SUPPLEMENTARY MATERIAL FOR

An efficient chemoenzymatic approach towards the synthesis of Rugulactone

Theodore Tyrikos-Ergas[a], Vasileios Giannopoulos[a], Ioulia Smonou[a]*
[a] *Department of Chemistry, University of Crete, Vasilika Vouton, 71003 Heraklion, Crete, Greece*

Table of Contents:

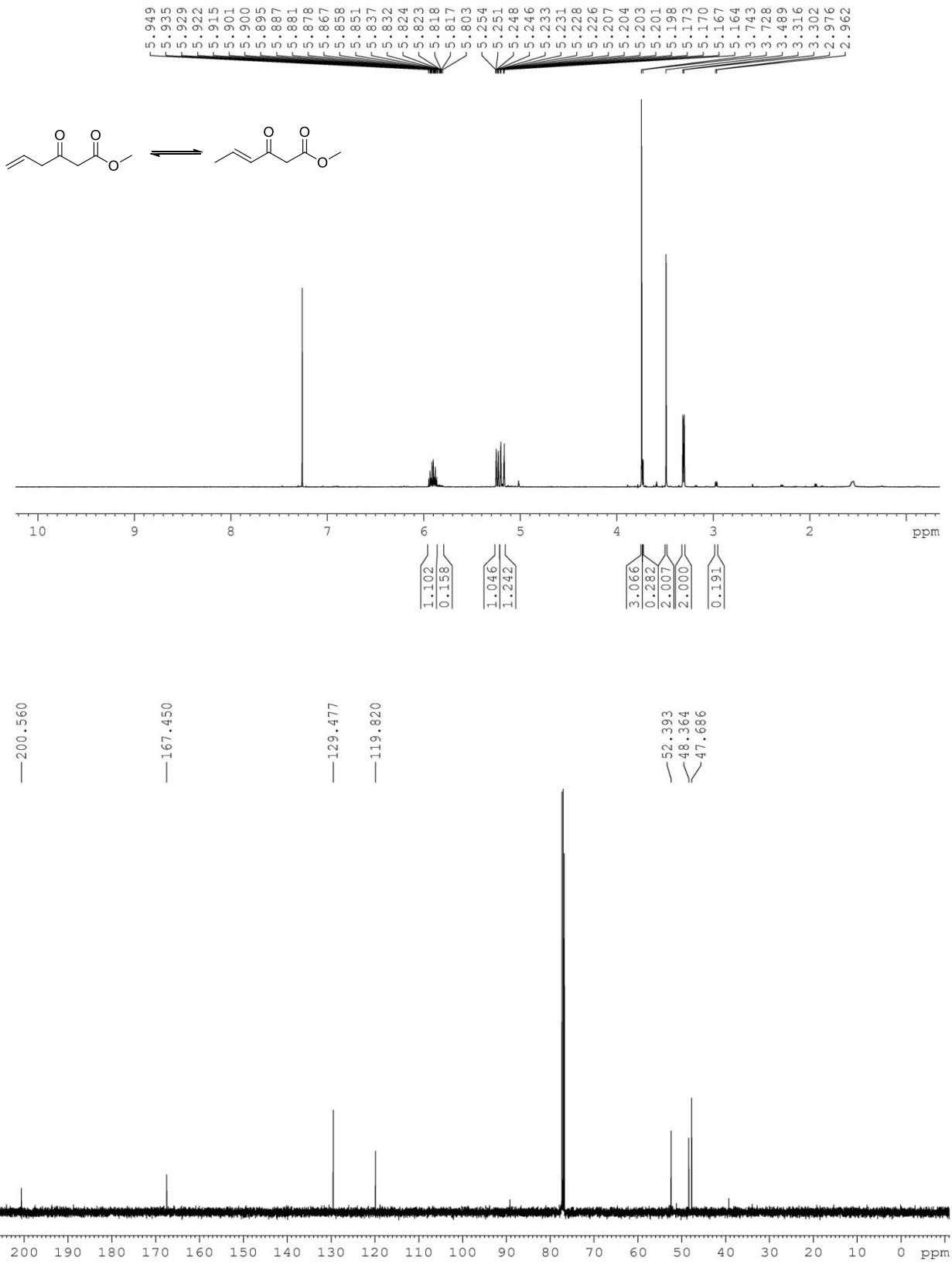
- Title, Affiliations, Table of Contents.....S1

1. Copies ^{1}H and ^{13}C NMR of compounds **1-3, 5, 7-9**.....S2-S8
   1.1. Copies ^{1}H and ^{13}C NMR compound **7**.....S2
   1.2. Copies ^{1}H and ^{13}C NMR compound **8**.....S3
   1.3. Copies ^{1}H and ^{13}C NMR compound **5**.....S4
   1.4. Copies ^{1}H and ^{13}C NMR compound **2**.....S5
   1.5. Copies ^{1}H and ^{13}C NMR compound **9**.....S6
   1.6. Copies 1H and 13C NMR compound **3**.....S7
   1.7. Copies 1H and 13C NMR compound **1**.....S8

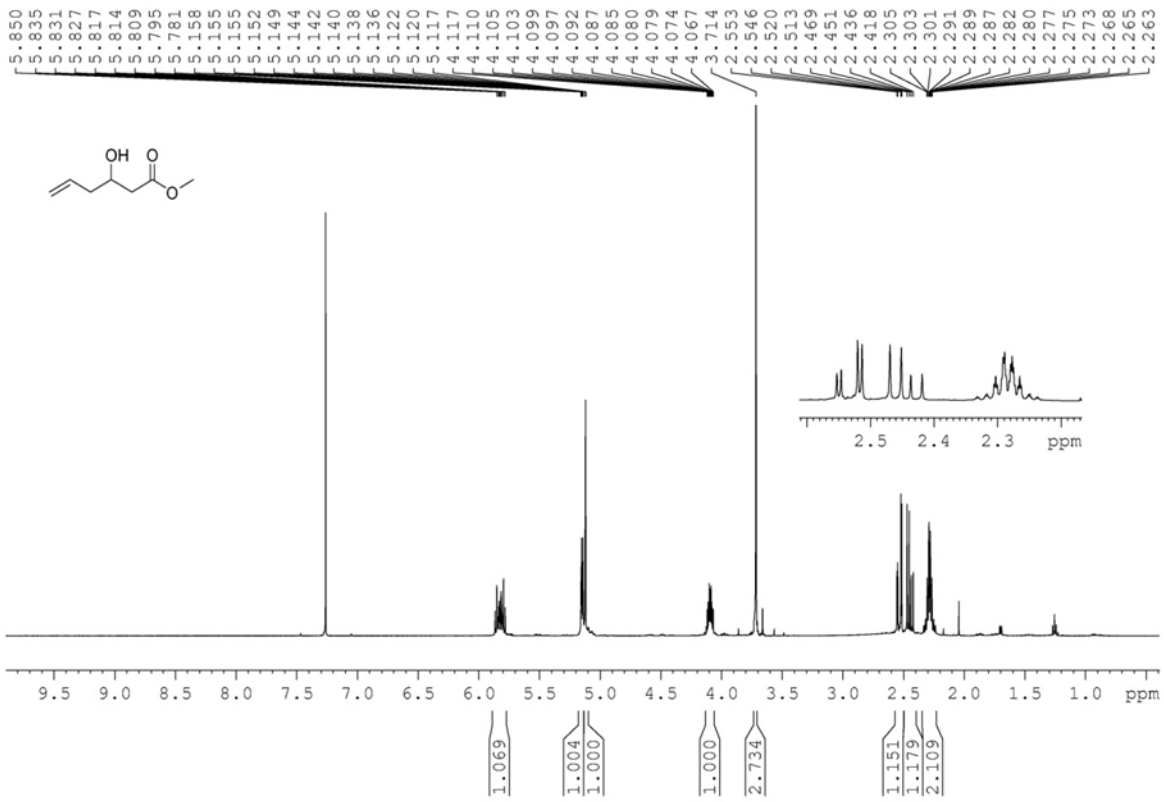
2. Copies ^{1}H NMR of (*R*)-MPA and (*S*)-MPA esters of (*S*)-methyl 3-hydroxyhex-5-enoate.....S9

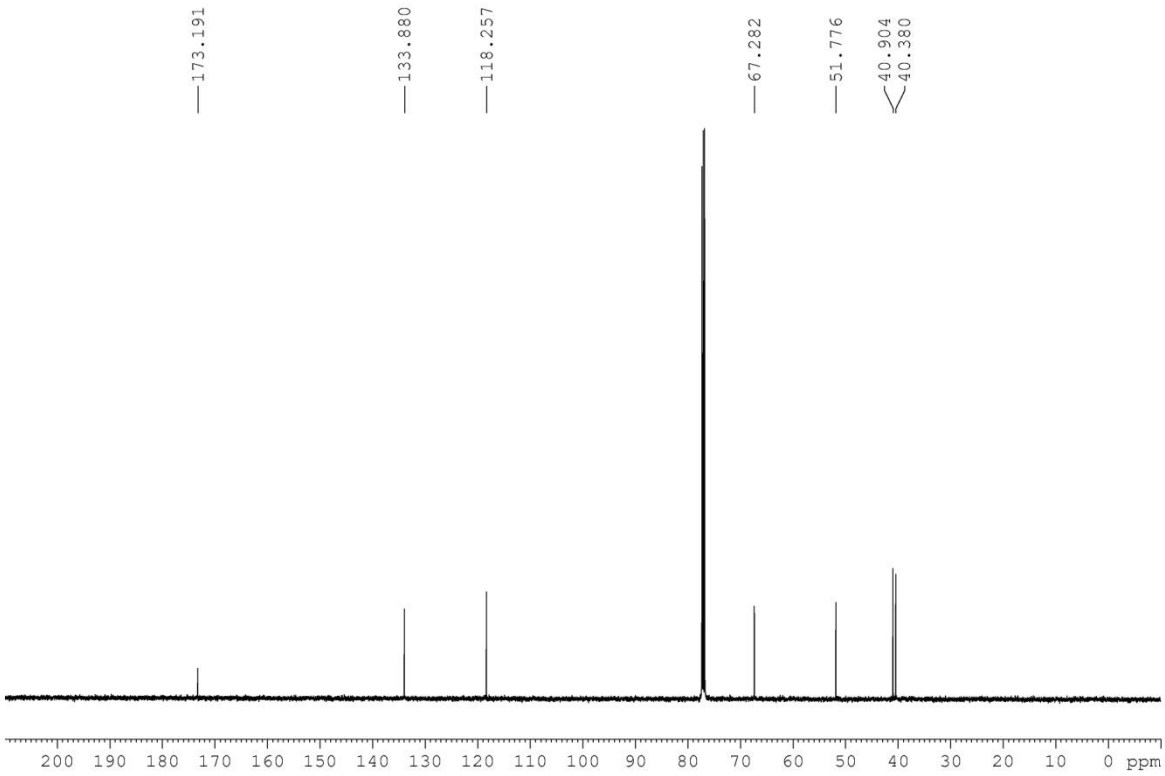
1. Copies ^{1}H and ^{13}C NMR of compounds 1-3, 5, 7-9

1.1 *Methyl 3-oxohex-5-enoate* **7** ($CDCl_3$)

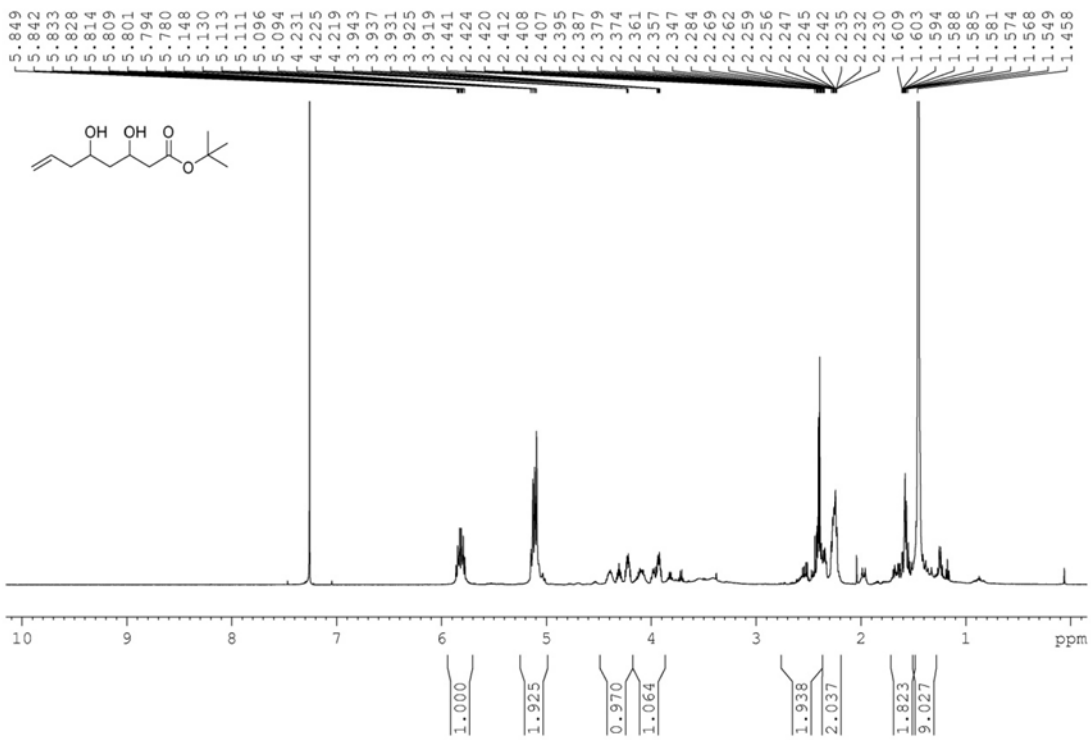


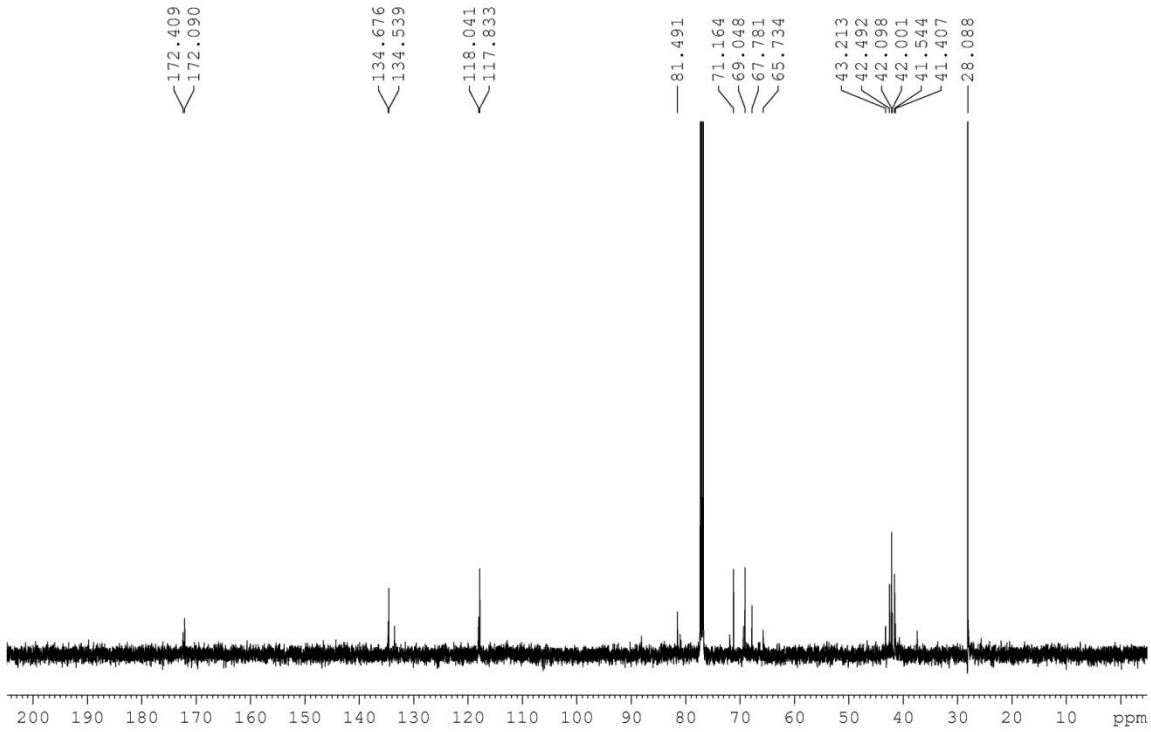
1.2 *Methyl 3-hydroxyhex-5-enoate*, **8** ($CDCl_3$)



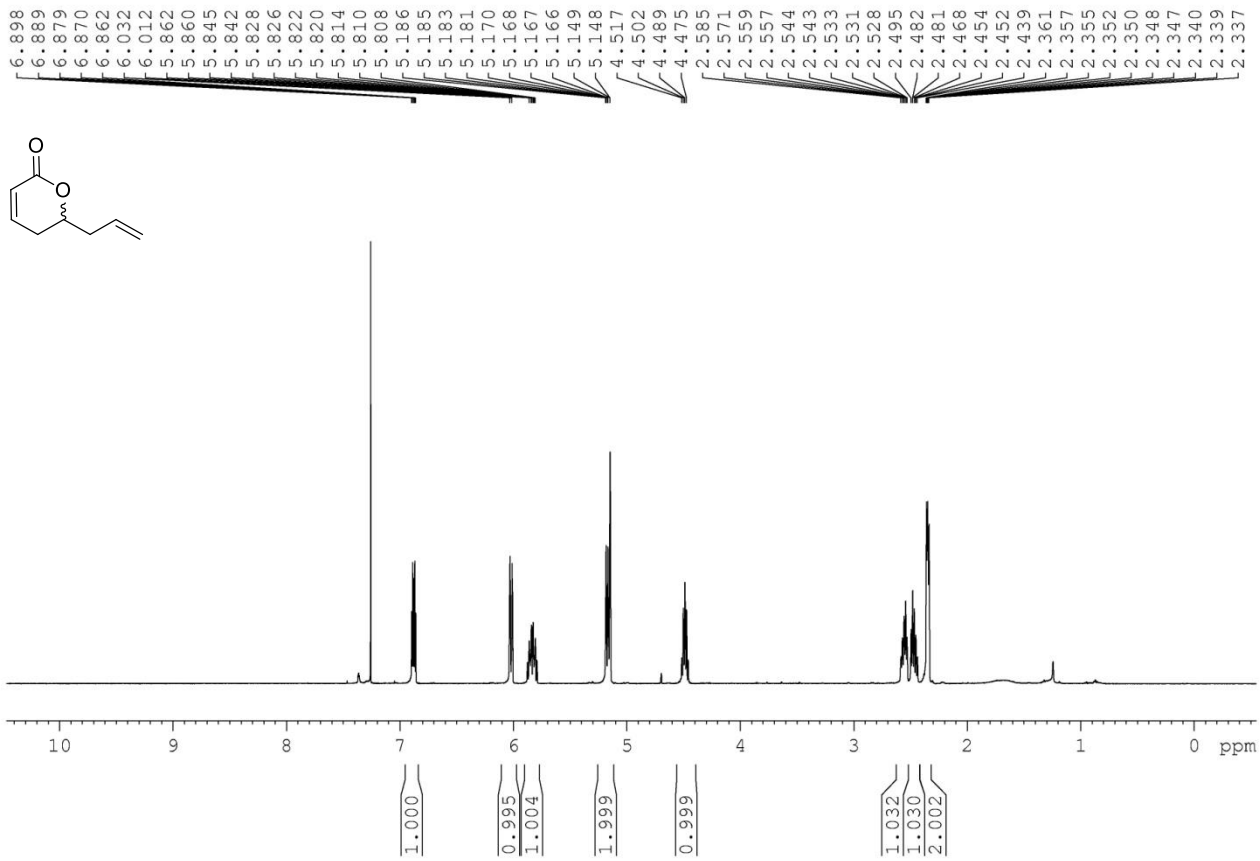


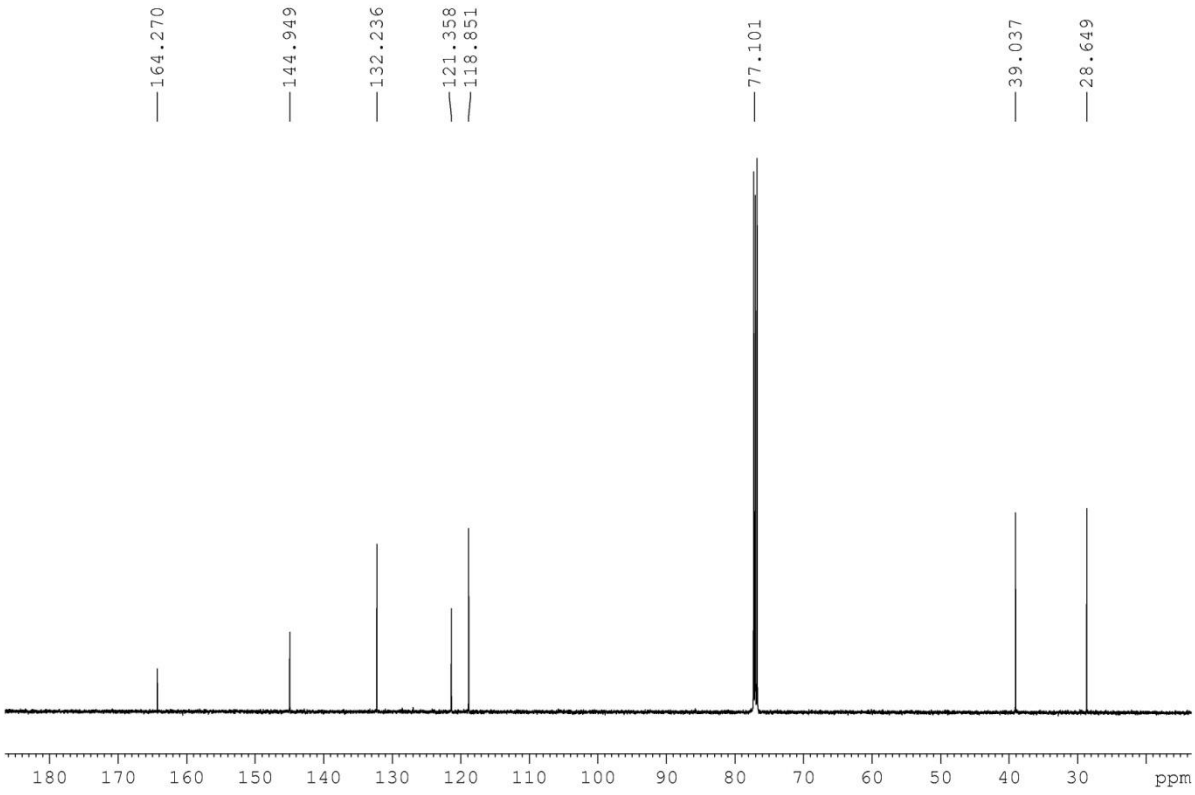
1.3 *tert-Butyl 3,5-dihydroxyoct-7-enoate,* **5** ($CDCl_3$)



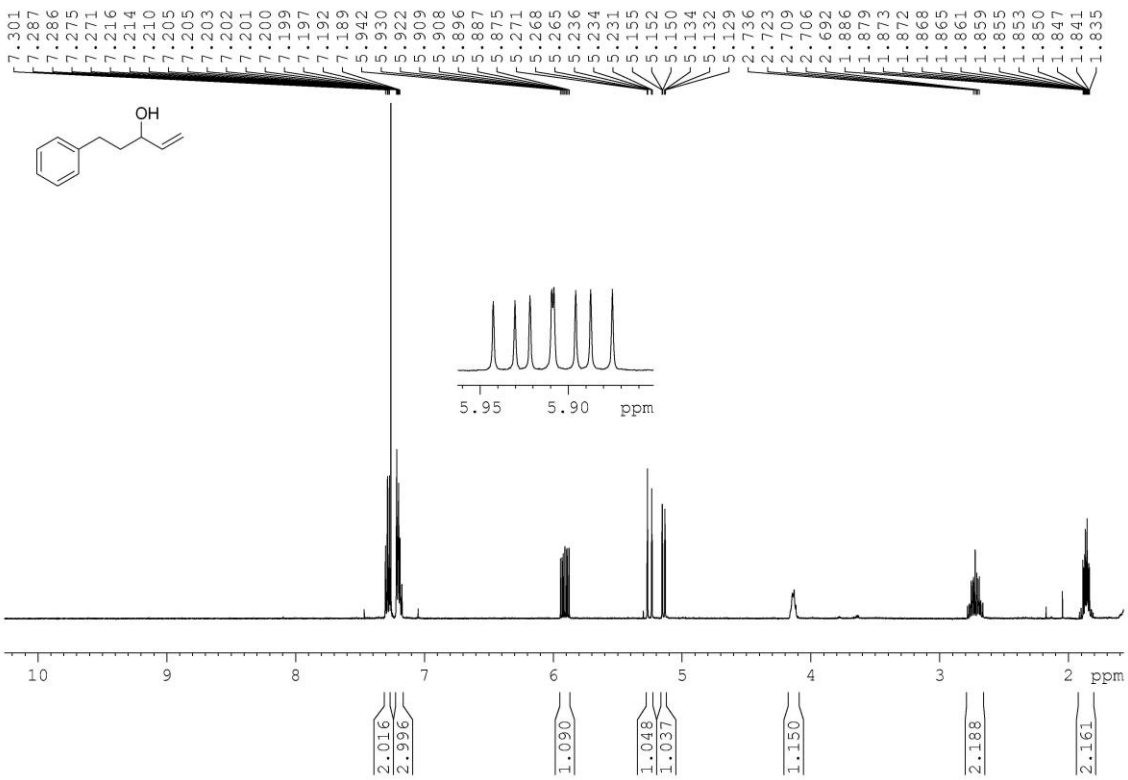


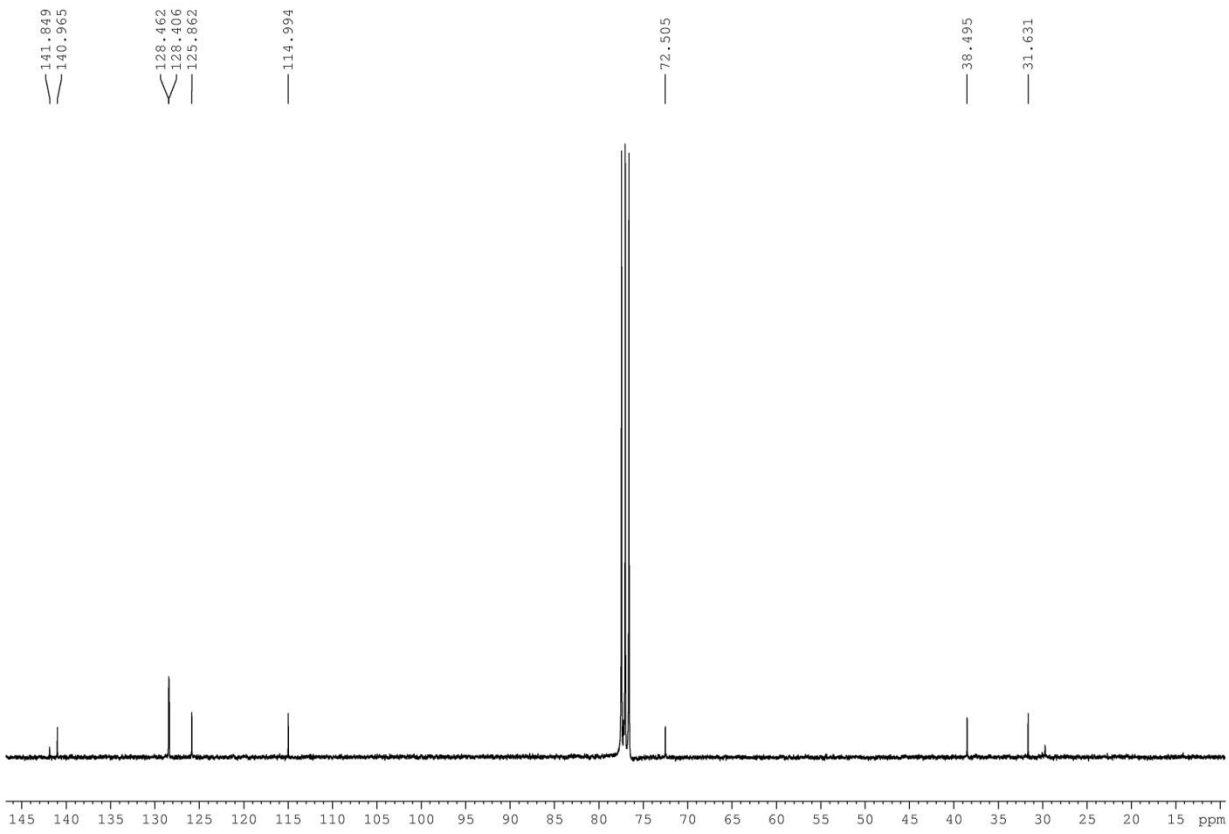
1.4 *Allyl-5,6-dihydro-2H-pyran-2-one*, **2** ($CDCl_3$)



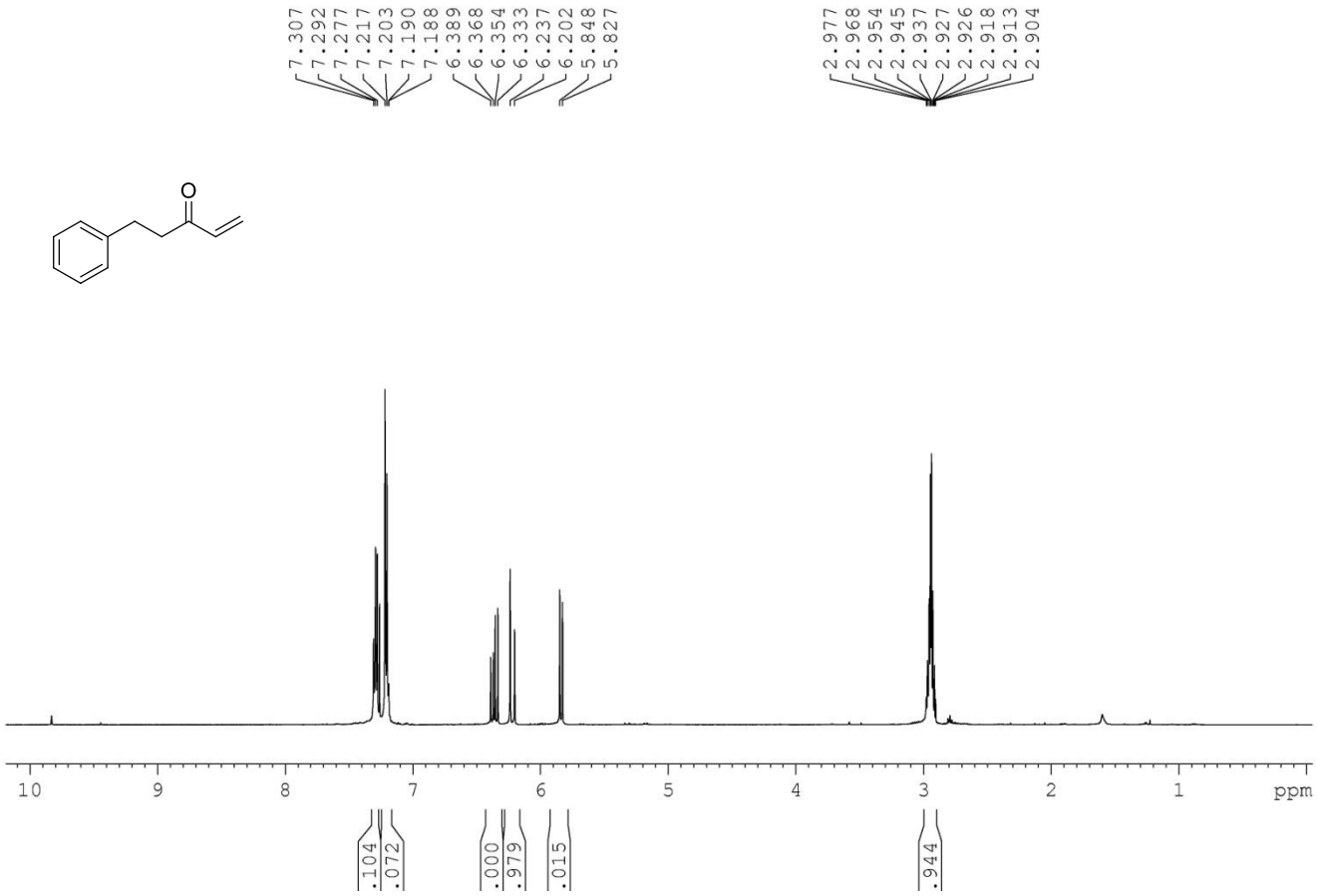


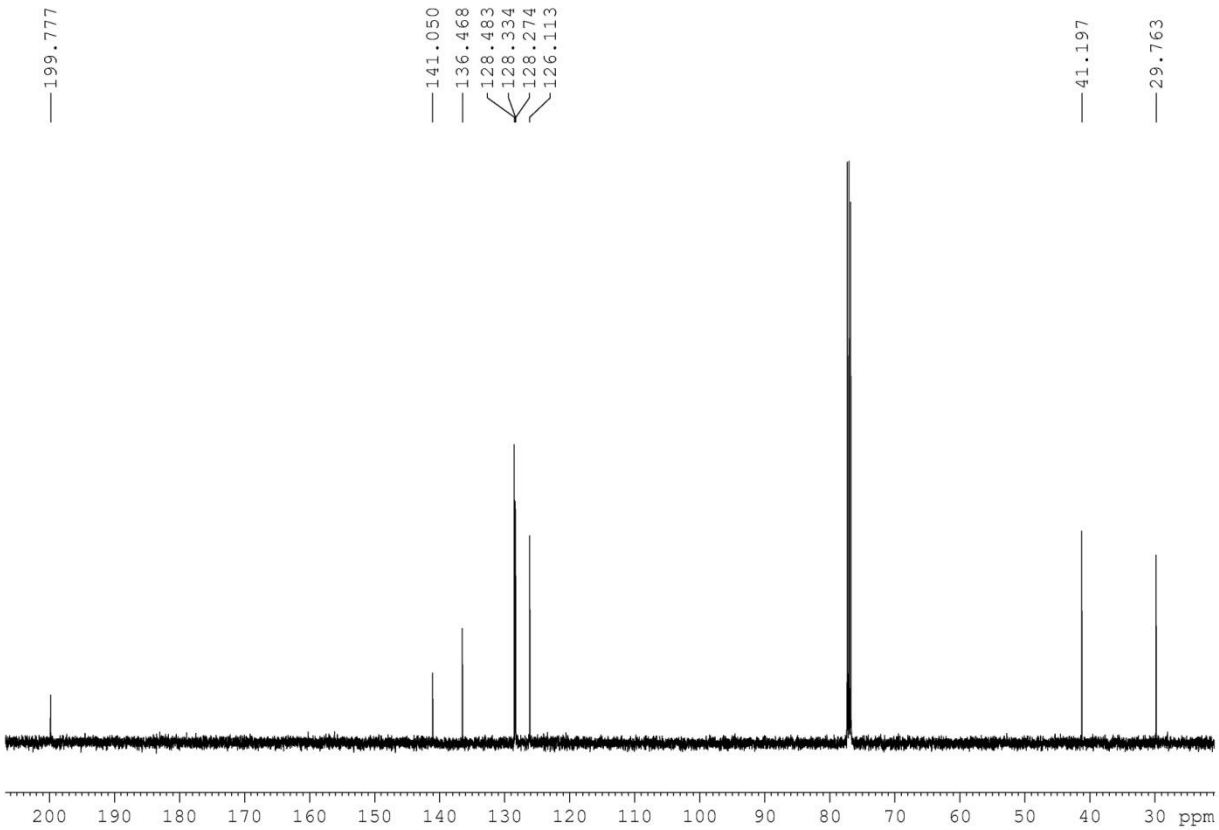
1.5 *5-phenylpent-1-en-3-ol*, **9** ($CDCl_3$)



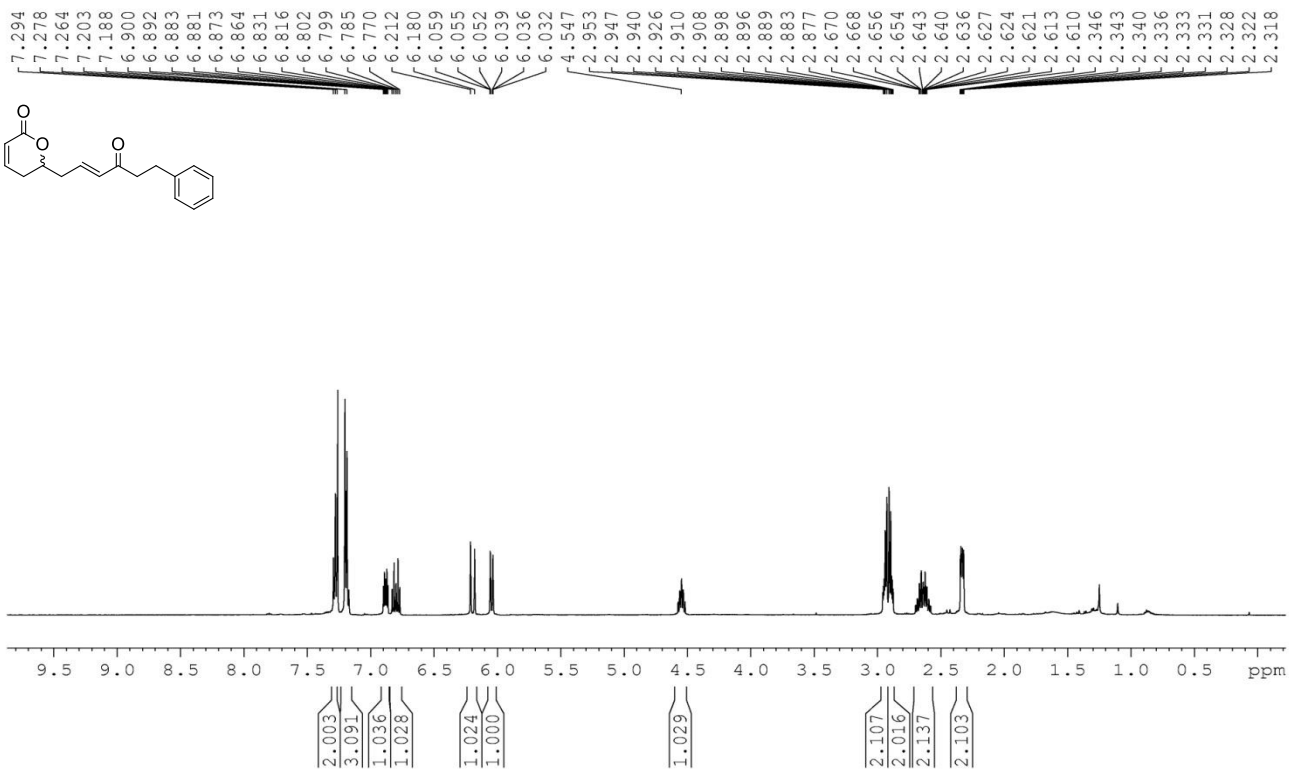


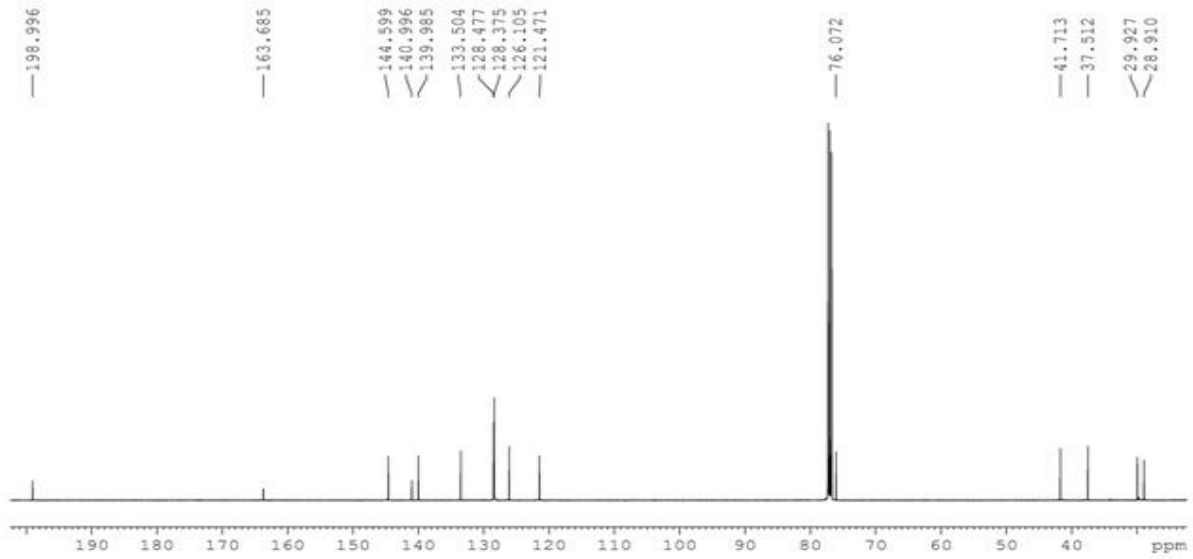
1.6 *5-phenylpent-1-en-3-one*, **3** ($CDCl_3$)



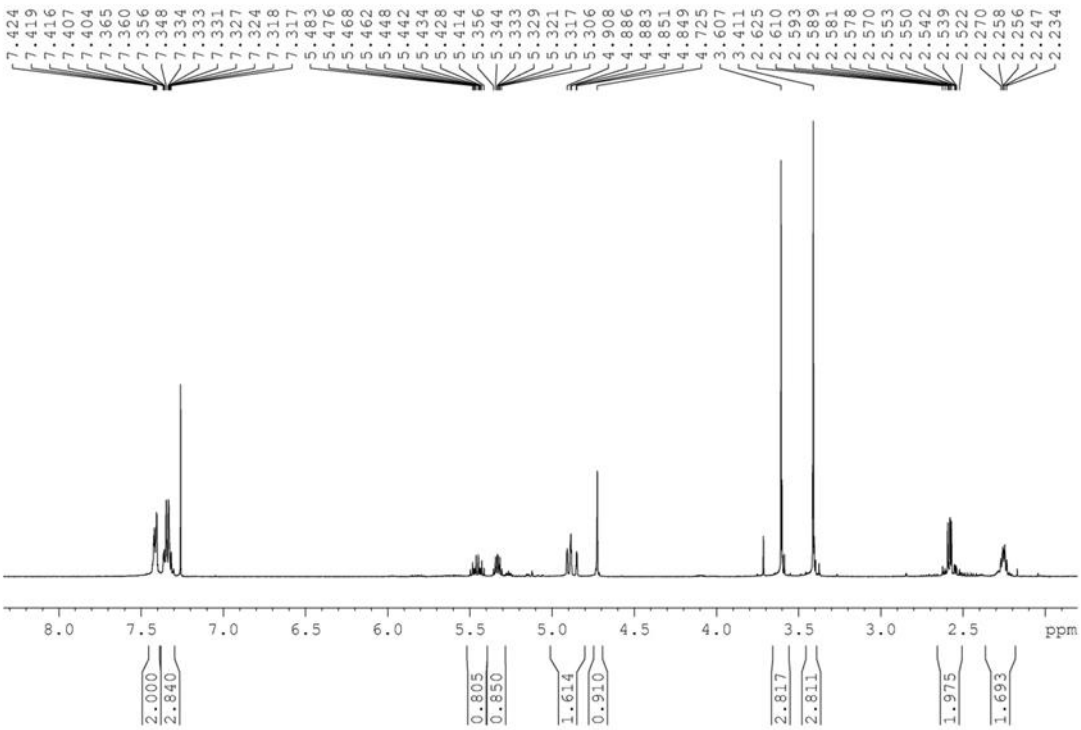


1.7 *(E)-6-(4-oxo-6-phenylhex-2-enyl)-5,6-dihydro-2H-pyran-2-one*, **1** ($CDCl_3$)





2. (*R*)-MPA ester of (*S*)-*methyl 3-hydroxyhex-5-enoate*, (*S*)-**8** ($CDCl_3$)



(*S*)-MPA ester of (*S*)-*methyl 3-hydroxyhex-5-enoate*, (*S*)-**8** ($CDCl_3$)

