

Supporting Information

Phase-vanishing halolactonization of neat substrates

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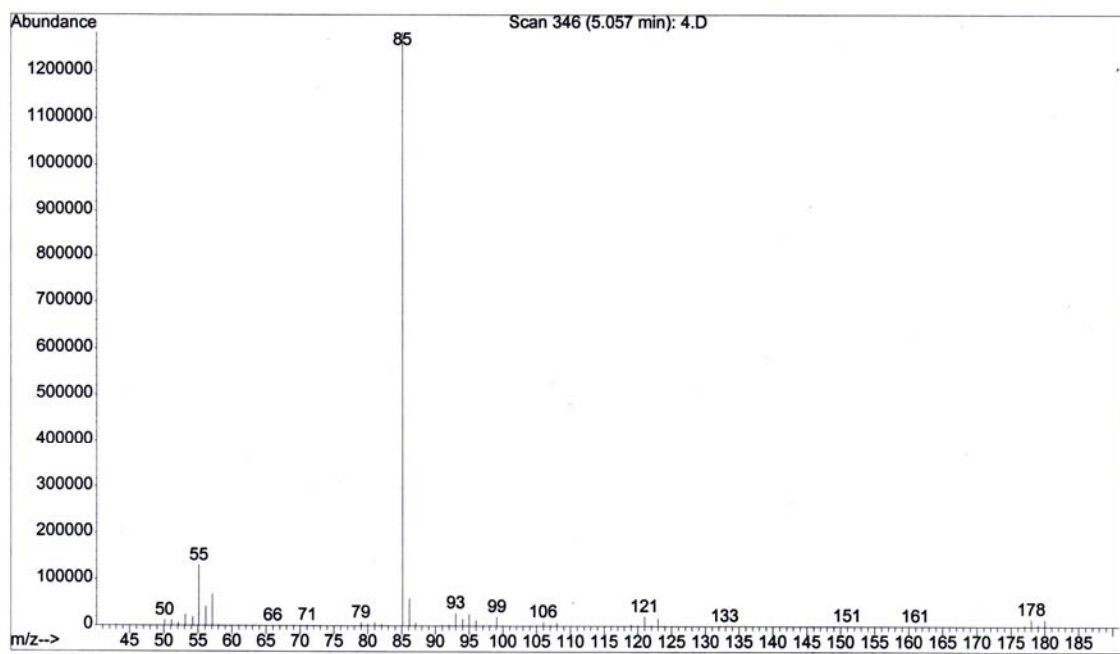
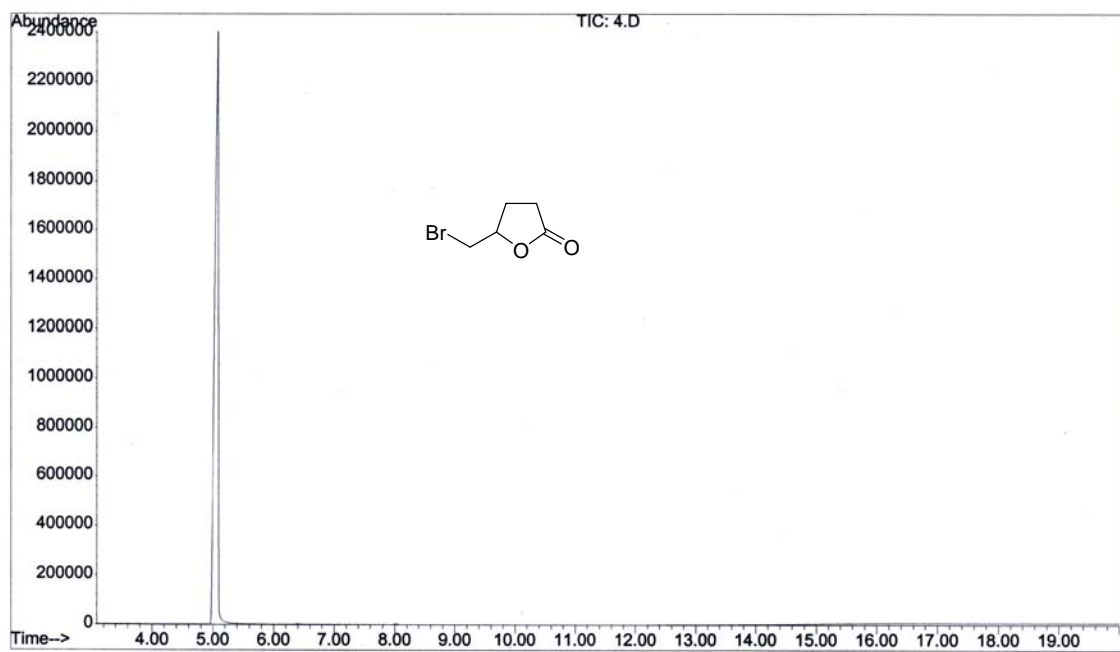
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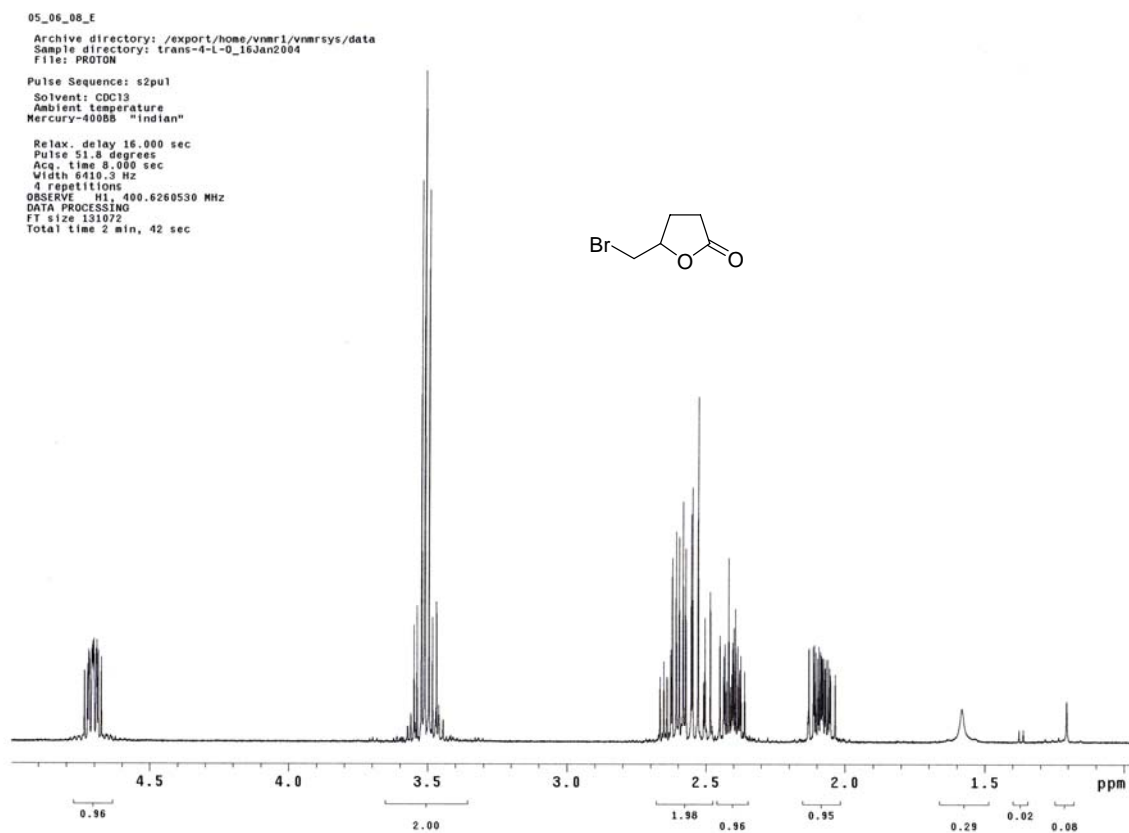
Veljko Dragojlovic – vdragojl@fau.edu

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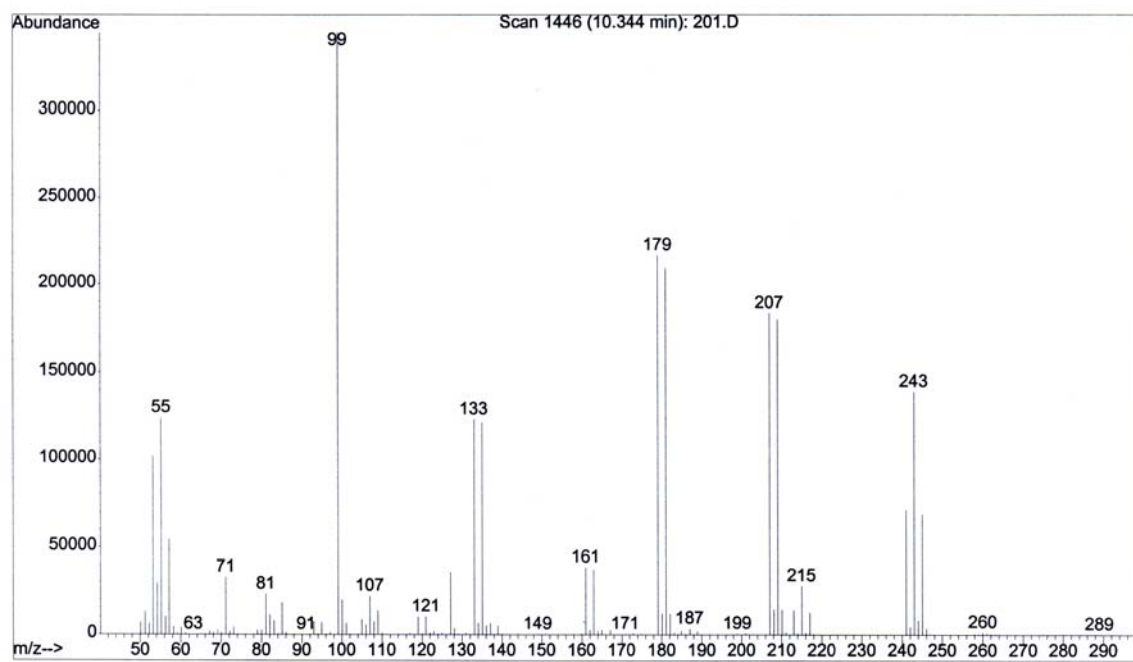
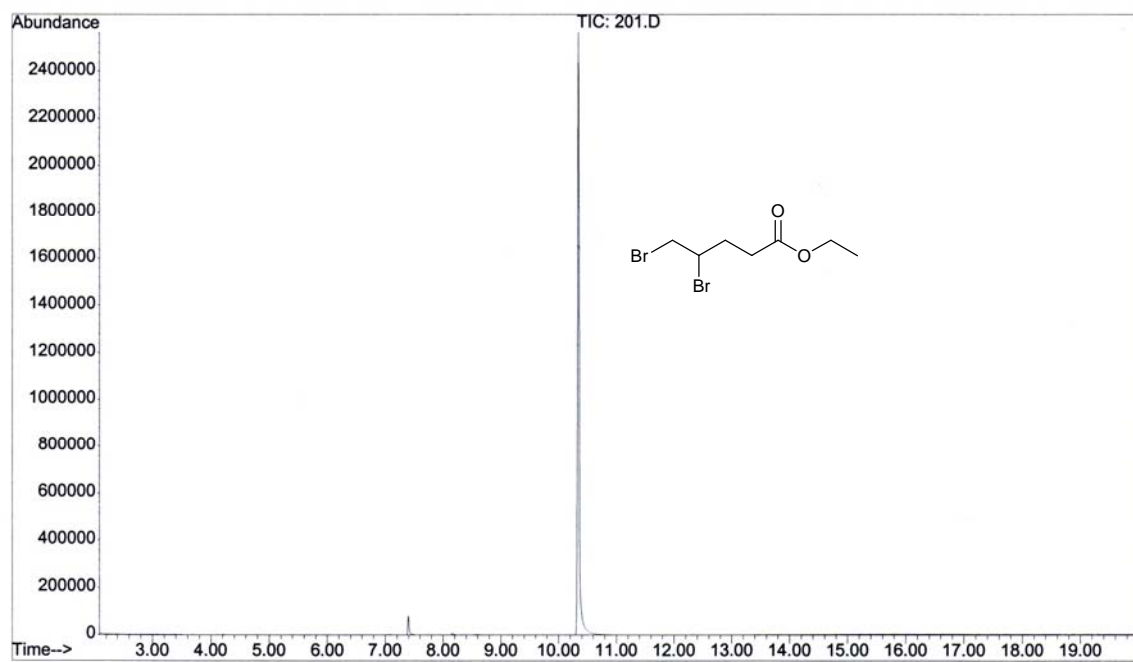
GC-MS spectra of the compounds **2**, **3**, **4**, **5**, **8**, **13**, **18**, **19**, **21**, **22** and ^1H NMR spectra of the compounds **2**, **4**, **5**, **8**, **13**, **18**, **19**, **21**, **22**.



GC-MS of 5-(bromomethyl)-dihydrofuran-2(3H)-one (**2**).

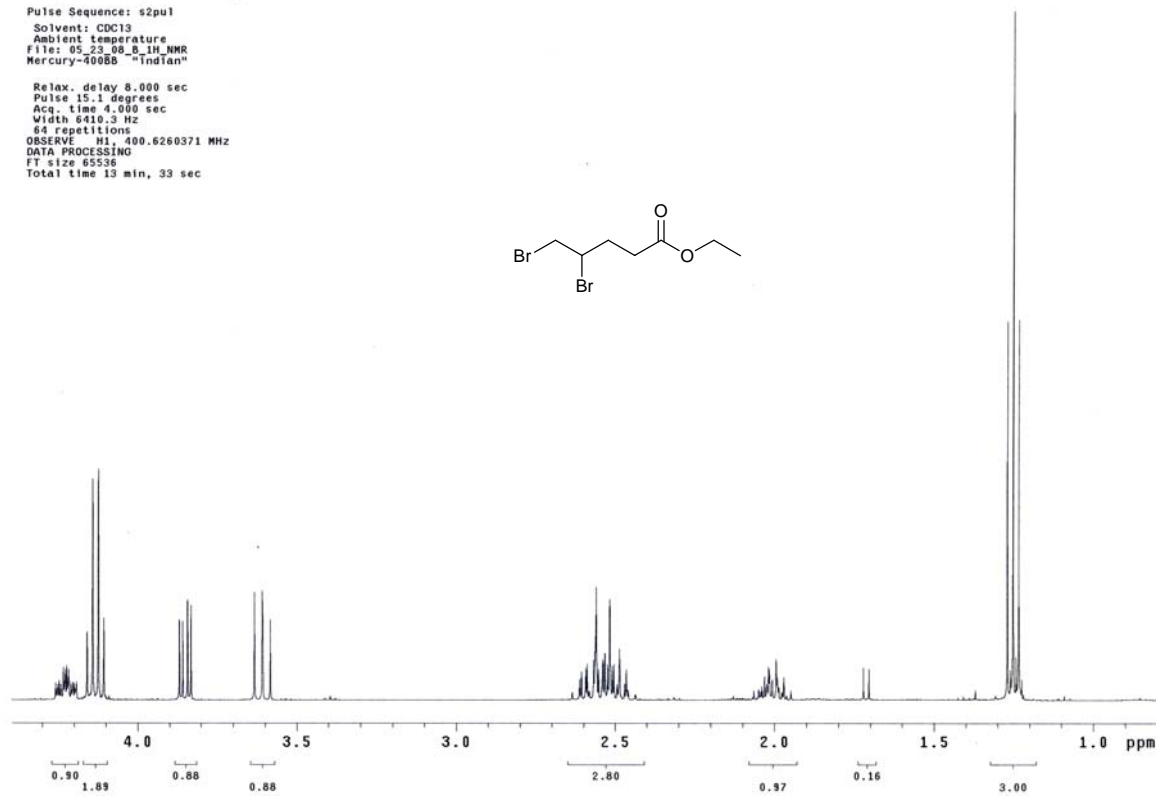
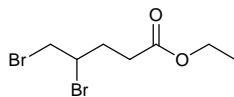


^1H NMR of 5-(bromomethyl)-dihydrofuran-2(3H)-one (**2**).

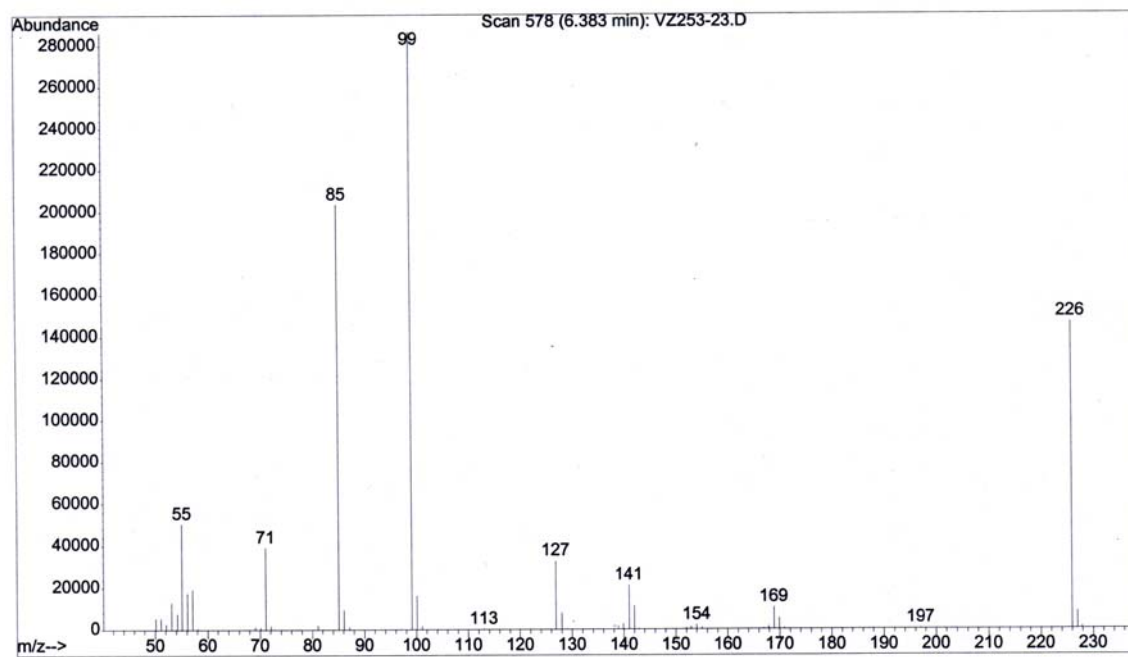
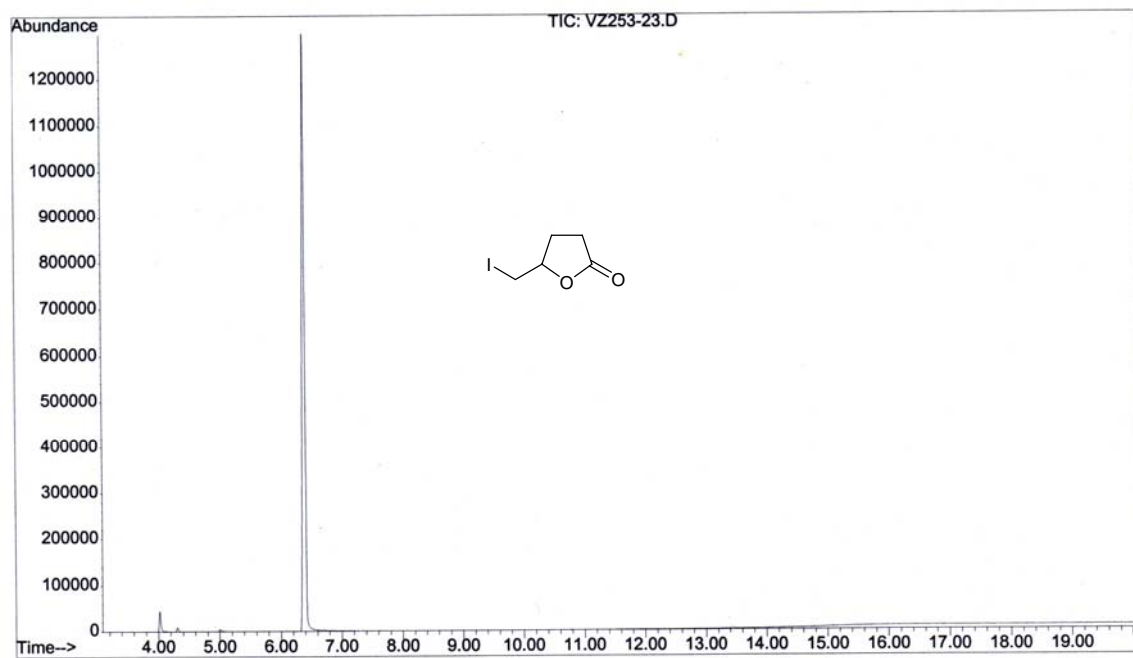


GC-MS of ethyl 4,5-dibromopentanoate (**4**).

05_23_08_B_1H_NMR
Archive directory: /export/home/vnmr1/vnmrsys/data
Sample directory: trans-4-l-0_16Jan2004
Pulse Sequence: s2pul
Solvent: CDCl3
Ambient temperature
File: 05_23_08_B_1H_NMR
Mercury-400BB "Indian"
Relax. delay 8.000 sec
Pulse 15.1 degrees
Acq. time 4.000 sec
Width 6410.3 Hz
64 repetitions
OBSERVE H1 400.6260371 MHz
DATA PROCESSING
FT size 65536
Total time 13 min, 33 sec

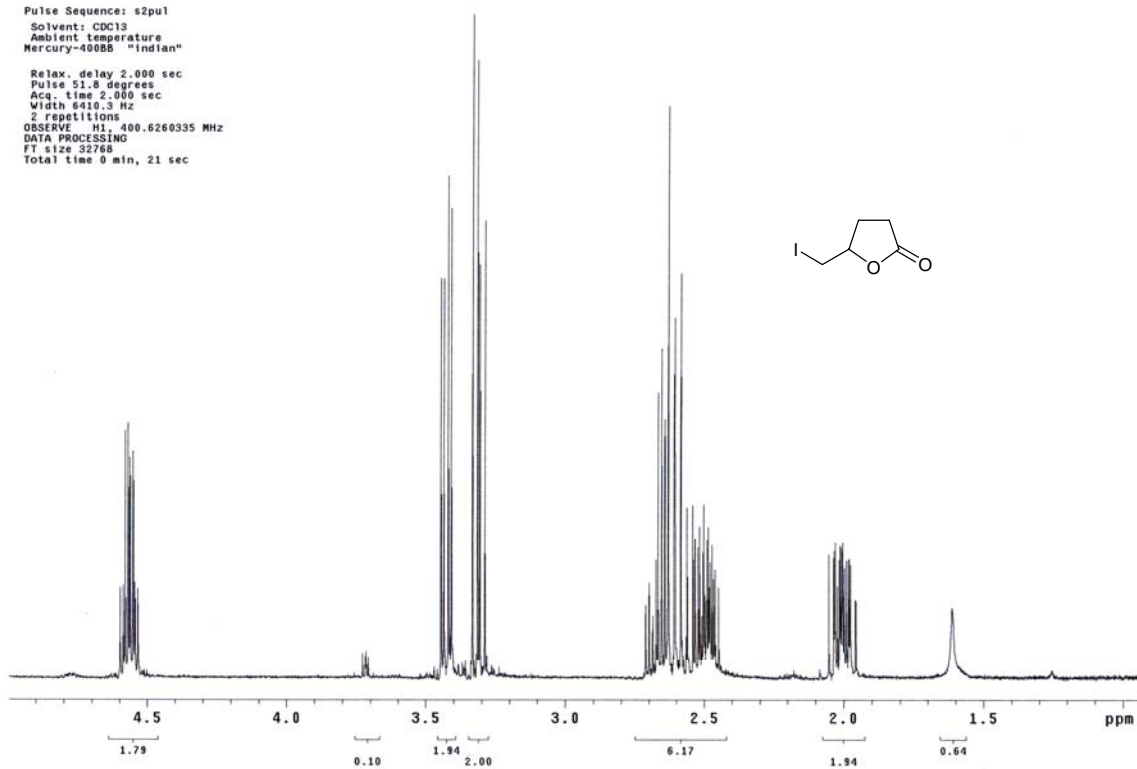


¹H NMR of ethyl 4,5-dibromopentanoate (**4**).

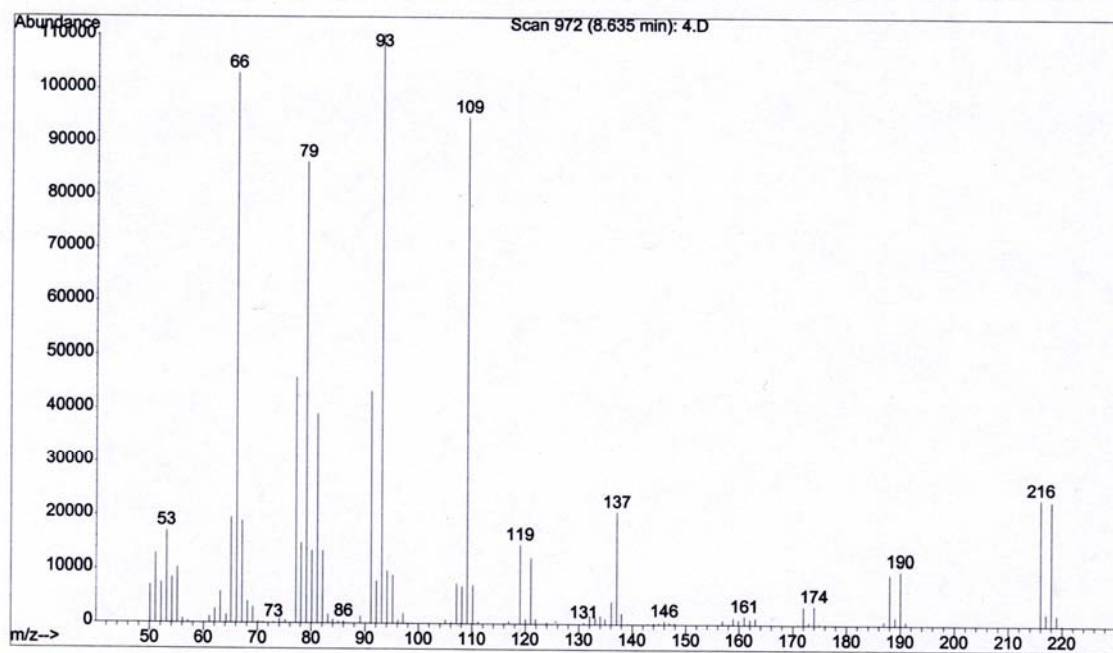
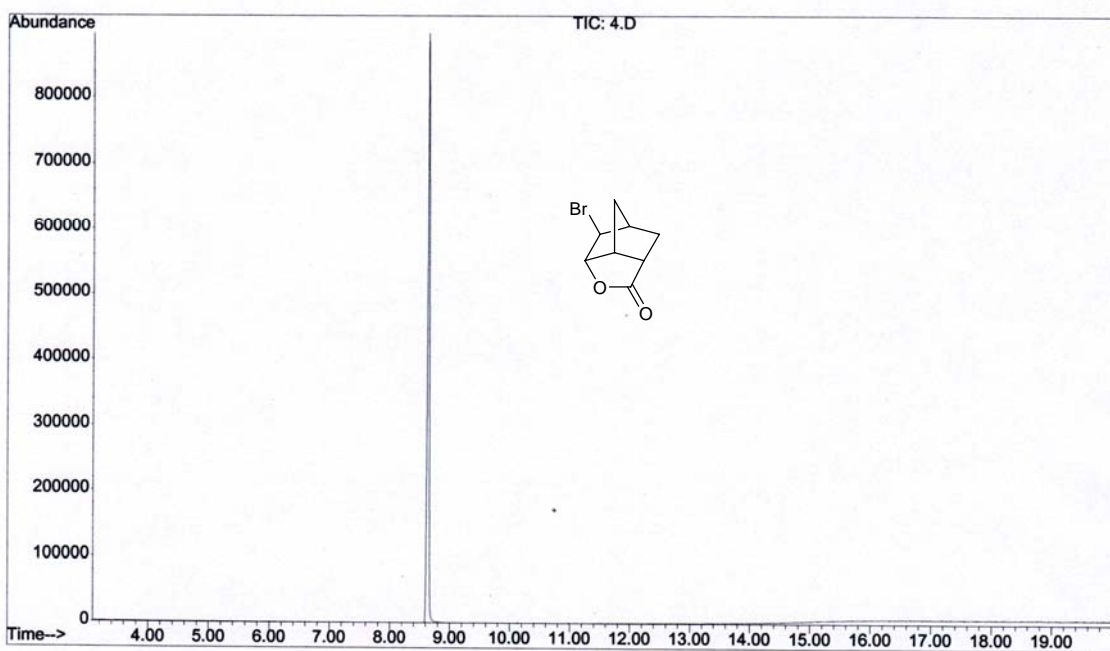


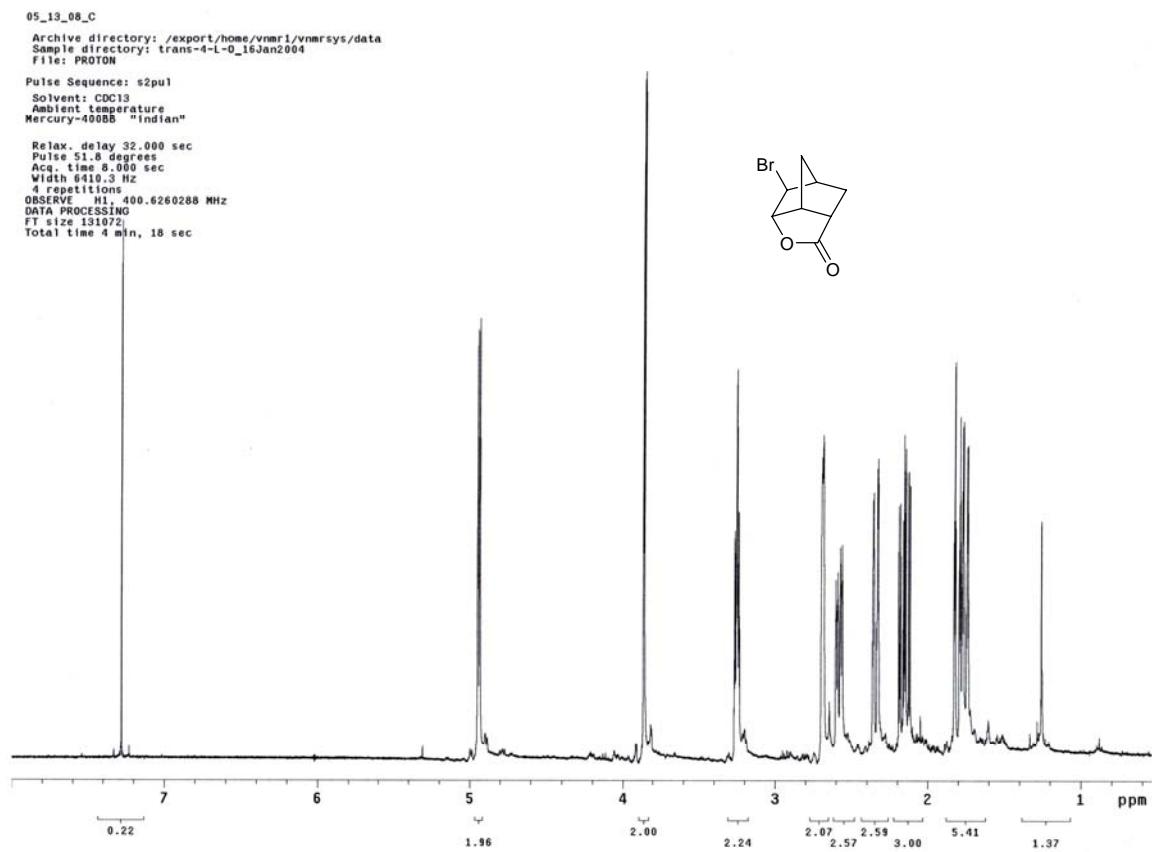
GC-MS of 5-(iodomethyl)-dihydrofuran-2(3H)-one (**5**).

05_06_08_C
Archive directory: /export/home/vmr1/vmrsys/data
Sample directory: trans-4-L-0_16Jan2004
File: PROTON
Pulse Sequence: s2pu1
Solvent: CDCl3
Ambient temperature
Mercury-400BB "indian"
Relax. delay 2.000 sec
Pulse 51.0 degrees
Acq. time 2.000 sec
Width 610.3 Hz
2 repetitions
OBSERVE H1, 400.6260335 MHz
DATA PROCESSING
FT size 32768
Total time 0 min, 21 sec

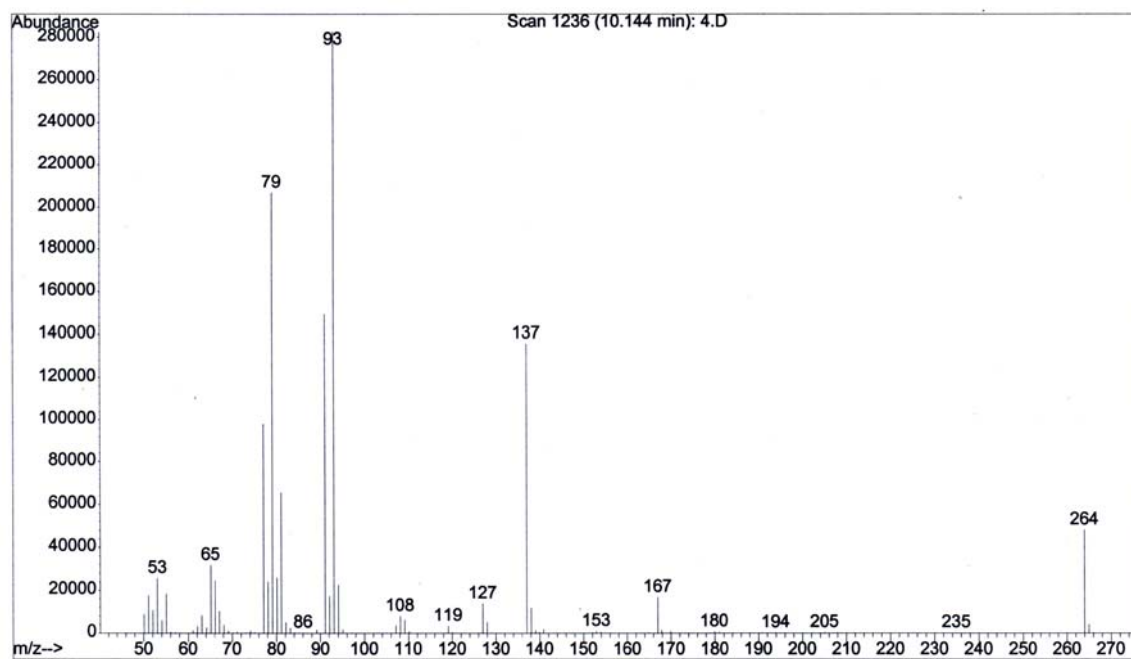
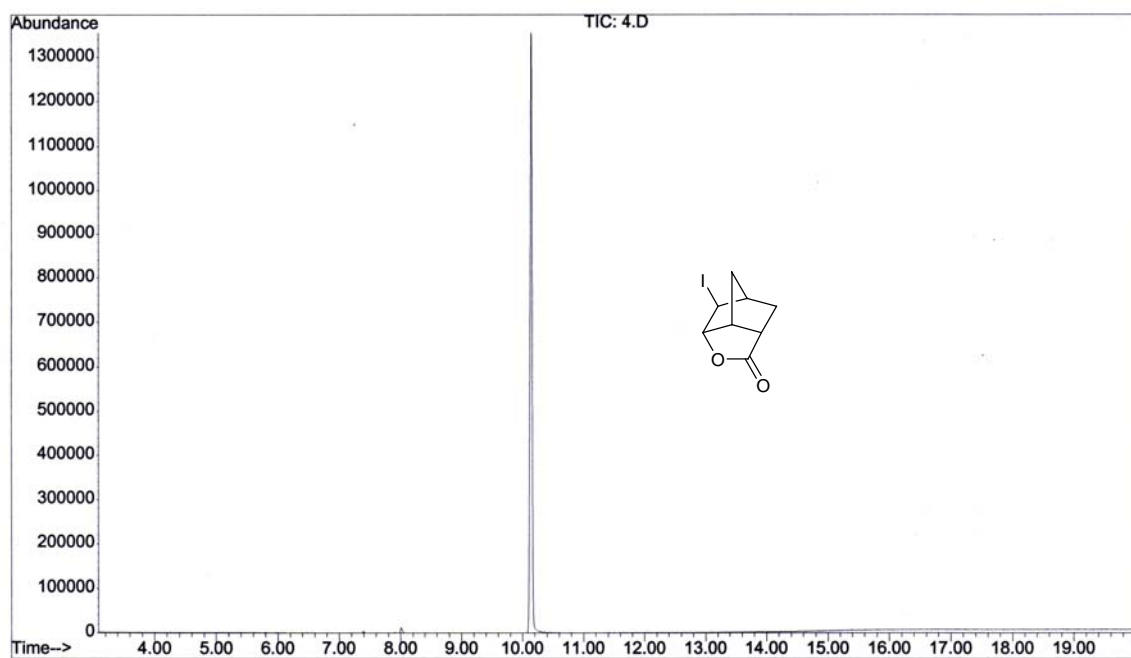


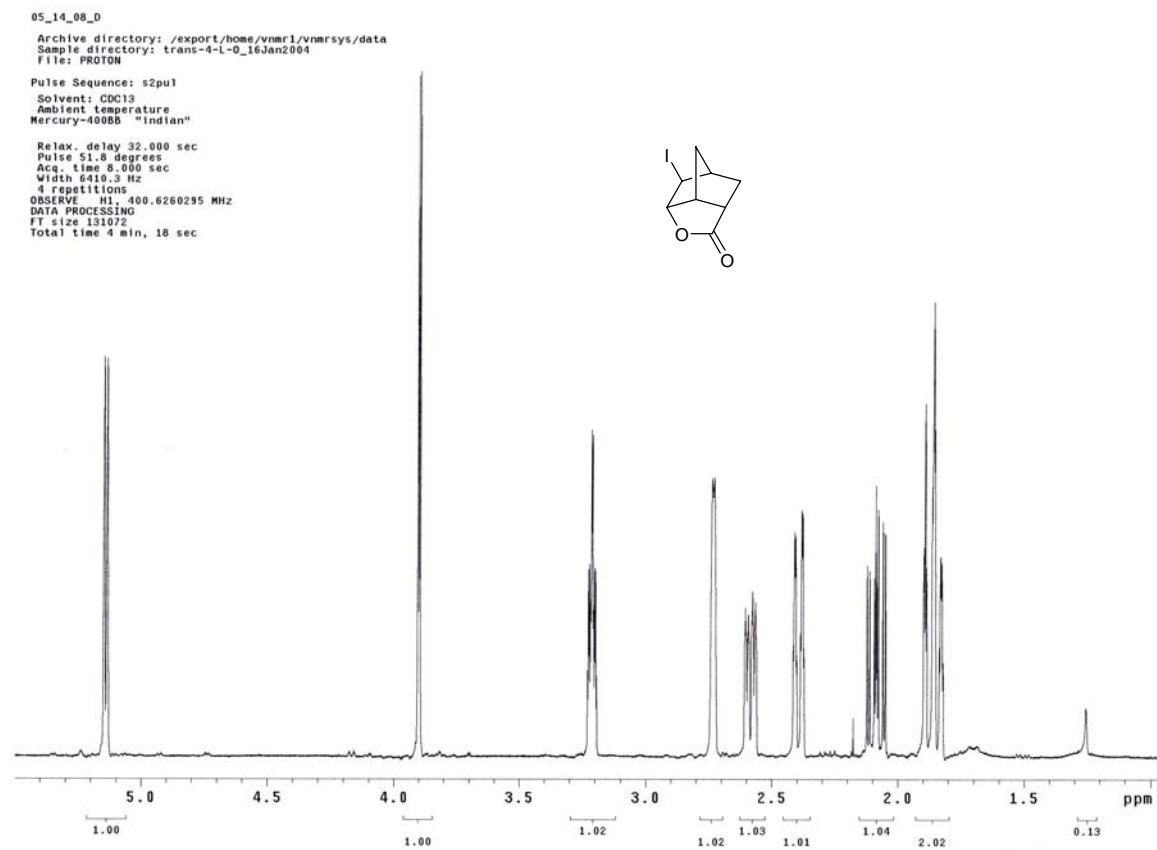
¹H NMR of 5-(iodomethyl)-dihydrofuran-2(3H)-one (5).

GC-MS of bromolactone **8**.

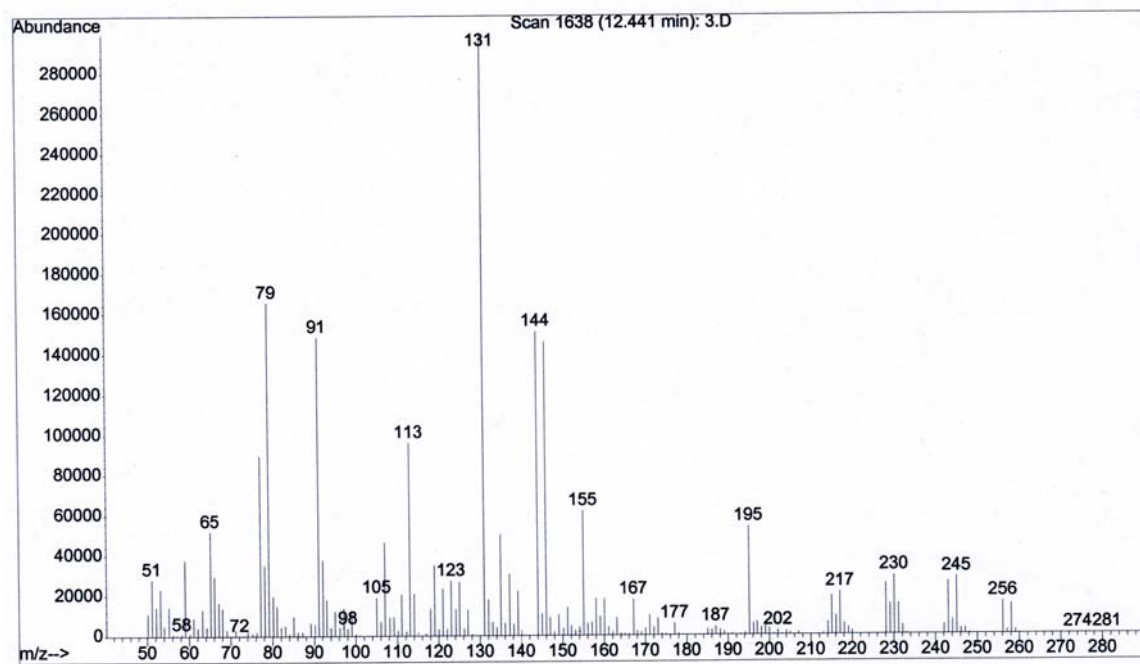
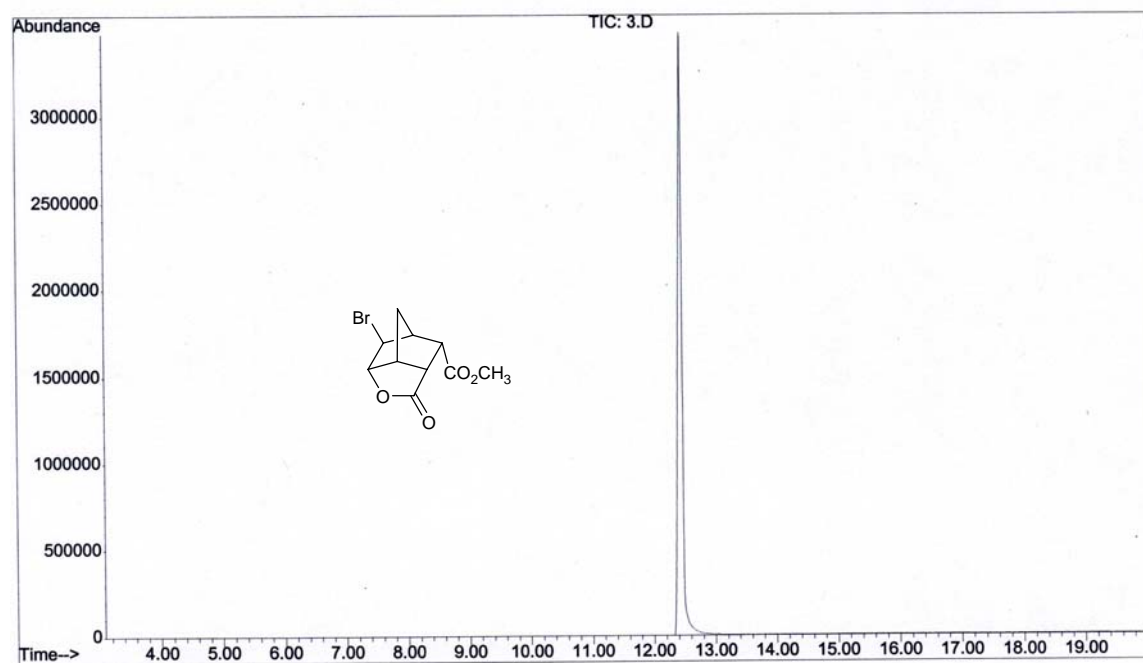


^1H NMR of bromolactone **8**.

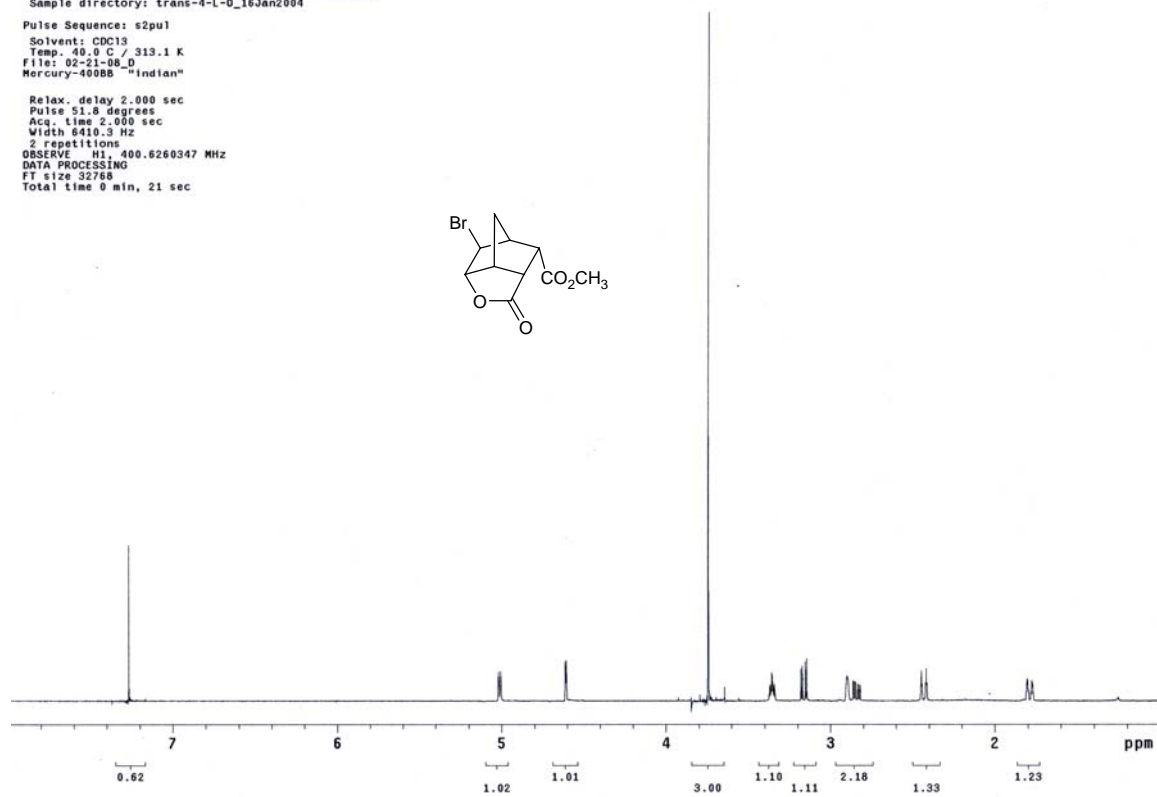
GC-MS of iodolactone **13**.

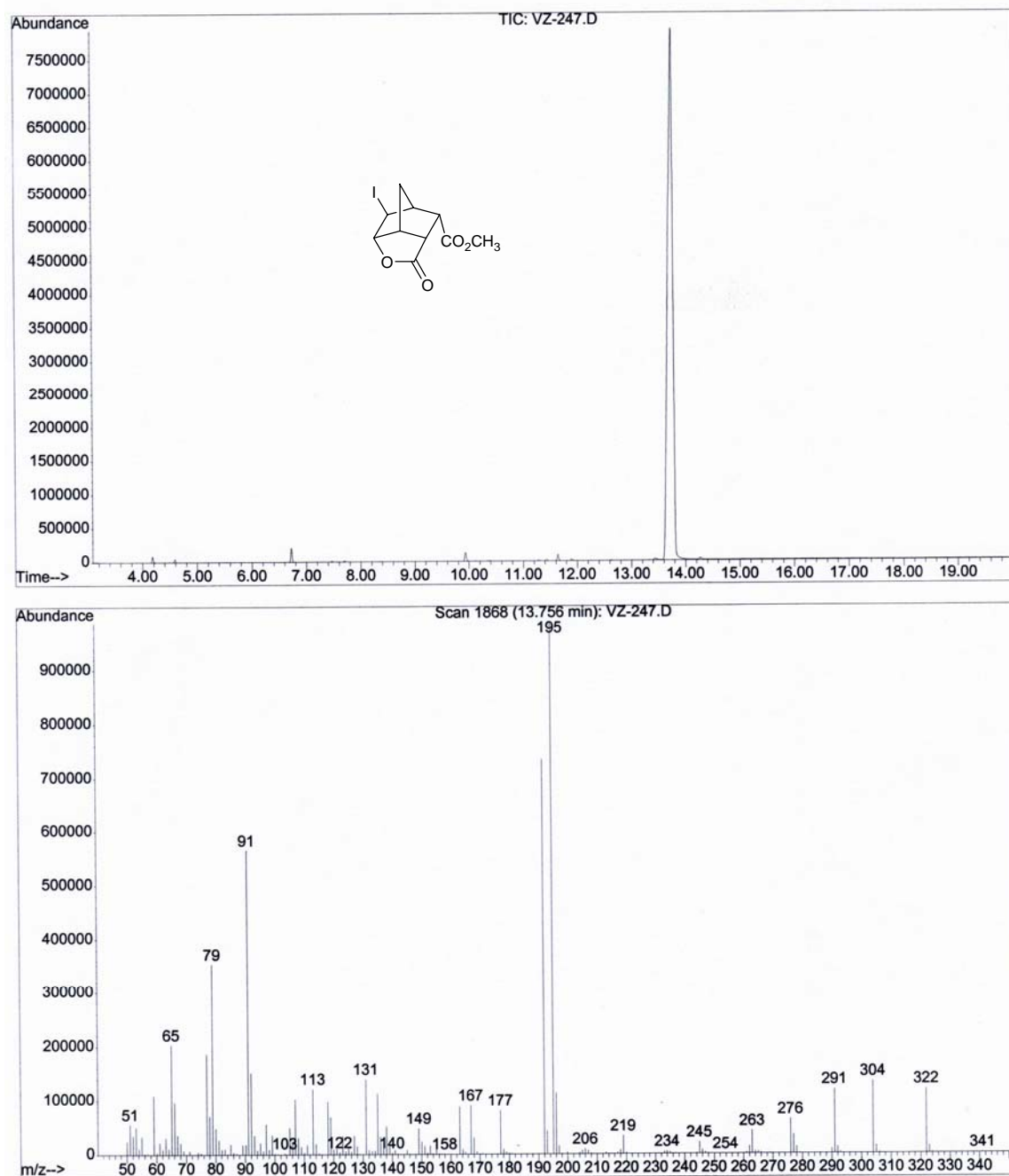


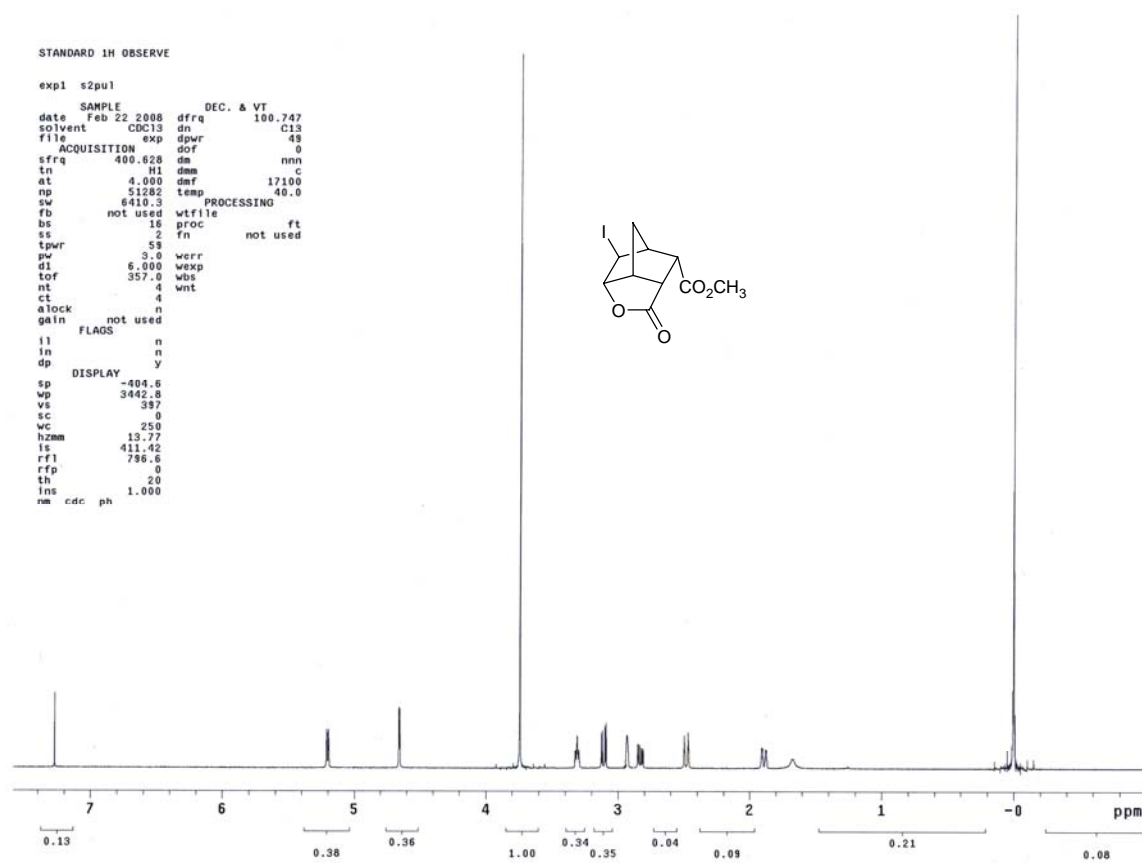
^1H NMR of iodolactone **13**.

GC-MS of bromolactone ester **18**.

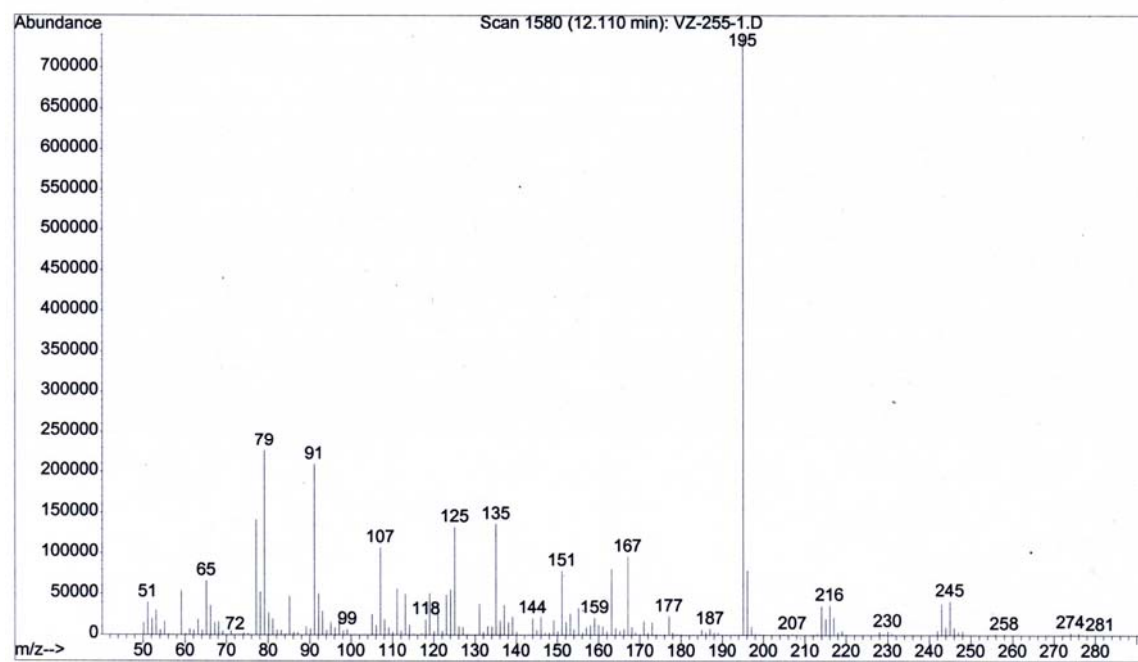
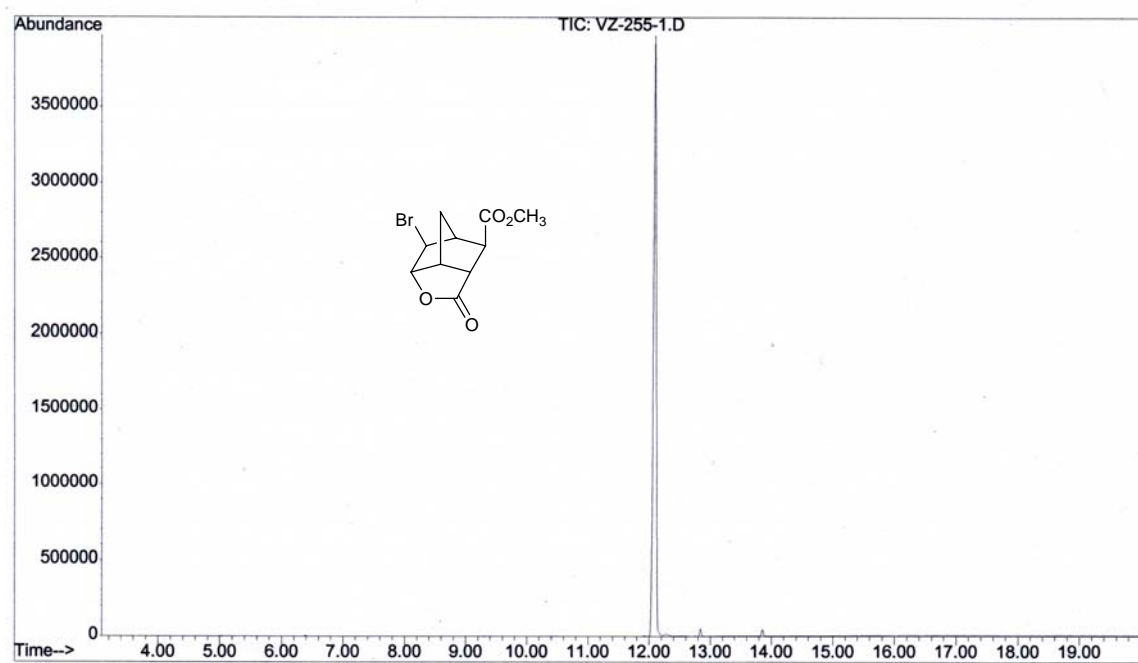
STANDARD 1H OBSERVE

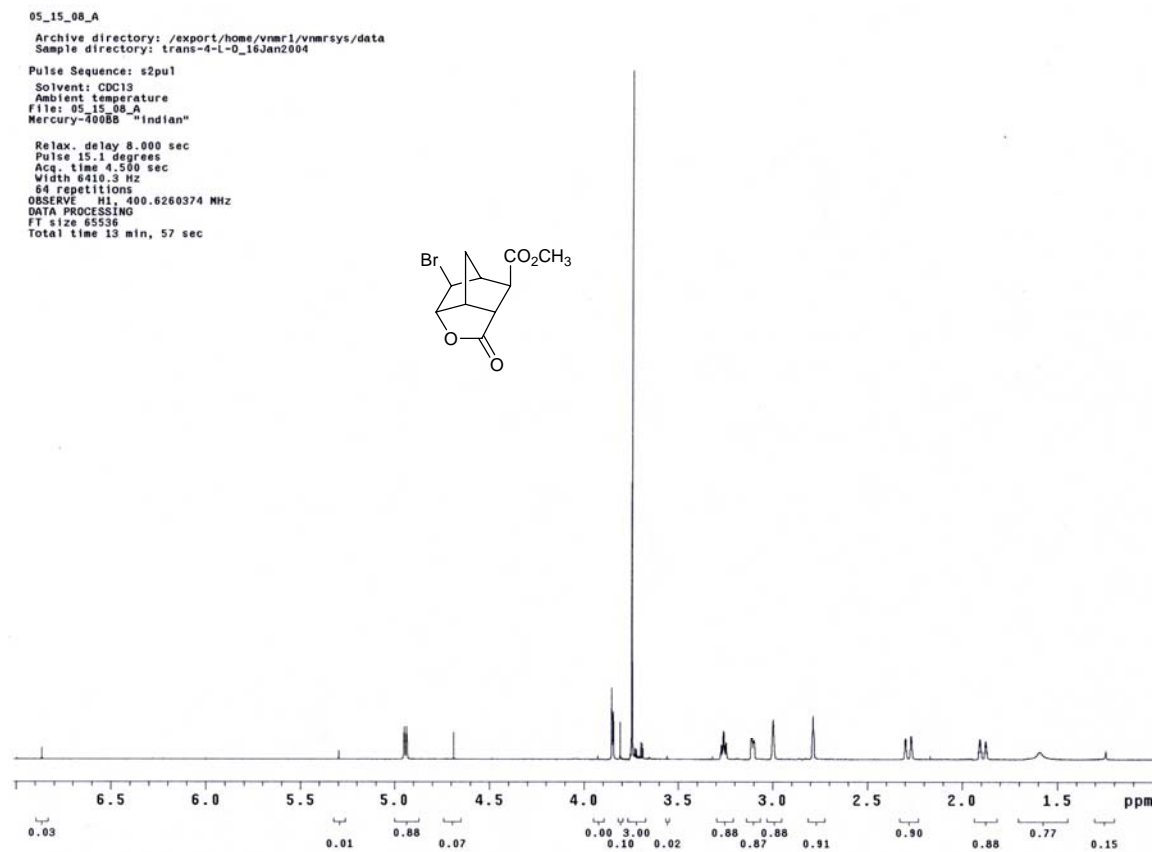
Archive directory: /export/home/vnmr1/vnmrsys/data
Sample directory: trans-4-L-0_16Jan2004Pulse Sequence: s2pul
Solvent: CDC13
Temp. 40.0 C / 313.1 K
File: 02-21-08_0
Mercury-400BB "Indian"Relax. delay 2.000 sec
Pulse 51.8 degrees
Acq. time 2.000 sec
Width 6410.3 Hz
2 repetitions
OBSERVE H1, 400.6260347 MHz
DATA PROCESSING
FT size 32768
Total time 0 min, 21 sec¹H NMR of bromolactone ester **18**.

GC-MS of iodolactone ester **19**.

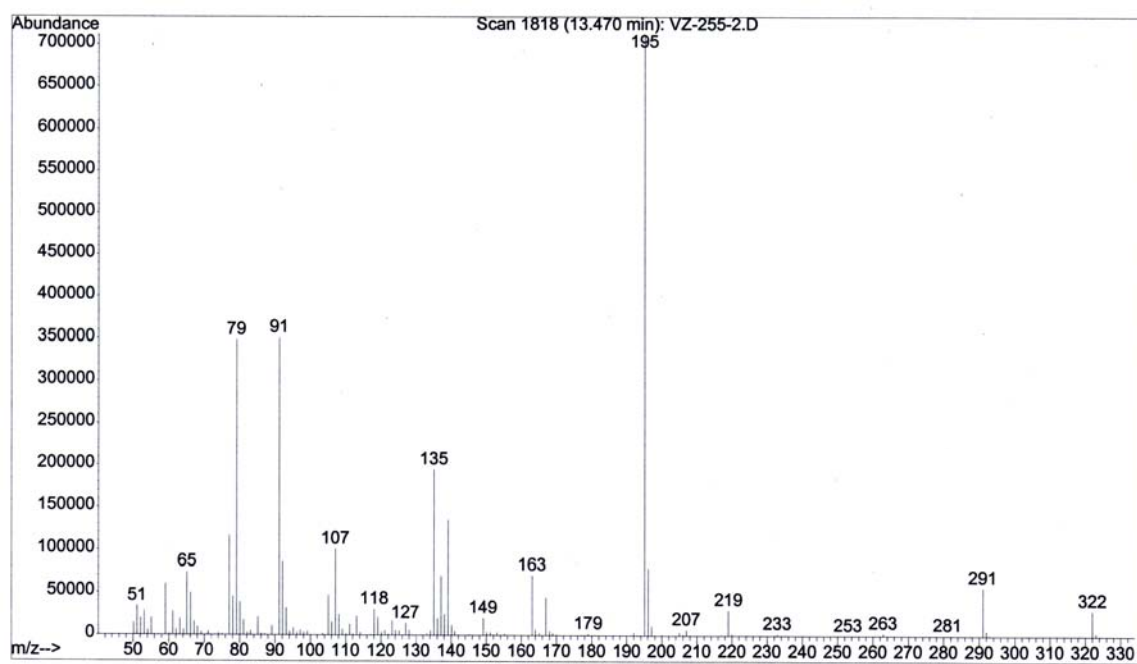
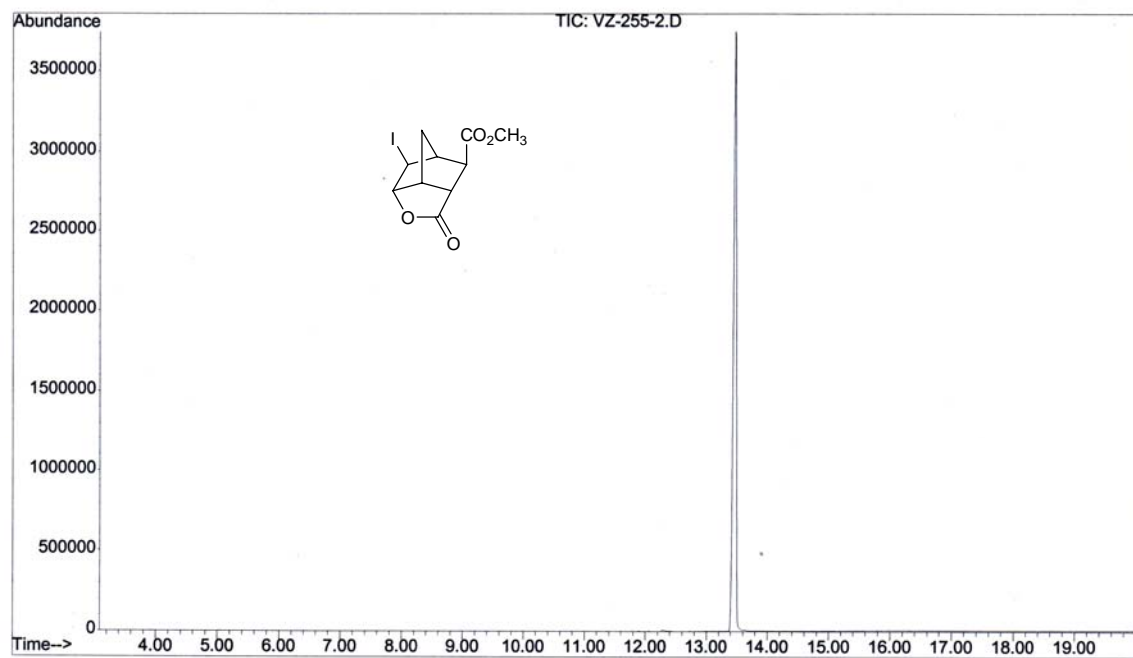


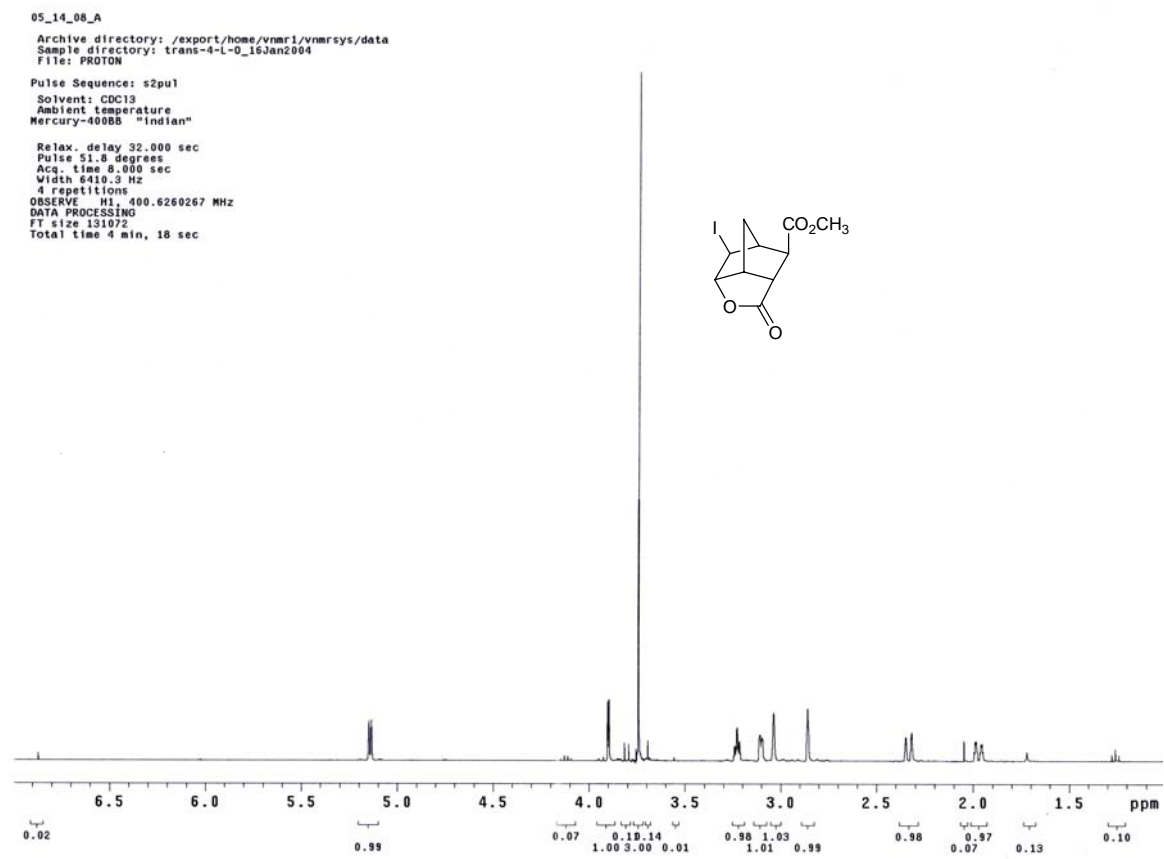
^1H NMR of iodolactone ester **19**.

GC-MS of bromolactone ester **21**.



¹H NMR of bromolactone ester **21**.

GC-MS of iodolactone ester **22**.



^1H NMR of iodolactone ester **22**.