BAB V
KESIMPULAN DAN SARAN

A. Kesimpulan

Pertama, berdasarkan hasil penelitian yang telah dilakukan bahwa miristisin mampu disintesis menjadi dugaan isomiristisin.

Kedua berdasarkan hasil penelitian yang telah dilakukan bahwa reaksi optimal pada konsentrasi KOH 20% .

Ketiga, berdasarkan hasil penelitian yang telah dilakukan bahwa reaksi optimum pada saat 5 jam proses refluk.

Keempat, berdasarkan hasil penelitian yang telah dilakukan bahwa hasil isomerisisasi miristisin memberikan SPF sebesar 16,13.

B. Saran

Berdasarkan hasil penelitian dan untuk meningkatkan hasil penelitian lebih lanjut maka:

1. Perlu dilakukan pemurnian dan analisis menggunakan H-CM-1R untuk hasil sintesis senyawa sehingga dapat diperoleh nilai SPF yang lebih tepat untuk senyawa isomiristisin
2. Perlu dilakukan metode lain selain refluk seperti sonifikasi dan menggunakan gelombang mikro.

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LAMPIRAN

Lampiran 1. Perhitungan BJ dan Persen Yield

Keterangan	Pikno+sampel	Berat sampel
Kosong	30,5482 gram	30,5482 gram
Aquadest	80,2805 gram	80,2805-30,5482= 49,7323 gram
Miristisin	73,5002 gram	73,5002-30,5482= 42,952 gram
Isomiristisin	84,2082 gram	84,2082-30,5482= 53,660 gram

- BJmiristisin=

  BJmiristisin=

  BJmiristisin= 0,86366 gr/mL

- BJisomiristisin=

  BJmiristisin=

  BJmiristisin= 1,07897684 gr/mL

  BJmiristisin= 1,08 gr/mL

- Persen yield 5% 1 jam

  Massa Miristisin= Volume x

  = 10 mLx 0,86 gr/mL

  =8,6 gram

  Mol Miristisin =

  =

  = 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,024 gram

%yield=x 100%

%yield= 31,25%

- Persen yield 5% 1 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,024 gram

%yield=x 100%

%yield= 31,25%

- Persen yield 5% 3 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,024 gram

%yield=x 100%

%yield= 31,25%

- Persen yield 5% 4 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,24 gram

%yield=x 100%

%yield= 37,46%

- Persen yield 5% 5 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,24 gram

%yield=x 100%

%yield= 37,46%

- Persen yield 10% 1 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,132 gram

%yield=x 100%

%yield= 36,25%

- Persen yield 10% 2 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,348 gram

%yield=x 100%

%yield= 38,75%

- Persen yield 10% 3 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,456 gram

%yield=x 100%

%yield= 40,18%

- Persen yield 10% 4 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,672 gram

%yield=x 100%

%yield= 42,5%

- Persen yield 10% 5 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,672 gram

%yield=x 100%

%yield= 42,5%

- Persen yield 15% 1 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,456 gram

%yield=x 100%

%yield= 40,18%

- Persen yield 15% 2 jam

  Massa Miristisin= Volume x

  = 10 mLx 0,86 gr/mL

  =8,6 gram

  Mol Miristisin =

  =

  = 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,456 gram

%yield=x 100%

%yield= 40,18%

- Persen yield 15% 3 jam

  Massa Miristisin= Volume x

  = 10 mLx 0,86 gr/mL

  =8,6 gram

  Mol Miristisin =

  =

  = 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 3,78 gram

%yield=x 100%

%yield= 43,75%

- Persen yield 15% 4 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 4,212 gram

%yield=x 100%

%yield= 48,75%

- Persen yield 15% 5 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 4,212 gram

%yield=x 100%

%yield= 48,75%

- Persen yield 20% 1 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 4,644 gram

%yield=x 100%

%yield= 53,75%

- Persen yield 20% 2 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 4,3848 gram

%yield=x 100%

%yield= 50,75%

- Persen yield 20% 4 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 5,184 gram

%yield=x 100%

%yield= 60,00%

- Persen yield 20% 4 jam

Massa Miristisin= Volume x

= 10 mLx 0,86 gr/mL

=8,6 gram

Mol Miristisin =

=

= 0,045 mol

	Miristisin	
M	0,045 mol	
r	0,045 mol	0,045 mol
s	0	0,045 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

Massa= 5,184 gram

%yield=x 100%

%yield= 60,00%

- Persen yield 20% 5 jam

Massa Miristisin= Volume x

= 1500 mLx 0,86 gr/mL

=1290 gram

Mol Miristisin =

=

= 6,72 mol

Miristisin

M	6,72 mol	
r	6,72 mol	6,72 mol
s	0	6,72 mol

massa isomiristisin

massa isomiristisin

massa isomiristisin

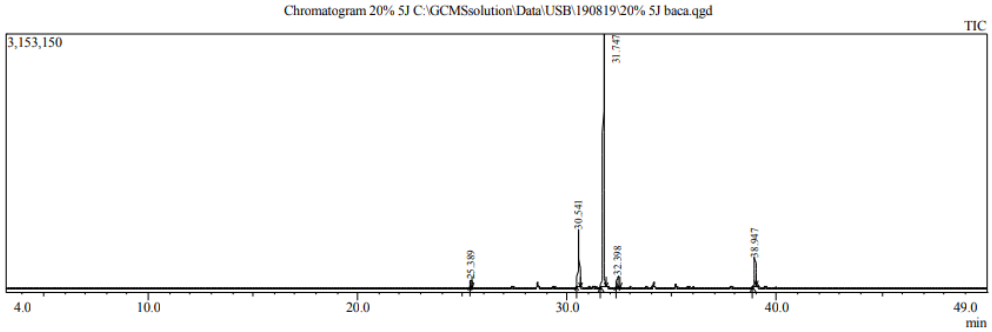
Massa= 966,6 gram

%yield=x 100%

%yield= 74,92%

Lampiran 2. Hasil GCMS

20% KOH, 5 jam



Library

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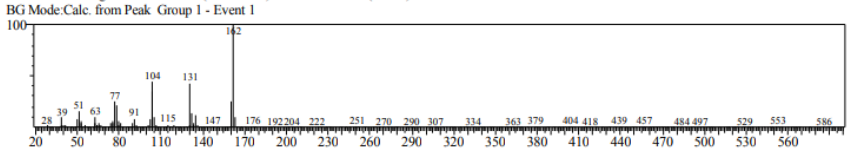
BG Mode:Calc. from Peak Group 1 - Event 1



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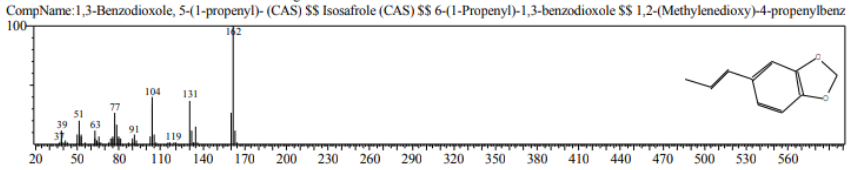

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SI:95 Formula:C10H10O2 CAS:94-59-7 MolWeight:162 RetIndex:0

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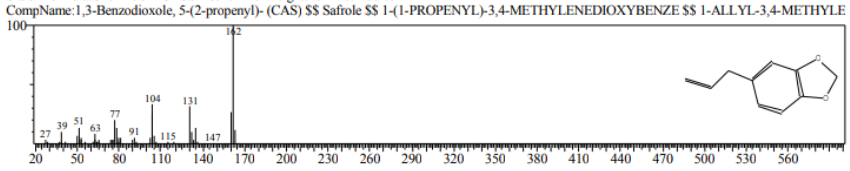

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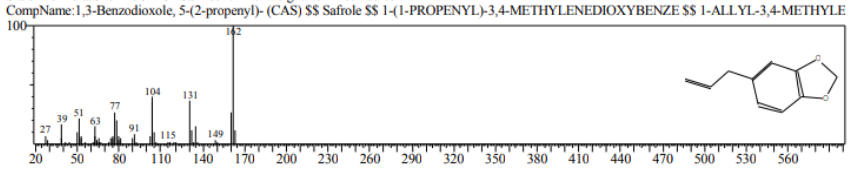
SI:95 Formula:C10H10O2 CAS:94-59-7 MolWeight:162 RetIndex:0

CompName:1,3-Benzodioxole, 5-(2-propenyl)- (CAS) $$ Safrole $$ 1-(1-PROPENYL)-3,4-METHYLENEDIOXYBENZE $$ 1-ALLYL-3,4-METHYLE



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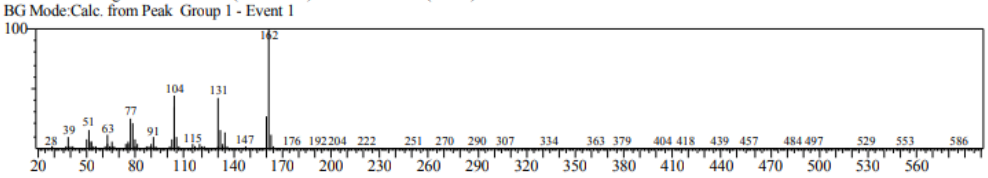

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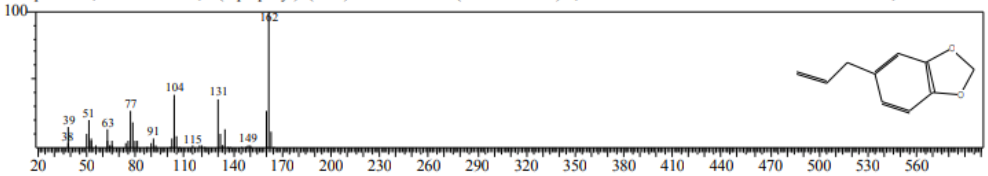
CompName:1,3-Benzodioxole, 5-(2-propenyl)- (CAS) $$ Safrole $$ 1-(1-PROPENYL)-3,4-METHYLENEDIOXYBENZE $$ 1-ALLYL-3,4-METHYLE



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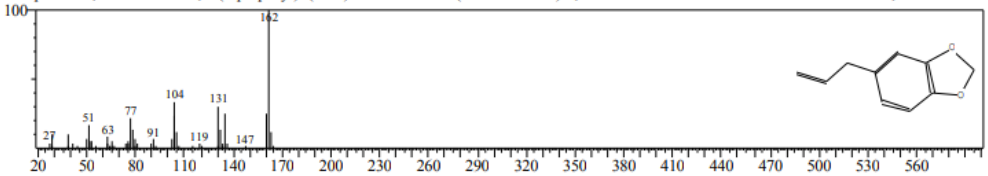
CompName:1,3-Benzodioxole, 5-(2-propenyl)- (CAS) $$ Safrole $$ 1-(1-PROPENYL)-3,4-METHYLENEDIOXYBENZE $$ 1-ALLYL-3,4-METHYLE



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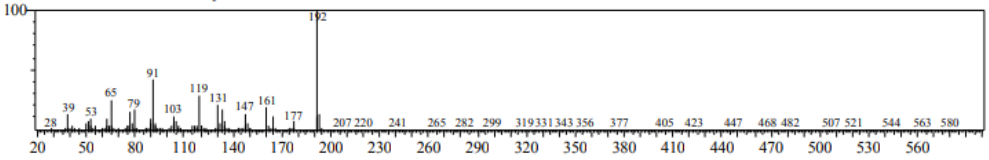

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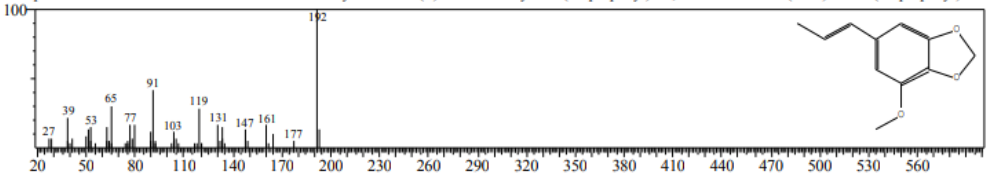
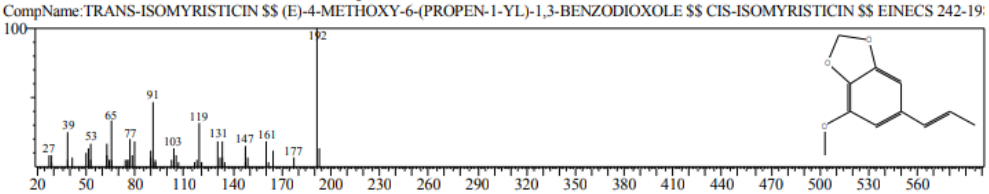
SI:95 Formula:C11H12O3 CAS:18312-21-5 MolWeight:192 RetIndex:0
CompName:CIS-ISOMYRISTICIN $$ trans - iso - myristicin $$ (E) - 4 - methoxy - 6 - (1 - propenyl) - 1,3 - benzodioxole (CAS) $$ 5 - (1 - propenyl) - 1



Hit#:2 Entry:124466 Library:Wiley9.lib
SI:94 Formula:C11H12O3 CAS:18312-21-5 MolWeight:192 RetIndex:0
CompName:TRANS-ISOMYRISTICIN $$ (E)-4-METHOXY-6-(PROPEN-1-YL)-1,3-BENZODIOXOLE $$ CIS-ISOMYRISTICIN $$ EINECS 242-19



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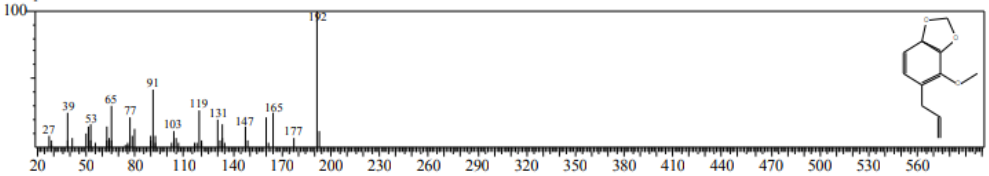
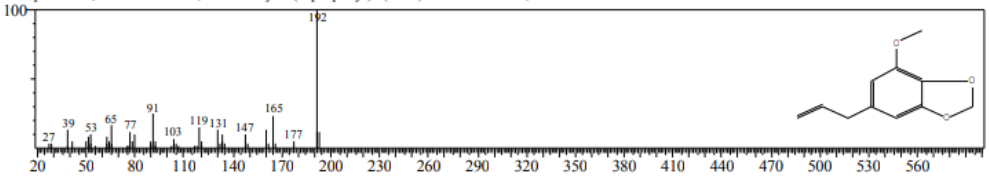
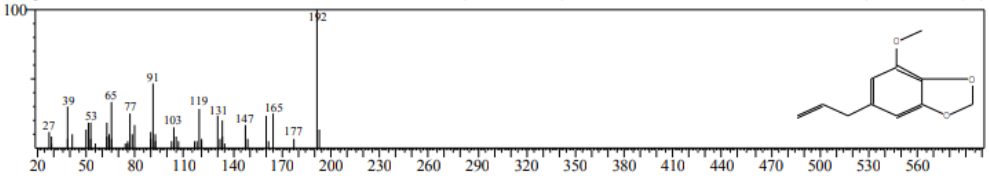
CompName:CROWEACIN



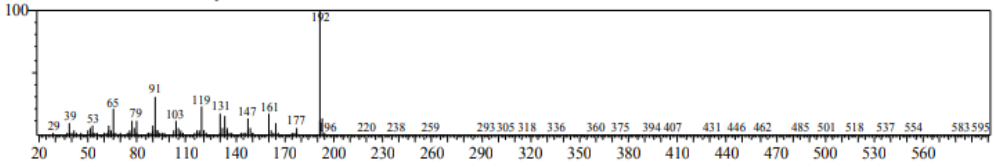
Hit#:4 Entry:124422 Library:Wiley9.lib
SI:92 Formula:C11H12O3 CAS:607-91-0 MolWeight:192 RetIndex:0
CompName:1,3-Benzodioxole, 4-methoxy-6-(2-propenyl)- (CAS) $$ 1-ALLYL-3,4-METHYLEN-DIOXY-5-METHOXY-BENZENE $$ 1-ALLYL-3-M



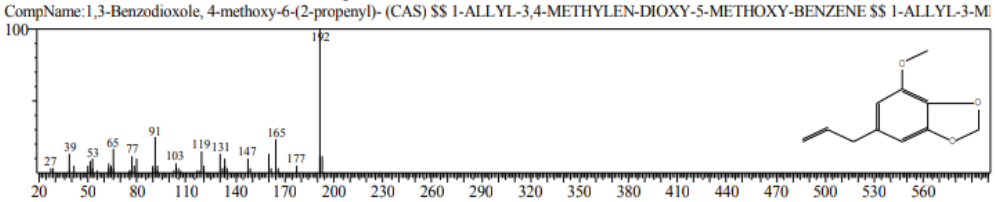
Hit#:5 Entry:124465 Library:Wiley9.lib
SI:92 Formula:C11H12O3 CAS:607-91-0 MolWeight:192 RetIndex:0
CompName:MYRISTCIN $$ 1,3-BENZODIOXOLE, 4-METHOXY-6-(2-PROPENYL)- $$ 1,3-BENZODIOXOLE, 4-METHOXY-6-(2-PROPENYL)- (



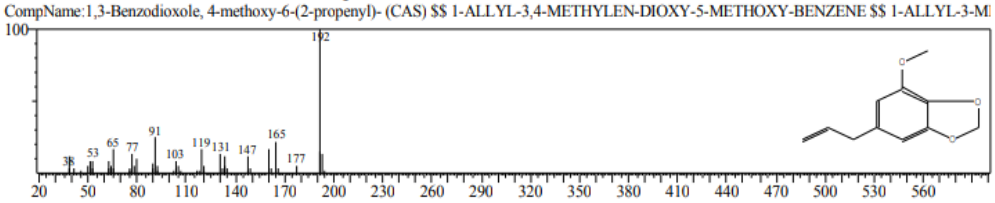
<< Target >>
Line#:3 R.Time:31.750(Scan#:3427) MassPeaks:352
RawMode:Averaged 31.742-31.758(3426-3428) BasePeak:192.00(666251)
BG Mode:Calc. from Peak Group 1 - Event 1



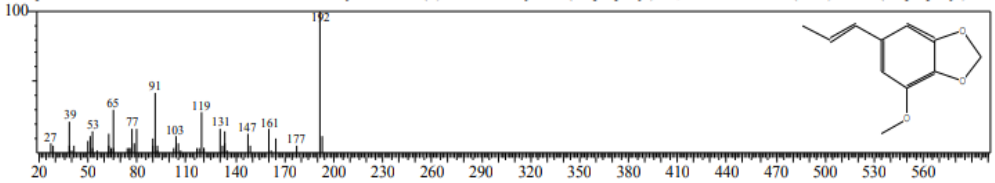
Hit#:1 Entry:124422 Library:Wiley9.lib
SI:94 Formula:C11H12O3 CAS:607-91-0 MolWeight:192 RetIndex:0
CompName:1,3-Benzodioxole, 4-methoxy-6-(2-propenyl)- (CAS) $$ 1-ALLYL-3,4-METHYLEN-DIOXY-5-METHOXY-BENZENE $$ 1-ALLYL-3-M



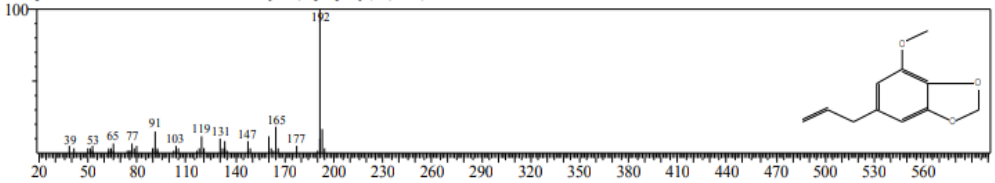
Hit#:2 Entry:124423 Library:Wiley9.lib
SI:94 Formula:C11H12O3 CAS:607-91-0 MolWeight:192 RetIndex:0
CompName:1,3-Benzodioxole, 4-methoxy-6-(2-propenyl)- (CAS) $$ 1-ALLYL-3,4-METHYLEN-DIOXY-5-METHOXY-BENZENE $$ 1-ALLYL-3-M



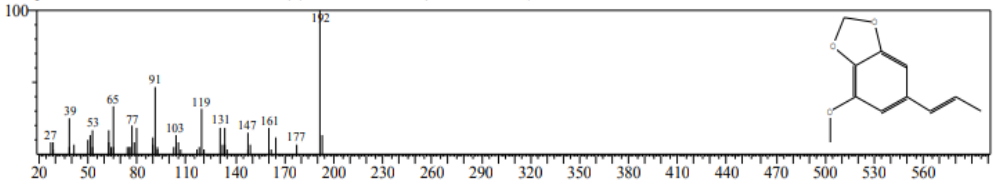
Hit#:3 Entry:124467 Library:Wiley9.lib
SI:91 Formula:C11H12O3 CAS:18312-21-5 MolWeight:192 RetIndex:0
CompName:CIS-ISOMYRISTICIN $$ trans - iso - myristicin $$ (E) - 4 - methoxy - 6 - (1 - propenyl) - 1,3 - benzodioxole (CAS) $$ 5 - (1 - propenyl) - 1



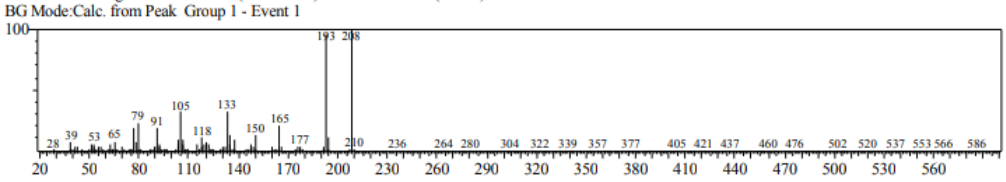
Hit#:4 Entry:124424 Library:Wiley9.lib
SI:90 Formula:C11H12O3 CAS:607-91-0 MolWeight:192 RetIndex:0
CompName:1,3-Benzodioxole, 4-methoxy-6-(2-propenyl)- (CAS) $$ 1-ALLYL-3,4-METHYLEN-DIOXY-5-METHOXY-BENZENE $$ 1-ALLYL-3-M



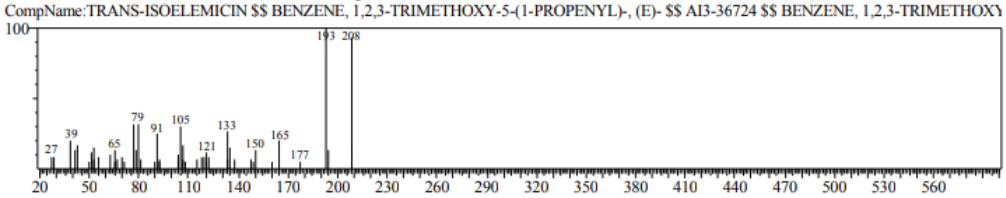
Hit#:5 Entry:124466 Library:Wiley9.lib
SI:90 Formula:C11H12O3 CAS:18312-21-5 MolWeight:192 RetIndex:0
CompName:TRANS-ISOMYRISTICIN $$ (E)-4-METHOXY-6-(PROPEN-1-YL)-1,3-BENZODIOXOLE $$ CIS-ISOMYRISTICIN $$ EINECS 242-19



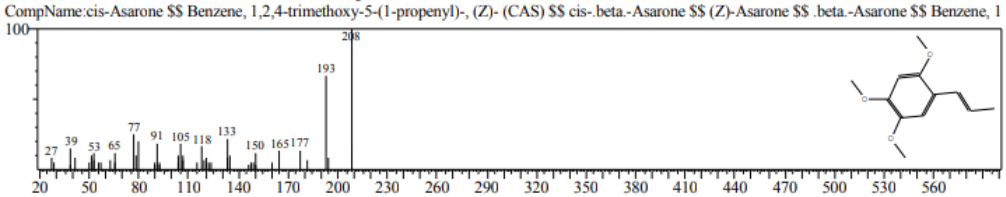
<< Target >>
Line#:4 R.Time:32.400(Scan#:3505) MassPeaks:379
RawMode:Averaged 32.392-32.408(3504-3506) BasePeak:208.00(21662)
BG Mode:Calc. from Peak Group 1 - Event 1



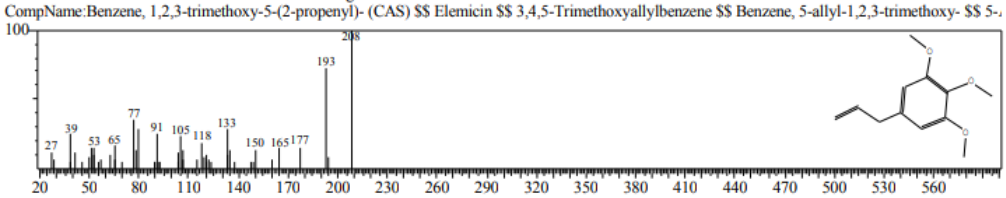
Hit#:1 Entry:160335 Library:Wiley9.lib
SI:89 Formula:C12H16O3 CAS:5273-85-8 MolWeight:208 RetIndex:0
CompName:TRANS-ISOELEMICIN $$ BENZENE, 1,2,3-TRIMETHOXY-5-(1-PROPENYL)-, (E)- $$ AI3-36724 $$ BENZENE, 1,2,3-TRIMETHOXY



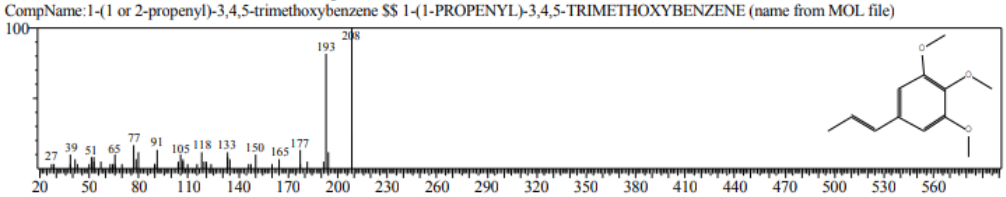
Hit#:2 Entry:160270 Library:Wiley9.lib
SI:89 Formula:C12H16O3 CAS:5273-86-9 MolWeight:208 RetIndex:0
CompName:cis-Asarone $$ Benzene, 1,2,4-trimethoxy-5-(1-propenyl)-, (Z)- (CAS) $$ cis-.beta.-Asarone $$ (Z)-Asarone $$ .beta.-Asarone $$ Benzene, 1



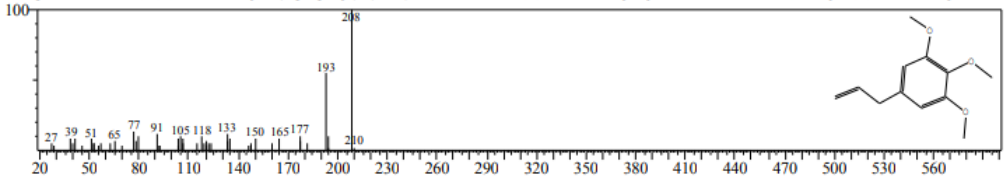
Hit#:3 Entry:160266 Library:Wiley9.lib
SI:88 Formula:C12H16O3 CAS:487-11-6 MolWeight:208 RetIndex:0
CompName:Benzene, 1,2,3-trimethoxy-5-(2-propenyl)- (CAS) $$ Elemicin $$ 3,4,5-Trimethoxyallylbenzene $$ Benzene, 5-allyl-1,2,3-trimethoxy- $$ 5-



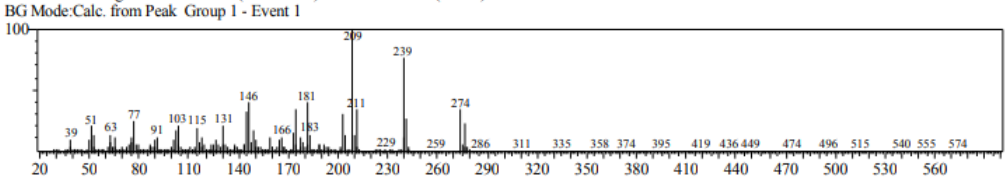
Hit#:4 Entry:160330 Library:Wiley9.lib
SI:85 Formula:C12H16O3 CAS:0-00-0 MolWeight:208 RetIndex:0
CompName:1-(1 or 2-propenyl)-3,4,5-trimethoxybenzene $$ 1-(1-PROPENYL)-3,4,5-TRIMETHOXYBENZENE (name from MOL file)



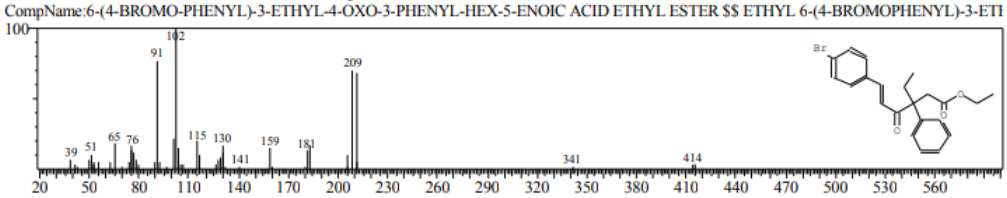
Hit#:5 Entry:160265 Library:Wiley9.lib
SI:85 Formula:C12H16O3 CAS:487-11-6 MolWeight:208 RetIndex:0
CompName:Benzene, 1,2,3-trimethoxy-5-(2-propenyl)- (CAS) $$ Elemicin $$ 3,4,5-Trimethoxyallylbenzene $$ Benzene, 5-allyl-1,2,3-trimethoxy- $$ 5-



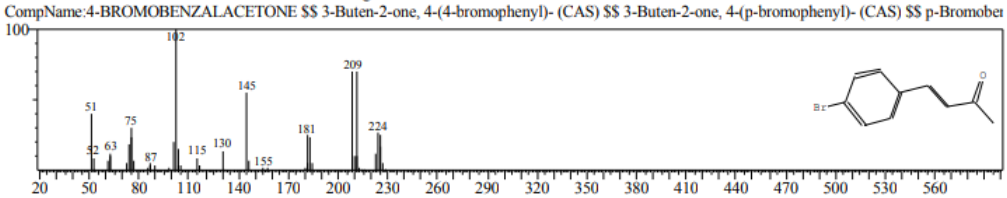
<< Target >>
Line#:5 R.Time:38.950(Scan#:4291) MassPeaks:397
RawMode:Averaged 38.942-38.958(4290-4292) BasePeak:208.95(29550)
BG Mode:Calc. from Peak Group 1 - Event 1



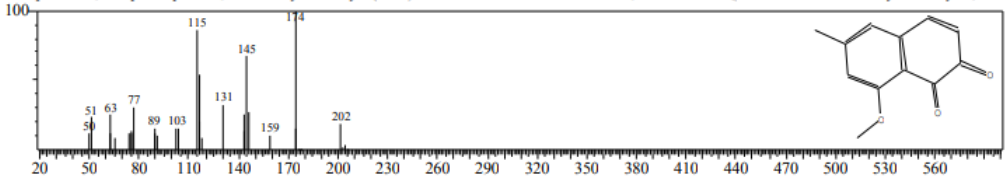
Hit#:1 Entry:557560 Library:Wiley9.lib
SI:55 Formula:C22H23BrO3 CAS:0-00-0 MolWeight:414 RetIndex:0
CompName:6-(4-BROMO-PHENYL)-3-ETHYL-4-OXO-3-PHENYL-HEX-5-ENOIC ACID ETHYL ESTER $$ ETHYL 6-(4-BROMOPHENYL)-3-ETI



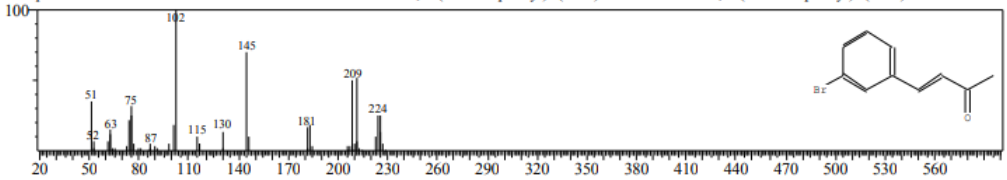
Hit#:2 Entry:196909 Library:Wiley9.lib
SI:53 Formula:C10H9BrO CAS:20511-04-0 MolWeight:224 RetIndex:0
CompName:4-BROMOBENZALACETONE $$ 3-Buten-2-one, 4-(4-bromophenyl)- (CAS) $$ 3-Buten-2-one, 4-(p-bromophenyl)- (CAS) $$ p-Bromobe



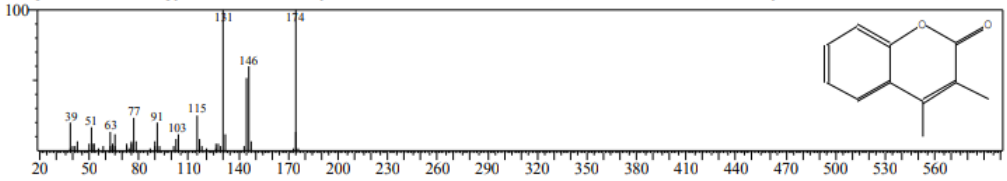
Hit#:3 Entry:146381 Library:Wiley9.lib
SI:53 Formula:C12H10O3 CAS:1935-95-1 MolWeight:202 RetIndex:0
CompName:1,2-Naphthoquinone, 8-methoxy-6-methyl- (CAS) $$ 8-METHOXY-6-METHYL-1,2-NAPHTHOQUINONE $$ 8-Methoxy-6-methyl-1,2-na



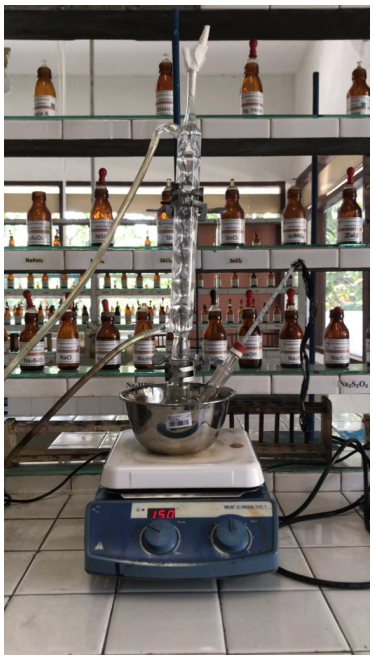
Hit#:4 Entry:196908 Library:Wiley9.lib
SI:52 Formula:C10H9BrO CAS:26891-02-1 MolWeight:224 RetIndex:0
CompName:3-BROMOBENZALACETONE $$ 3-Buten-2-one, 4-(3-bromophenyl)- (CAS) $$ 3-Buten-2-one, 4-(m-bromophenyl)- (CAS) $$ m-Bromob



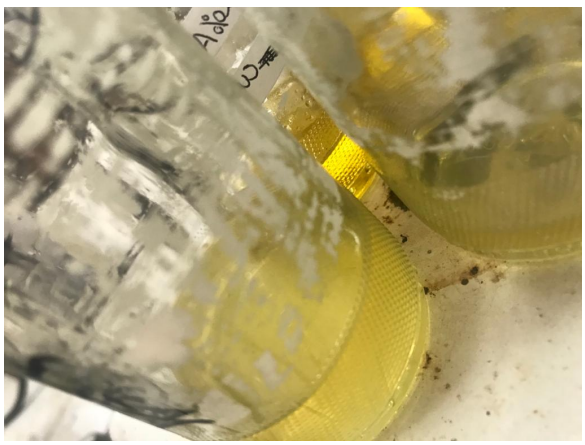
Hit#:5 Entry:91105 Library:Wiley9.lib
SI:52 Formula:C11H10O2 CAS:4281-39-4 MolWeight:174 RetIndex:0
CompName:2H-1-Benzopyran-2-one 3,4-dimethyl- $$ 2H-1-BENZOPYRAN-2-ON, 3,4-DIMETHYL- $$ 3,4-Dimethyl-2H-chromen-2-one $$ 3,4-DIME



Lampiran 3. Proses isomerisasi

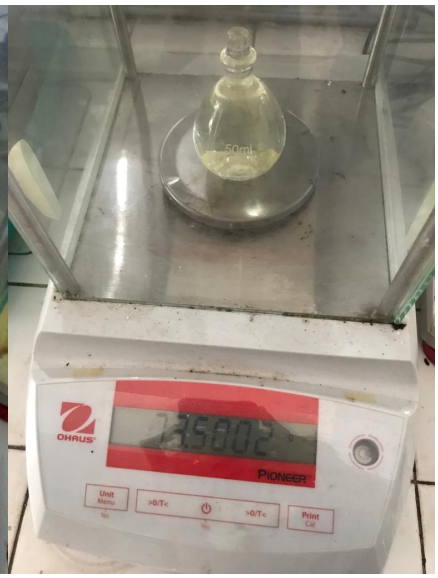


Lampiran 4. Bentuk fisik Isomiristisin



Lampiran 5. Proses ECC

Lampiran 6. Mencari BJ isomiristisin



Lampiran 7. Perhitungan nilai CF dan SPF

Panjang Gelombang (cm)	Biore1	Biore2	biore3	isomiristisin 1	isomiristisin 2	isomiristisin 3
255	3,503	3,6995	3,352	3,9639	3,902	3,9651
260	3,9745	3,981	3,97	3,3841	3,2868	3,2958
265	3,989	3,9909	3,9846	3,8835	3,67	3,8818
270	3,9961	3,9604	4	3,9687	3,8919	3,9193
275	3,9682	3,8649	3,9692	3,9888	3,9015	3,8388
280	3,9802	3,9632	3,8602	3,9471	3,8143	3,9445
285	3,9967	3,9362	3,9586	3,7921	3,8895	3,8874
290	3,9969	3,9744	3,962	3,8614	3,8297	3,9105
295	3,9835	3,9895	3,9918	2,2287	2,2307	2,2451
300	3,9871	3,9623	3,9976	1,3984	1,3946	1,3917
305	3,8725	4	3,9644	1,077	1,0738	1,0685
310	3,9214	3,9884	4	0,9984	0,9967	0,9908
315	3,9715	3,9318	3,9384	0,9184	0,9158	0,9099
320	3,8562	3,9929	3,9964	0,8025	0,8018	0,7924

Biore Replikasi 1

Panjang Gelombang	CF	EE x I	Abs	Hasil Hitungan
290	10	0,0150	3,9969	0,0599535
295	10	0,0817	3,9835	0,32545195
300	10	0,2874	3,9871	1,14589254
305	10	0,3278	3,8725	1,2694055
310	10	0,1864	3,9214	0,703948966
315	10	0,0839	3,9715	0,33320885
320	10	0,0180	3,8562	0,0694116
				3,934247475

Biore Replikasi 2

Panjang Gelombang	CF	EE x I	Abs	Hasil Hitungan
290	10	0,0150	3,9744	0,059616
295	10	0,0817	3,9895	0,32594215
300	10	0,2874	3,9623	1,13876502
305	10	0,3278	4	1,3112
310	10	0,1864	3,9884	0,74343776
315	10	0,0839	3,9318	0,32987802
320	10	0,0180	3,9929	0,0718722
				3,98071115

Biore Replikasi 3

Panjang Gelombang	CF	EE x I	Abs	Hasil Hitungan
290	10	0,0150	3,962	0,05943
295	10	0,0817	3,9918	0,32613006
300	10	0,2874	3,9976	1,14891024
305	10	0,3278	3,9644	1,29953032
310	10	0,1864	4	0,7456
315	10	0,0839	3,9384	0,33043176
320	10	0,0180	3,9964	0,0719352
				3,98186758

Cara Perhitungan SPF

CF=

CF=

CF=12,70883

Isomiristisin Replikasi 1

Panjang Gelombang	CF	EE x I	Abs	Hasil Hitungan EE x I x Abs
290	12,70883	0,015	3,8614	0,057921
295	12,70883	0,0817	2,2287	0,18208479
300	12,70883	0,2874	1,3984	0,40190016
305	12,70883	0,3278	1,077	0,3530406
310	12,70883	0,1864	0,9984	0,18610176
315	12,70883	0,0839	0,9184	0,07705376
320	12,70883	0,018	0,8025	0,014445
				1,27254707

16,17258

Isomiristisin Replikasi 2

Panjang Gelombang	CF	EE x I	Abs	Hasil Hitungan EE x I x Abs
290	12,70883	0,015	3,8297	0,0574455

295	12,70883	0,0817	2,2307	0,18224819
300	12,70883	0,2874	1,3946	0,40080804
305	12,70883	0,3278	1,0738	0,35199164
310	12,70883	0,1864	0,9967	0,18578488
315	12,70883	0,0839	0,9158	0,07683562
320	12,70883	0,018	0,8018	0,0144324
				1,26954627

16,13445

Isomiristisin Replikasi 3

Panjang Gelombang	CF	EE x I	Abs	Hasil Hitungan EE x I x Abs
290	12,70883	0,015	3,9105	0,0586575
295	12,70883	0,0817	2,2451	0,18342467
300	12,70883	0,2874	1,3917	0,39997458
305	12,70883	0,3278	1,0685	0,3502543
310	12,70883	0,1864	0,9908	0,18468512
315	12,70883	0,0839	0,9099	0,07634061
320	12,70883	0,018	0,7924	0,0142632
				1,26759998

1,26759998

16,10971

16,13891