

Syntheses of pseudoceramines A–D and a new synthesis of spermatinamine, bromotyrosine natural products from marine sponges

Supporting information

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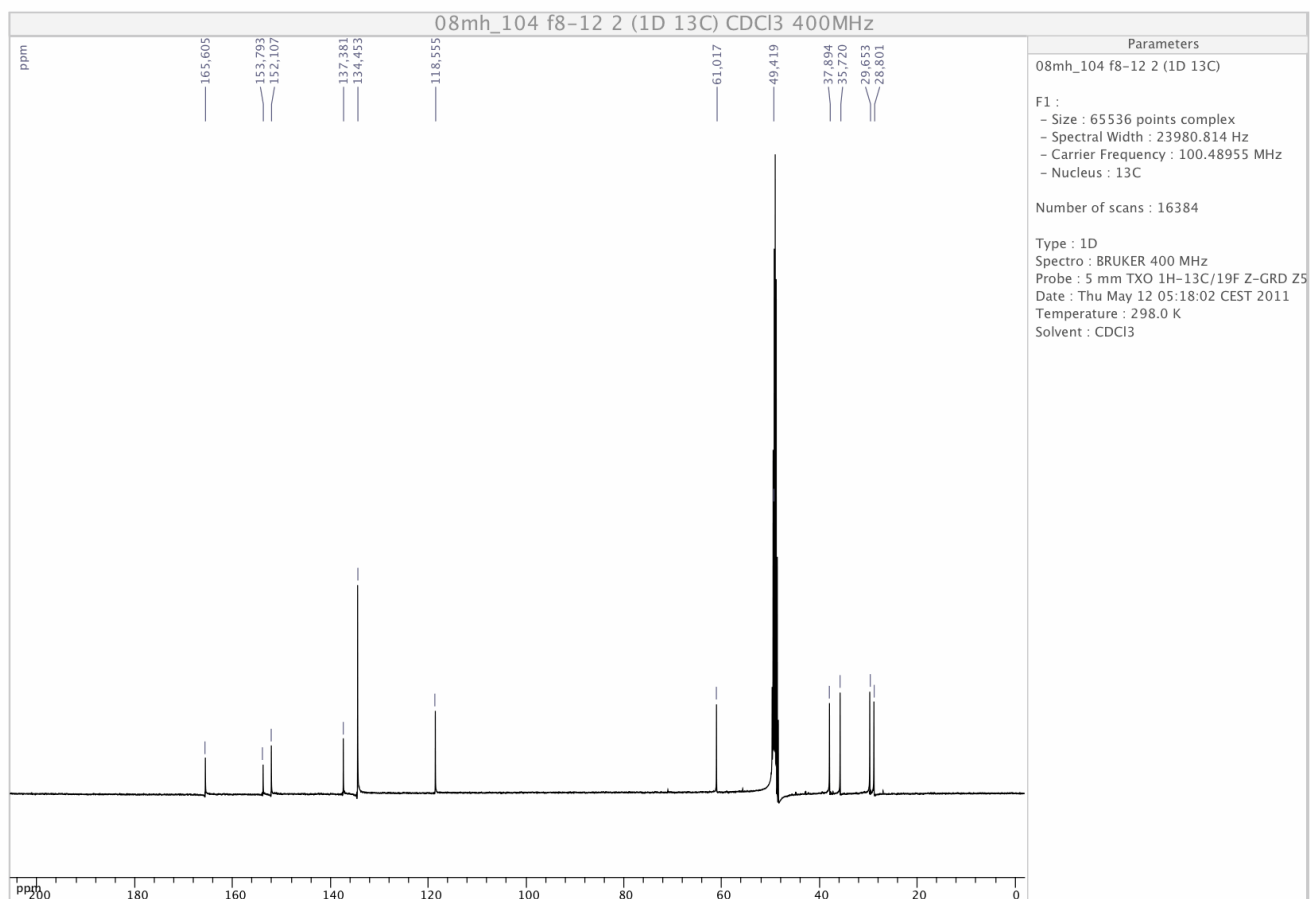
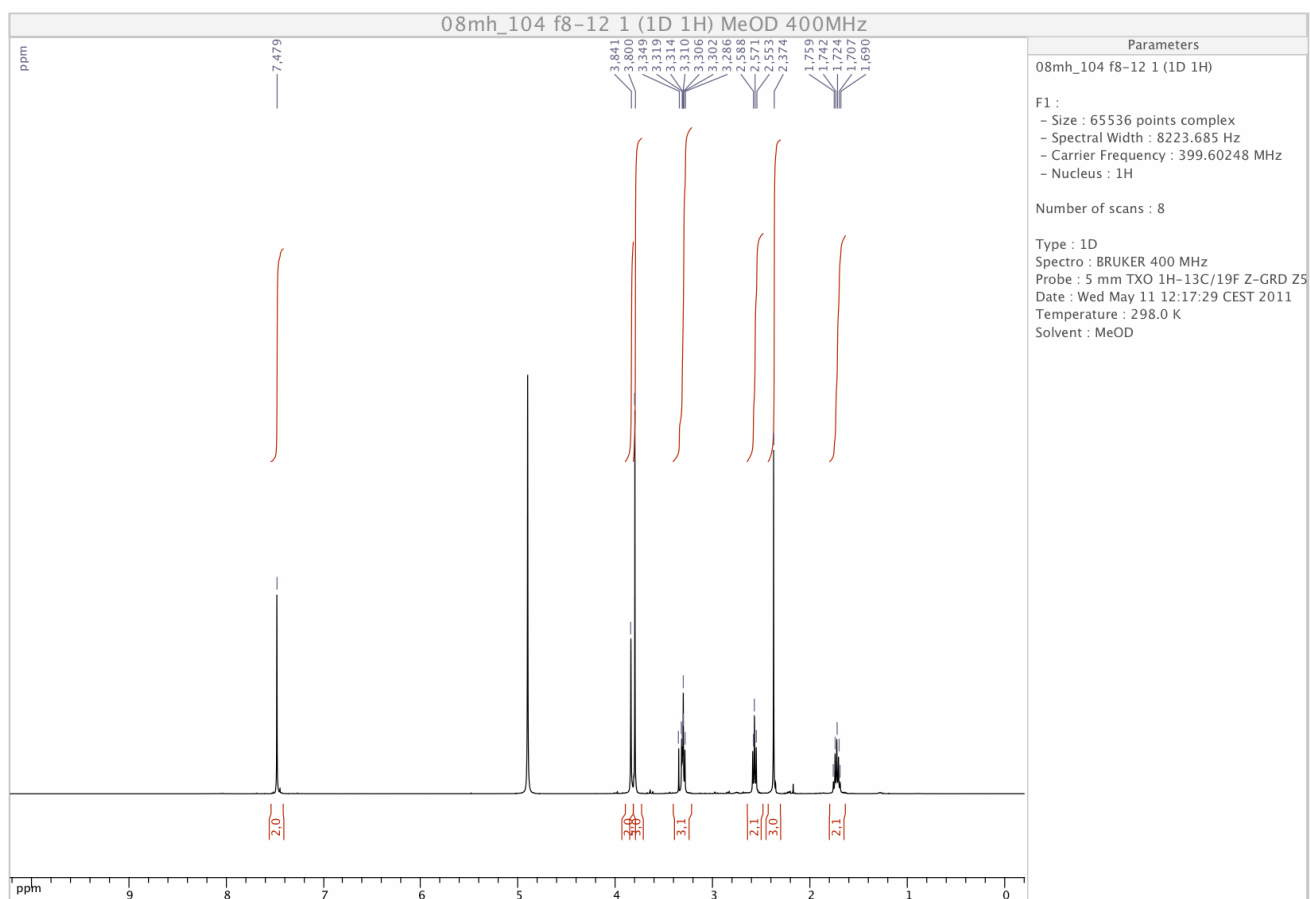
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^b *Laboratories for Chemical Biology Umeå, Umeå Centre for Microbial Research, Laboratories for Molecular Infection Medicine Sweden, Department of Chemistry, Umeå University, SE-60187 Umeå, Sweden*

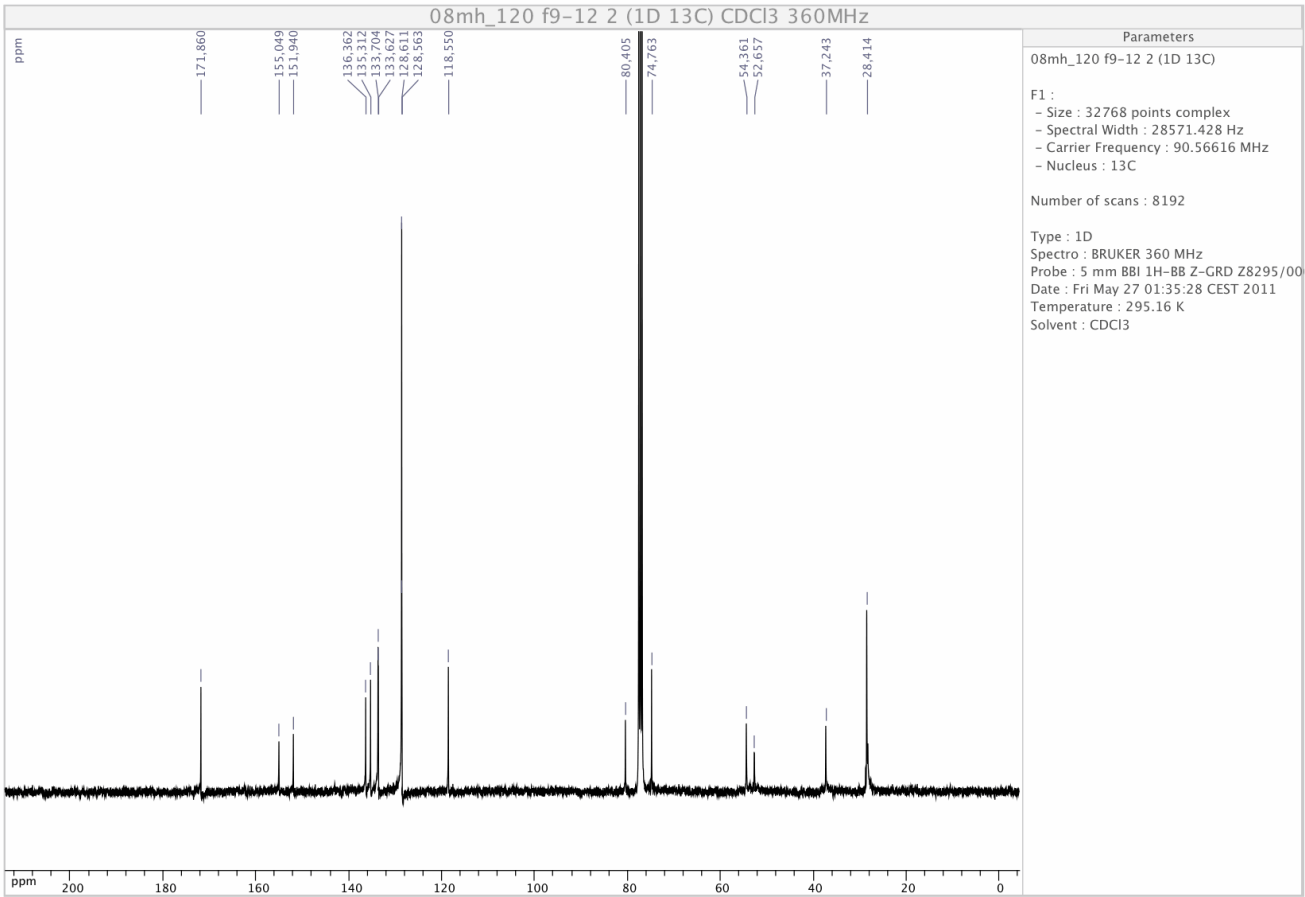
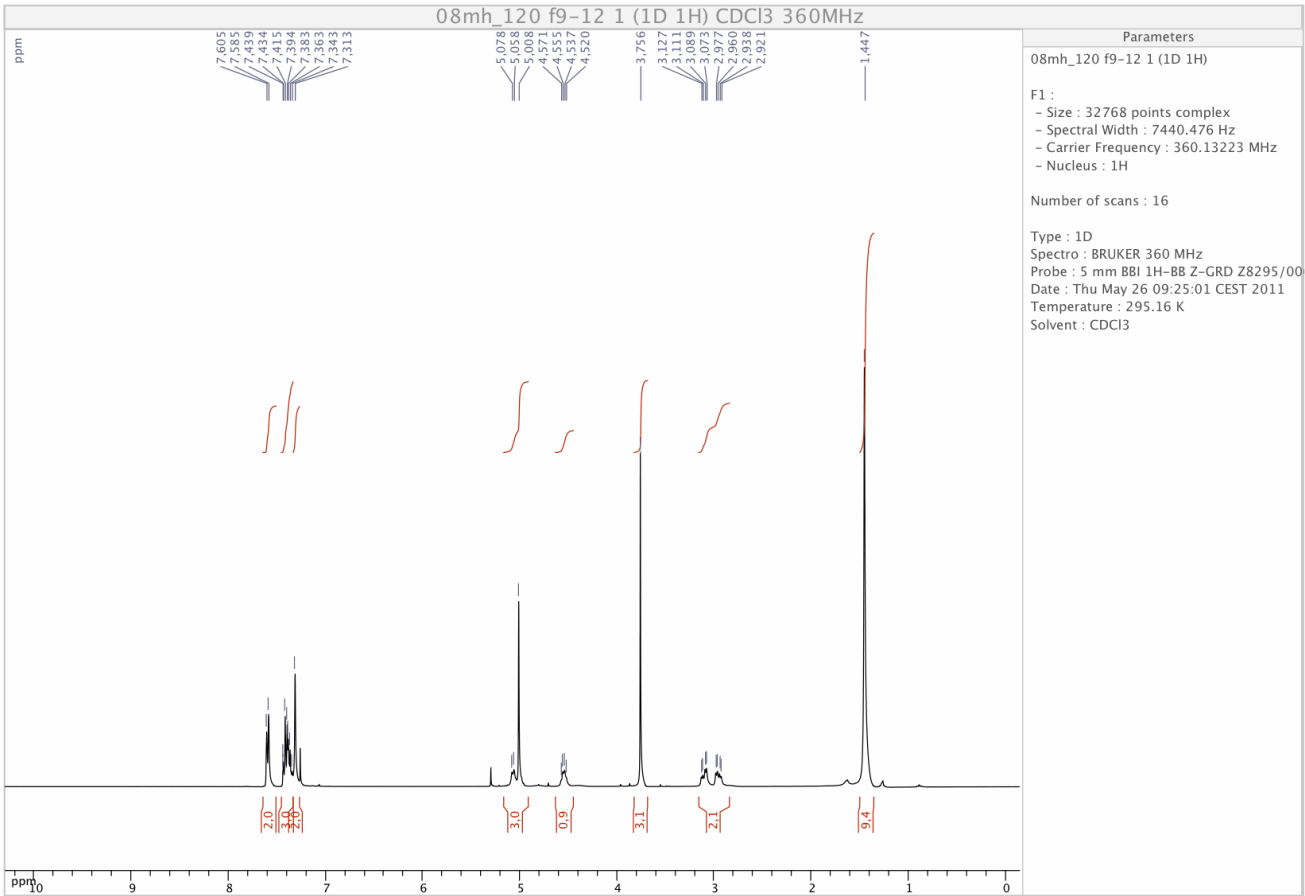
Contents

p. 2-21: ¹H and ¹³C NMR spectra for compounds **2-5**, **13**, **14**, **17-19**, **21**, **26-33**, and ¹H NMR spectrum for compound **34**.

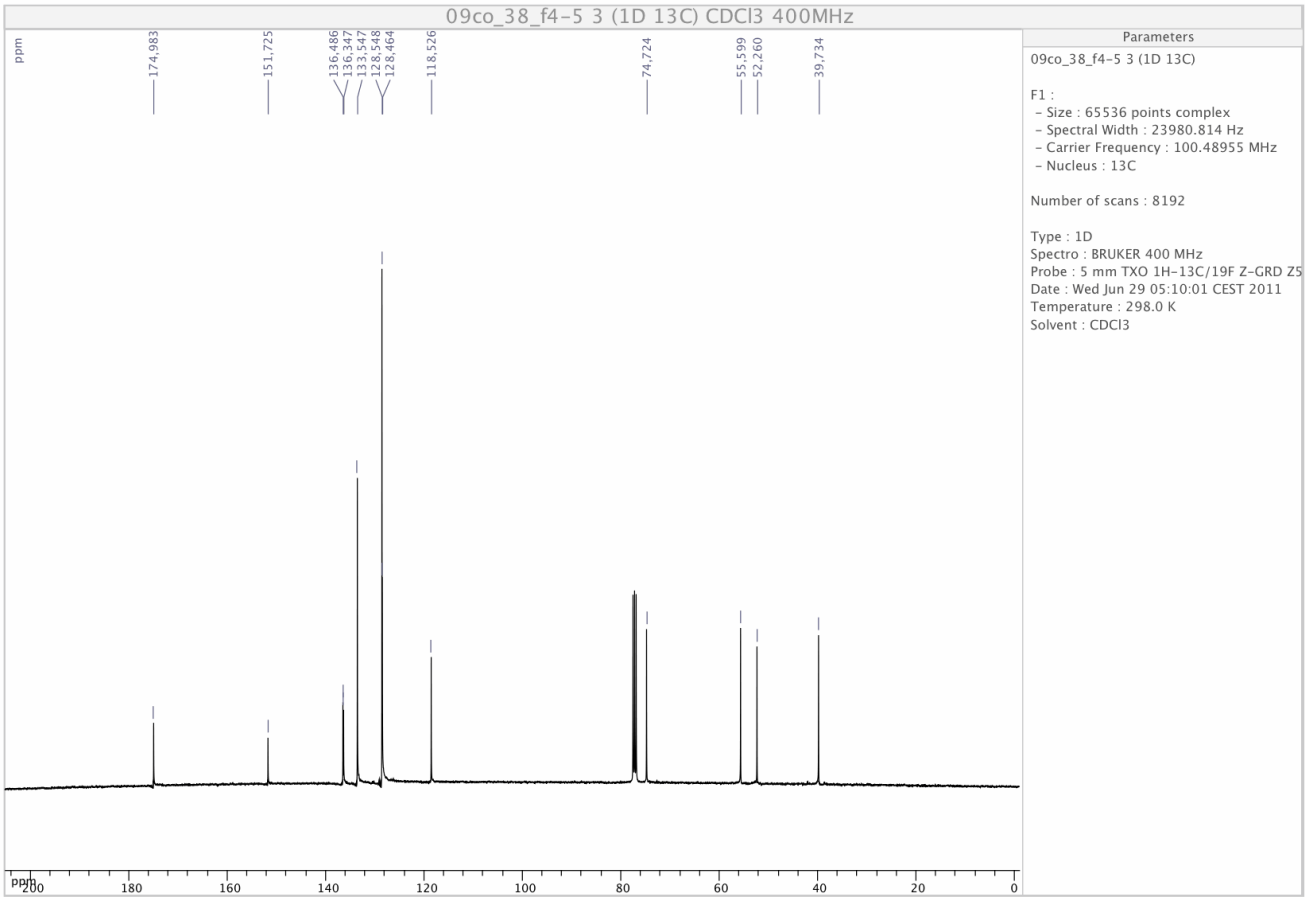
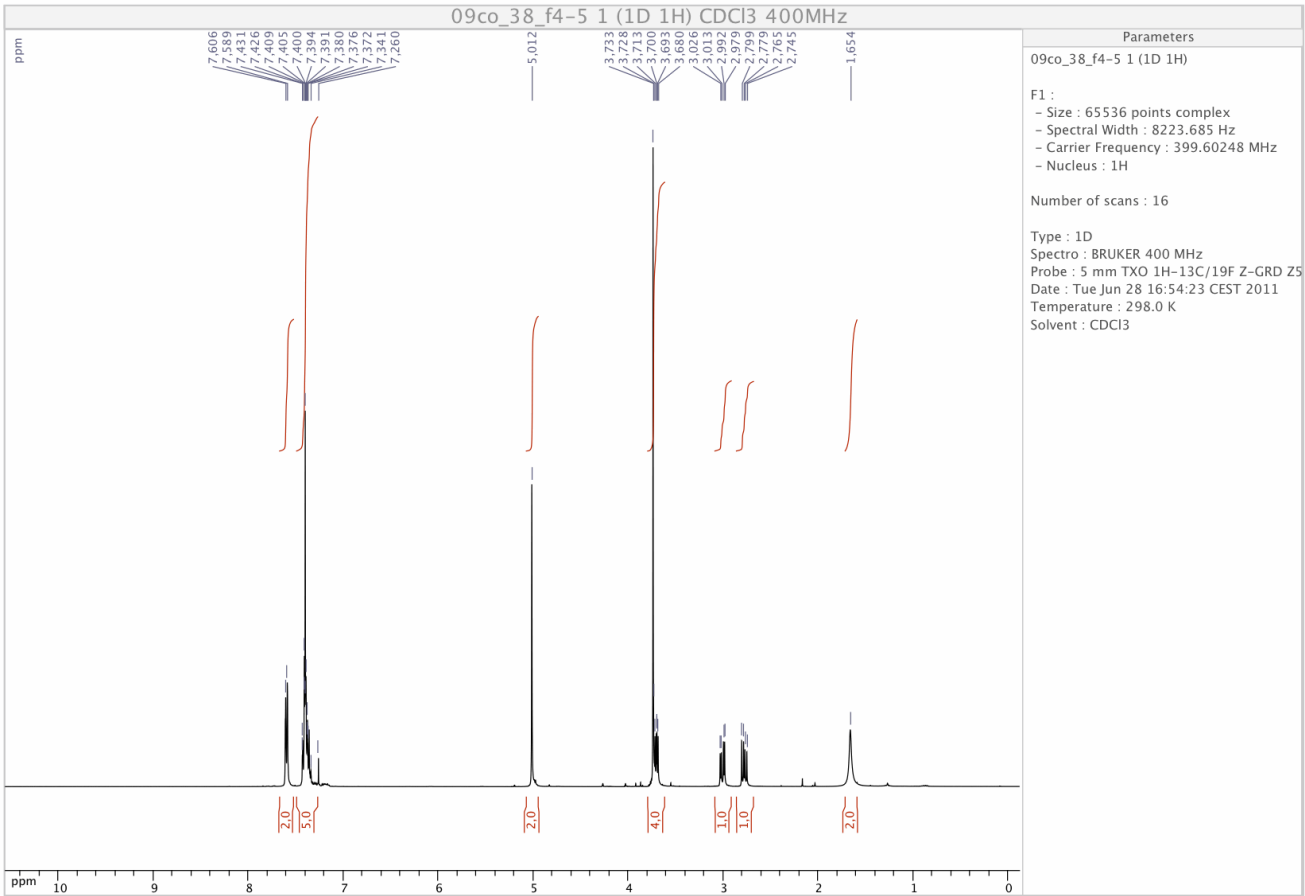
(E)-3-(3,5-Dibromo-4-methoxyphenyl)-2-hydroxyimino-N-(3-(methylamino)propyl)propanamide, pseudoceramine D (5)



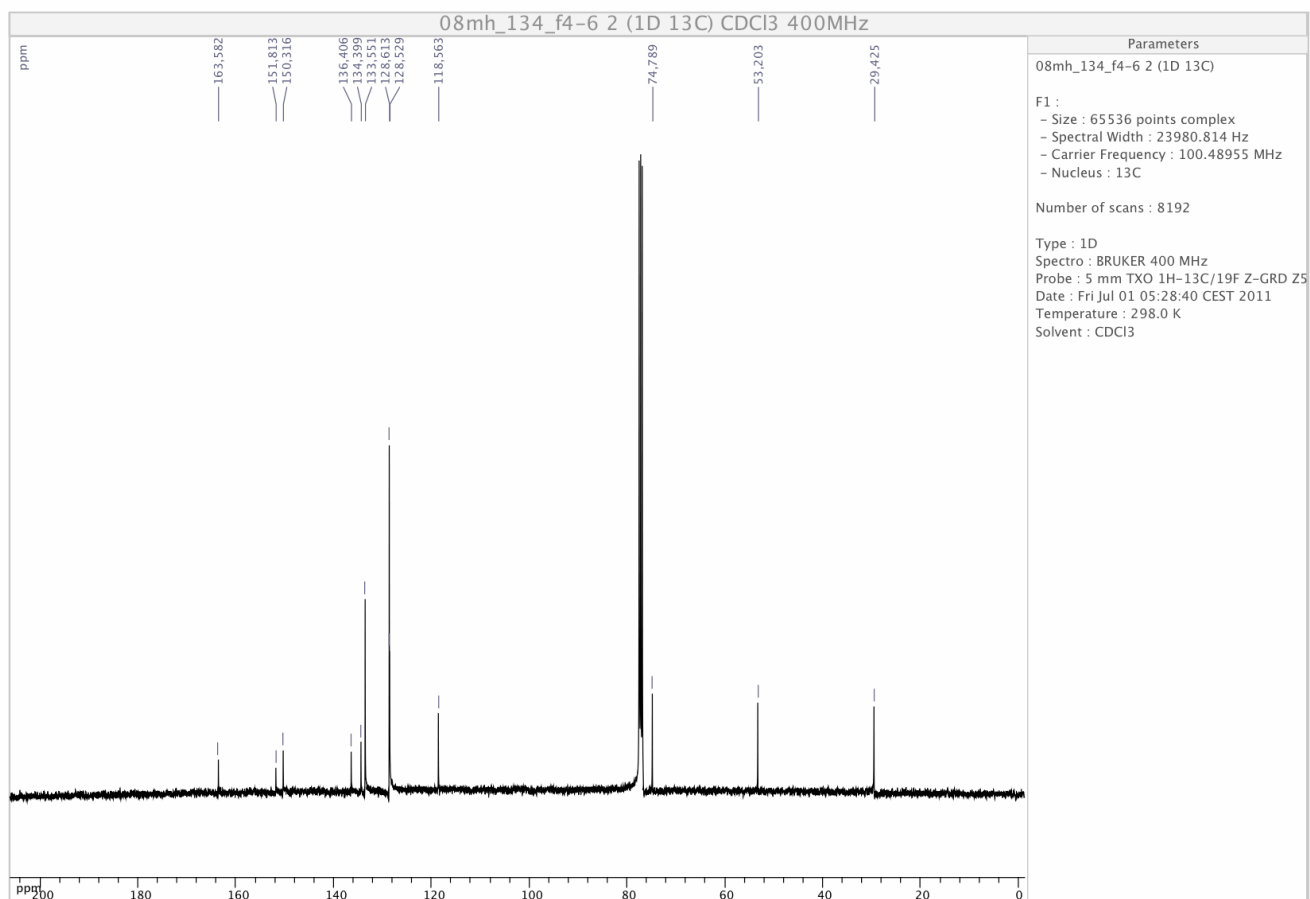
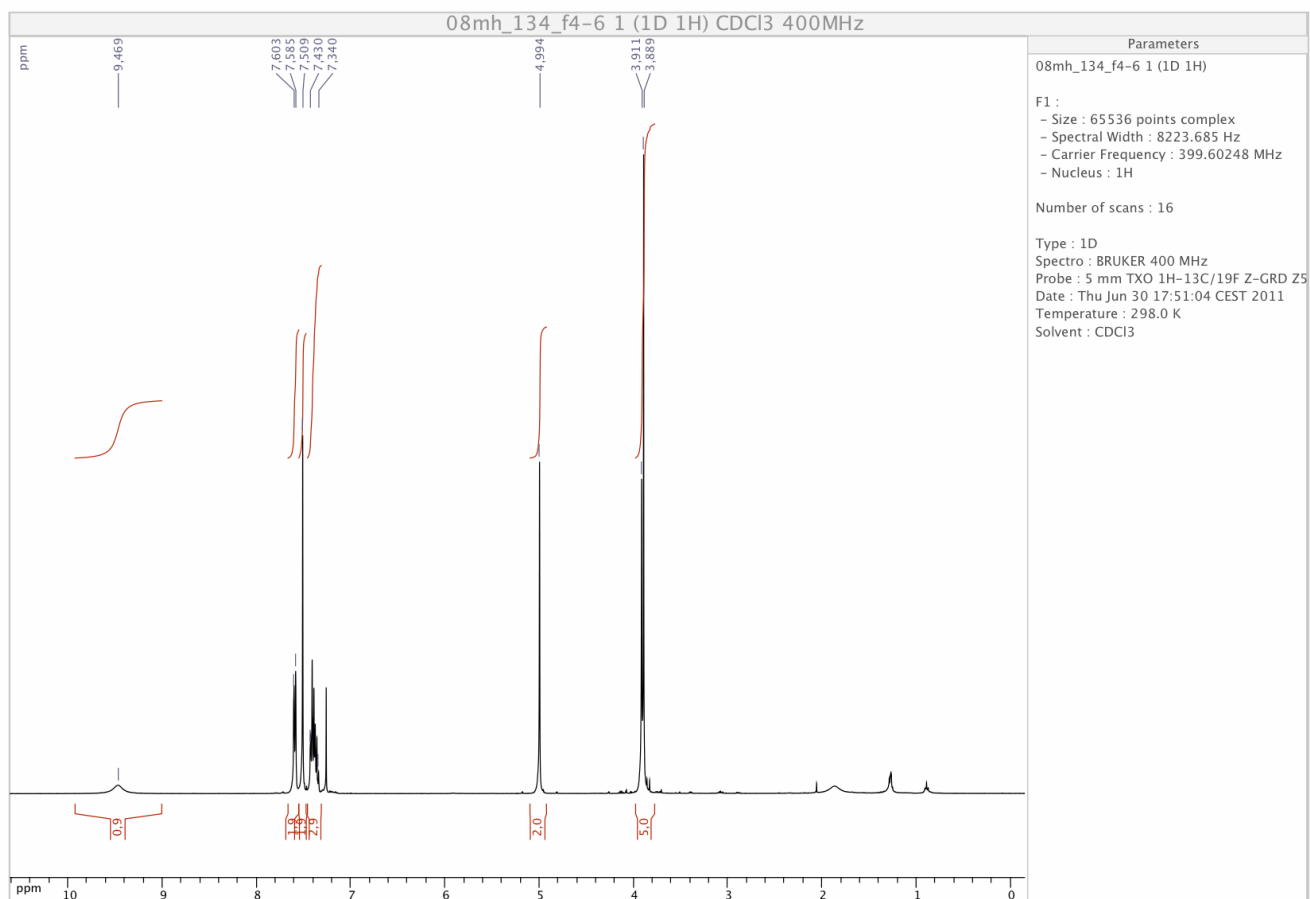
(+)-(S)-Methyl 3-(4-benzyloxy-3,5-dibromophenyl)-2-(2-methylprop-2-yloxy)propanoate (17)



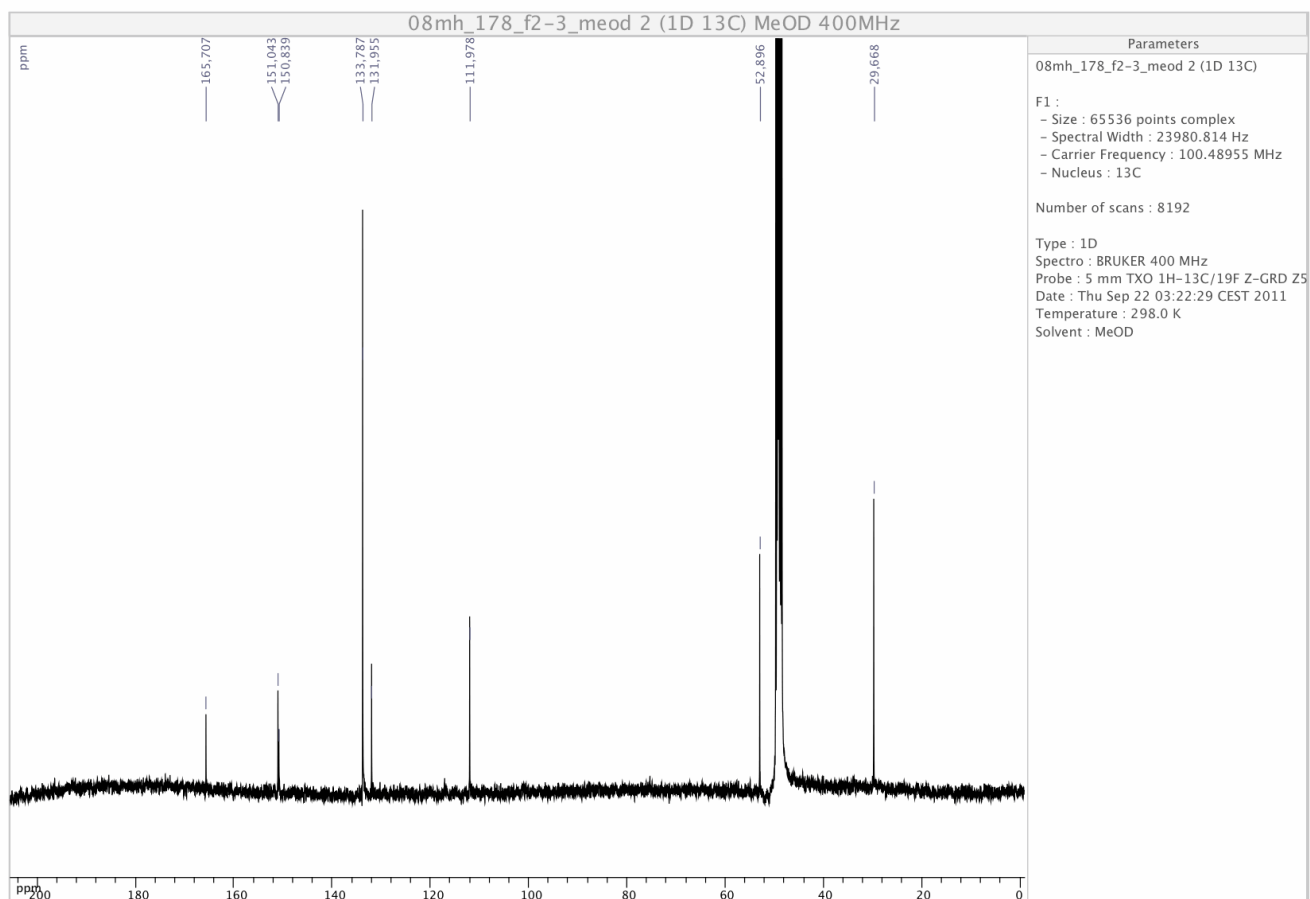
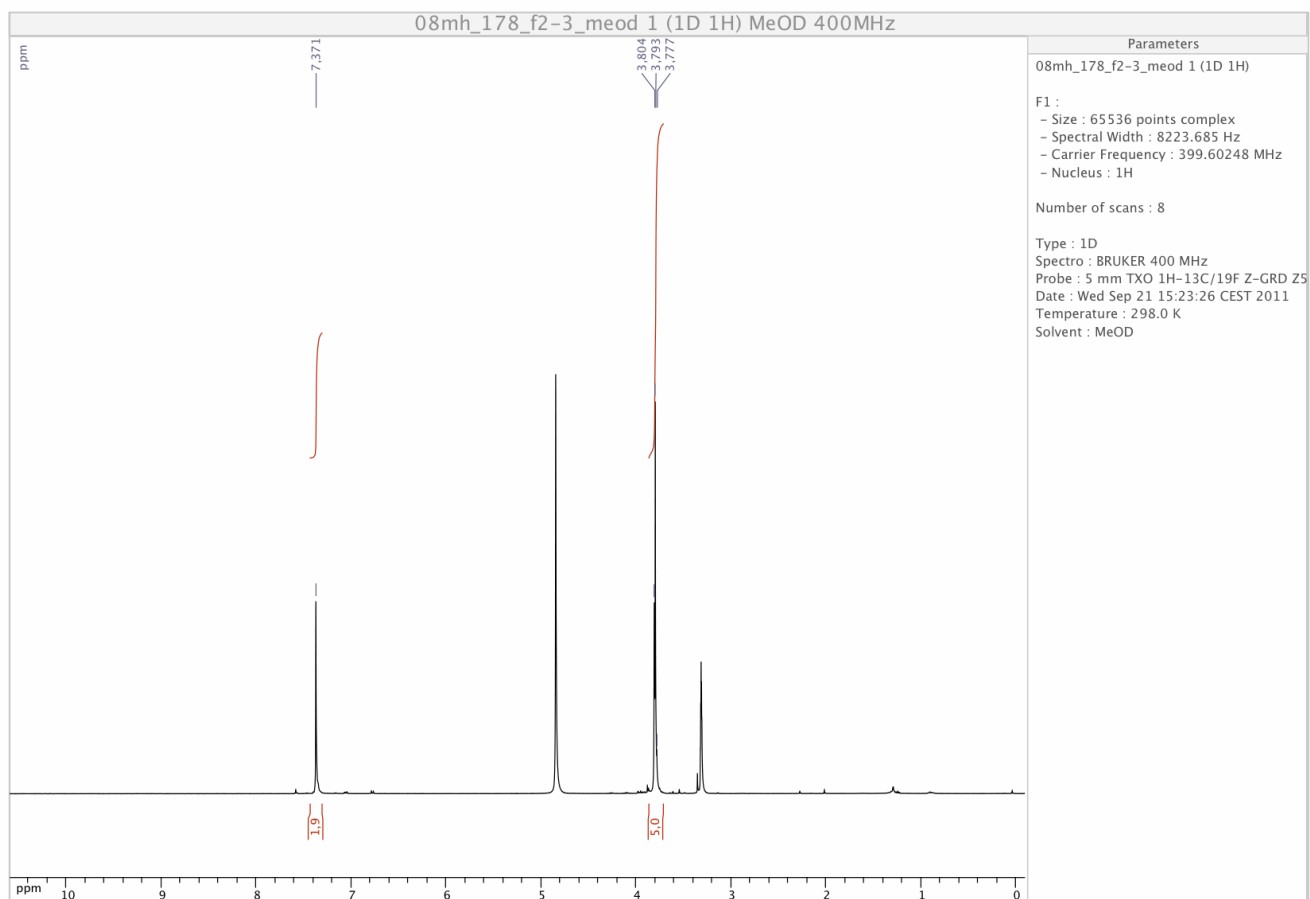
(+)-(S)-Methyl 2-amino-3-(4-benzyloxy-3,5-dibromophenyl)propanoate (18)



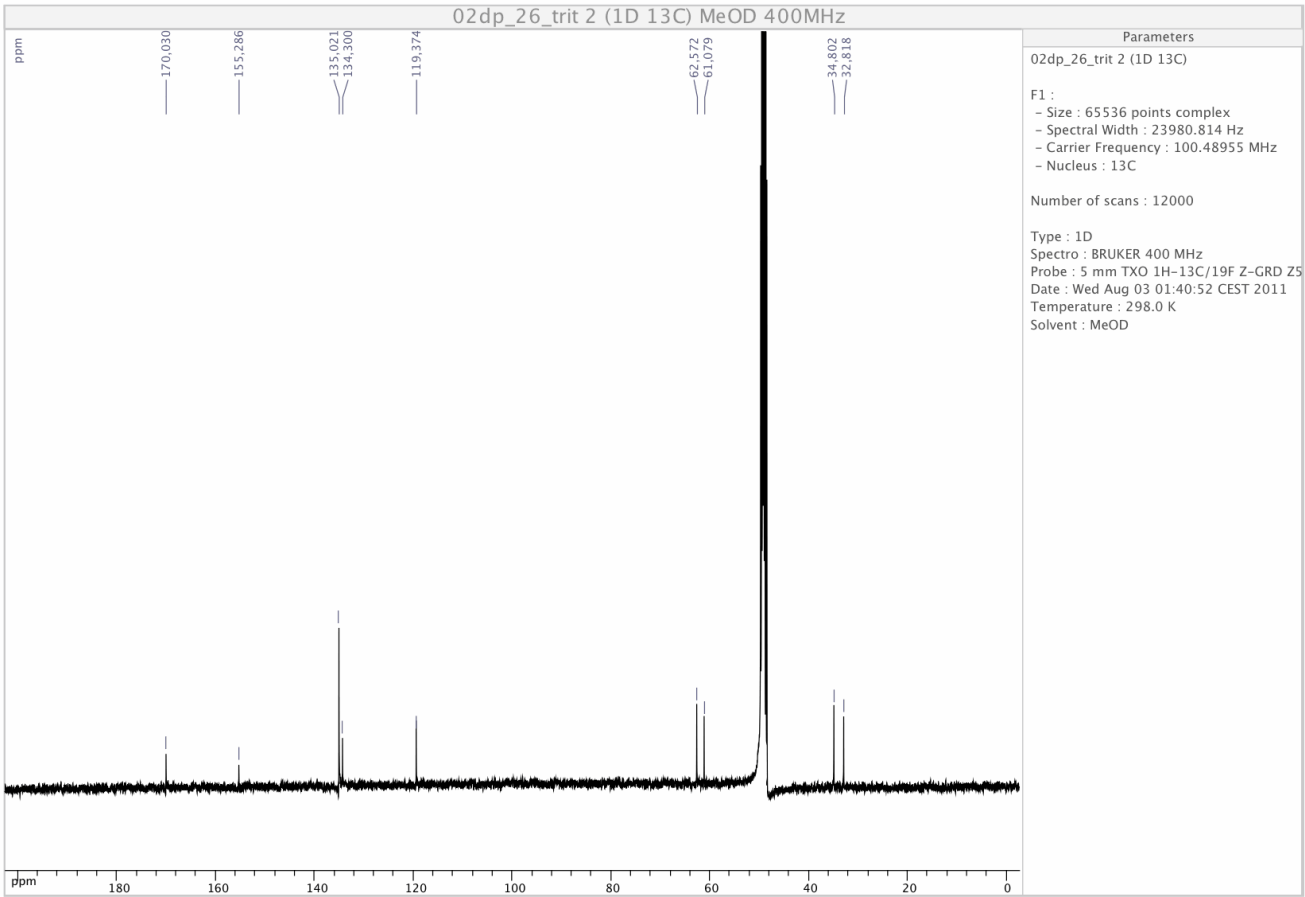
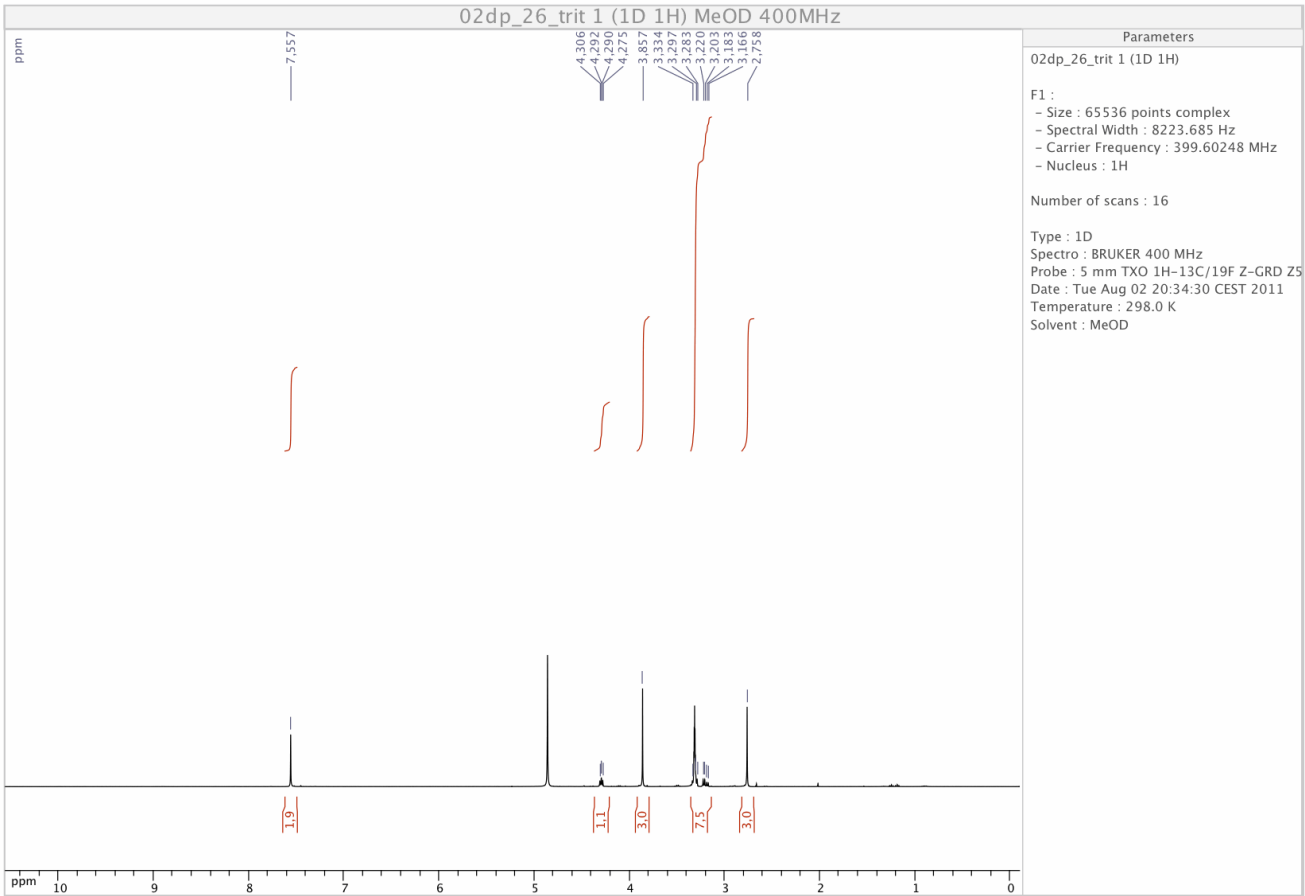
(E)-Methyl 3-(4-benzyloxy-3,5-dibromophenyl)-2-(hydroxyimino)propanoate (19)



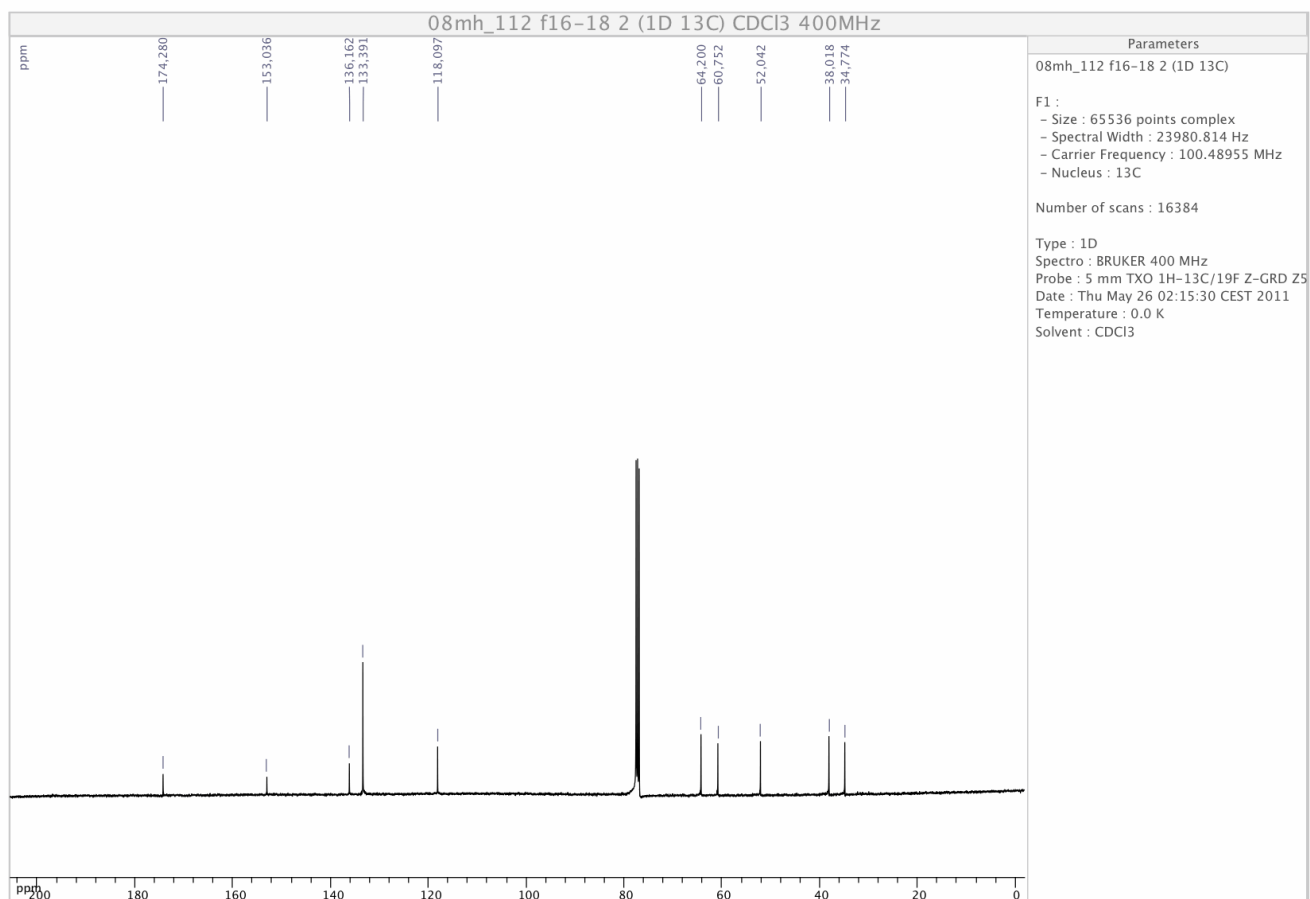
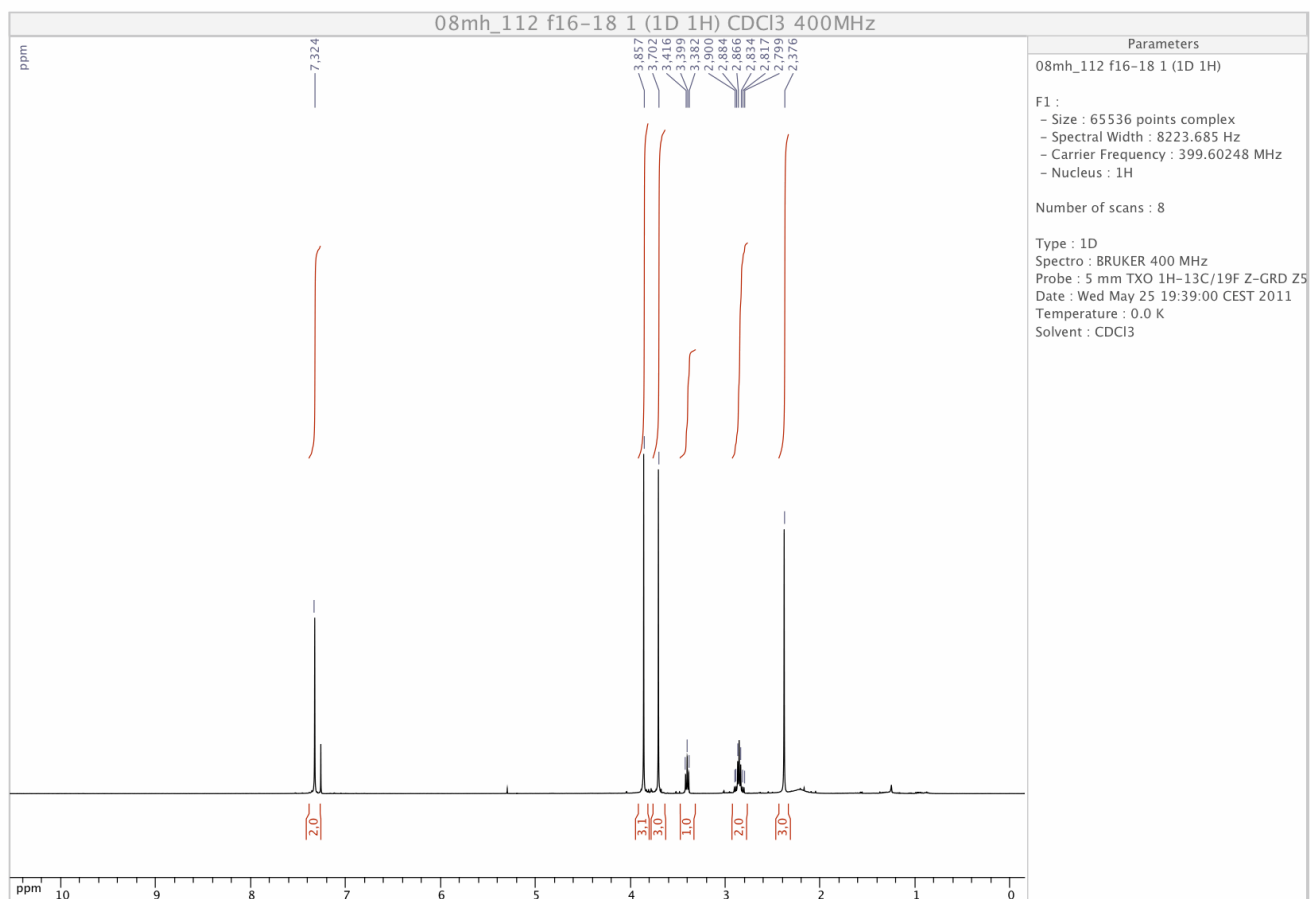
(E)-Methyl 3-(4-hydroxy-3,5-dibromophenyl)-2-(hydroxyimino)propanoate (13)



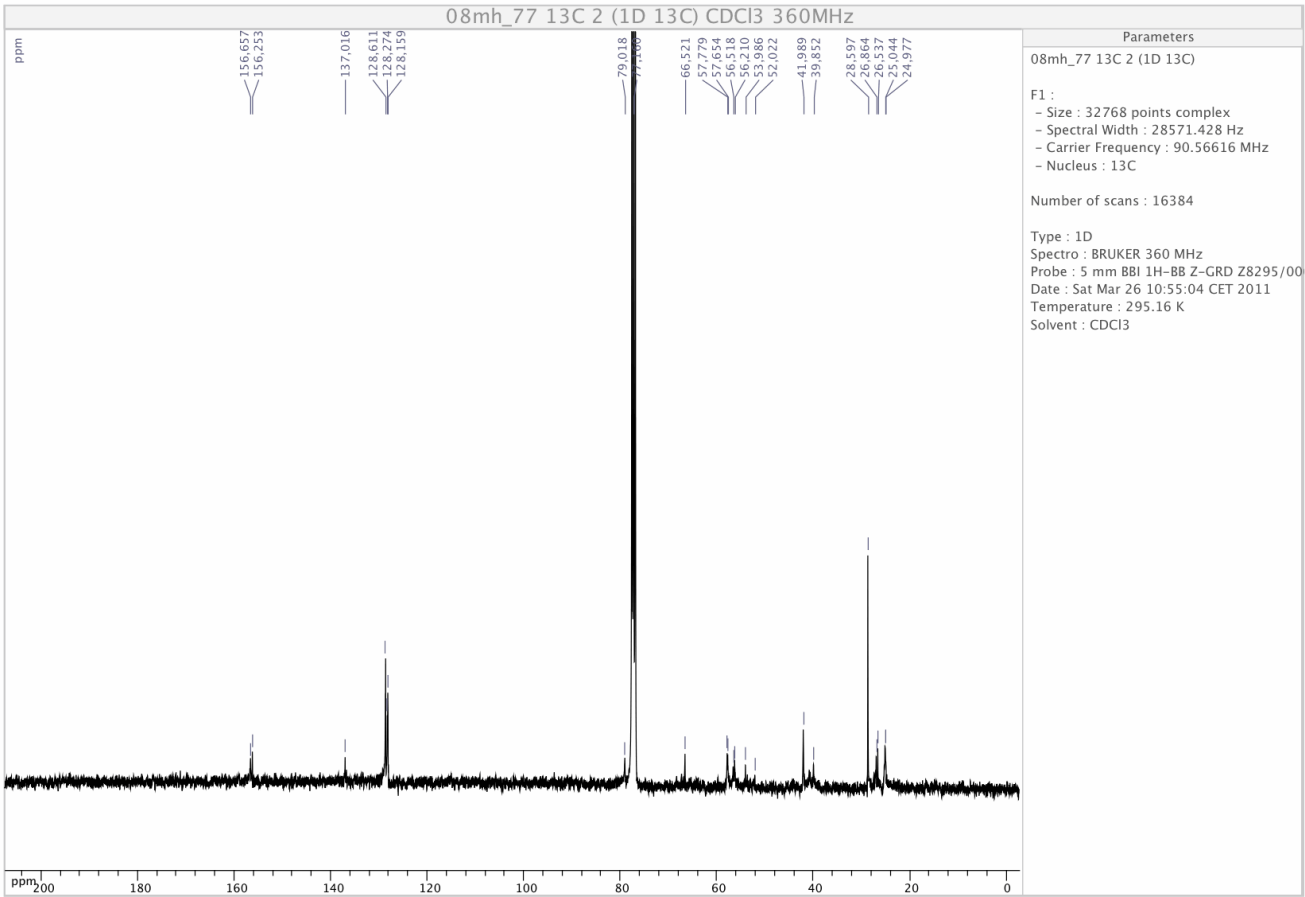
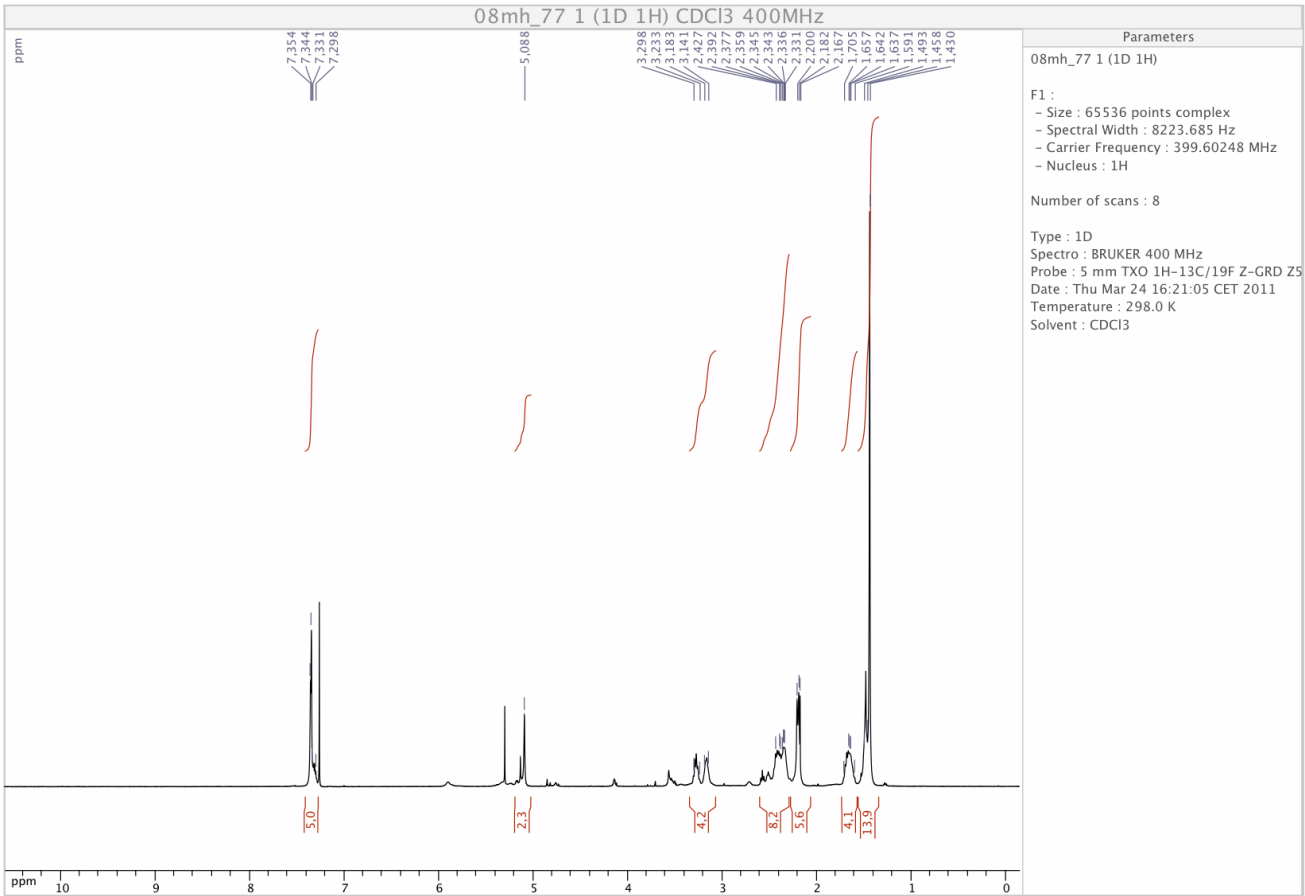
(+)-(S)-3-(3,5-Dibromo-4-methoxyphenyl)-2-methylaminopropanoic acid hydrochloride (21)



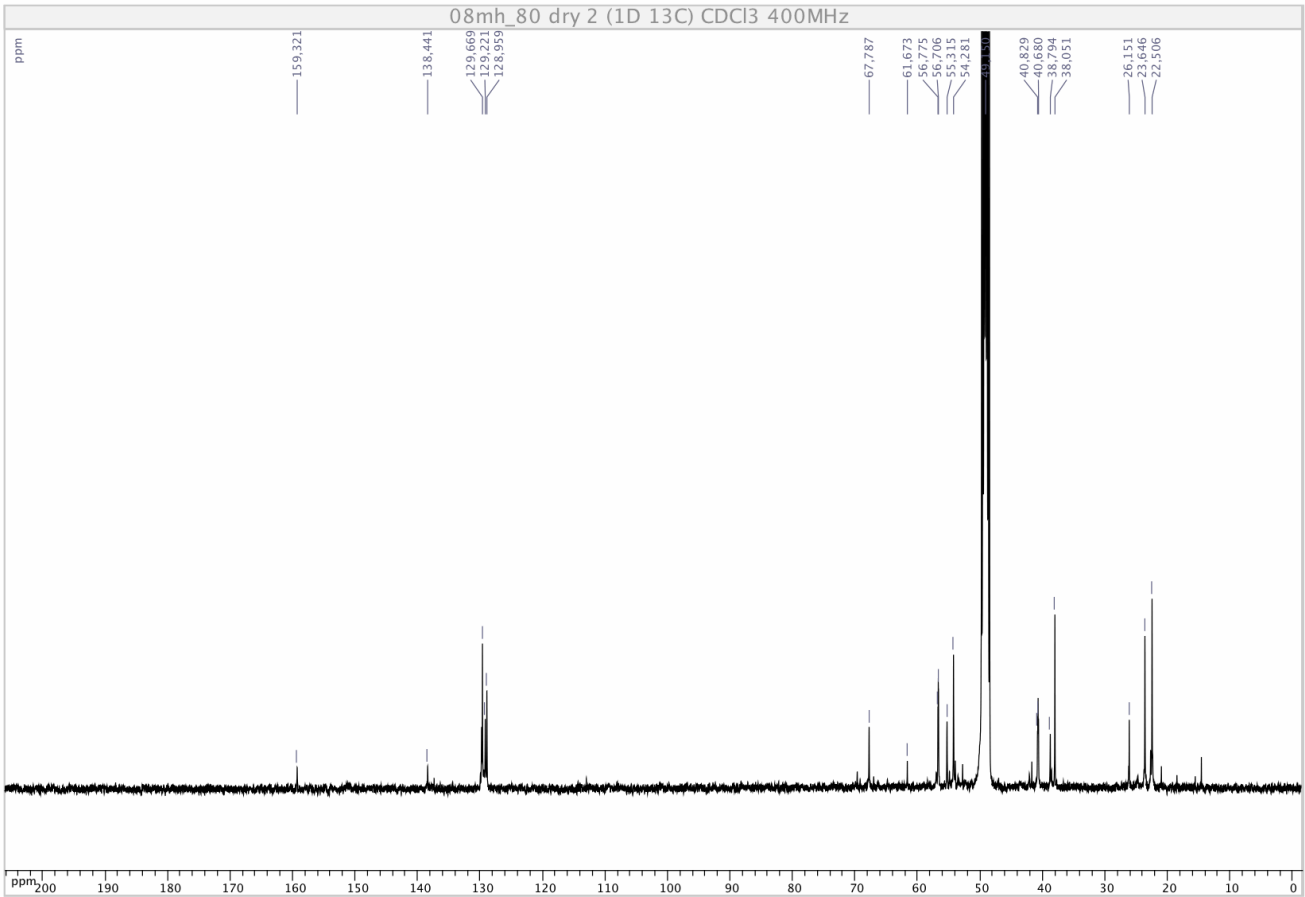
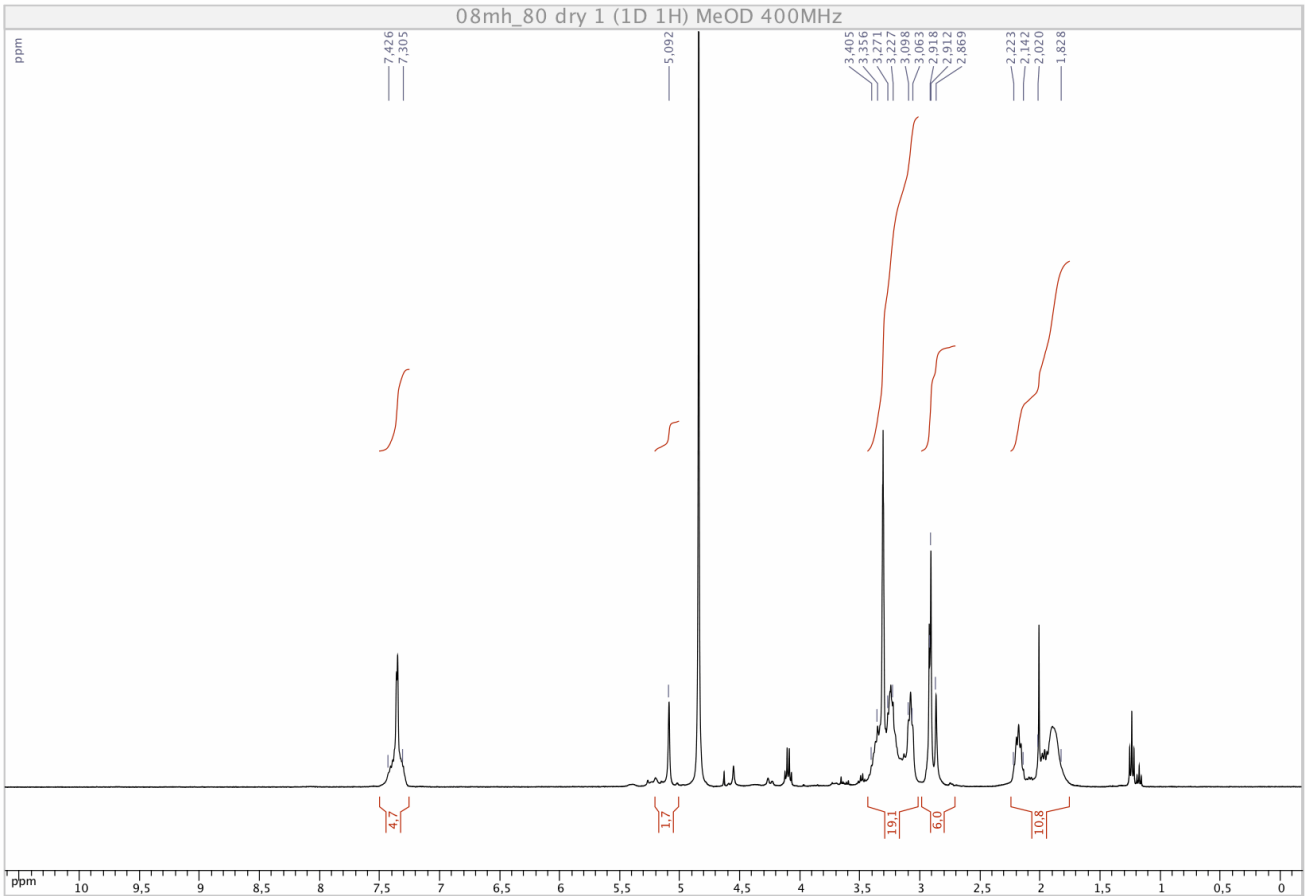
(+)-(S)-Methyl 3-(3,5-dibromo-4-methoxyphenyl)-2-methylaminopropanoate (14)



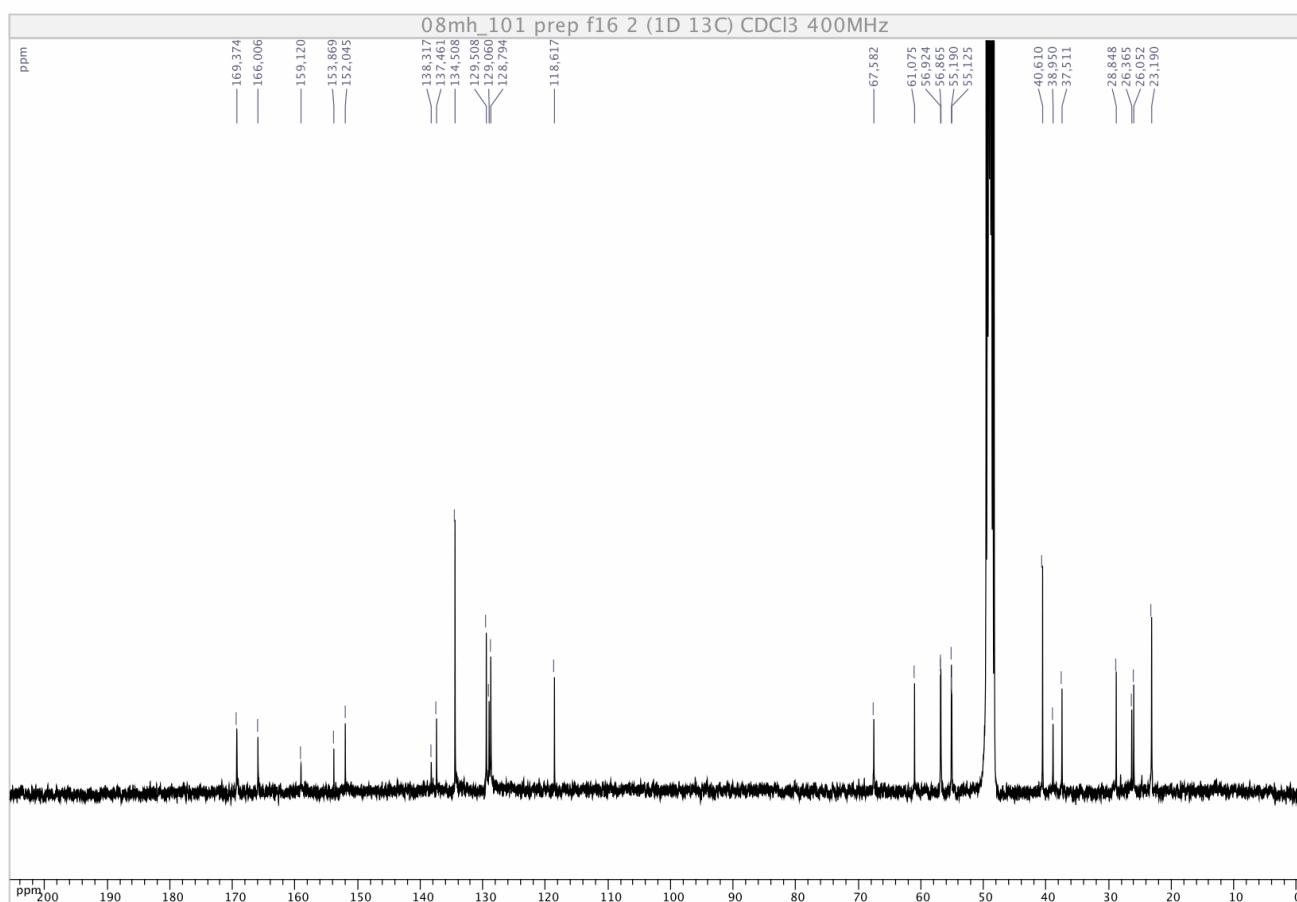
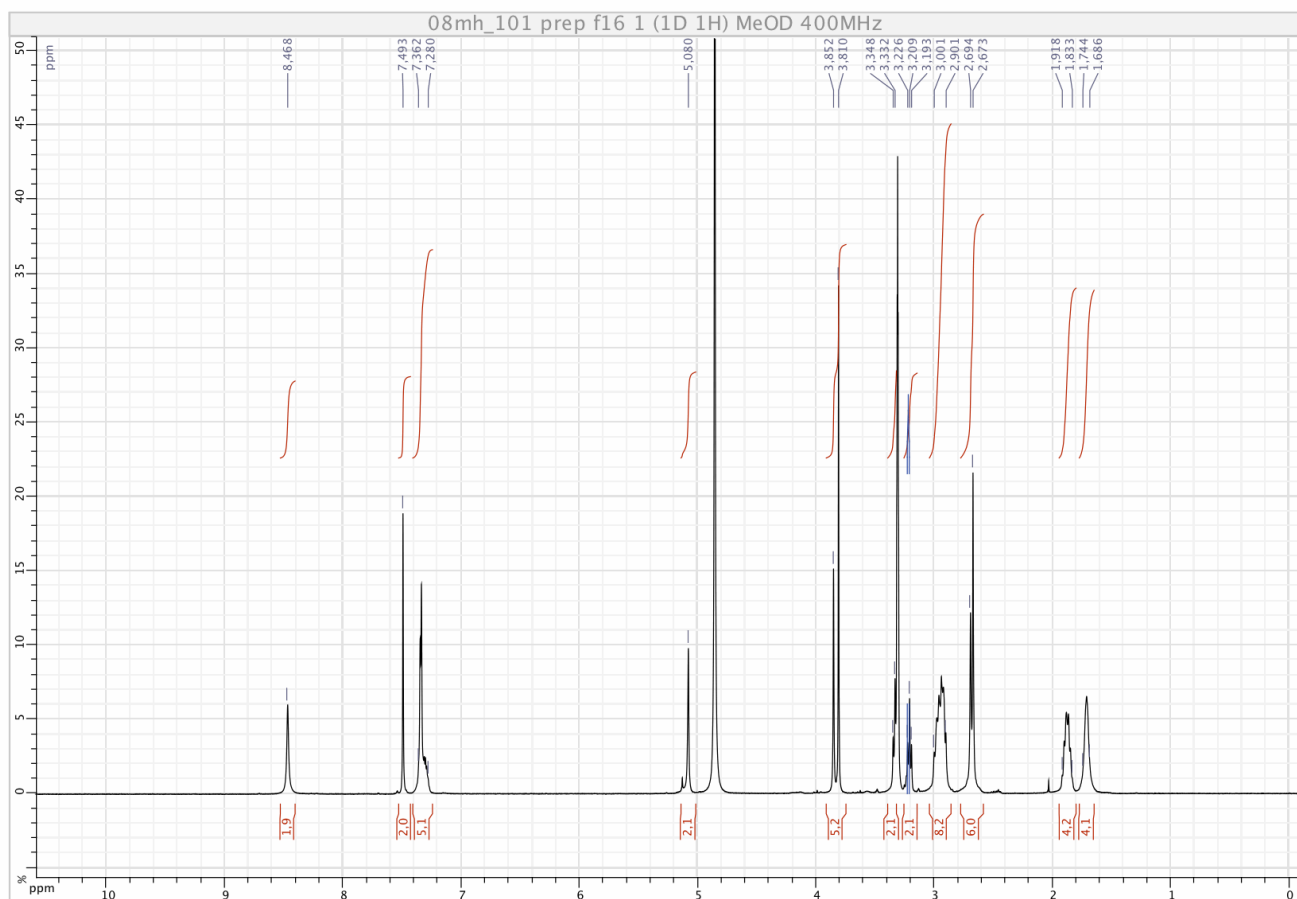
Benzoyloxy-*N*-(12-(2-methylprop-2-oxo)carbamoyle-4,9-diaza-4,9-dimethyldodecyl)carbamate (26)



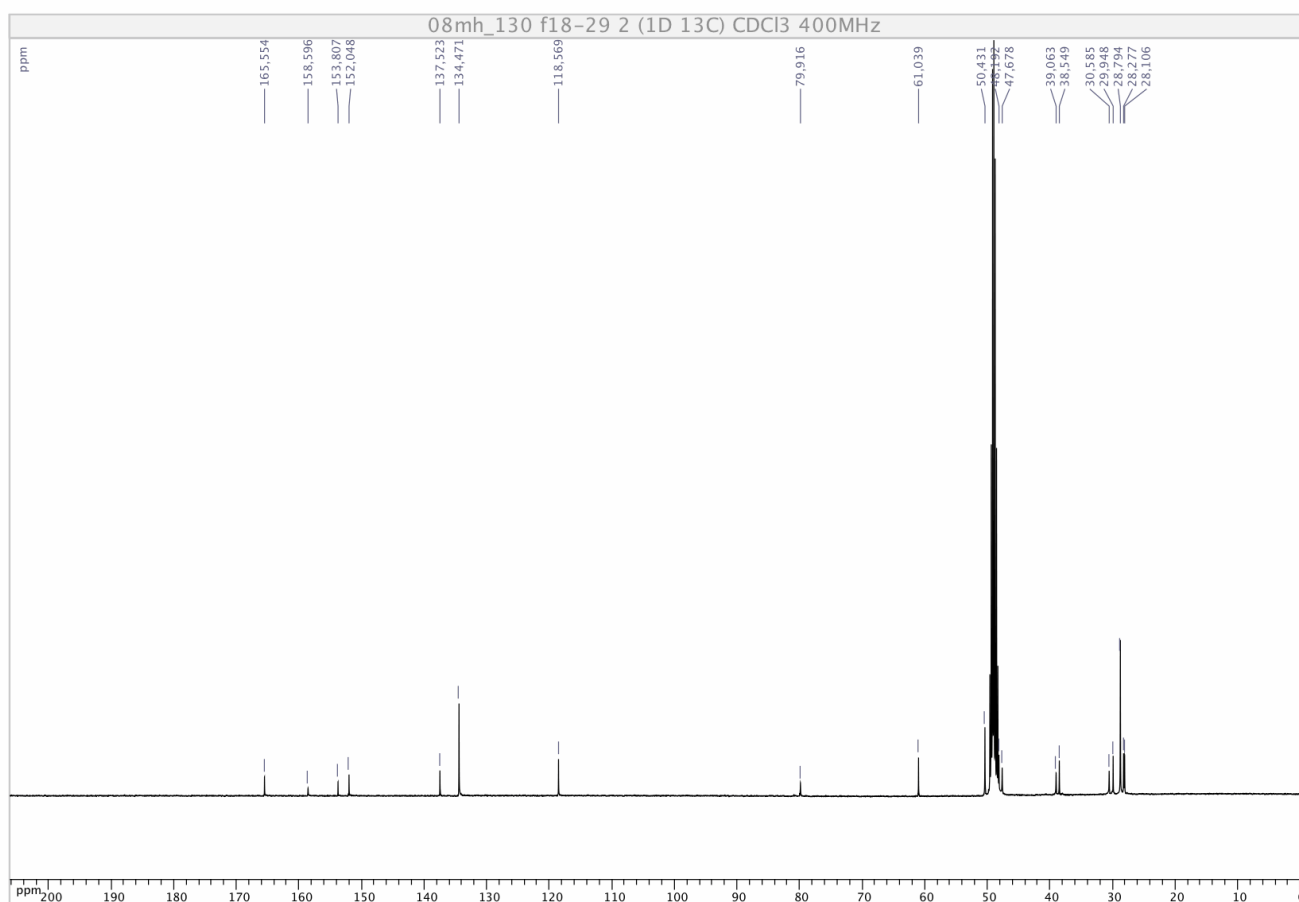
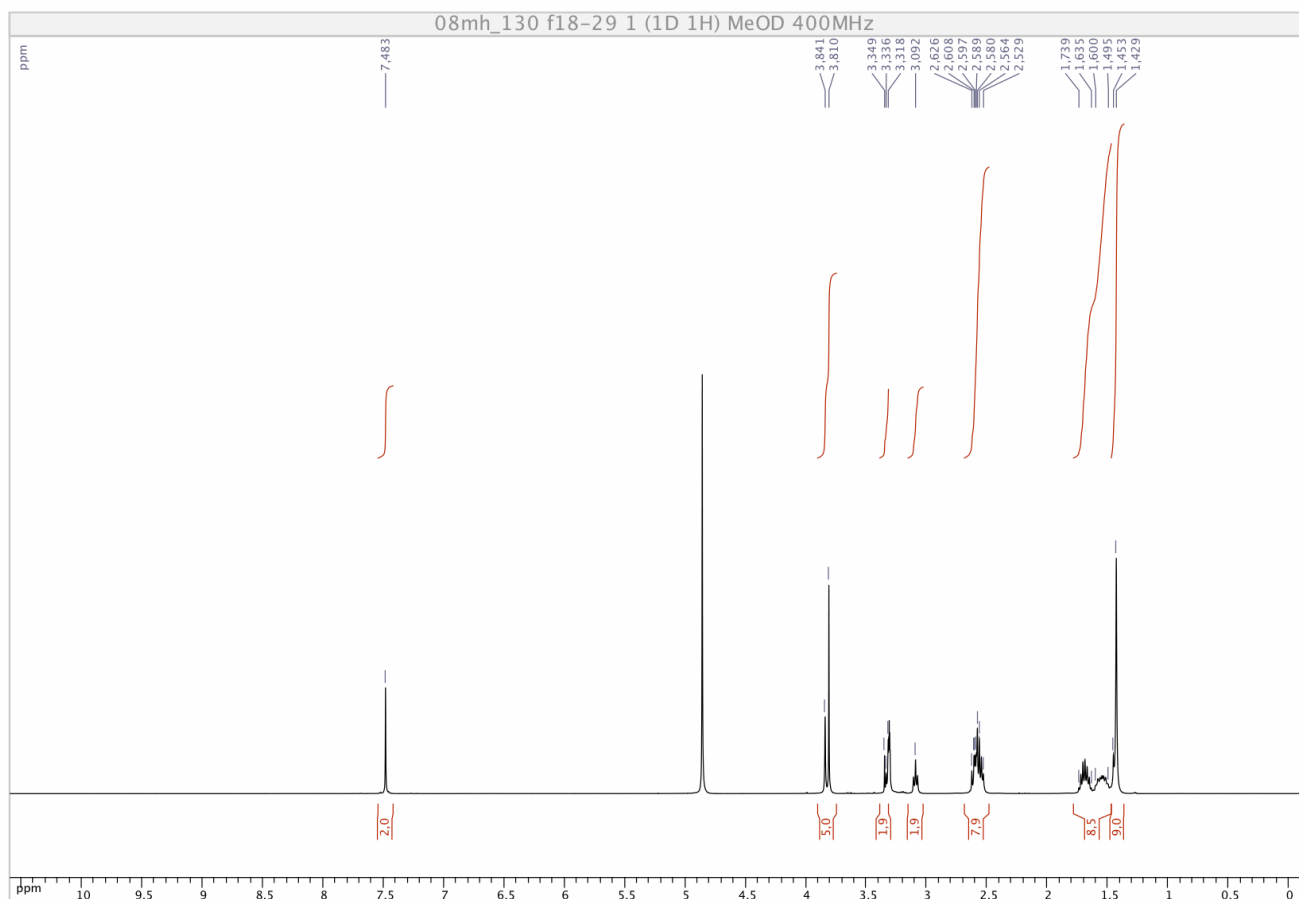
N-(12-Amino-4,9-diaza-4,9-dimethyldodecyl)-benzyloxycarbamate trishydrochloride (27)



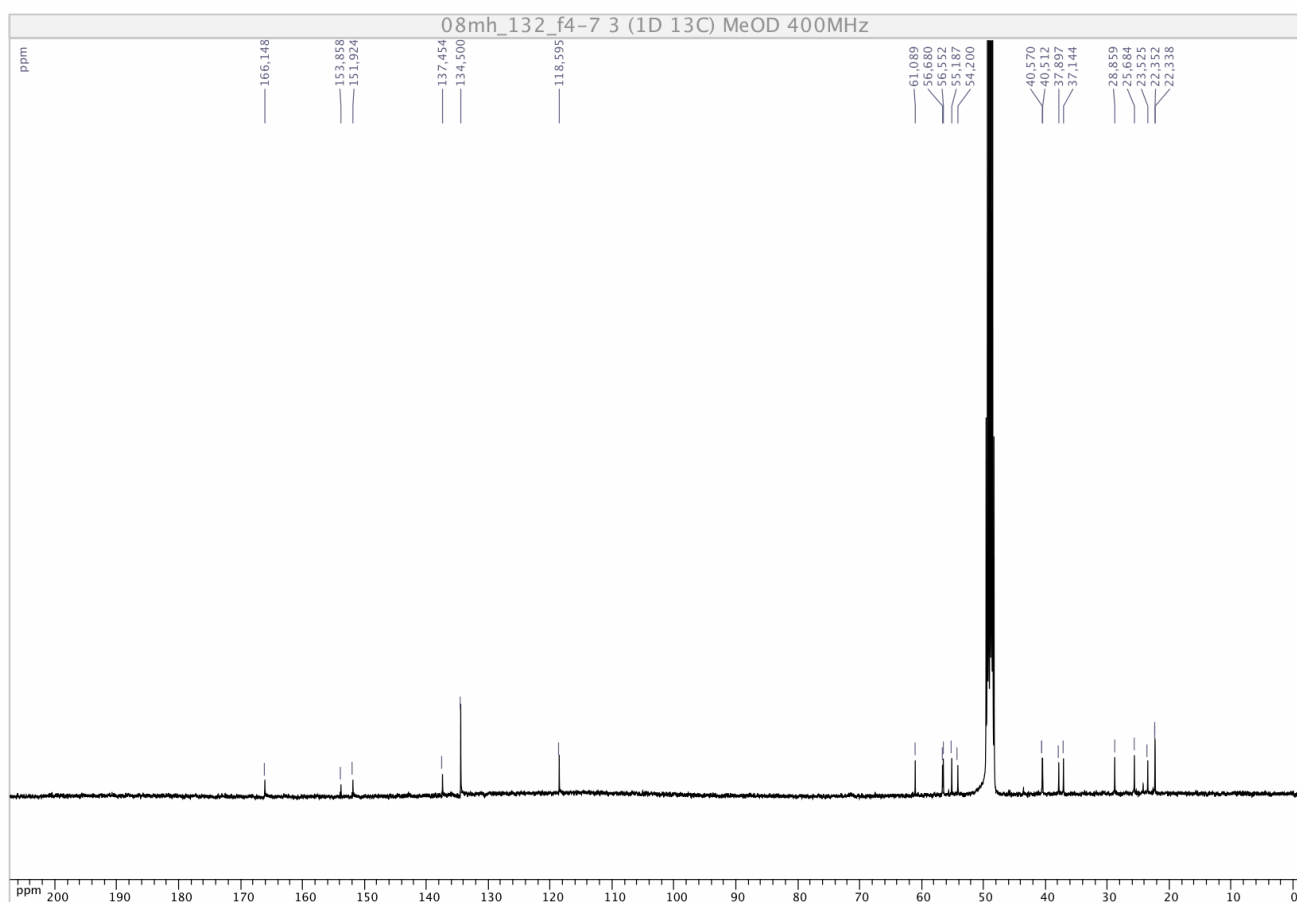
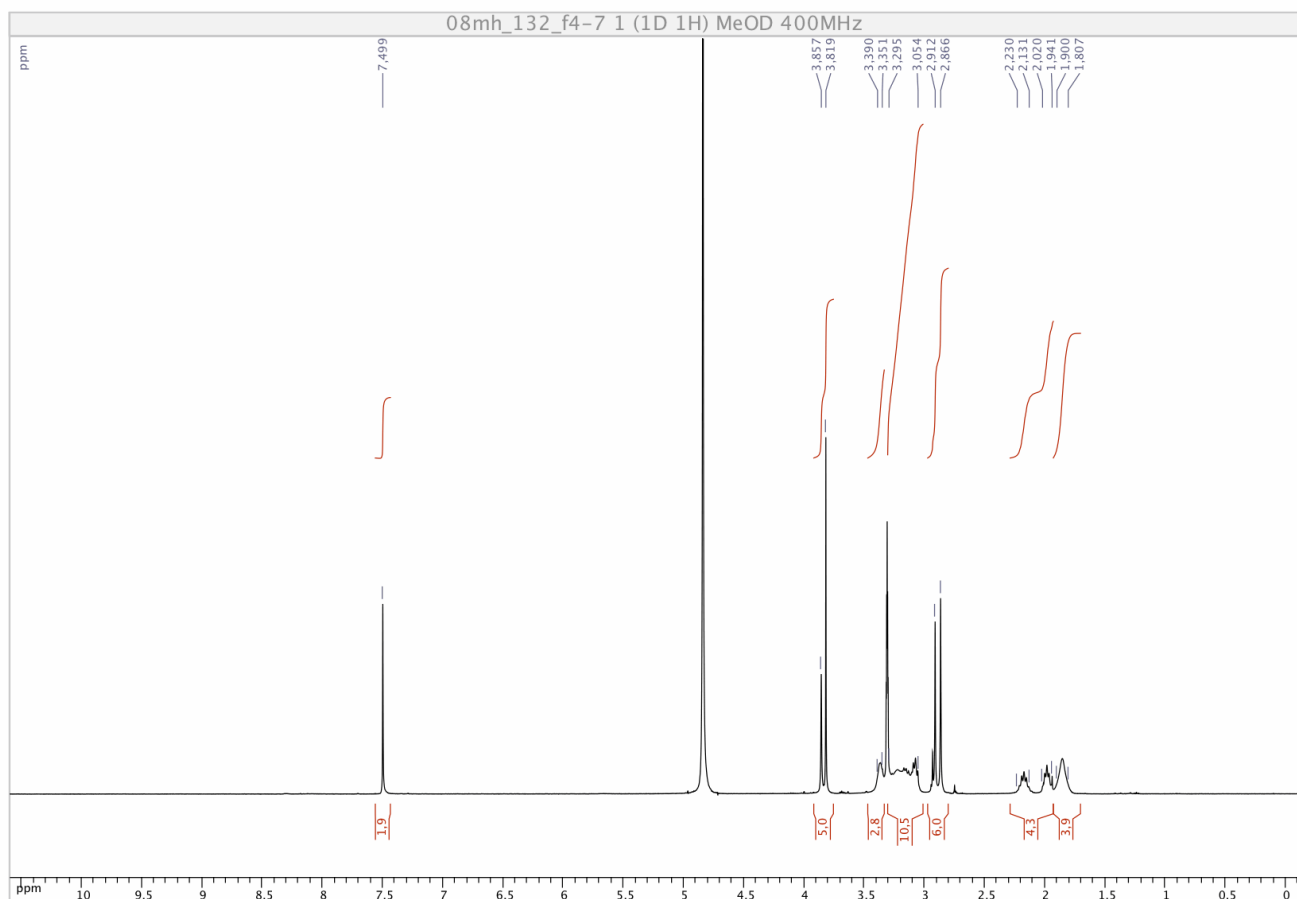
(E)-3-(3,5-Dibromo-4-methoxyphenyl)-2-hydroxyimino-N-(12-benzoyloxycarbamoyl-4,9-diazadodecyl)propanamide bisformate (28)



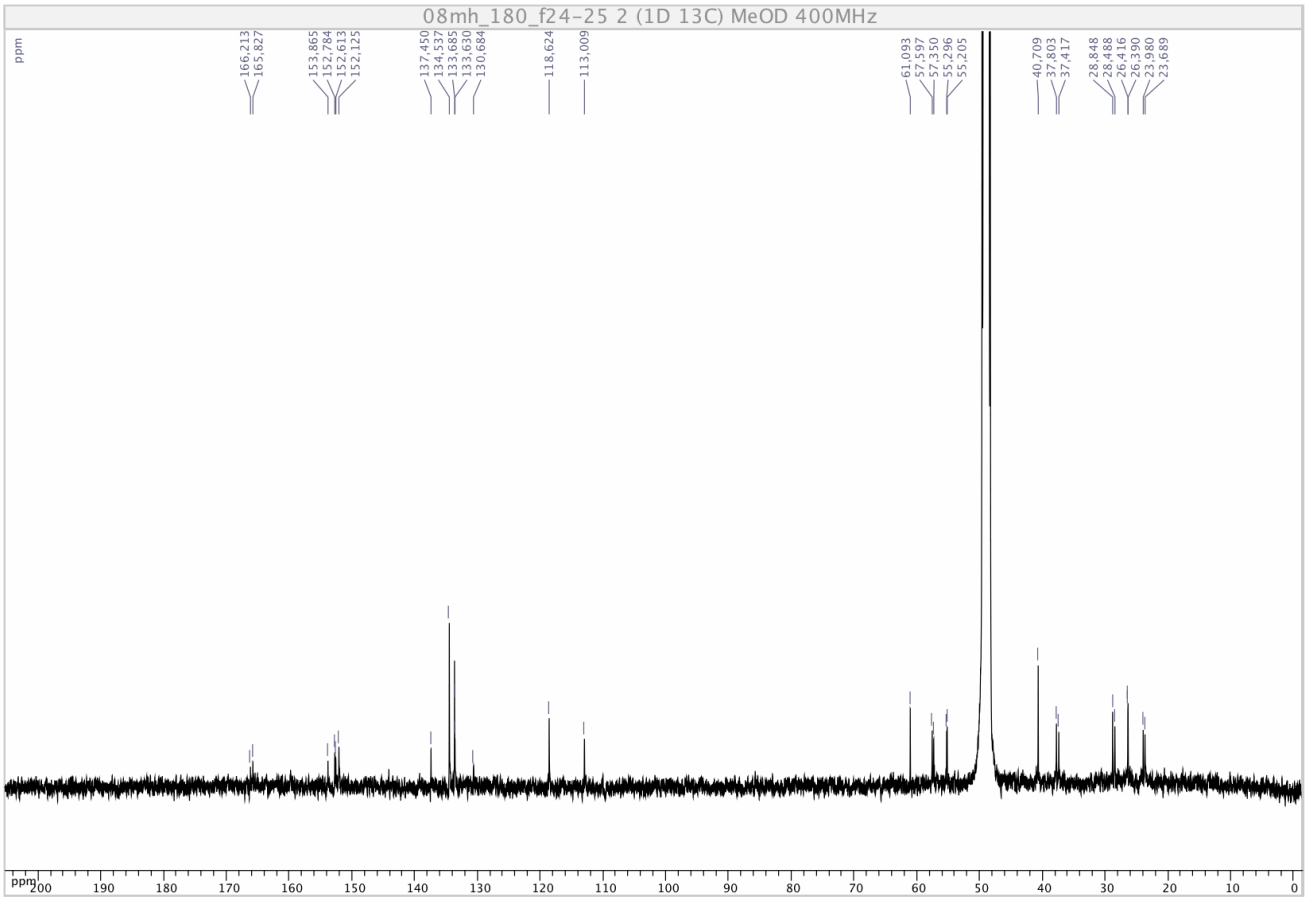
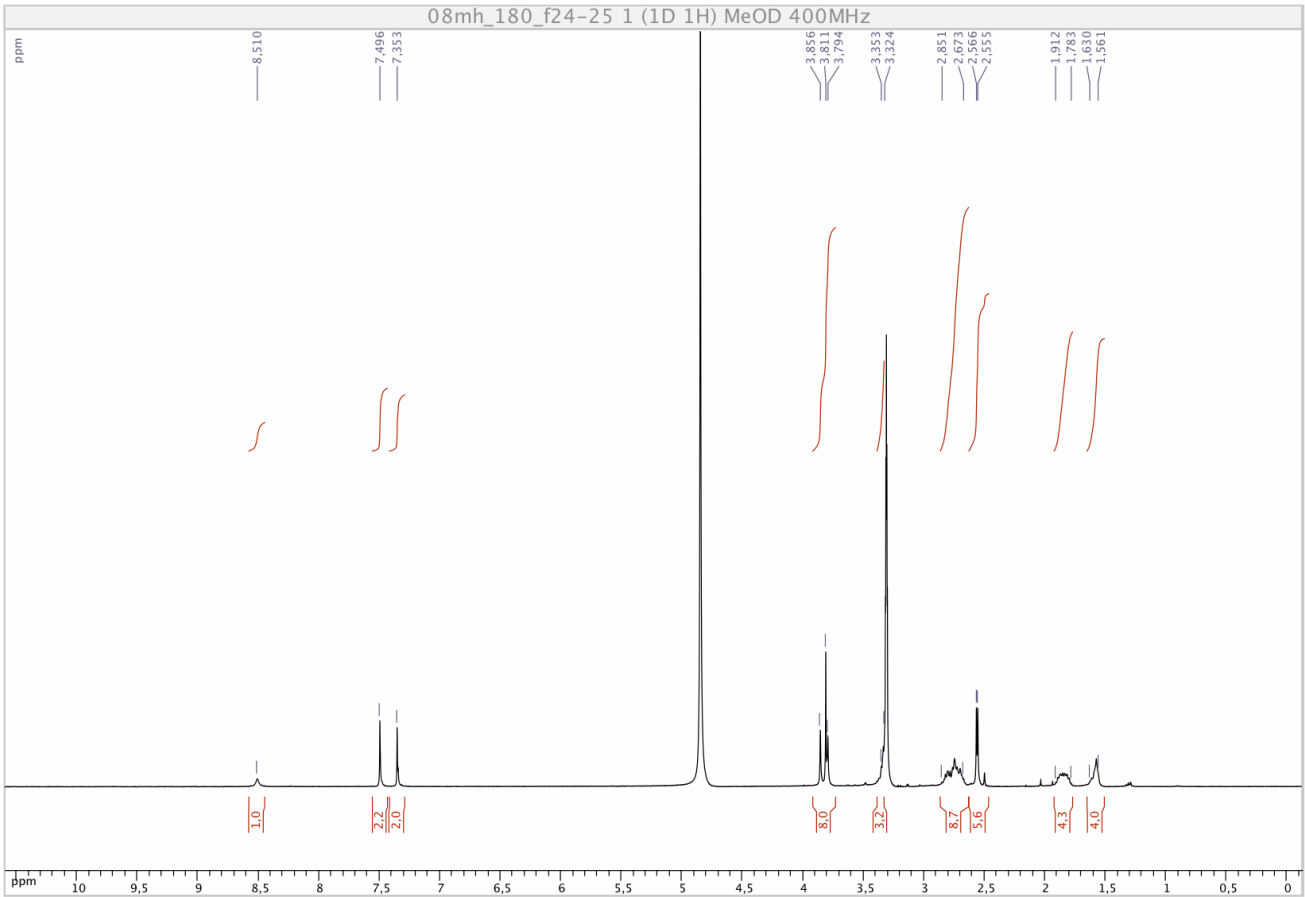
(*E*)-3-(3,5-Dibromo-4-methoxyphenyl)-2-hydroxyimino-*N*-(12-(2-methylprop-2-oxo)carbamoyl-4,9-diazadodecyl)propanamide (29)



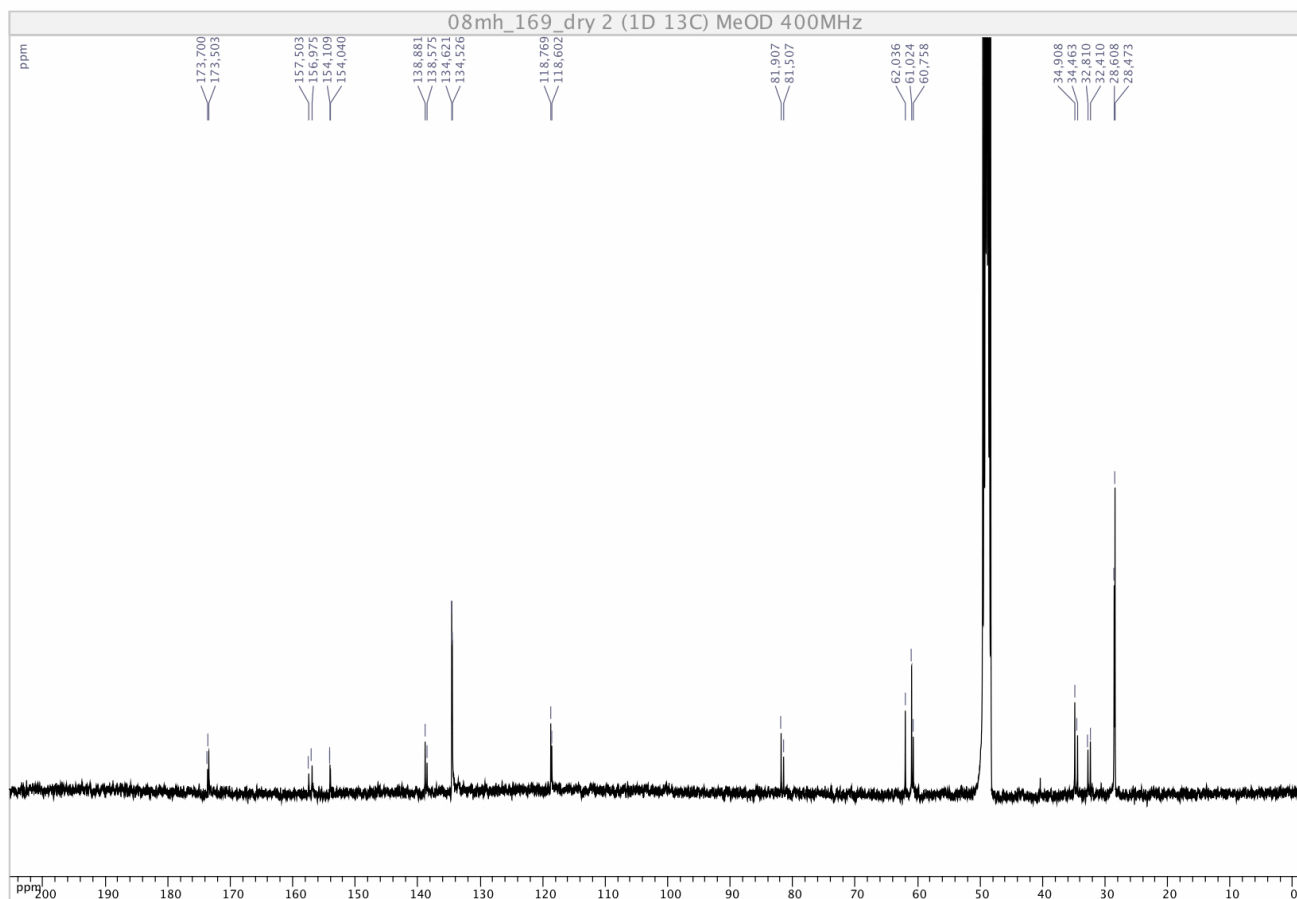
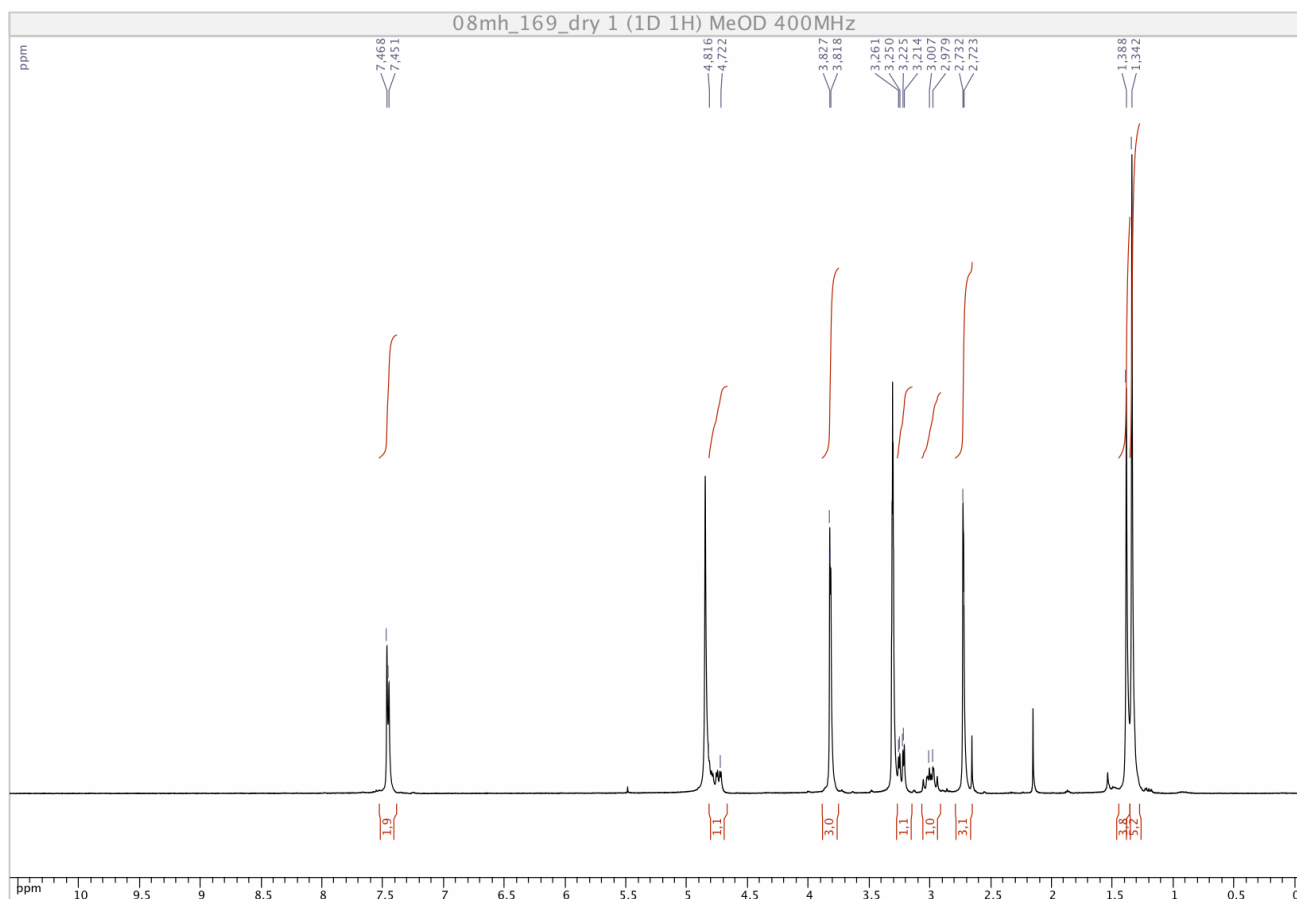
(*E*)-*N*-(12-Amino-4,9-dimethyl-4,9-diazadodecyl)-3-(3,5-dibromo-4-methoxyphenyl)-2-(hydroxyimino)propanamide trishydrochloride (30)



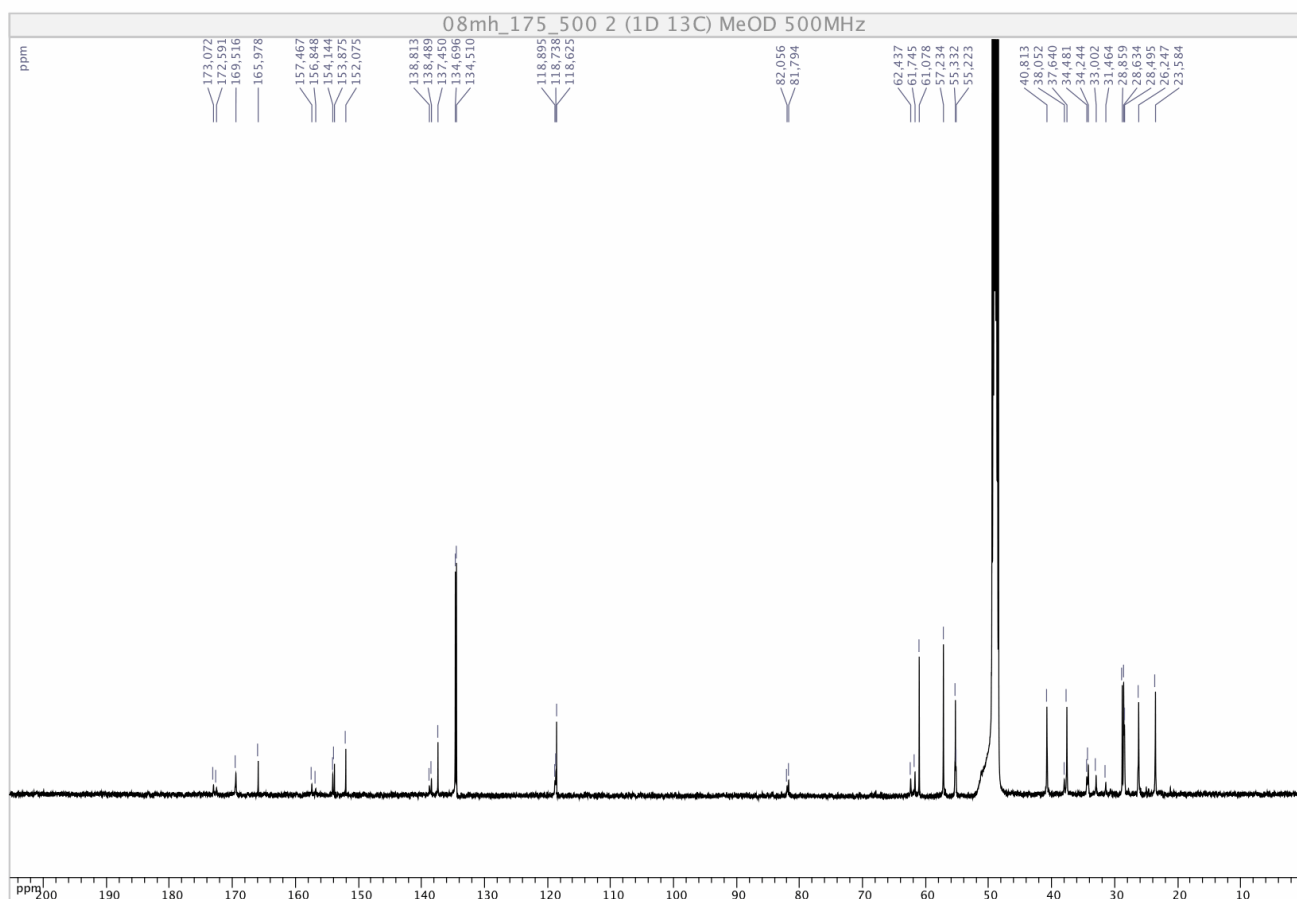
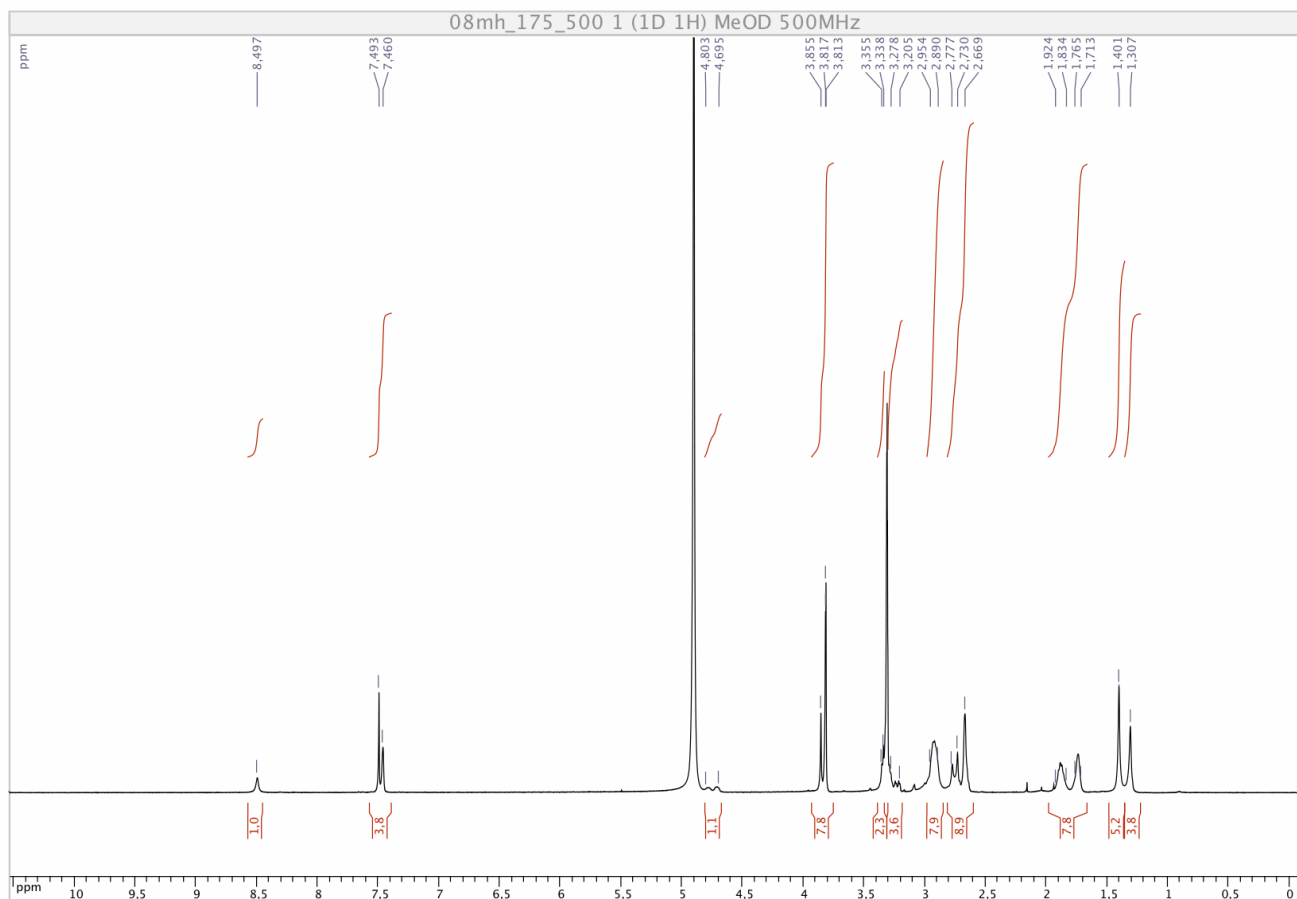
(*E,E*)-*N*-(12-(3-(3,5-Dibromo-4-hydroxyphenyl)-2-(hydroxyimino)propanamido)-4,9-dimethyl-4,9-diazadodecyl)-3-(3,5-dibromo-4-methoxyphenyl)-2-(hydroxyimino)propanamide bishydrochloride, pseudoceramine A (2)



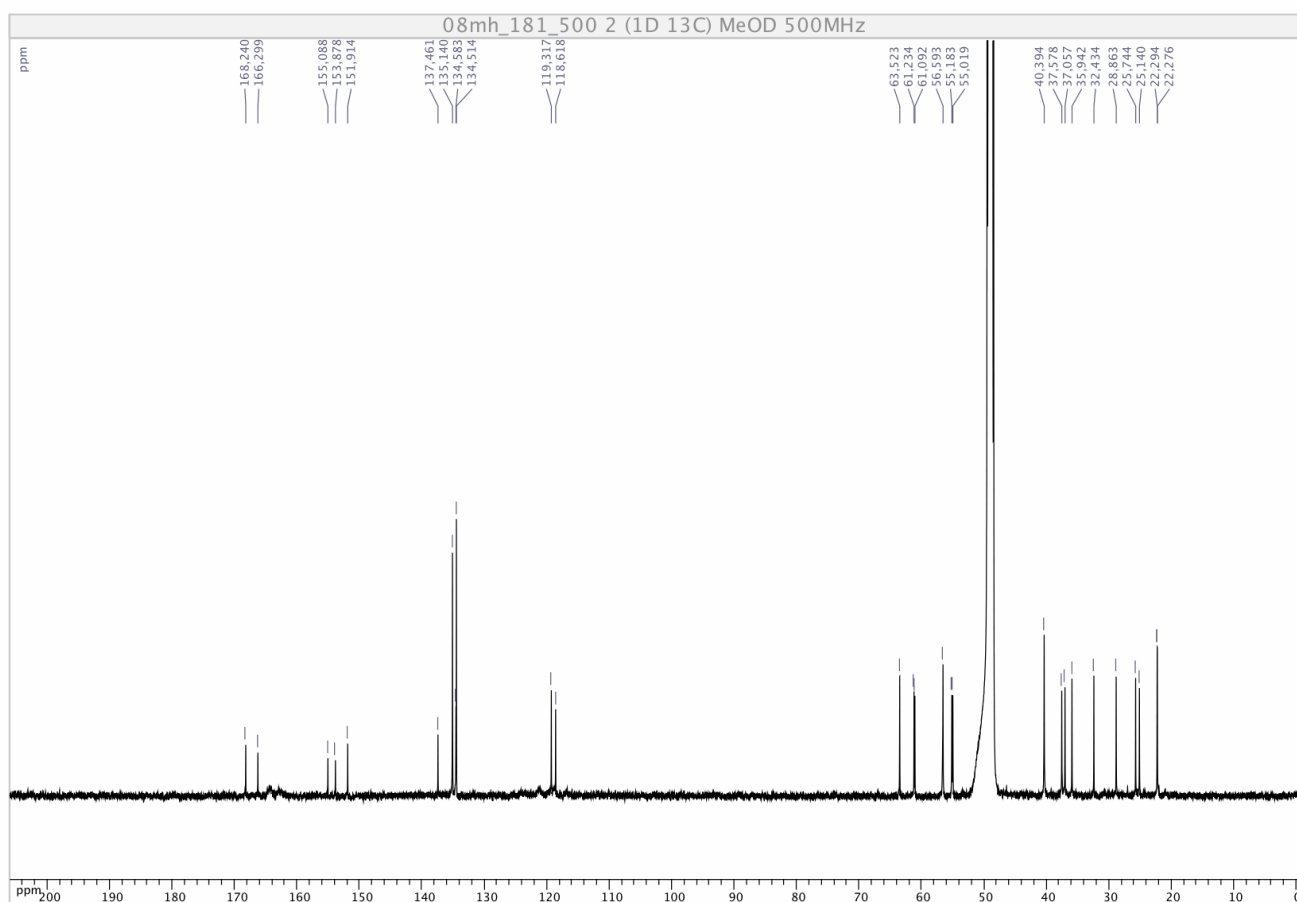
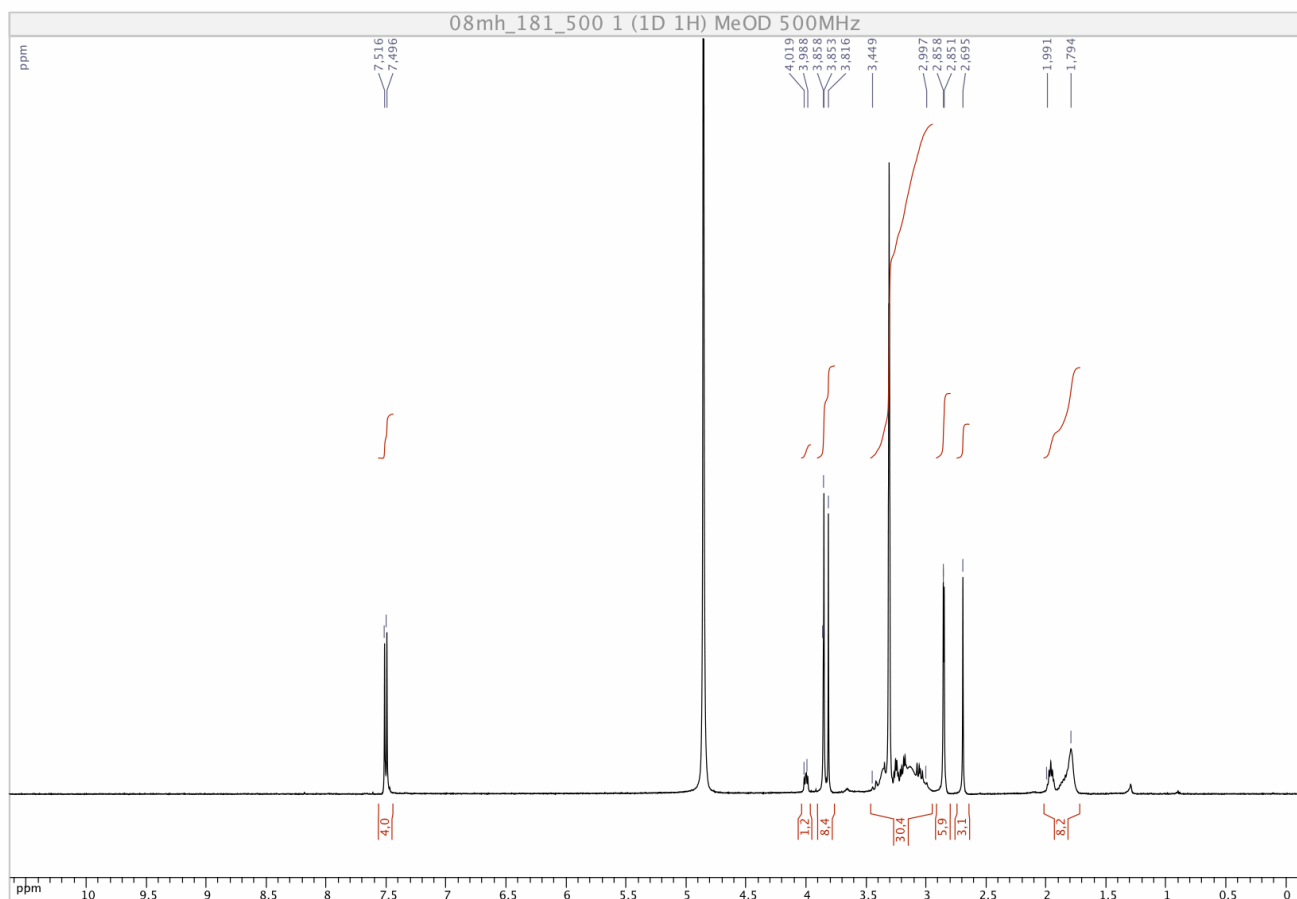
(-)-(*S*)-3-(3,5-Dibromo-4-methoxyphenyl)-2-(*N*-methyl-(2-methylprop-2-yloxy)carbonyl)propanoic acid (**32**)



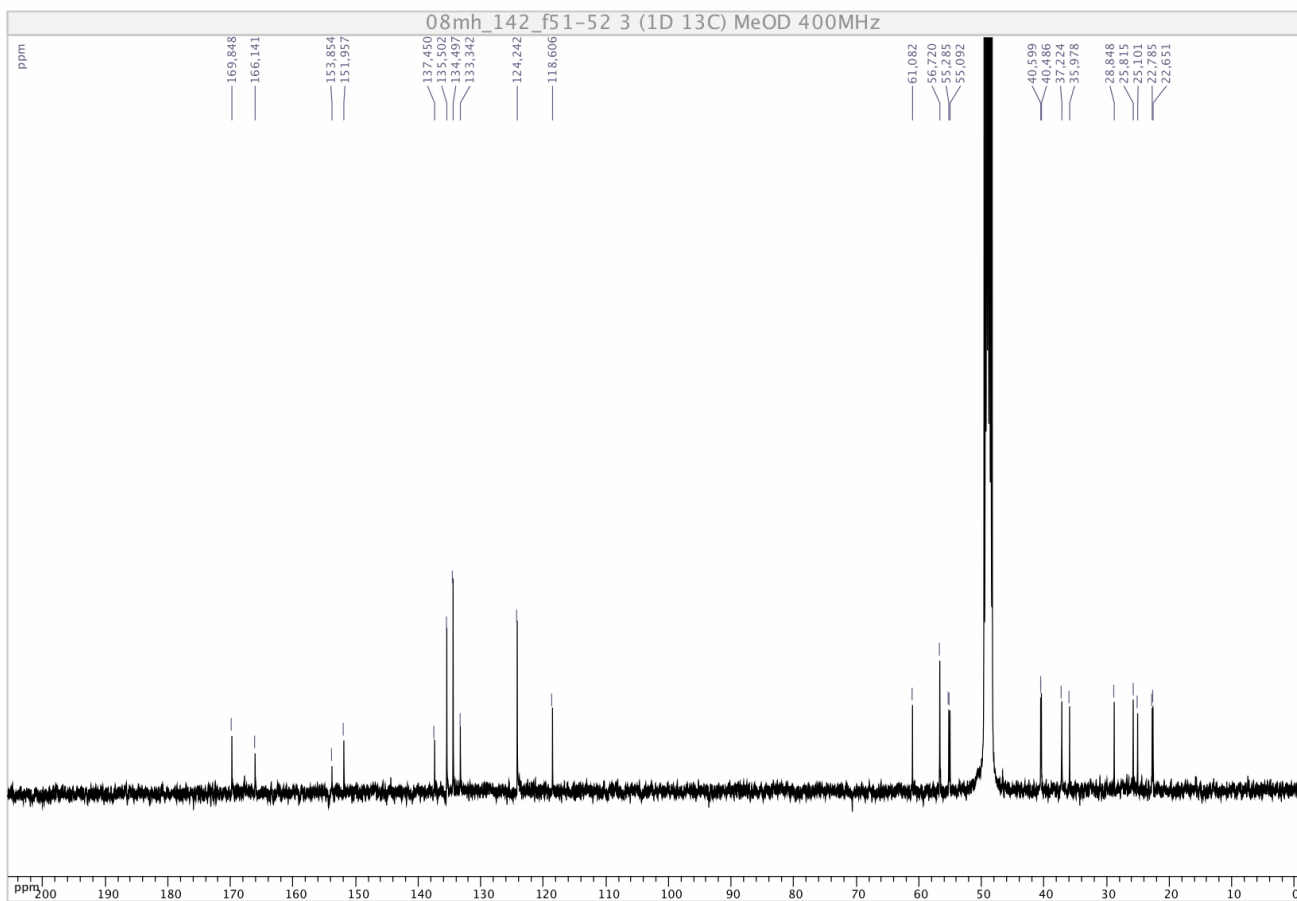
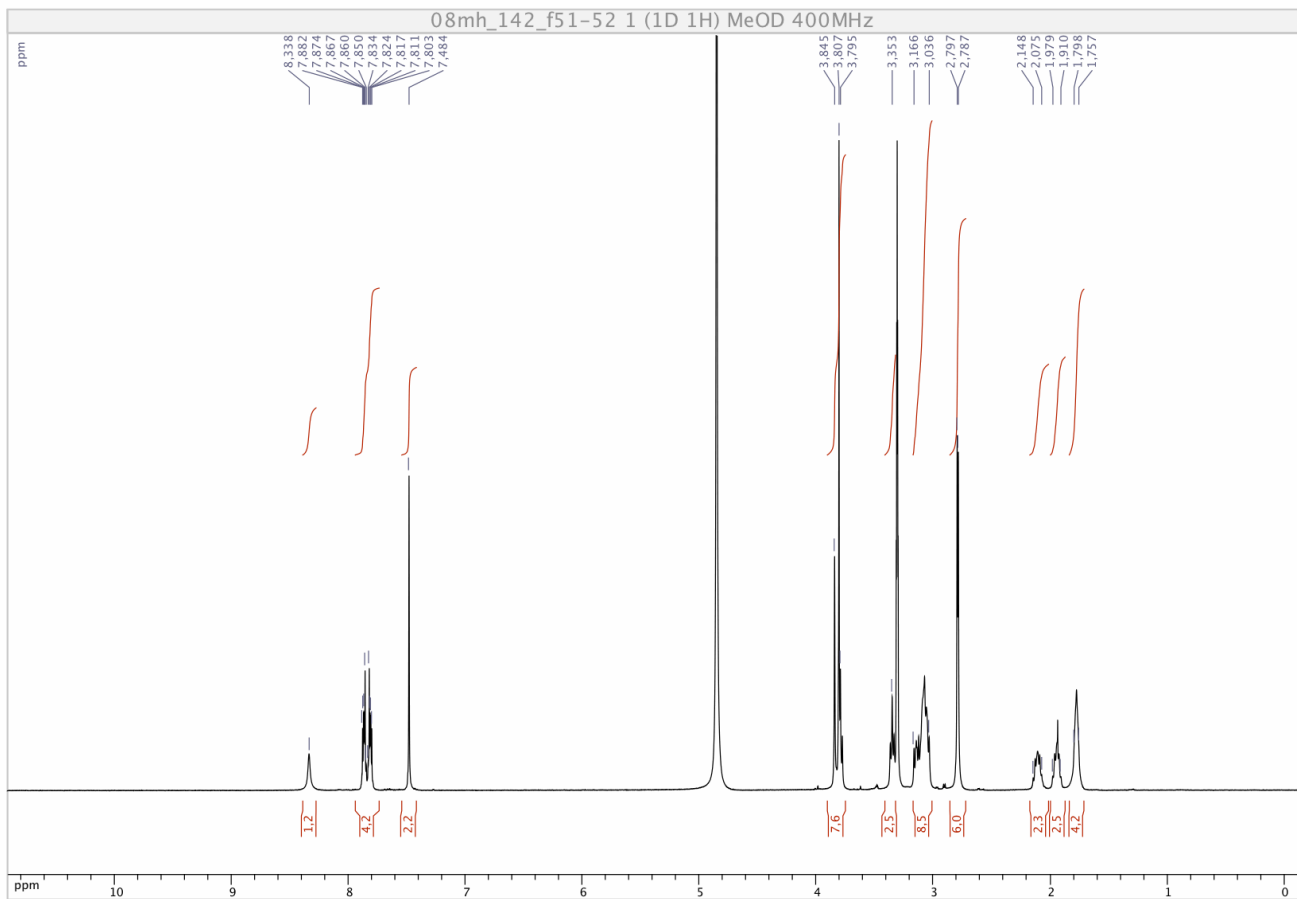
(-)-(S)-(E)-3-(3,5-Dibromo-4-methoxyphenyl)-N-(12-(3-(3,5-dibromo-4-methoxyphenyl)-2-(N-methyl-(2-methylprop-2-yloxy)carbamoyl)propanamido)-4,9-dimethyl-4,9-diazadodecyl)-2-(hydroxyimino)propanamide bishydrochloride (33)



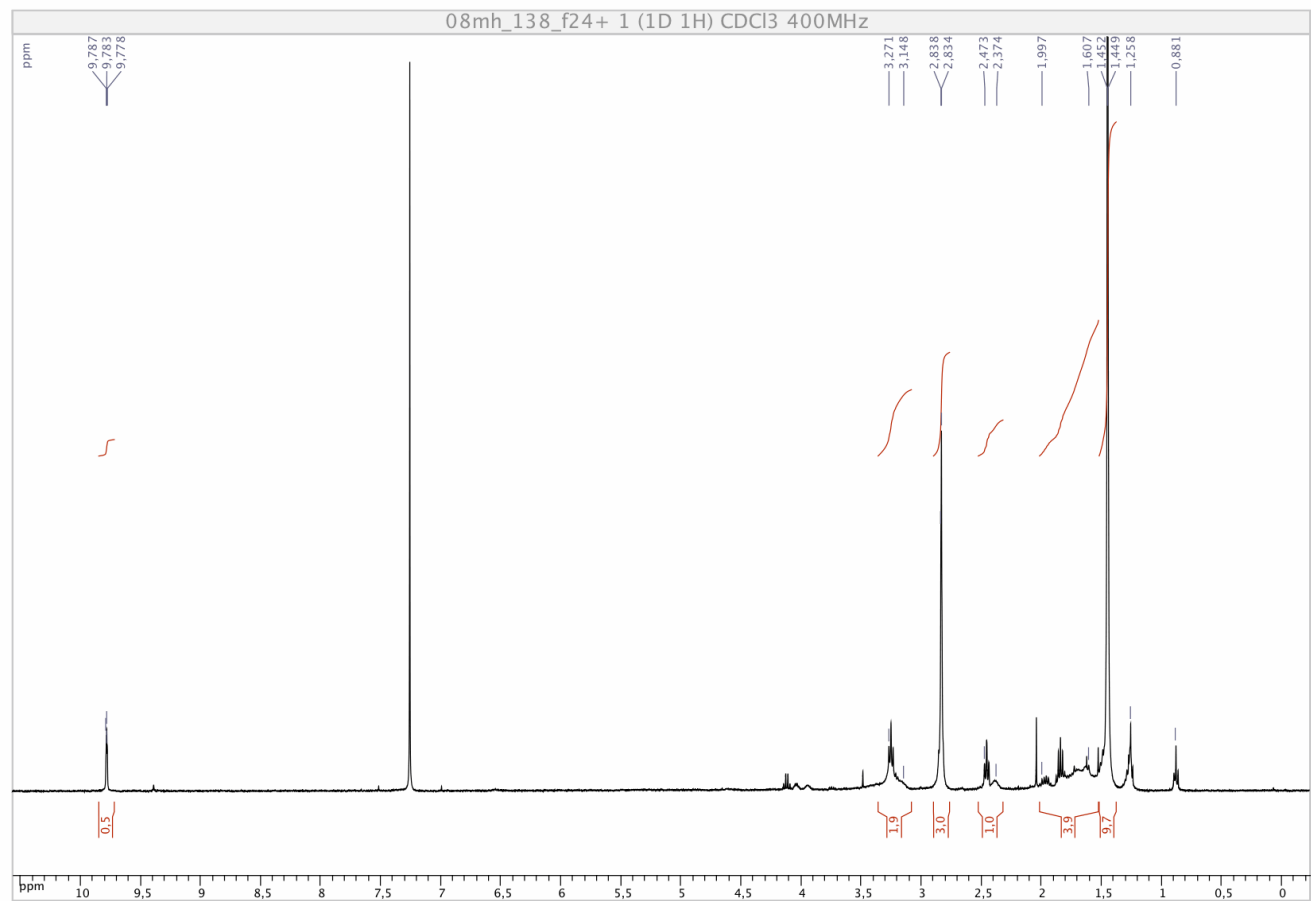
(+)-(S)-(E)-3-(3,5-Dibromo-4-methoxyphenyl)-N-(12-(3-(3,5-dibromo-4-methoxyphenyl)-2-methylaminopropanamido)-4,9-dimethyl-4,9-diazadodecyl)-2-(hydroxyimino)propanamide tristrifluoroacetate, pseudoceramine B (3)



(E)-2-(12-(3-(3,5-Dibromo-4-methoxyphenyl)-2-(hydroxyimino)propanamido)-4,9-dimethyl-4,9-diazadodecyl)-1,3-dioxoisindole bishydrochloride (31)



N-(3-Formylpropyl)-*N*-methyl-(2-methylprop-2-yloxy)carbamide (34)



(*E*)-3-(3,5-Dibromo-4-methoxyphenyl)-2-hydroxyimino-*N*-(8-(methylamino)-4-methyl-4-azaoctyl)propanamide bishydrochloride, pseudoceramine C (4)

