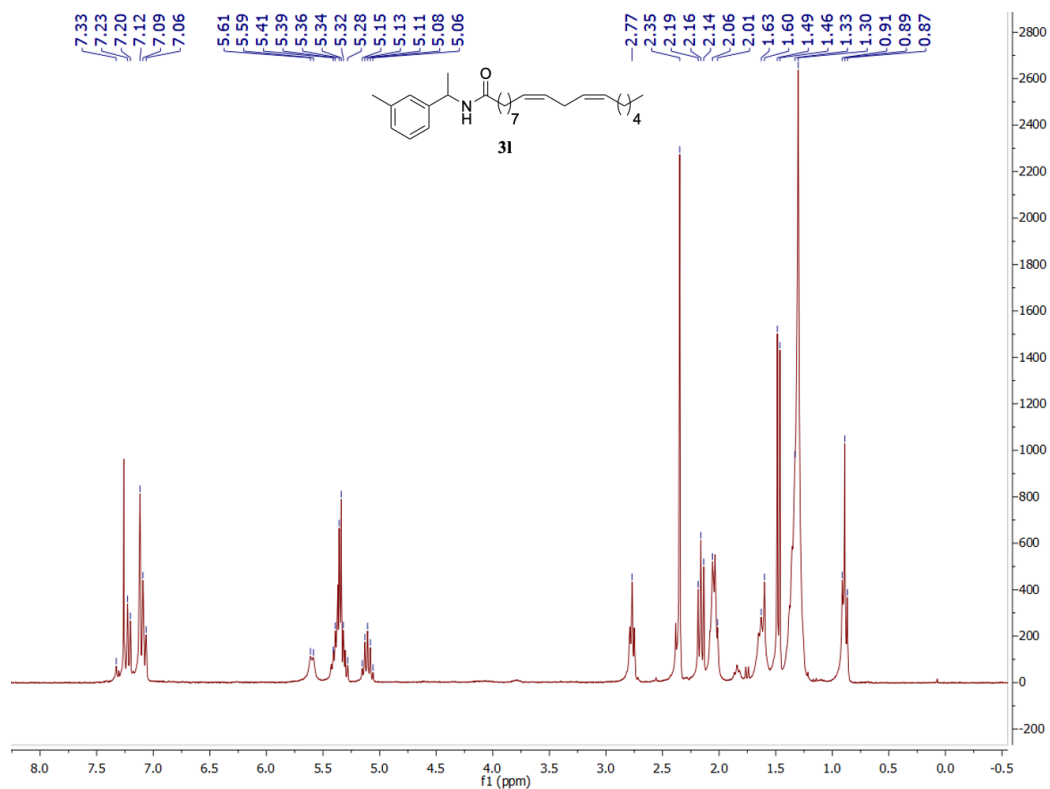
- Figure 58S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(4-ethylphenyl)-ethyl)-octadeca-9,12-dienamide (**3j**).



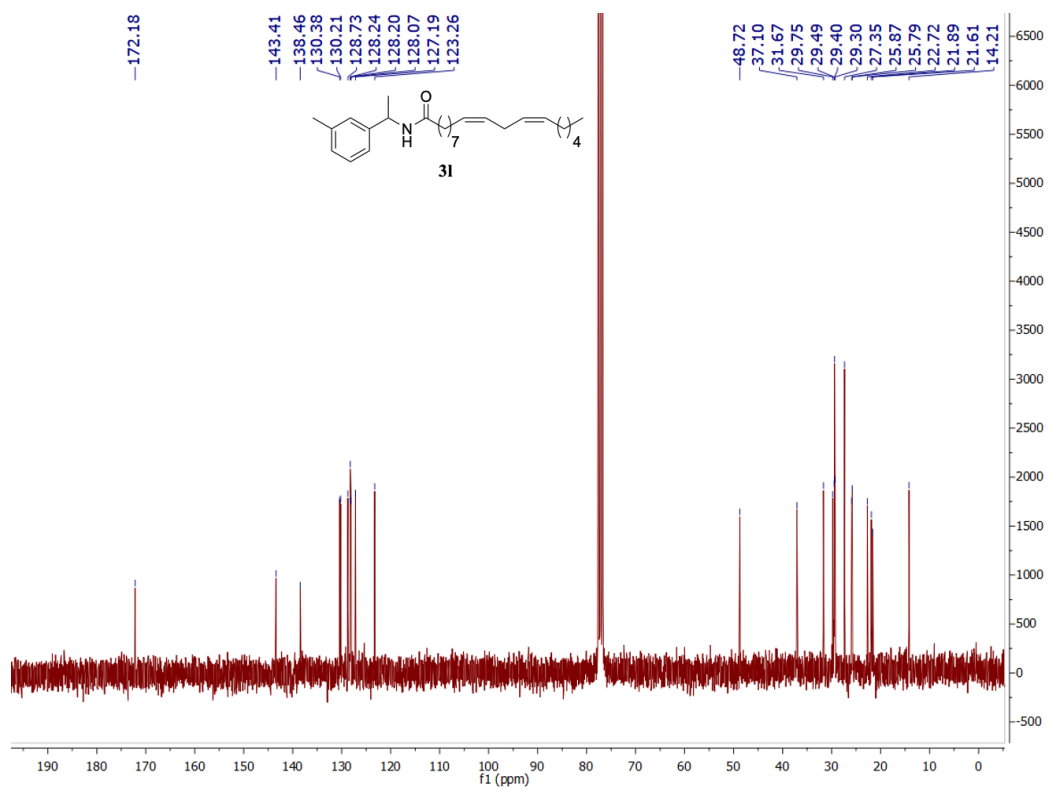
- Figure 59S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(o-tolyl)-ethyl)-octadeca-9,12-dienamide (**3k**).



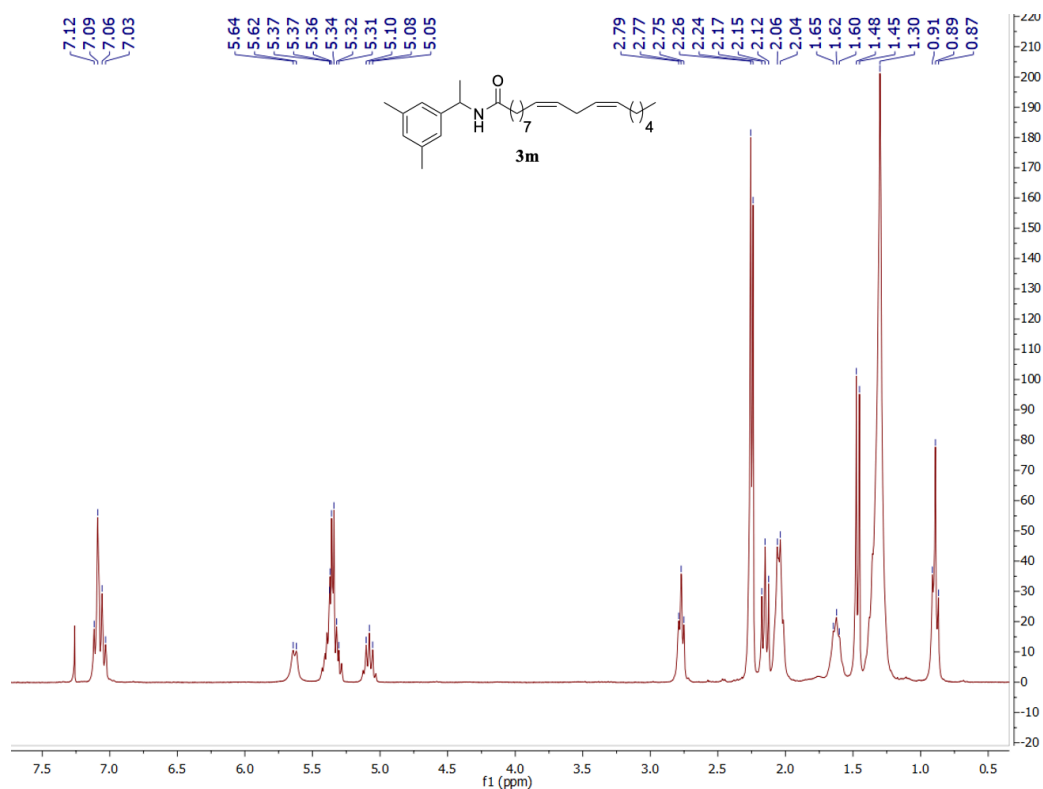
- Figure 60S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(o-tolyl)-ethyl)-octadeca-9,12-dienamide (**3k**).



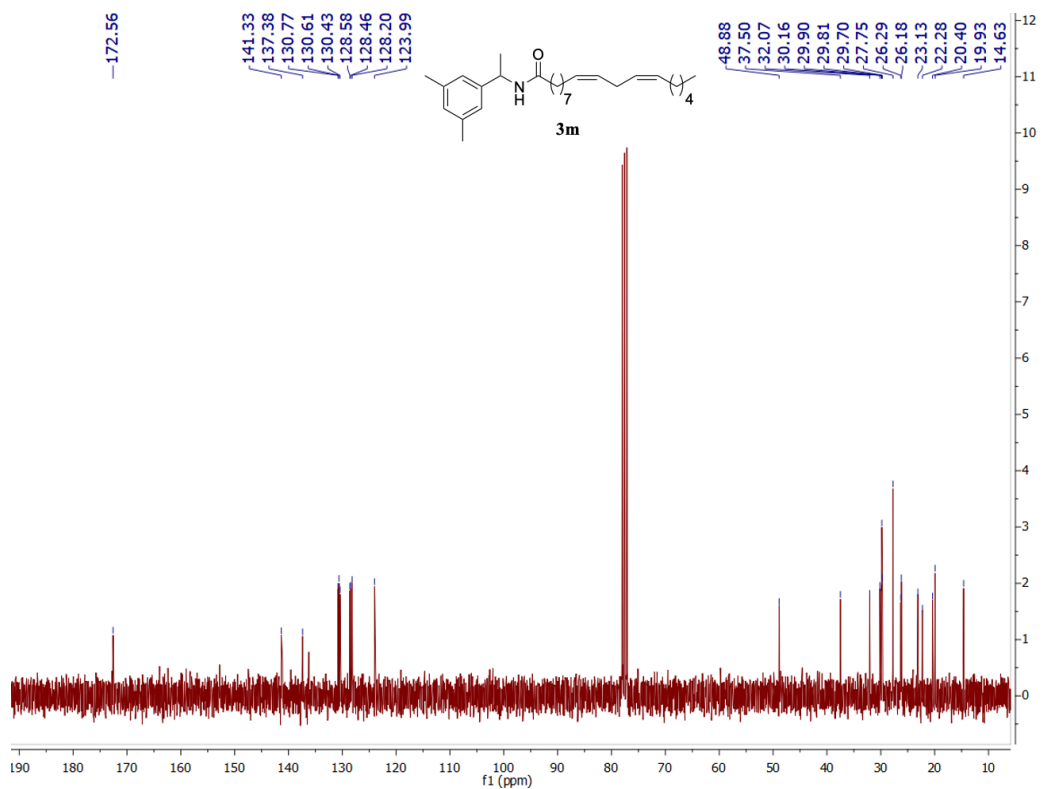
- Figure 61S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(*m*-tolyl)-ethyl)-octadeca-9,12-dienamide (**31**).



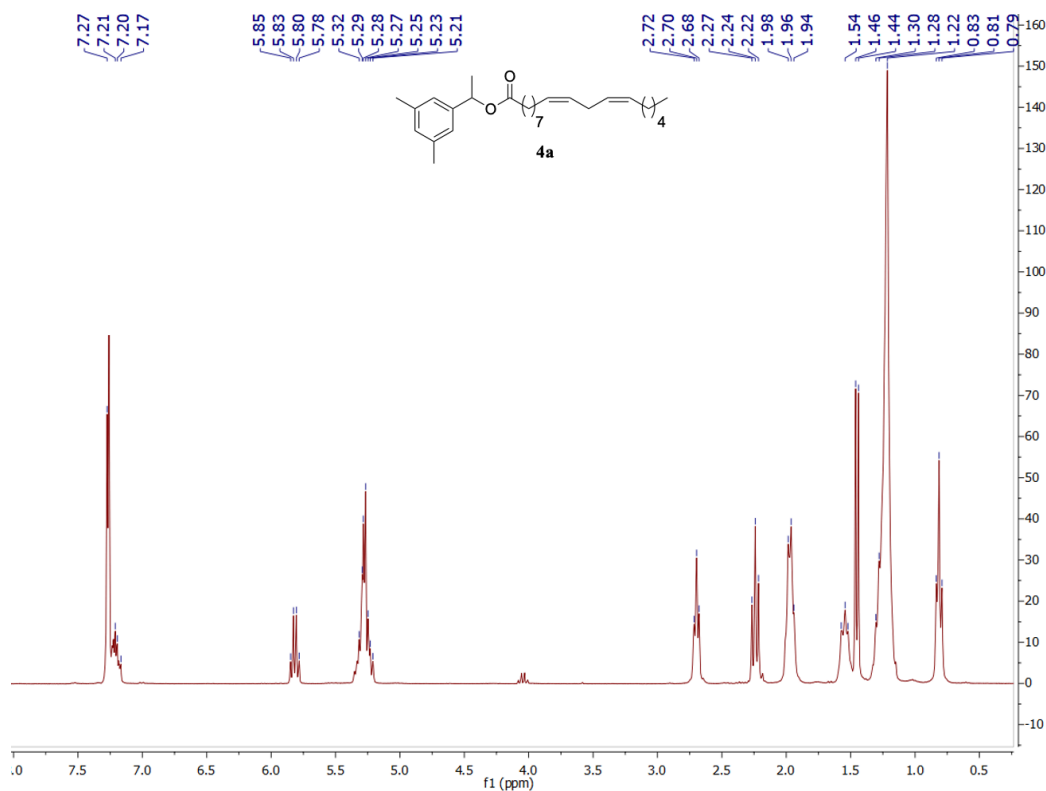
- Figure 62S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(*m*-tolyl)-ethyl)-octadeca-9,12-dienamide (**31**).



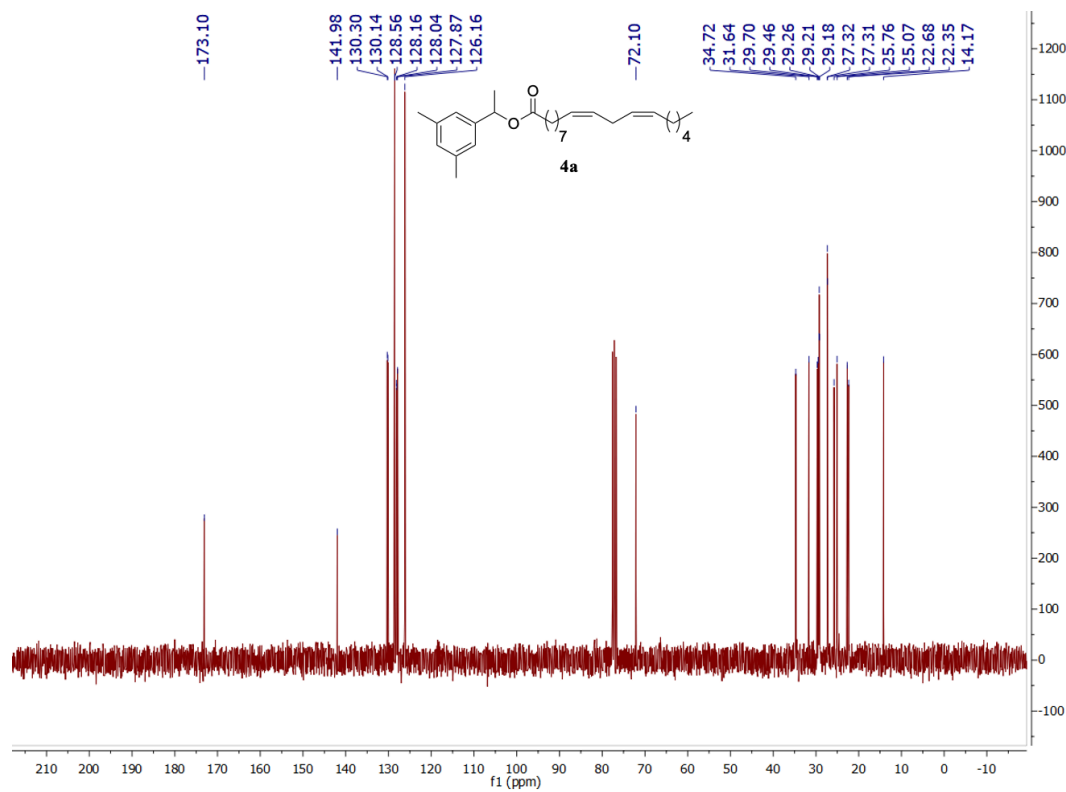
- Figure 63S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(3,5-dimethylphenyl)-ethyl)-octadeca-9,12-dienamide (**3m**).



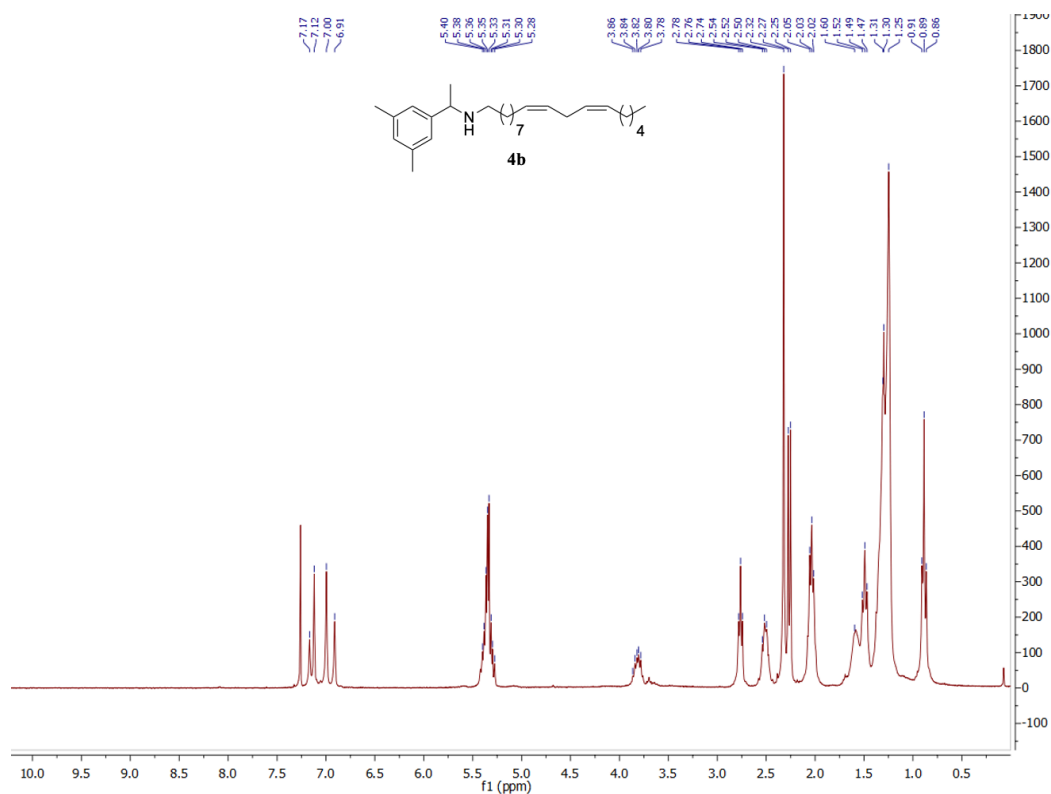
- Figure 64S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(3,5-dimethylphenyl)-ethyl)-octadeca-9,12-dienamide (**3m**).



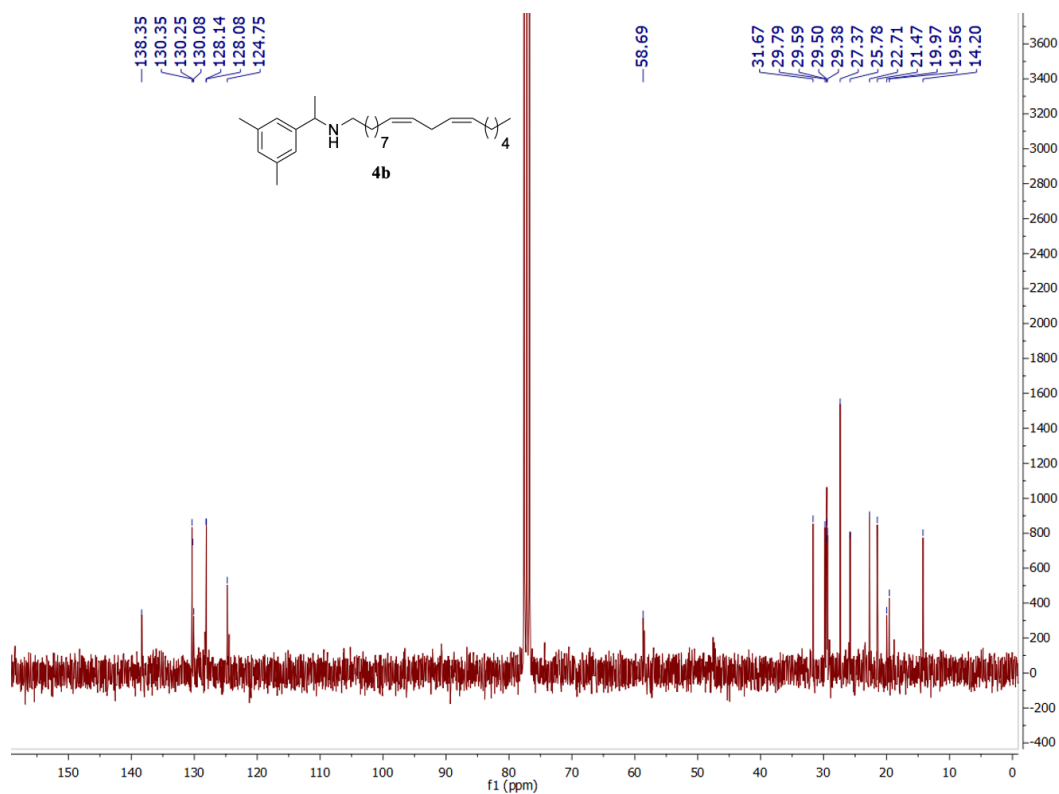
- Figure 65S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-1-(1-(3,5-dimethylphenyl)ethoxy)-octadeca-9,12-dien-1-olate (**4a**).



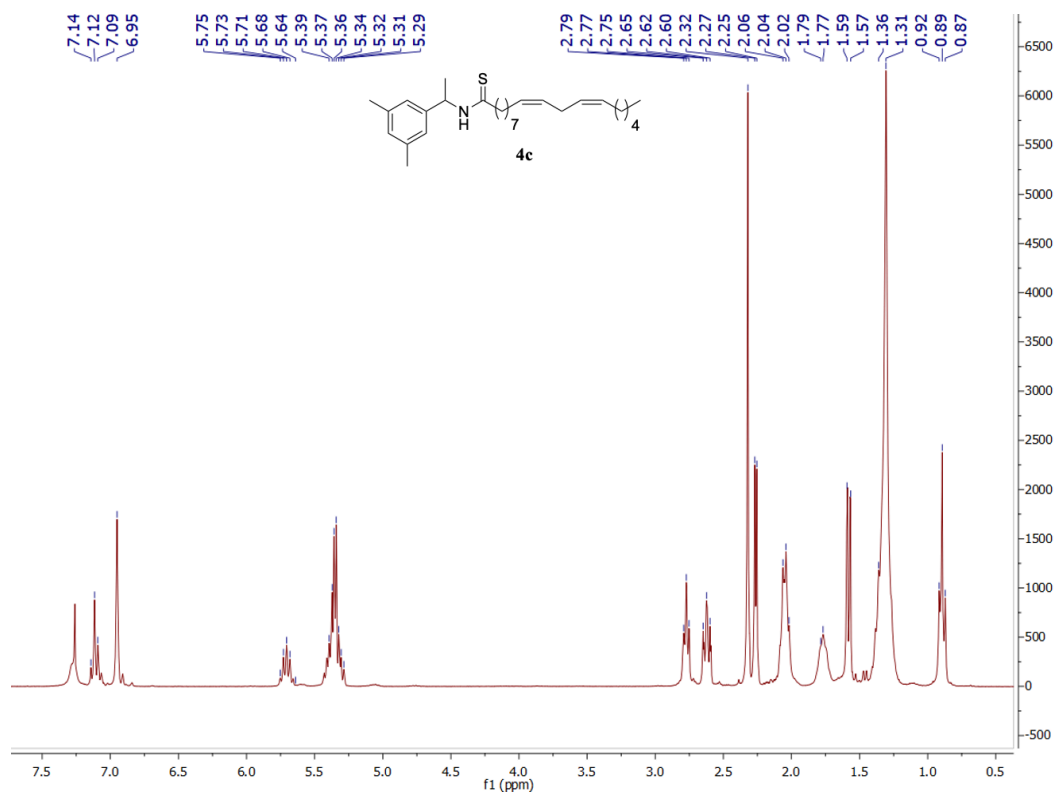
- Figure 66S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-1-(1-(3,5-dimethylphenyl)ethoxy)-octadeca-9,12-dien-1-olate (**4a**).



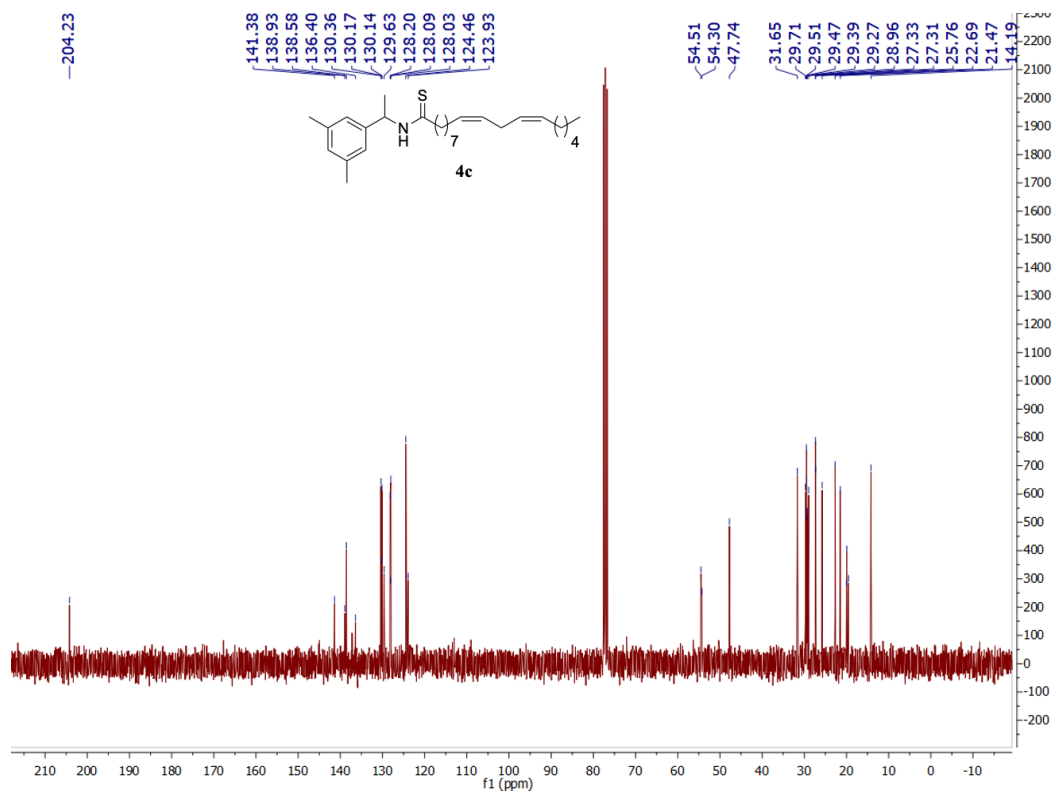
- Figure 67S. ¹H NMR (CDCl₃, 300 MHz) spectrum of (9Z,12Z)-N-(1-(3,5-dimethylphenyl)ethyl)-octadeca-9,12-dien-1-amine (**4b**).



- Figure 68S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of (9Z,12Z)-N-(1-(3,5-dimethylphenyl)ethyl)-octadeca-9,12-dien-1-amine (**4b**).



- Figure 69S. ¹H NMR (CDCl₃, 300 MHz) spectrum of *(9Z,12Z)-N*-(1-(3,5-dimethylphenyl)ethyl)-octadeca-9,12-dienethioamide (**4c**).



- Figure 70S. ¹³C NMR (CDCl₃, 75 MHz) spectrum of *(9Z,12Z)-N*-(1-(3,5-dimethylphenyl)ethyl)-octadeca-9,12-dienethioamide (**4c**).