

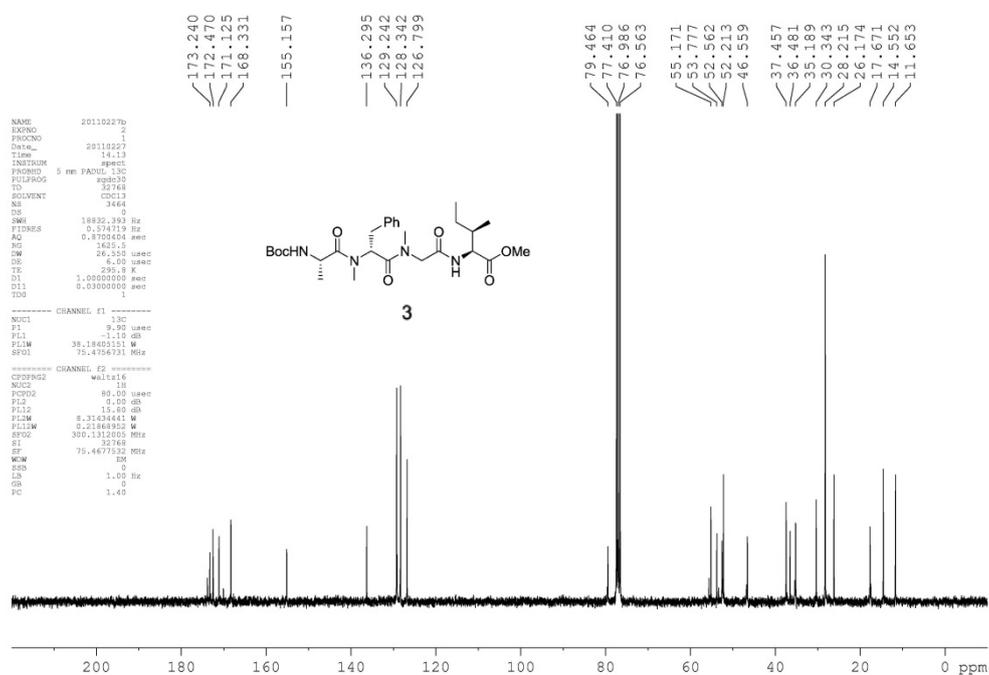
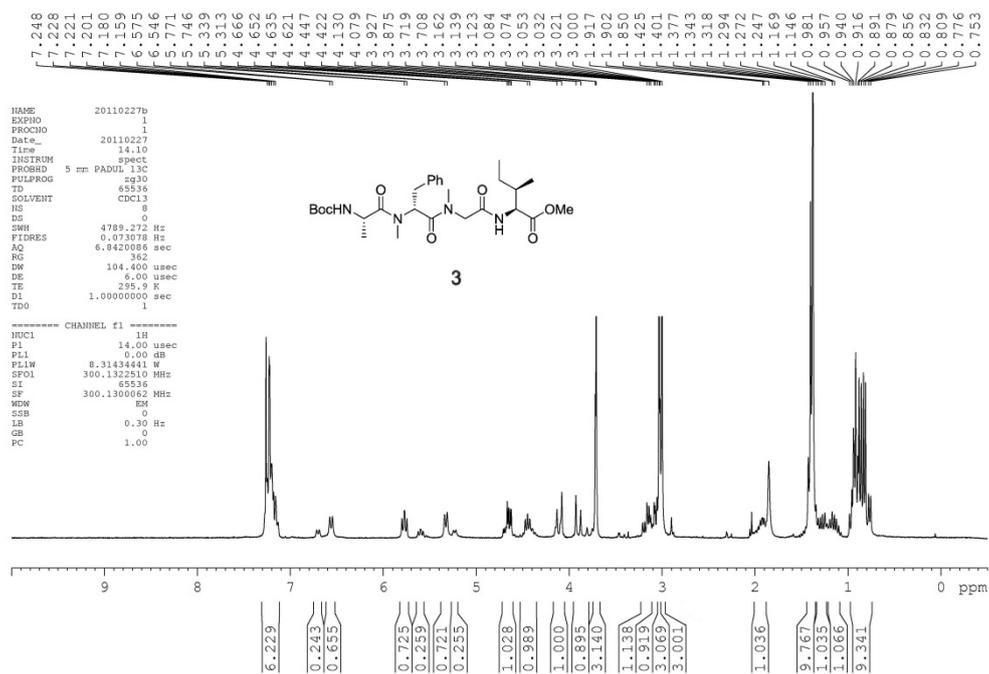
## Total Synthesis and Stereochemical Revision of Lagunamide A

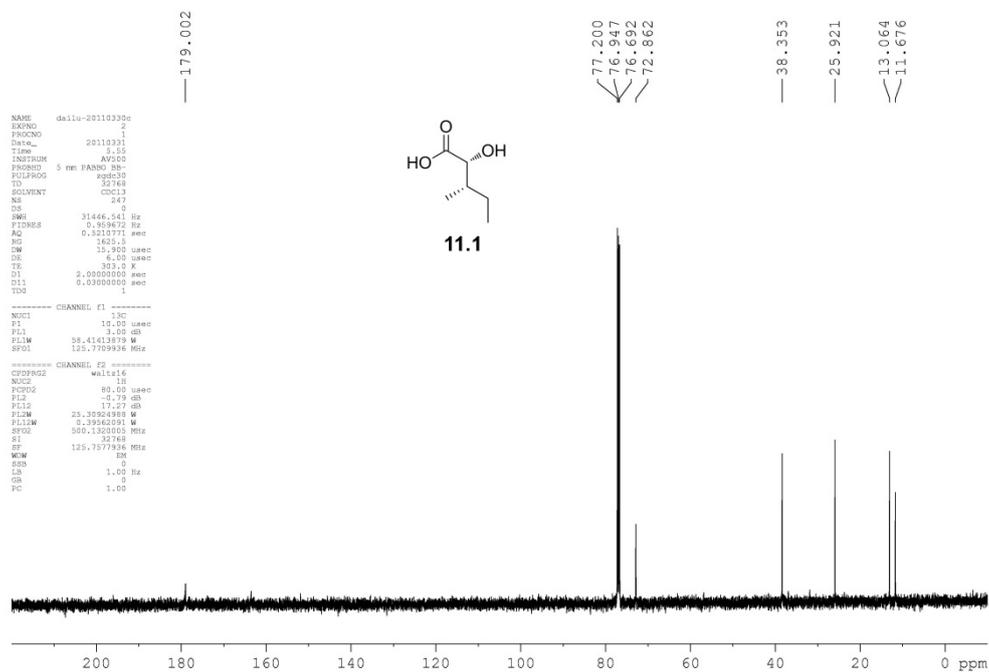
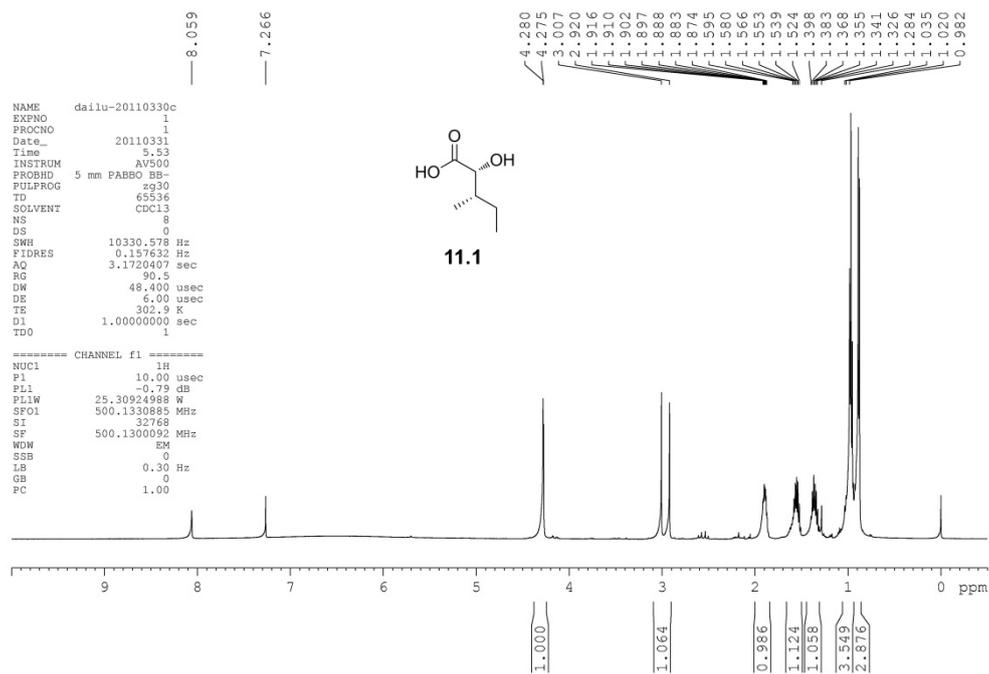
Lu Dai,<sup>a</sup> Bo Chen,<sup>a</sup> Zhuo Wang,<sup>b</sup> Yuqing Liu,<sup>b</sup> Zhengshuang Xu,<sup>\* a,b</sup> Tao Ye<sup>\*a,b</sup>

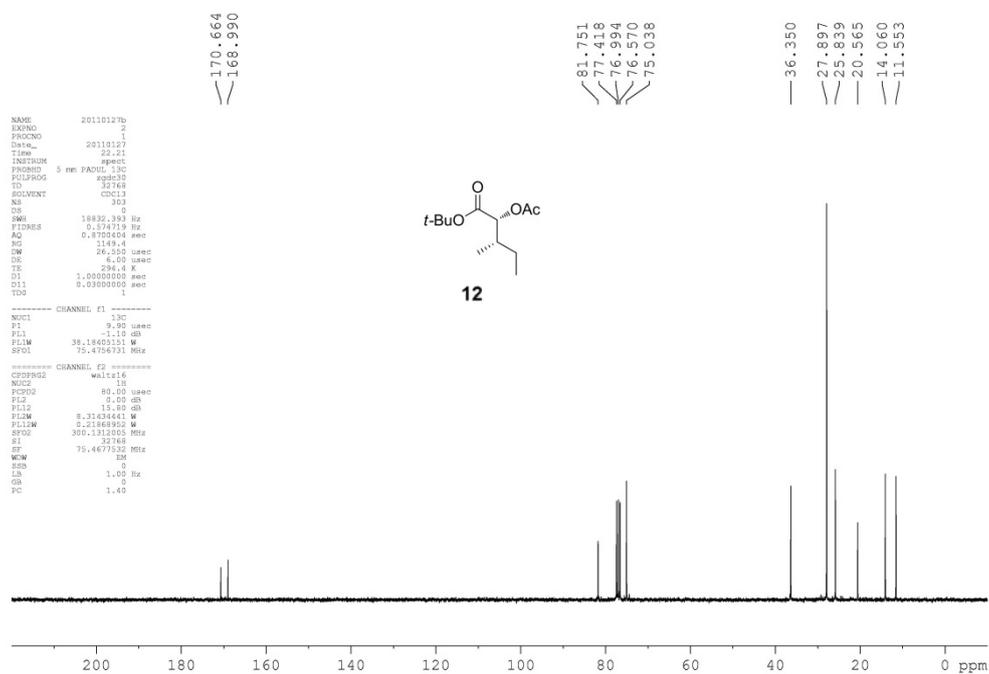
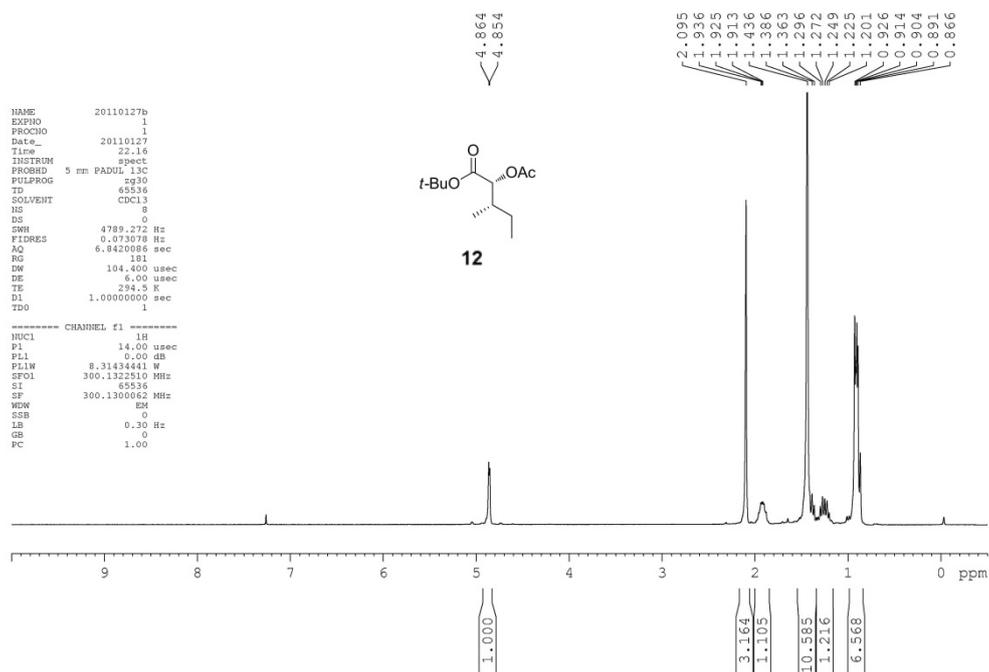
<sup>a</sup>Key Laboratory of Chemical Genomics, Peking University Shenzhen Graduate School, University Town of Shenzhen, Xili, Nanshan District, Shenzhen, China, 518055; E-mail: bctaoye@inet.polyu.edu.hk; xuzs@pkusz.edu.cn

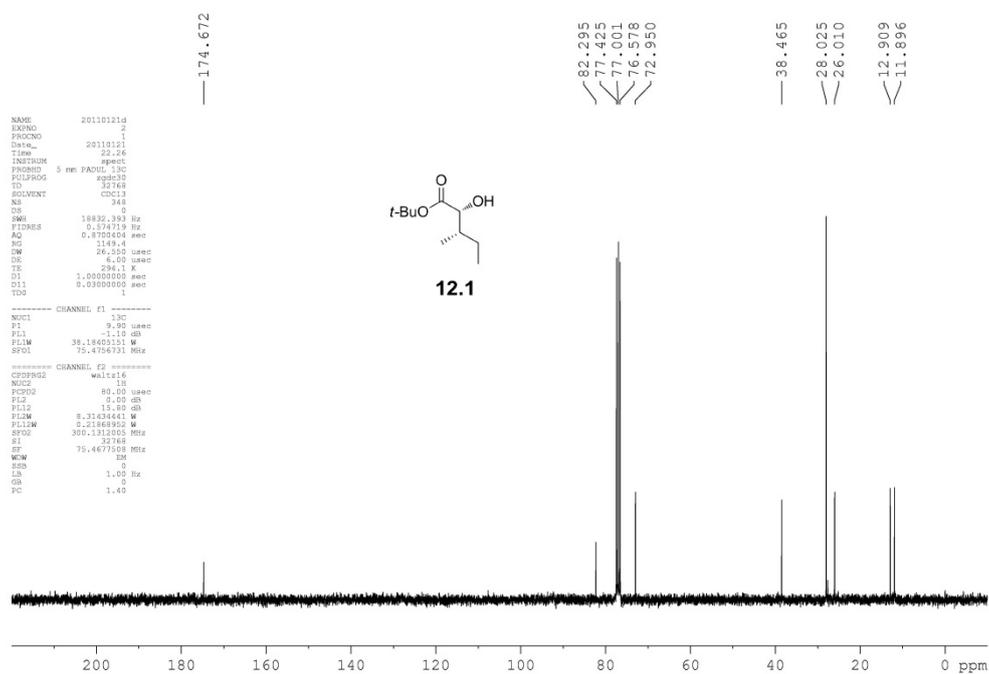
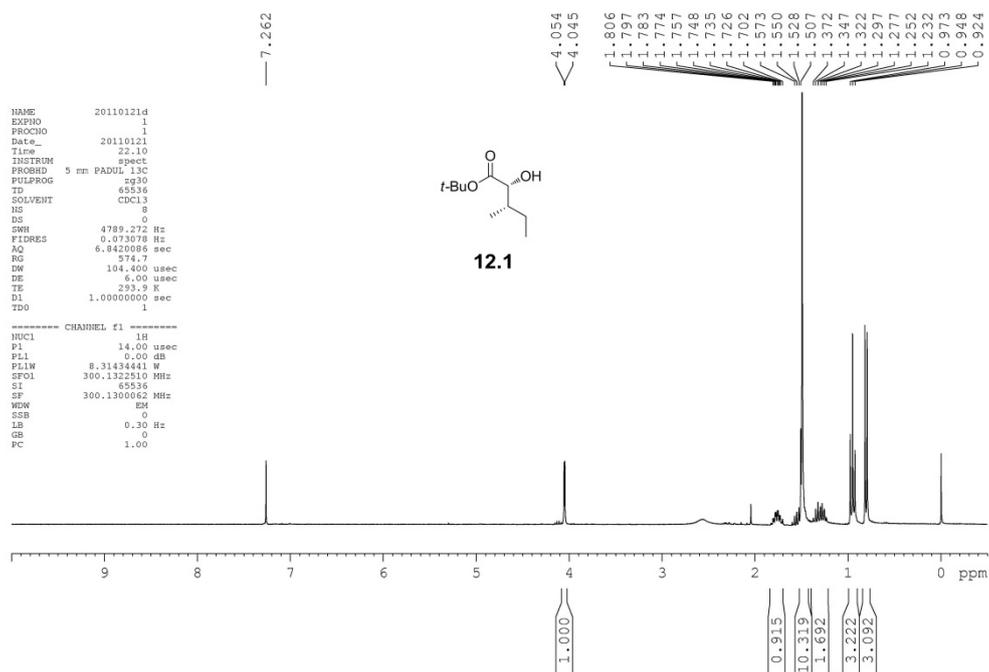
<sup>b</sup>Department of Applied Biology & Chemical Technology, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong, China Tel: +852 34008722; E-mail: bctaoye@inet.polyu.edu.hk

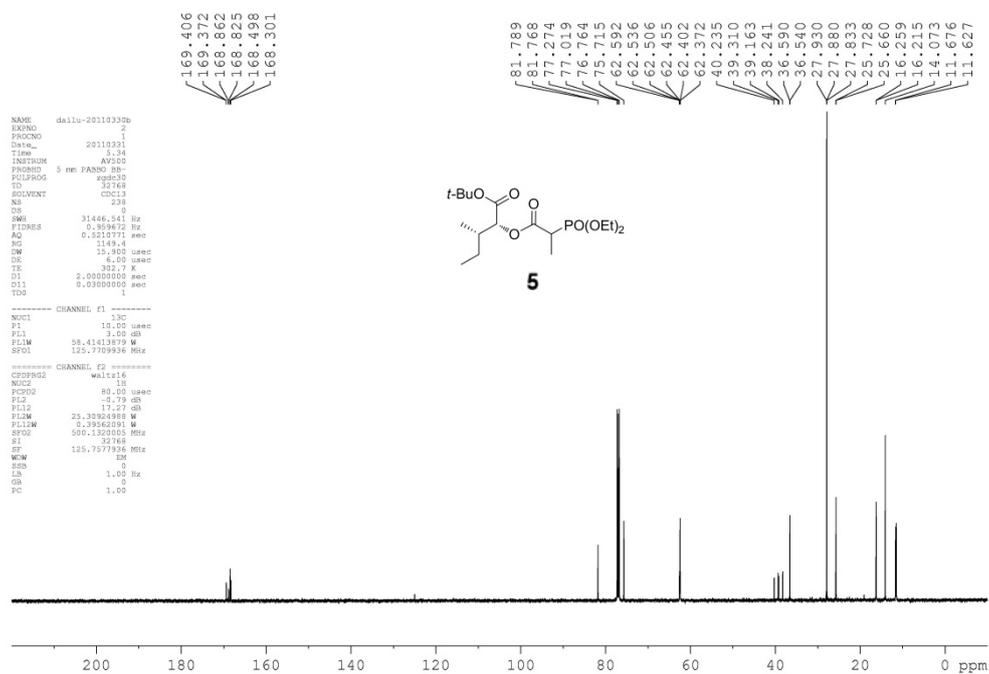
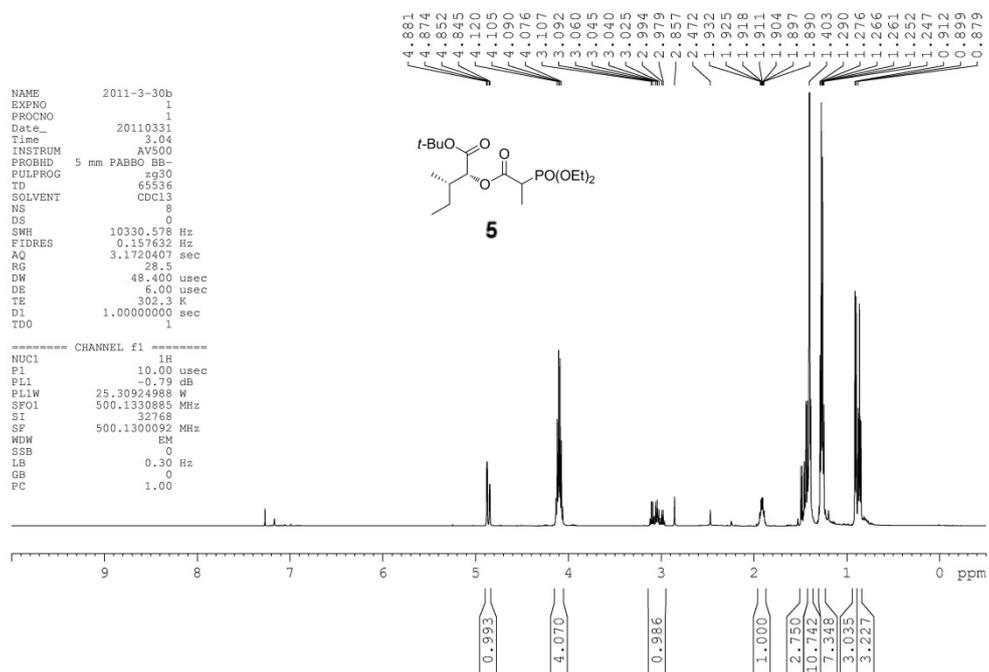
**Spectra for key intermediates and final products**

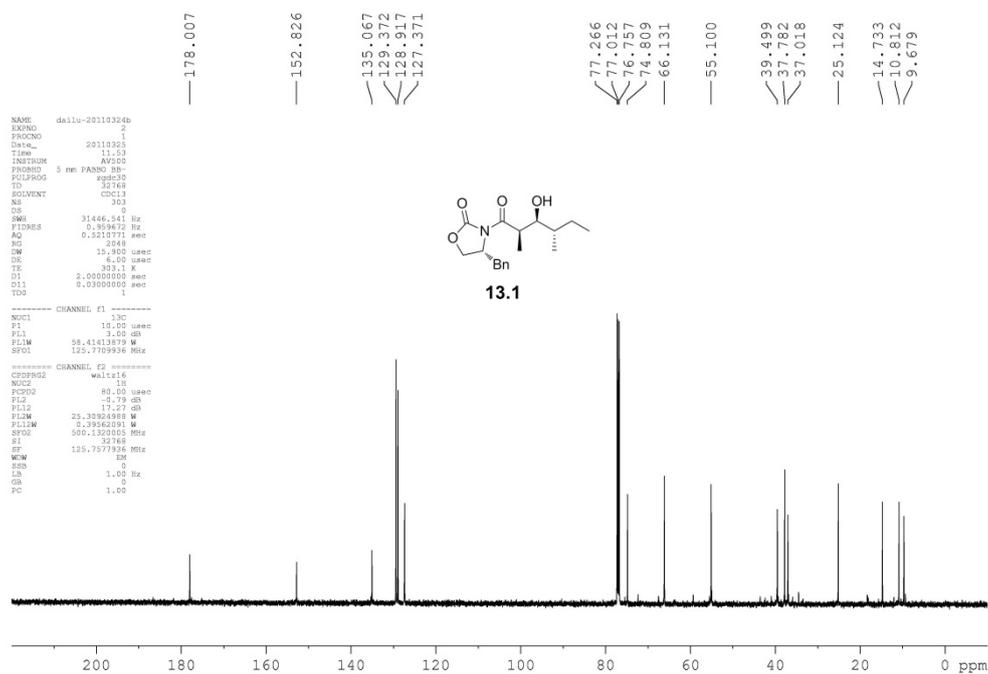
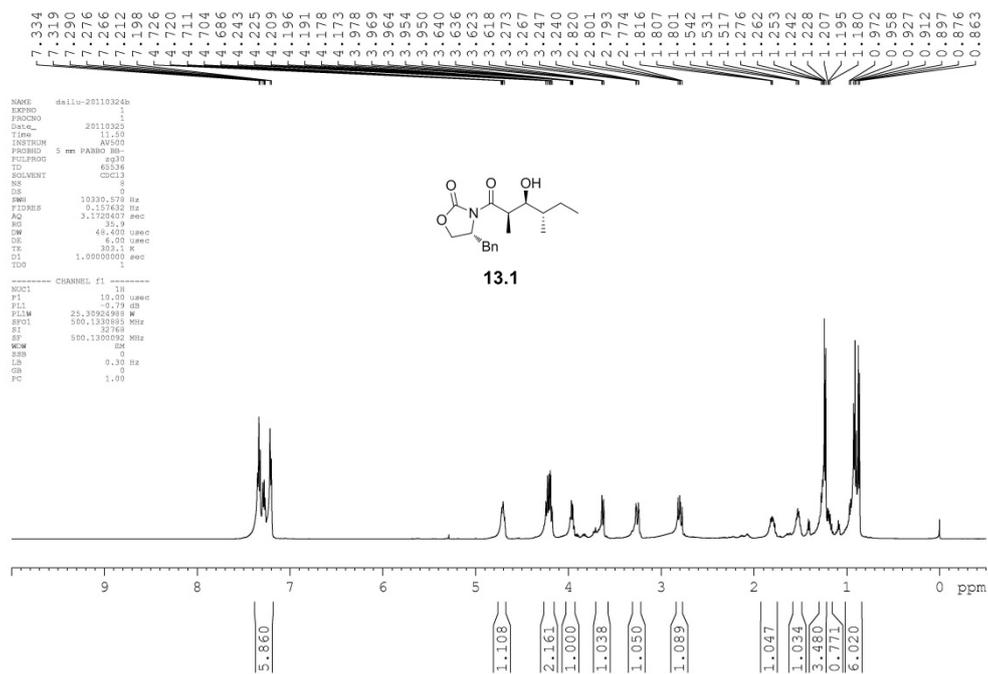




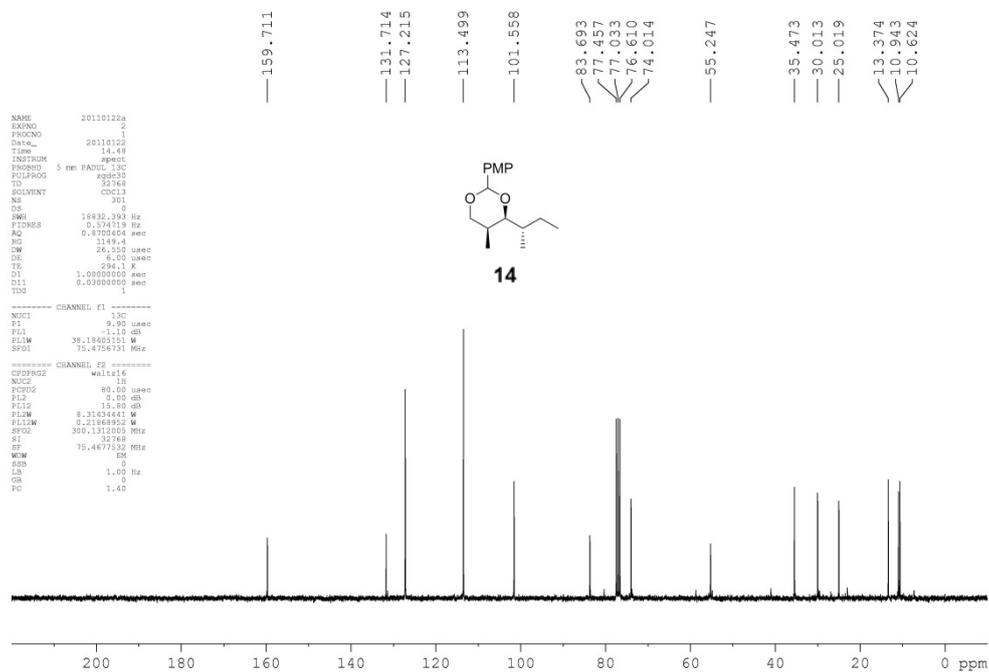
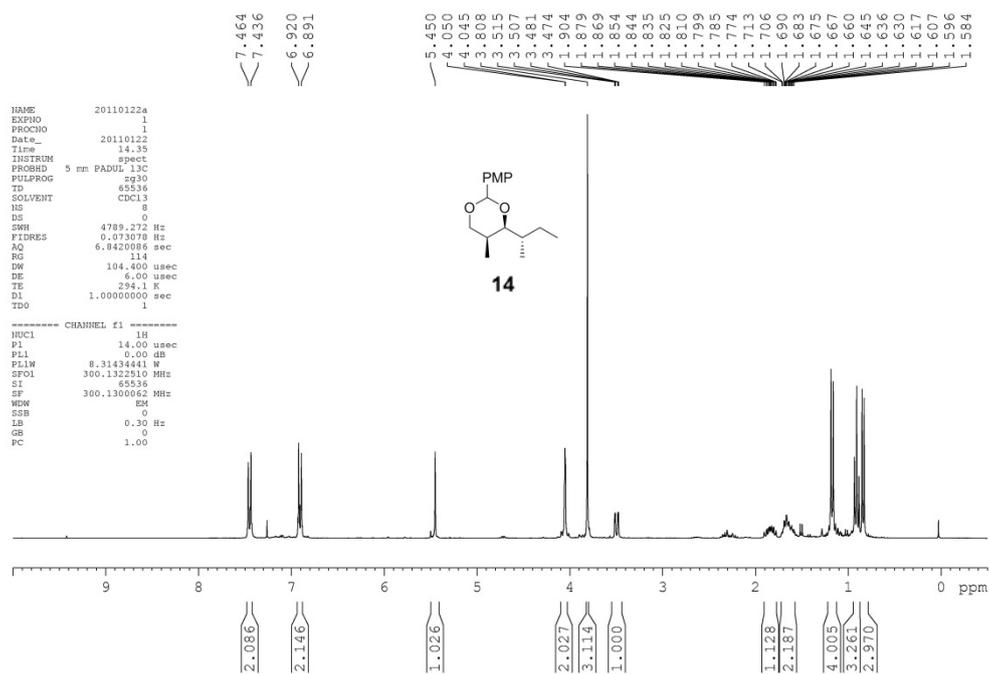


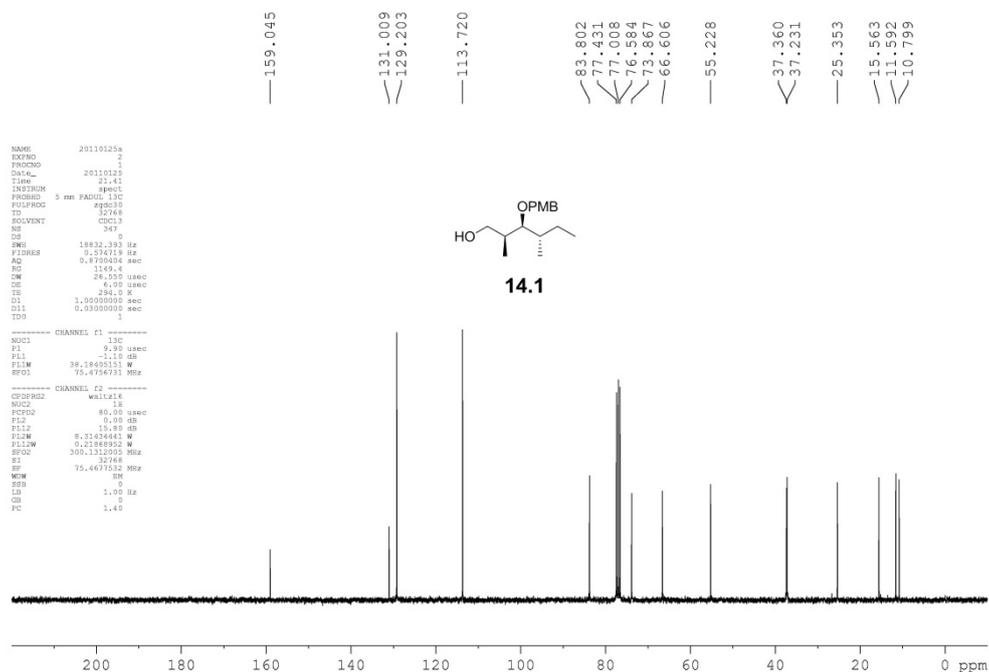
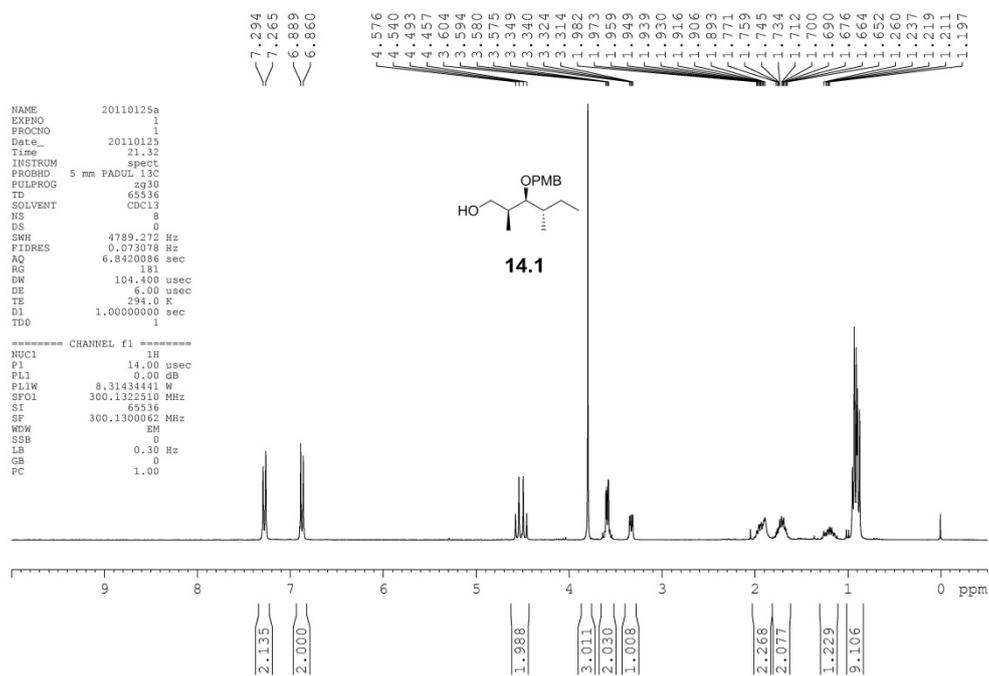


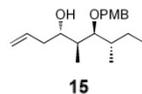
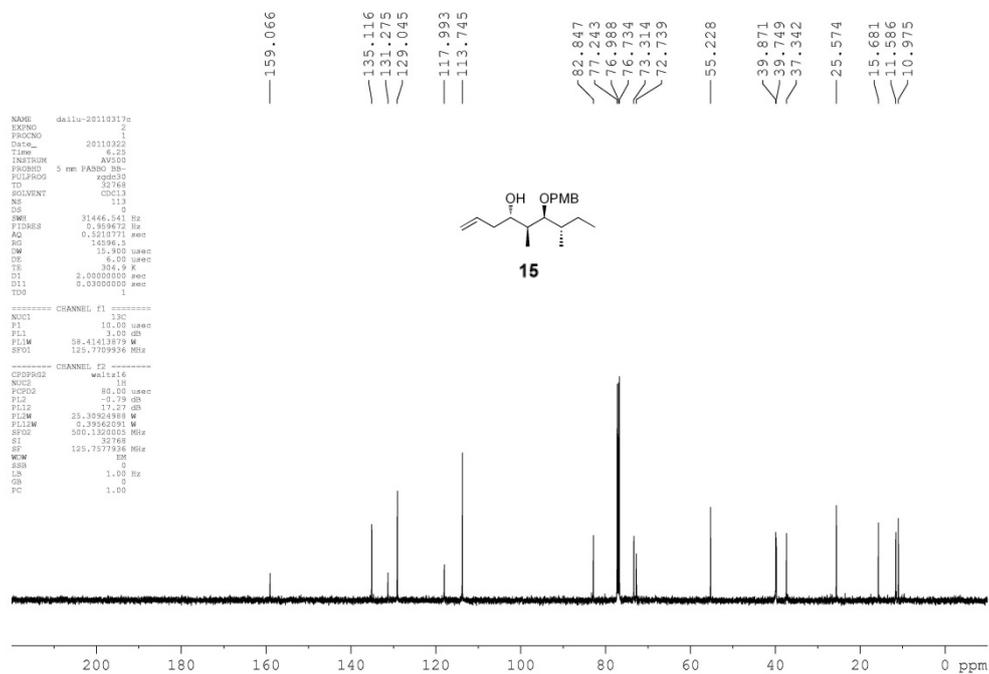
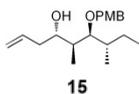
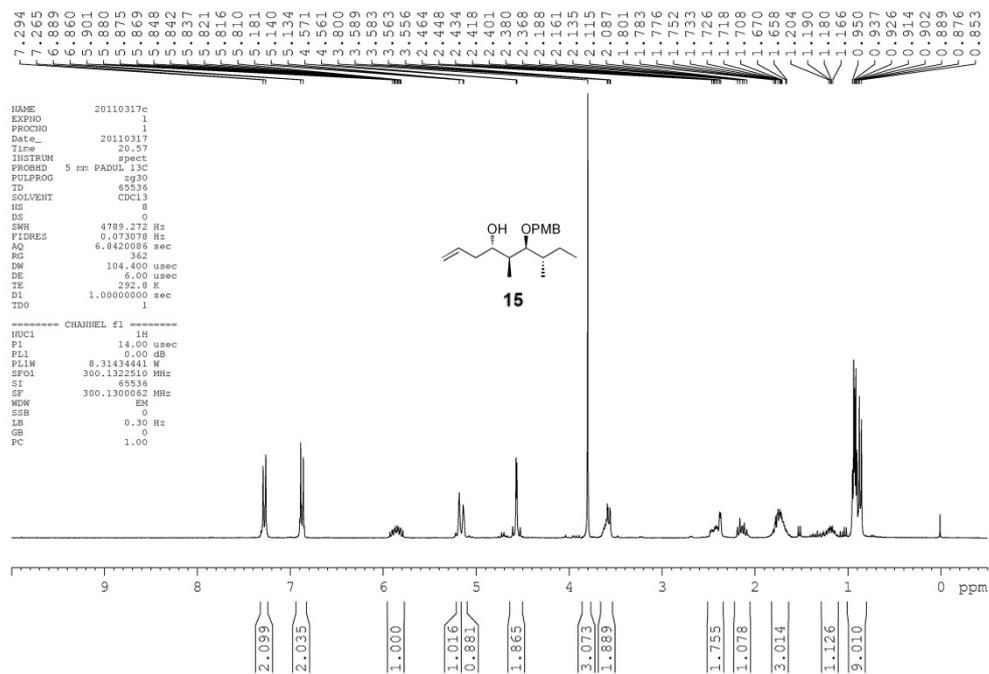


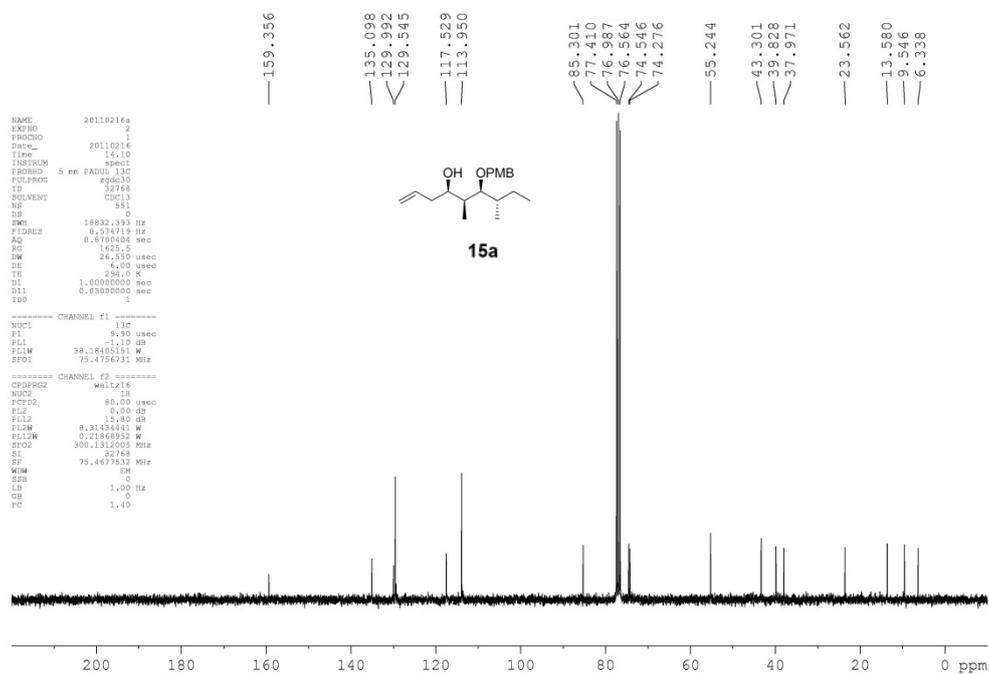
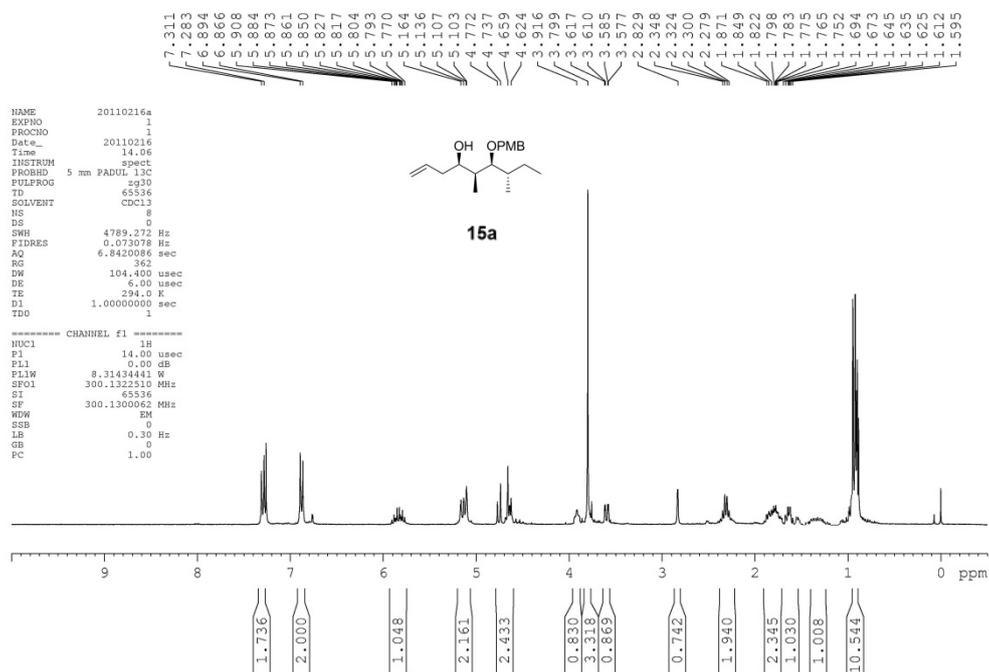


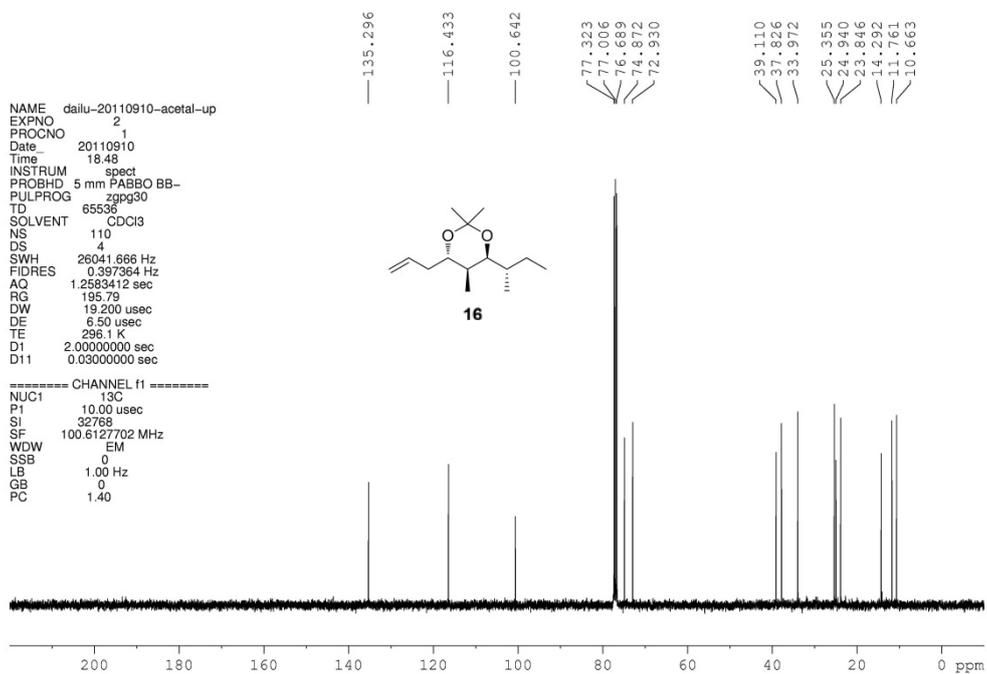
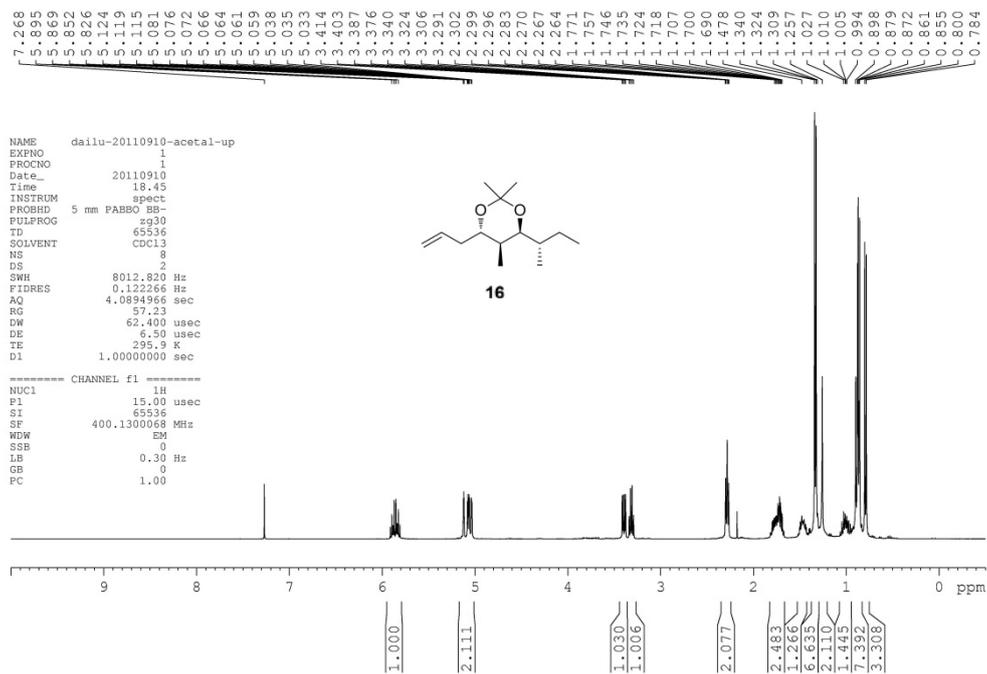


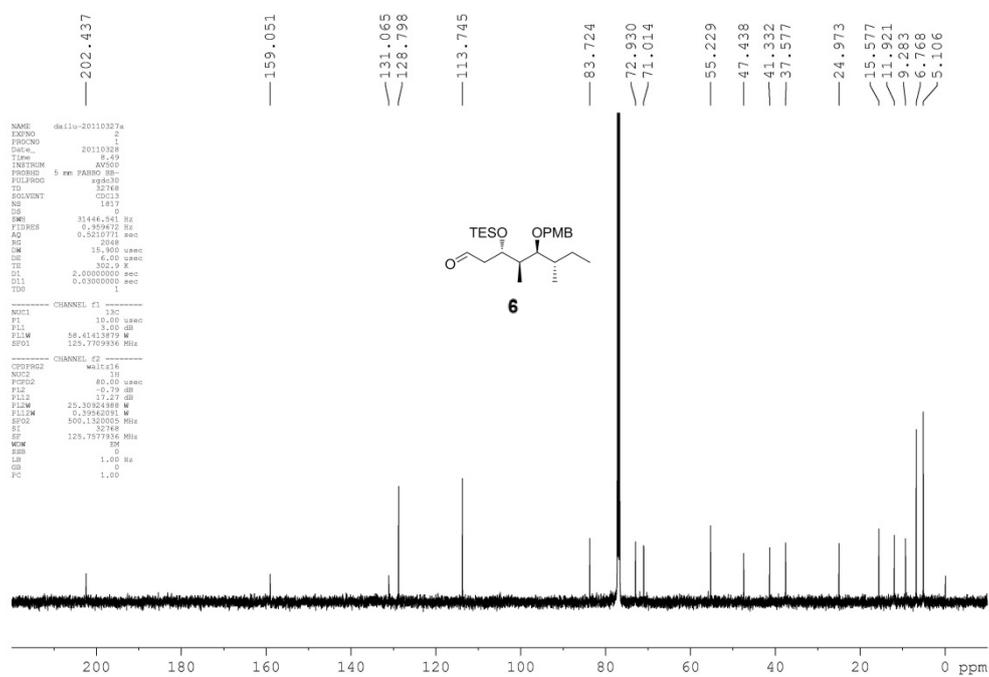
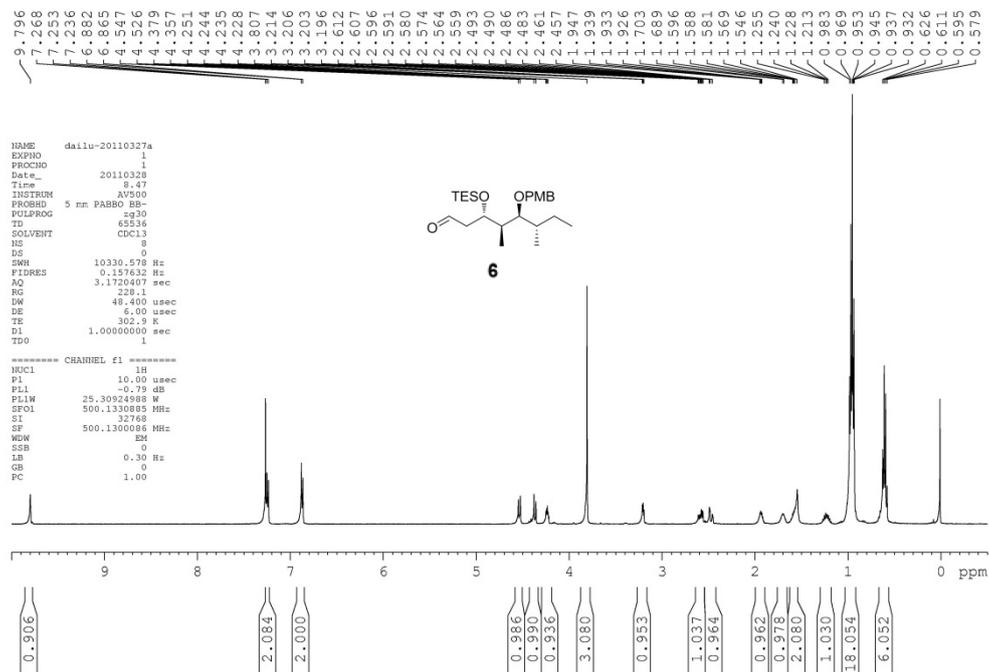


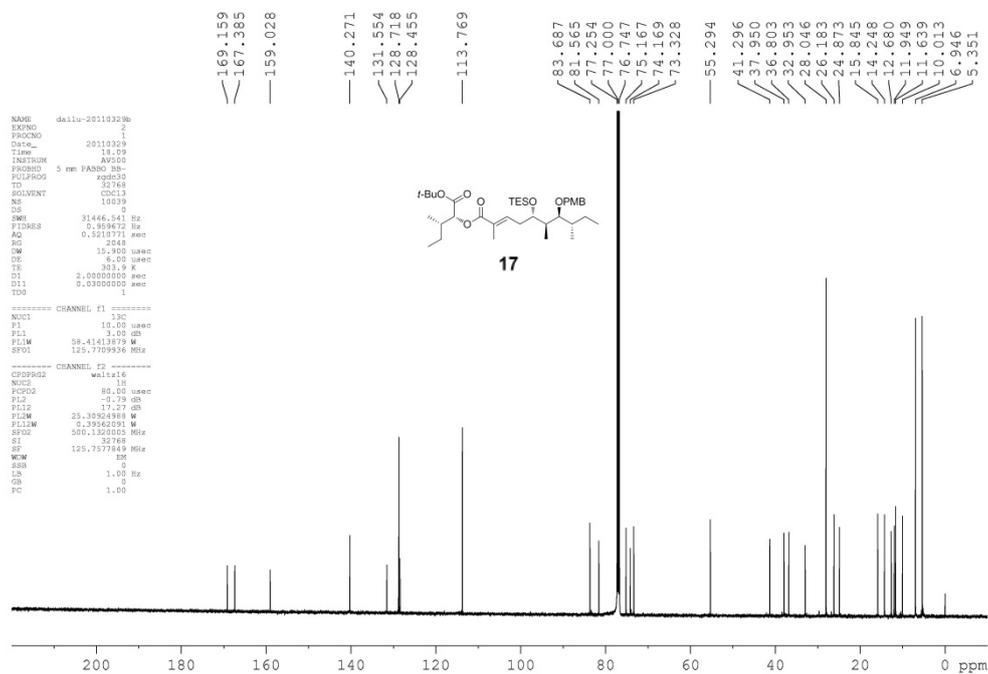
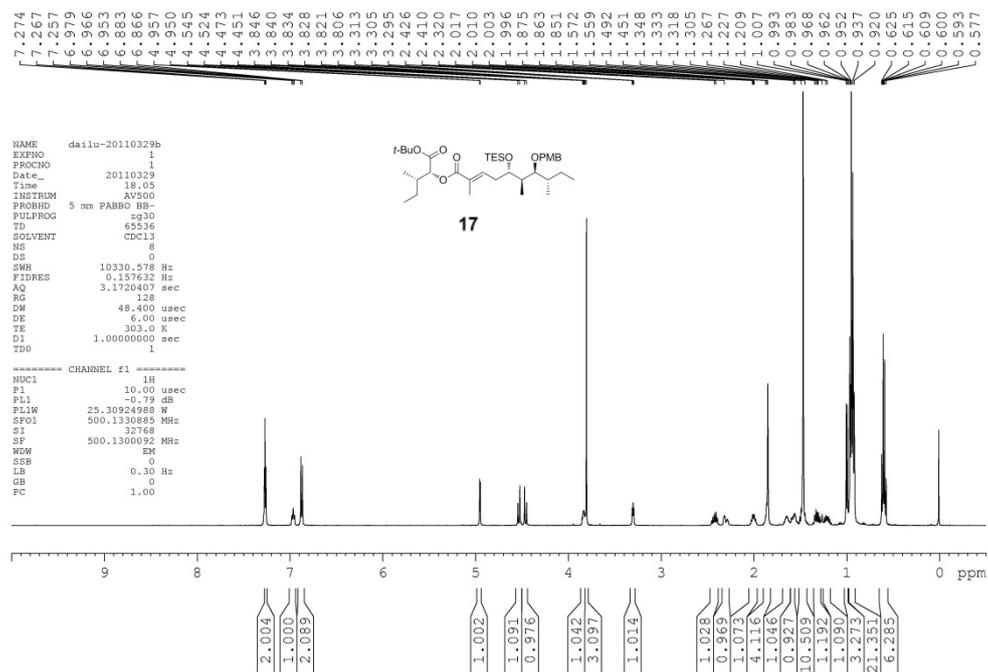


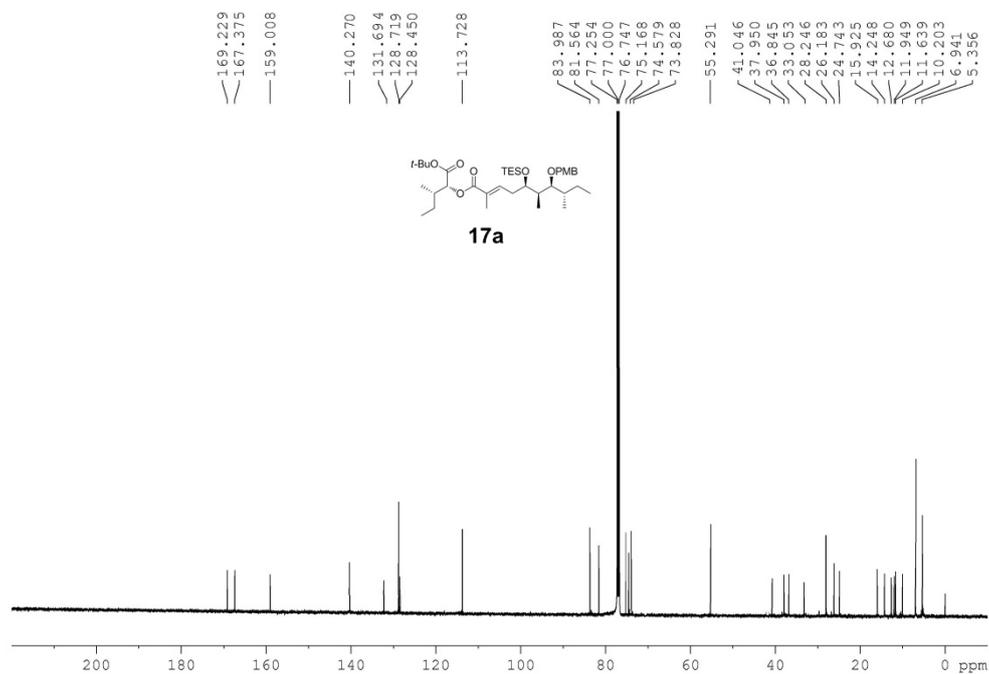
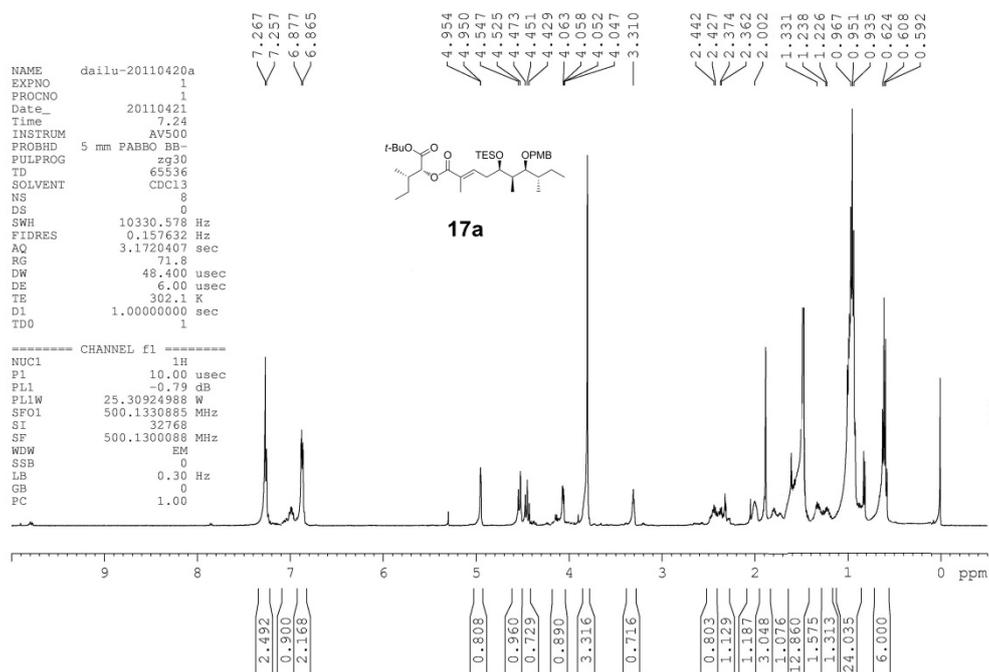


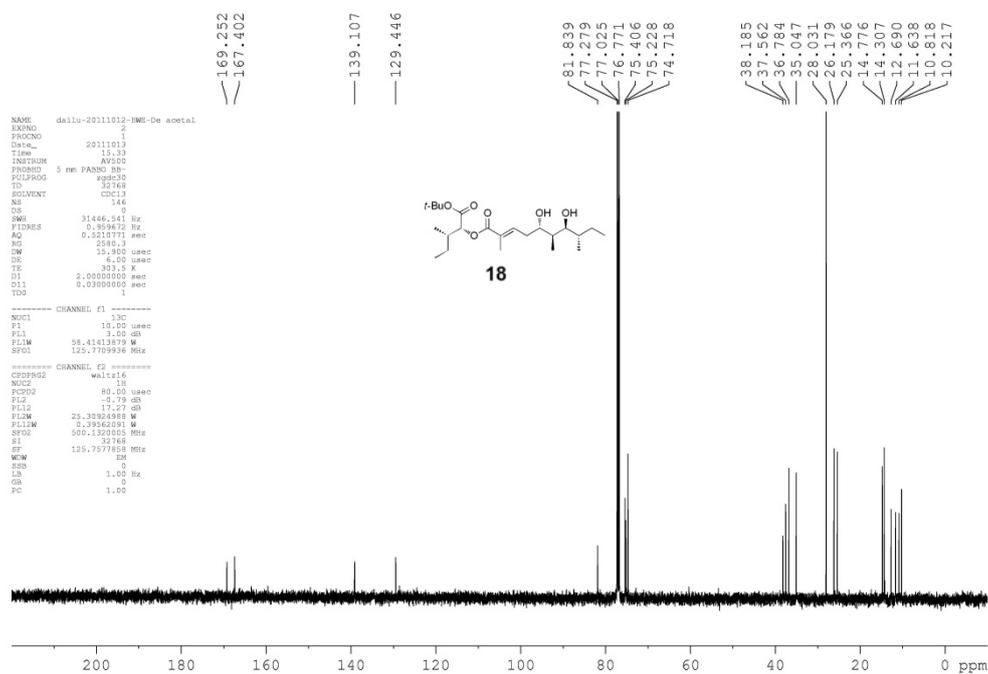
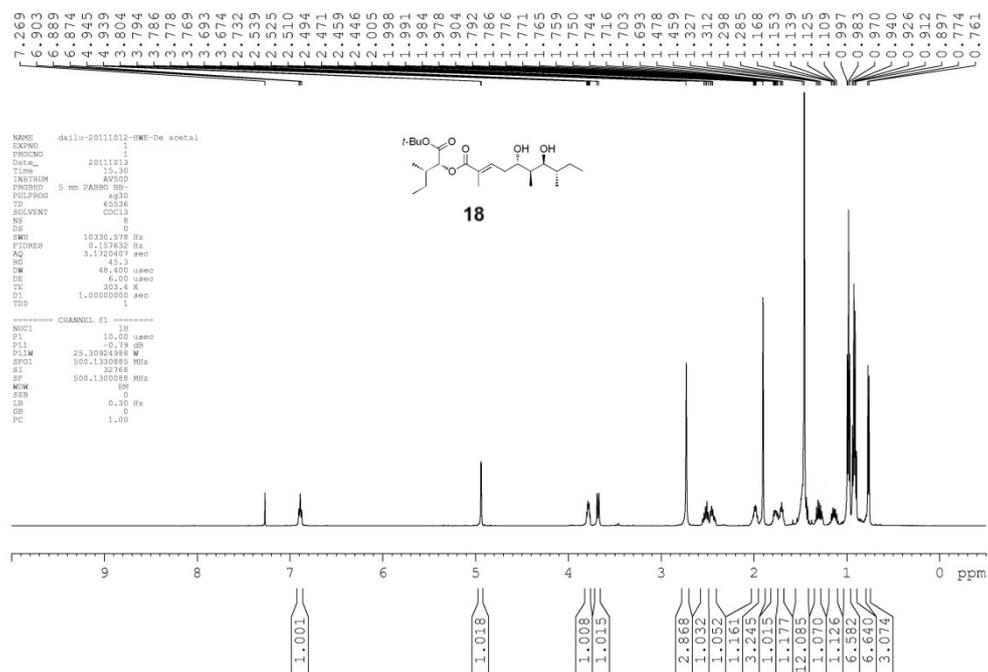


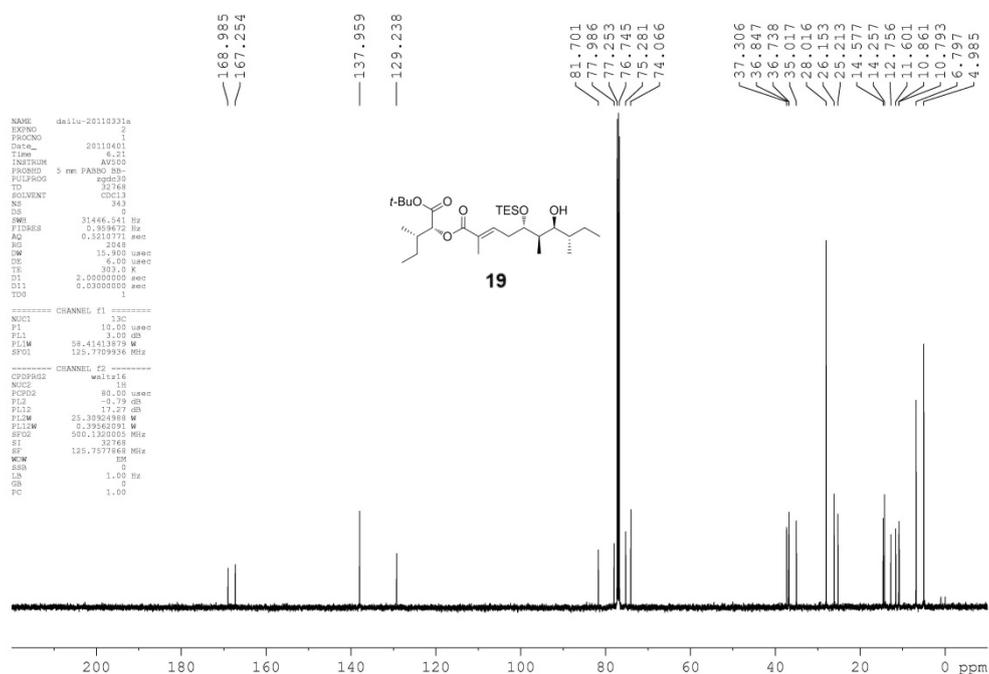
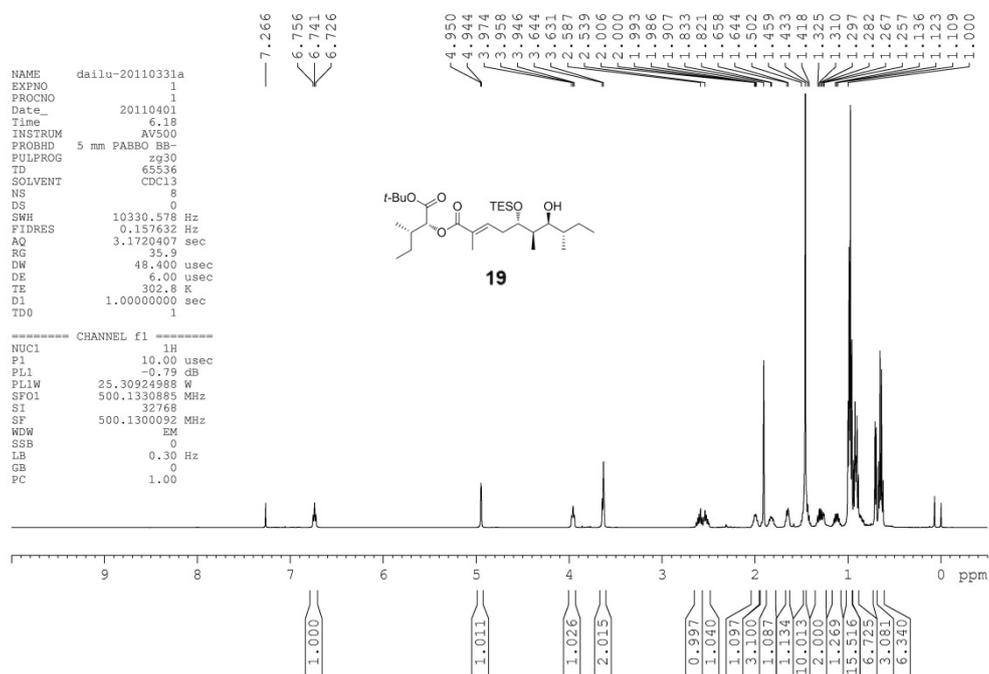


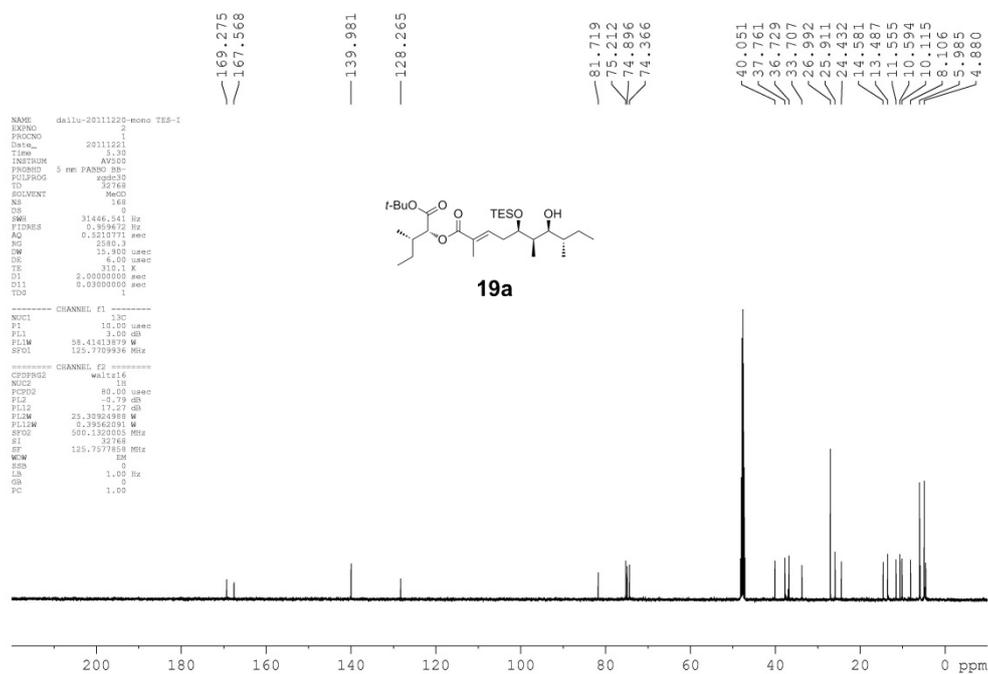
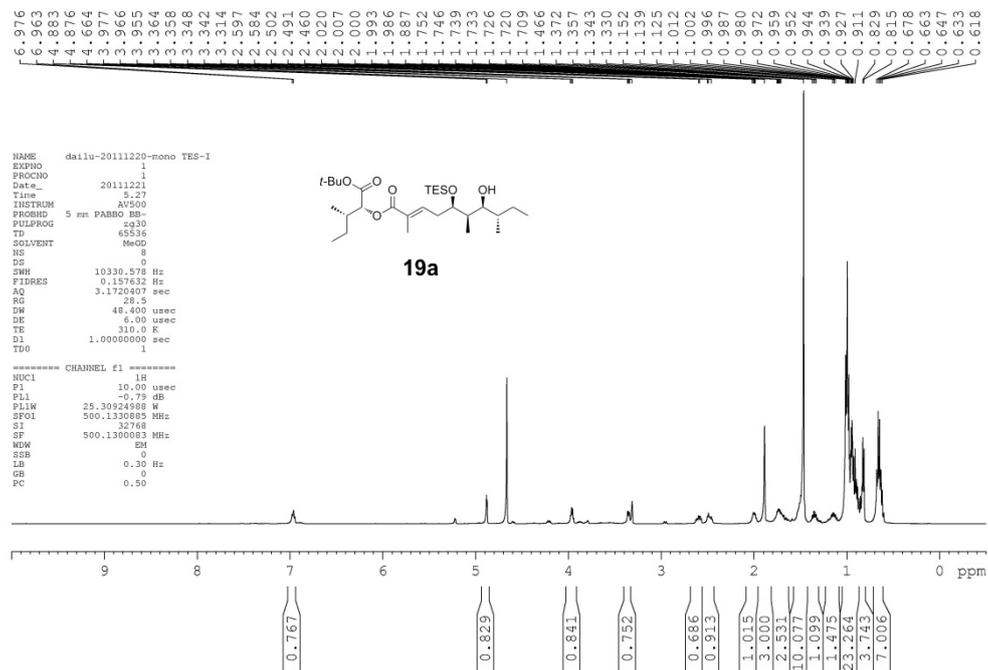


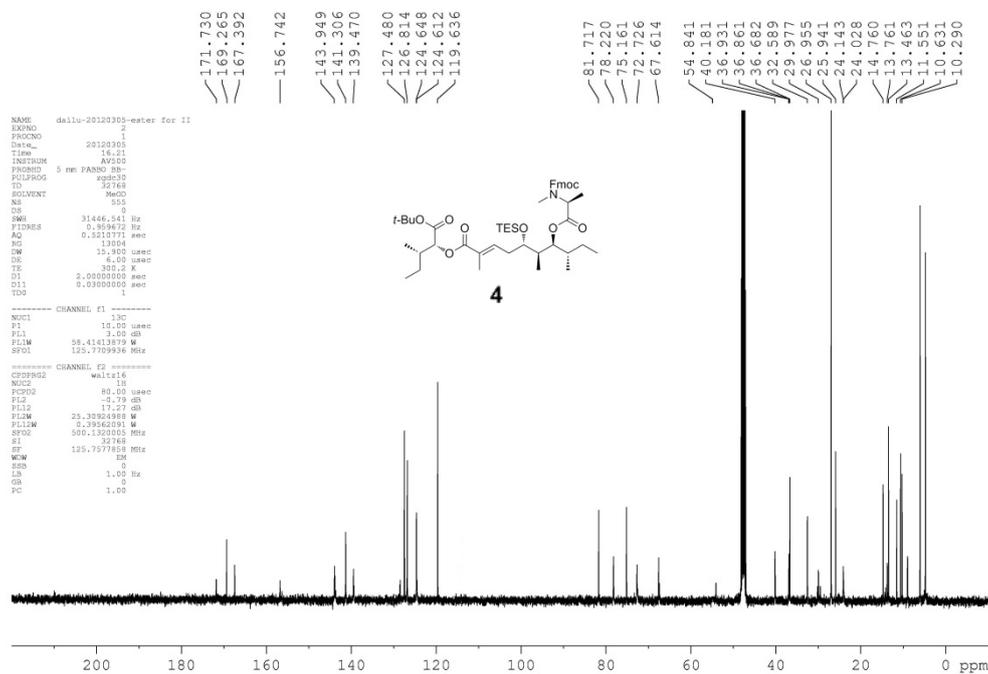
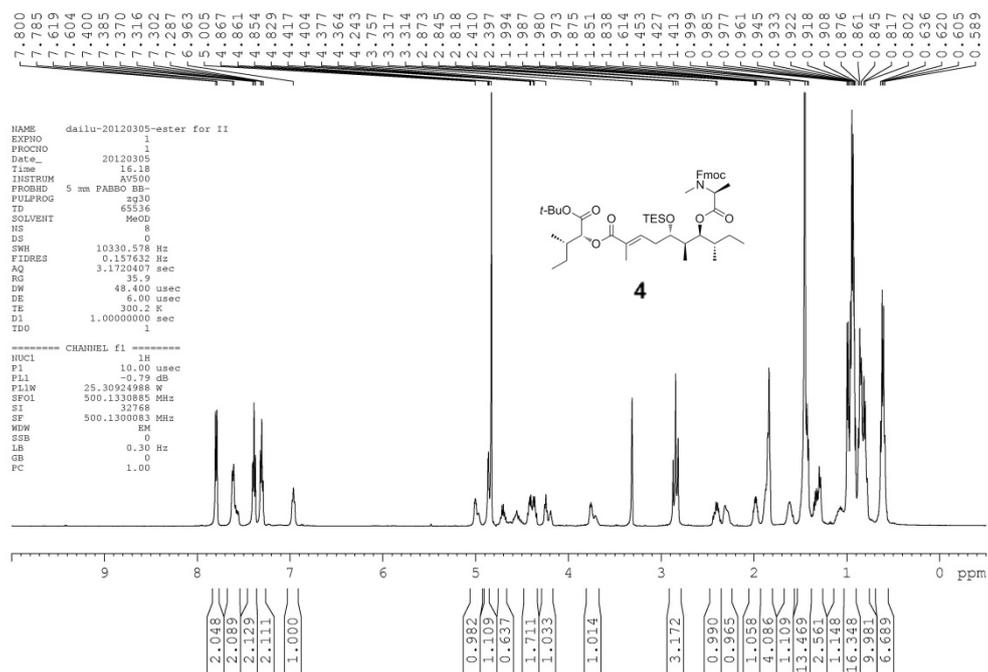


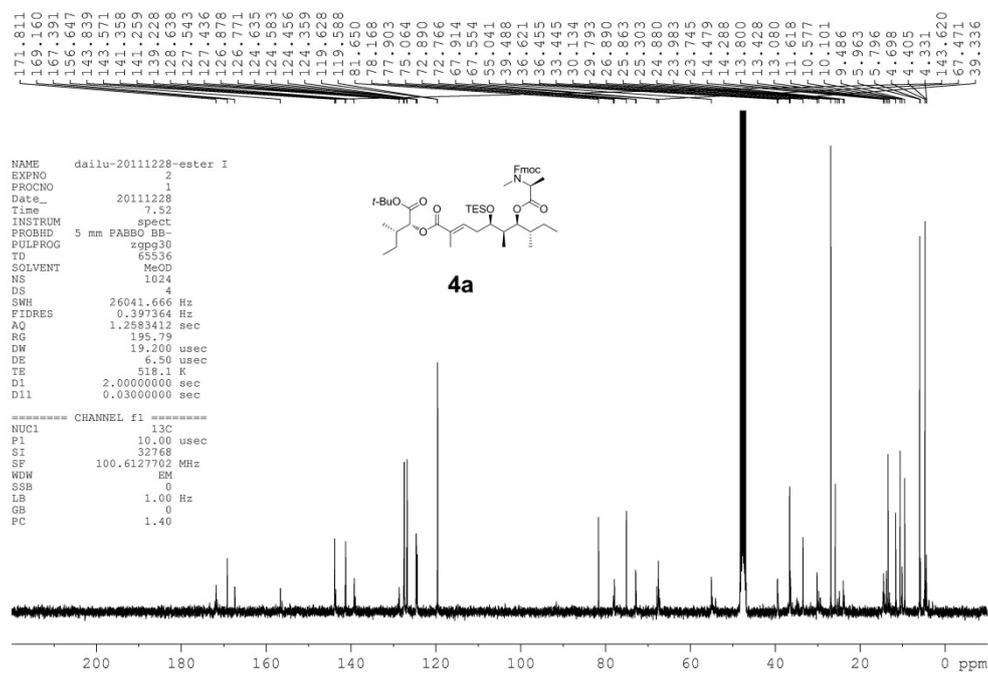
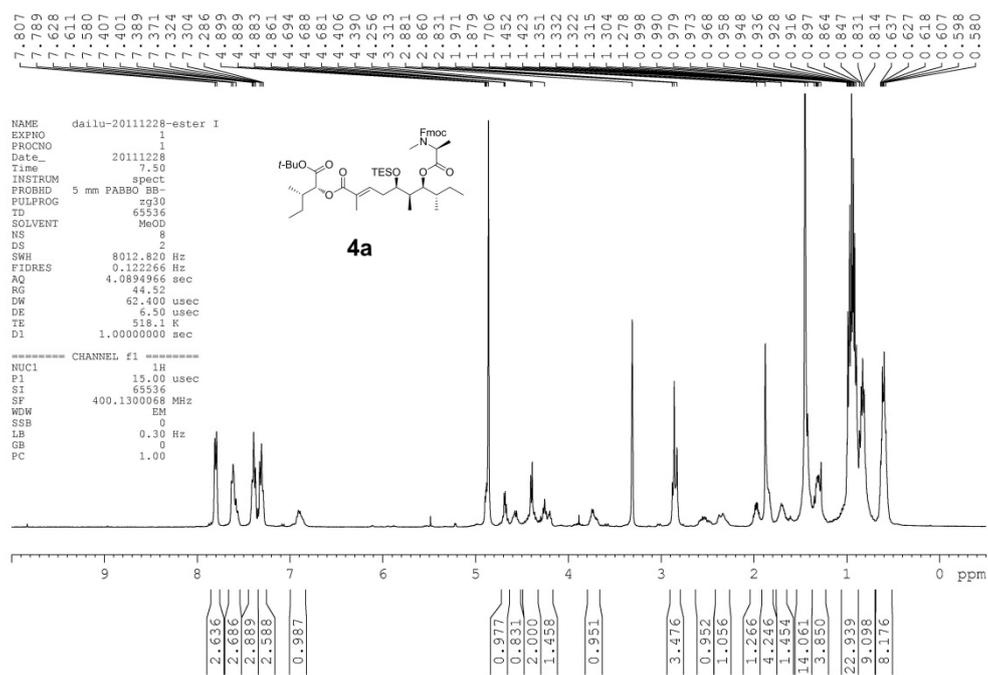


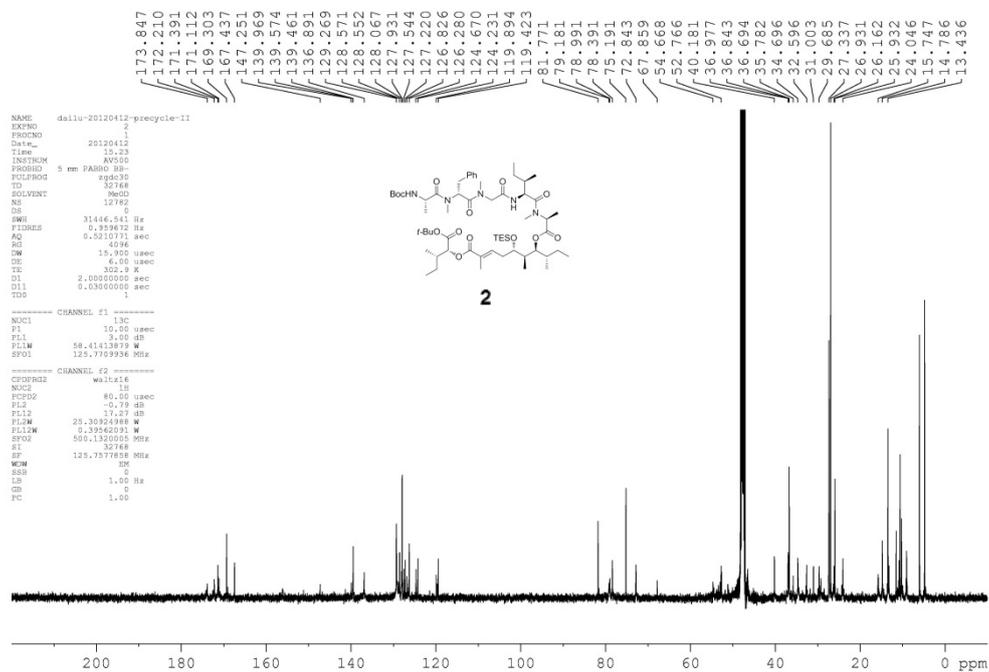
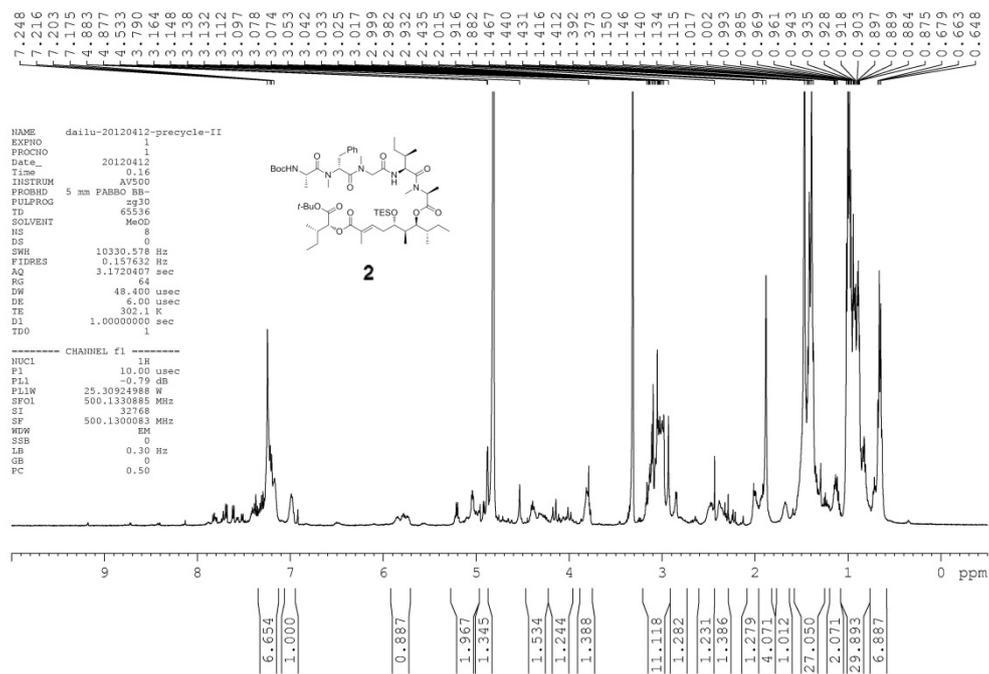


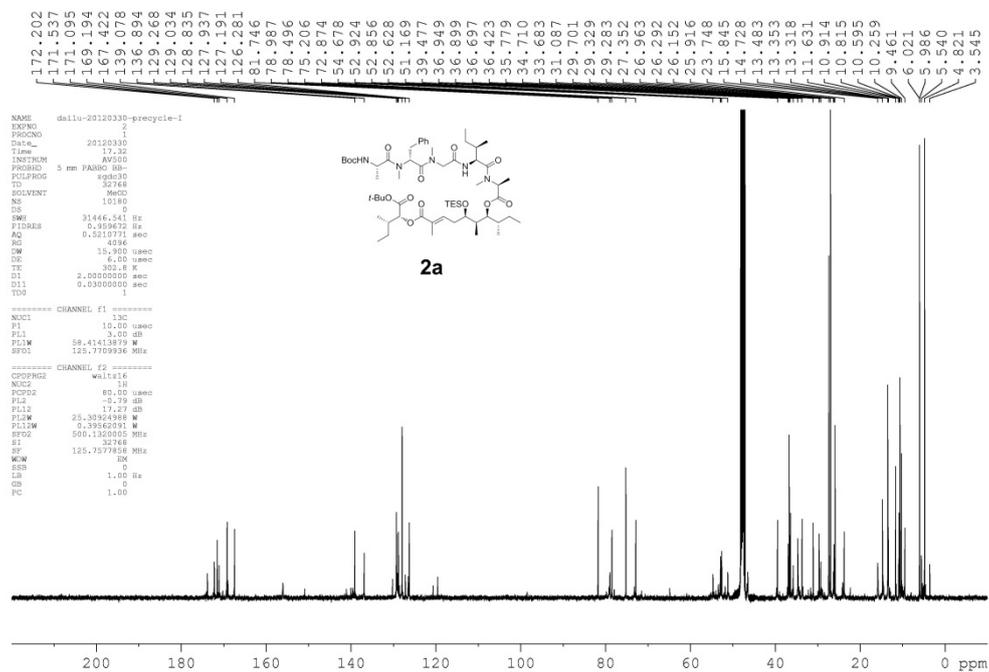
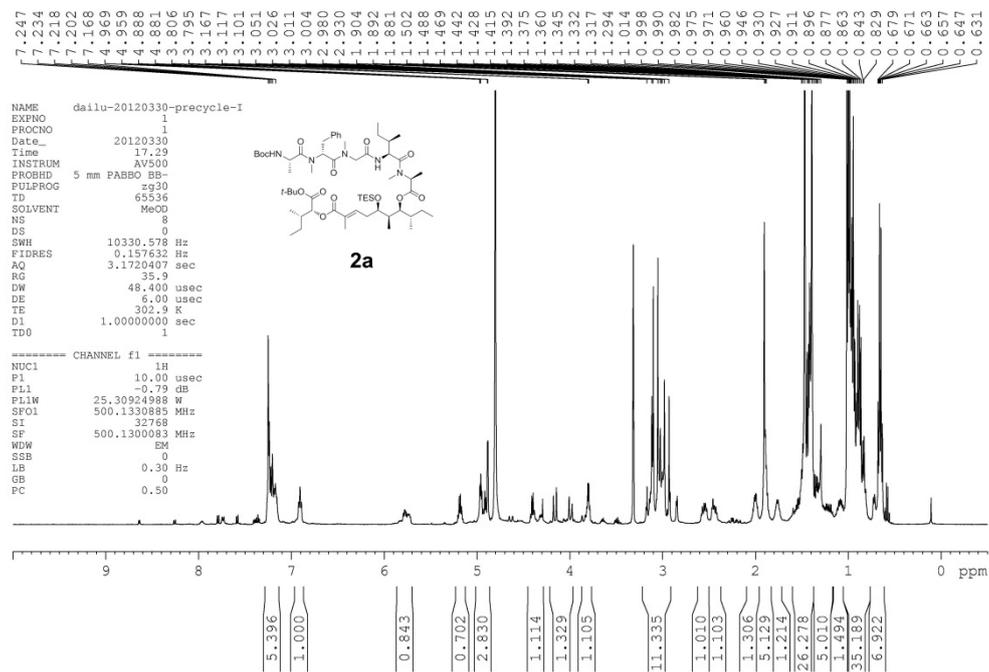


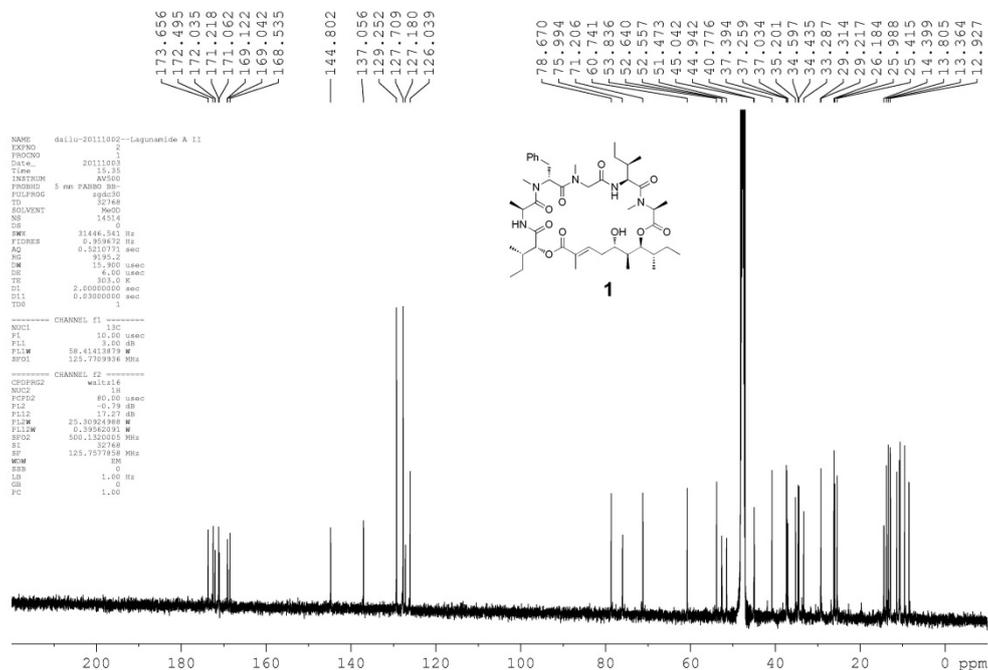
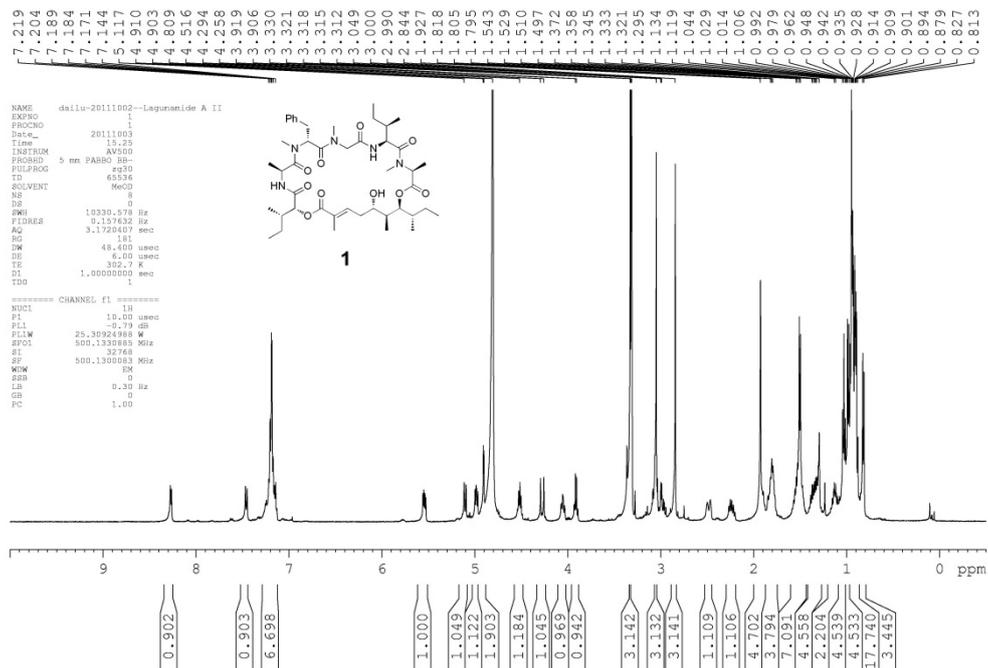


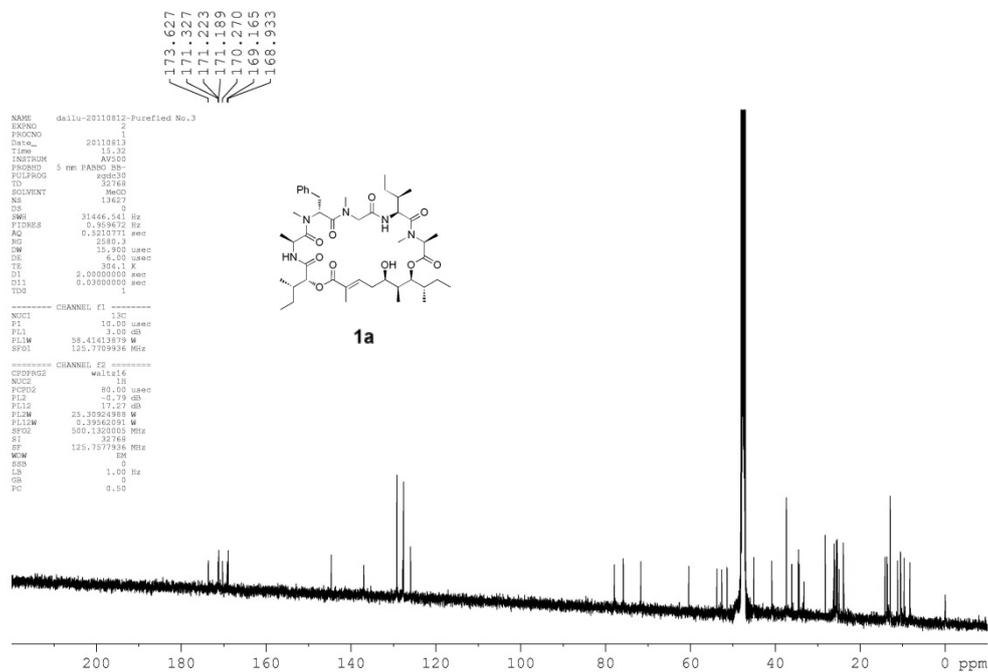
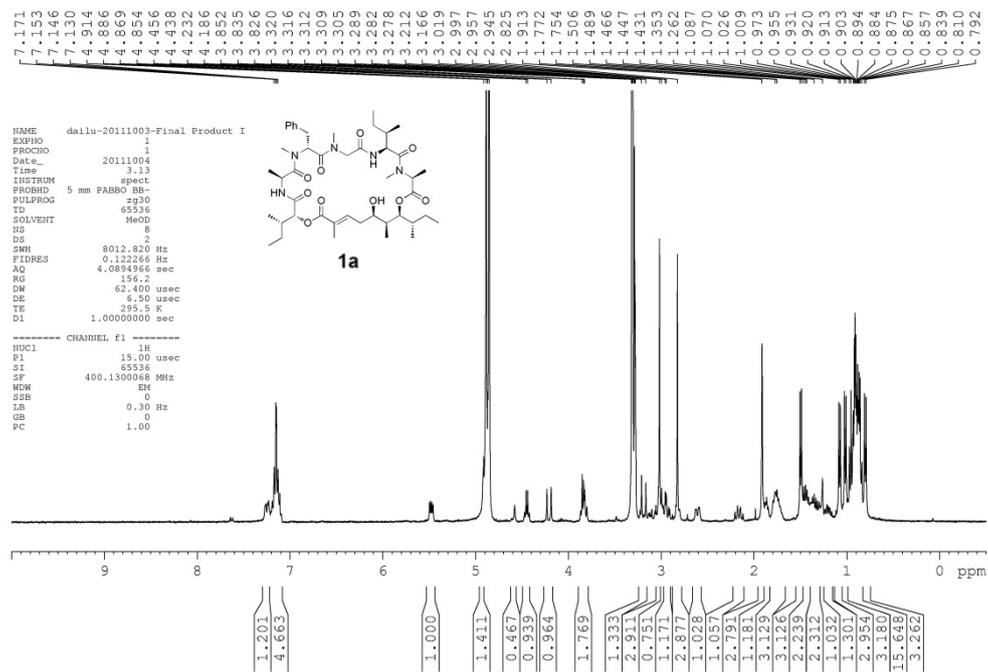


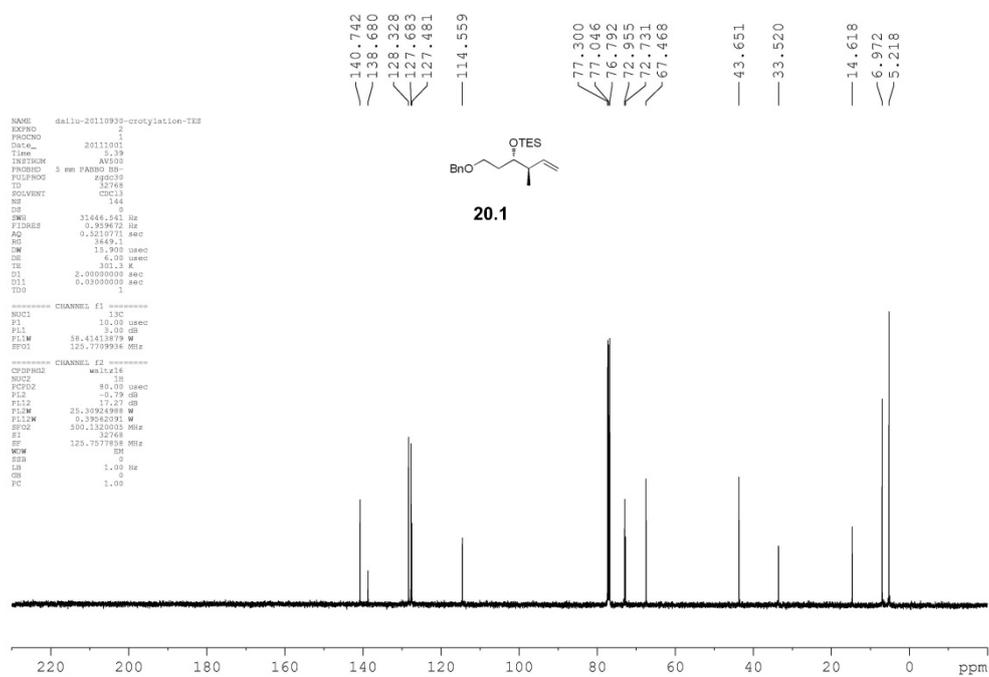
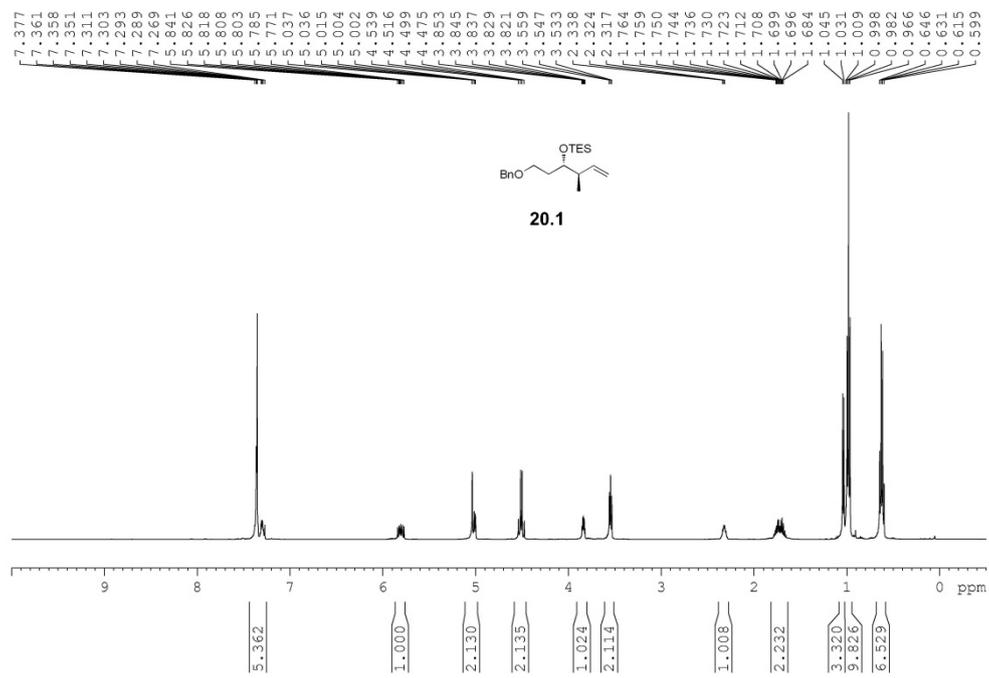










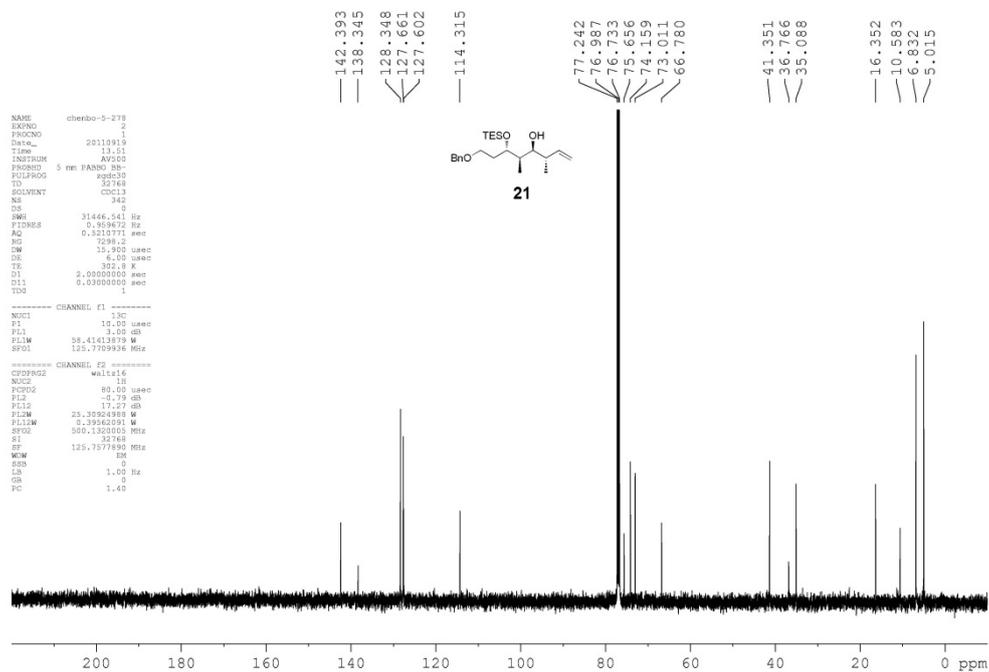
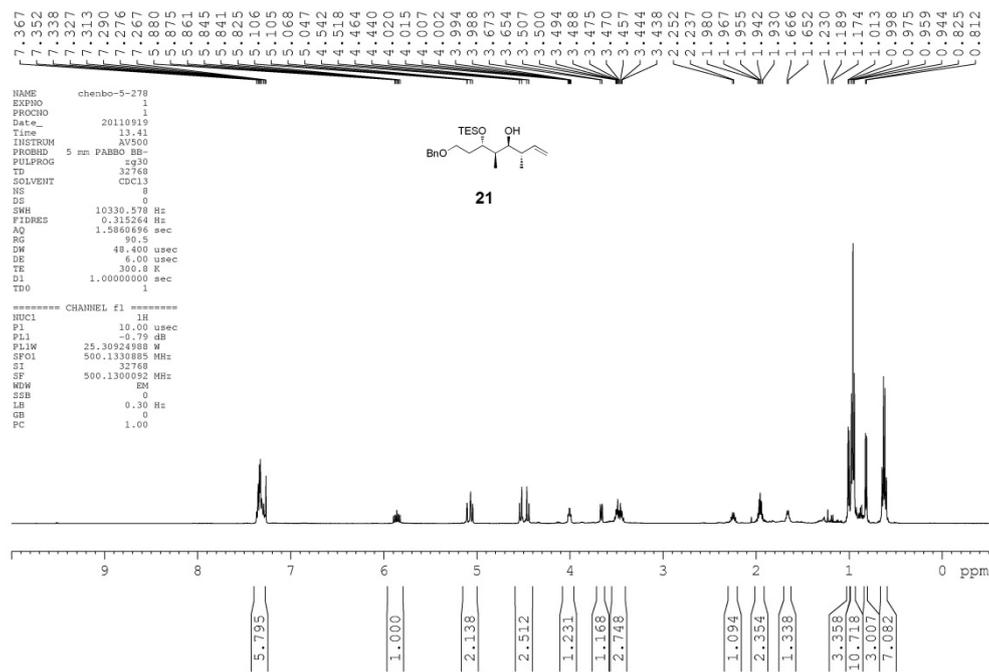


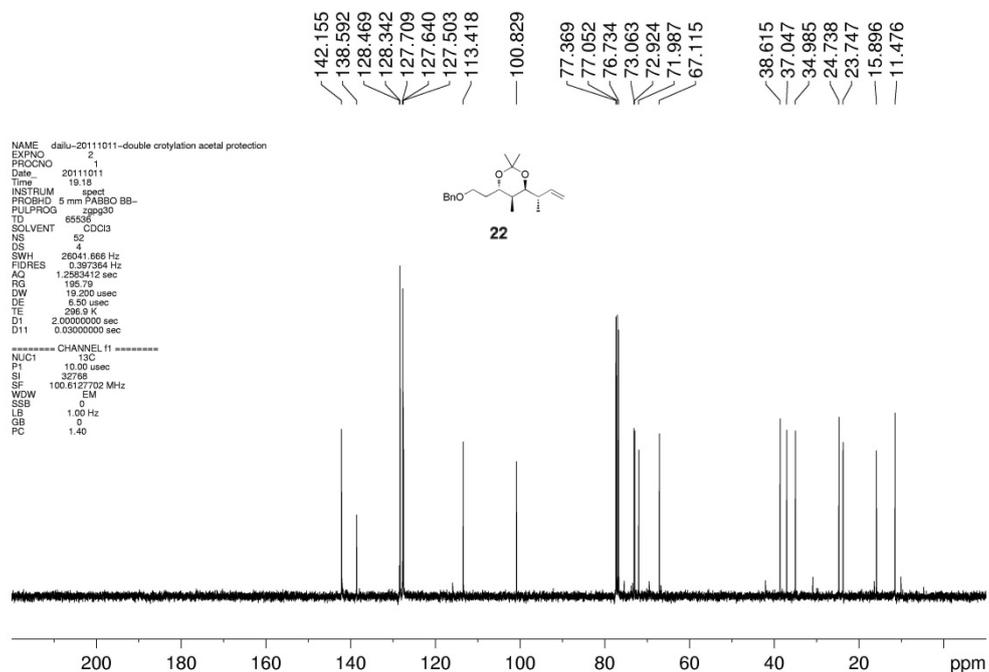
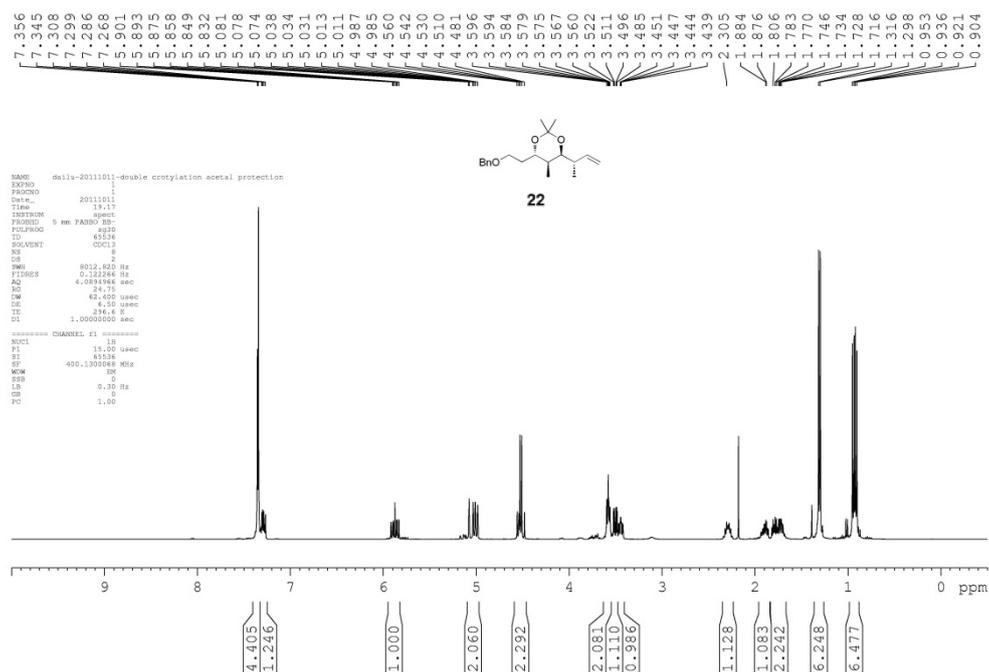
```

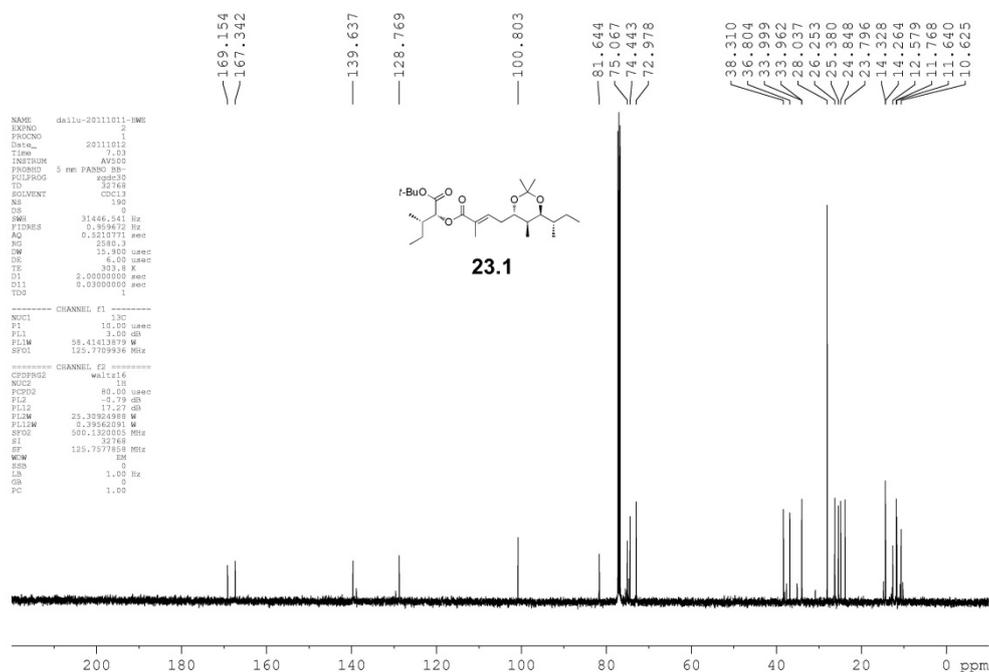
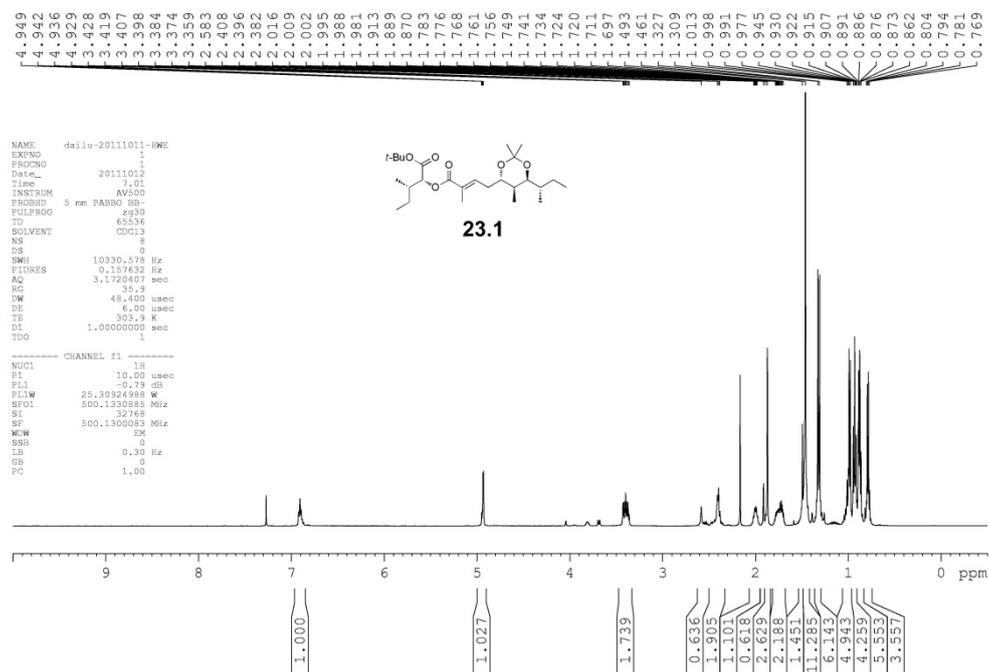
NAME      deliu-20110930-crotylation-TES
EXPNO    2
PROCNO   1
DATE_    20111001
Time     5.39
INSTRUM  spect
PROBHD   5 mm PABBO BB-
PULPROG  zgpg30
ID       25748
SOLVENT  CDCl3
NS       144
DS       0
SWH      31444.541 Hz
FIDRES   0.5039612 Hz
AQ       0.3210771 sec
RG        264.1
DW       15.900 usec
DE       6.00 usec
TE       301.3 K
D1       2.00000000 sec
D11      0.03000000 sec
TD       1

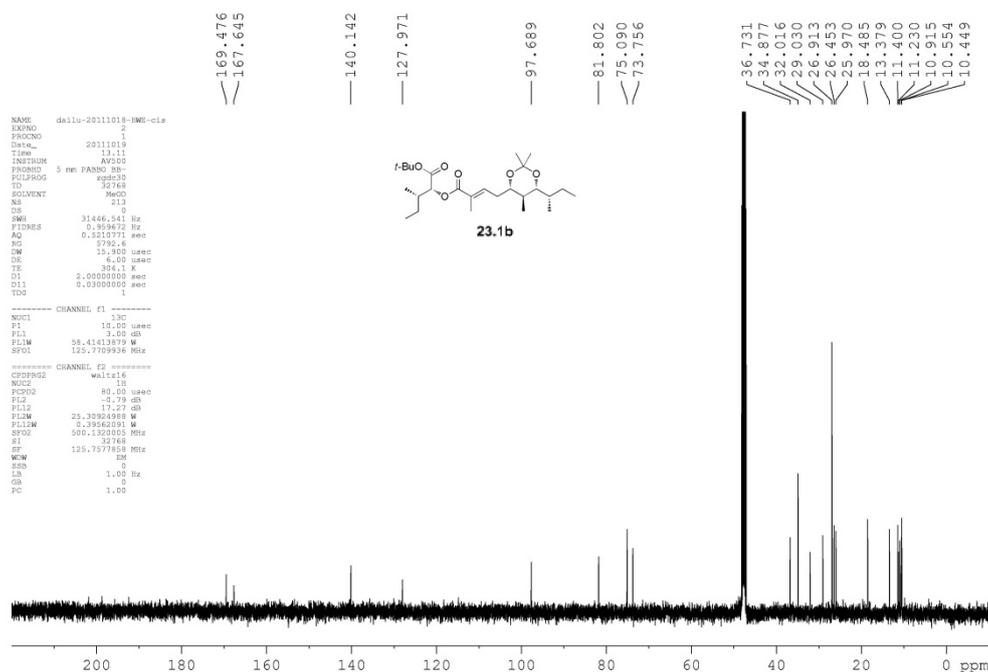
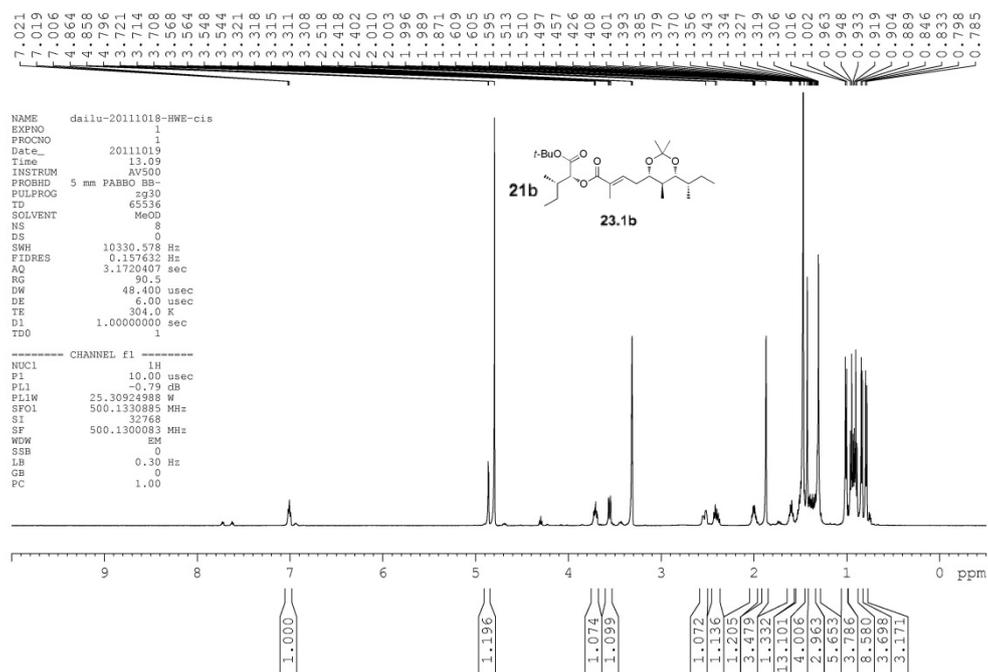
===== CHANNEL f1 =====
NUC1     13C
P1       10.00 usec
PL1      3.00 dB
PL1M     56.4343879 W
SFO1     125.7709936 MHz

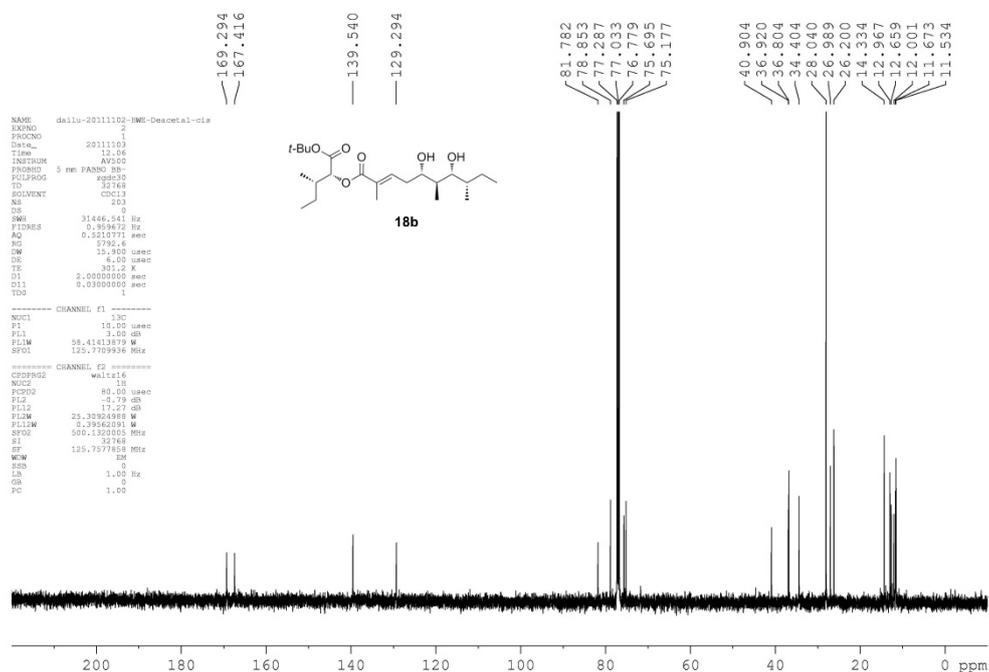
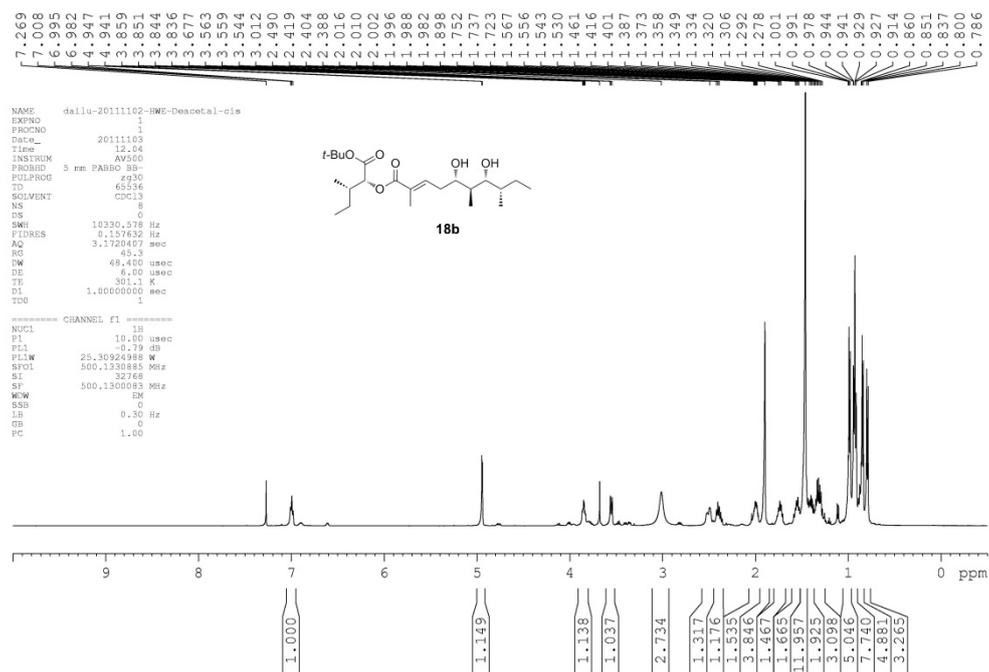
===== CHANNEL f2 =====
CPDPRG2  waltz16
NUC2     1H
PCPD2    40.00 usec
PL2      -0.79 dB
PL2M     71.77 dB
PL2M     25.33924988 W
PL1M     0.3908020 W
SFO2     500.1320050 MHz
SI       32748
SF       125.7577858 MHz
WDW      EM
SSB      0
LB       1.00 Hz
GB       0
PC       1.00
    
```

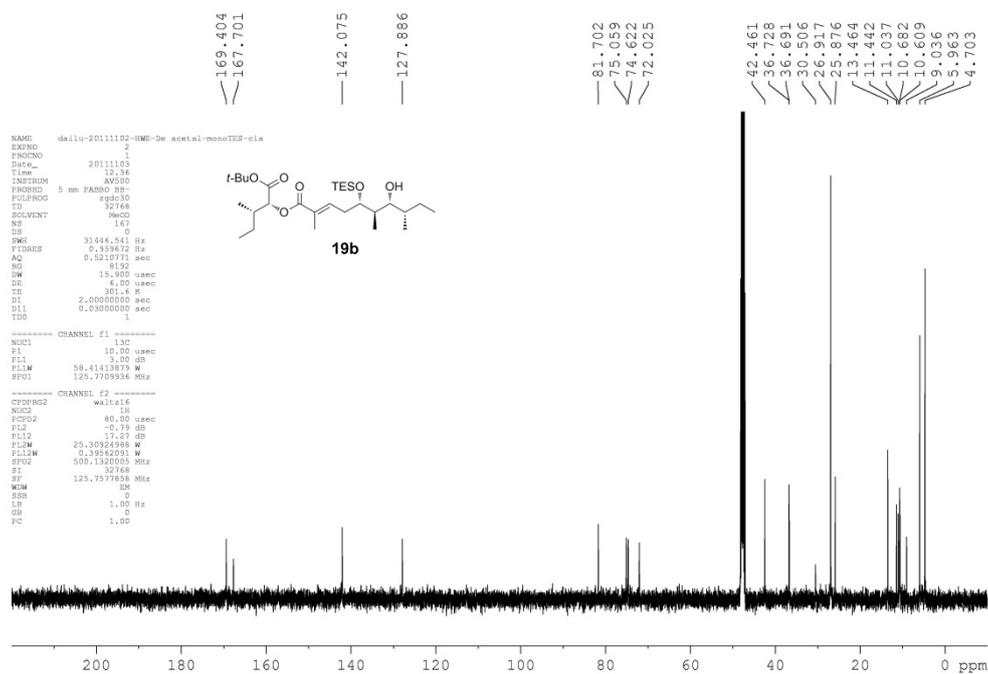
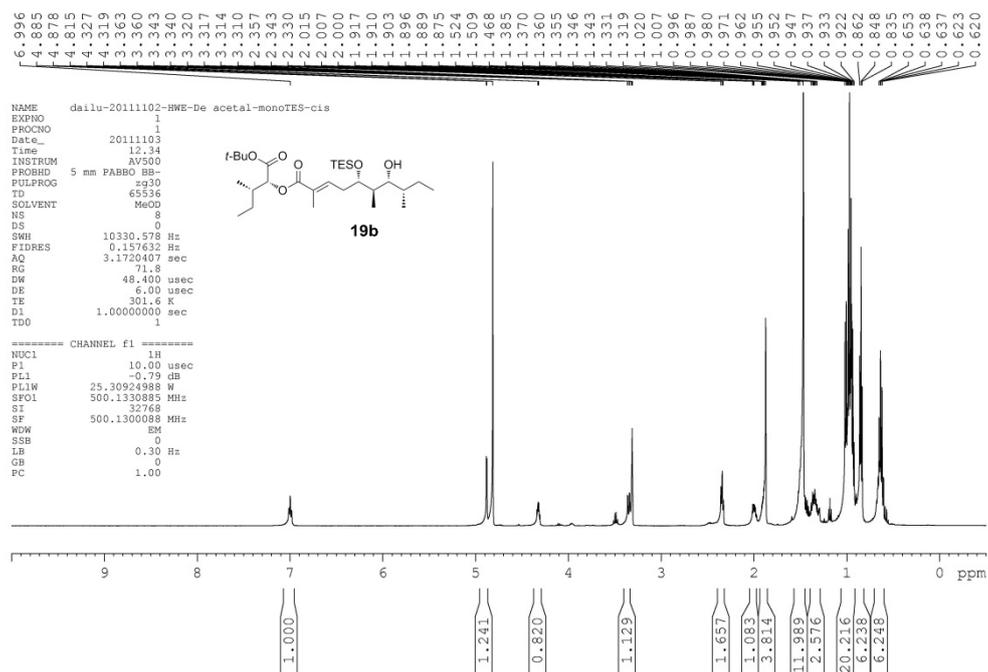


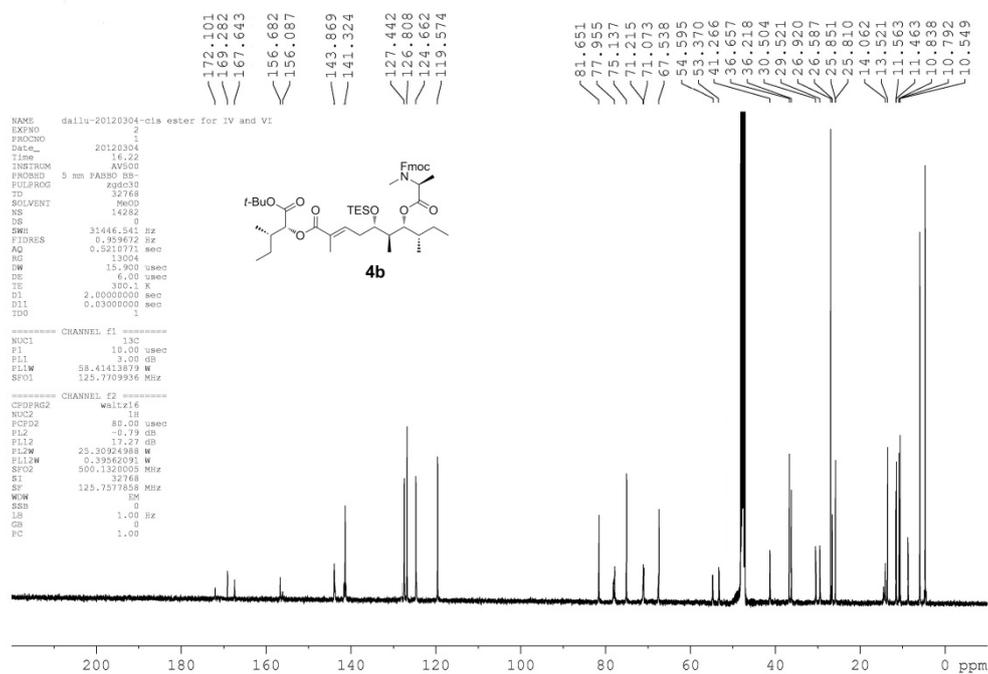
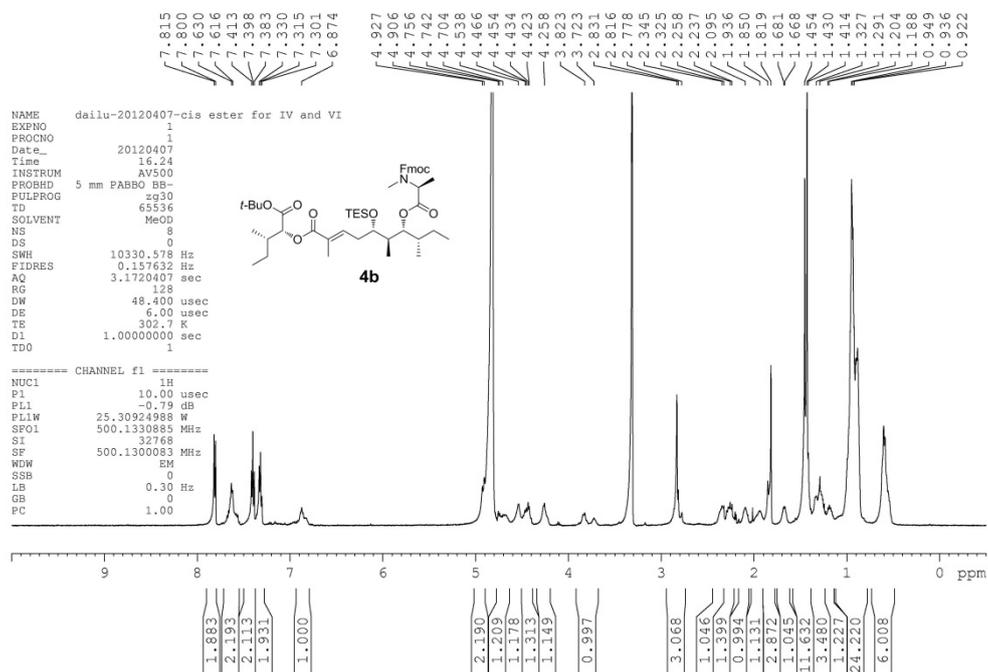


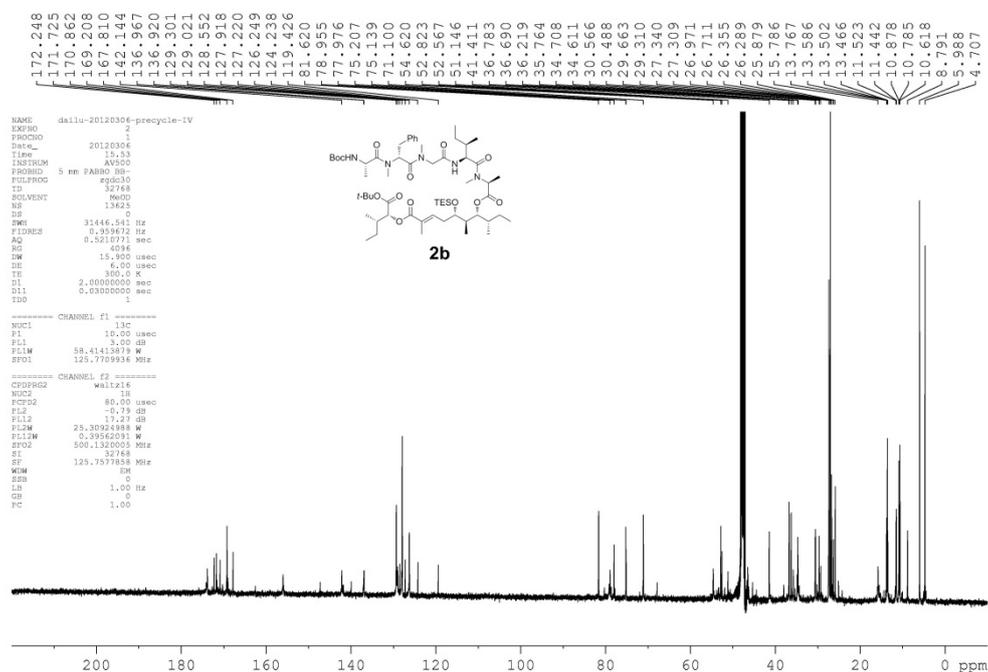
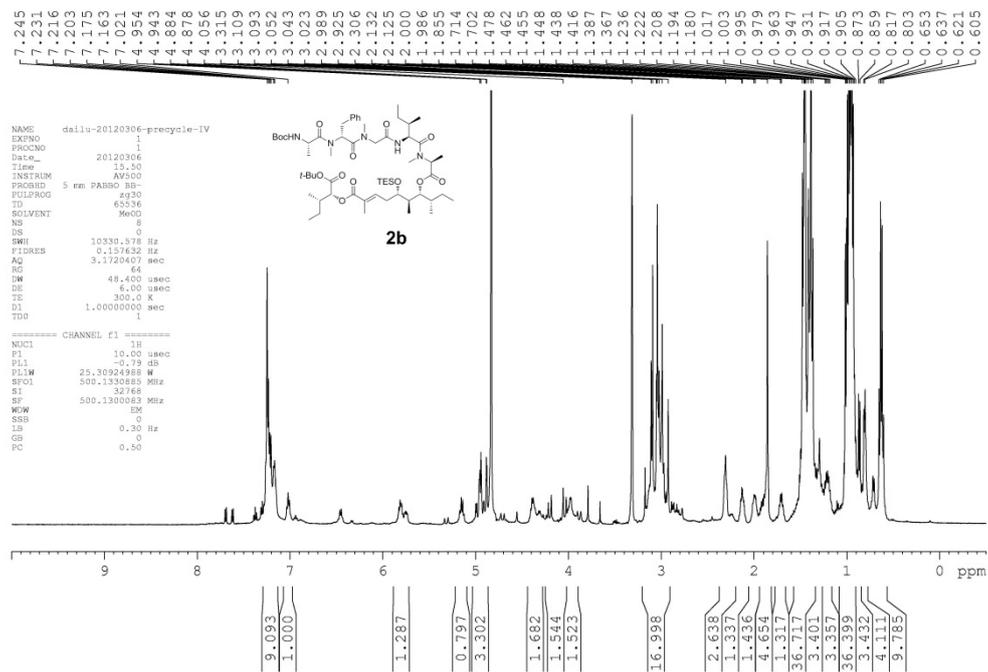


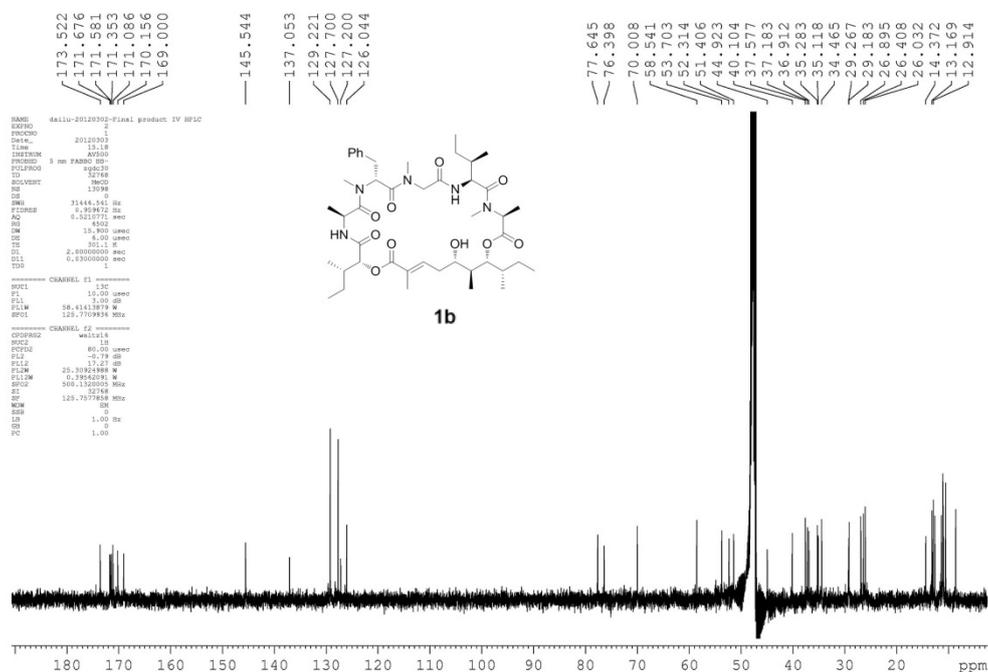
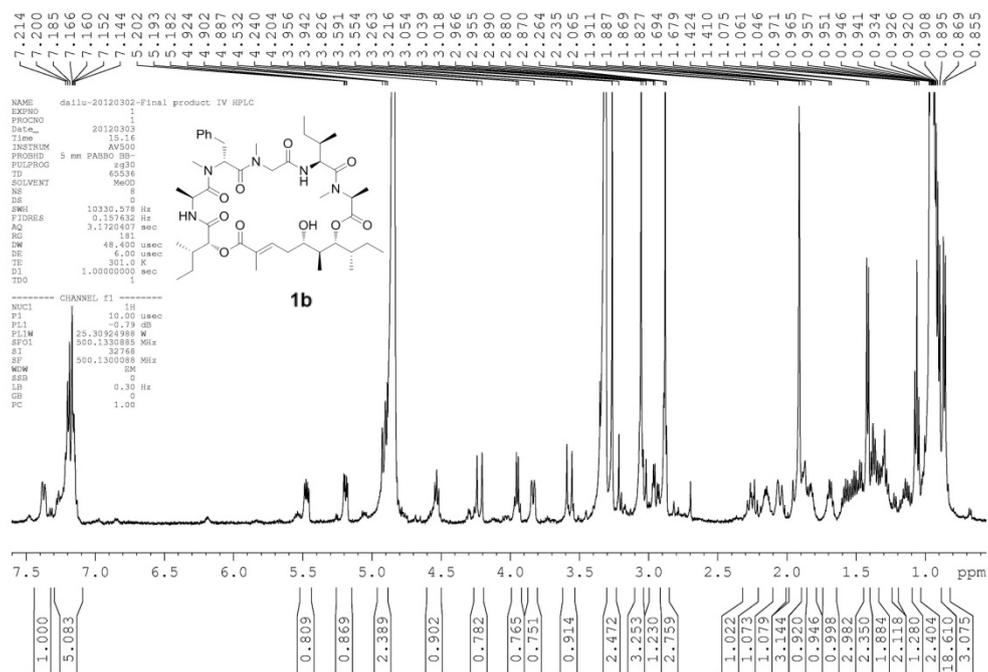




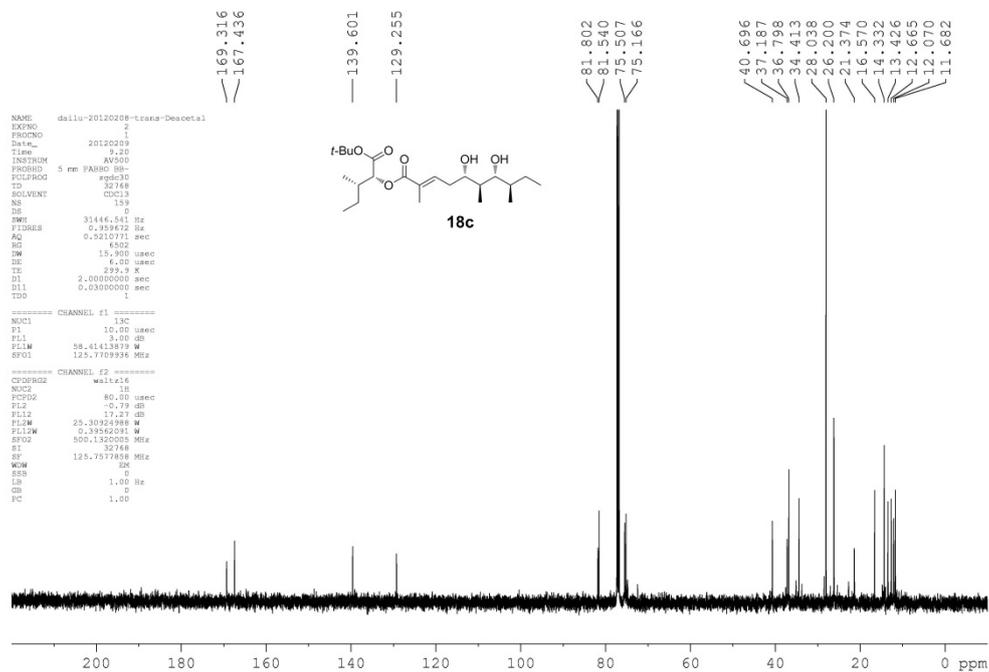
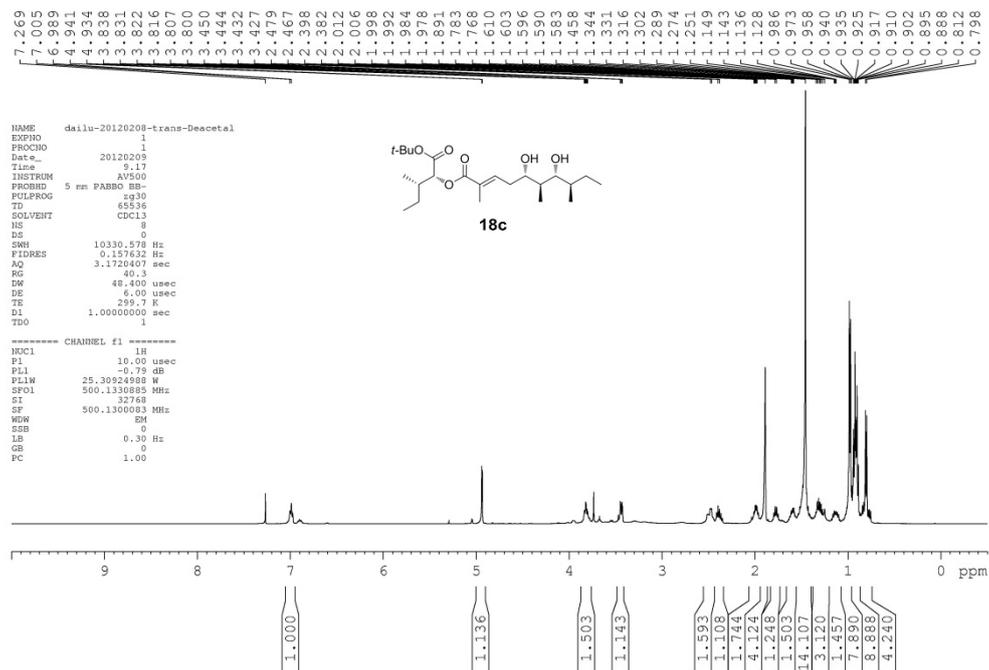


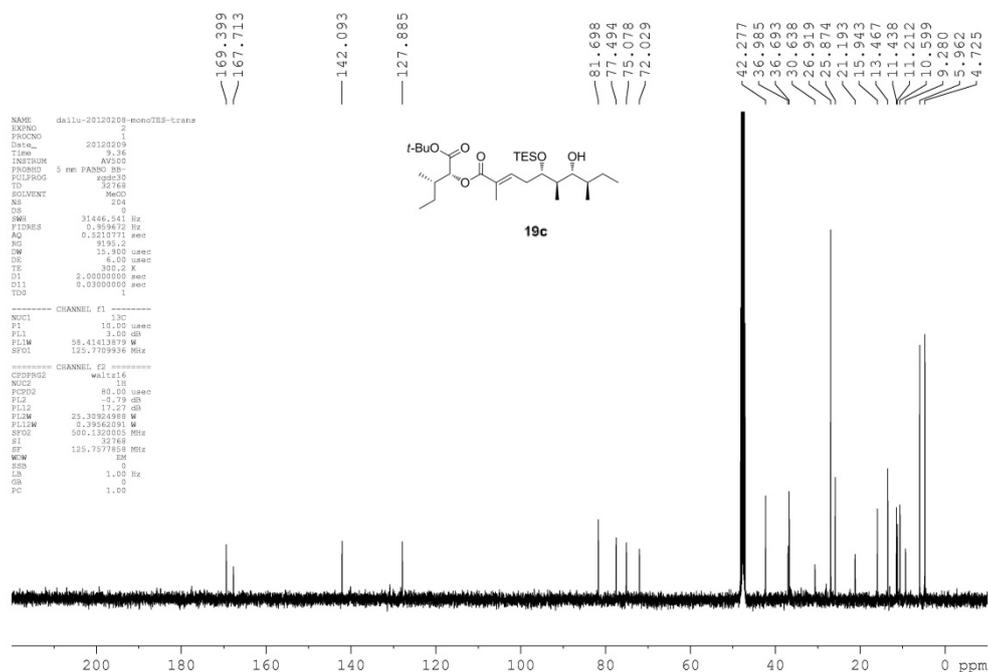
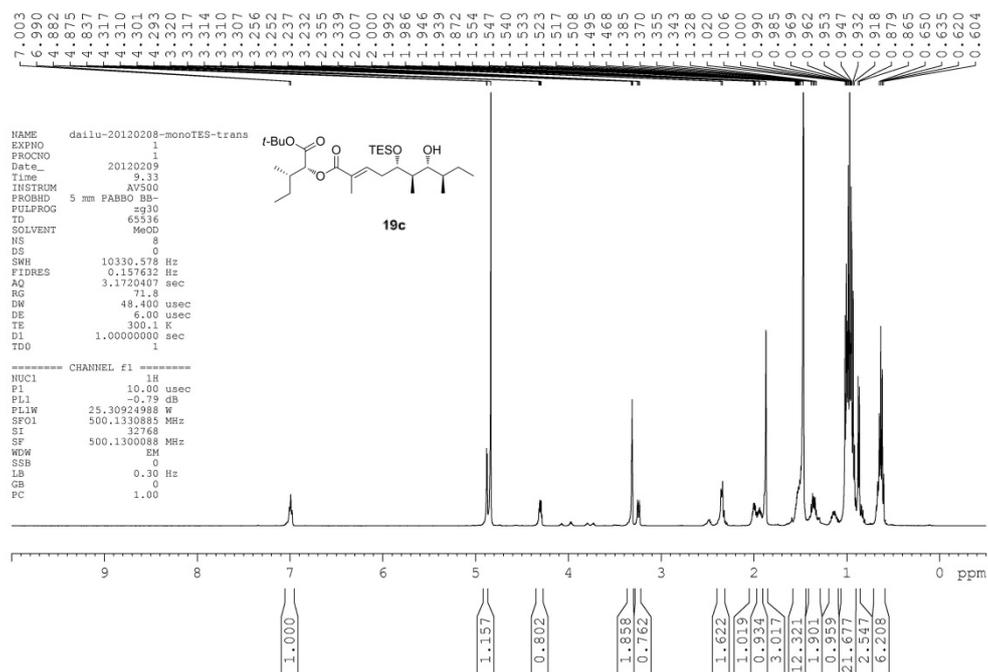


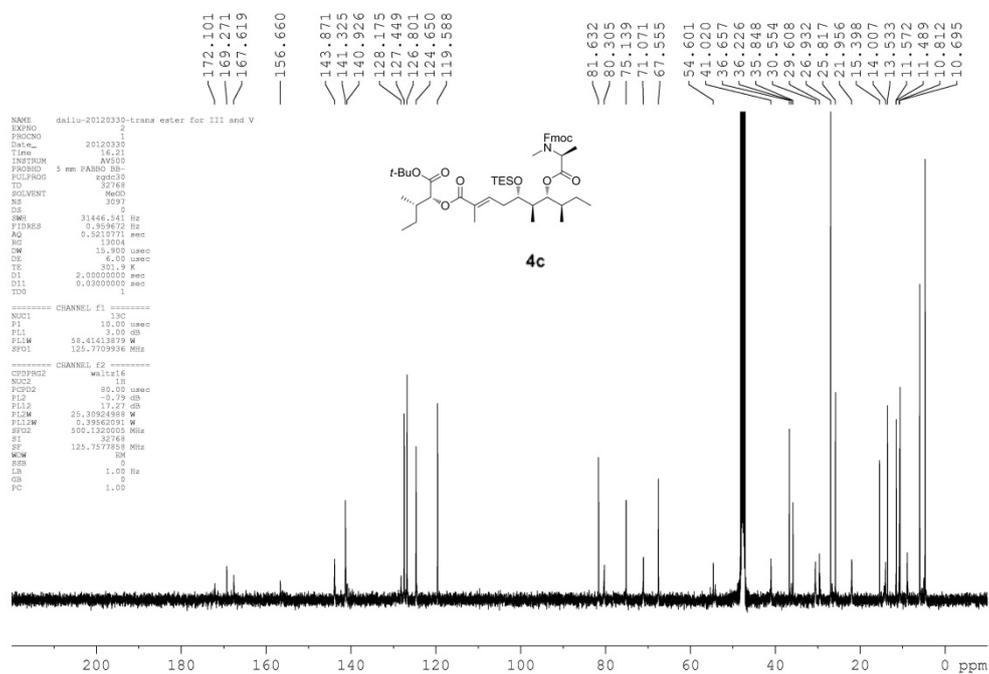
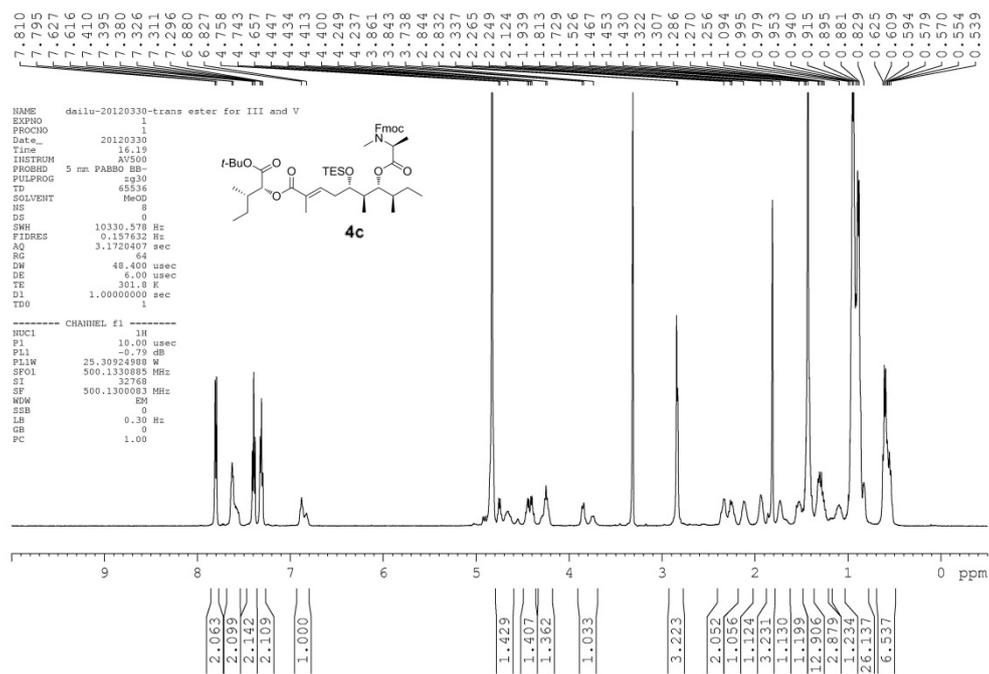


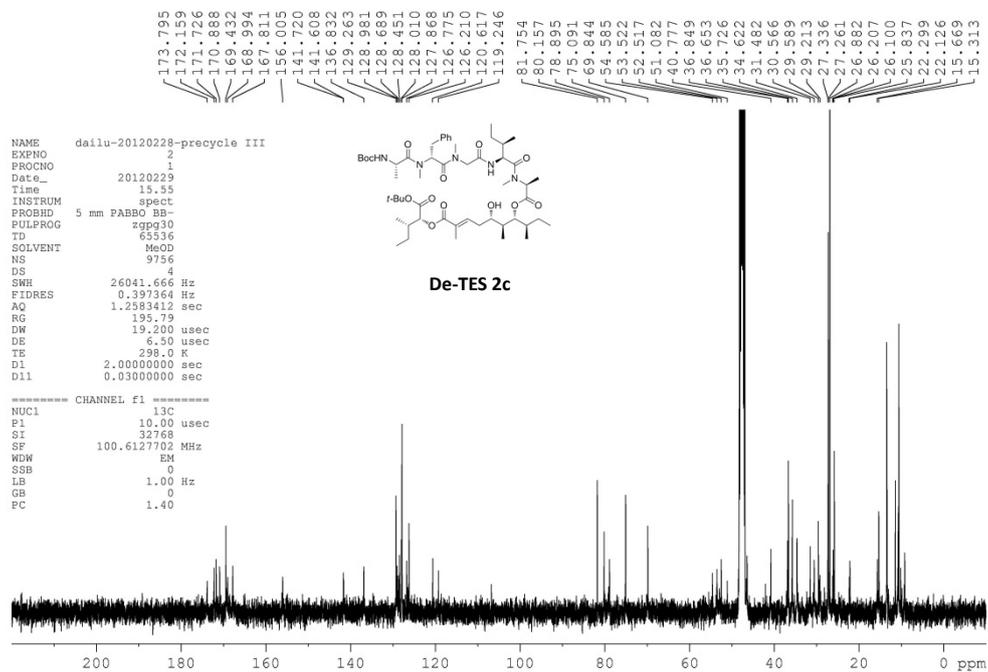
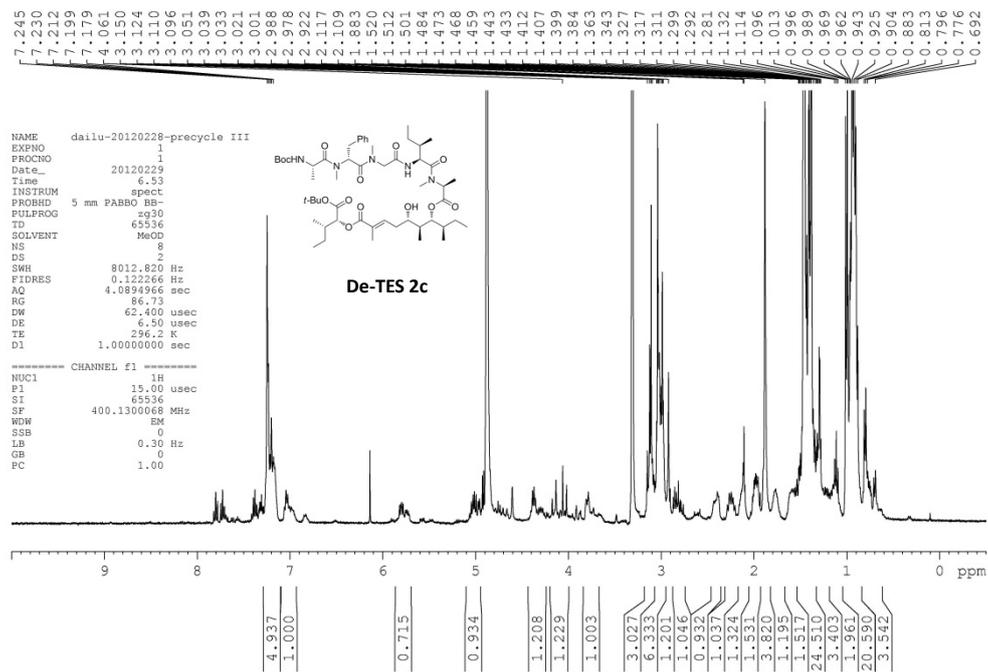


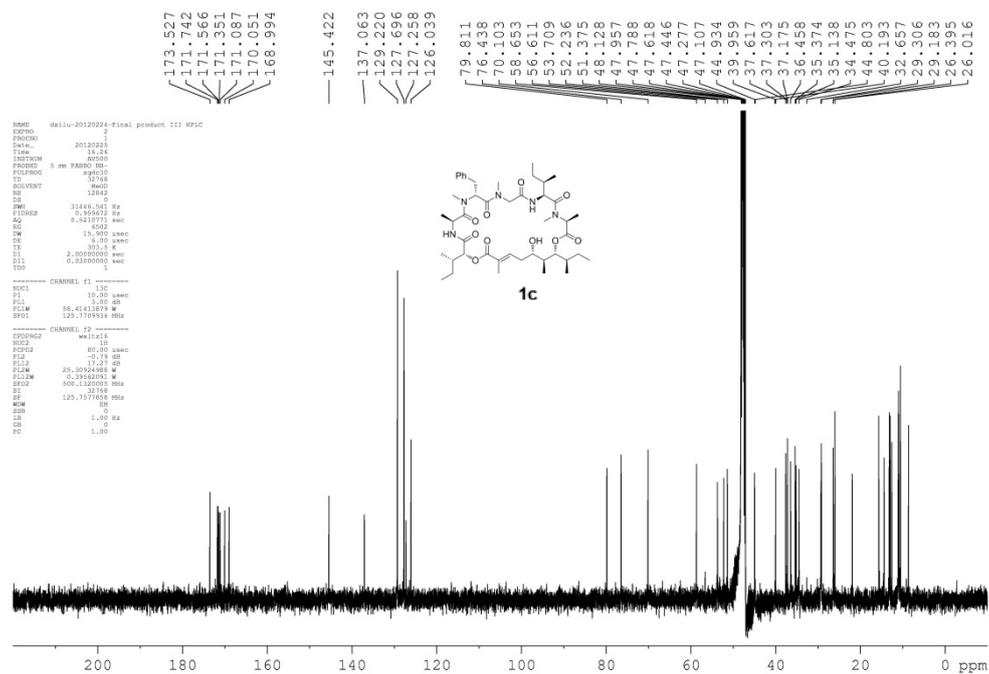
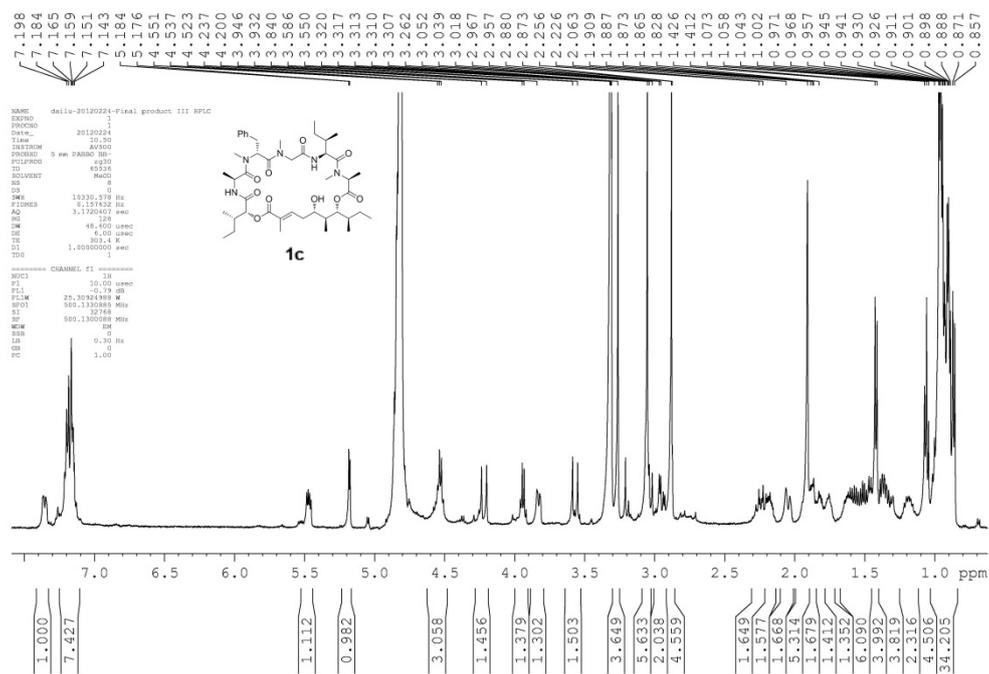


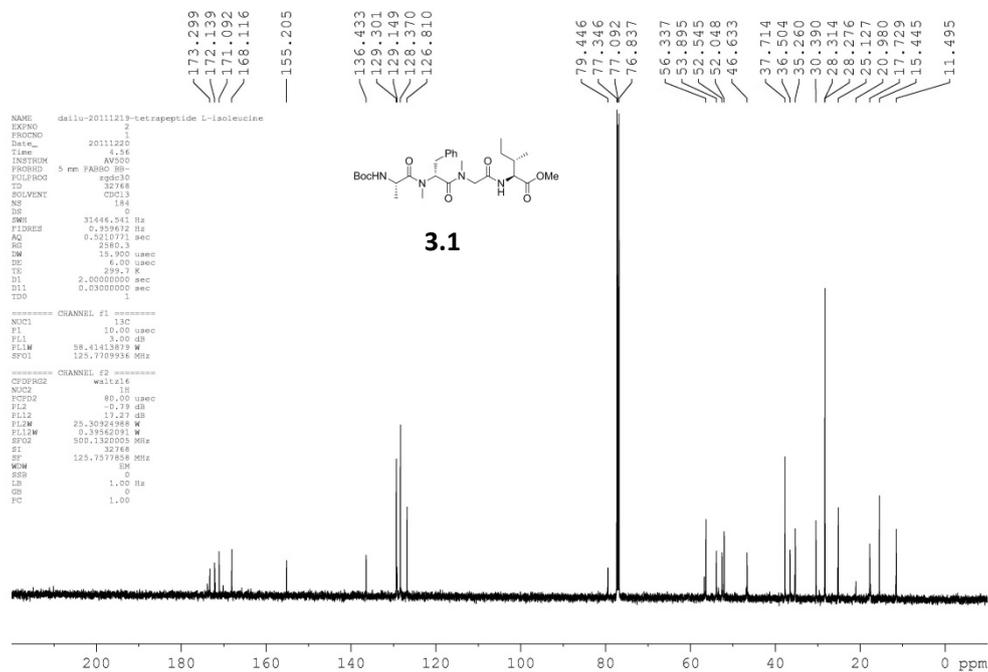
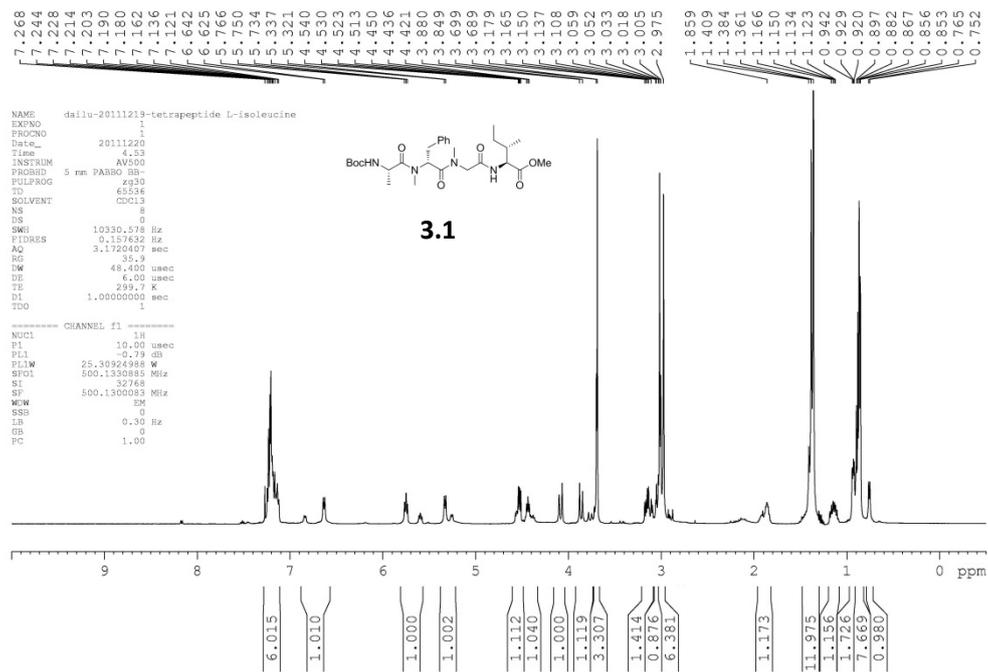


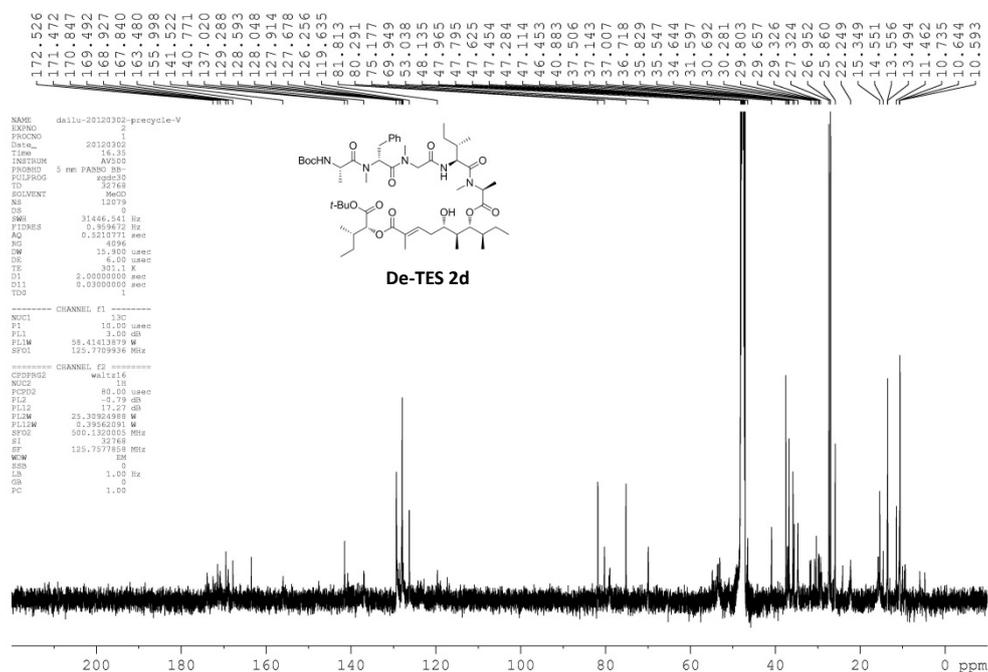
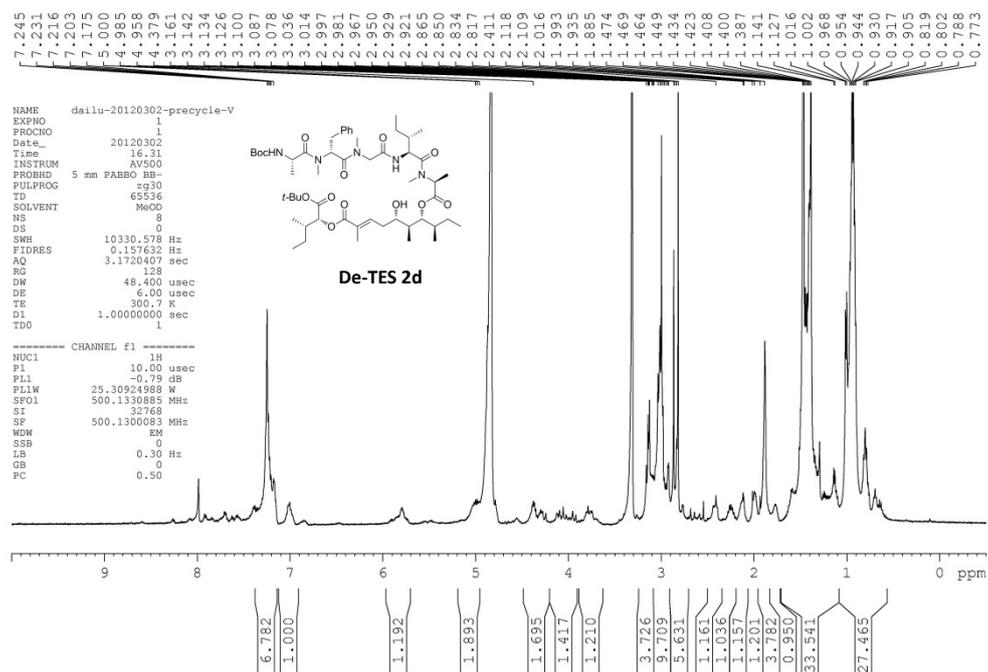


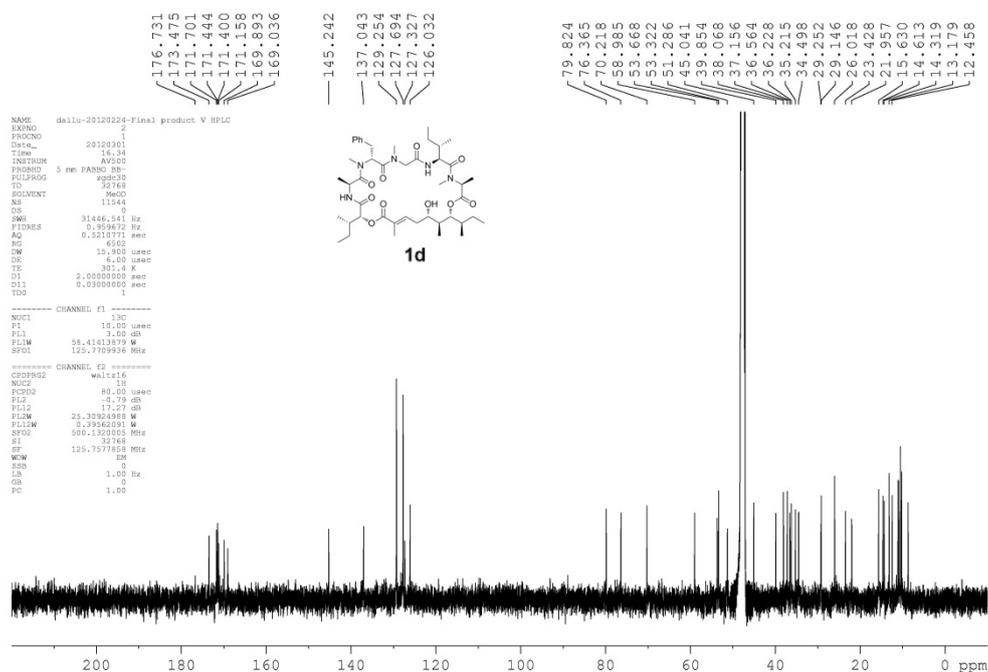
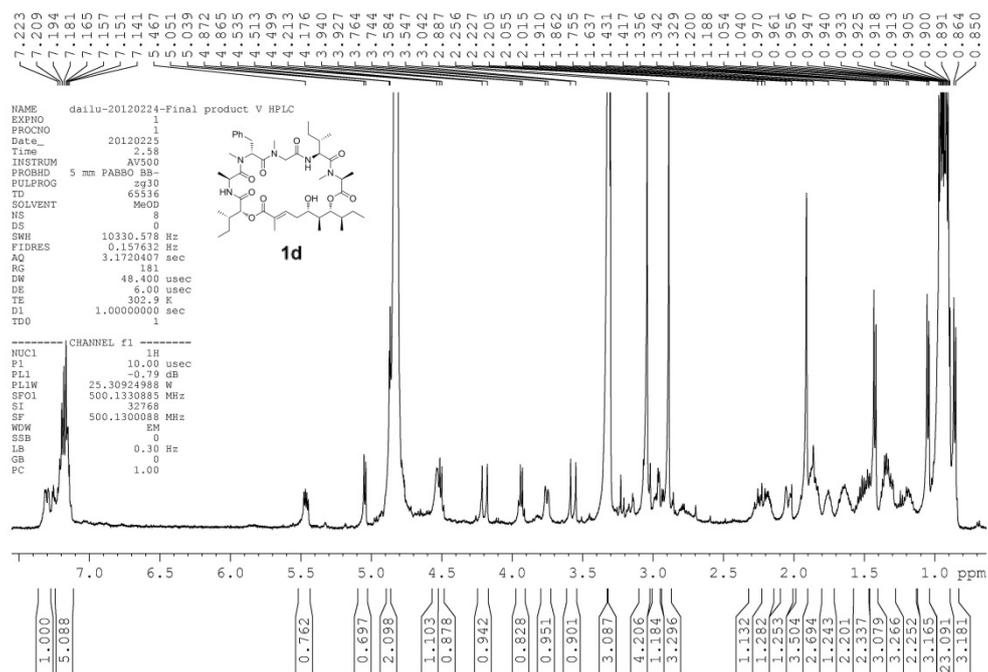


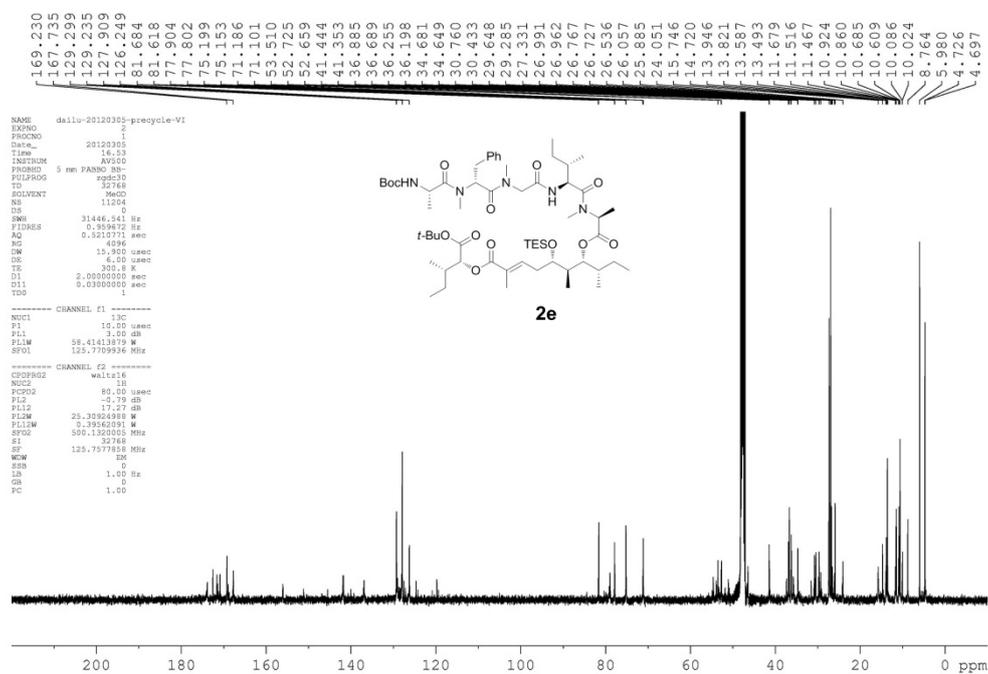
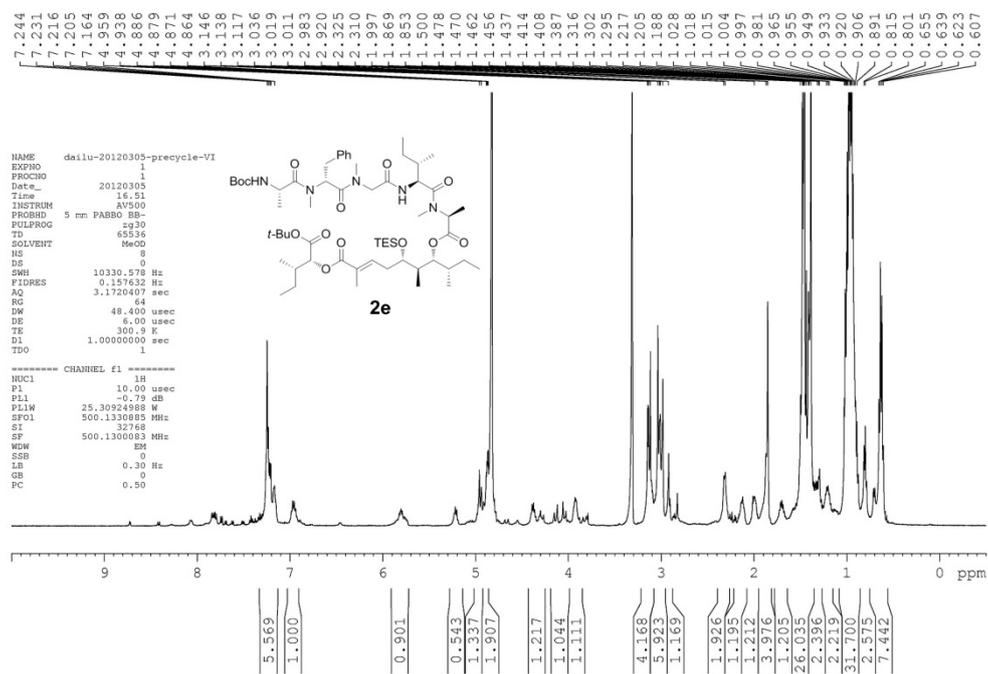


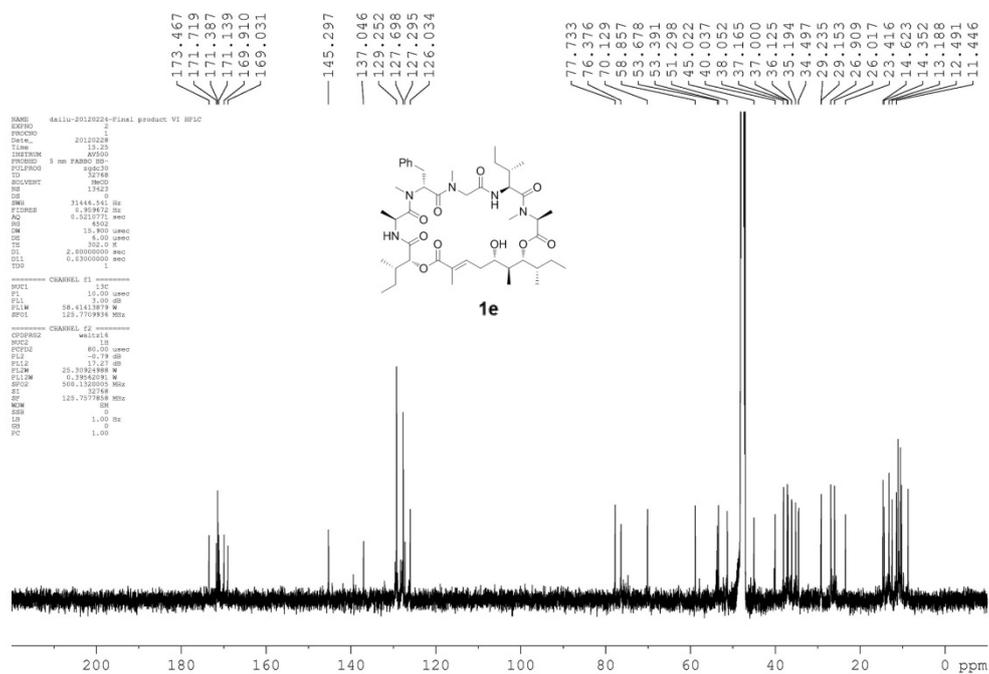
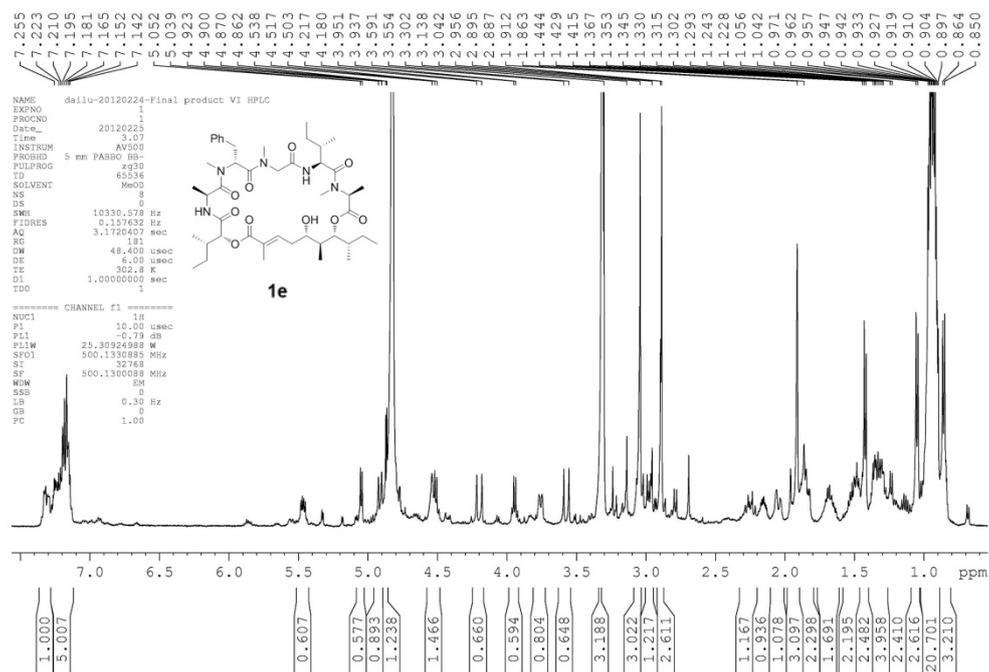


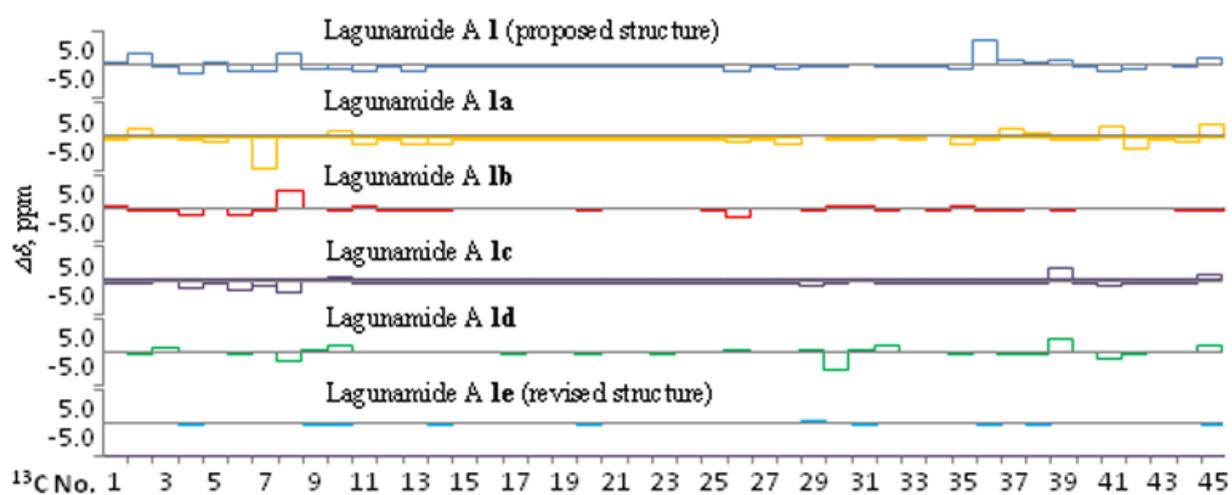












**Figure 3:** Differences in  $^{13}\text{C}$  NMR shifts between natural *lagunamide A* and six synthetic *lagunamides A* stereoisomers