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APPENDICES

GC-MS data

Appendix A:

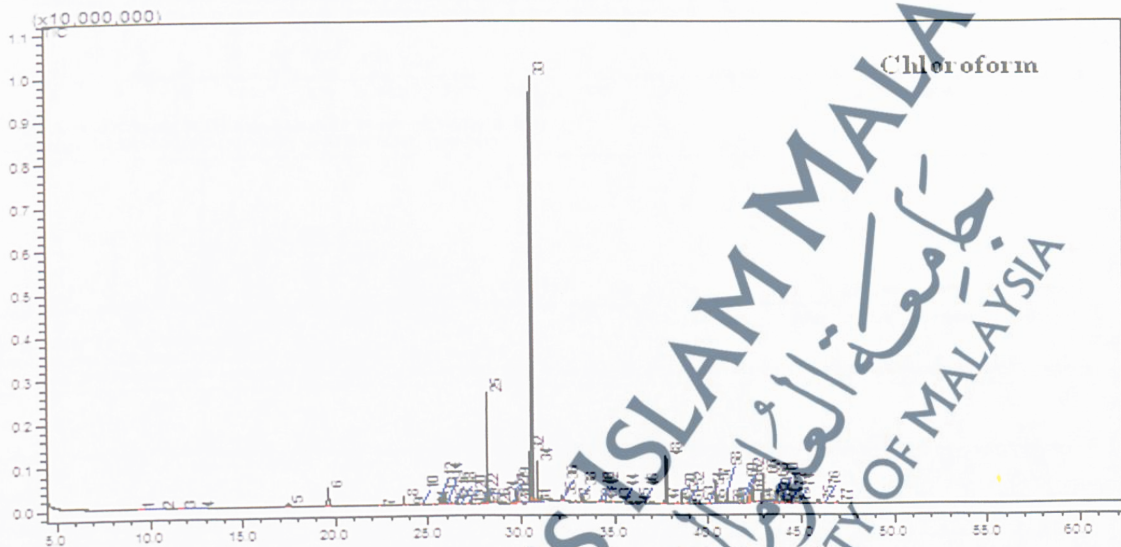
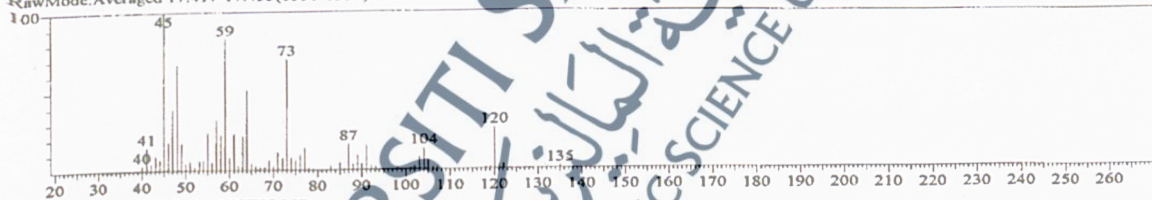
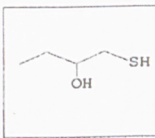


Figure A.1 GC-MS of total compounds in *Clinacanthus nutans* sample extracted with chloroform.

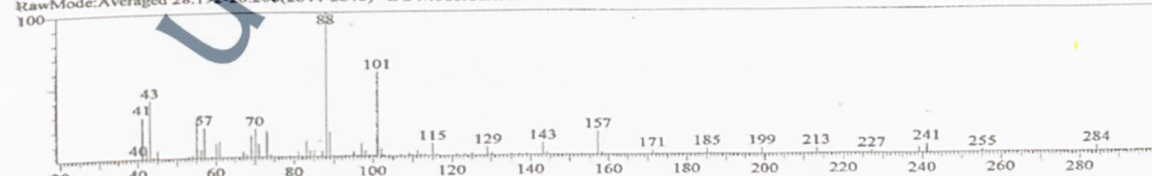
<< Target >>
Line#:6 R.Time:17.425(Scan#:1552) MassPeaks:65 BasePeak:45.00(8707)
RawMode:Averaged 17.417-17.433(1551-1553) BG Mode:Calc. from Peak



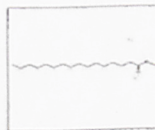
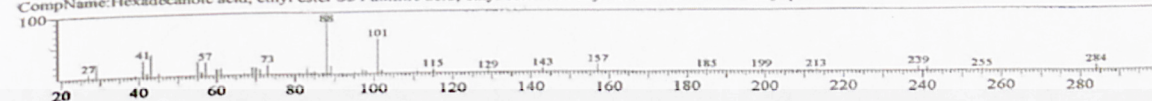
Hit#:1 Entry:2623 Library:NIST08.LIB
SI:70 Formula:C4H10OS CAS:25807-94-7 MolWeight:106 RetIndex:885
CompName:2-Butanol, 1-mercapto- \$\$ 1-Sulfanyl-2-butanol \$



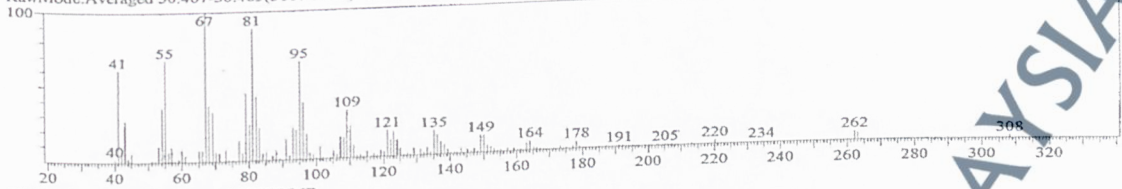
<< Target >>
Line#:25 R.Time:28.200(Scan#:2845) MassPeaks:83 BasePeak:88.10(389277)
RawMode:Averaged 28.192-28.208(2844-2846) BG Mode:Calc. from Peak



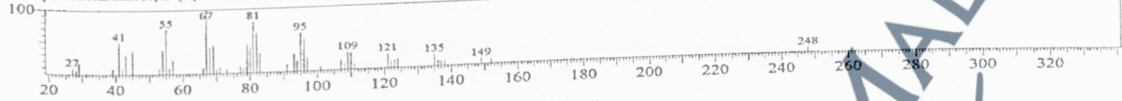
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SI:95 Formula:C18H36O2 CAS:628-97-7 MolWeight:284 RetIndex:1978
CompName:Hexadecanoic acid, ethyl ester \$ Palmitic acid, ethyl ester \$ Ethyl hexadecanoate \$ Ethyl palmitate \$



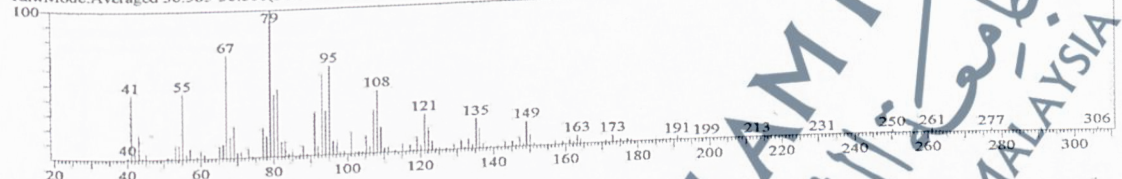
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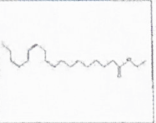
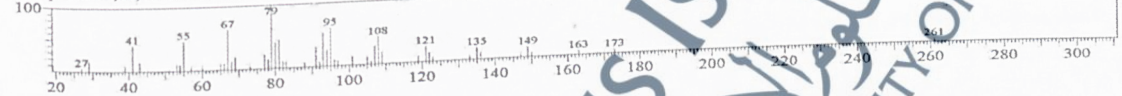
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SI:92 Formula:C20H38O2 CAS:17367-08-7 MolWeight:310 RetIndex:2344
CompName:Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)- \$\$ 2-cis,cis-9,12-Octadecadienyloxyethanol # \$\$



<< Target >>
Line#:33 R.Time:30.592(Scan#:3132) MassPeaks:132 BasePeak:79.05(766581)
RawMode:Averaged 30.583-30.600(3131-3133) BG Mode:Calc. from Peak



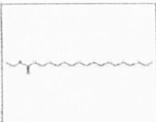
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SI:97 Formula:C20H34O2 CAS:1191-41-9 MolWeight:306 RetIndex:2201
CompName:9,12,15-Octadecatrienoic acid, ethyl ester, (Z,Z,Z)- \$\$ Linolenic acid, ethyl ester \$\$ Ethyl cis,cis,cis-9,12,15-octadecatrienoate \$\$ Ethyl linolenate



<< Target >>
Line#:34 R.Time:30.850(Scan#:3163) MassPeaks:102 BasePeak:88.10(118596)
RawMode:Averaged 30.842-30.858(3162-3164) BG Mode:Calc. from Peak



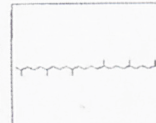
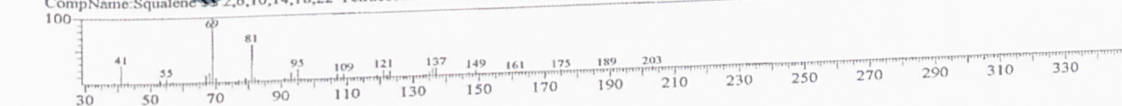
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CompName:Octadecanoic acid, ethyl ester \$\$ Stearic acid, ethyl ester \$\$ Ethyl n-octadecanoate \$\$ Ethyl octadecanoate \$\$ Ethyl stearate \$\$ Radia 7185 \$\$



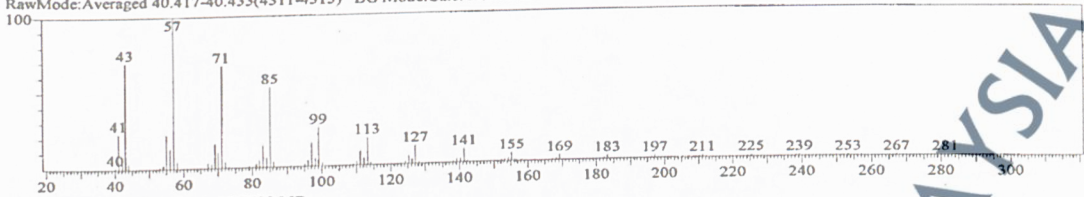
<< Target >>
Line#:48 R.Time:37.767(Scan#:3994) MassPeaks:72 BasePeak:69.10(221778)
RawMode:Averaged 37.758-37.775(3992-3994) BG Mode:Calc. from Peak



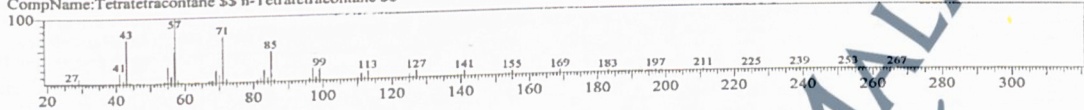
Hit#:1 Entry:27421 Library:NIST08s.LIB
SI:97 Formula:C30H50 CAS:7683-64-9 MolWeight:410 RetIndex:2914
CompName:Squalene \$\$ 2,6,10,14,18,22-Tetracosahexaene, 2,6,10,15,19,23-hexamethyl- \$\$ Skvalen \$\$ Spinacene \$\$ Supraene \$\$ (6E,10E,14E,18E)-2,6-



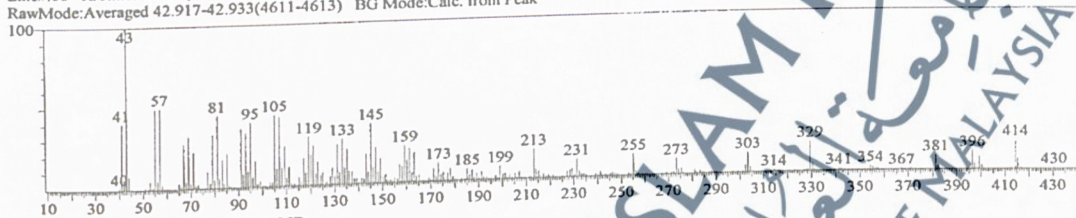
<< Target >>
Line#:57 R.Time:40.425(Scan#:4312) MassPeaks:74 BasePeak:57.10(75985)
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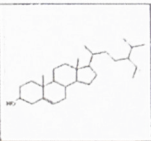
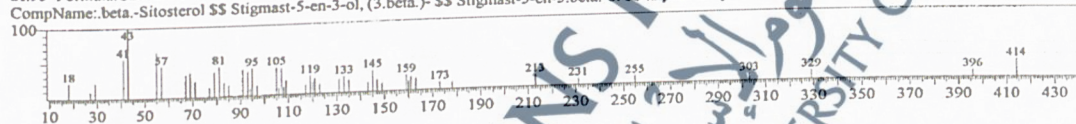
Hit#:1 Entry:189407 Library:NIST08.LIB
SI:96 Formula:C44H90 CAS:7098-22-8 MolWeight:618 RetIndex:4395
CompName:Tetratetracontane n-Tetratetracontane



<< Target >>
Line#:66 R.Time:42.925(Scan#:4612) MassPeaks:266 BasePeak:43.10(34608)
RawMode:Averaged 42.917-42.933(4611-4613) BG Mode:Calc. from Peak



Hit#:1 Entry:27488 Library:NIST08s.LIB
SI:95 Formula:C29H50O CAS:83-46-5 MolWeight:414 RetIndex:2731
CompName:beta-Sitosterol Stigmast-5-en-3-ol, (3.beta.)- Stigmast-5-en-3.beta.-ol alpha-Dihydrofucosterol beta-Sitosterin Angelicin



Appendix B:

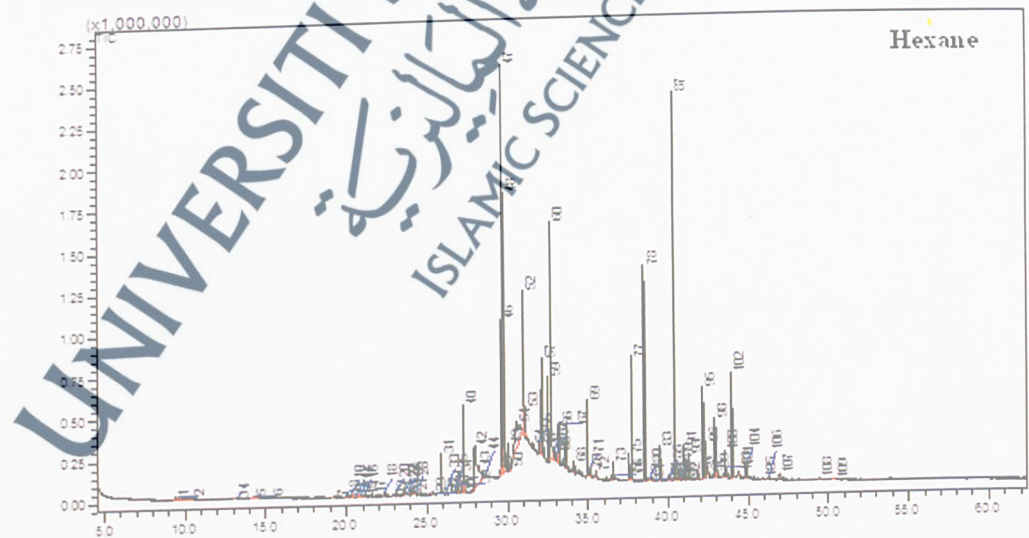
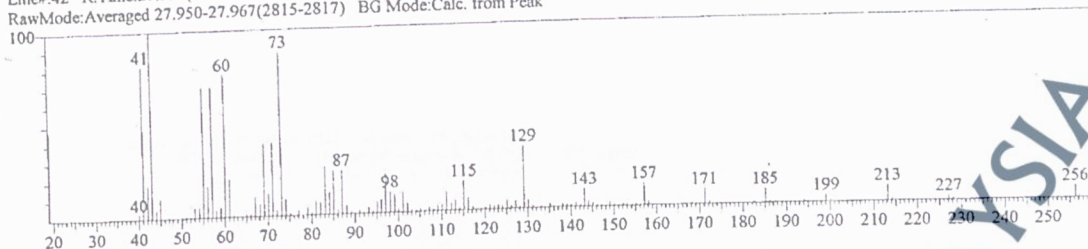


Figure B.1 GC-MS of total compounds in *Clinacanthus nutans* sample extracted with Hexane.

<< Target >>

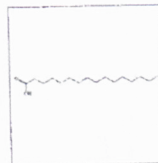
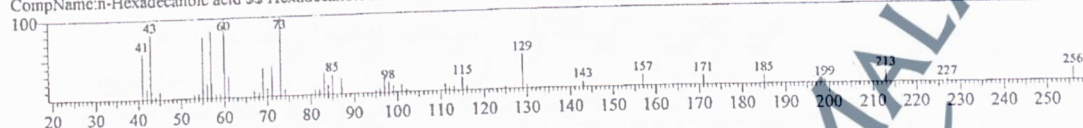
Line#:42 R.Time:27.958(Scan#:2816) MassPeaks:121 BasePeak:43.10(18242)
 RawMode:Averaged 27.950-27.967(2815-2817) BG Mode:Calc. from Peak



Hit#:1 Entry:21864 Library:NIST08s.LIB

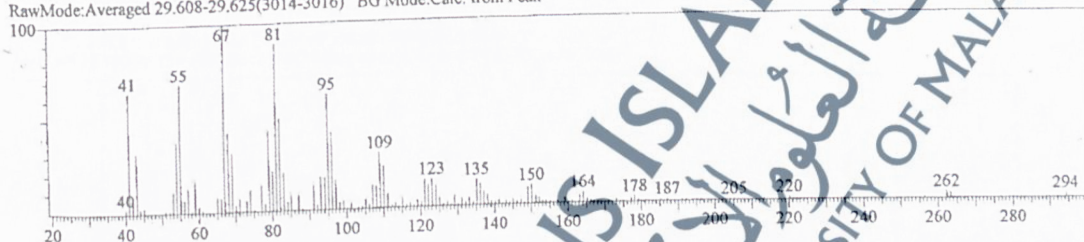
SI:94 Formula:C16H32O2 CAS:57-10-3 MolWeight:256 RetIndex:1968

CompName:n-Hexadecanoic acid \$\$ Hexadecanoic acid \$\$ n-Hexadecic acid \$\$ Palmitic acid \$\$ Pentadecanecarboxylic acid \$\$ 1-Pentadecanecarboxylic acid



<< Target >>

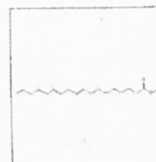
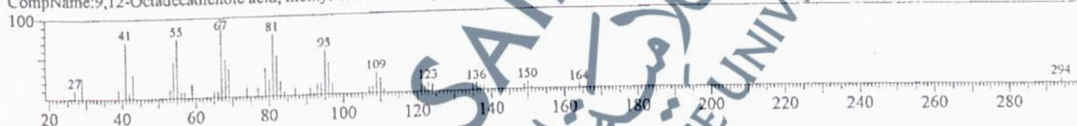
Line#:46 R.Time:29.617(Scan#:3015) MassPeaks:144 BasePeak:67.05(62832)
 RawMode:Averaged 29.608-29.625(3014-3016) BG Mode:Calc. from Peak



Hit#:1 Entry:107898 Library:NIST08s.LIB

SI:95 Formula:C19H34O2 CAS:2462-85-3 MolWeight:294 RetIndex:2093

CompName:9,12-Octadecadienoic acid, methyl ester \$\$ Methyl (9E,12E)-9,12-octadecadienoate # \$\$

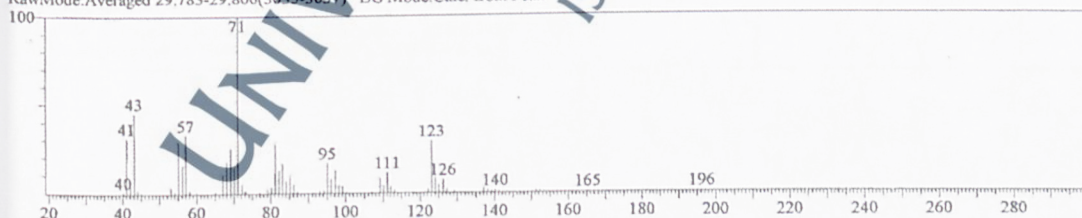


<< Target >>

Line#:47 R.Time:29.717(Scan#:3027) MassPeaks:121 BasePeak:79.05(203103)
 RawMode:Averaged 29.702-29.725(3026-3028) BG Mode:Calc. from Peak

<< Target >>

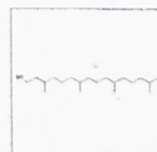
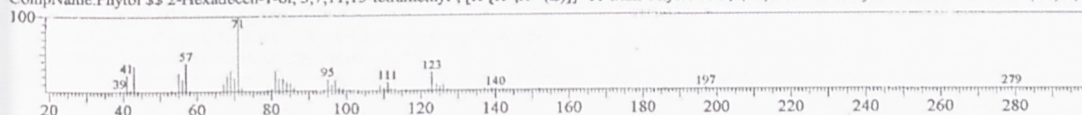
Line#:48 R.Time:29.792(Scan#:3036) MassPeaks:63 BasePeak:71.05(232835)
 RawMode:Averaged 29.783-29.800(3035-3037) BG Mode:Calc. from Peak



Hit#:1 Entry:24173 Library:NIST08s.LIB

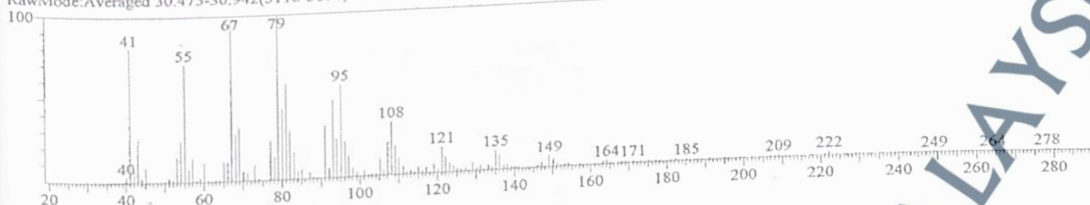
SI:96 Formula:C20H40O CAS:150-86-7 MolWeight:296 RetIndex:2045

CompName:Phytol \$\$ 2-Hexadecen-1-ol, 3,7,11,15-tetramethyl-, [R*(R*),R*(E)]- \$\$ trans-Phytol \$\$ 3,7,11,15-Tetramethyl-2-hexadecen-1-ol (2E)-3,7,

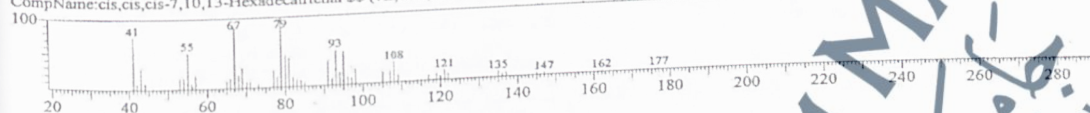


<< Target >>

Line#:51 R.Time:30.575(Scan#:3130) MassPeaks:142 BasePeak:79.10(13700)
 RawMode:Averaged 30.475-30.942(3118-3174) BG Mode:Averaged 30.350-30.367(3103-3105)

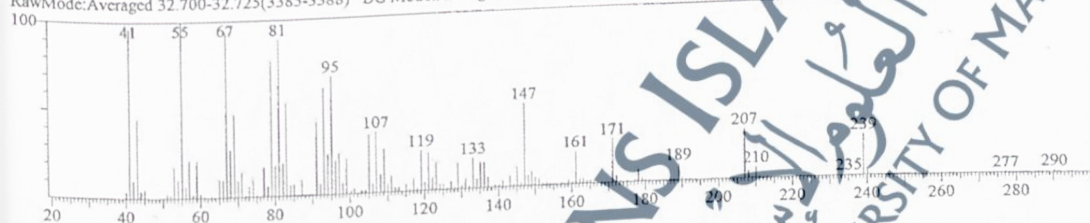


Hit#:1 Entry:65446 Library:NIST08.LIB
 SI:91 Formula:C16H26O CAS:56797-43-4 MolWeight:234 RetIndex:1824
 CompName:cis,cis,cis-7,10,13-Hexadecatrienal \$\$ (7Z,10Z,13Z)-7,10,13-Hexadecatrienal # \$\$



<< Target >>

Line#:60 R.Time:32.708(Scan#:3386) MassPeaks:149 BasePeak:55.05(58765)
 RawMode:Averaged 32.700-32.725(3385-3388) BG Mode:Averaged 32.650-32.675(3379-3382)

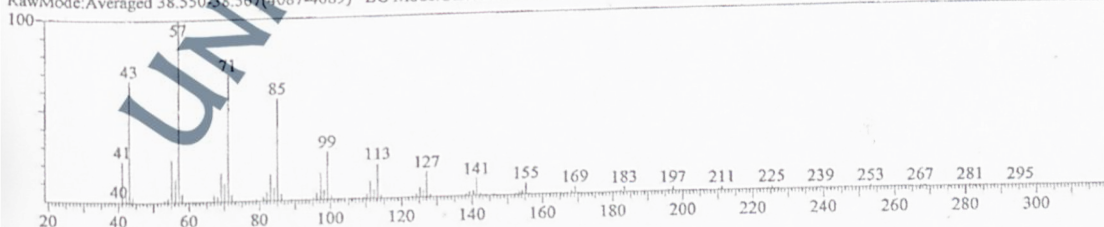


Hit#:1 Entry:124920 Library:NIST08.LIB
 SI:80 Formula:C21H34O2 CAS:59149-01-8 MolWeight:318 RetIndex:2308
 CompName:Methyl (Z)-5,11,14,17-icosatetraenoate \$\$ Methyl (5Z,11Z,14Z,17Z)-5,11,14,17-icosatetraenoate # \$\$

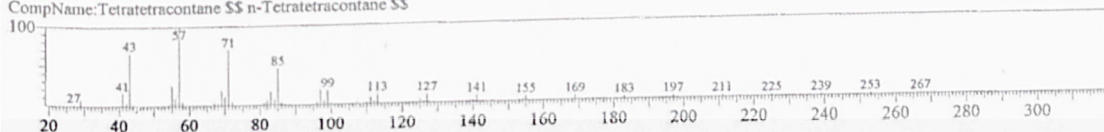


<< Target >>

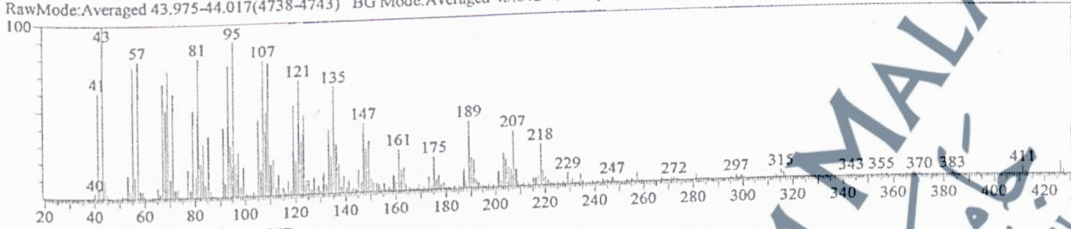
Line#:78 R.Time:38.558(Scan#:4088) MassPeaks:73 BasePeak:57.10(18558)
 RawMode:Averaged 38.550-38.567(4087-4089) BG Mode:Calc. from Peak



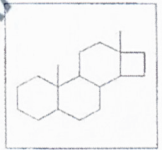
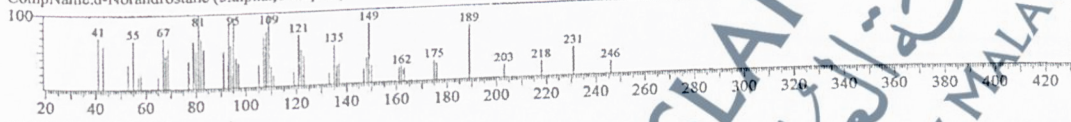
Hit#:1 Entry:189407 Library:NIST08.LIB
 SI:96 Formula:C44H90 CAS:7098-22-8 MolWeight:618 RetIndex:4395
 CompName:Tetratetracontane \$\$ n-Tetratetracontane \$\$

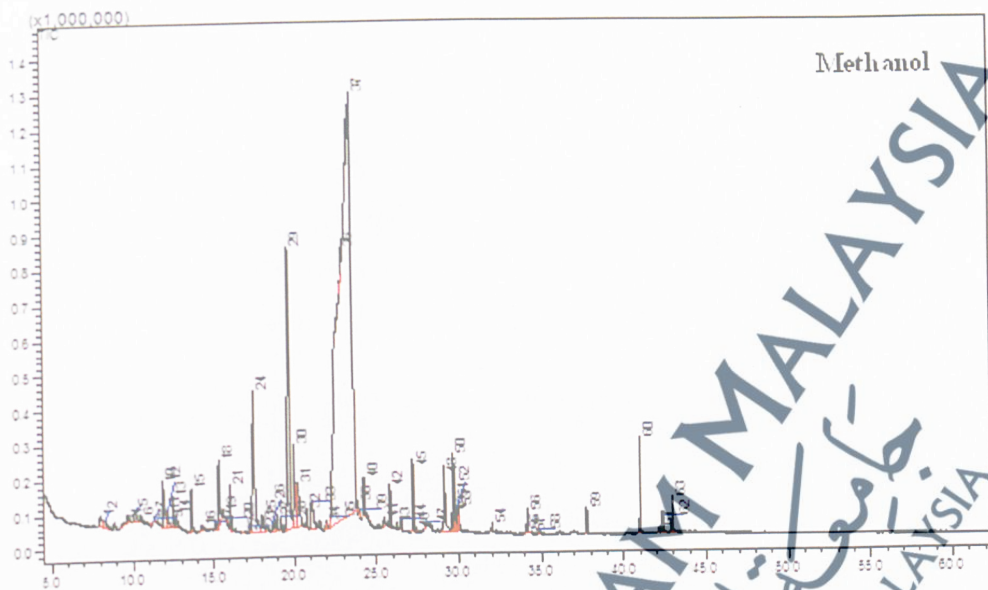


<< Target >>
Line#:102 R.Time:43.992(Scan#:4740) MassPeaks:240 BasePeak:43.10(18725)
RawMode:Averaged 43.975-44.017(4738-4743) BG Mode:Averaged 43.842-43.933(4722-4733)

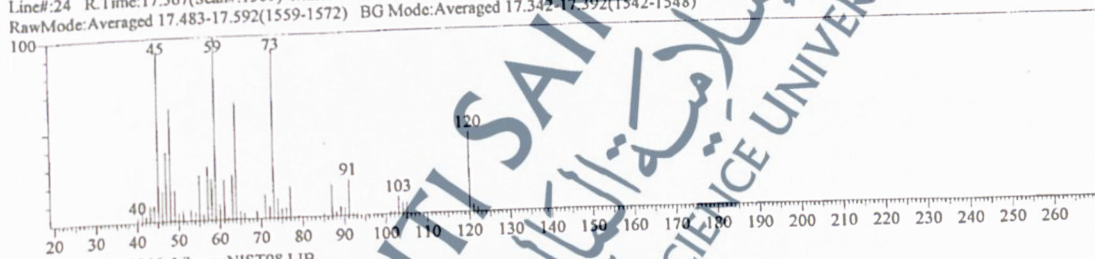


Hit#:1 Entry:73764 Library:NIST08.LIB
SI:80 Formula:C18H30 CAS:0-00-0 MolWeight:246 RetIndex:1649
CompName:d-Norandrostane (5.alpha.,14.alpha.)

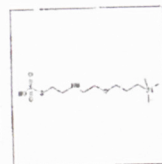
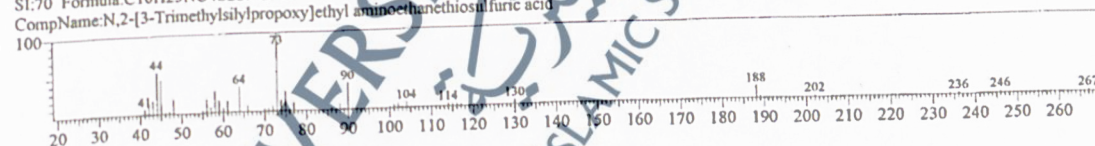




<< Target >>
Line#:24 R.Time:17.567(Scan#:1569) MassPeaks:51 BasePeak:59.00(33073)
RawMode:Averaged 17.483-17.592(1559-1572) BG Mode:Averaged 17.342-17.392(1542-1548)

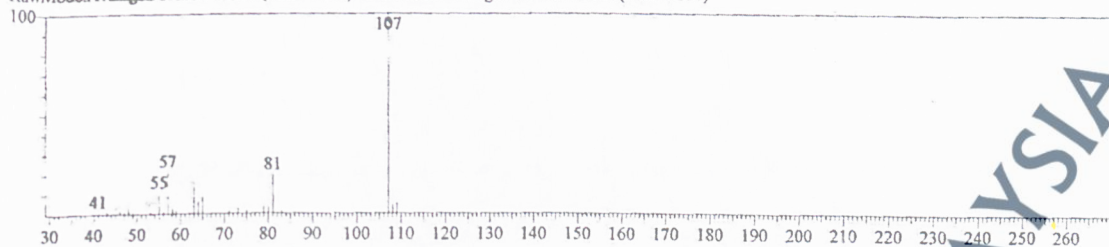


Hit#:1 Entry:122266 Library:NIST08.LIB
SI:70 Formula:C10H25NO4S2Si CAS:0-00-0 MolWeight:315 RetIndex:2097
CompName:N,2-[3-Trimethylsilylpropoxy]ethyl aminoethanethiosulfuric acid



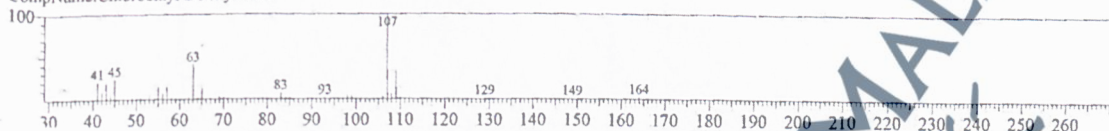
Line#:29 R.T.:19.742(Sol#:1130) MassPeaks:26 BasePeak:107.05(254557)

Raw Mode: Averaged 19.667-19.750(1821-1831) BG Mode: Averaged 19.492-19.525(1800-1804)



Hit#:1 Entry:21815 Library:NIST08.LIB

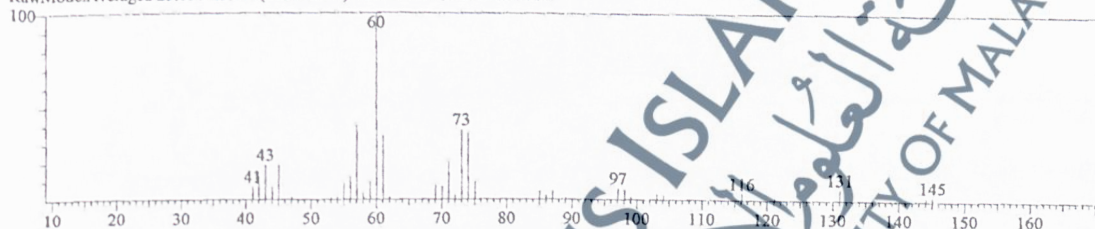
SI:76 Formula:C8H17ClO CAS:0-00
CompName:Chloroethyl 2-hexyl ether



<< Target >>

Line#:37 R.Time:23.658(Scan#:2300) MassPeaks:37 BasePeak:60.05(257867)

RawMode:Averaged 23,650-23,667(2299-2301) BG Mode:Calc. from Peak

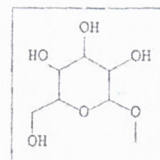
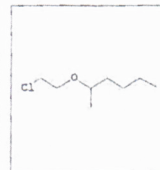


Hit#:1 Entry:38587 Library:NIST08.LIB

SI:97 Formula:C7H14O6 CAS:709-50-2 MolWeight:194 RetIndex:1714

CompName:beta.-D-Glucopyranoside, methyl \$\$ Glucopyranoside, methyl, .beta.-D- \$\$.beta.-Methylglucoside \$\$ Methyl .beta.-D-glucopyranoside \$\$ Met

100



Appendix D:

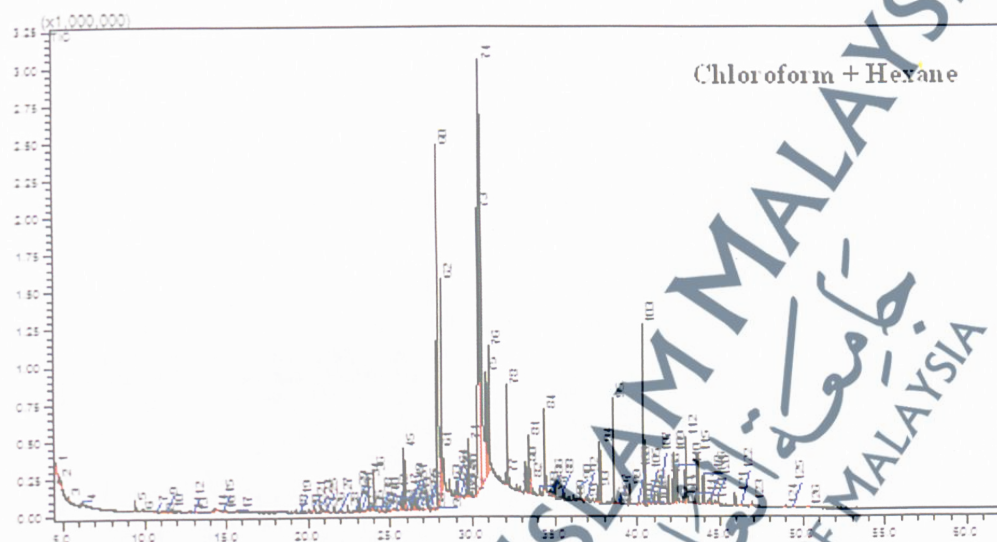
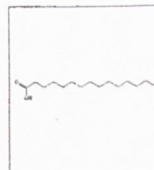
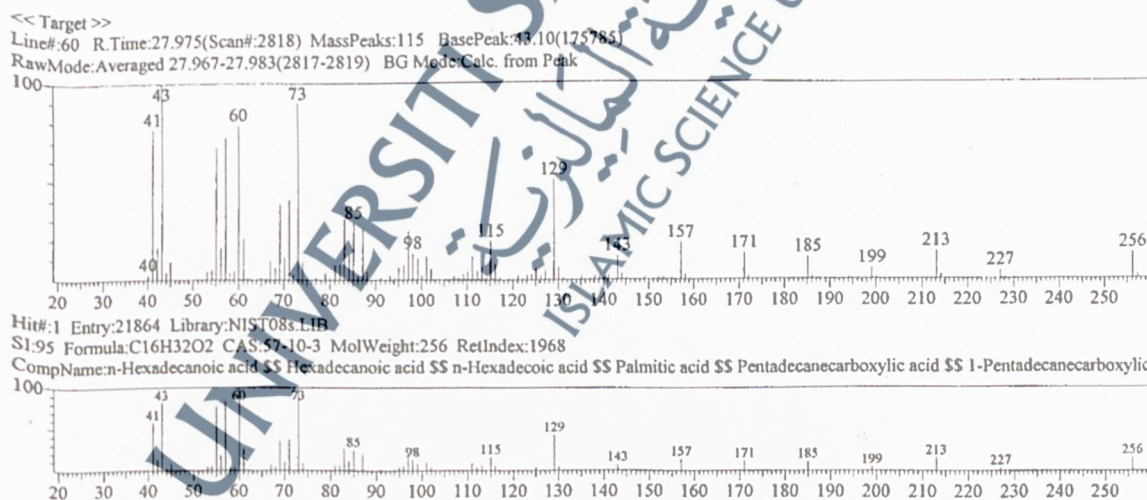


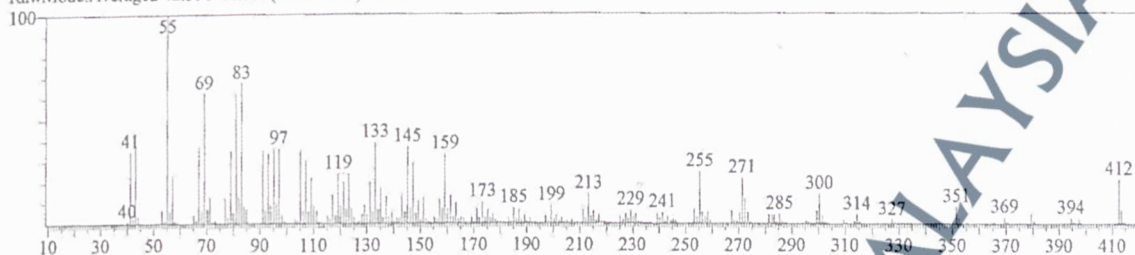
Figure D.1 GC-MS of total compounds in *Clinacanthus nutans* sample extracted with combination of Chloroform and Hexane



<< Target >>

Line#:92 R.Time:42.367(Scan#:4545)

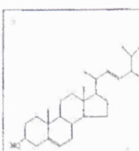
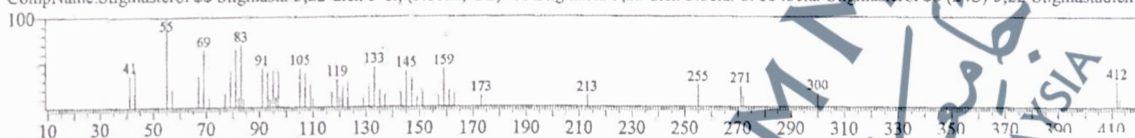
RawMode:Averaged 42.358-42.375(4544-4546) BG Mode:Calc. from Peak



Hit#:1 Entry:171275 Library:NIST08.LIB

SI:96 Formula:C₂₉H₄₈O CAS:83-48-7 MolWeight:412 RetIndex:2739

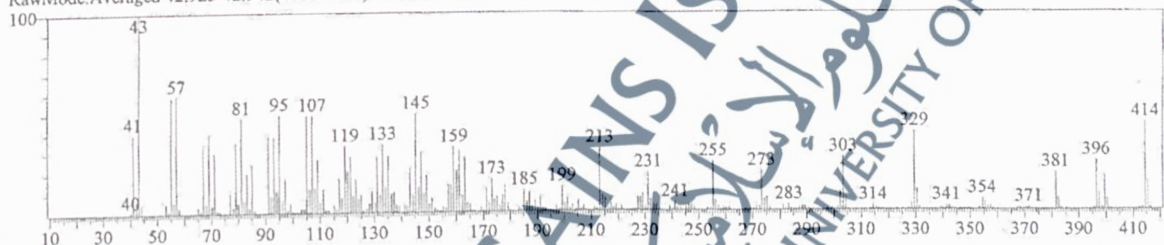
CompName:Stigmasterol \$\$ Stigmasta-5,22-dien-3-ol, (3.beta.,22E)- \$\$ Stigmasta-5,22-dien-3.beta.-ol \$\$.beta.-Stigmasterol \$\$ (24S)-5,22-Stigmastadien-



<< Target >>

Line#:95 R.Time:42.933(Scan#:4613)

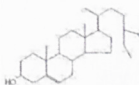
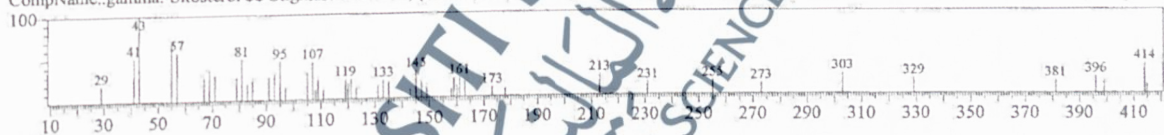
RawMode:Averaged 42.925-42.942(4612-4614) BG Mode:Calc. from Peak



Hit#:1 Entry:171855 Library:NIST08.LIB

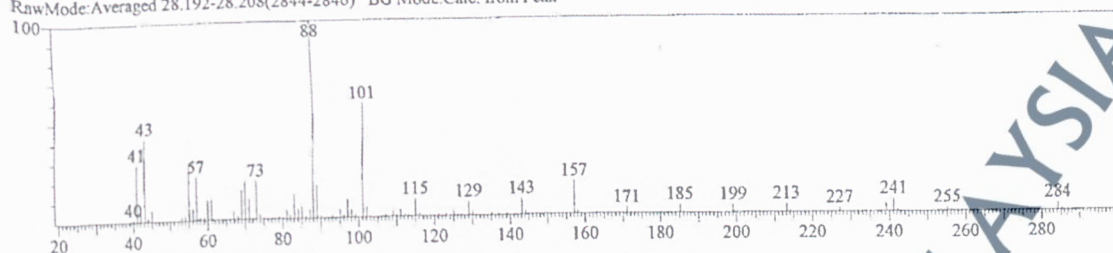
SI:92 Formula:C₂₉H₅₀O CAS:83-47-6 MolWeight:414 RetIndex:2731

CompName:.gamma.-Sitosterol \$\$ Stigmast-5-en-3-ol, (3.beta.,24S)- \$\$ Stigmast-5-en-3.beta.-ol, (24S)- \$\$ Clionasterol \$\$ Fucosterol, .beta.-dihydro- \$\$ 2-



<< Target >>

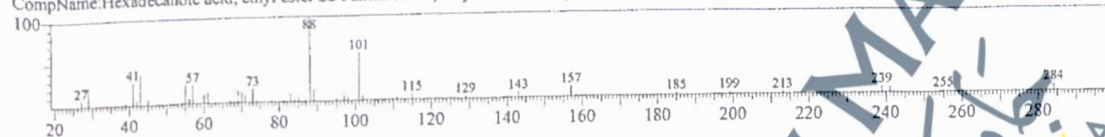
Line#:62 R.Time:28.200(Scan#:2845) MassPeaks:87 BasePeak:88.05(197886)
 RawMode:Averaged 28.192-28.208(2844-2846) BG Mode:Calc. from Peak



Hit#:1 Entry:100823 Library:NIST08.LIB

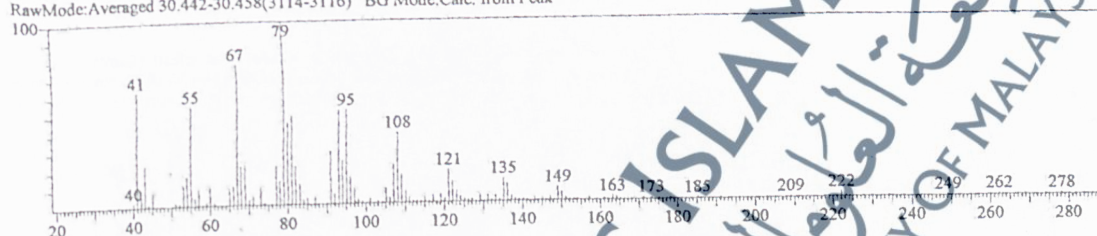
SI:95 Formula:C18H36O2 CAS:628-97-7 MolWeight:284 RetIndex:1978

CompName:Hexadecanoic acid, ethyl ester \$\$ Palmitic acid, ethyl ester \$\$ Ethyl hexadecanoate \$\$ Ethyl palmitate \$\$



Line#:73 R.Time:30.450(Scan#:3115) MassPeaks:129 BasePeak:79.05(114632)

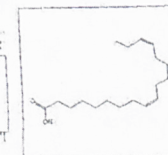
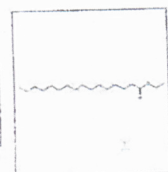
RawMode:Averaged 30.442-30.458(3114-3116) BG Mode:Calc. from Peak



Hit#:1 Entry:96366 Library:NIST08.LIB

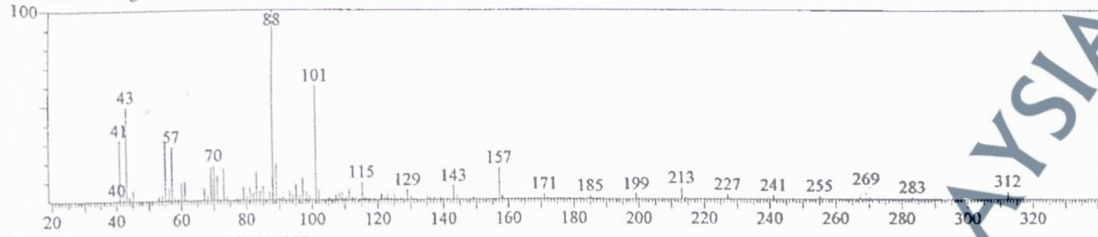
SI:95 Formula:C18H30O2 CAS:463-40-1 MolWeight:278 RetIndex:2191

CompName:9,12,15-Octadecatrienoic acid, (Z,Z,Z)- \$\$ Linolenic acid \$\$ alpha-Linolenic acid \$\$ All-cis-9,12,15-Octadecatrienoic acid \$\$ cis,cis,cis-9,12,15-Octadecatrienoic acid



<< Target >>

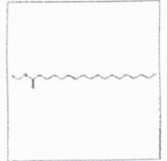
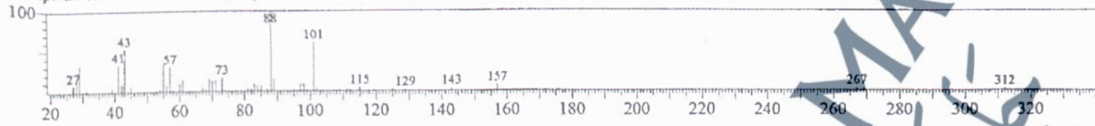
Line#:75 R.Time:30.850(Scan#:3163) MassPeaks:112 BasePeak:88.05(64441)
 RawMode:Averaged 30.842-30.858(3162-3164) BG Mode:Calc. from Peak



Hit#:1 Entry:24907 Library:NIST08s.LIB

SI:92 Formula:C20H40O2 CAS:111-61-5 MolWeight:312 RetIndex:2177

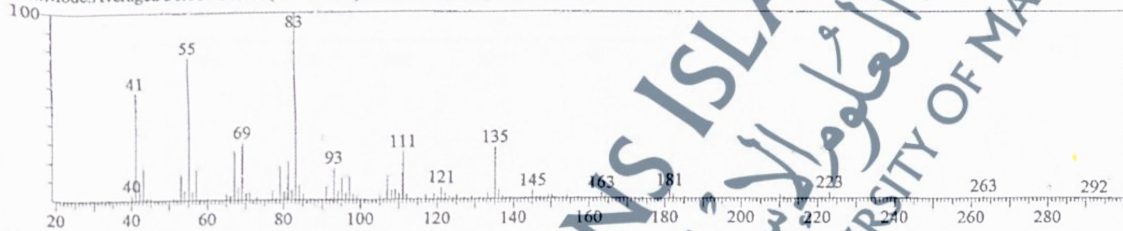
CompName:Octadecanoic acid, ethyl ester SS Stearic acid, ethyl ester SS Ethyl n-octadecanoate SS Ethyl octadecanoate SS Ethyl stearate SS Radia 7185 SS



<< target >>

Line#:76 R.Time:31.025(Scan#:3184) MassPeaks:107 BasePeak:83.10(99646)

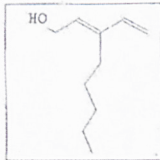
RawMode:Averaged 31.017-31.033(3183-3185) BG Mode:Calc. from Peak



Hit#:1 Entry:17406 Library:NIST08.LIB

SI:85 Formula:C10H18O CAS:0-00-0 MolWeight:154 RetIndex:1233

CompName:2,4-Pentadien-1-ol, 3-pentyl-, (2Z)-



Appendix E:

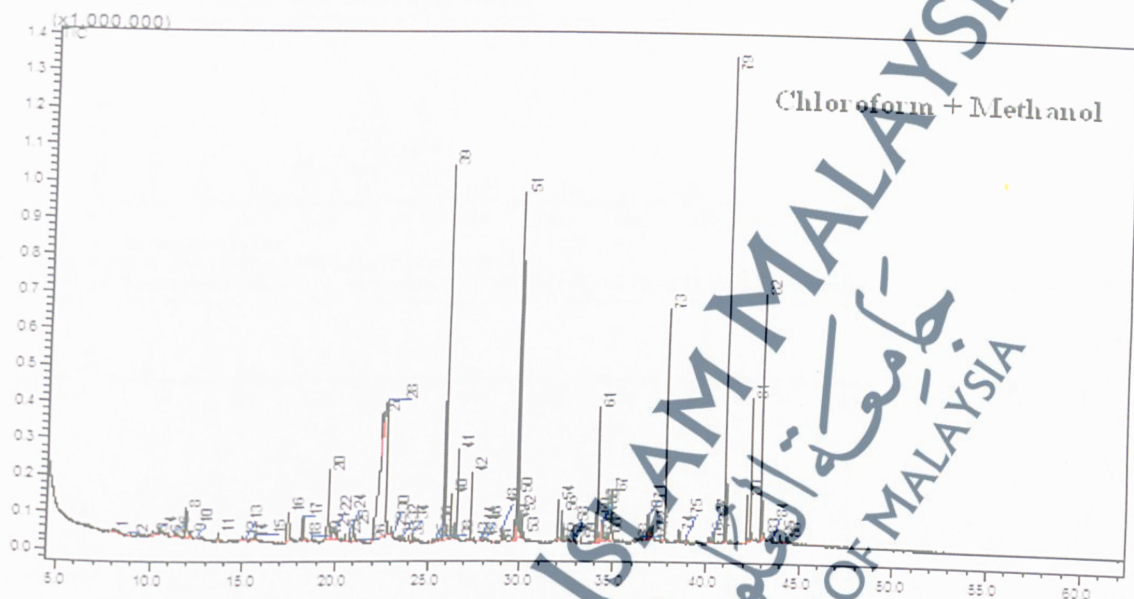
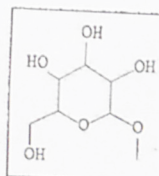
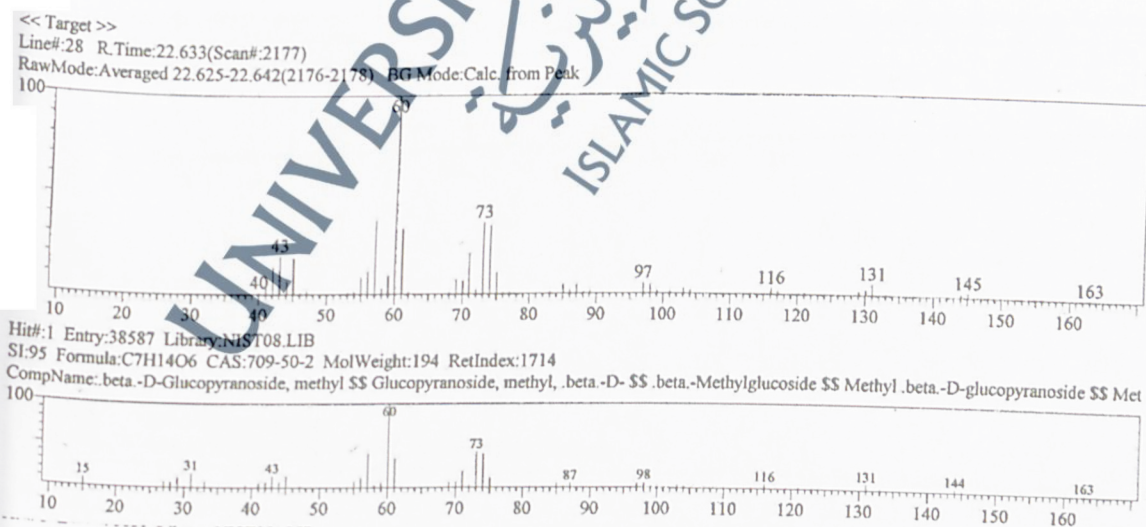
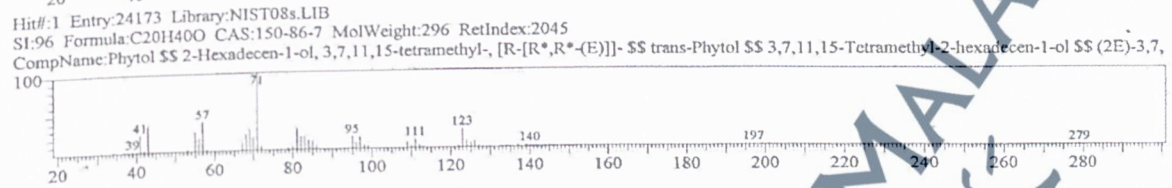
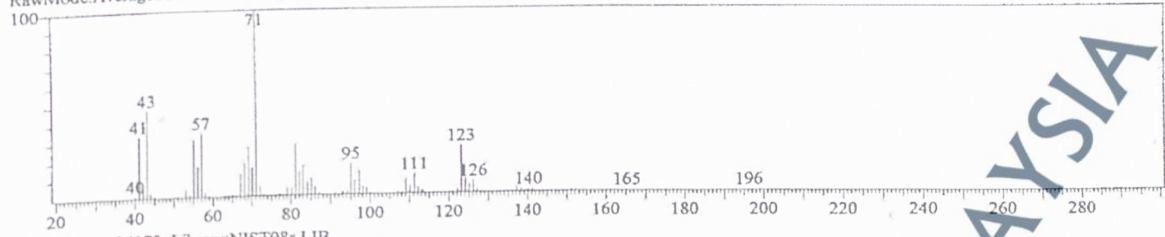


Figure E.1 GC-MS of total compounds in *Clinacanthus nutans* sample extracted with Chloroform and Methanol.

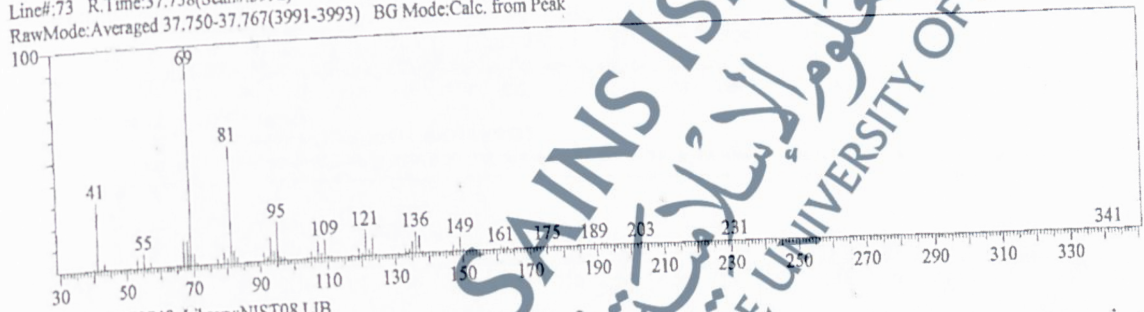


<< Target >>
Line#:51 R.Time:29.775(Scan#:3034)
RawMode:Averaged 29.767-29.783(3033-3035) BG Mode:Calc. from Peak



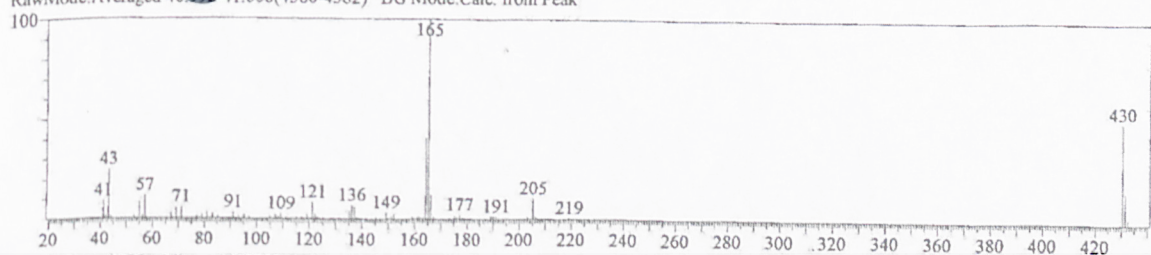
<< Target >>

<< Target >>
Line#:73 R.Time:37.758(Scan#:3992)
RawMode:Averaged 37.750-37.767(3991-3993) BG Mode:Calc. from Peak



<< Target >>

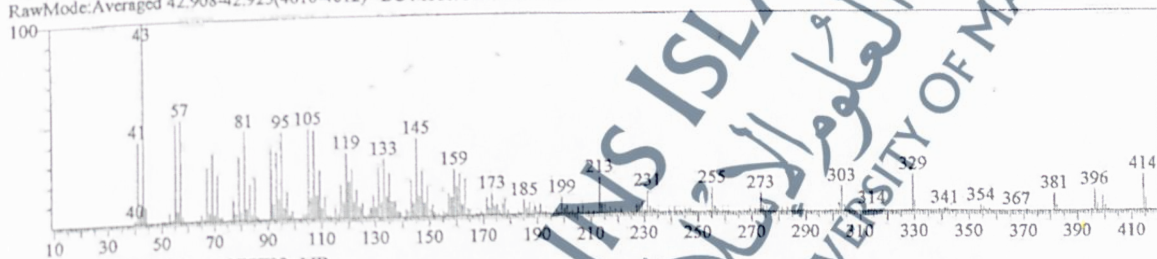
Line#:79 R.Time:41.000(Scan#:4381)
RawMode:Averaged 40.992-41.008(4380-4382) BG Mode:Calc. from Peak



<< Target >>

Line#:82 R.Time:42.917(Scan#:4611)

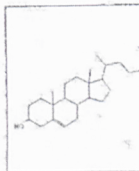
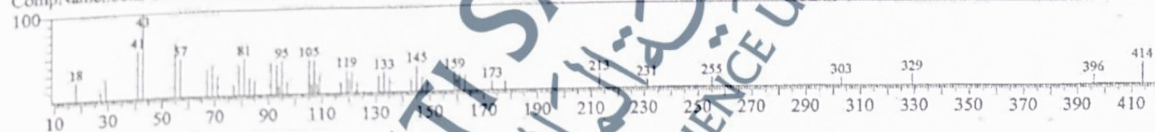
RawMode:Averaged 42.908-42.925(4610-4612) BG Mode:Calc. from Peak



Hit#:1 Entry:27488 Library:NIST08s.LIB

S1:93 Formula:C29H50O CAS:83-46-5 MolWeight:414 RetIndex:2731

CompName: beta.-Sitosterol \$\$ Stigmast-5-en-3-ol, (3.beta.)- \$\$ Stigmast-5-en-3.beta.-ol \$\$ alpha.-Dihydrofucosterol \$\$.beta.-Sitosterin \$\$ Angelicin \$\$ /



Appendix F:

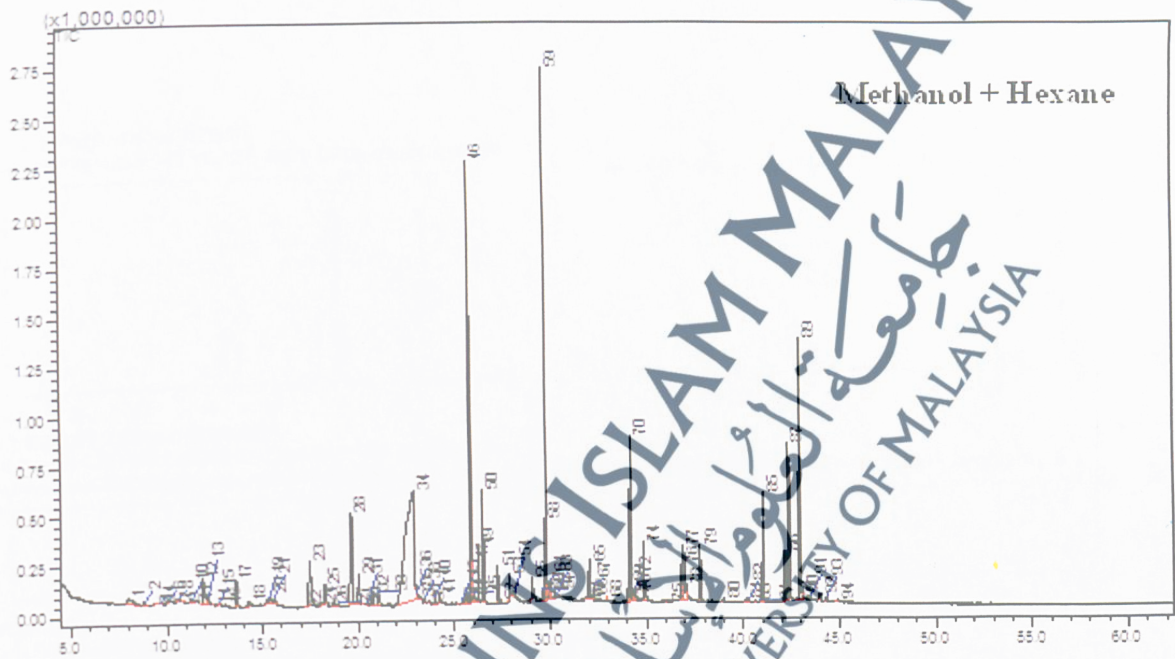


Figure F.1 GC-MS of total compounds in *Cinacanthus nutans* sample extracted with Methanol with Hexane.

