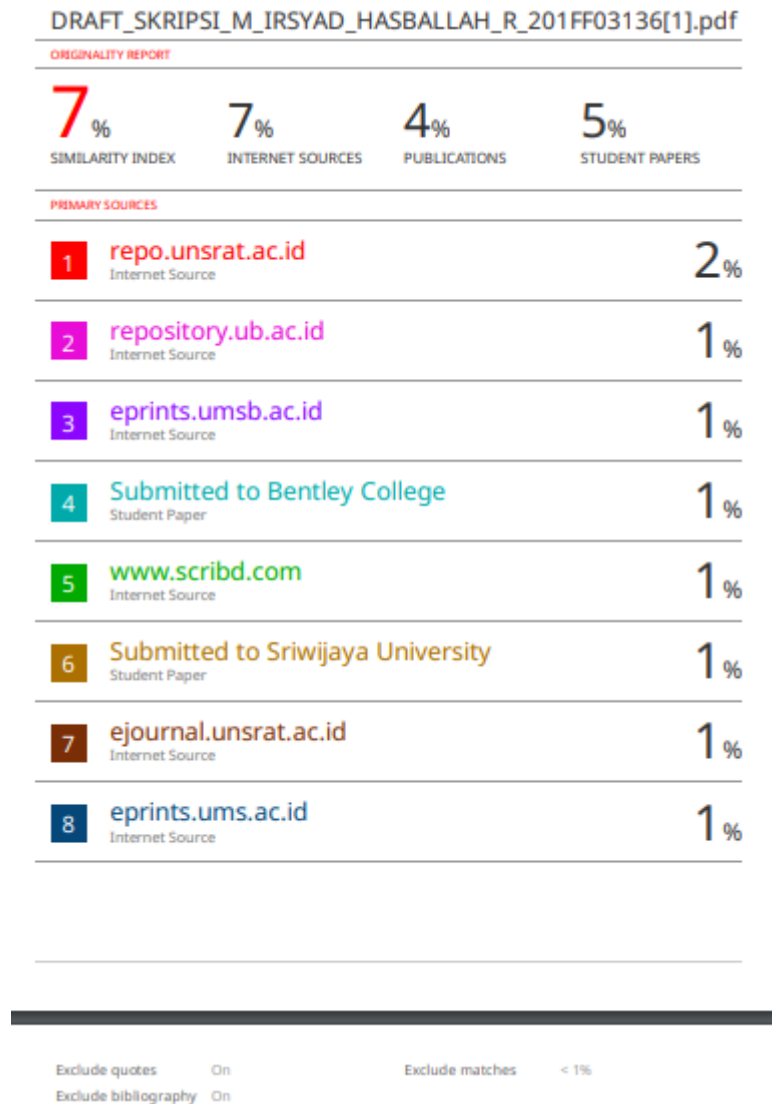


LAMPIRAN

Lampiran 1. Hasil Turnitin



Lampiran 2. Lembar Bimbingan

[illegible]



Fakultas Farmasi
Universitas
Bhakti Kencana

No. Doc. 02.64.05FRM-03AND-SPMI



KARTU BIMBINGAN TUGAS AKHIR I/TUGAS AKHIR II

Pembimbing Seri	: Dr. Aji. Wawan Radwaningsih, S.Si
Nama Mahasiswa	: Muhammad Iqbal Haskeloh Agapri.
NPM	: 2007031X
Bidang Ilmu	: AFIM.

[illegible]

Catatan: Kartu ini harus ditarik setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

0.22 mg/kg BW, 0.22 mg/kg BW

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Lampiran 3. Surat Determinasi Sampel

HERBARIUM JATINANGOR
LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA UNPAD
 Gedung D2-212, Jl. Raya Bandung Sumedang Km 21 Jatinangor
 Telp. 0896889992695, email: phanerogamae@yahoo.com

LEMBAR IDENTIFIKASI TUMBUHAN
 No.16/HB/07/2024.

Herbarium Jatinangor, Laboratorium Taksonomi Tumbuhan, Jurusan Biologi FMIPA UNPAD, dengan ini menerangkan bahwa:

Nama : Muhammad Irsyad Hasballah Rompas
 NIM/NIDN : 201FF03136
 Instansi : Universitas Bhakti Kencana.
 Lokasi : Bandung.

Telah melakukan identifikasi tumbuhan, dengan No. Koleksi: -
 Tanggal Koleksi : 08 Juli 2024.

Hasil Identifikasi

Nama Ilmiah : *Euchema spinosum*
 Sinonim : *Gracilaria* sp. (Greville, 1830)
 Nama Lokal : Ganggang merah
 Suku/Famili : Gracillariaceae

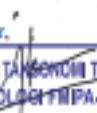
Klasifikasi (Hirarki Taksonomi)

Kingdom : Chromista
 Filum : Rhodophyta
 Class : Florideophyceae
 Ordo : Gracilariales
 Famili : Gracillariaceae
 Genus : *Euchema*
 Species : *Euchema spinosum*

Referensi:
 Backer, C. A. and Bakhuizen v/d Brink R. C Jr. 1963. Flora of Java. Wolter-Noordhoff NV. Groningen.
 Cronquist, Arthur. 1981. An Integrated System of Classification of Flowering Plants. Columbia University Press. New York
 The Plant List. Website Dunia Tumbuhan. <http://www.theplantlist.org/tpl1.1/record/kew-158489>.

Jatinangor, 09 Juli 2024.

Identifikator,



LABORATORIUM TAKSONOMI TUMBUHAN
 JURUSAN BIOLOGI FMIPA UNPAD

 Drs. Joko Kusnoro, M.P.
 NIP. 19600801 199101 1 001

Lampiran 4. Perhitungan rendemen ekstraksi

a. n-Heksana

$$\text{rendemen} = \frac{\text{berat hasil ekstrak}}{\text{berat sampel awal}} \times 100\%$$

$$\text{rendemen} = \frac{0,2617 \text{ gram}}{50 \text{ gram}} \times 100\%$$

$$\text{rendemen} = 0,5234\%$$

b. Etanol p.a

$$\text{rendemen} = \frac{\text{berat hasil ekstrak}}{\text{berat sampel awal}} \times 100\%$$

$$\text{rendemen} = \frac{2,0442 \text{ gram}}{50 \text{ gram}} \times 100\%$$

$$\text{rendemen} = 4,0884 \%$$

Lampiran 5. Dokumentasi preparasi sampel



Pengeringan sampel dengan oven



Perajangan sampel

Lampiran 6. Dokumentasi ekstraksi sampel

Hasil ekstraksi dari n-heksana



Hasil ekstraksi dari etanol 96%

Lampiran 7. Dokumentasi metilasi sampel

Saponifikasi n-heksana



Saponifikasi etanol 96%



Transesterifikasi n-heksana



Transesterifikasi etanol 96%



Vortex n-heksana



Vortex etanol 96%

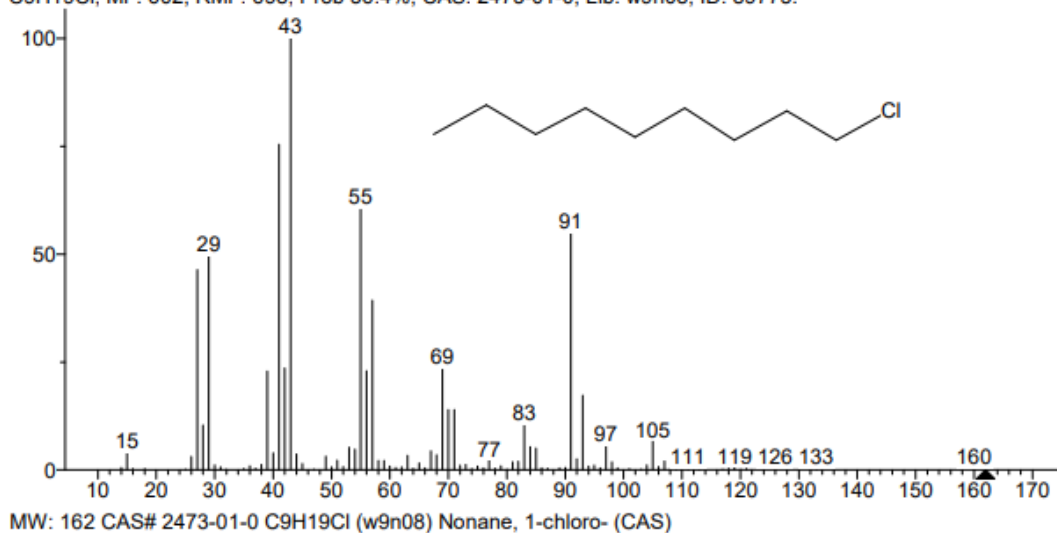
Lampiran 8. Spektrogram fraksinasi massa setiap senyawa asam lemak yang terdeteksi

2. Puncak sampel dengan pelarut etanol 96% tertinggi dengan tingkat kemiripan terbesar

1.1 Waktu retensi 3,193

Hit 1 : Nonane, 1-chloro- (CAS)

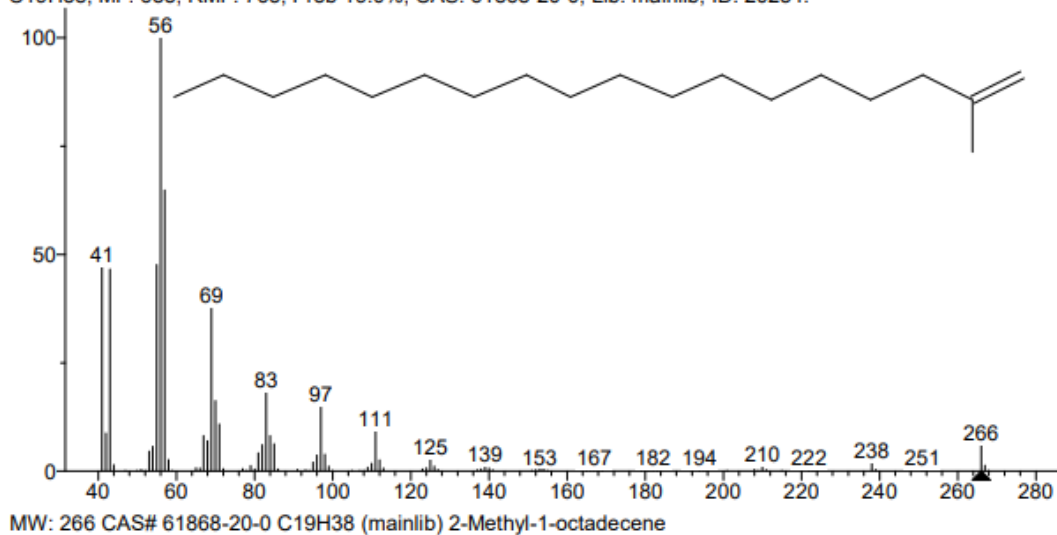
C₉H₁₉Cl; MF: 602; RMF: 698; Prob 36.4%; CAS: 2473-01-0; Lib: w9n08; ID: 89775.



1.2 Waktu retensi 4,569

Hit 1 : 2-Methyl-1-octadecene

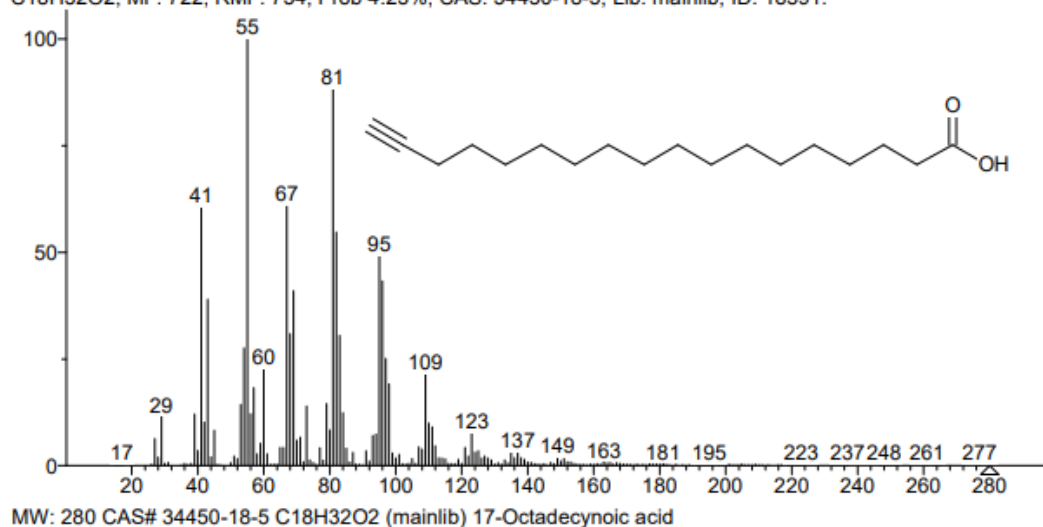
C₁₉H₃₈; MF: 635; RMF: 763; Prob 19.0%; CAS: 61868-20-0; Lib: mainlib; ID: 20254.



Waktu retensi 5,604

Hit 1 : 17-Octadecynoic acid

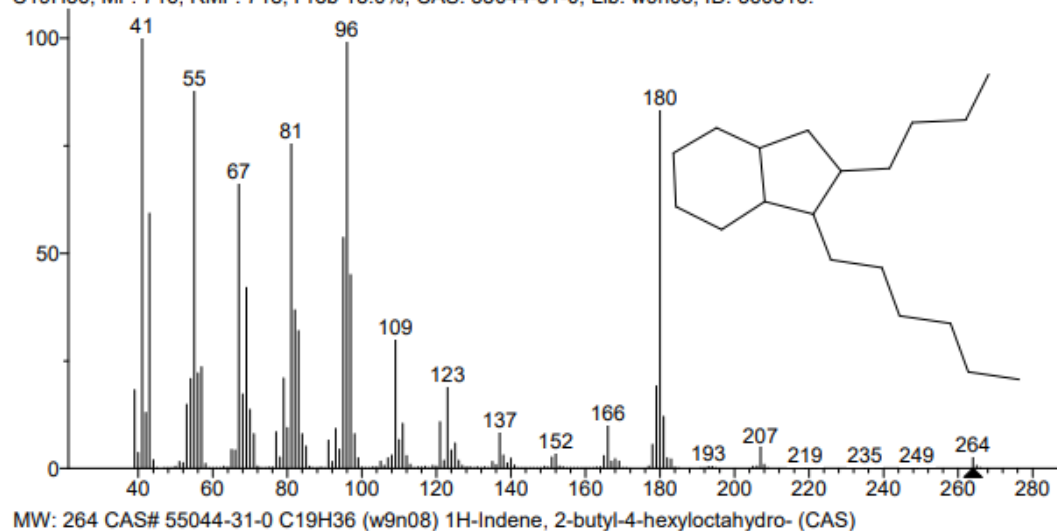
C₁₈H₃₂O₂; MF: 722; RMF: 734; Prob 4.23%; CAS: 34450-18-5; Lib: mainlib; ID: 18591.



1.3 Waktu retensi 15,368

Hit 1 : 1H-Indene, 2-butyl-4-hexyloctahydro- (CAS)

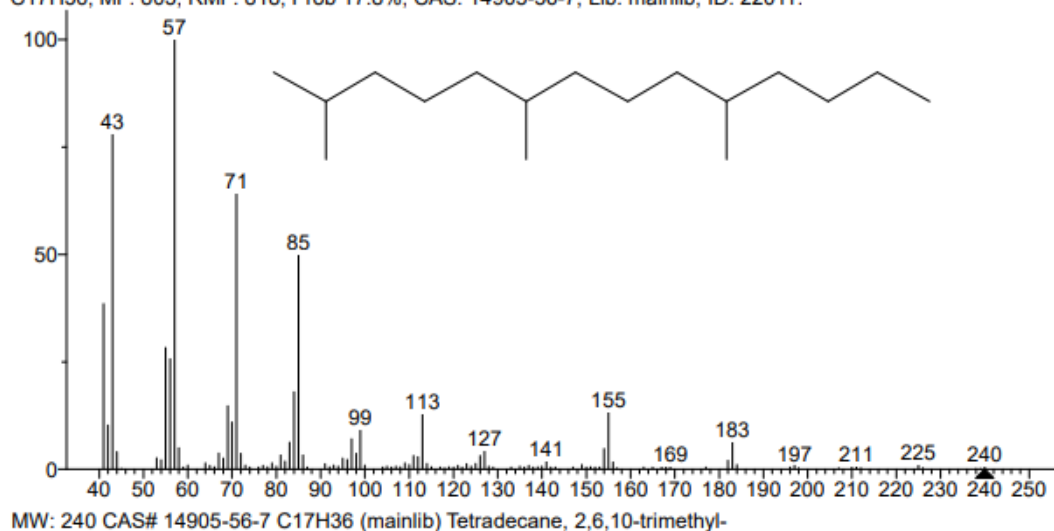
C₁₉H₃₆; MF: 716; RMF: 718; Prob 13.0%; CAS: 55044-31-0; Lib: w9n08; ID: 360516.



1.4 Waktu retensi 15,521

Hit 1 : Tetradecane, 2,6,10-trimethyl-

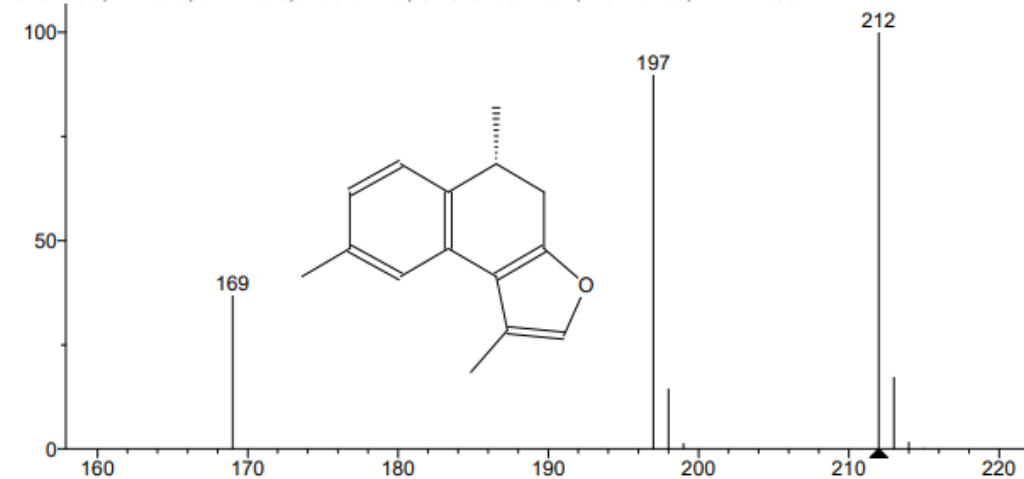
C₁₇H₃₆; MF: 803; RMF: 818; Prob 17.8%; CAS: 14905-56-7; Lib: mainlib; ID: 22011.



1.5 Waktu retensi 15,915

Hit 1 : CHROMOLAENIN

C₁₅H₁₆O; MF: 874; RMF: 953; Prob 82.2%; CAS: 62502-10-7; Lib: w9n08; ID: 214333.

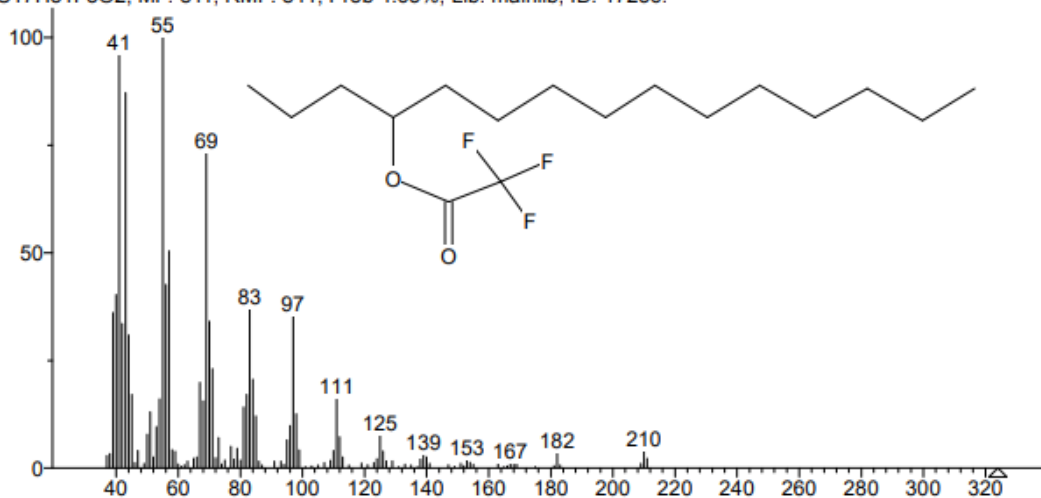


MW: 212 CAS# 62502-10-7 C₁₅H₁₆O (w9n08) CHROMOLAENIN

1.6 Waktu retensi 17,057

Hit 1 : 4-Trifluoroacetoxypentadecane

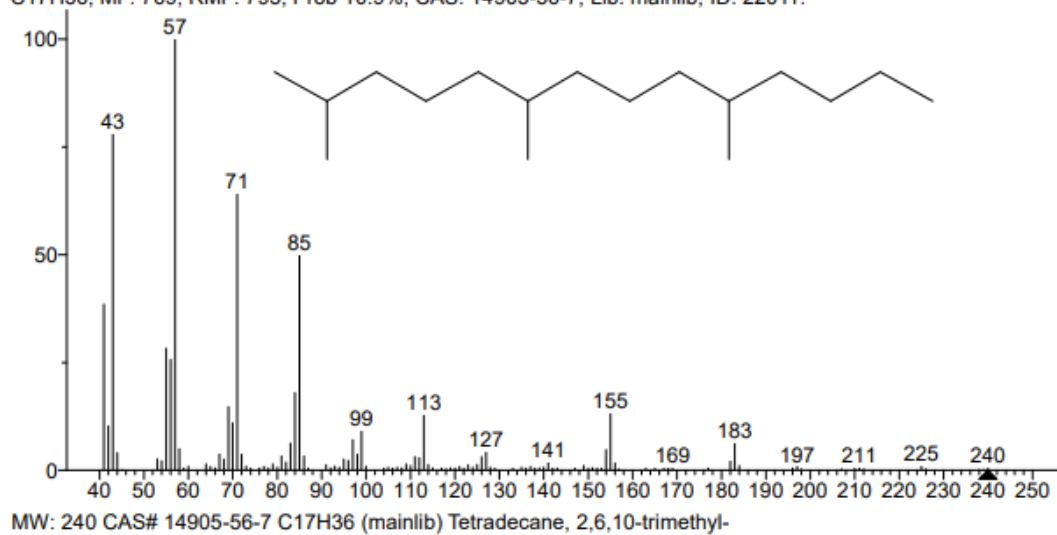
C₁₇H₃₁F₃O₂; MF: 811; RMF: 841; Prob 4.65%; Lib: mainlib; ID: 17236.



MW: 324 C₁₇H₃₁F₃O₂ (mainlib) 4-Trifluoroacetoxypentadecane

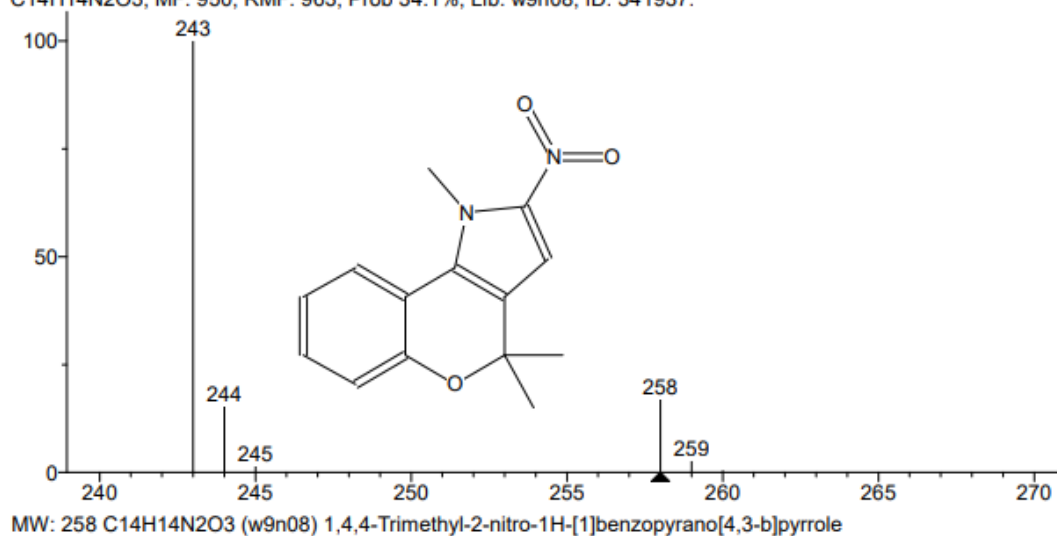
1.7 Waktu retensi 17,157

Hit 1 : Tetradecane, 2,6,10-trimethyl-
C₁₇H₃₆; MF: 769; RMF: 795; Prob 10.9%; CAS: 14905-56-7; Lib: mainlib; ID: 22011.



1.8 Waktu retensi 17,786

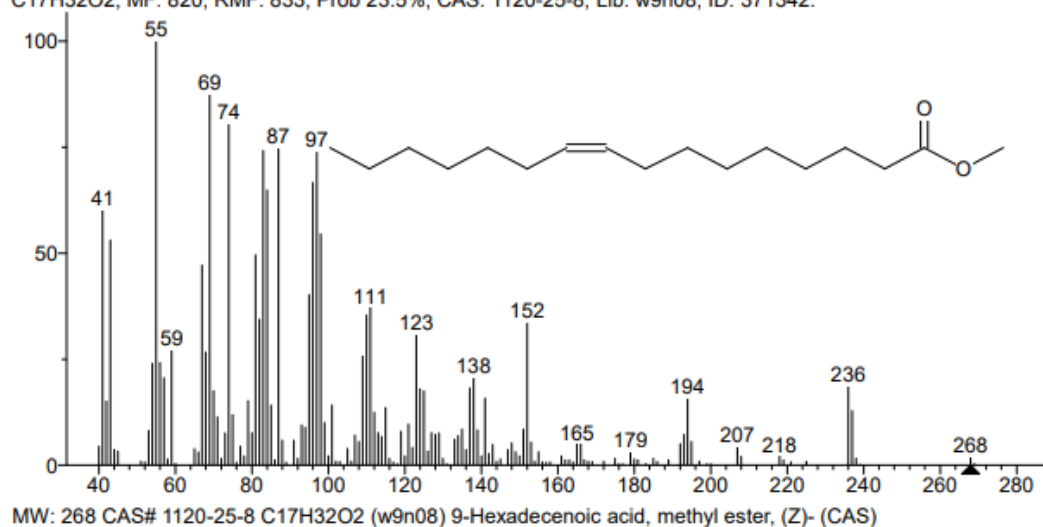
Hit 1 : 1,4,4-Trimethyl-2-nitro-1H-[1]benzopyrano[4,3-b]pyrrole
C₁₄H₁₄N₂O₃; MF: 950; RMF: 963; Prob 34.1%; Lib: w9n08; ID: 341937.



1.9 Waktu retensi 18,686

Hit 1 : 9-Hexadecenoic acid, methyl ester, (Z)- (CAS)

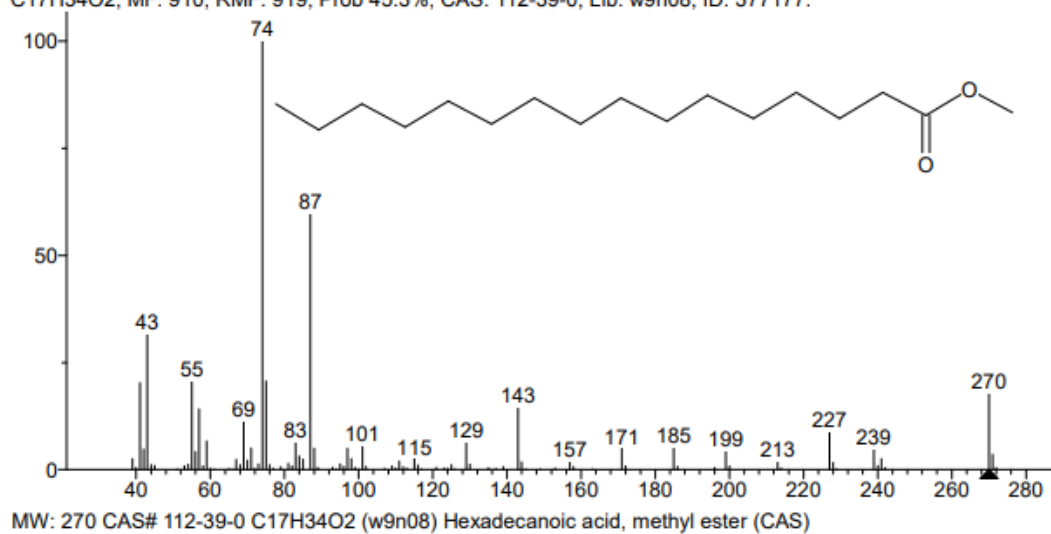
C₁₇H₃₂O₂; MF: 820; RMF: 833; Prob 23.5%; CAS: 1120-25-8; Lib: w9n08; ID: 371342.



1.10 Waktu retensi 18,827

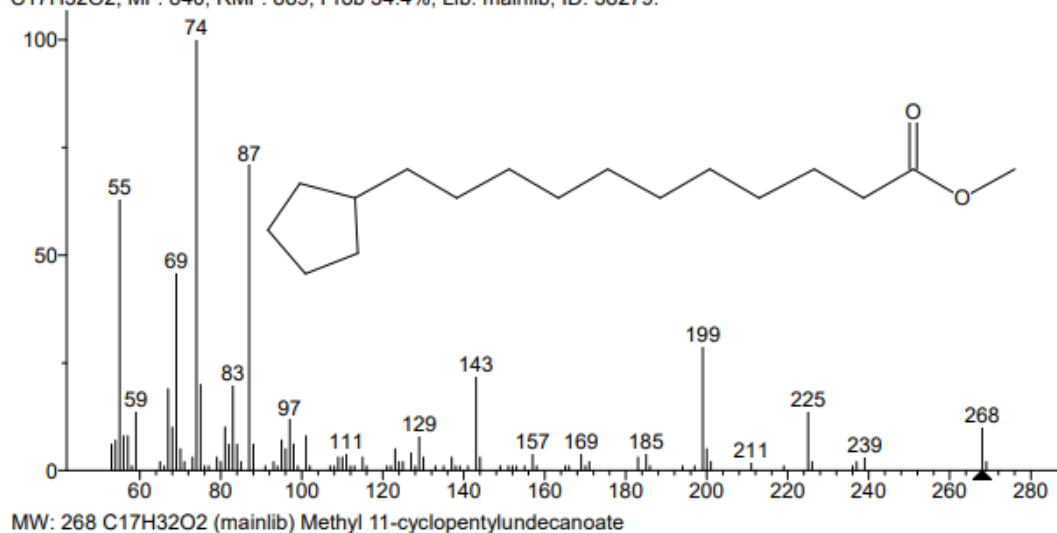
Hit 1 : Hexadecanoic acid, methyl ester (CAS)

C₁₇H₃₄O₂; MF: 910; RMF: 919; Prob 45.3%; CAS: 112-39-0; Lib: w9n08; ID: 377177.



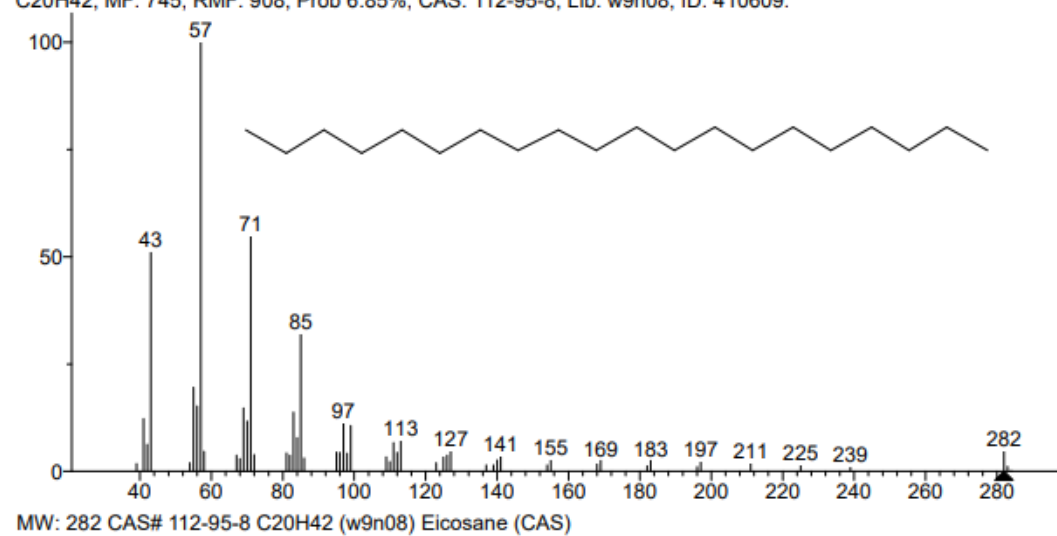
1.11 Waktu retensi 19,633

Hit 1 : Methyl 11-cyclopentylundecanoate
 C₁₇H₃₂O₂; MF: 840; RMF: 889; Prob 34.4%; Lib: mainlib; ID: 38279.



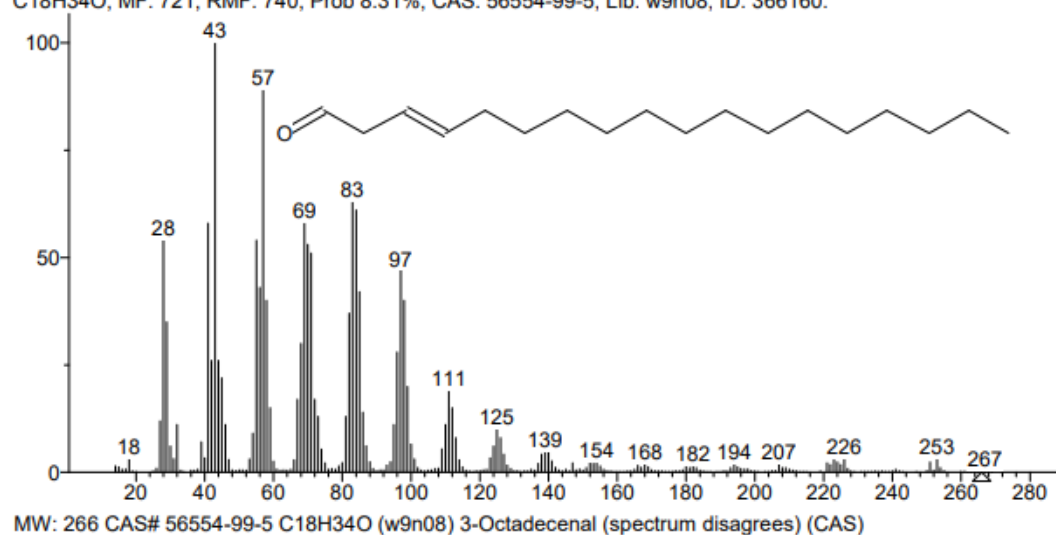
1.12 Waktu retensi 19,703

Hit 1 : Eicosane (CAS)
 C₂₀H₄₂; MF: 745; RMF: 908; Prob 6.85%; CAS: 112-95-8; Lib: w9n08; ID: 410609.



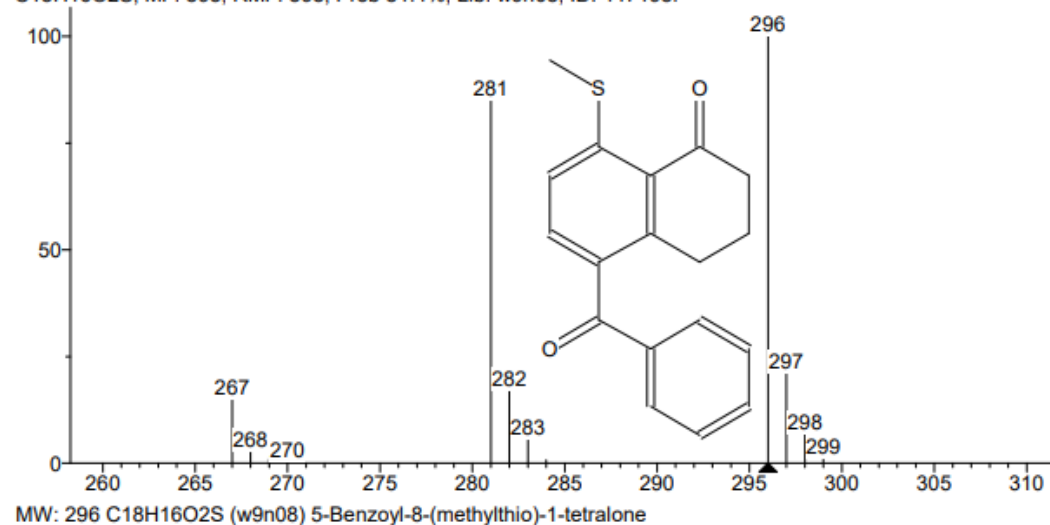
1.13 Waktu retensi 20,774

Hit 1 : 3-Octadecenal (spectrum disagrees) (CAS)
 C₁₈H₃₄O; MF: 721; RMF: 740; Prob 8.31%; CAS: 56554-99-5; Lib: w9n08; ID: 366160.



1.14 Waktu retensi 21,774

Hit 1 : 5-Benzoyl-8-(methylthio)-1-tetralone
 C₁₈H₁₆O₂S; MF: 898; RMF: 898; Prob 81.4%; Lib: w9n08; ID: 447198.

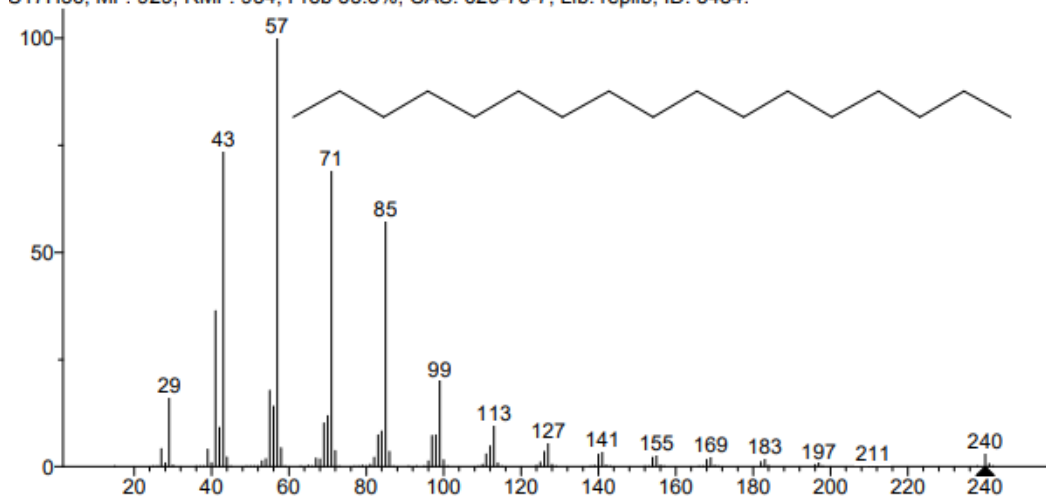


3. Puncak sampel dengan pelarut *n*-heksana yang terdeteksi dengan tingkat kemiripan terbesar

2.1 Waktu retensi 15,528

Hit 1 : Heptadecane

C₁₇H₃₆; MF: 929; RMF: 934; Prob 33.8%; CAS: 629-78-7; Lib: replib; ID: 5484.

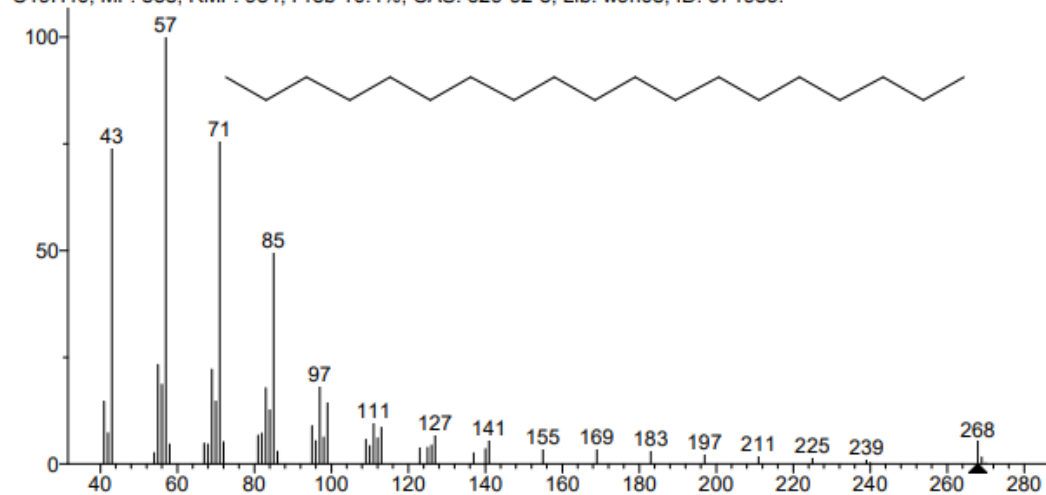


MW: 240 CAS# 629-78-7 C₁₇H₃₆ (replib) Heptadecane

2.2 Waktu retensi 18,521

Hit 1 : Nonadecane (CAS)

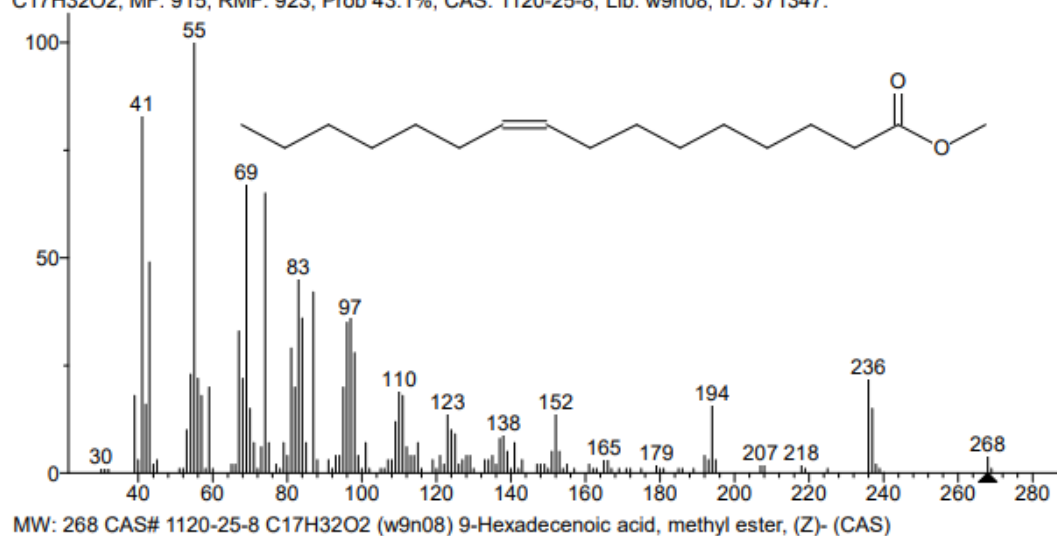
C₁₉H₄₀; MF: 838; RMF: 934; Prob 10.4%; CAS: 629-92-5; Lib: w9n08; ID: 371989.



MW: 268 CAS# 629-92-5 C₁₉H₄₀ (w9n08) Nonadecane (CAS)

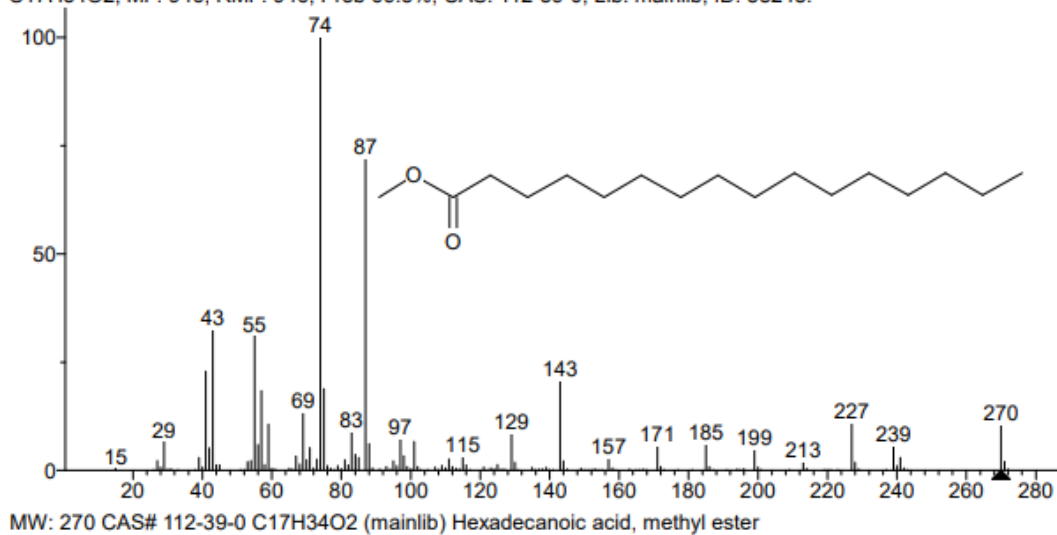
2.3 Waktu retensi 18,692

Hit 1 : 9-Hexadecenoic acid, methyl ester, (Z)- (CAS)
C₁₇H₃₂O₂; MF: 915; RMF: 923; Prob 43.1%; CAS: 1120-25-8; Lib: w9n08; ID: 371347.



2.4 Waktu retensi 18,883

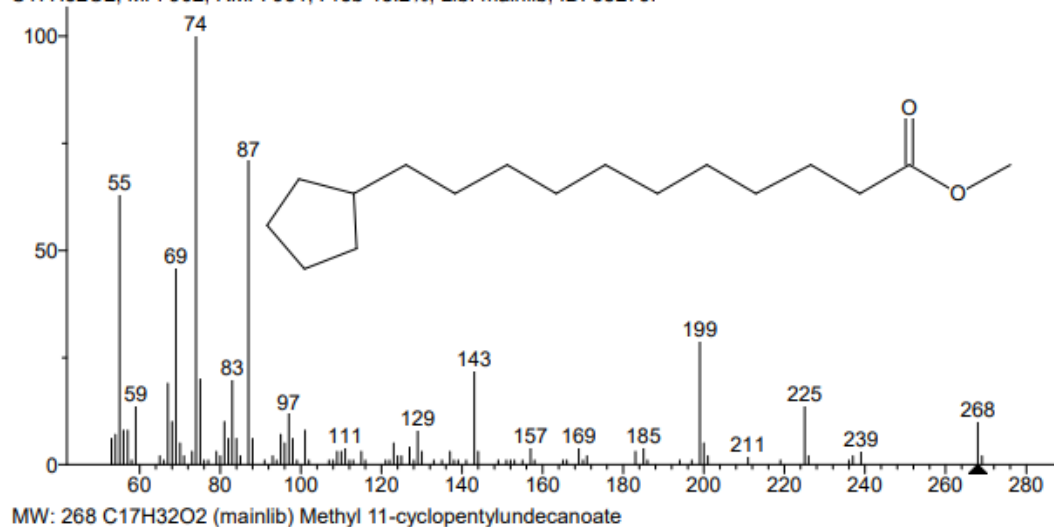
Hit 1 : Hexadecanoic acid, methyl ester
C₁₇H₃₄O₂; MF: 946; RMF: 946; Prob 69.3%; CAS: 112-39-0; Lib: mainlib; ID: 38248.



2.5 Waktu retensi 19,639

Hit 1 : Methyl 11-cyclopentylundecanoate

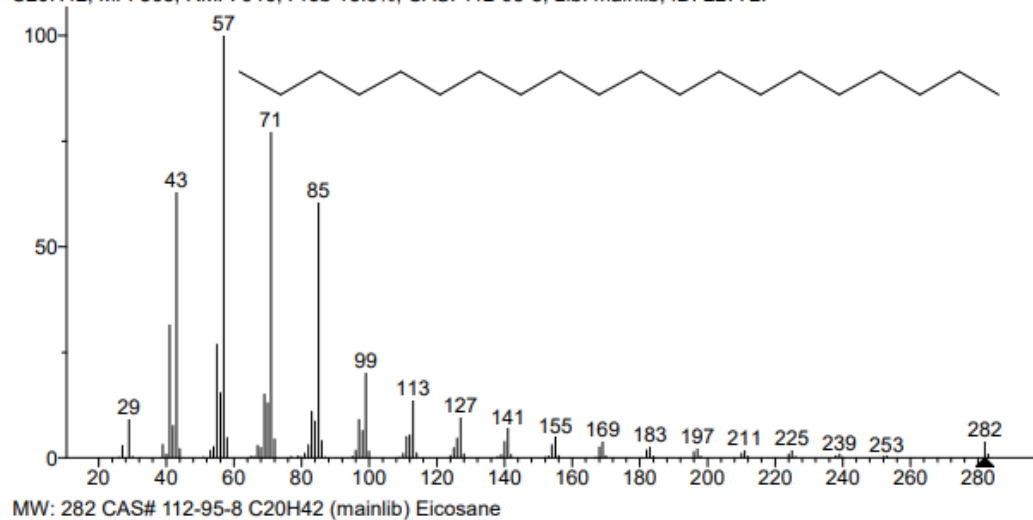
C₁₇H₃₂O₂; MF: 902; RMF: 931; Prob 45.2%; Lib: mainlib; ID: 38279.



2.6 Waktu retensi 19,709

Hit 1 : Eicosane

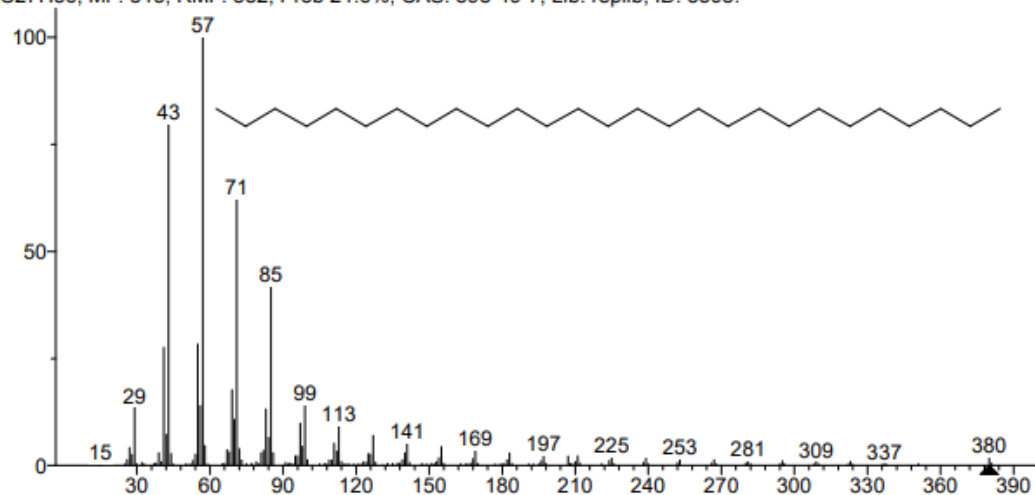
C₂₀H₄₂; MF: 865; RMF: 916; Prob 18.8%; CAS: 112-95-8; Lib: mainlib; ID: 22772.



2.7 Waktu retensi 20,780

Hit 1 : Heptacosane

C₂₇H₅₆; MF: 815; RMF: 852; Prob 21.6%; CAS: 593-49-7; Lib: replib; ID: 5508.

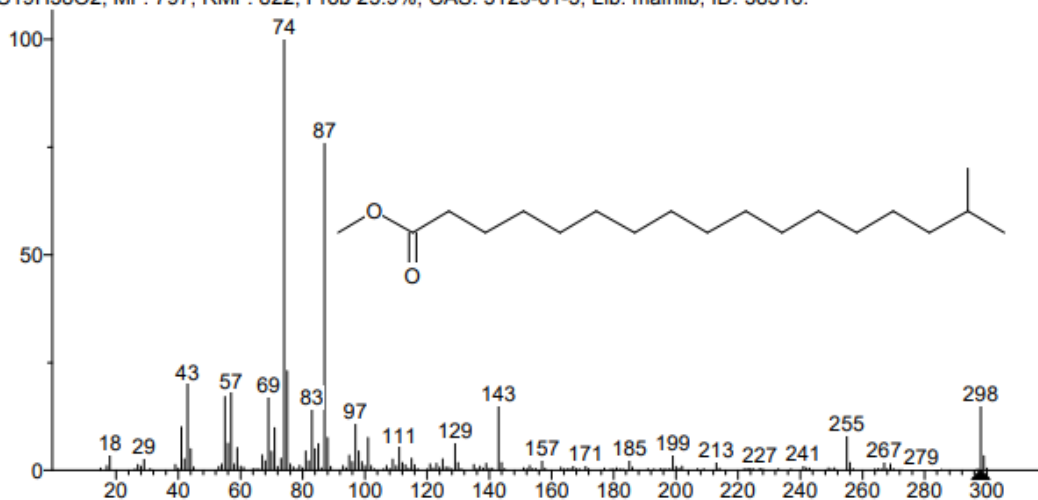


MW: 380 CAS# 593-49-7 C₂₇H₅₆ (replib) Heptacosane

2.8 Waktu retensi 21,045

Hit 1 : Heptadecanoic acid, 16-methyl-, methyl ester

C₁₉H₃₈O₂; MF: 797; RMF: 822; Prob 25.9%; CAS: 5129-61-3; Lib: mainlib; ID: 38316.

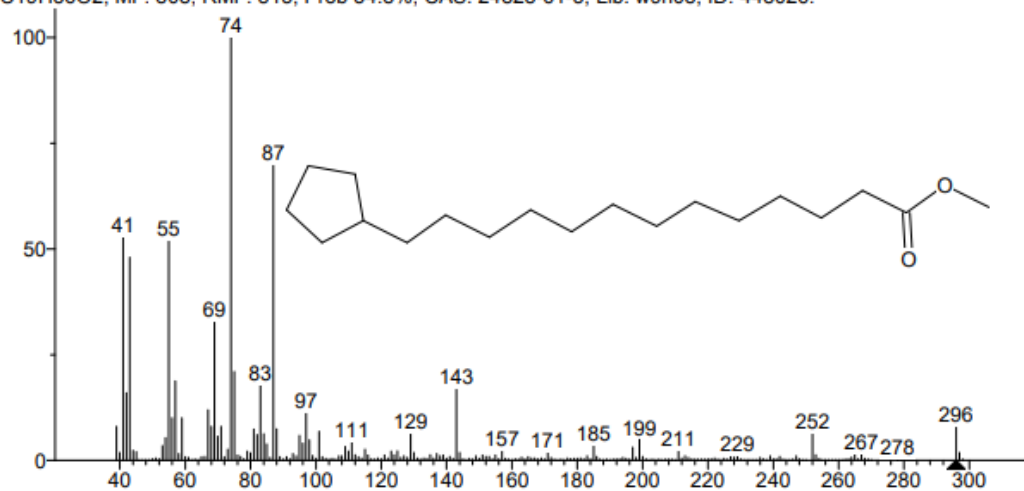


MW: 298 CAS# 5129-61-3 C₁₉H₃₈O₂ (mainlib) Heptadecanoic acid, 16-methyl-, methyl ester

2.9 Waktu retensi 21,774

Hit 1 : Cyclopentanetridecanoic acid, methyl ester (CAS)

C₁₉H₃₆O₂; MF: 808; RMF: 813; Prob 34.8%; CAS: 24828-61-3; Lib: w9n08; ID: 448026.

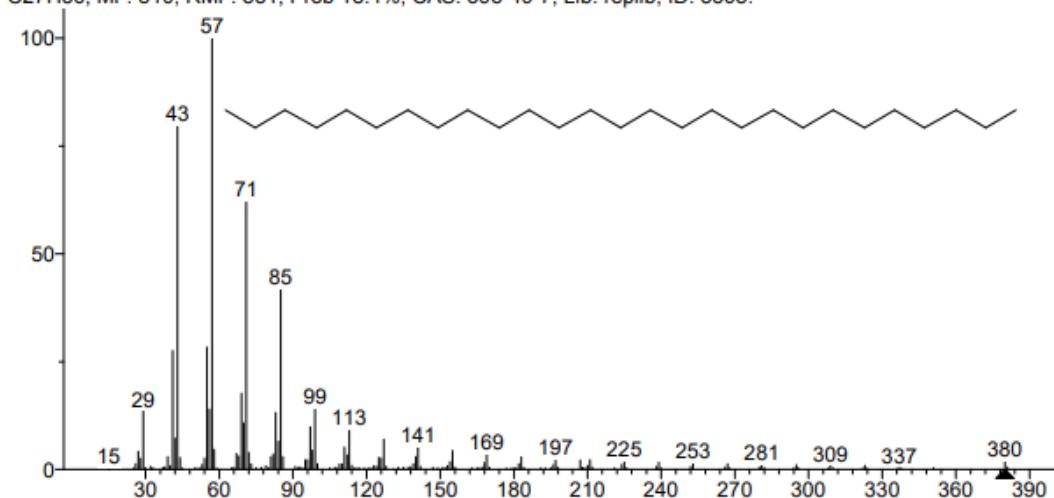


MW: 296 CAS# 24828-61-3 C₁₉H₃₆O₂ (w9n08) Cyclopentanetridecanoic acid, methyl ester (CAS)

2.10 Waktu retensi 22,680

Hit 1 : Heptacosane

C₂₇H₅₆; MF: 810; RMF: 851; Prob 18.4%; CAS: 593-49-7; Lib: replib; ID: 5508.

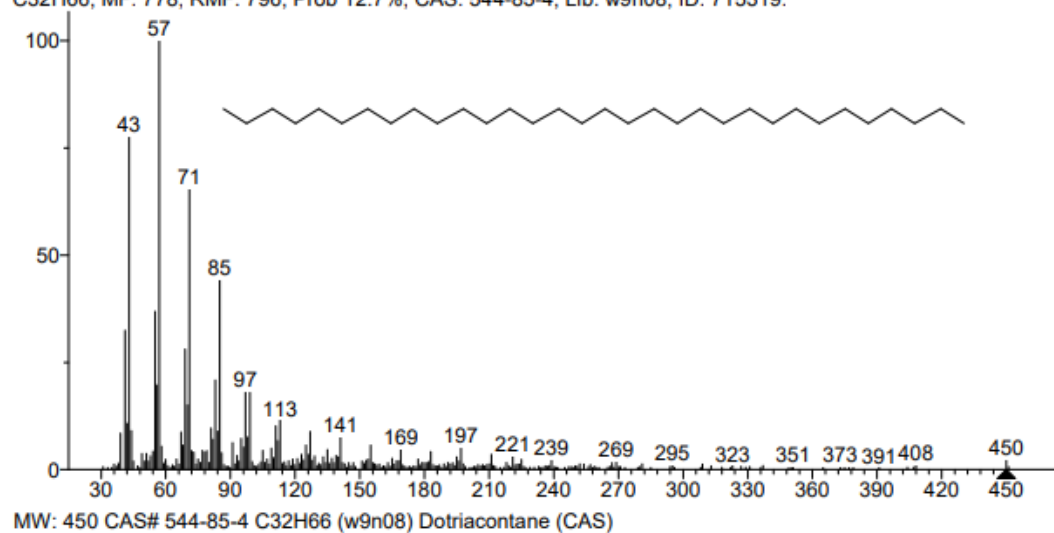


MW: 380 CAS# 593-49-7 C₂₇H₅₆ (replib) Heptacosane

2.11 Waktu retensi 23,544

Hit 1 : Dotriacontane (CAS)

C₃₂H₆₆; MF: 778; RMF: 796; Prob 12.7%; CAS: 544-85-4; Lib: w9n08; ID: 715319.



Lampiran 9. Curriculum Vitae**DAFTAR RIWAYAT HIDUP****Data Pribadi / Personal Details**

Nama / Name	: Muhammad Irsyad Hasballah Rompas
Alamat / Address	: Komp. Griya Kuning Asri RT. 08 RW. 17 Kel. Margasari Kec. Buahbatu Kota Bandung
Kode pos / Postal Code	: 40286
Nomor Telepon / Phone	: 089512780647
Email	: haarsyarm14@gmail.com
Jenis Kelamin / Gender	: Laki-laki
Tanggal Kelahiran / Date of Birth	: Bekasi, 14 Februari 2002
Warga Negara / Nationality	: Indonesia
Agama / Religion	: Islam
Pendidikan / Education	: SD Plus Al-Aitaam MTs Cipasung MAS Al-Ihsan Universitas Bhakti Kencana