

Supplementary material (ESI) for Green Chemistry

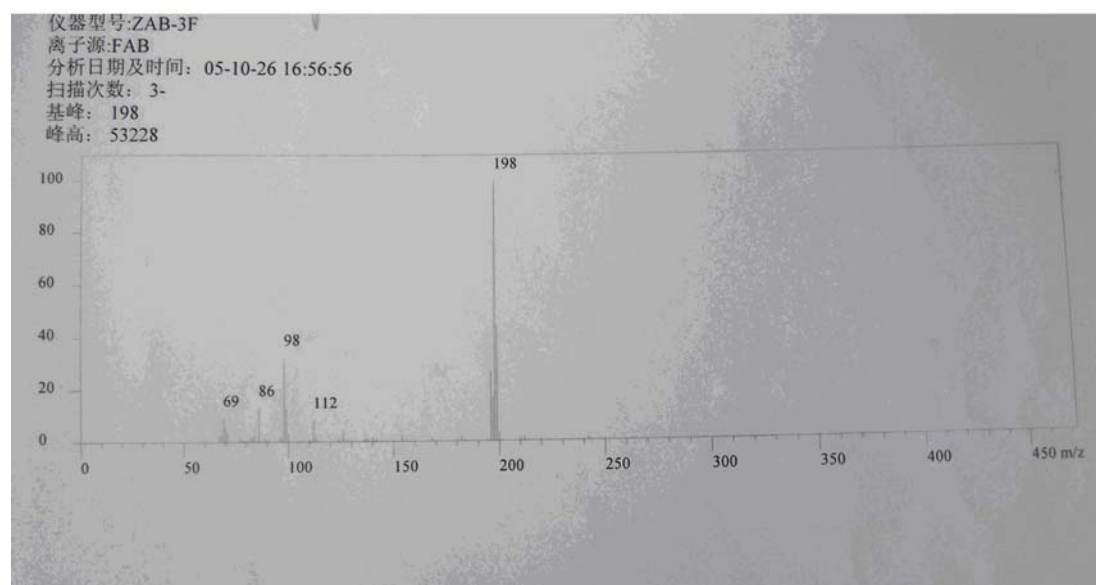
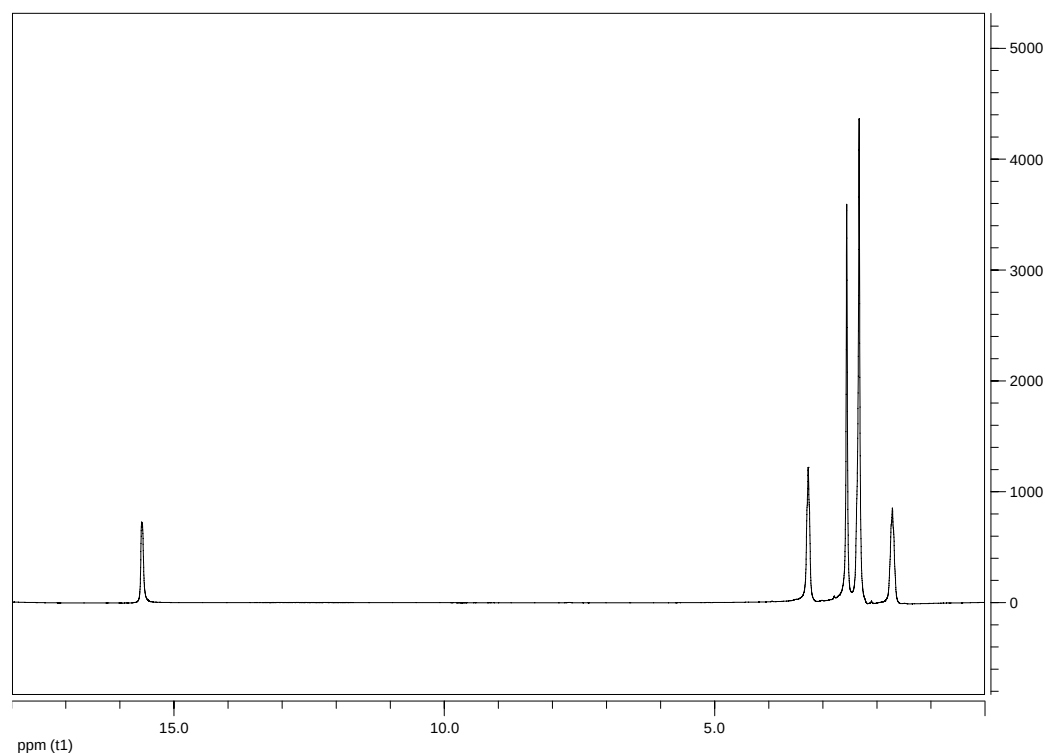
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Supplementary Information

1、The NMR and ESI-MS spectra of $[\text{NMP}]^+ \text{CH}_3\text{SO}_3^-$

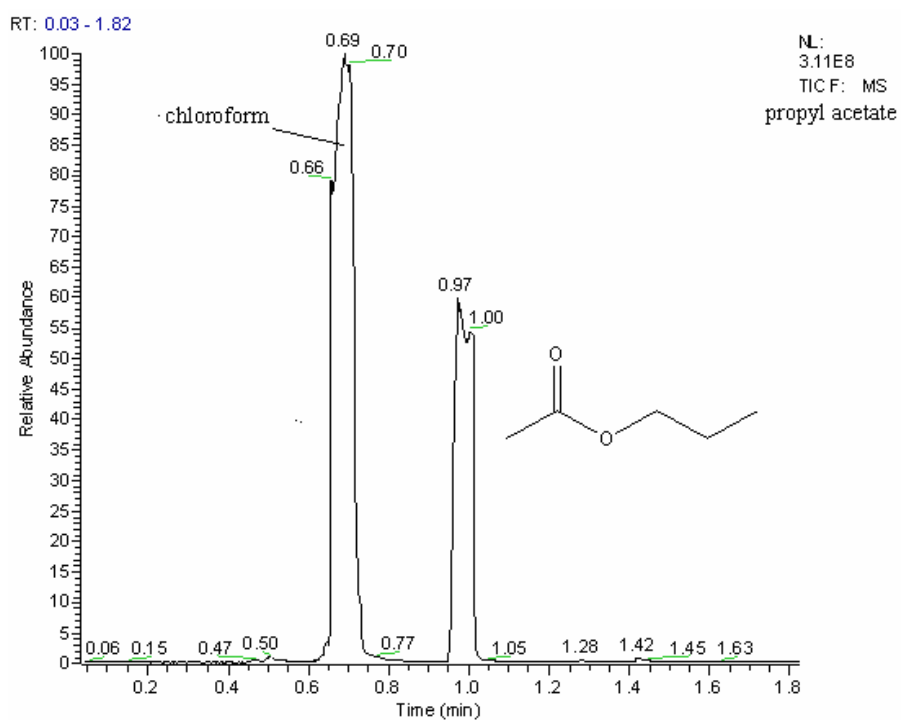
2、The GC-MS spectra of esters (entries 1-19)

The NMR and ESI-MS spectra of $[\text{NMP}]^+ \text{CH}_3\text{SO}_3^-$

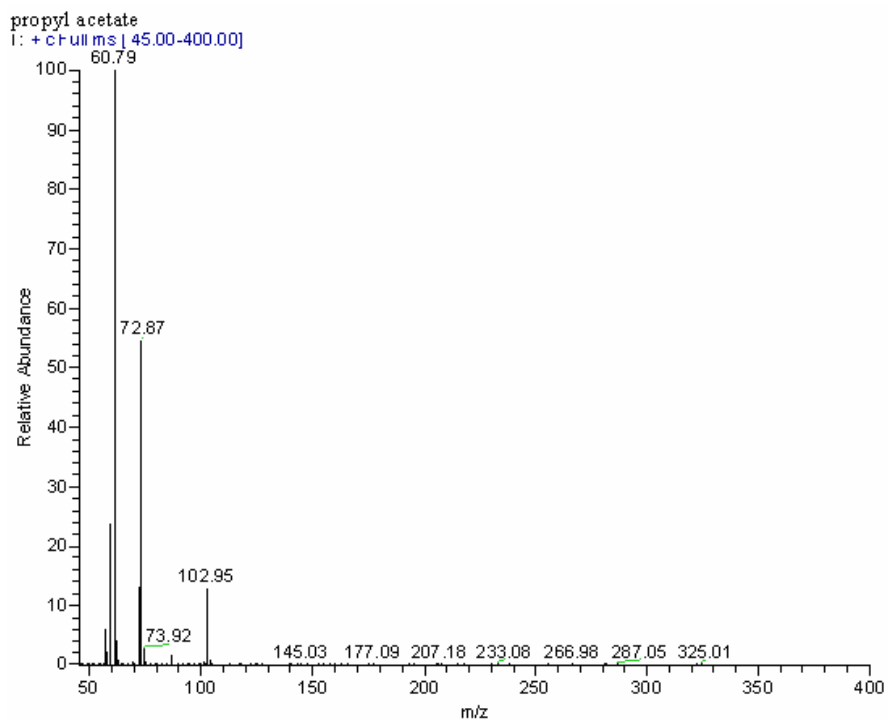


The GC-MS spectra of esters (entries 1-19)

(1) The GC-MS spectrum of propyl acetate

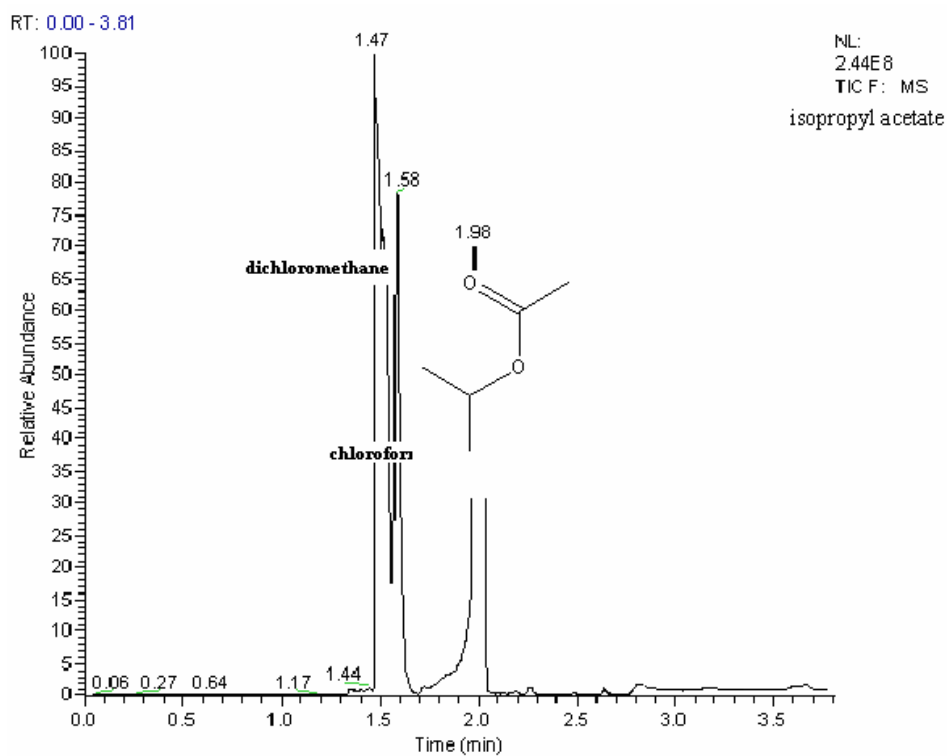


0.69min, solvent of chloroform; 0.97min, propyl acetate

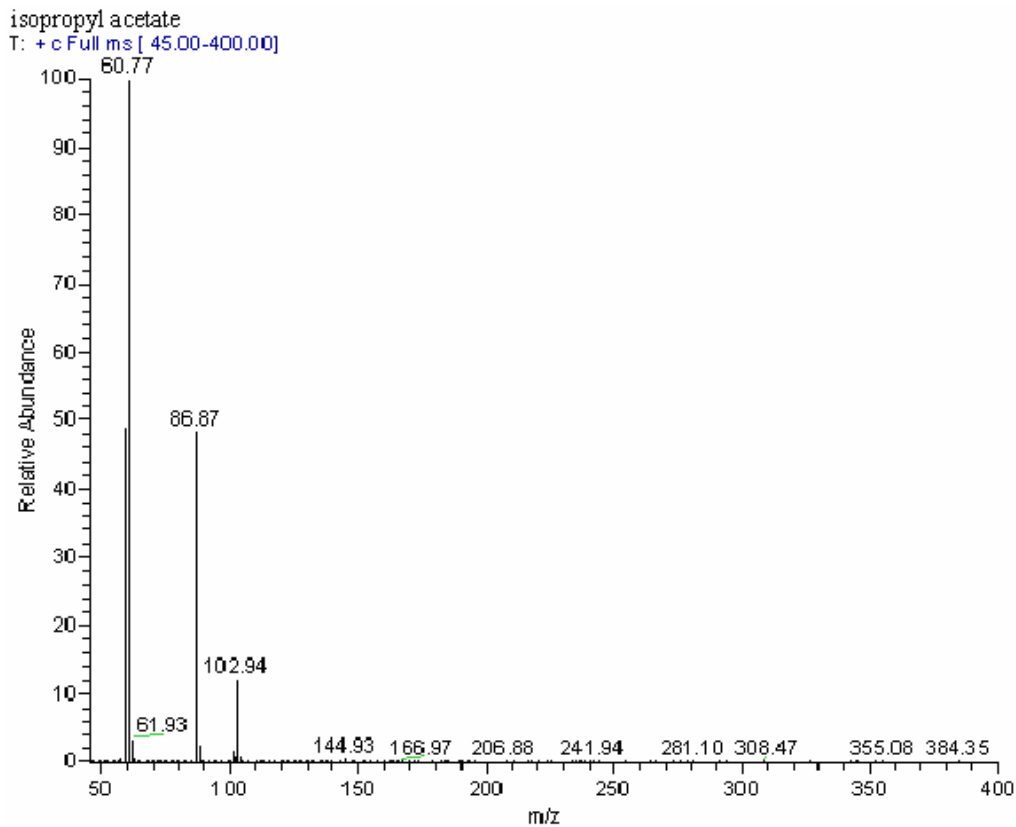


The MS spectra of propyl acetate (0.97min)

(2) The GC-MS spectrum of isopropyl acetate

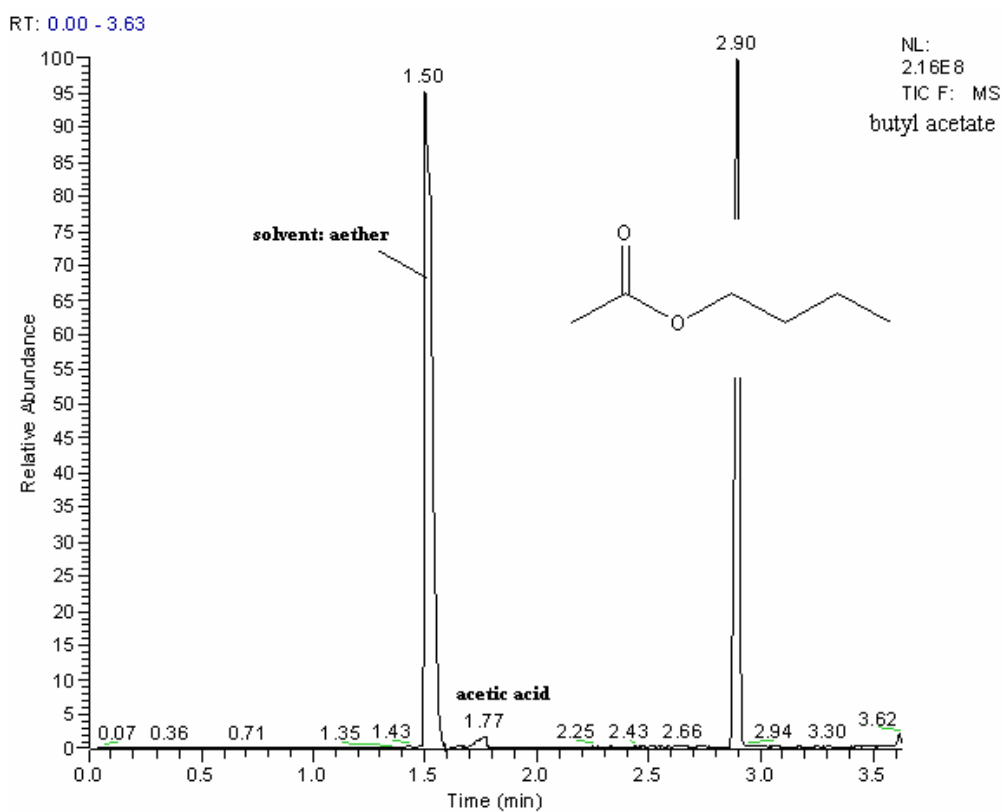


1.98min, isopropyl acetate



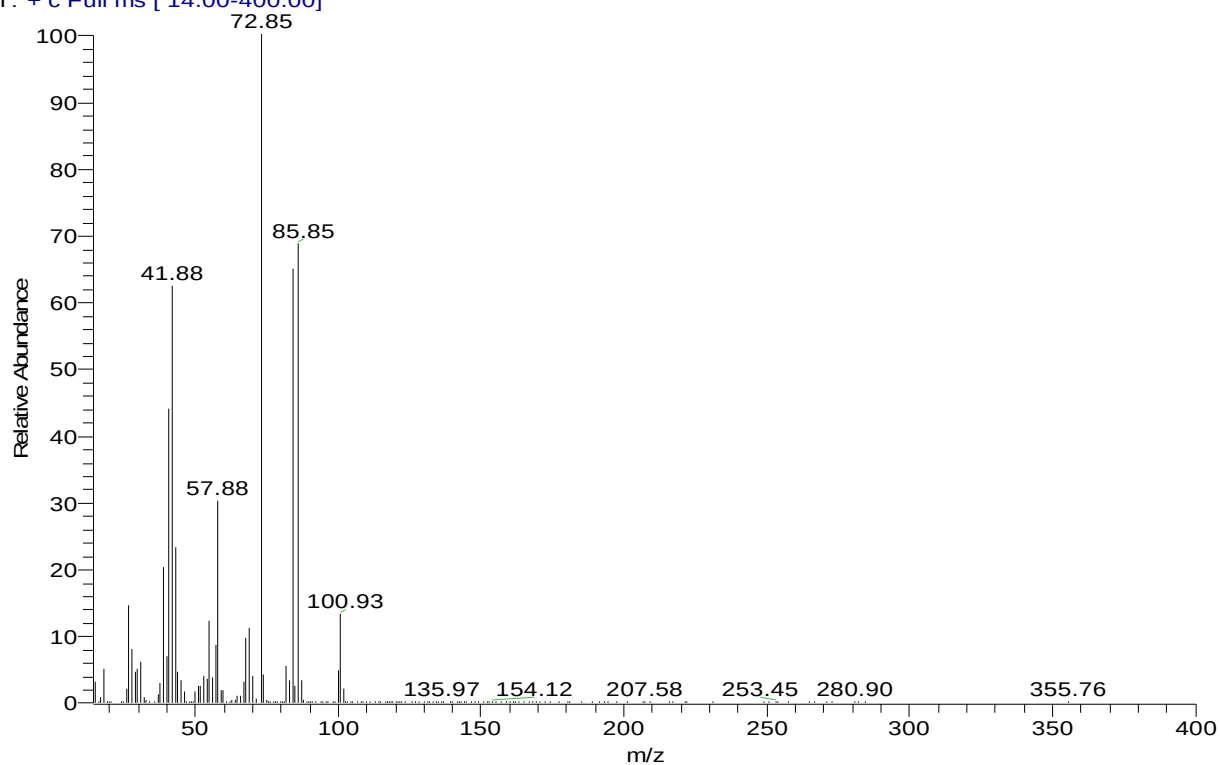
The MS spectrum of isopropyl acetate (1.98min)

(3) The GC-MS spectrum of butyl acetate



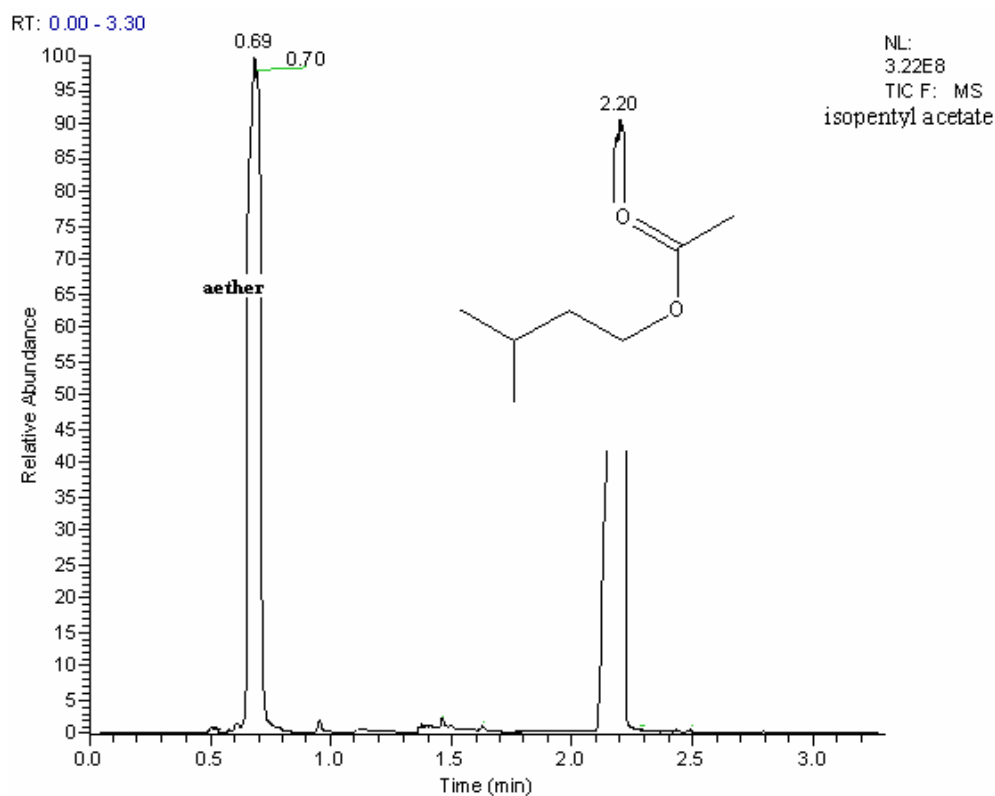
2.90min, butyl acetate

4(ZHANG) #665 RT: 3.61 AV: 1 NL: 2.56E7
T: + c Full ms [14.00-400.00]



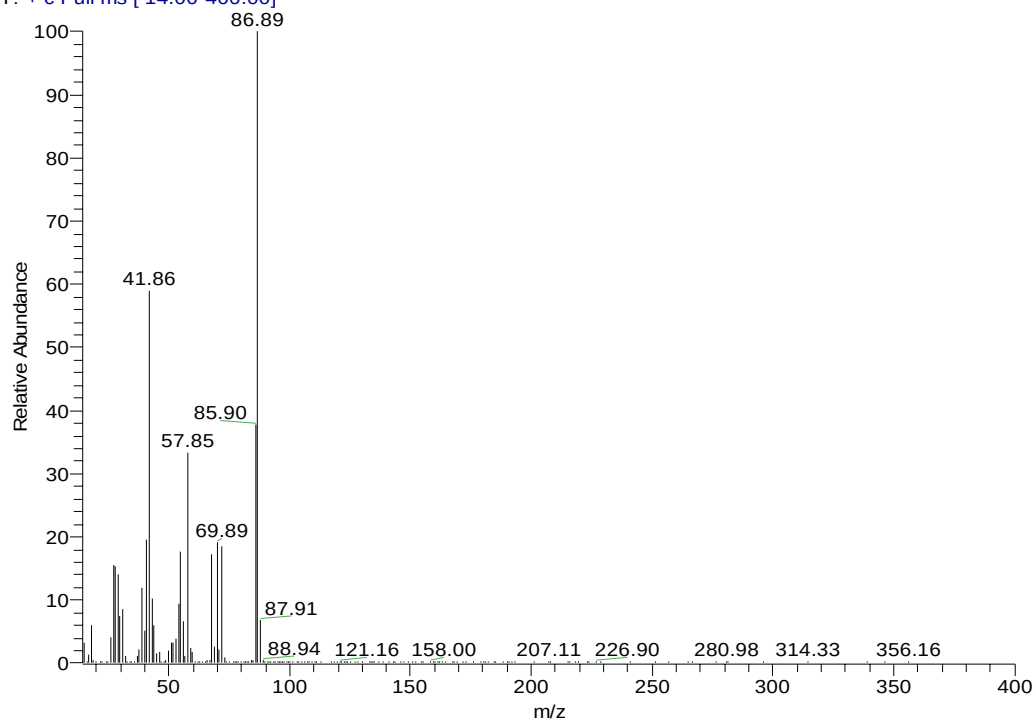
The MS spectrum of butyl acetate (2.90min)

(4) The GC-MS spectrum of isopentyl acetate



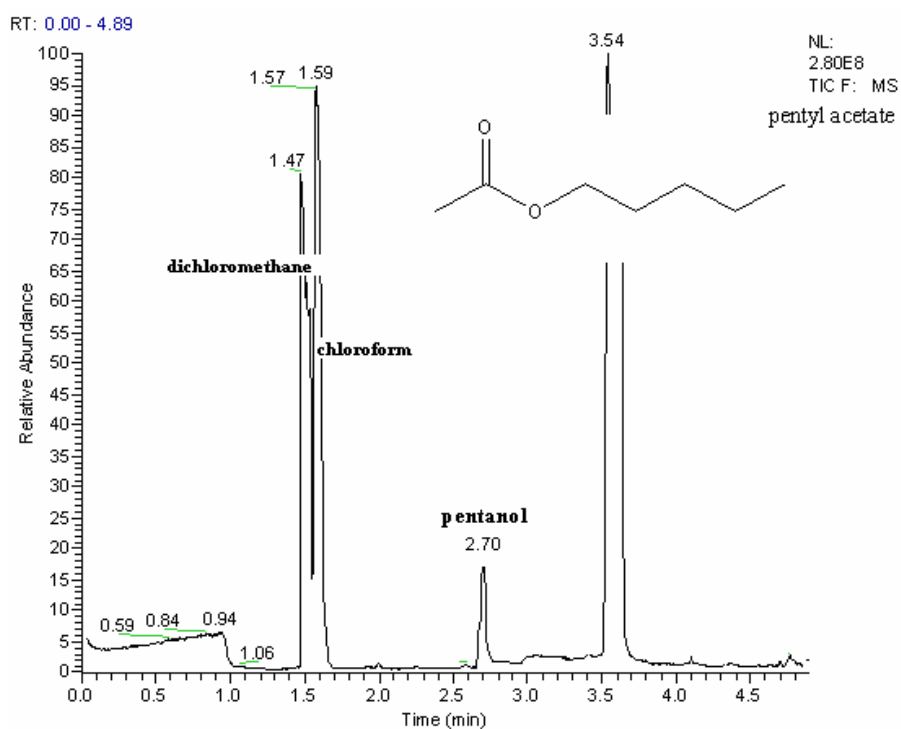
2.20min, isopentyl acetate

3(ZHANG) #405 RT: 2.98 AV: 1 NL: 2.71E7
T: + c Full ms [14.00-400.00]

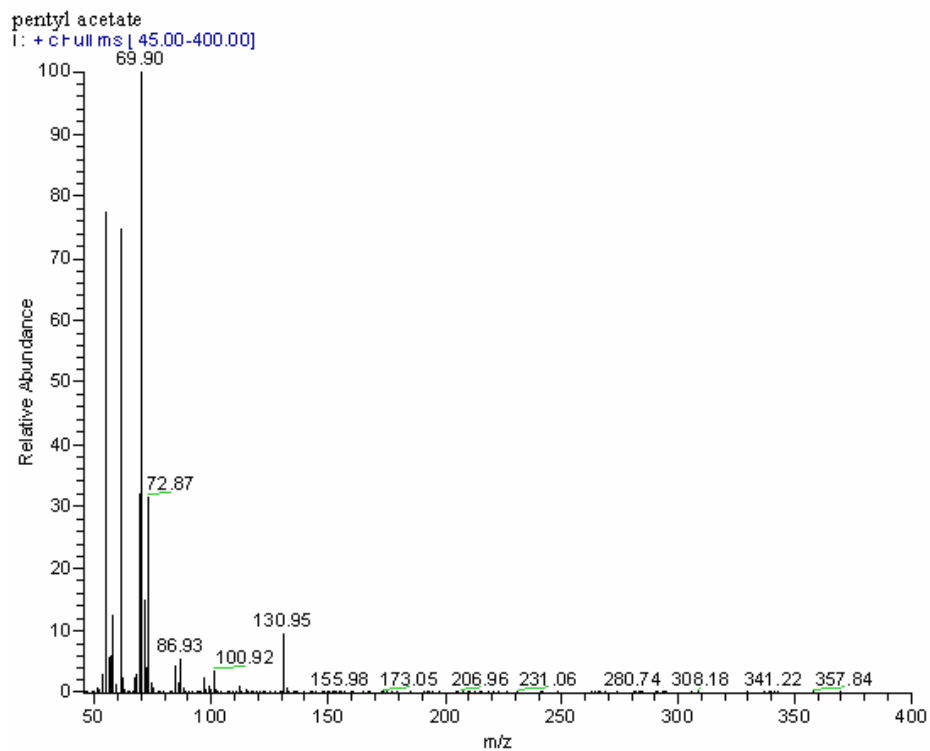


The MS spectrum of isopentyl acetate (2.2min)

(5) The GC-MS spectrum of pentyl acetate

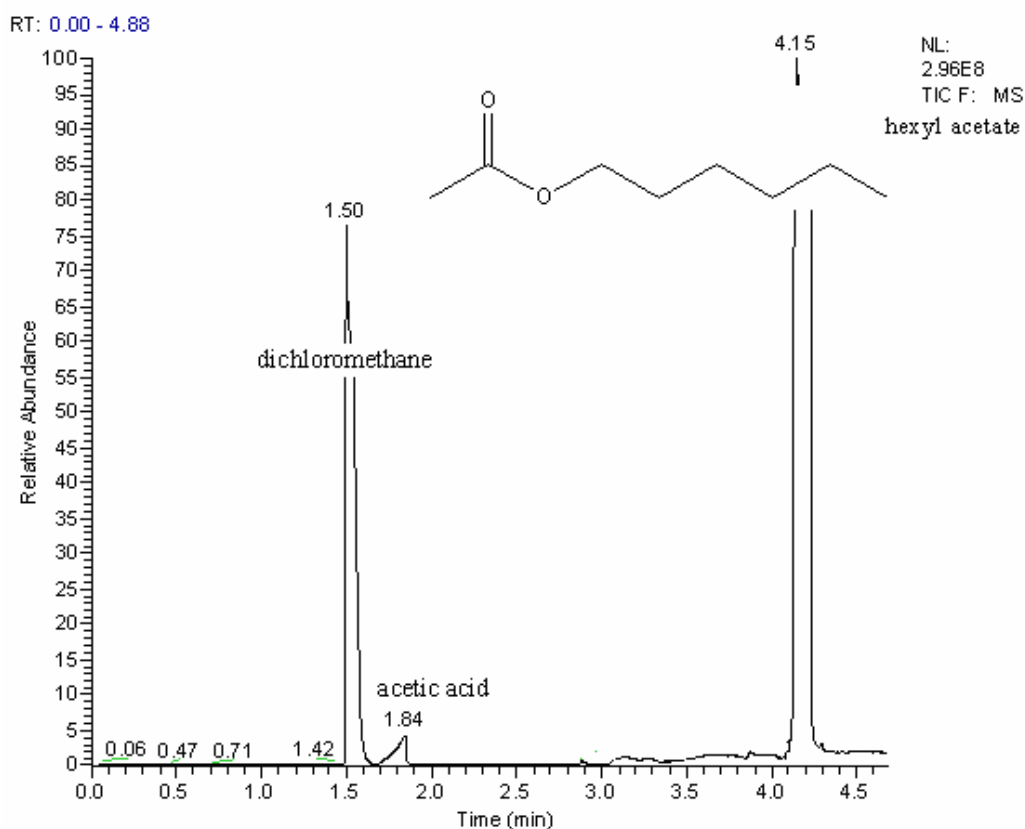


3.54min, pentyl acetate

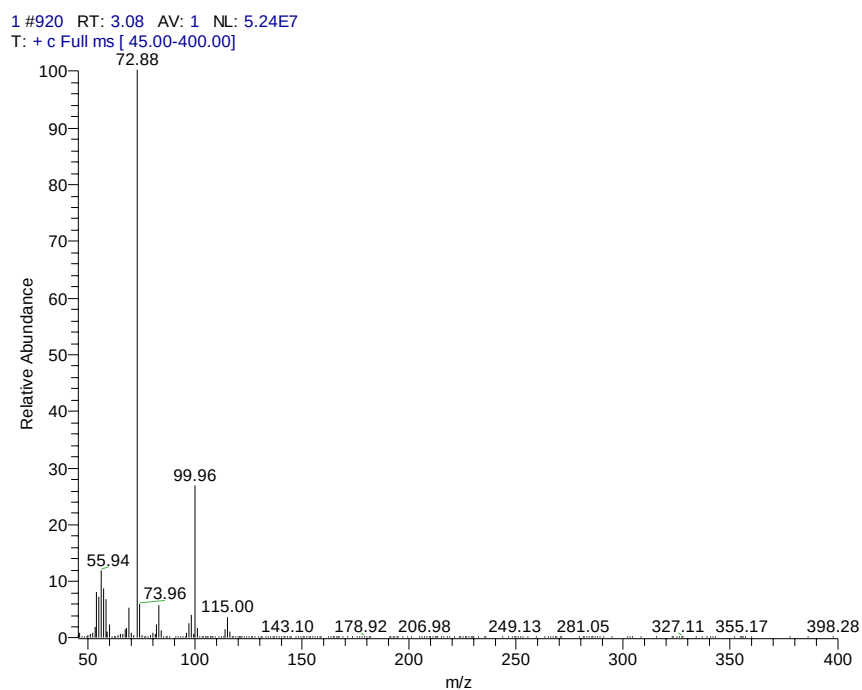


The MS spectrum of pentyl acetate (3.54min)

(6) The GC-MS spectrum of hexyl acetate

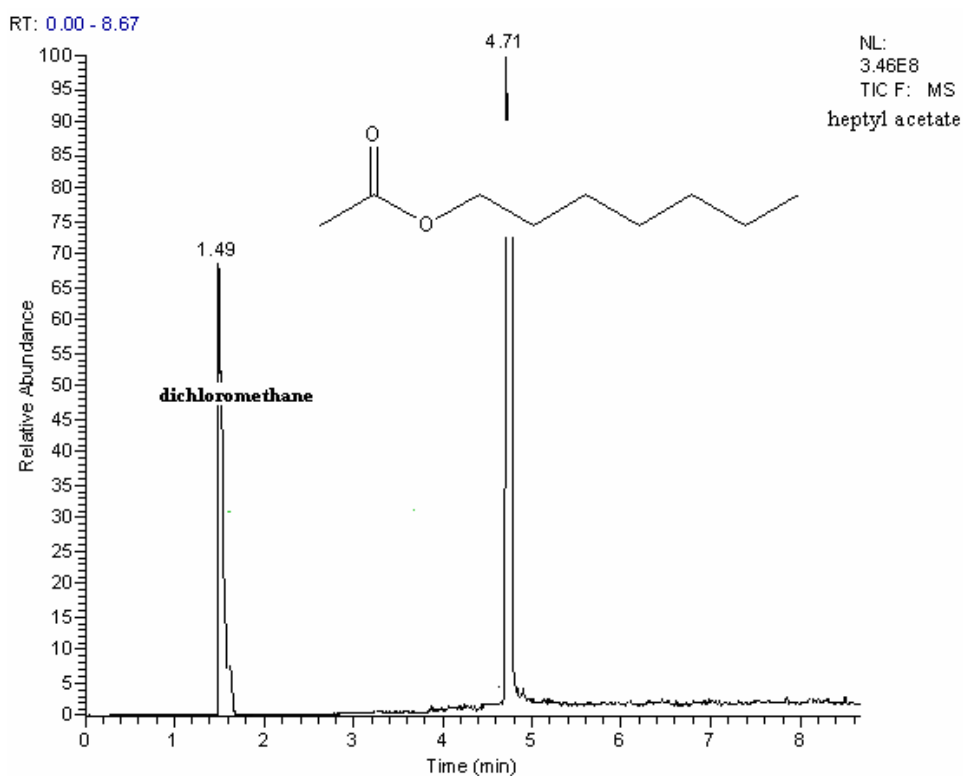


4.15min, hexyl acetate

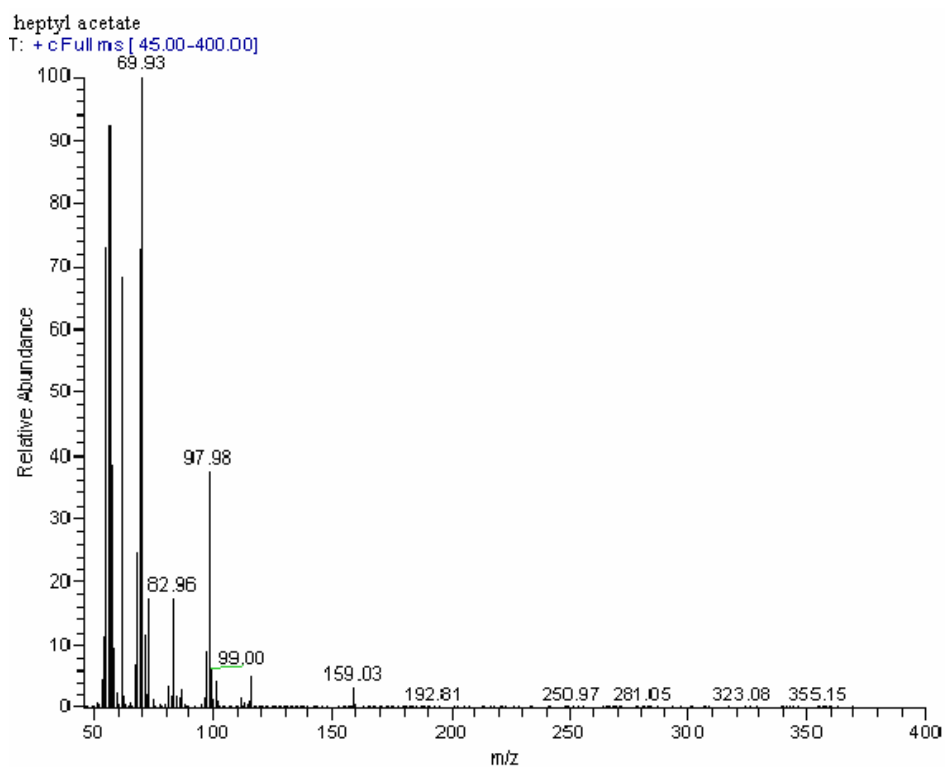


The MS spectrum of hexyl acetate (4.15min)

(7) The GC-MS spectrum of heptyl acetate

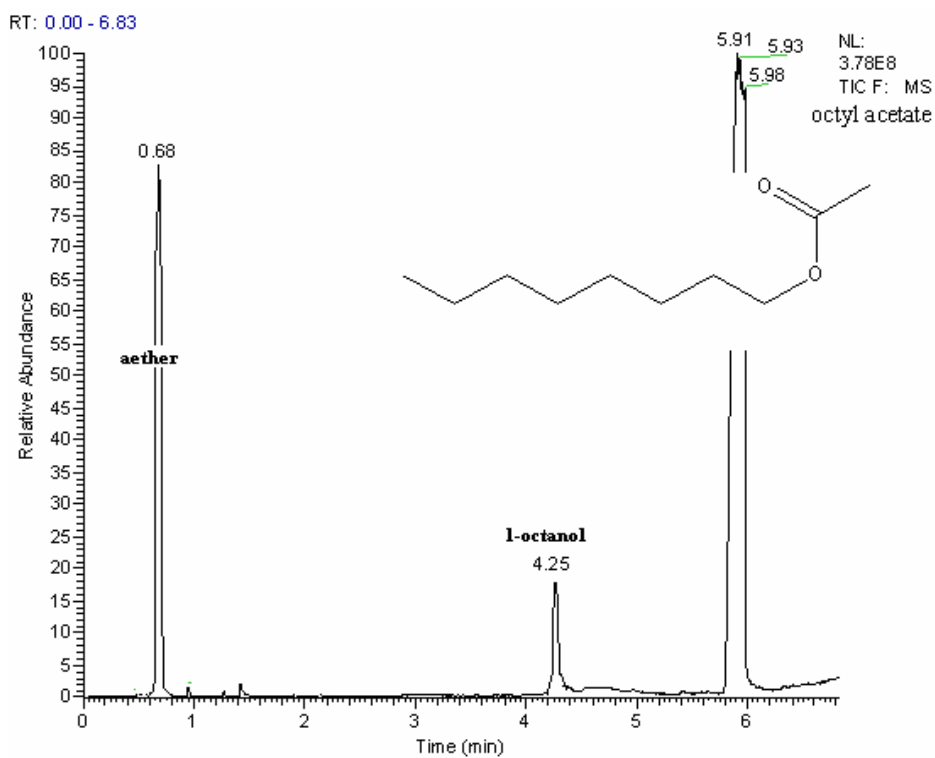


4.71min, heptyl acetate

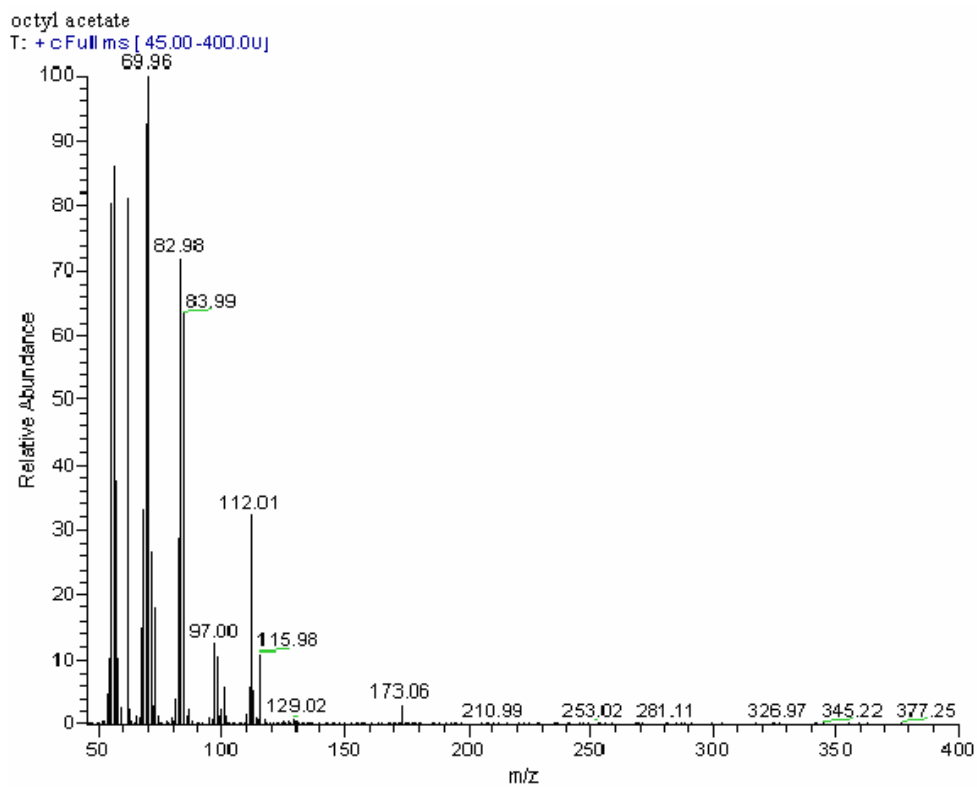


The MS spectrum of heptyl acetate (4.71min)

(8) The GC-MS spectrum of octyl acetate

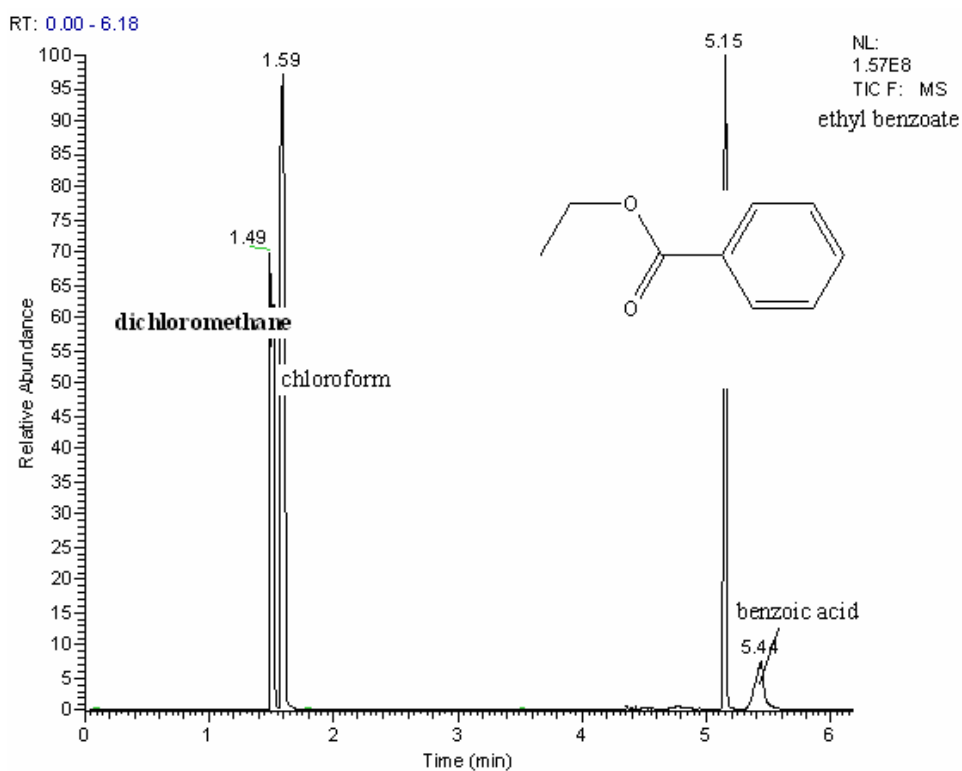


5.91min, octyl acetate

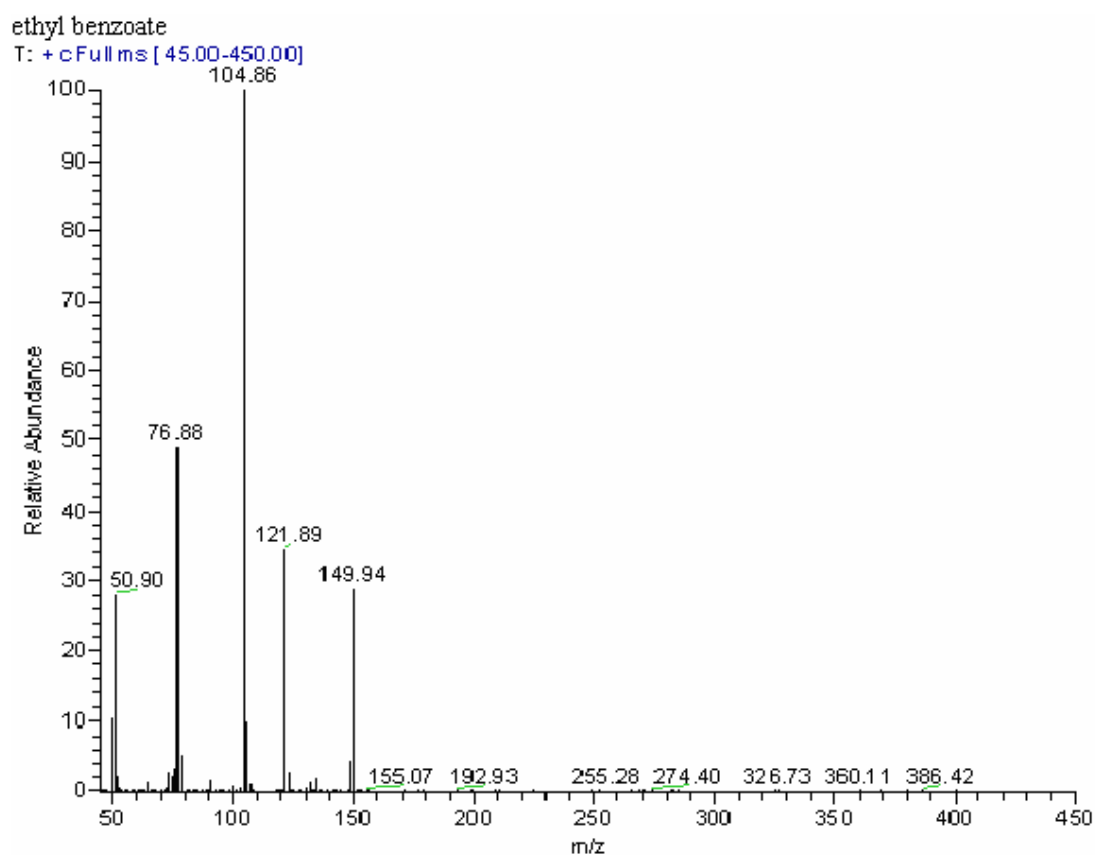


The MS spectrum of octyl acetate (4.71min)

(8) The GC-MS spectrum of ethyl benzoate

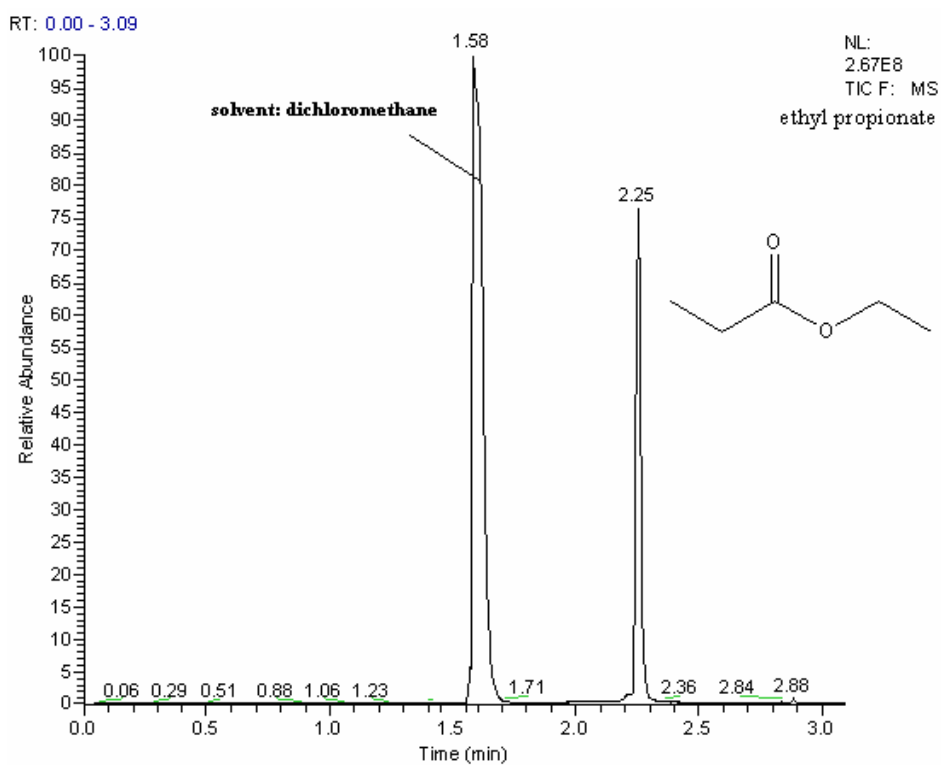


5.15 min, ethyl benzoate

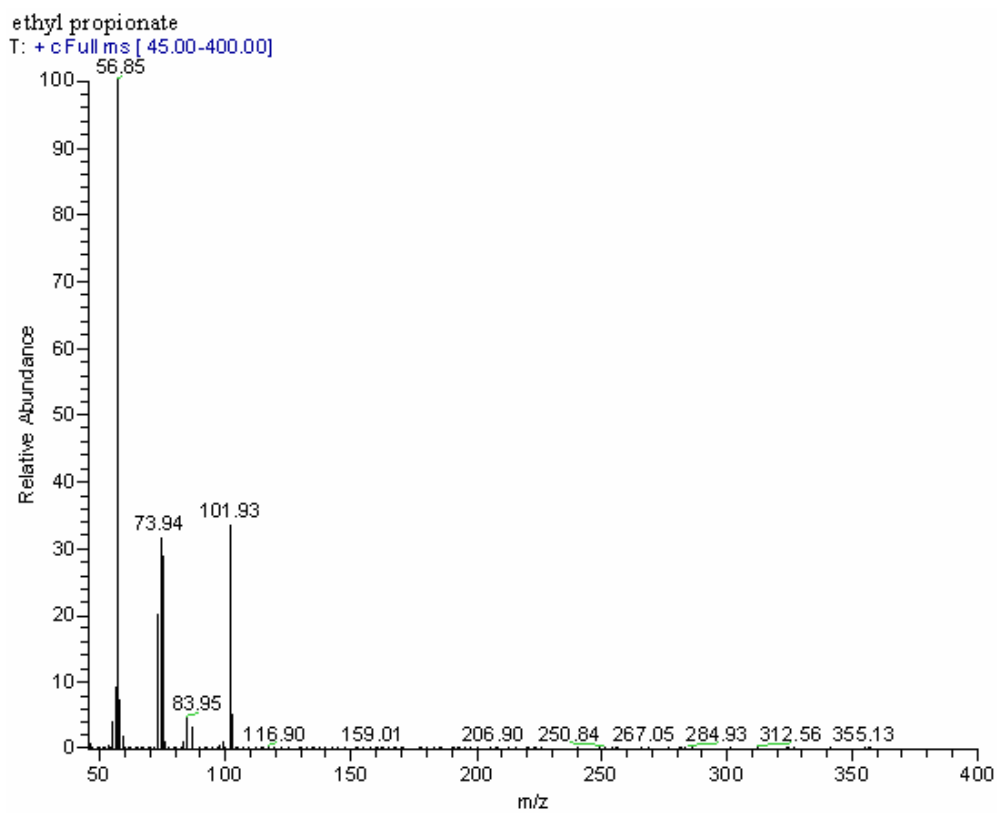


The MS spectrum of ethyl benzoate (5.15min)

(9) The GC-MS spectrum of ethyl propionate

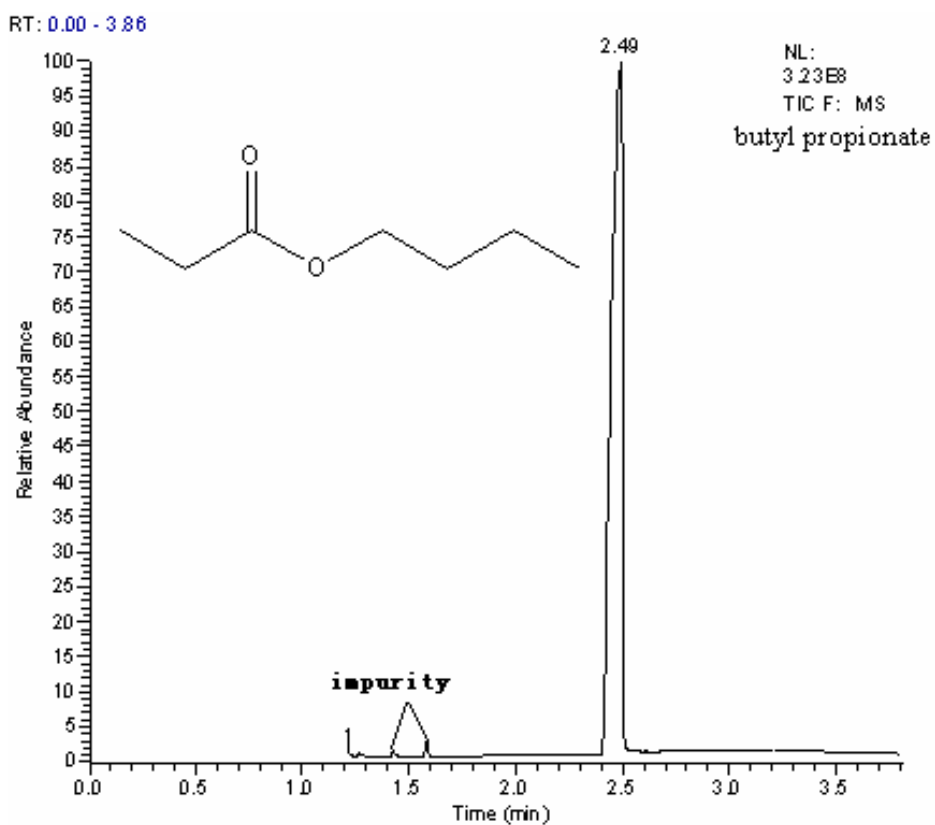


2.25min, ethyl propionate

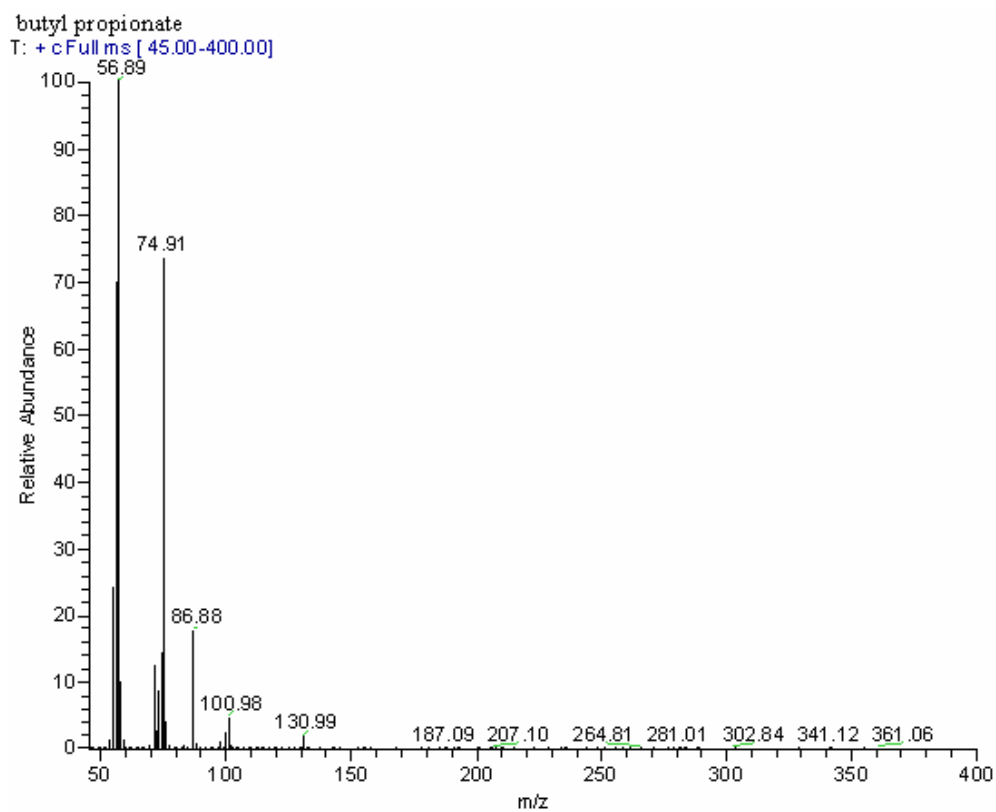


The MS spectrum of ethyl propionate (2.25min)

(10) The GC-MS spectrum of butyl propionate

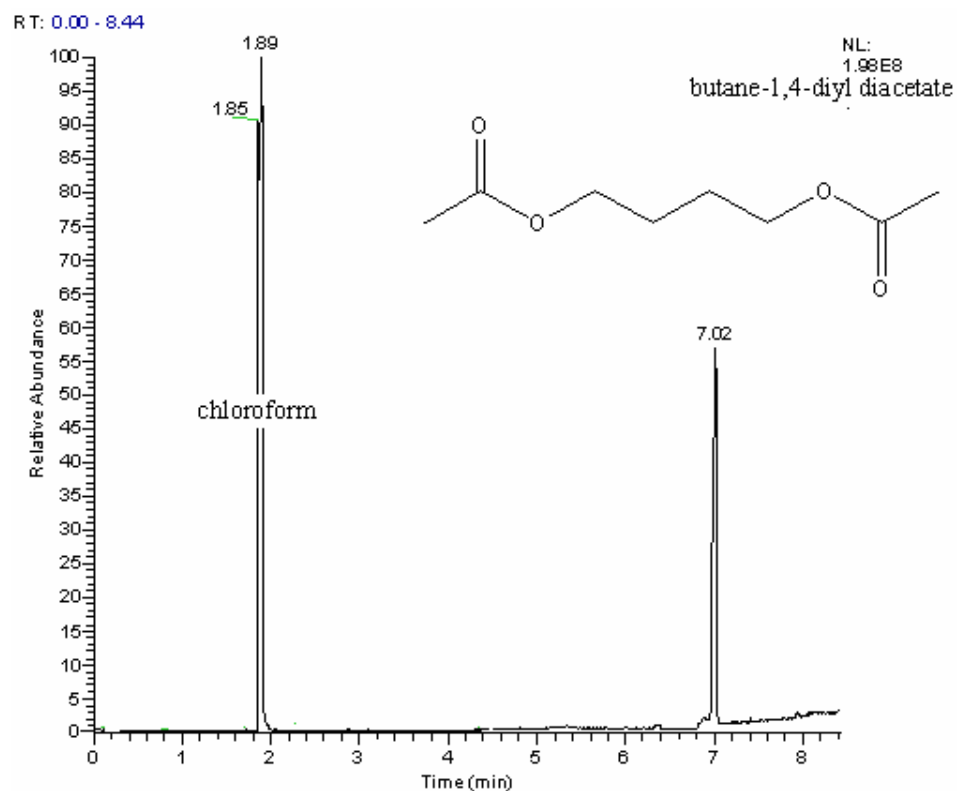


2.49min, butyl propionate

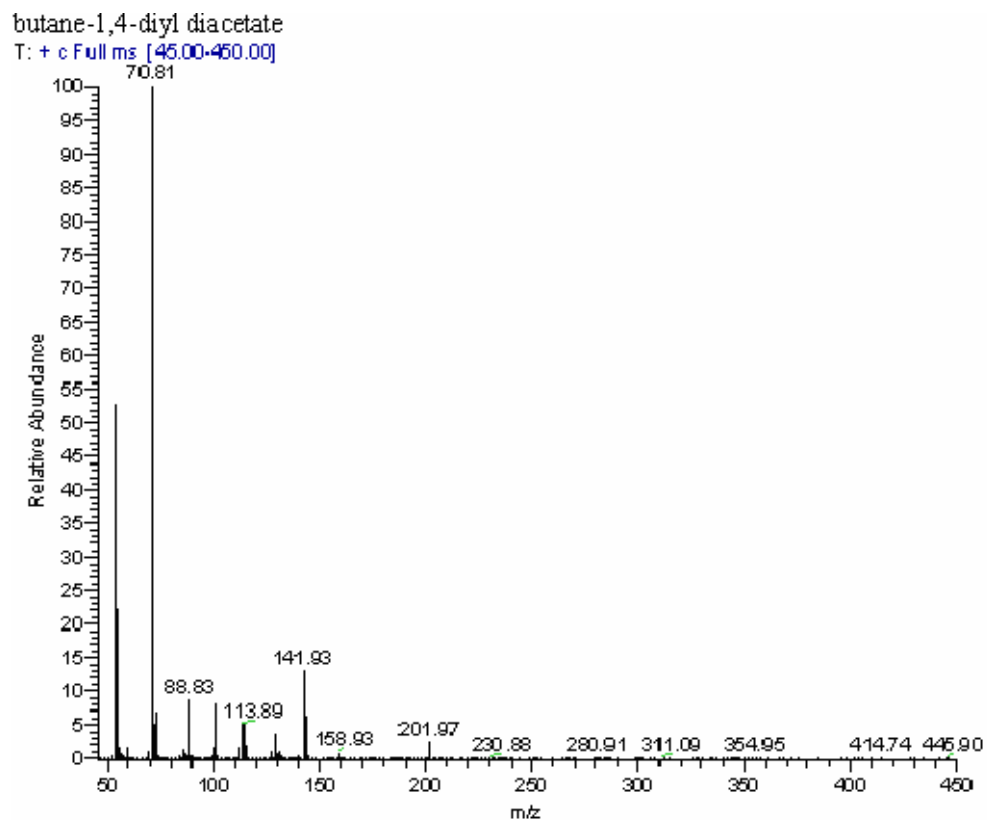


The MS spectrum of butyl propionate (2.49min)

(11) The GC-MS spectrum of butyl 2-hydroxypropanoate

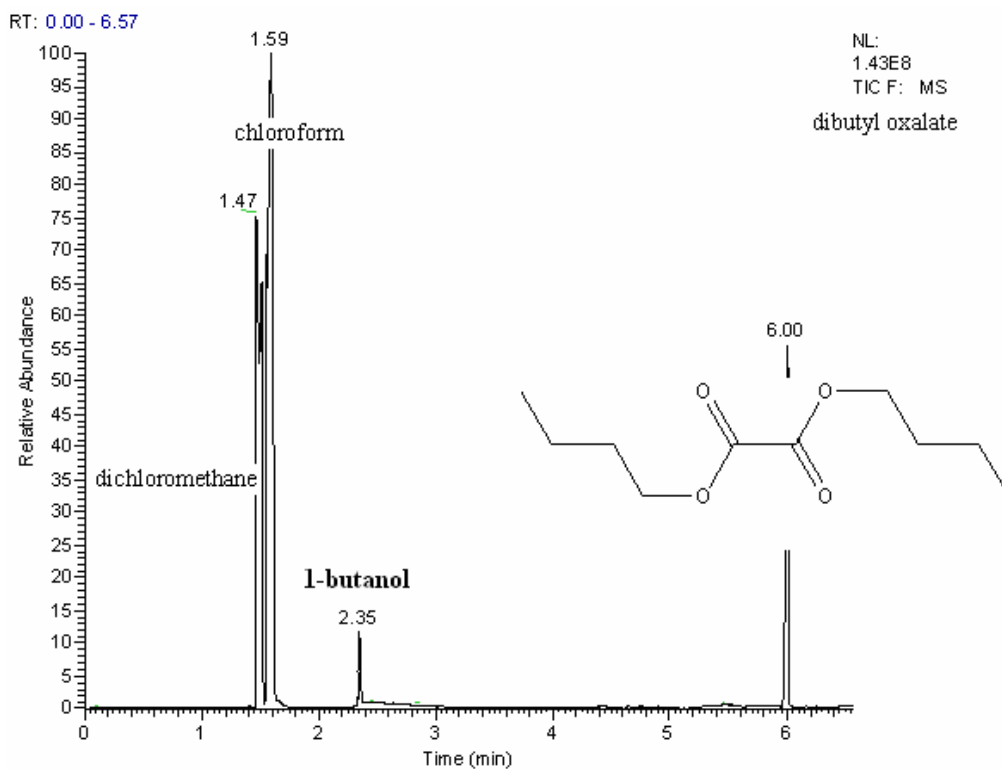


7.02min, butyl 2-hydroxypropanoate

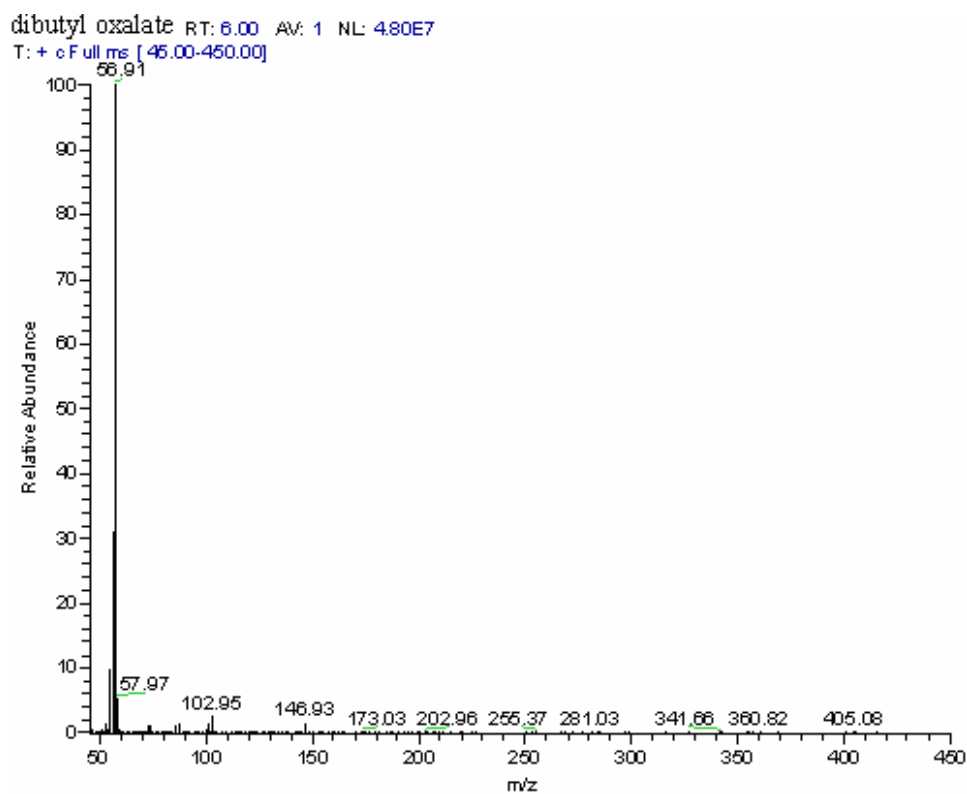


The MS spectrum of butyl 2-hydroxypropanoate (7.02min)

(12) The GC-MS spectrum of dibutyl oxalate

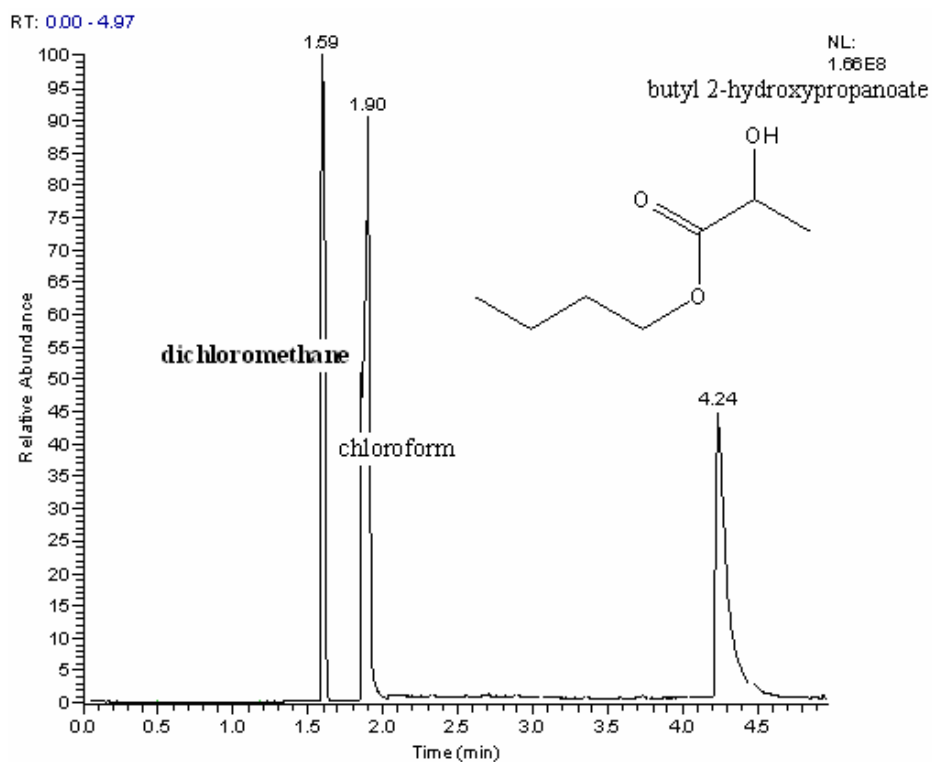


6.00min, dibutyl oxalate

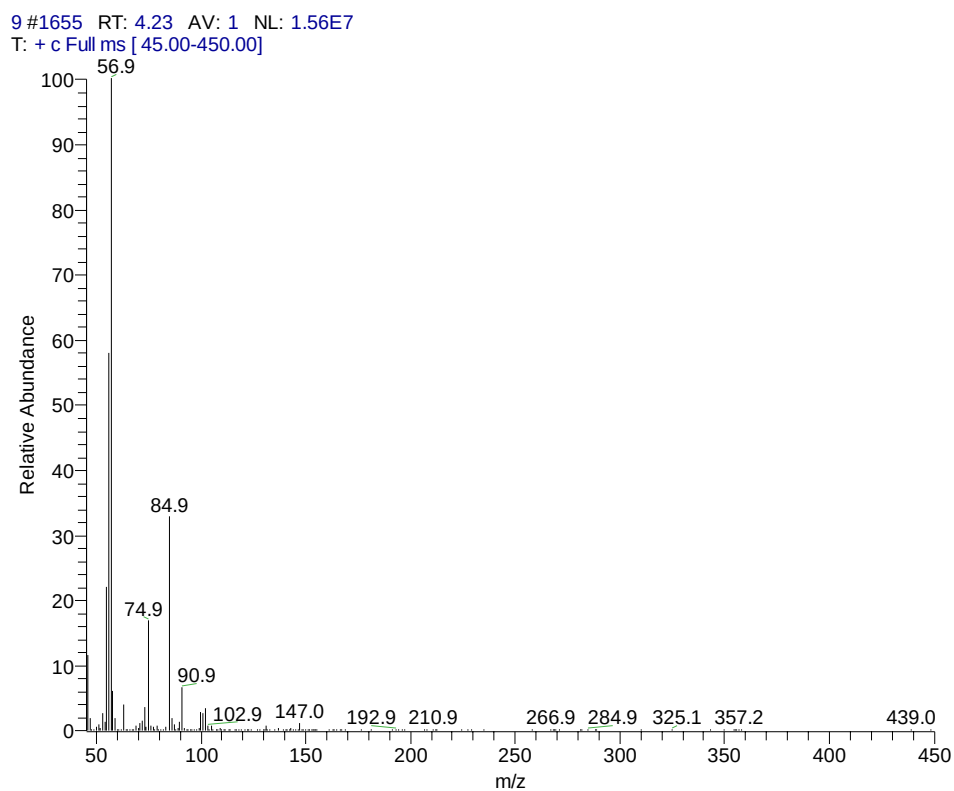


The MS spectrum of dibutyl oxalate (6.00min)

(13) The GC-MS spectrum of butyl 2-hydroxypropanoate

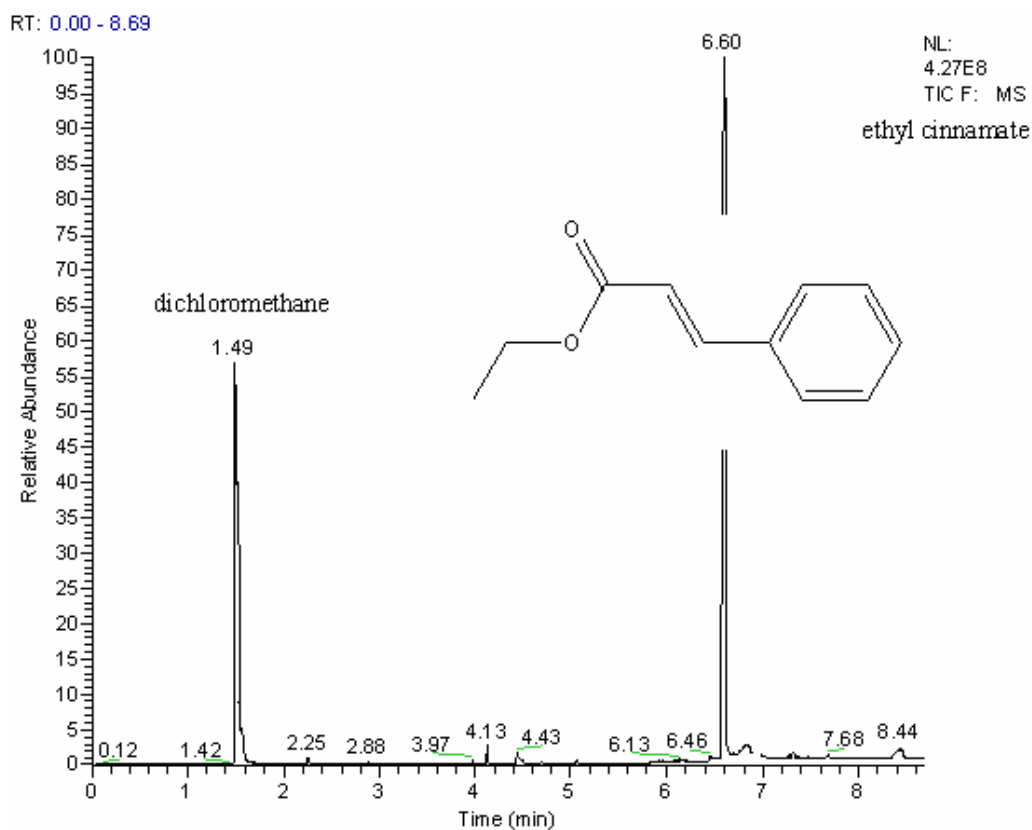


4.24min, butyl 2-hydroxypropanoate

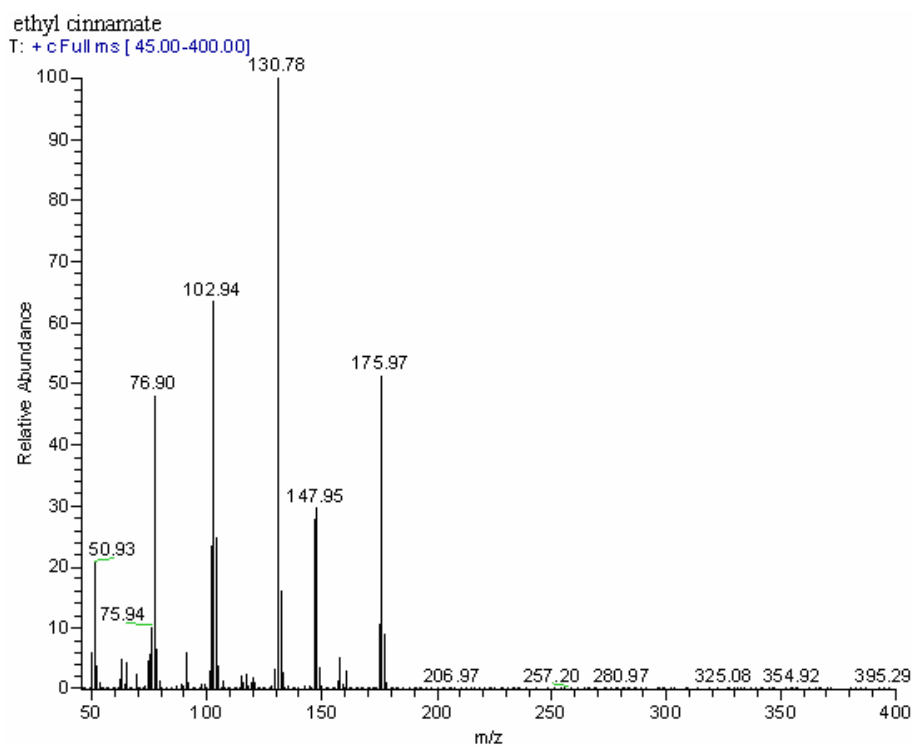


The MS spectrum of butyl 2-hydroxypropanoate (4.24min)

(14) The GC-MS spectrum of ethyl cinnamate

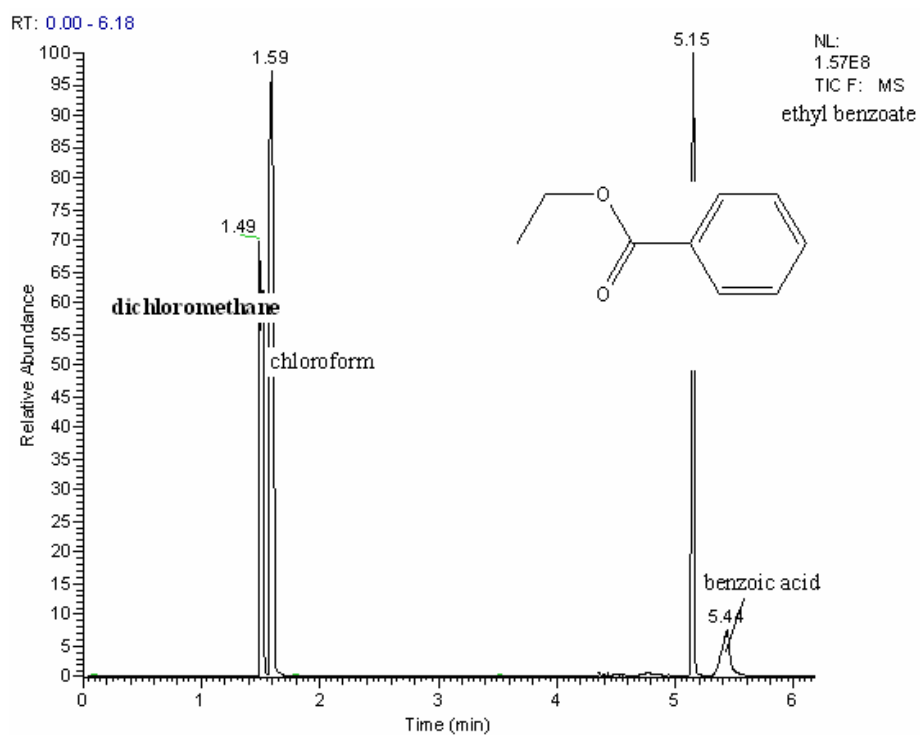


6.60min, ethyl cinnamate

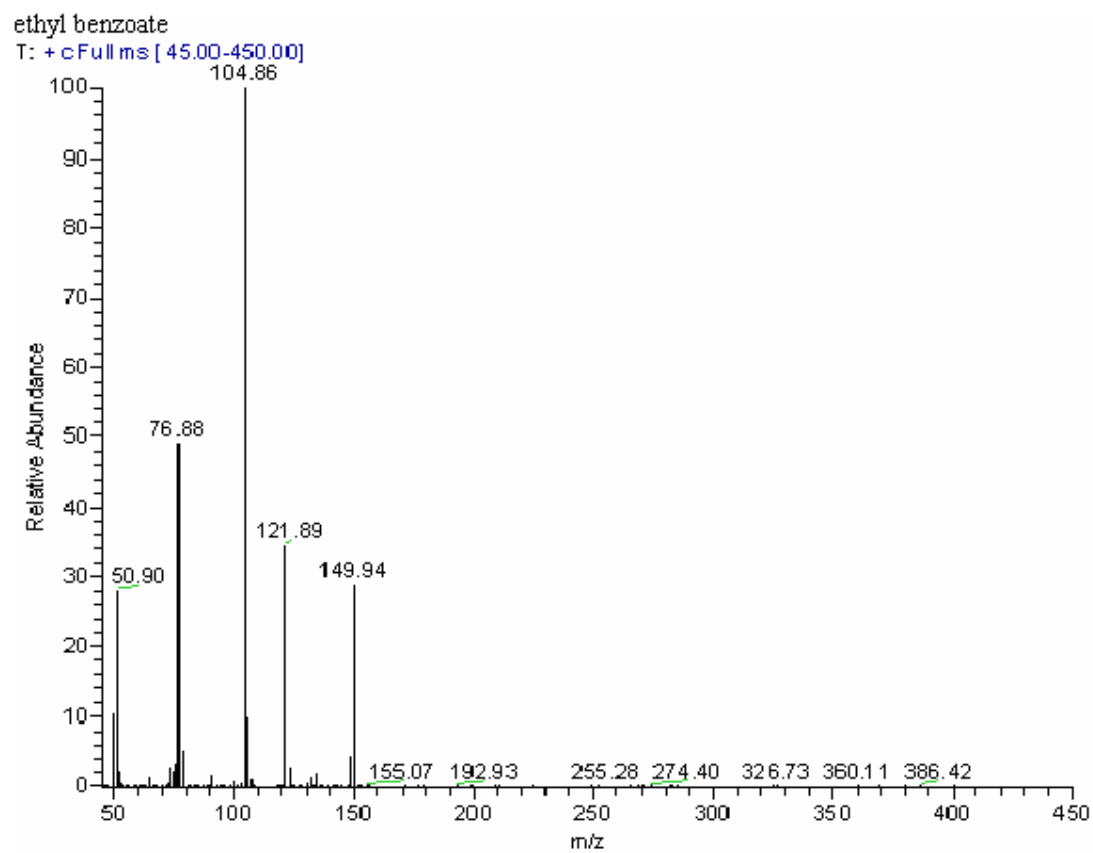


The MS spectrum of ethyl cinnamate (6.60min)

(15) The GC-MS spectrum of ethyl benzoate

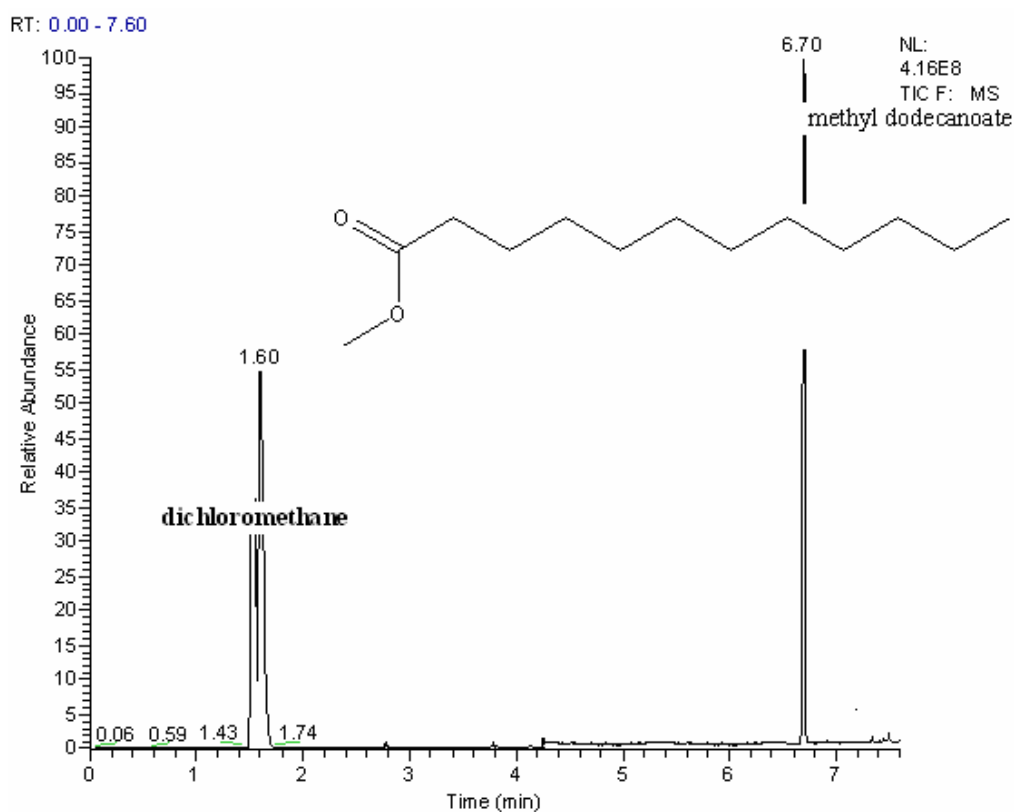


5.15min, ethyl benzoate

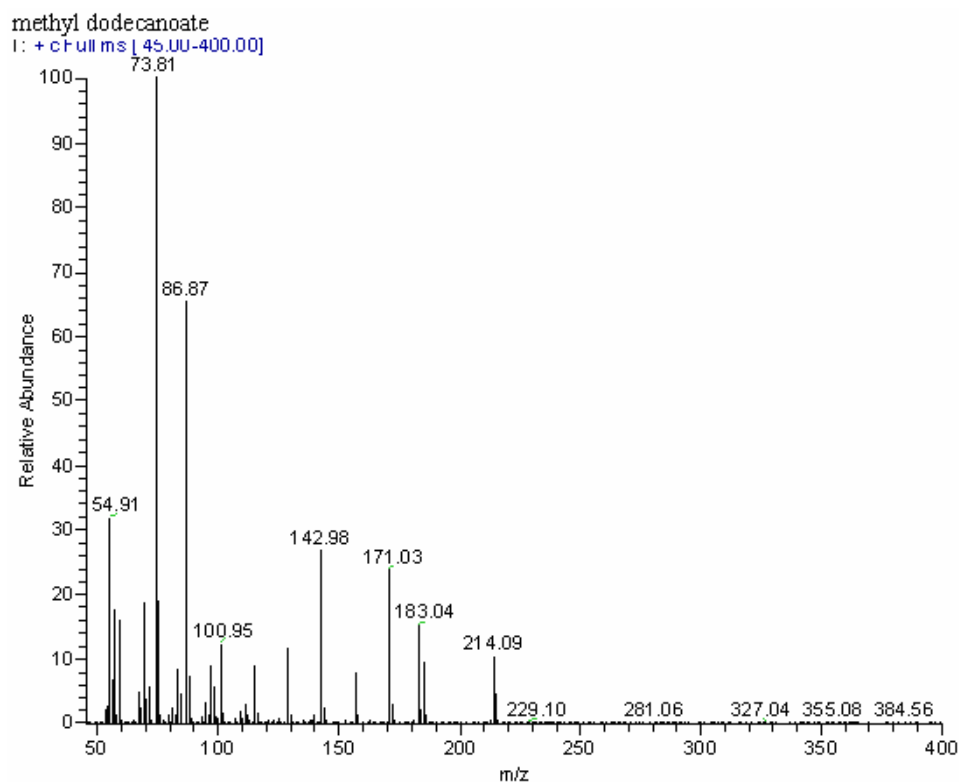


The MS spectrum of ethyl benzoate (5.15min)

(16) The GC-MS spectrum of methyl dodecanoate

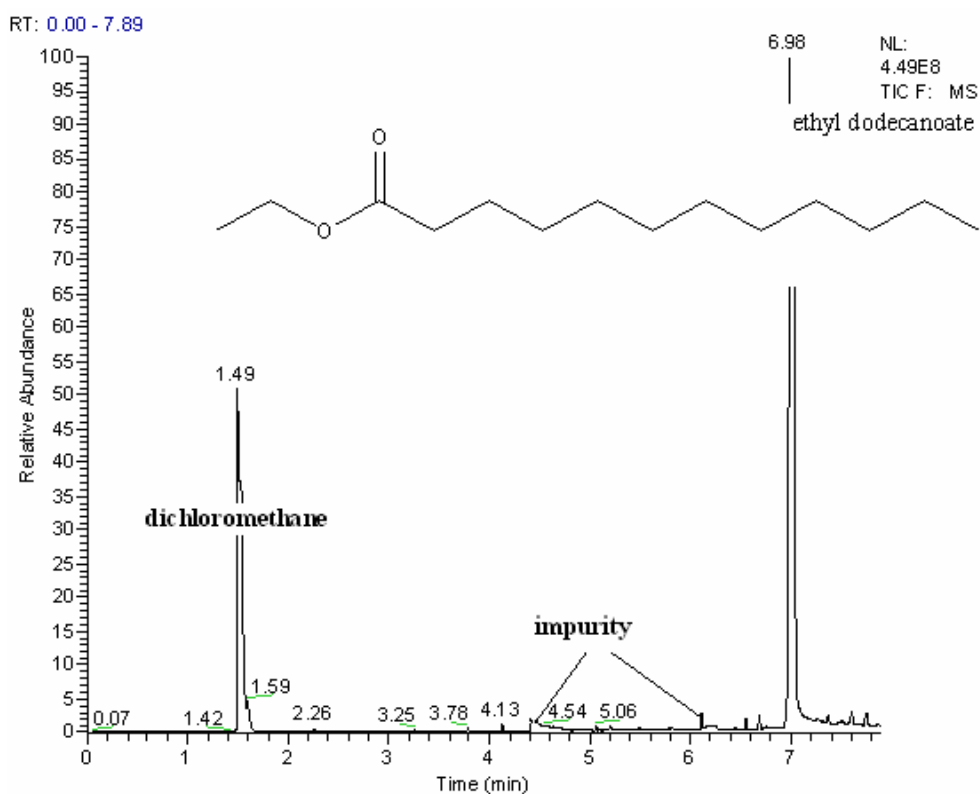


6.70min, ethyl dodecanoate

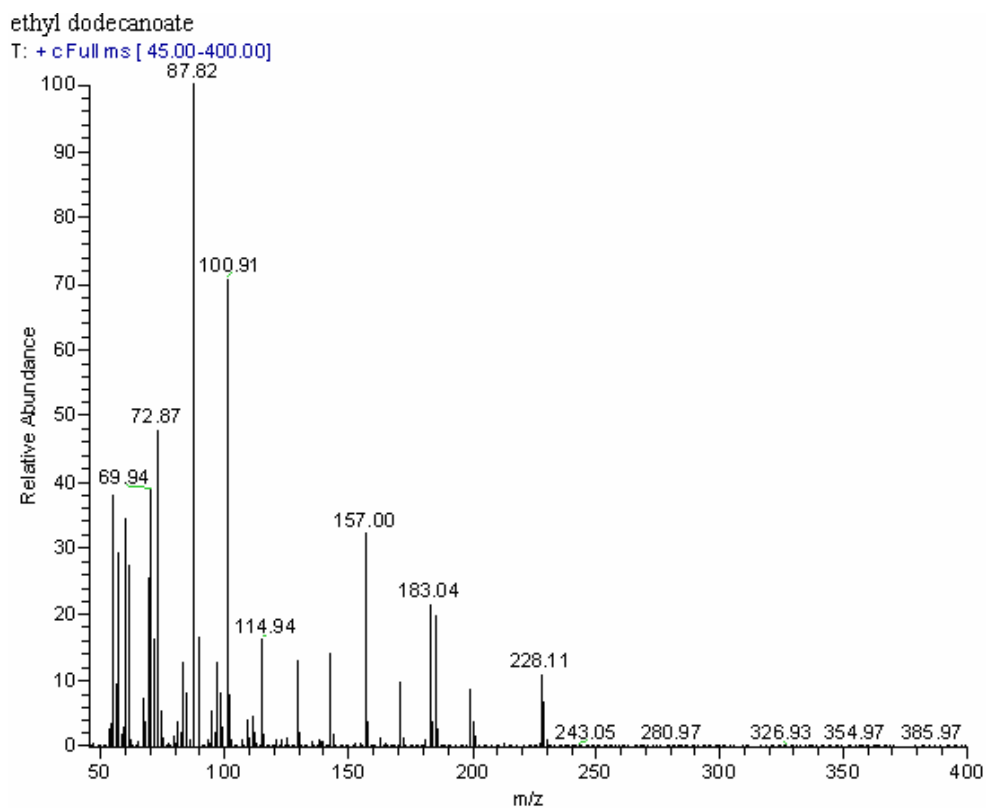


The MS spectrum of ethyl dodecanoate (6.70min)

(17) The GC-MS spectrum of ethyl dodecanoate

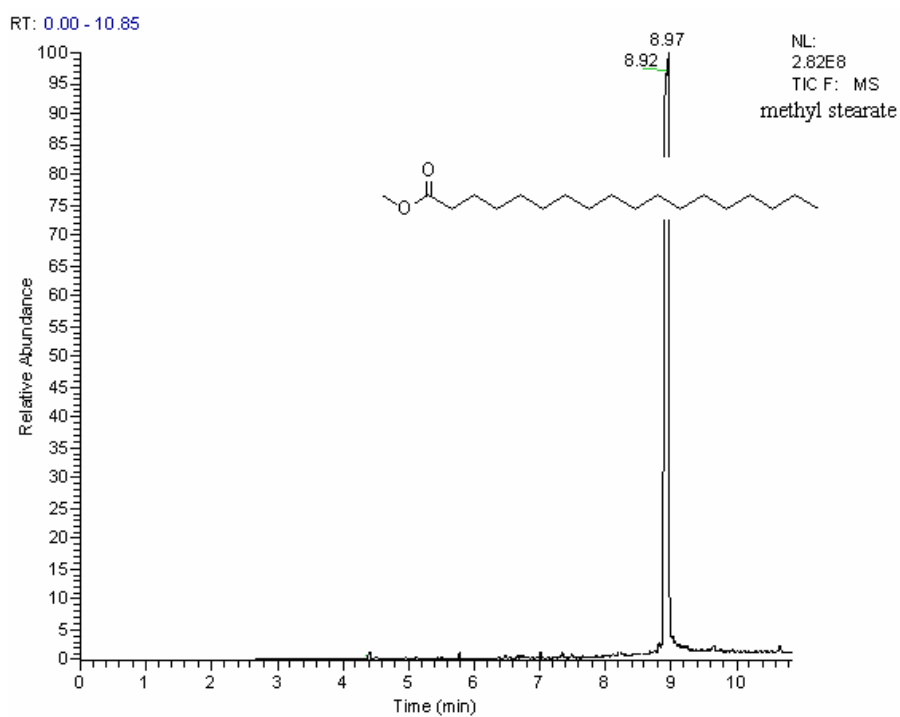


6.98min, ethyl dodecanoate

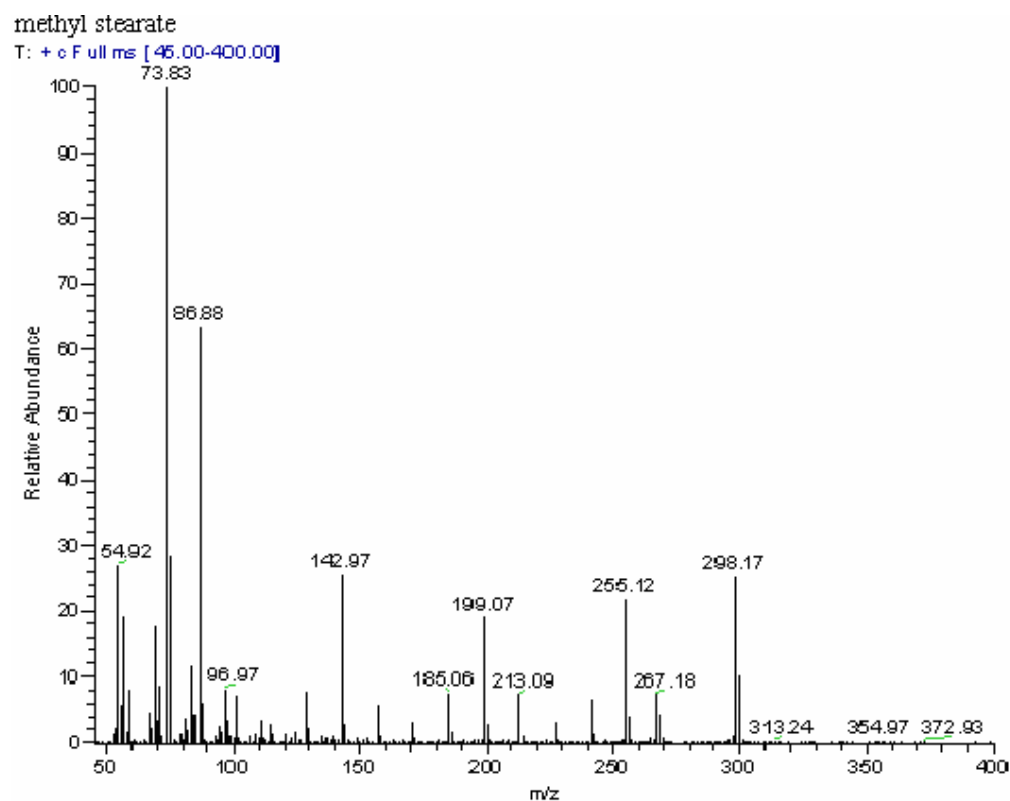


The MS spectrum of ethyl dodecanoate (6.98min)

(18) The GC-MS spectrum of methyl stearate

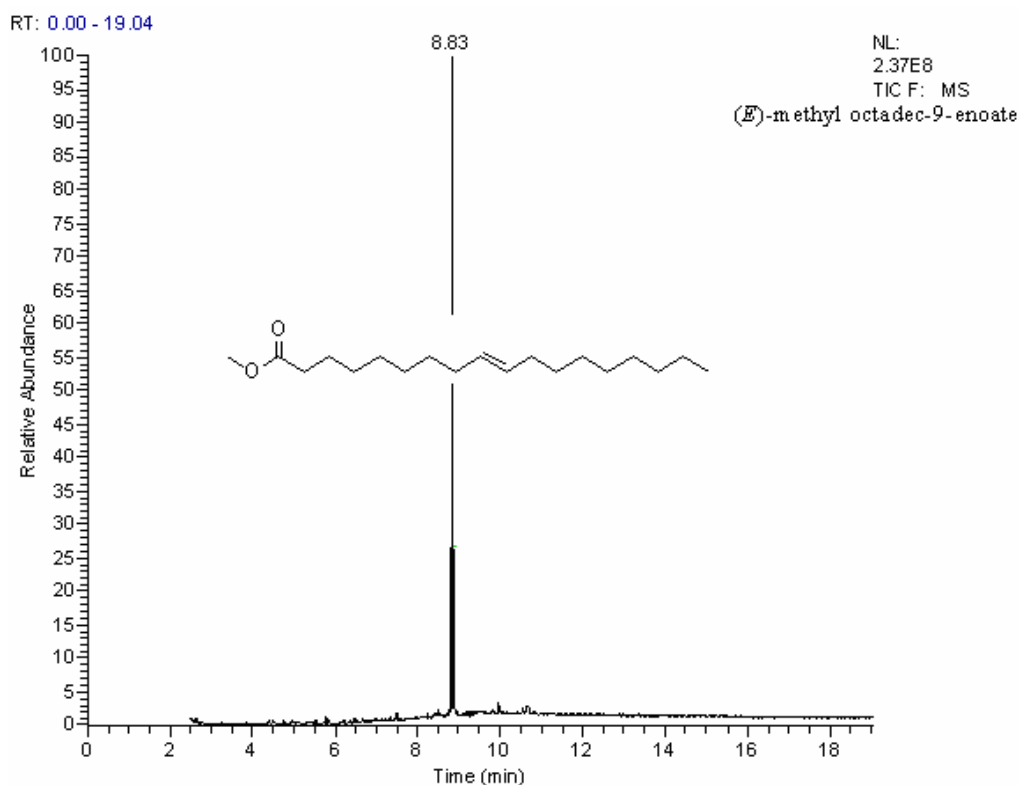


8.97min, methyl stearate



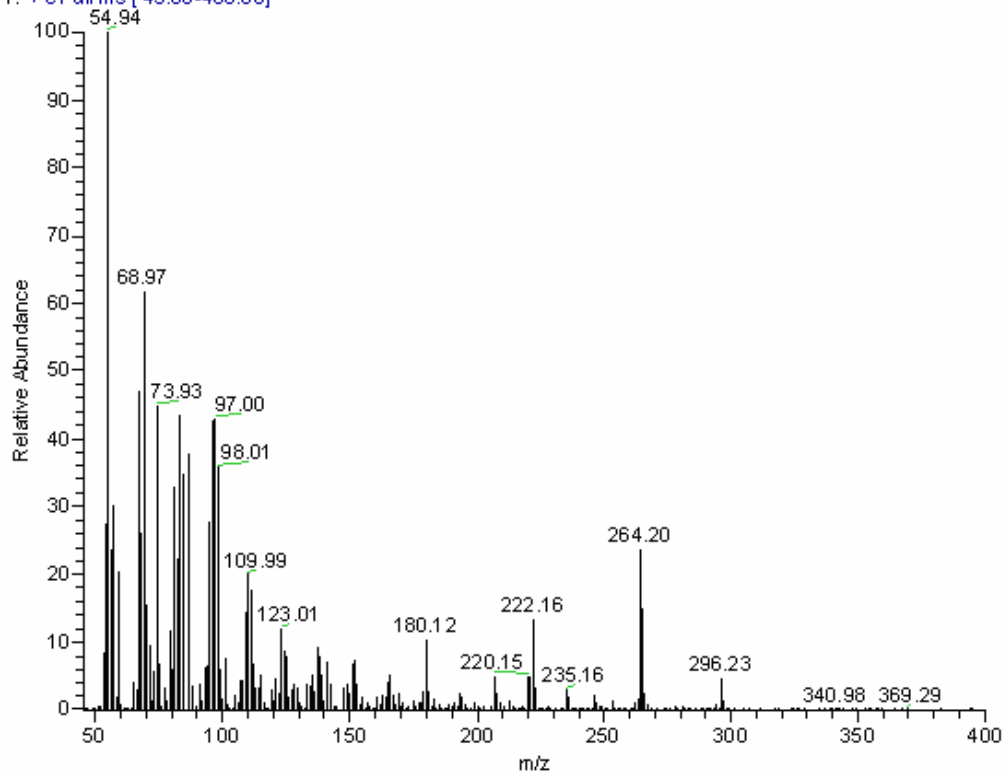
The MS spectrum of ethyl dodecanoate (8.97min)

(19) The GC-MS spectrum of (*E*)-methyl octadec-9-enoate



8.83min, (*E*)-methyl octadec-9-enoate

(*E*)-methyl octadec-9-enoate
T: + cFull.ms [45.00-400.00]



The MS spectrum of (*E*)-methyl octadec-9-enoate (8.83min)