

Supporting Information

Synthesis and analysis of stable isotope-labelled *N*-acyl homoserine lactones

Ewout Ruysbergh, Christian V. Stevens, Norbert De Kimpe and Sven Mangelinckx

Department of Sustainable Organic Chemistry and Technology, Faculty of Bioscience
Engineering, Ghent University, Coupure Links 653, B-9000 Ghent, Belgium

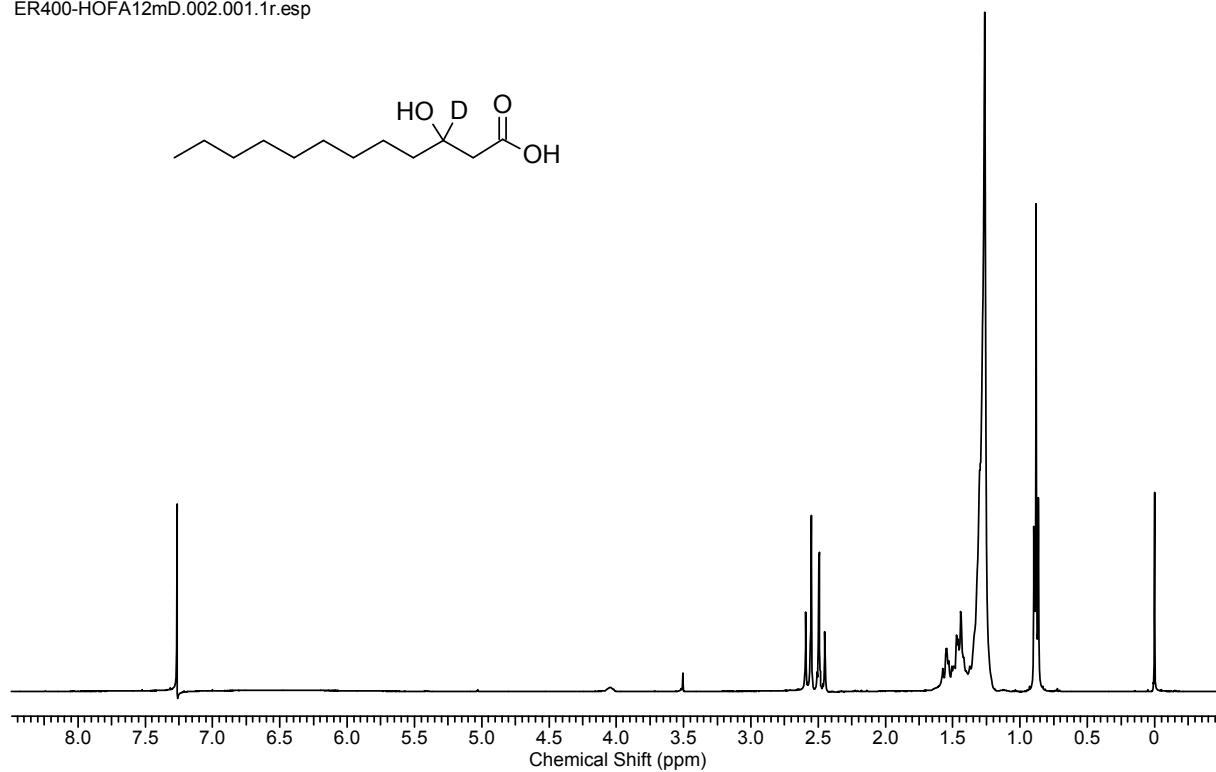
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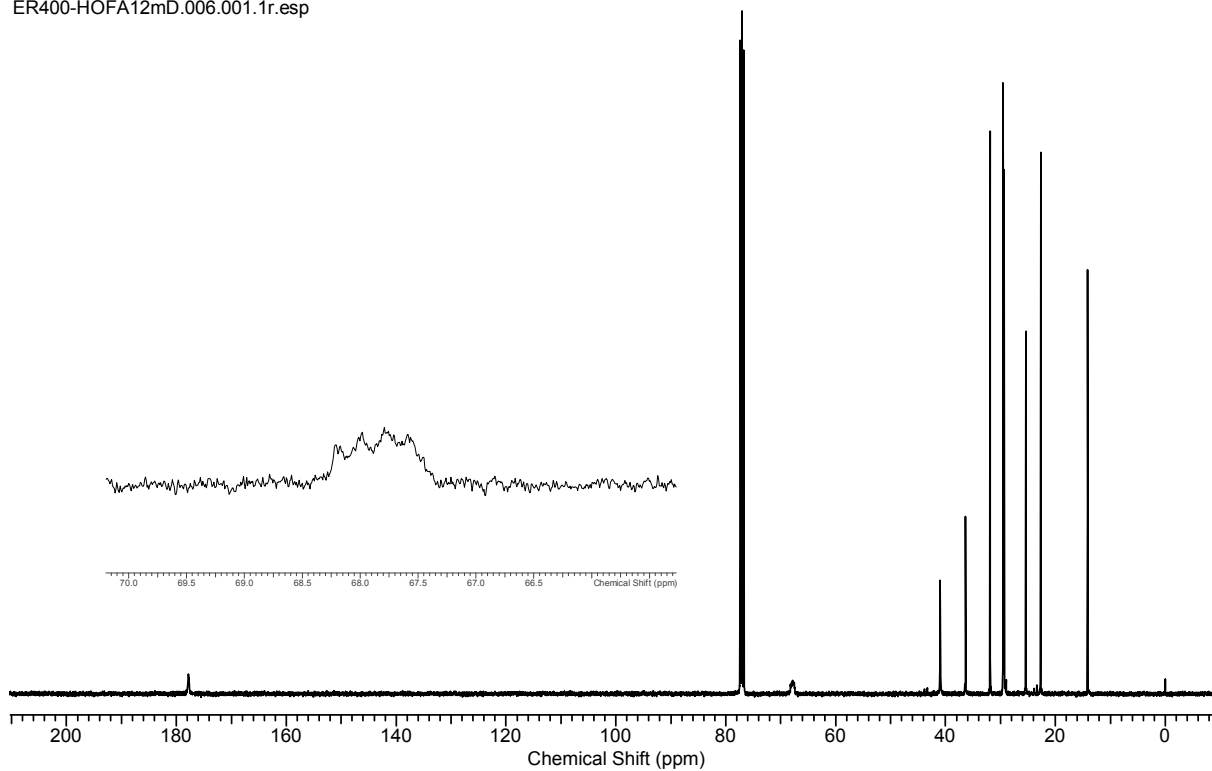
I. Copies of ^1H NMR and ^{13}C NMR spectra of compounds **15**, **17**, **22**, **24**, **26-30**

^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **15**

ER400-HOFA12mD.002.001.1r.esp

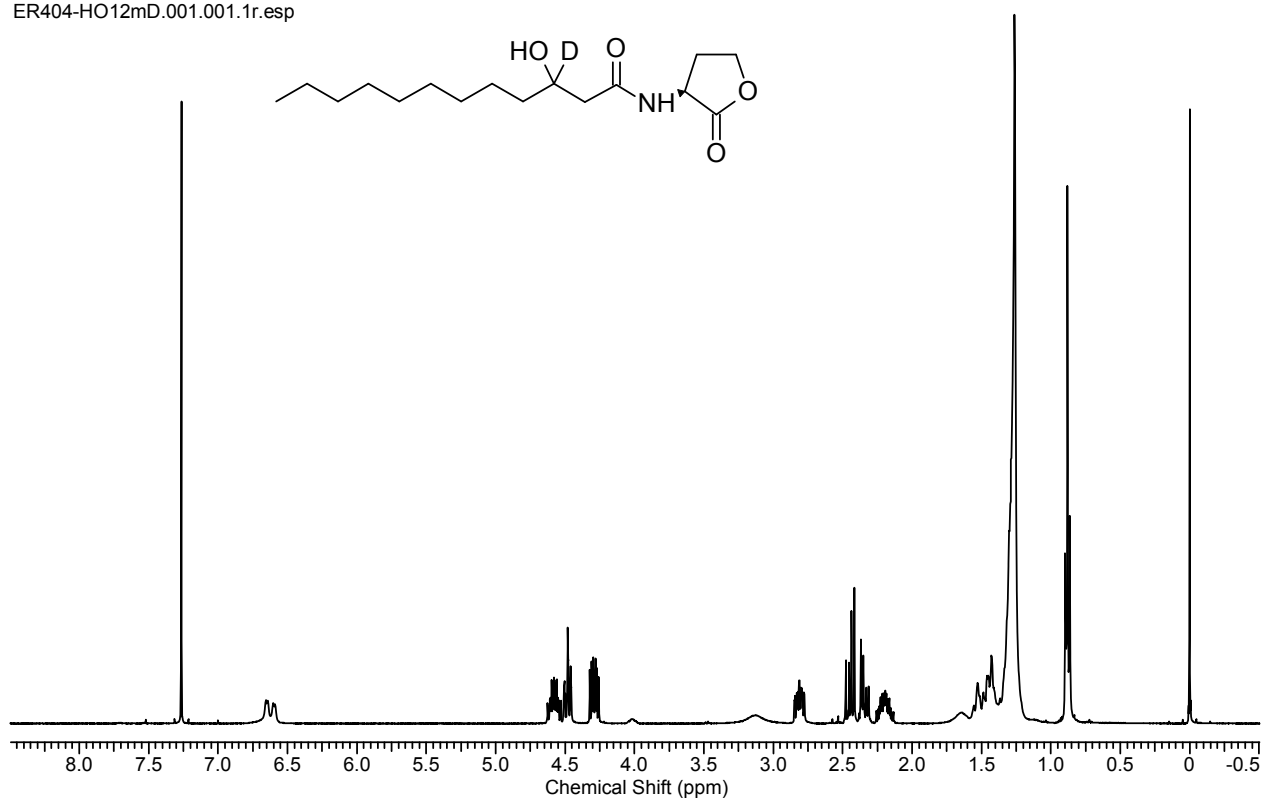


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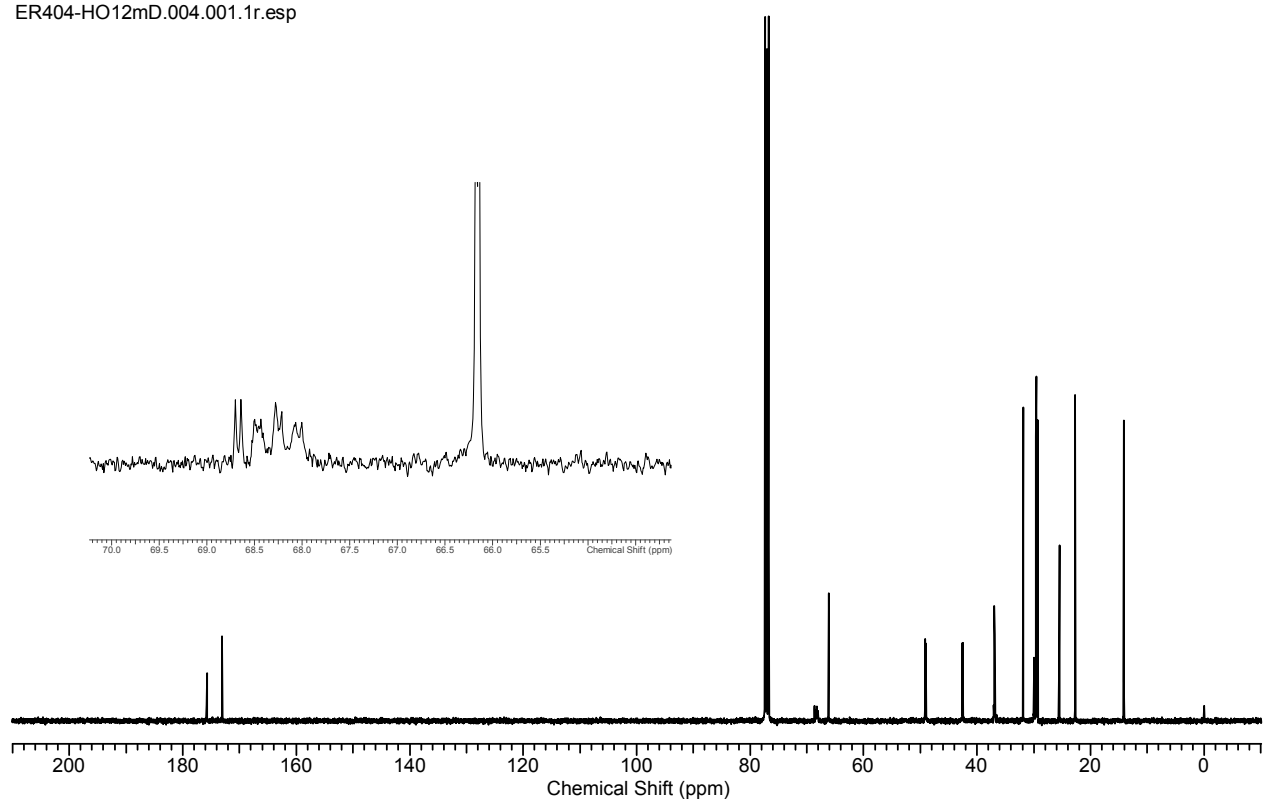


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **17**

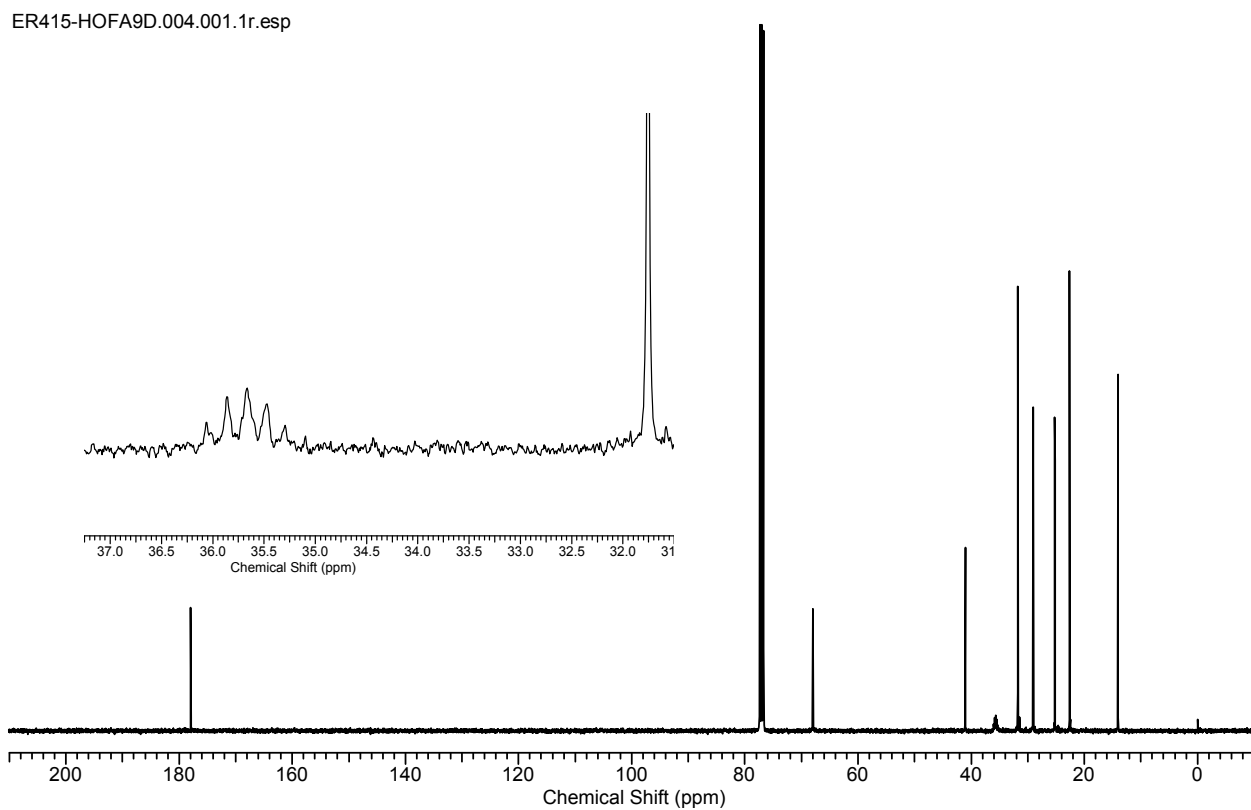
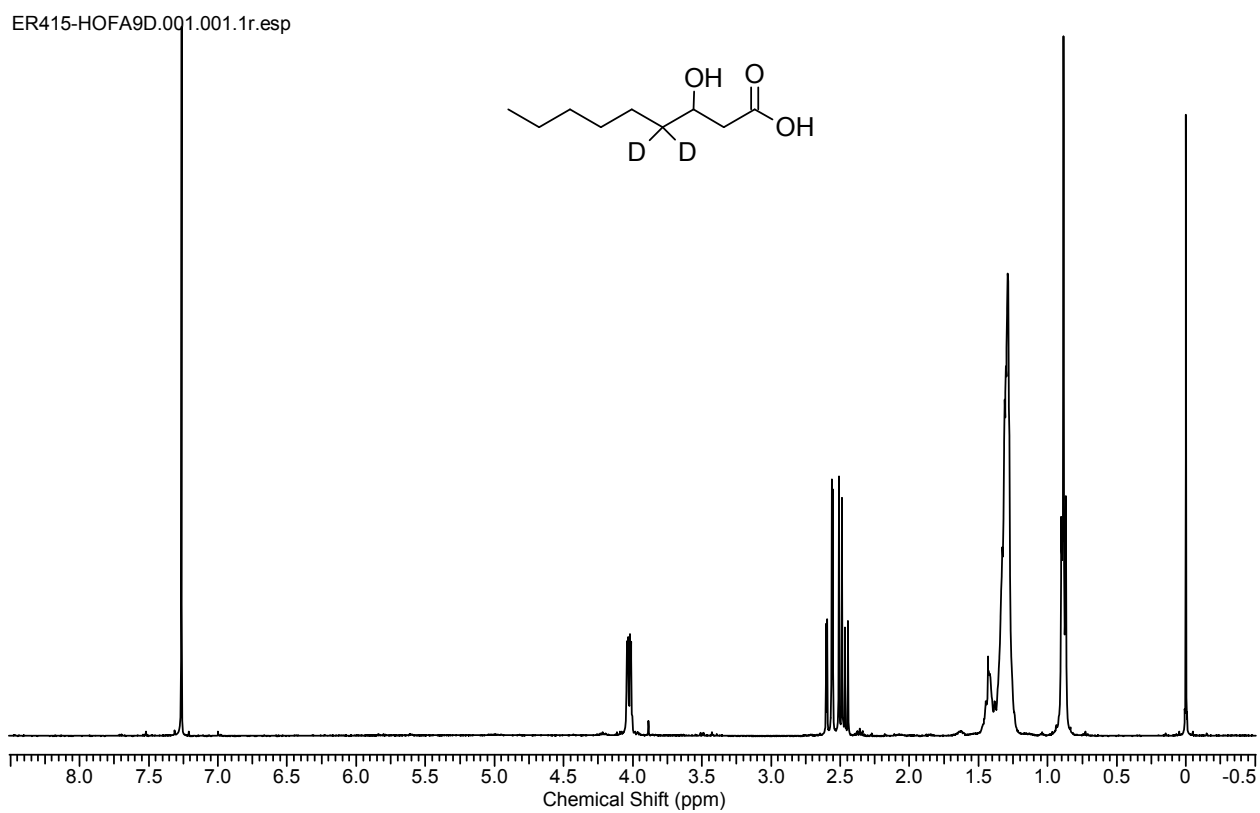
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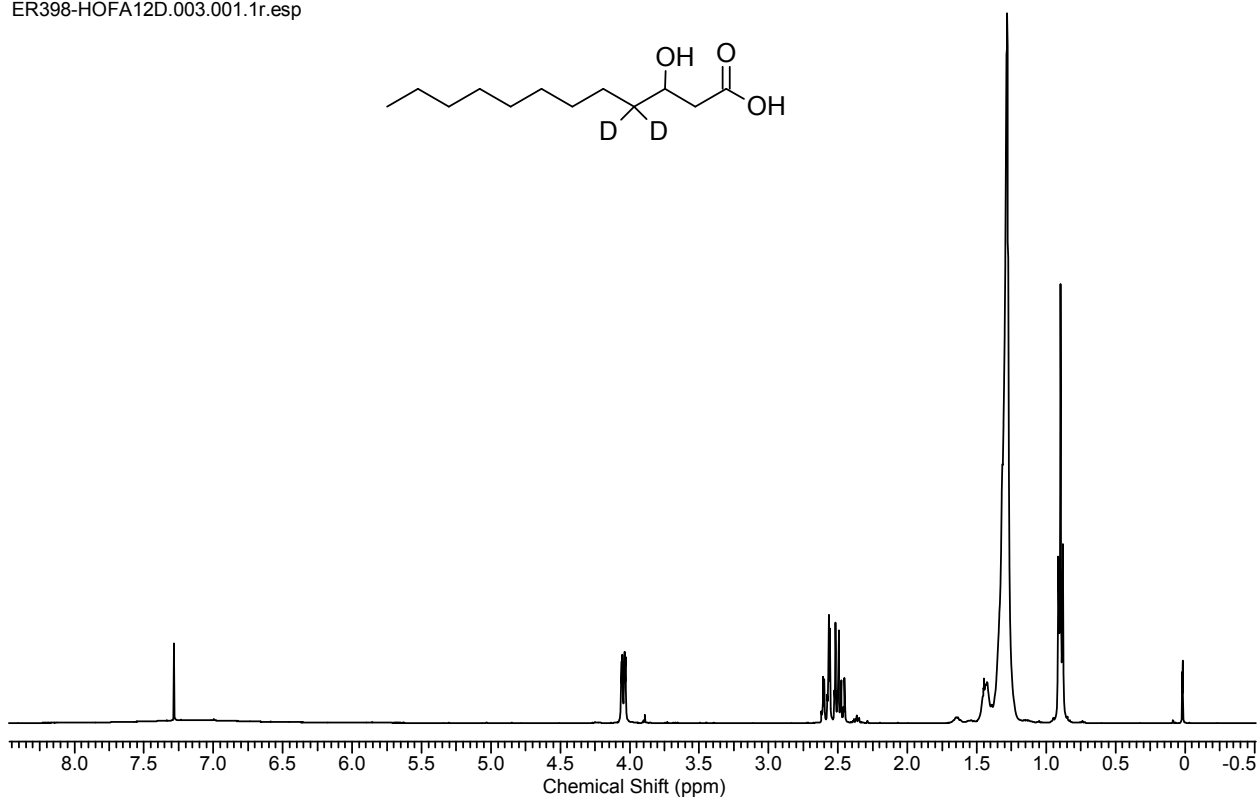
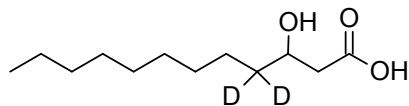


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **22a**

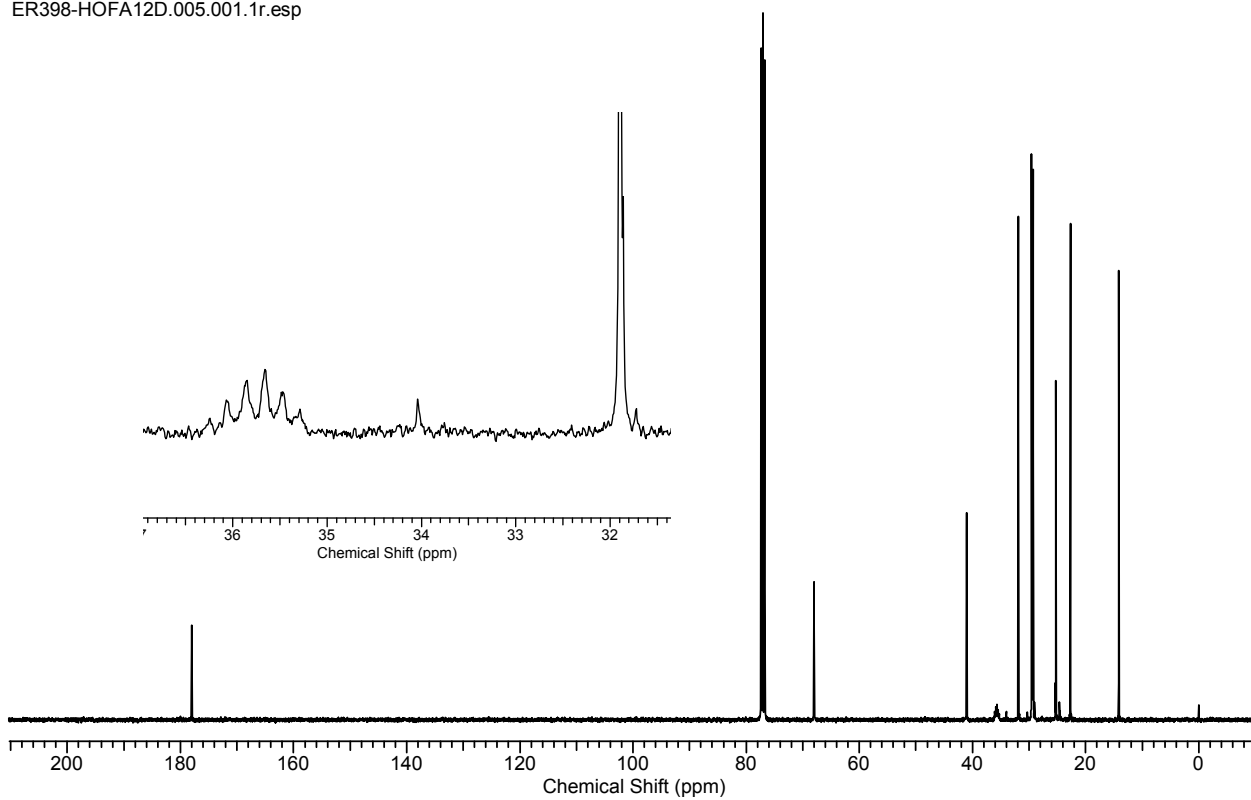


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **22b**

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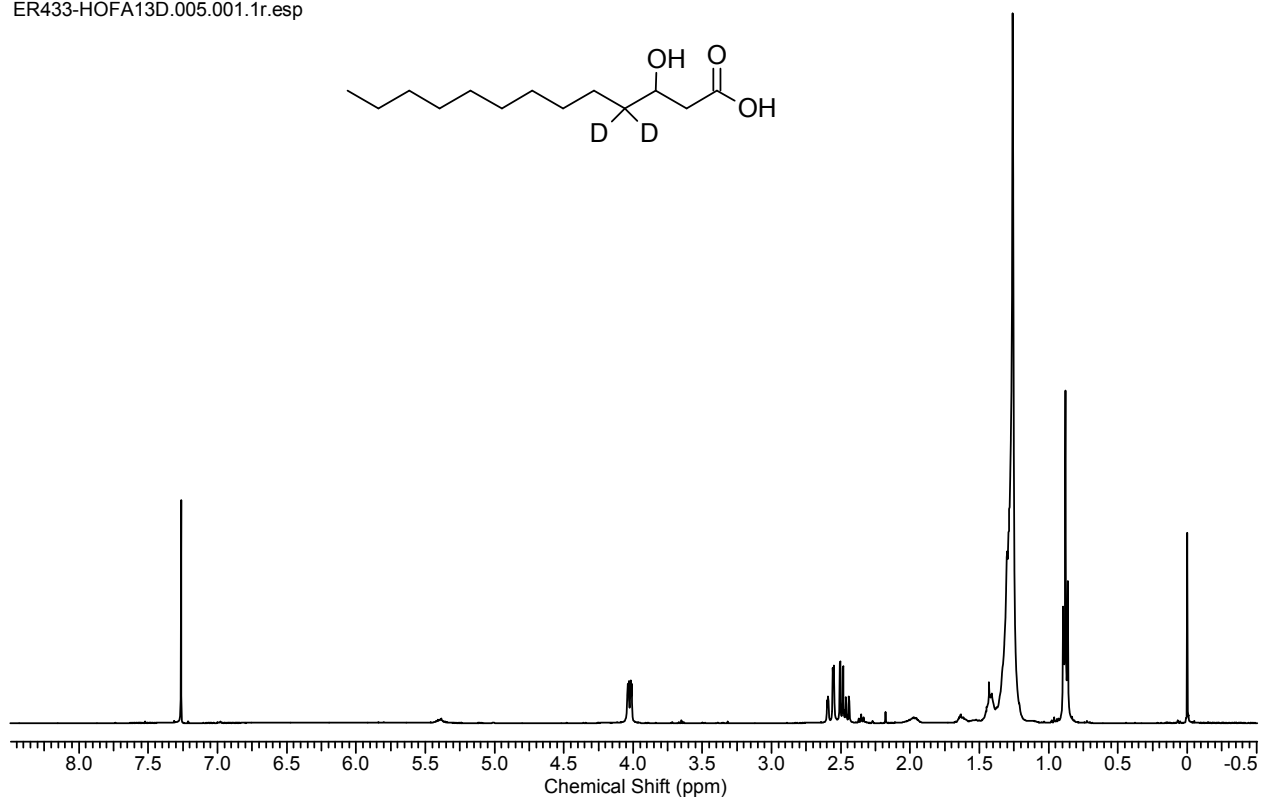
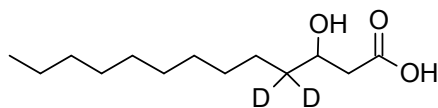


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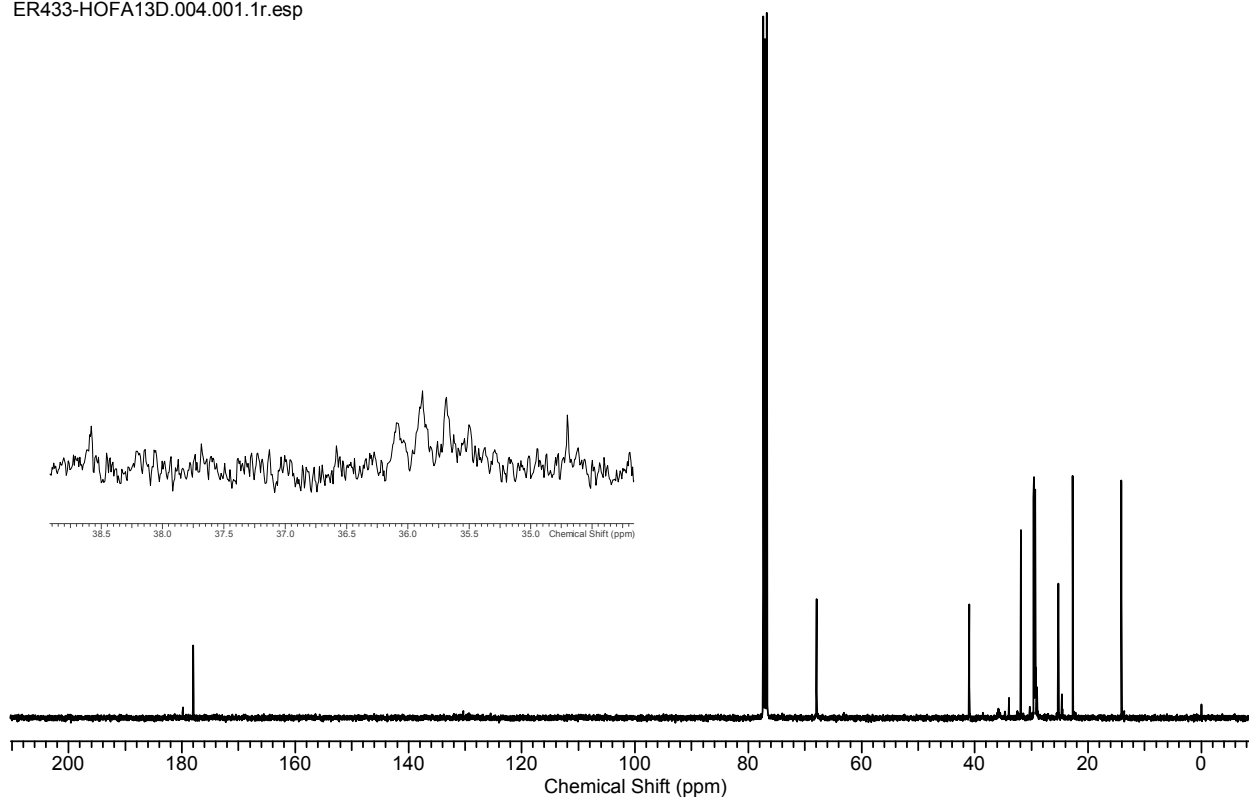


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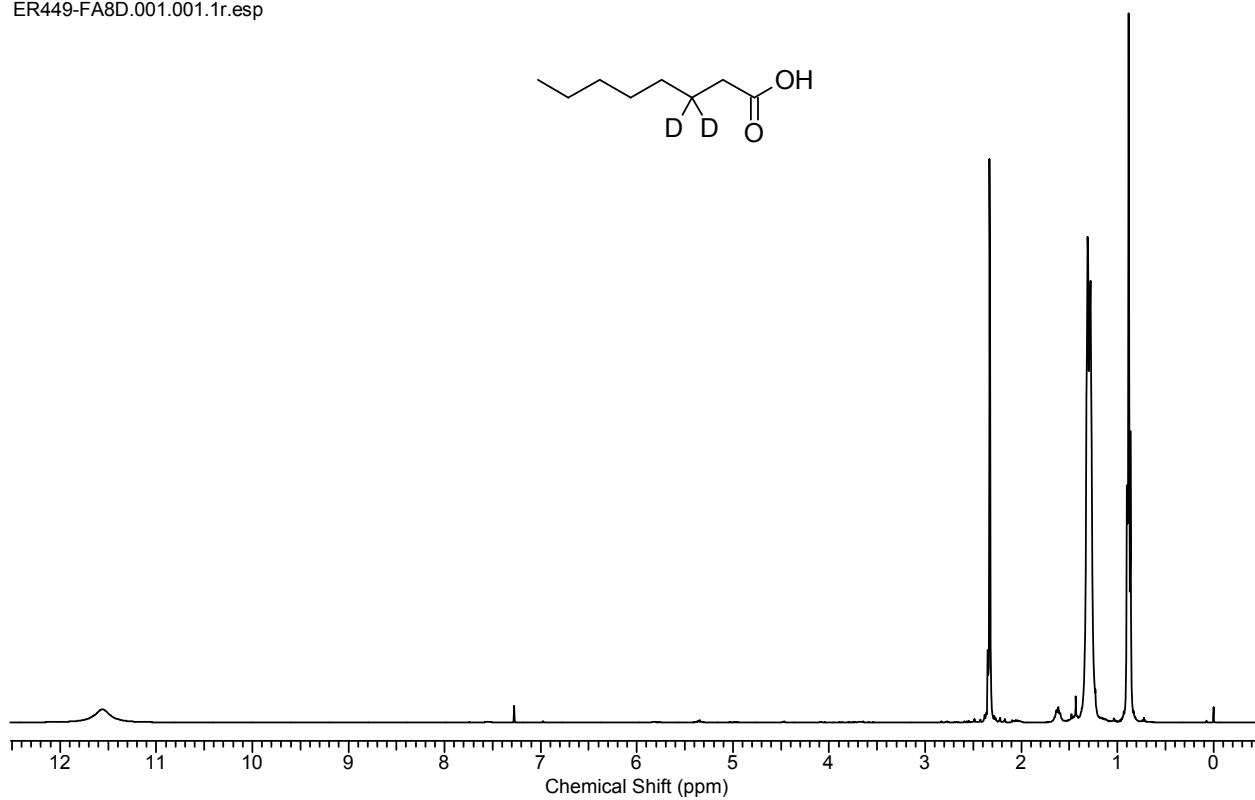


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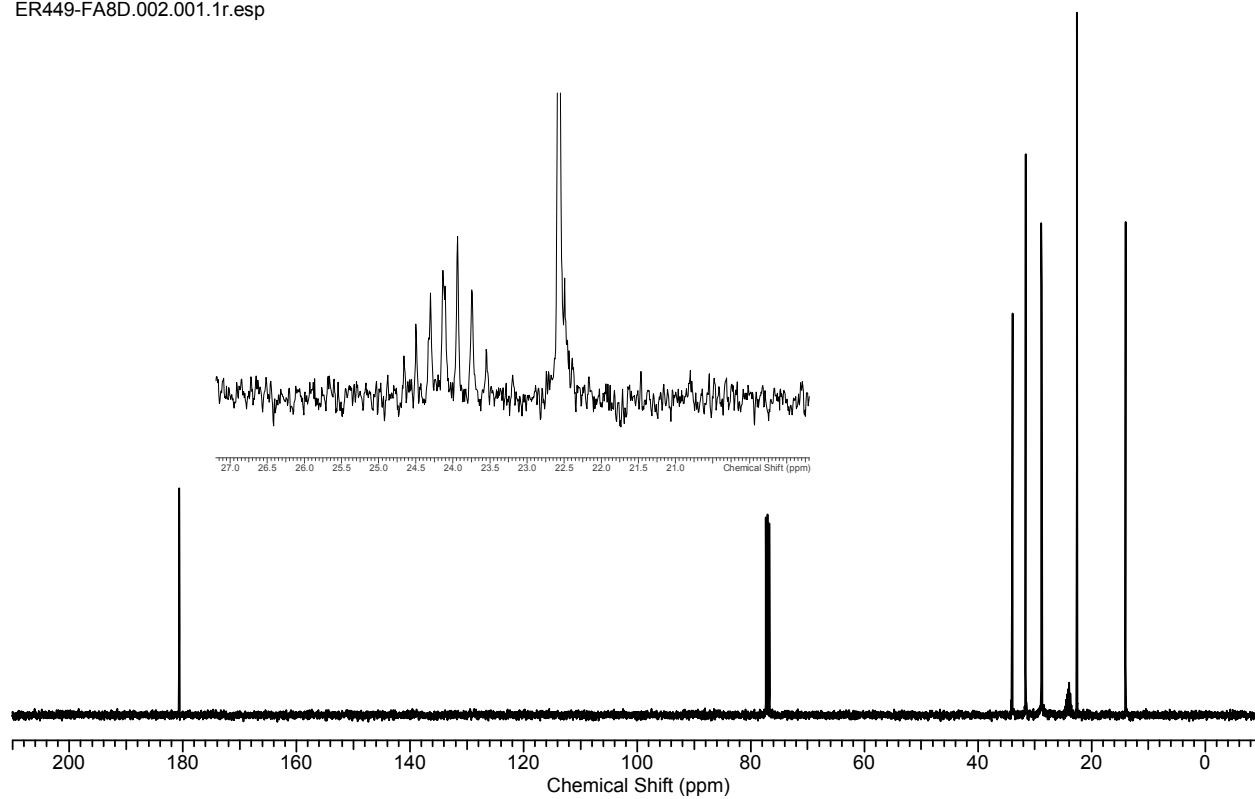


¹H (400 MHz, CDCl₃) and ¹³C (100 MHz, CDCl₃) spectra of **24a**

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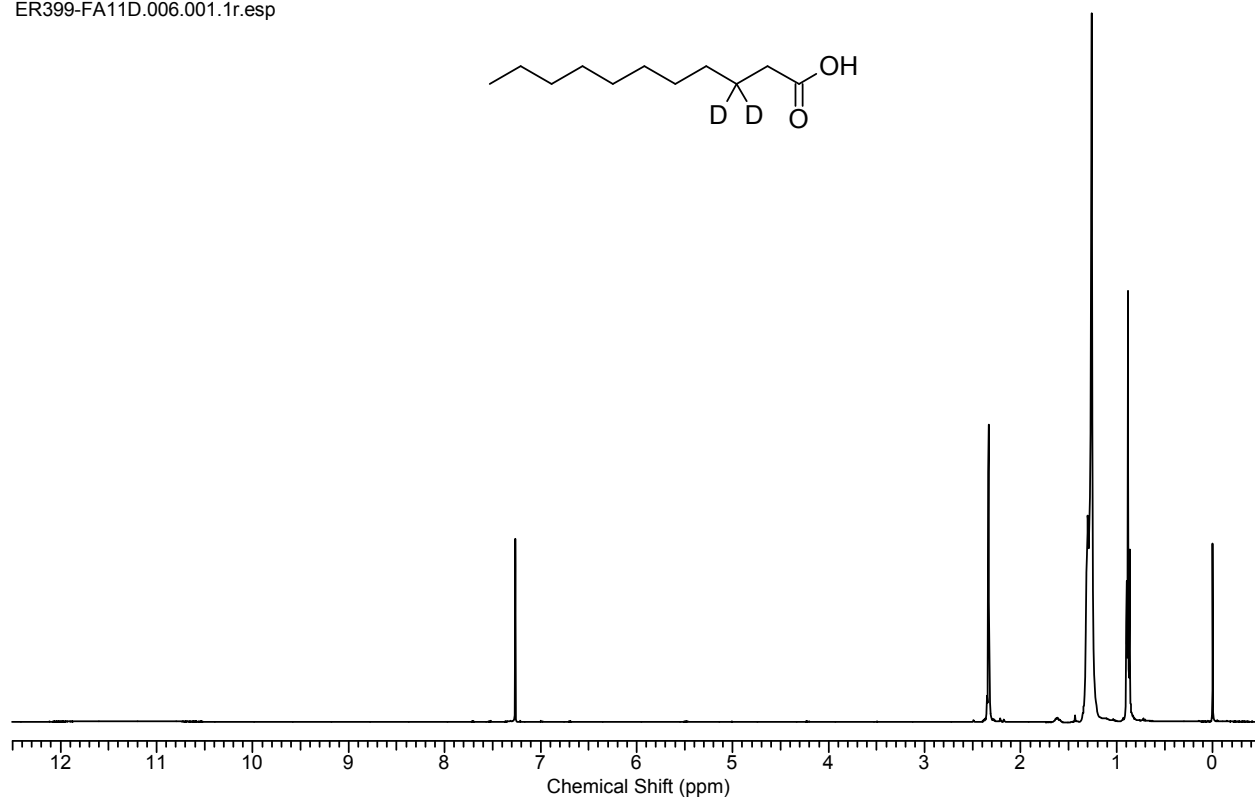


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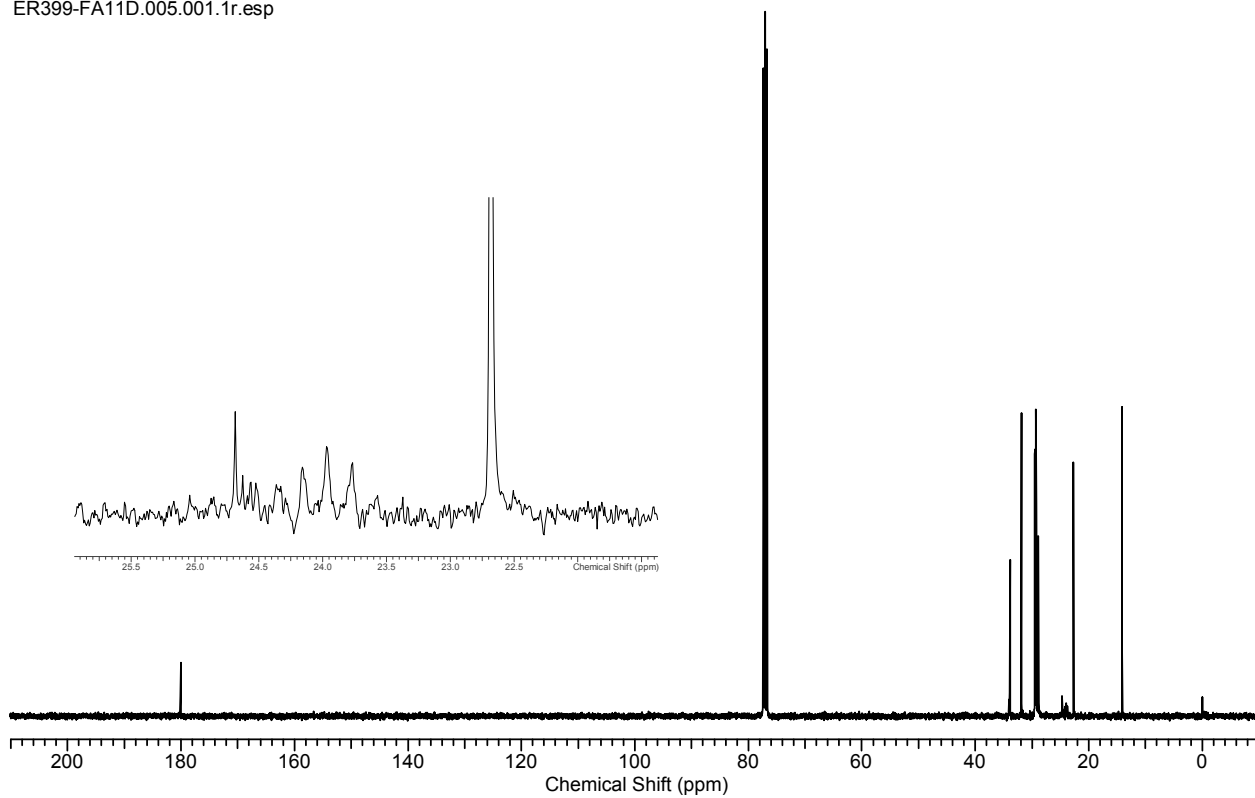


¹H (400 MHz, CDCl₃) and ¹³C (100 MHz, CDCl₃) spectra of **24b**

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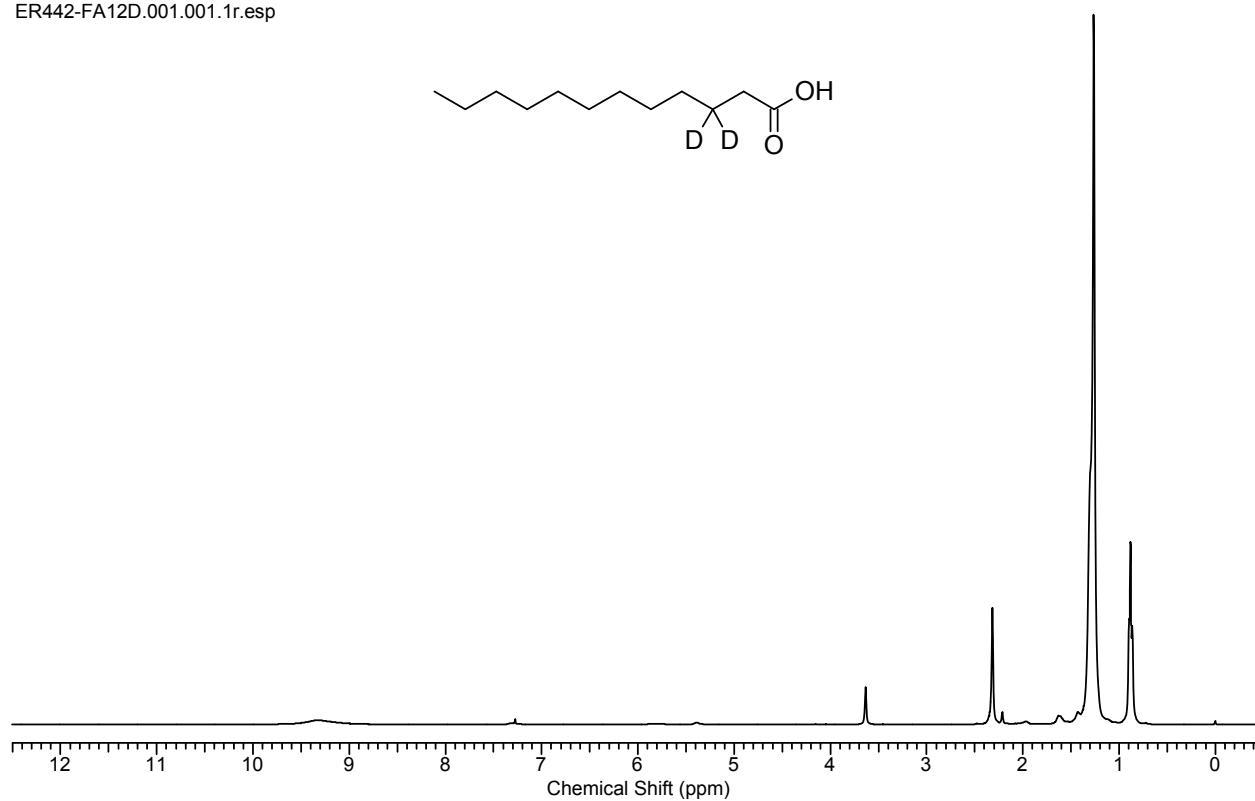


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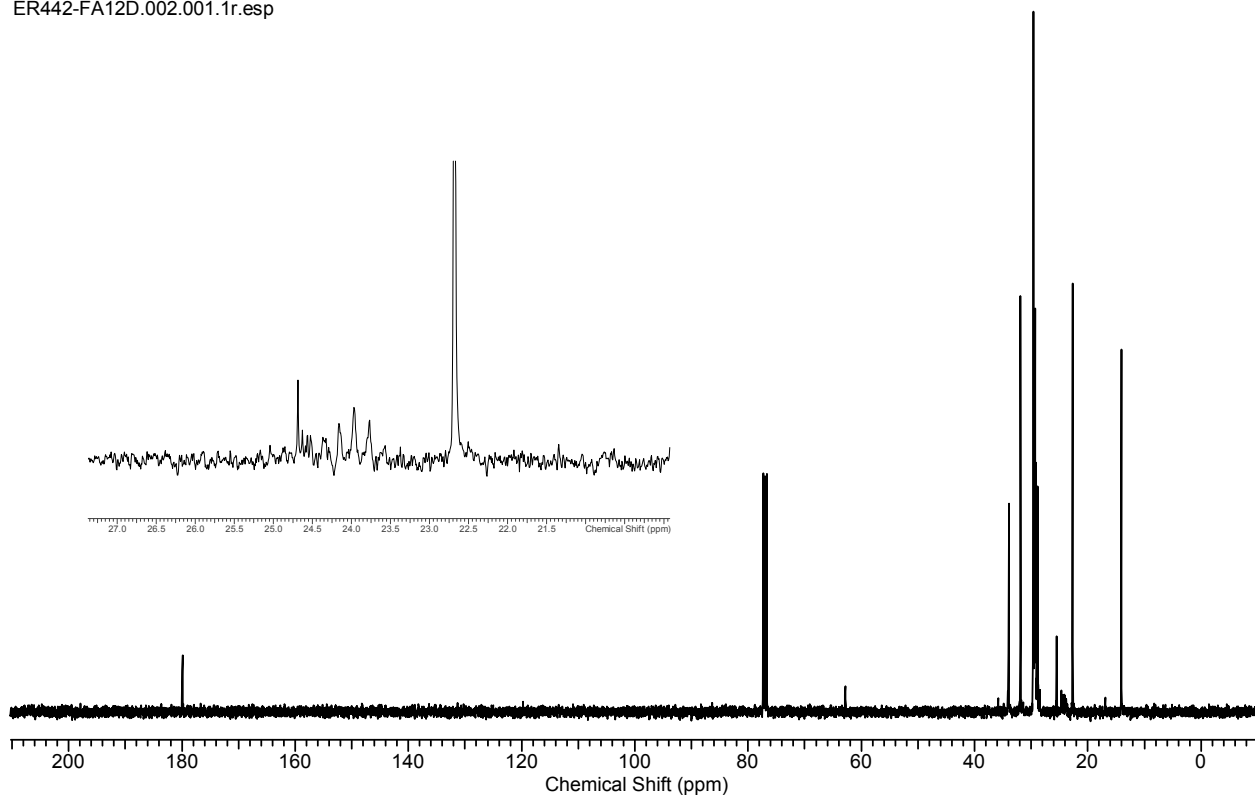


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **24c**

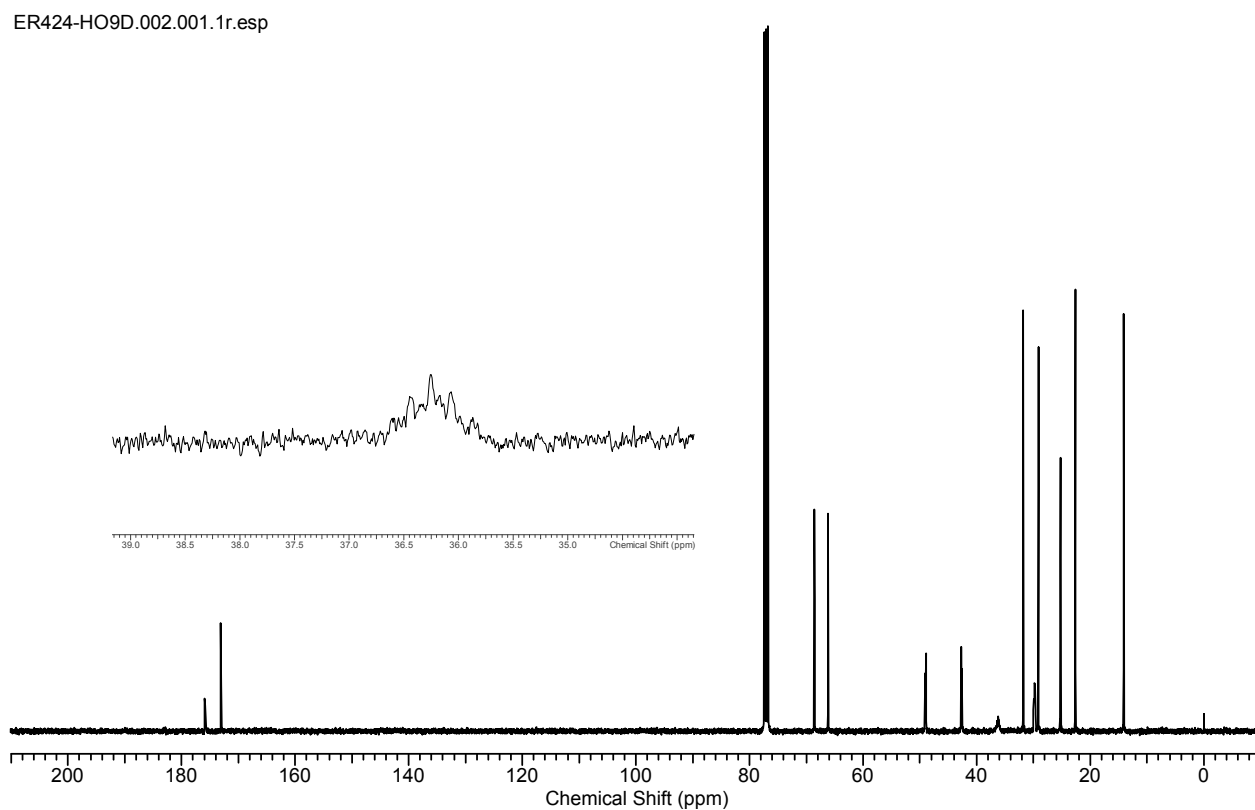
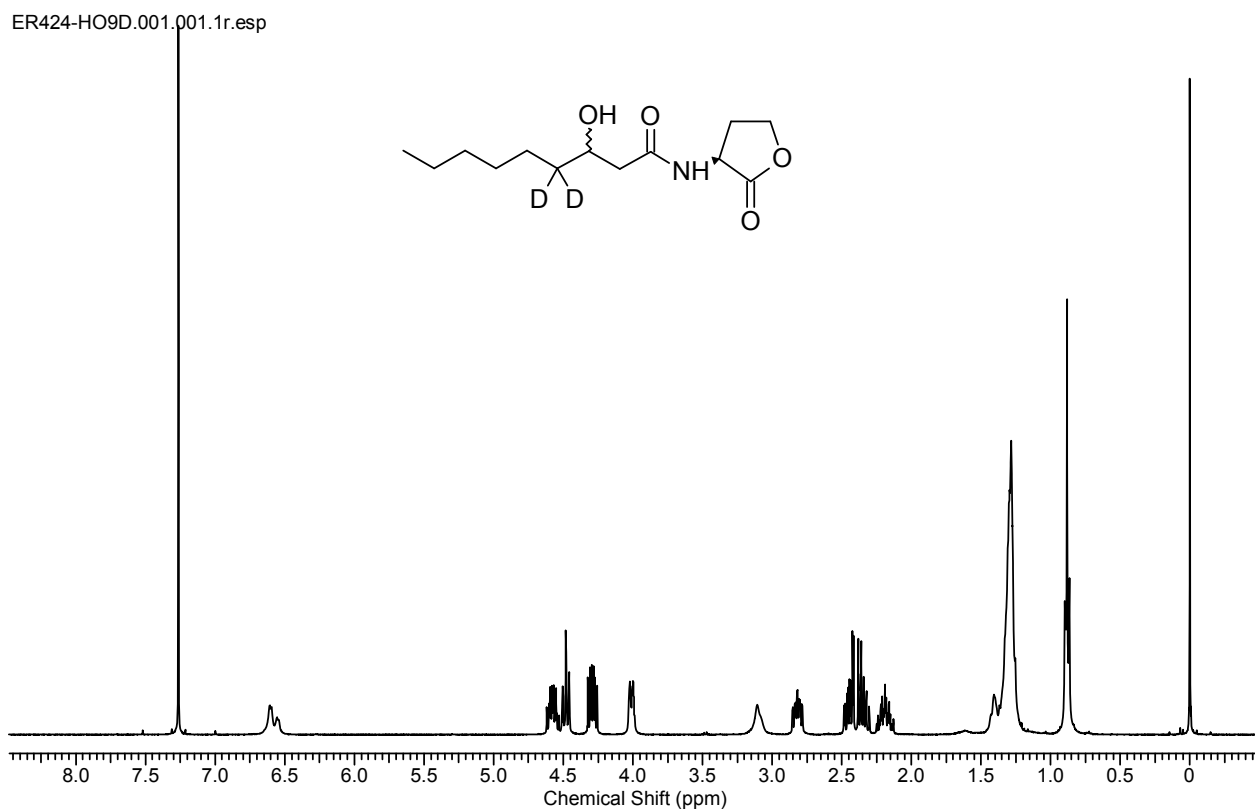
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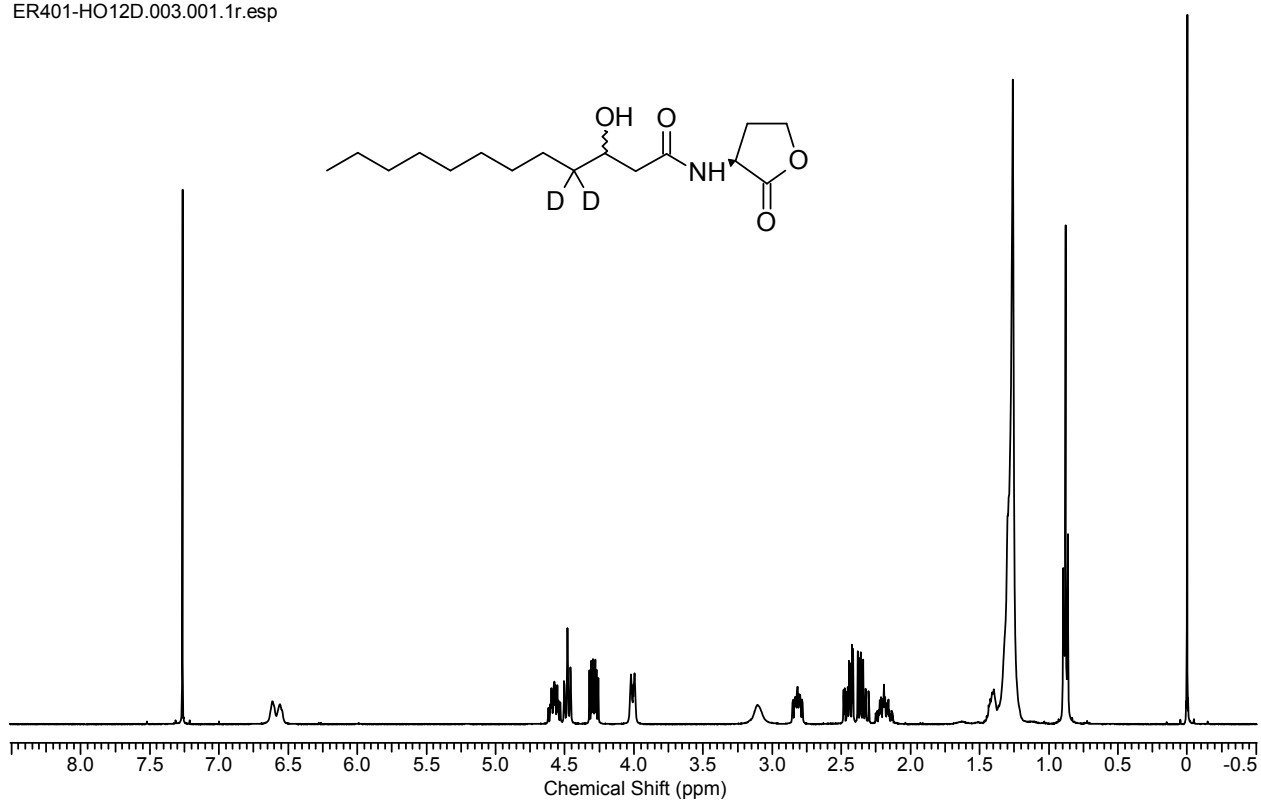


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **26a**

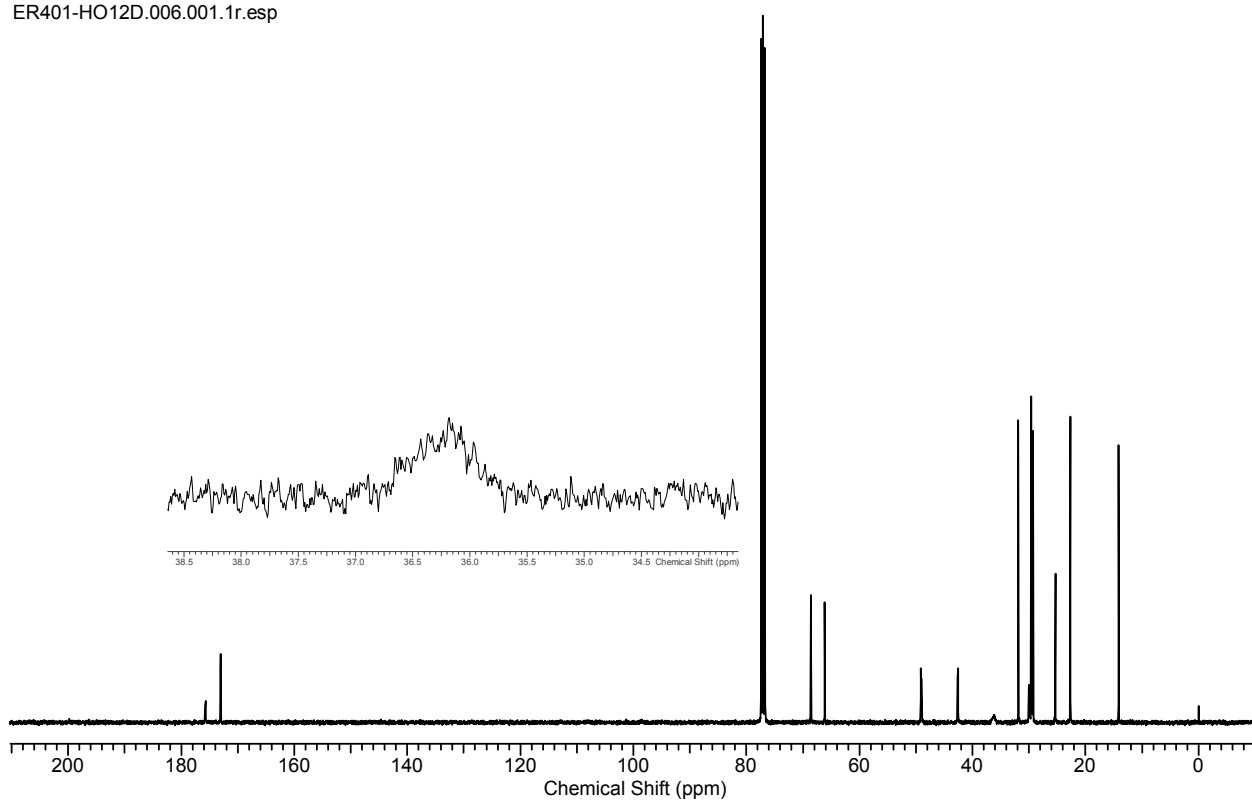


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **26b**

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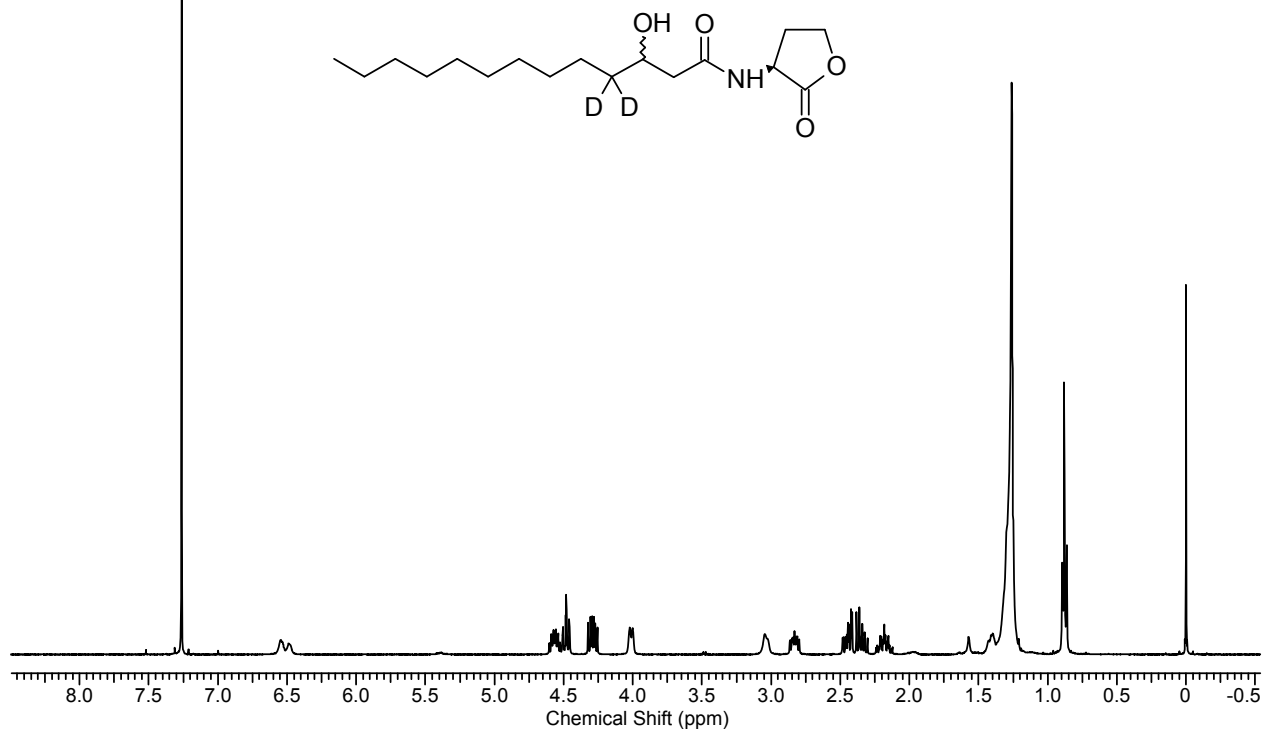


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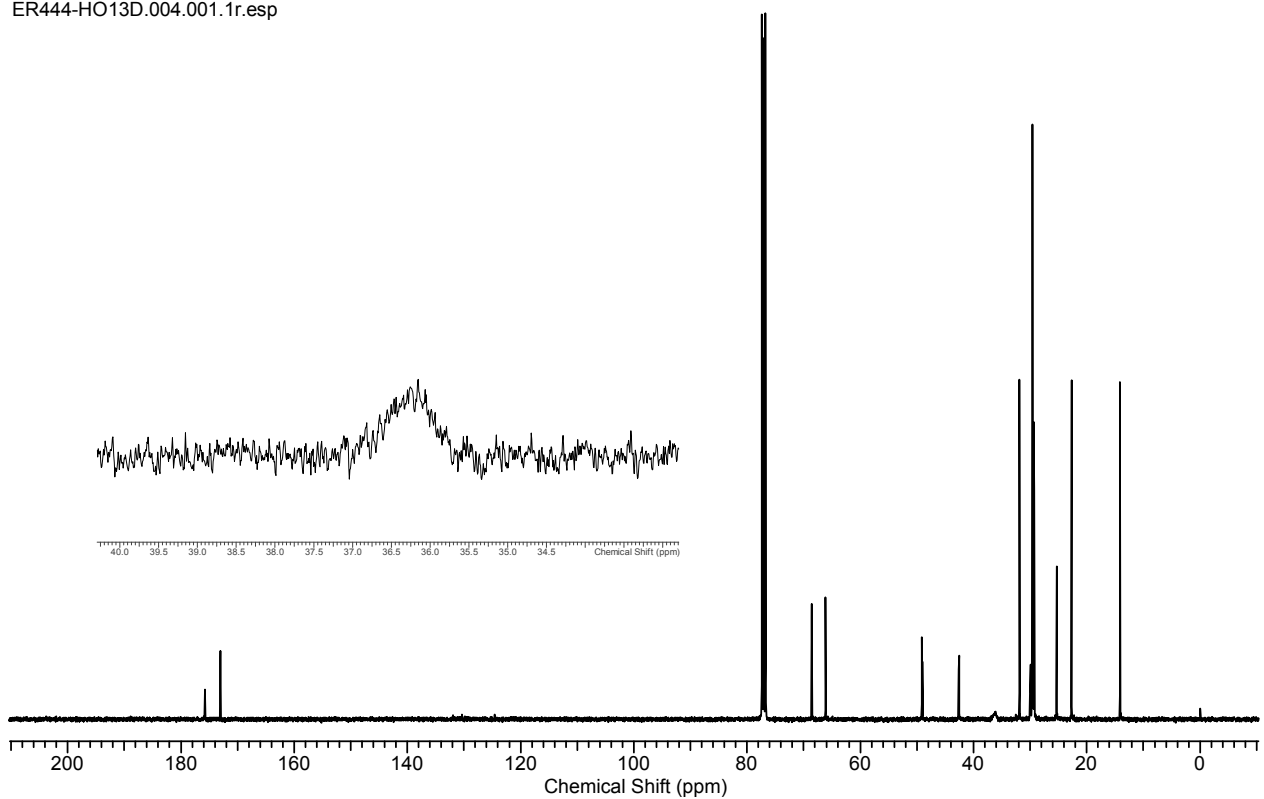


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **26c**

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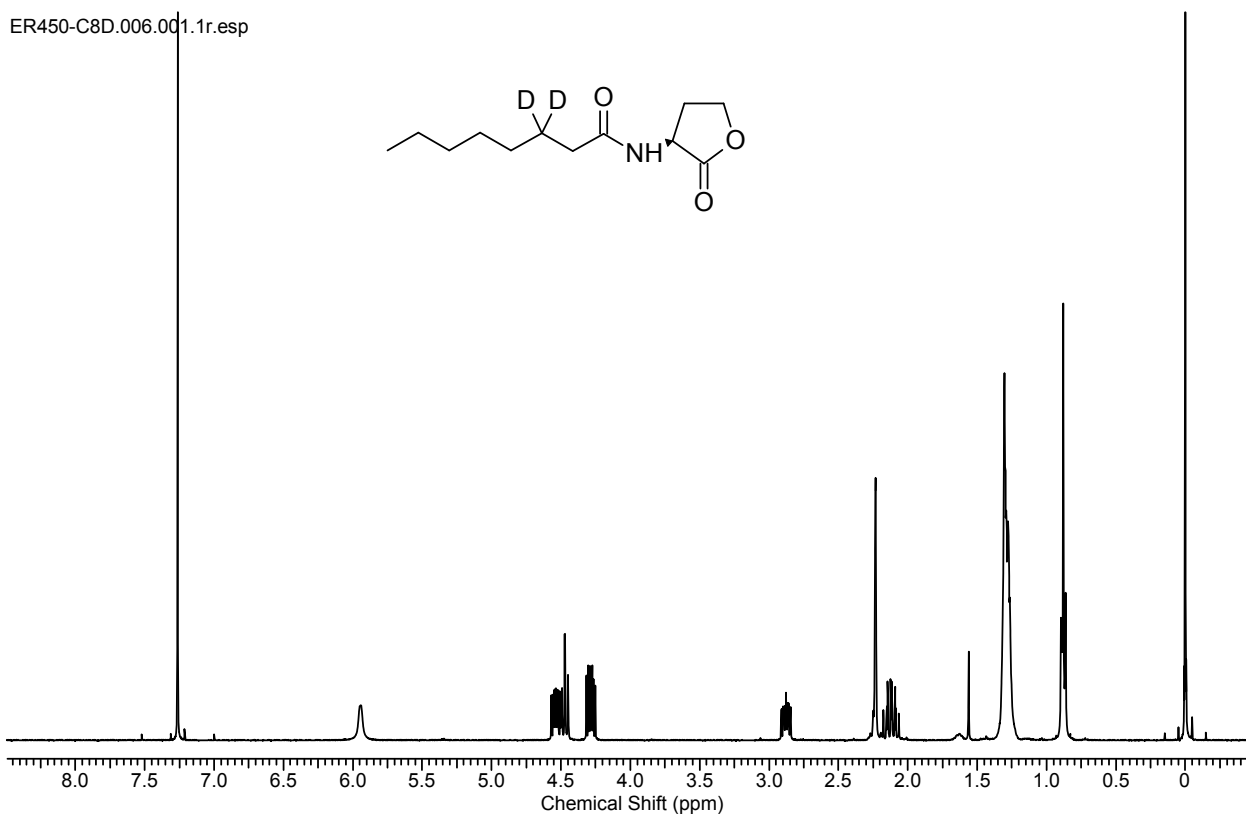
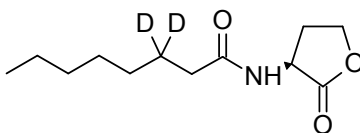


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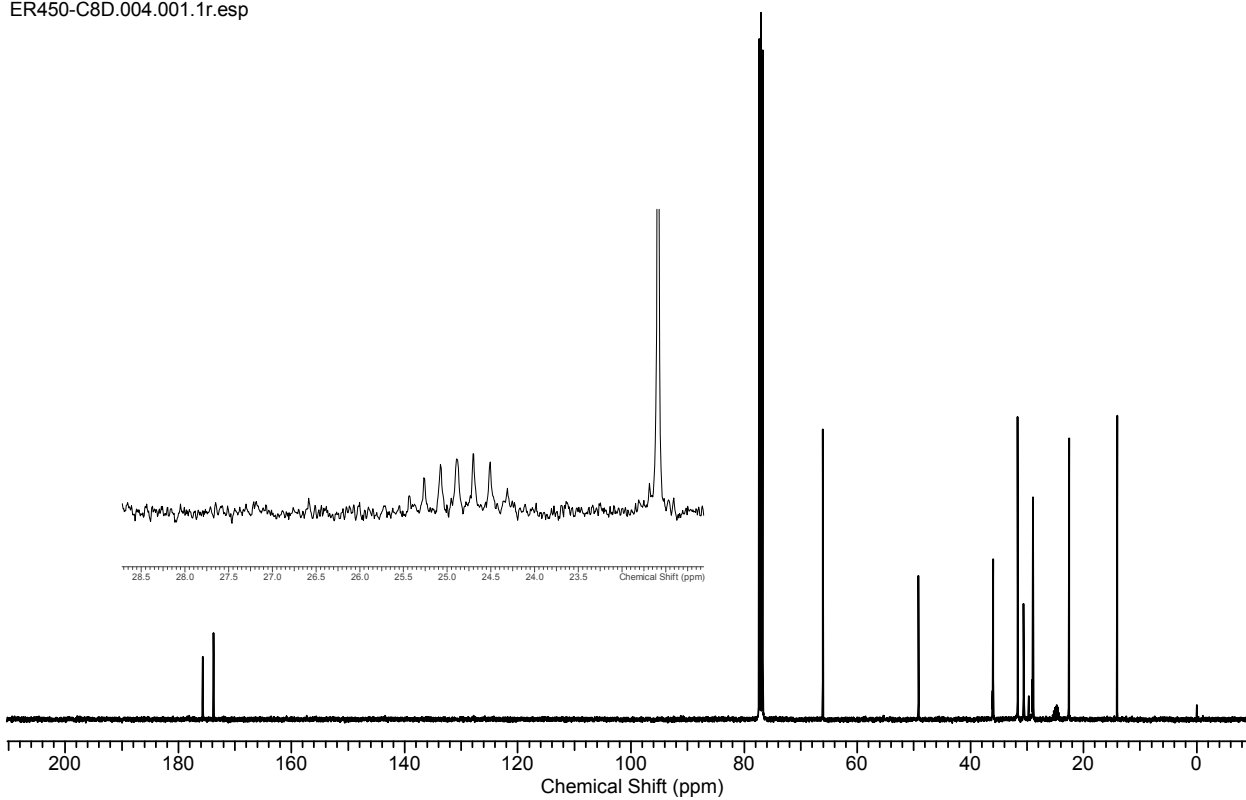


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **27a**

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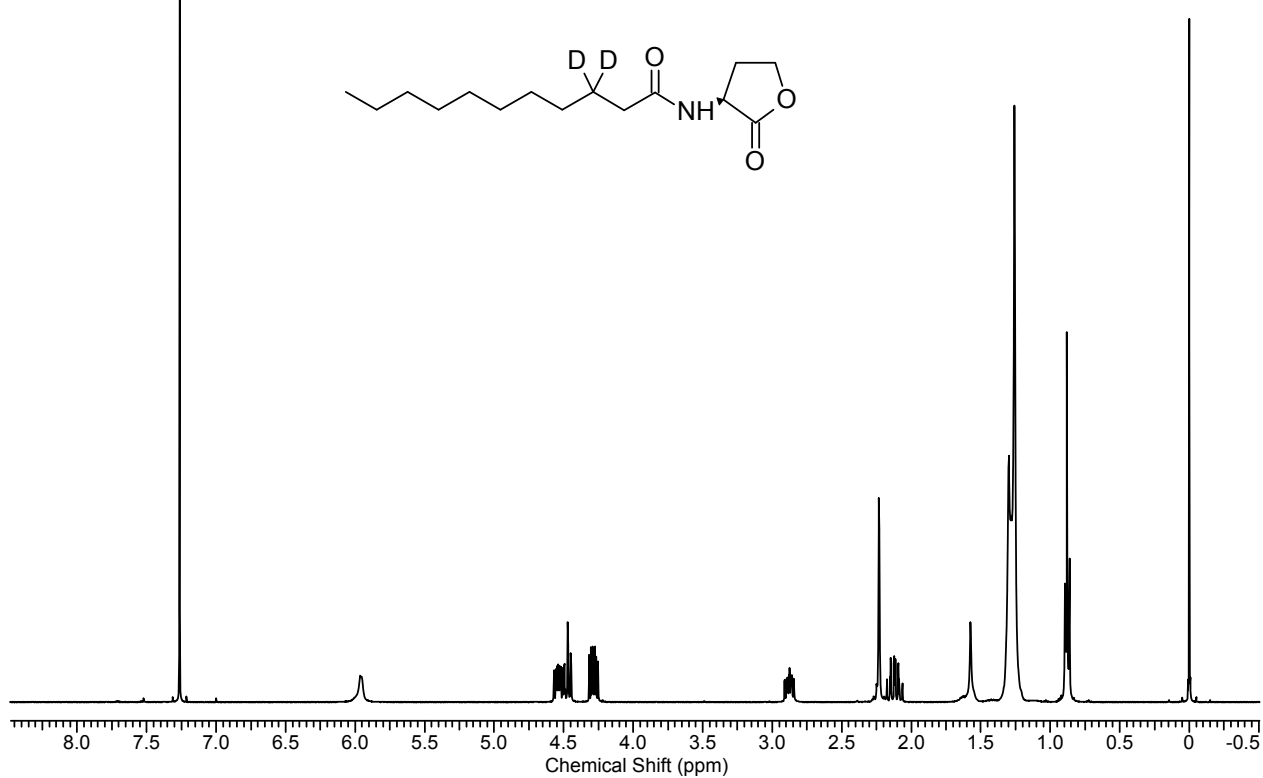


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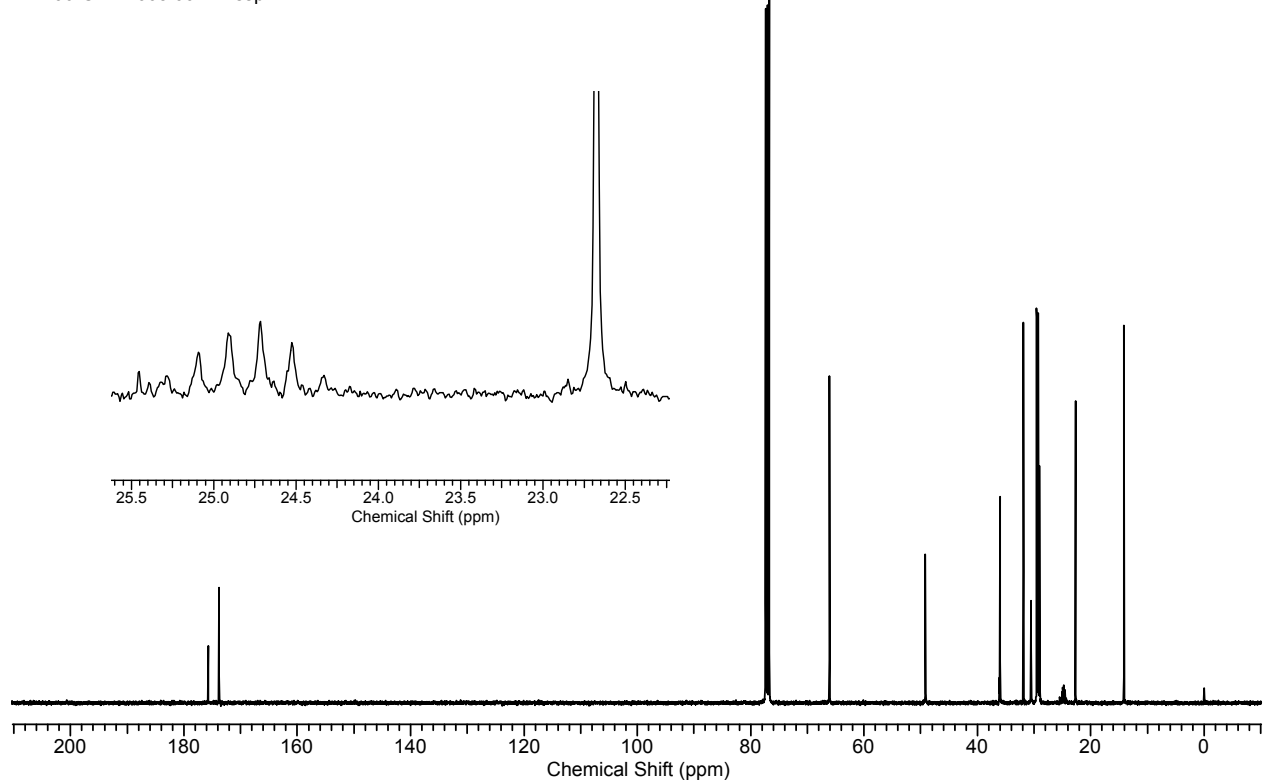


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **27b**

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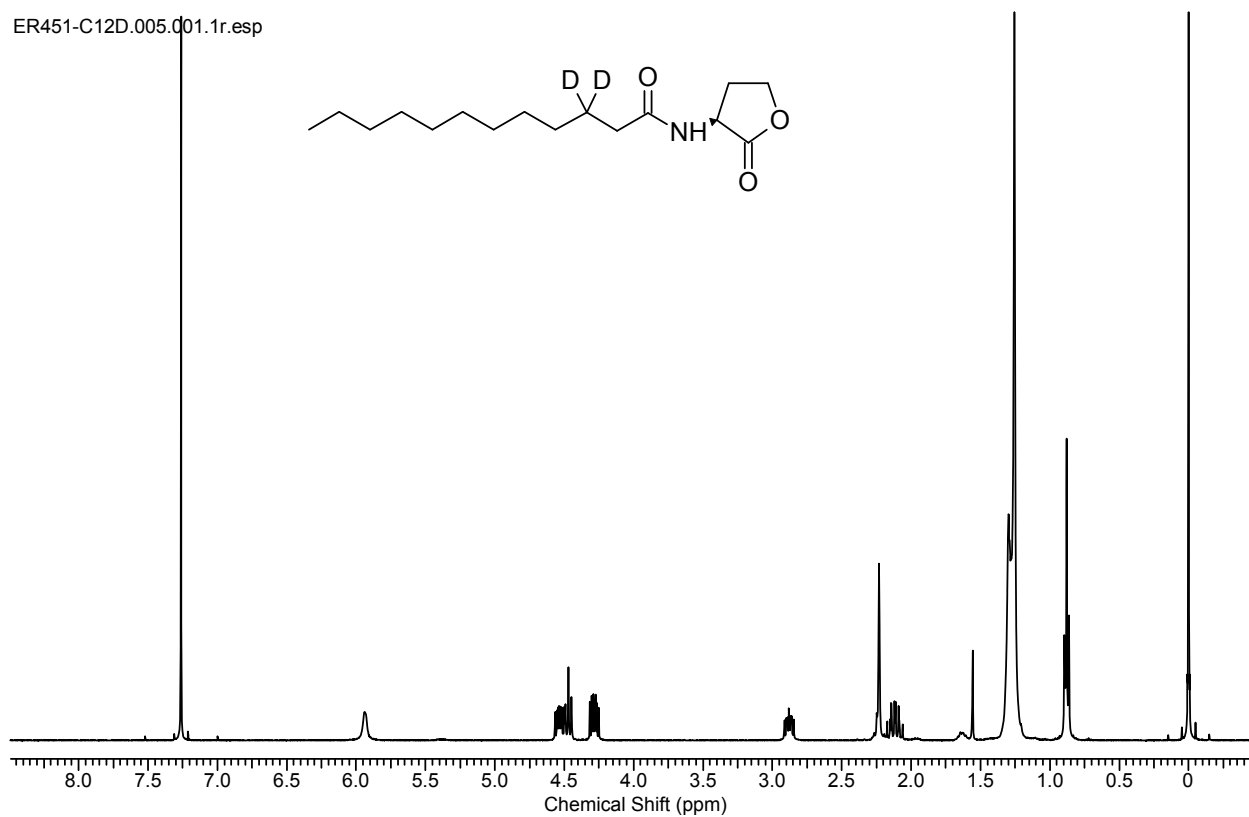


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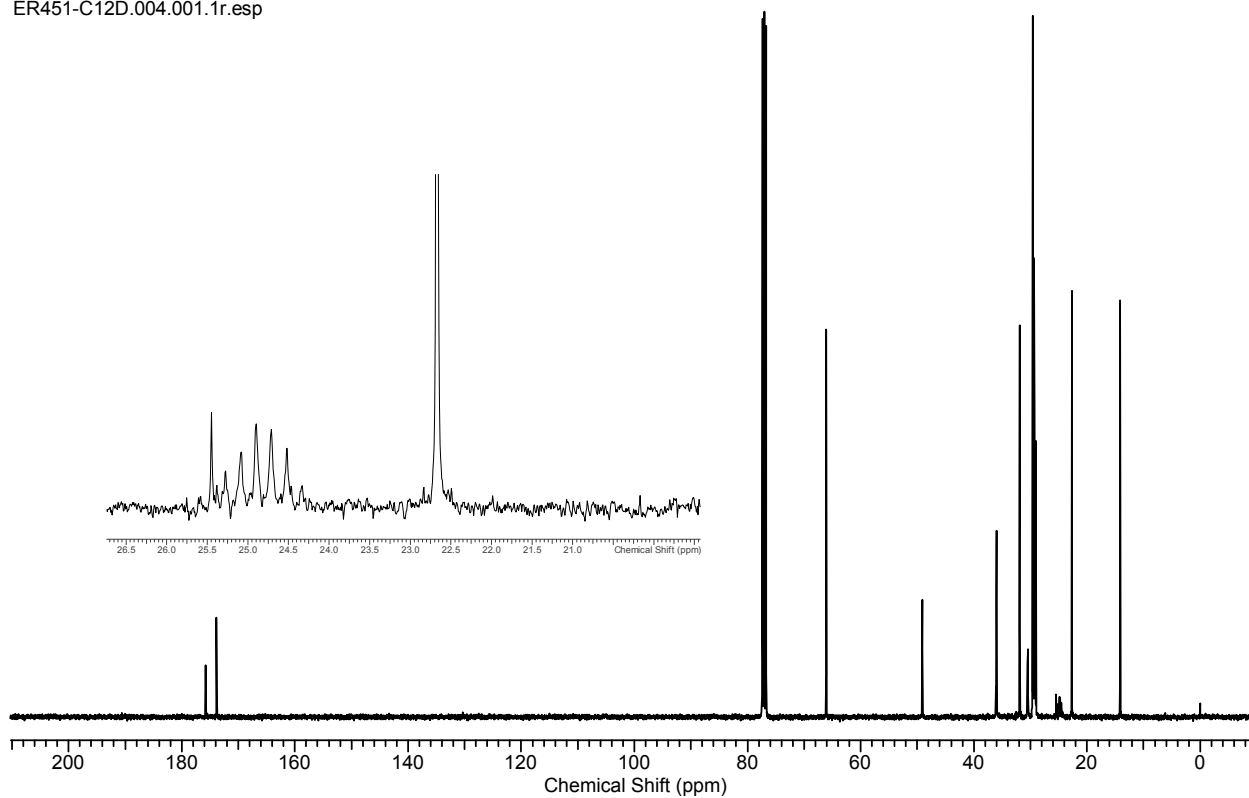


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **27c**

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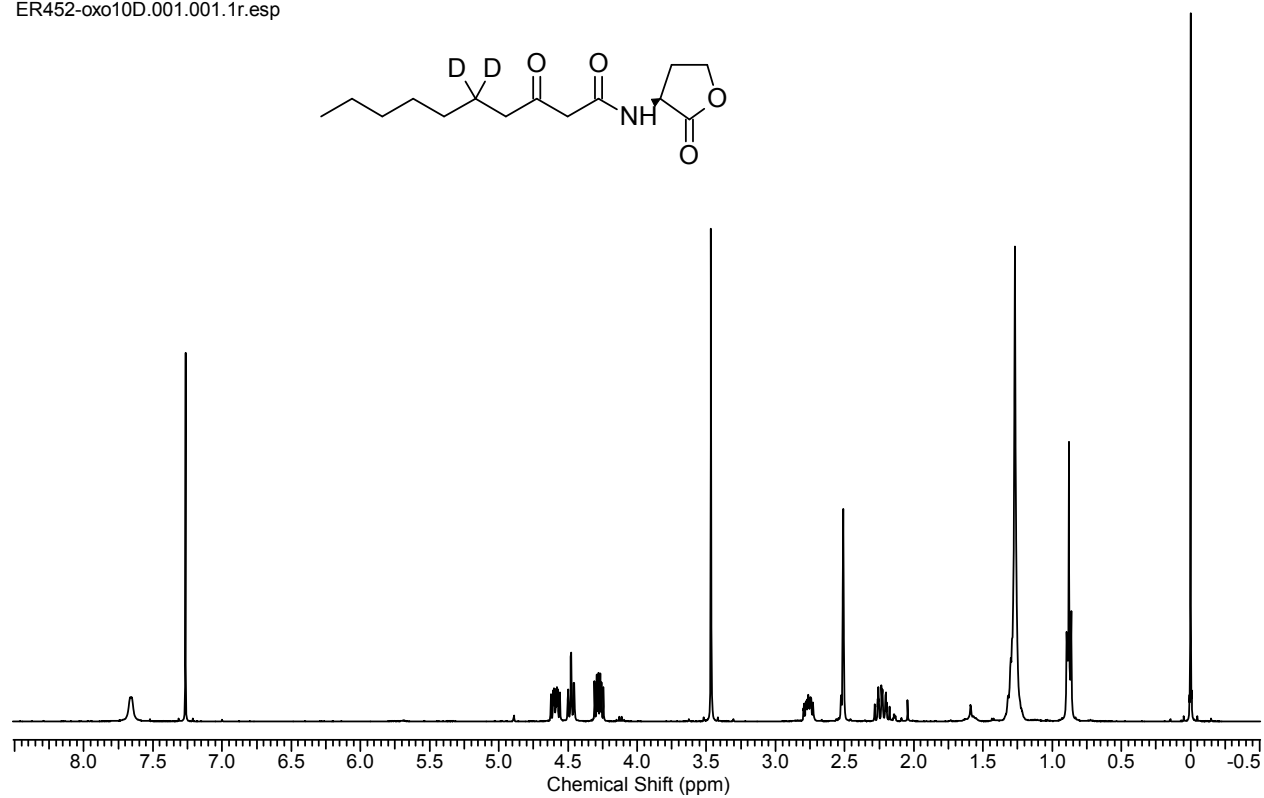


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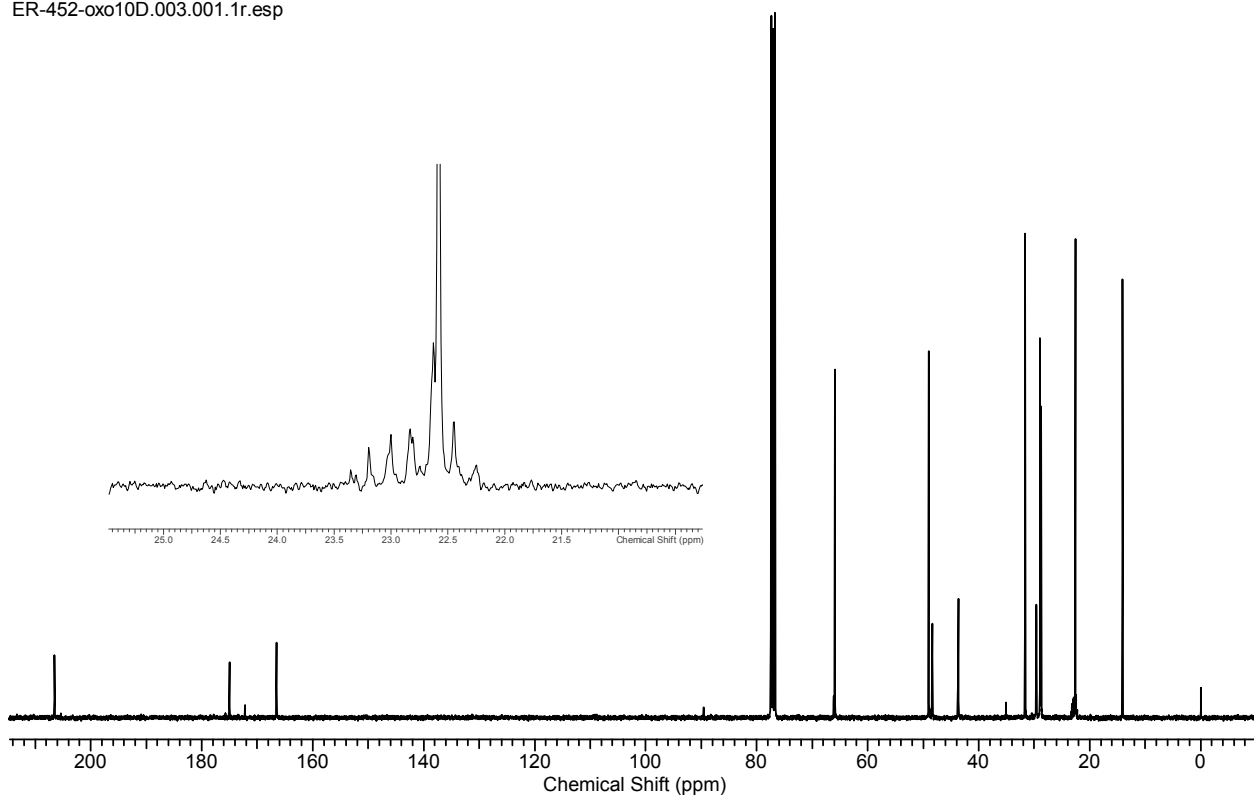


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **28a**

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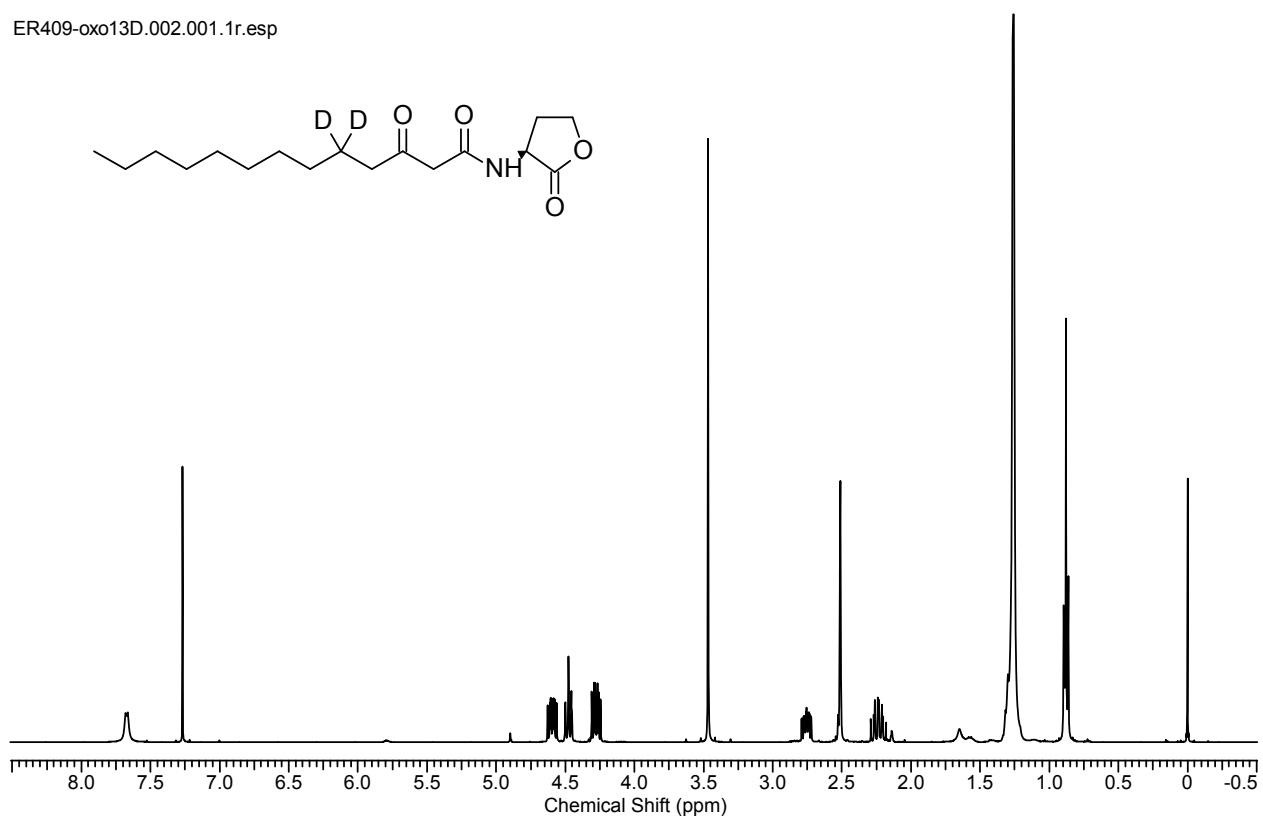


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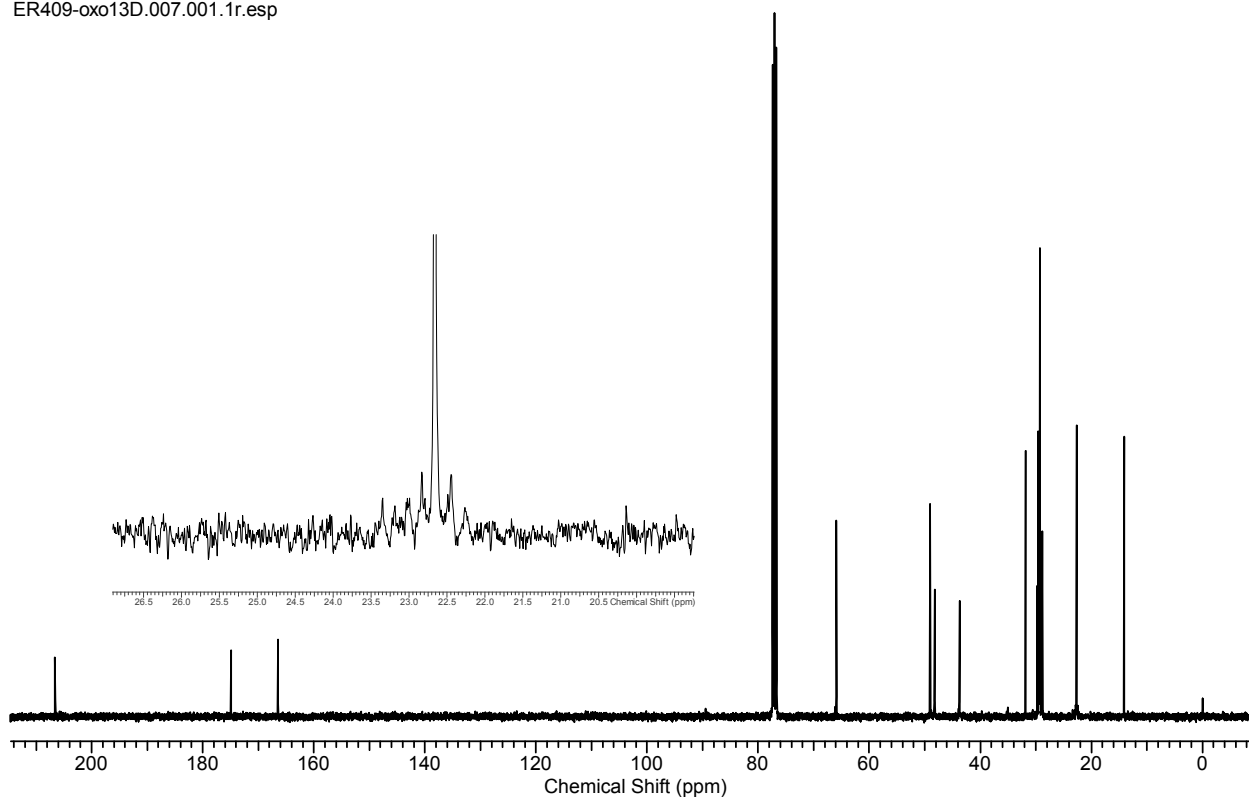


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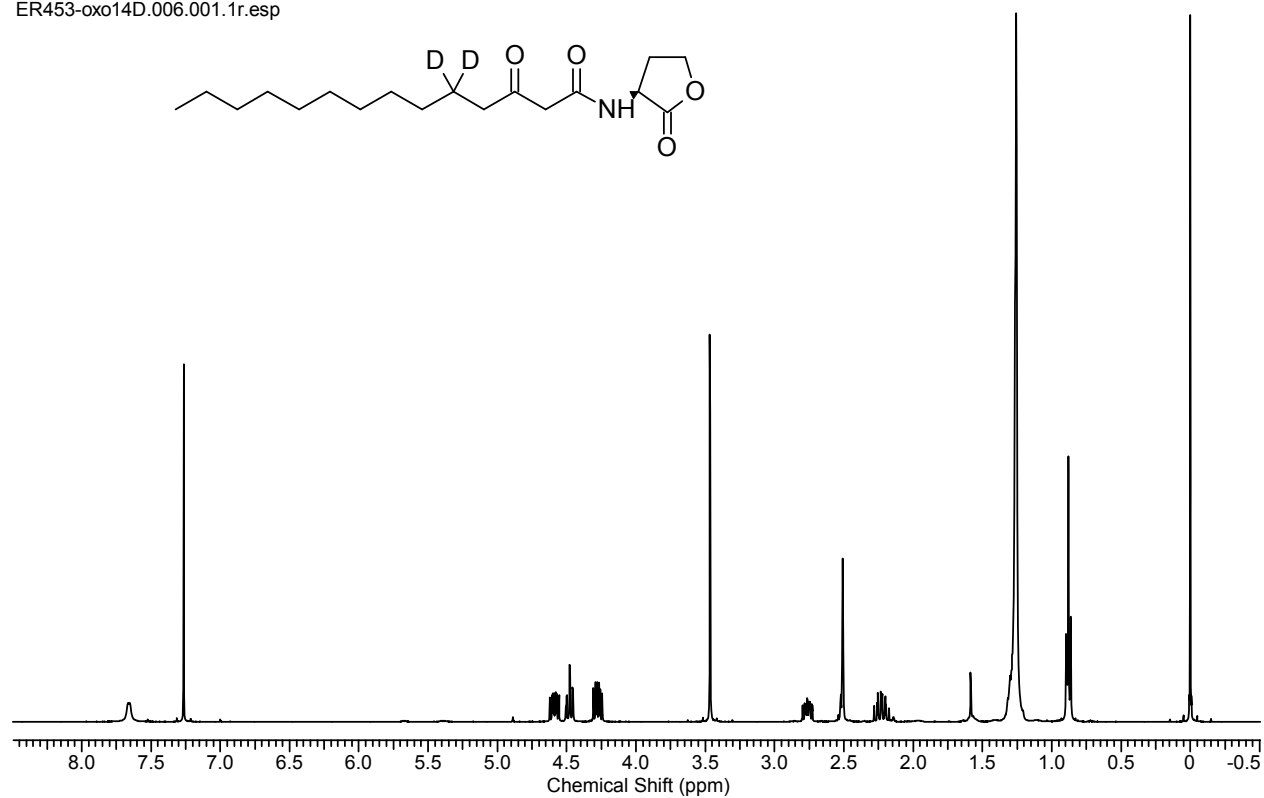
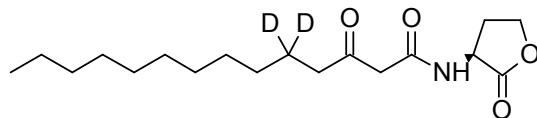


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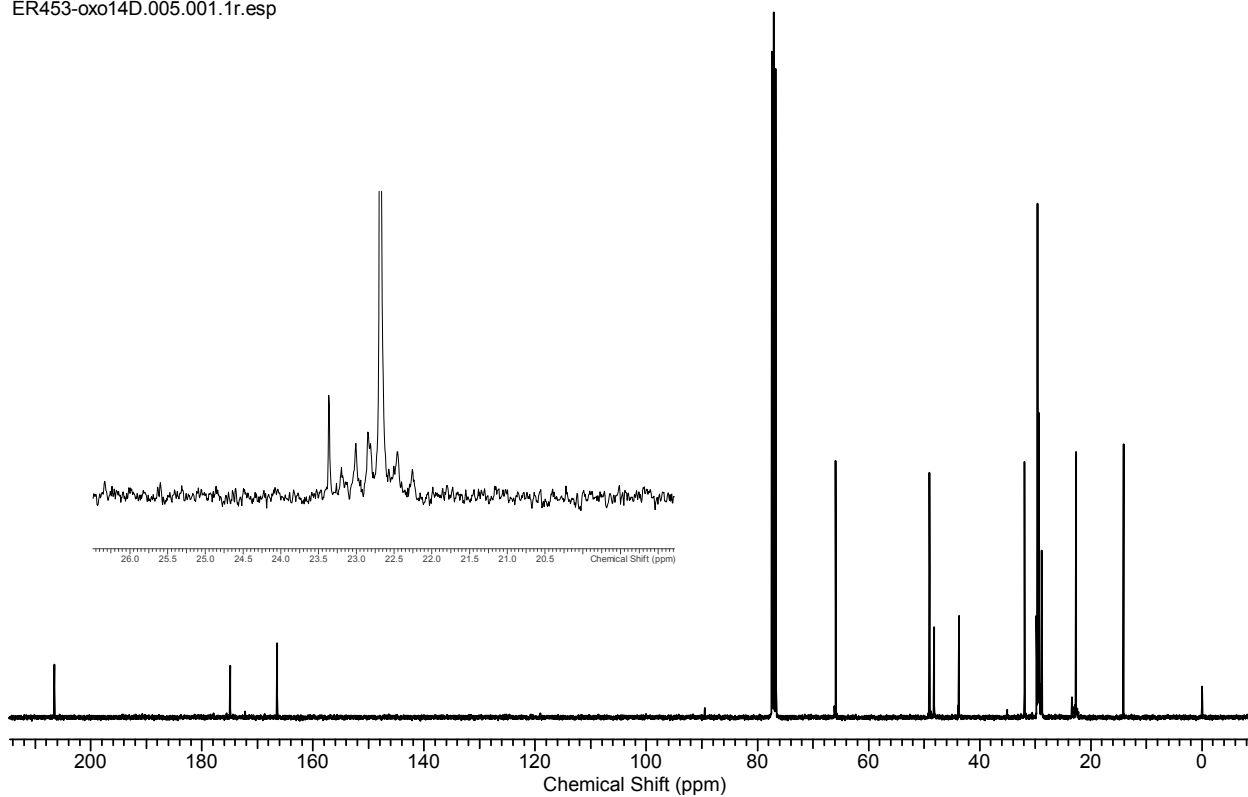


^1H (400 MHz, CDCl_3) and ^{13}C (100 MHz, CDCl_3) spectra of **28c**

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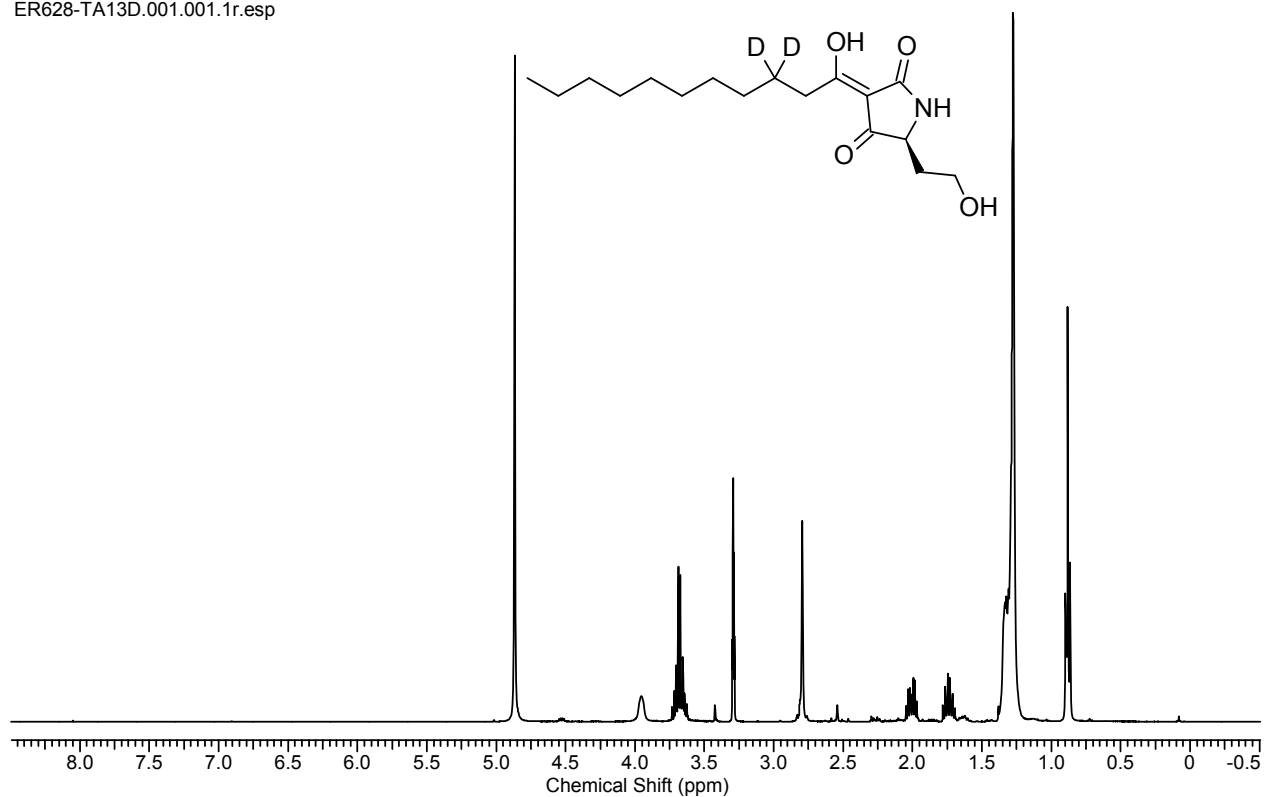


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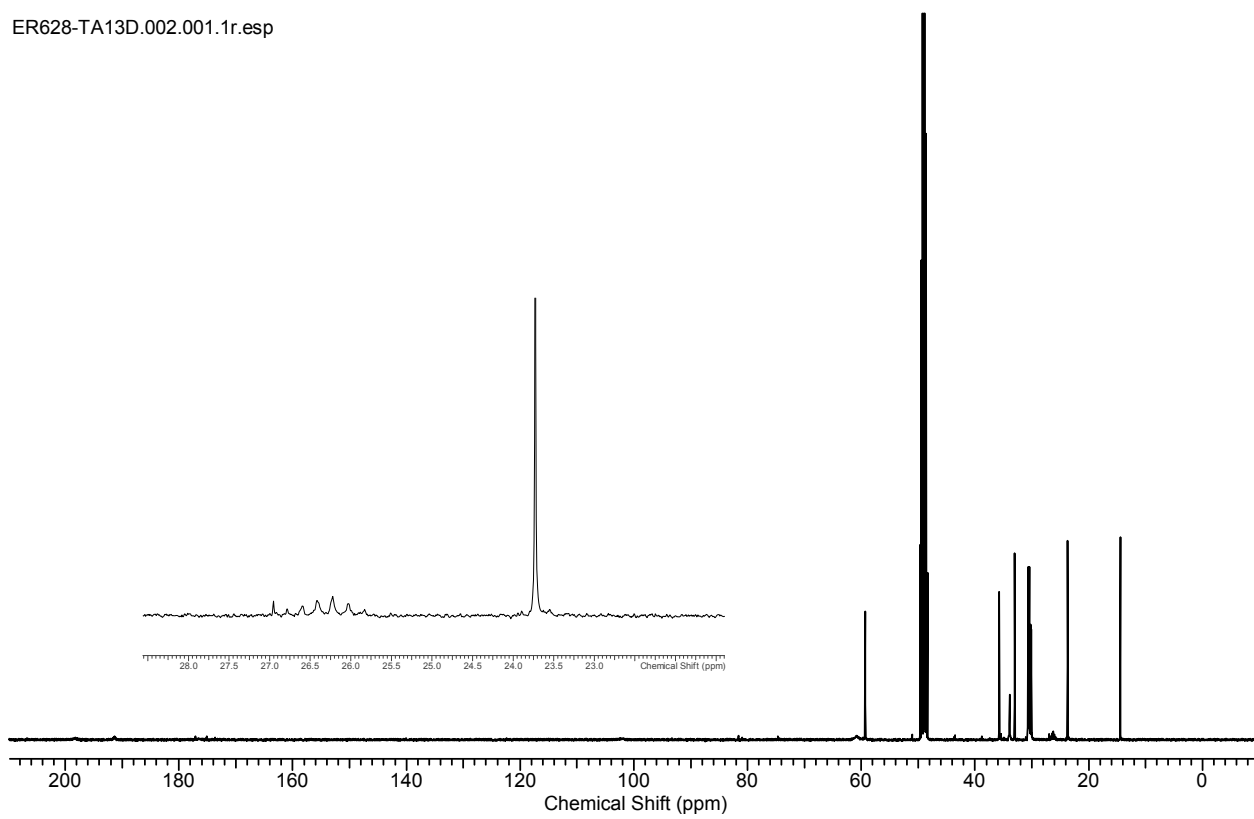


^1H (400 MHz, CD_3OD) and ^{13}C (100 MHz, CD_3OD) spectra of **29**

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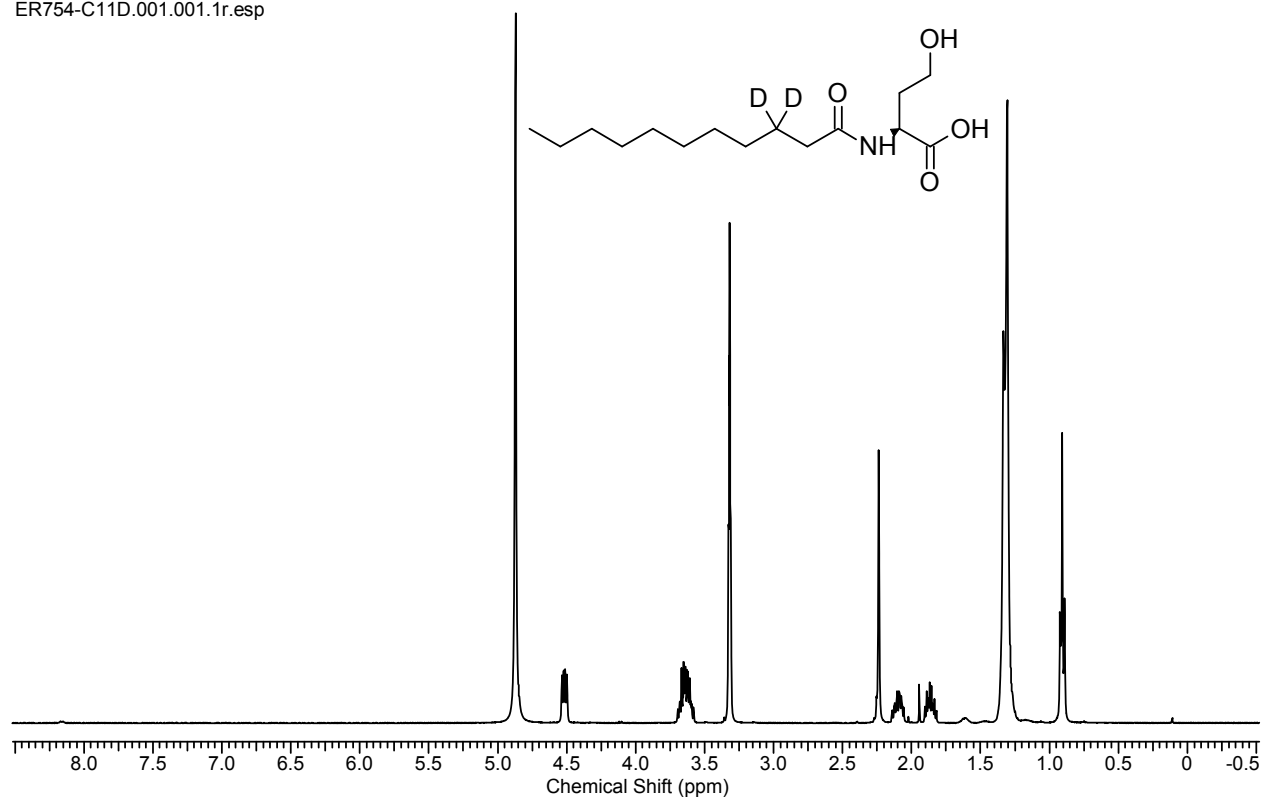


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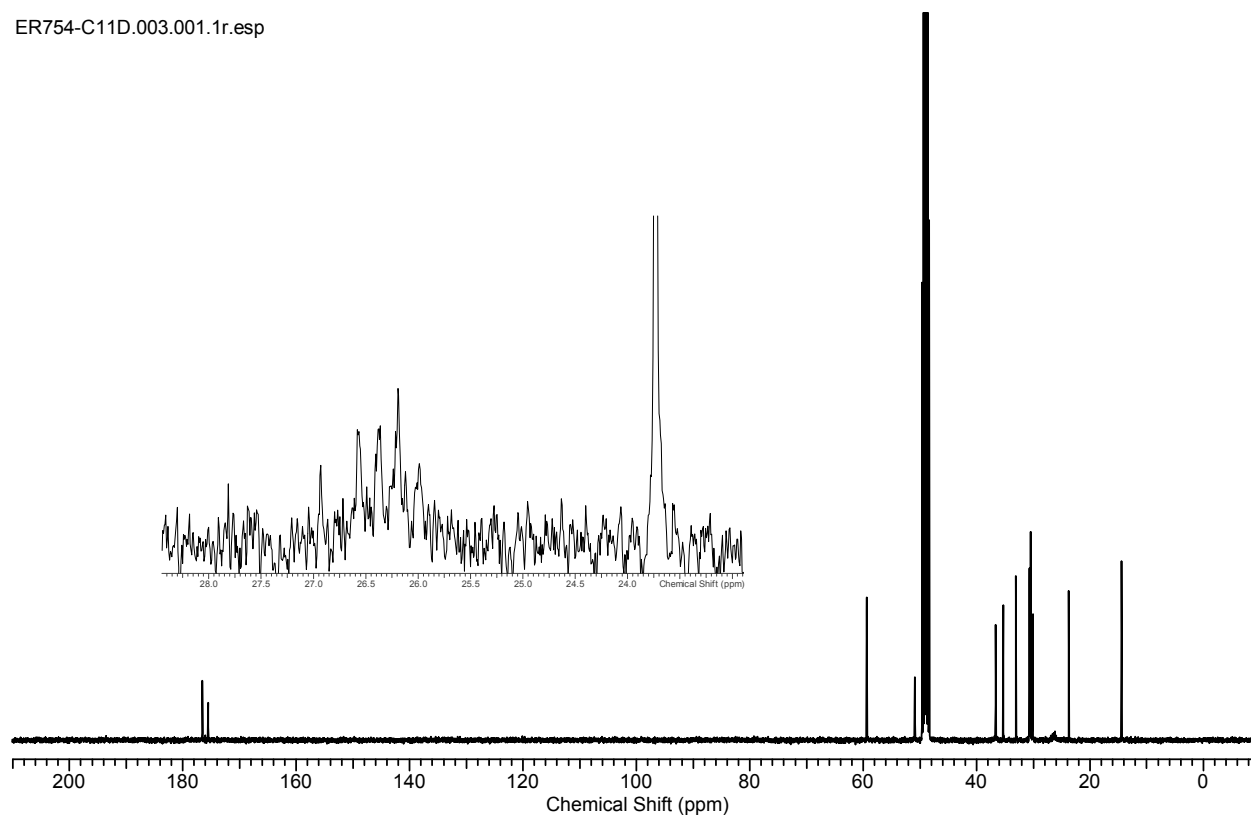


^1H (400 MHz, CD_3OD) and ^{13}C (100 MHz, CD_3OD) spectra of **30**

ER754-C11D.001.001.1r.esp



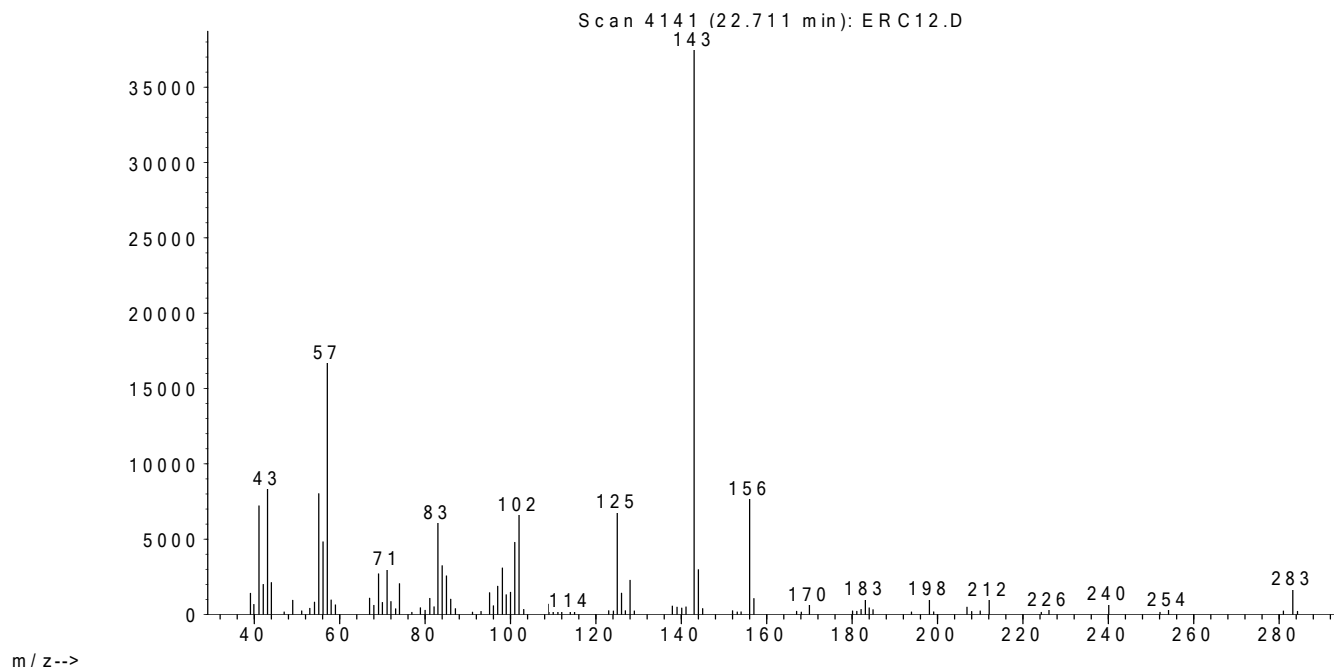
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II. EI-MS spectra of unlabelled and labelled AHLs **27c**, **17**, **26b** and **28a**

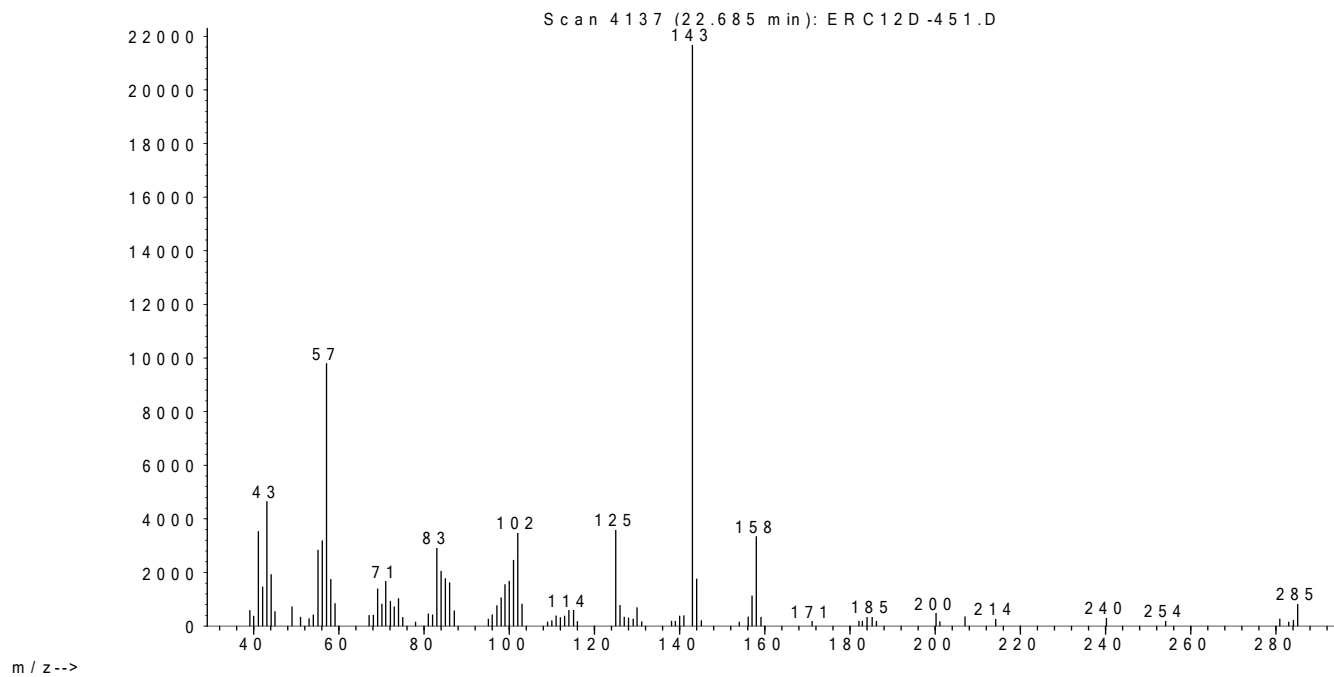
N-Dodecanoyl-L-homoserine lactone

Abundance



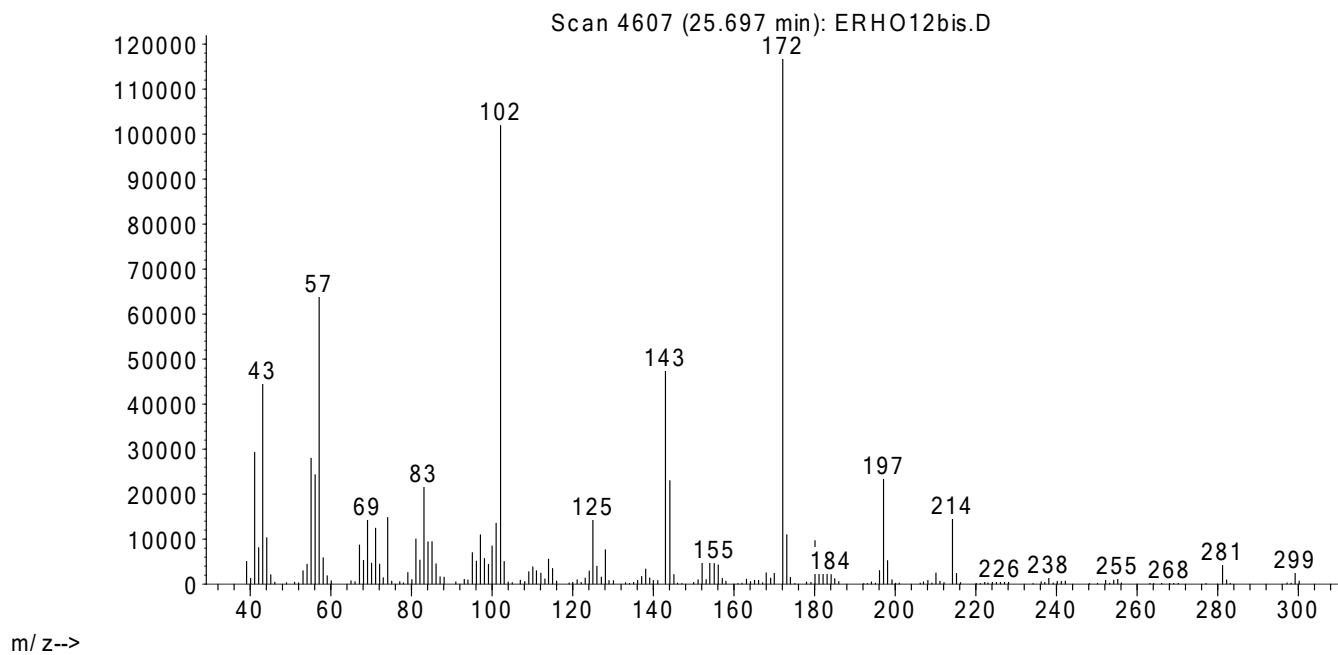
N-(Dodecanoyl-[3-²H₂])-L-homoserine lactone **27c**

Abundance



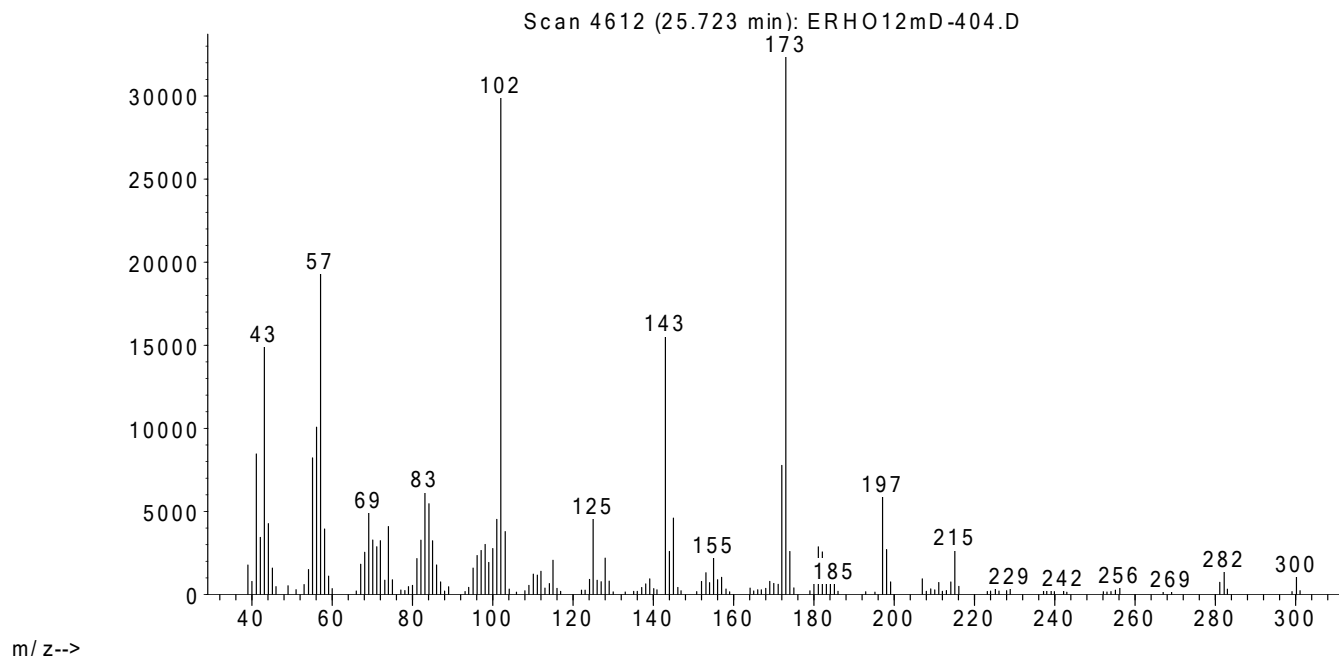
N-(3-Hydroxydodecanoyl)-L-homoserine lactone

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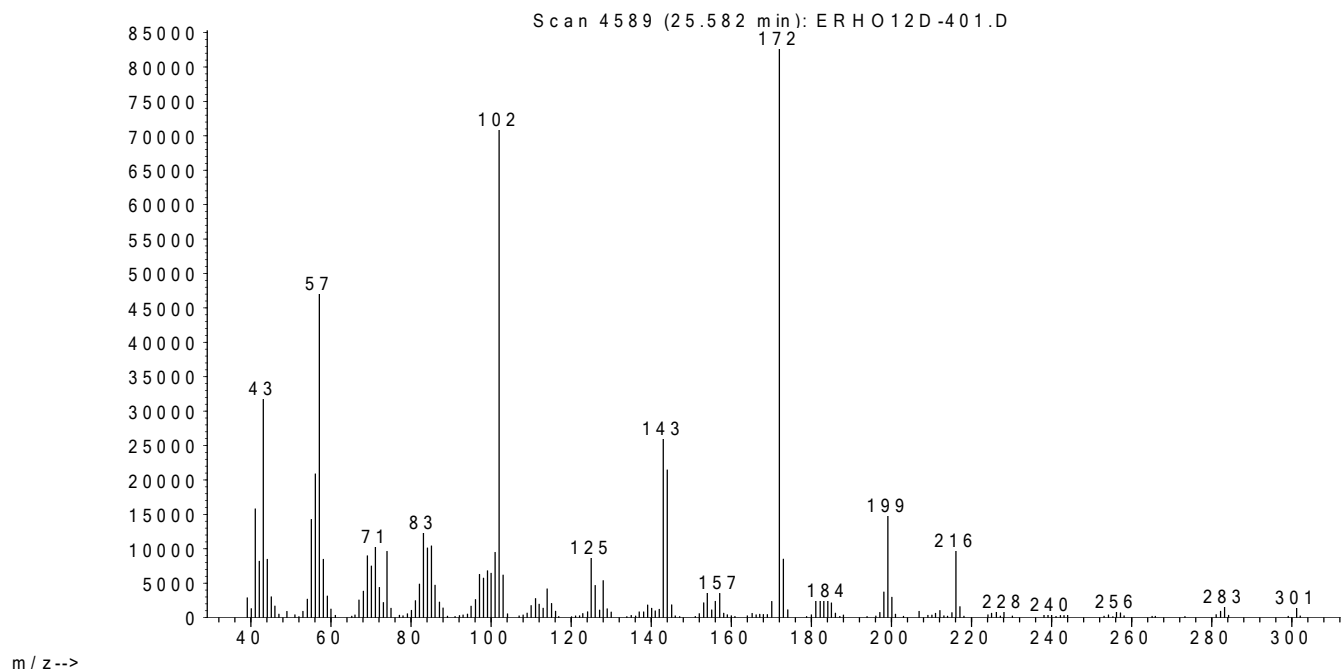
N-(3-Hydroxydodecanoyl)-[3-²H]-L-homoserine lactone **17**

Abundance



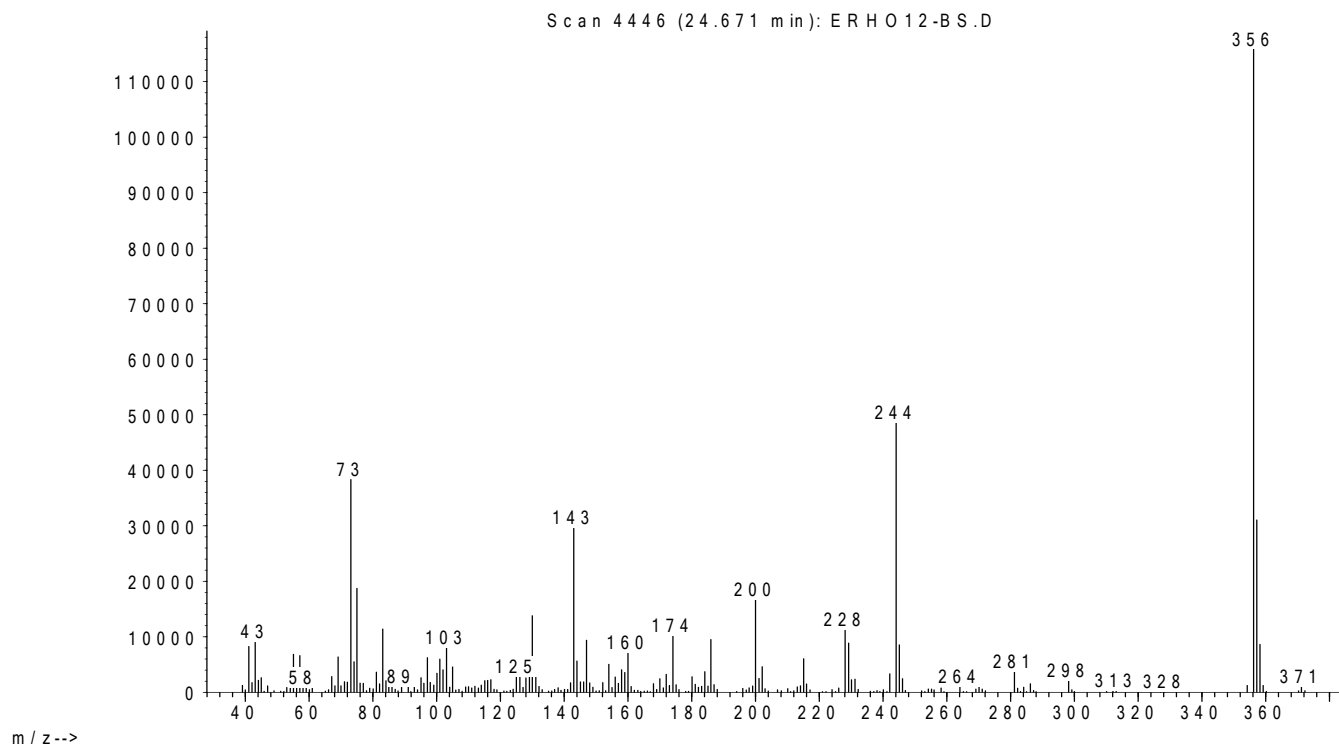
N-(3-Hydroxydodecanoyl)-[4-²H₂]-L-homoserine lactone **26b**

Abundance



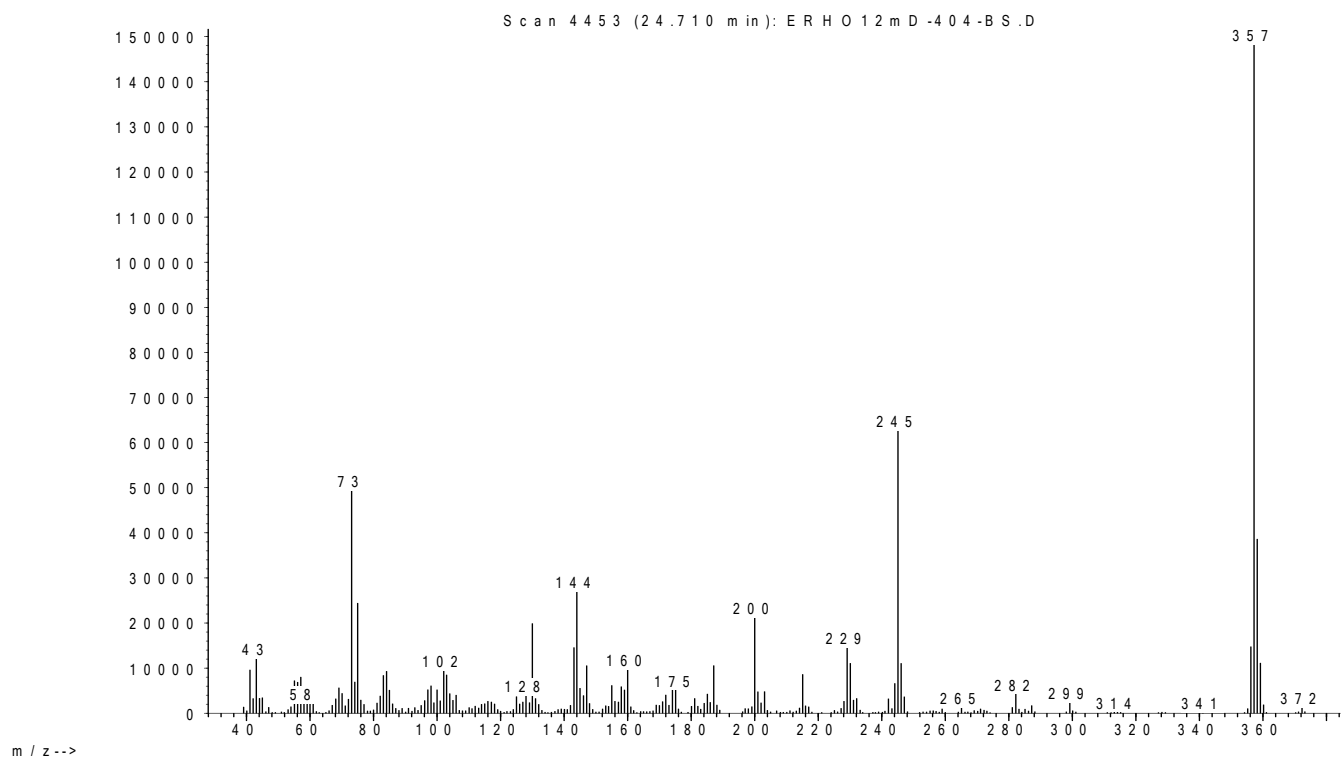
N-(3-Hydroxydodecanoyl)-L-homoserine lactone + BSTFA-TMCS

Abundance



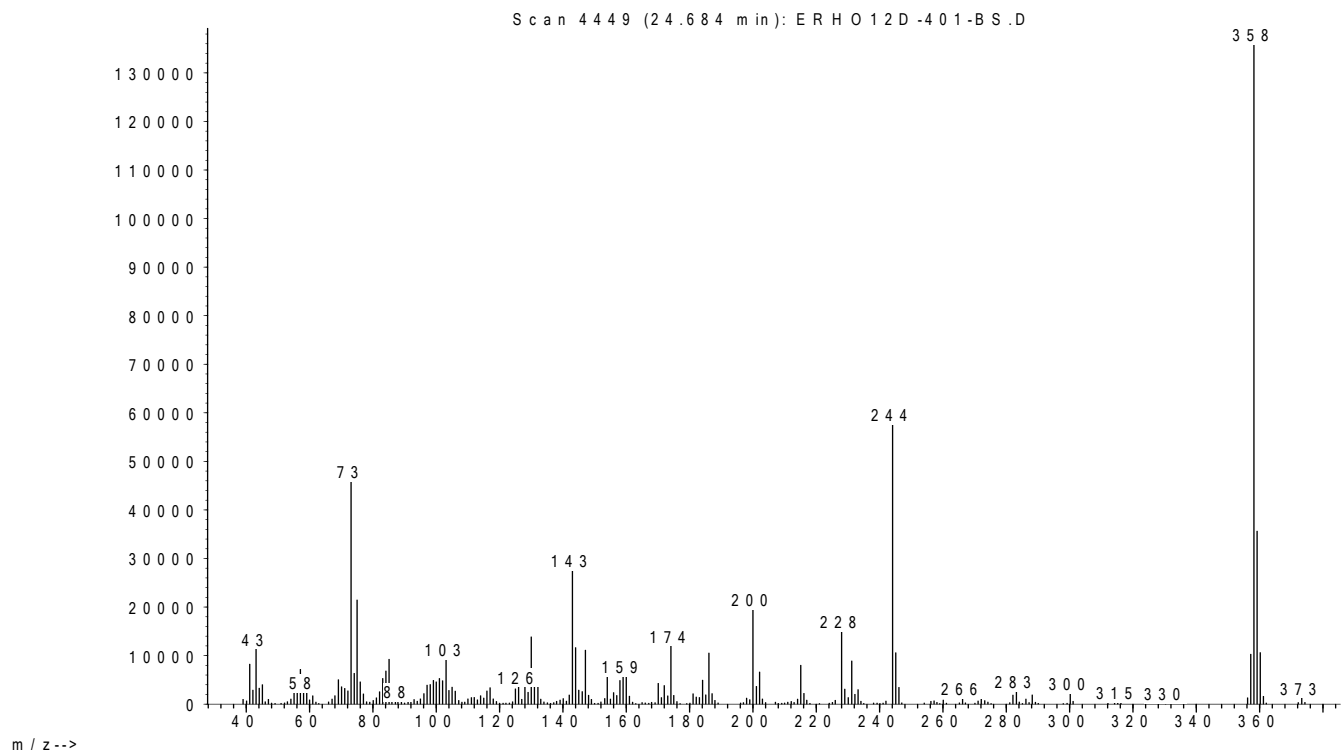
N-(3-Hydroxydodecanoyl)-[3-²H]-L-homoserine lactone **17** + BSTFA-TMCS

Abundance



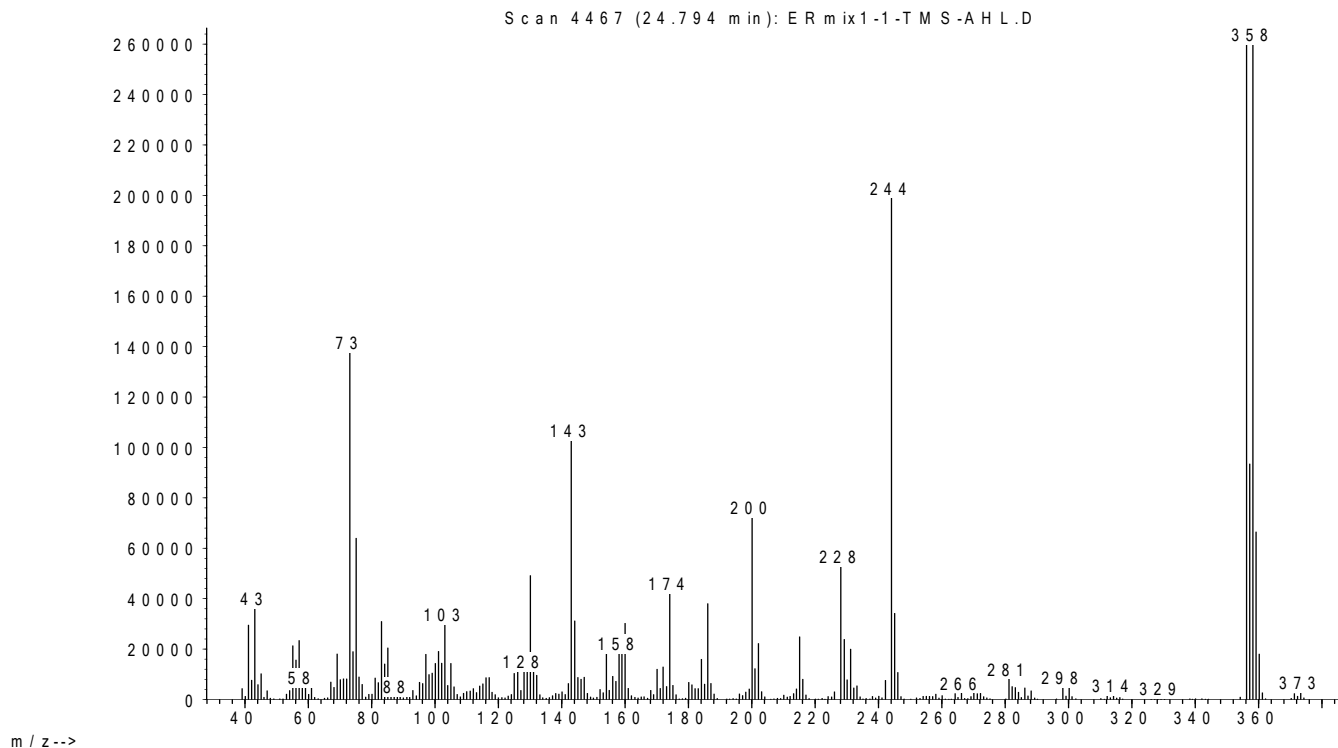
N-(3-Hydroxydodecanoyl-[4-²H₂])-L-homoserine lactone **26b** + BSTFA-TMCS

Abundance



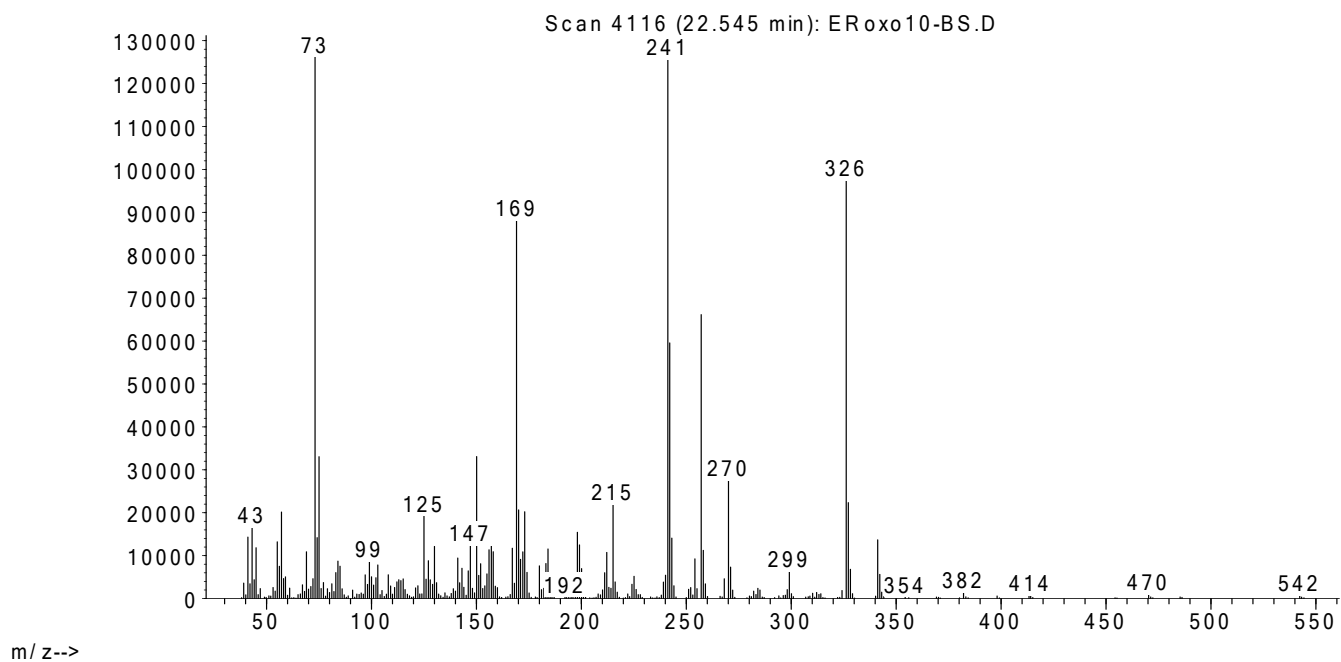
Equimolar mixture of *N*-(3-hydroxydodecanoyl)-L-homoserine lactone and *N*-(3-hydroxydodecanoyl-[4-²H₂])-L-homoserine lactone **26b** + BSTFA-TMCS

Abundance



N-(3-Oxodecanoyl)-L-homoserine lactone + BSTFA-TMCS

Abundance



N-(3-Oxodecanoyl-[5-²H₂])-L-homoserine lactone **28a** + BSTFA-TMCS

Abundance

