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Lampiran 1. Skema Kerja

1.1. Metode Enfleurasi

80 gram mahkota bunga mawar

- Ditebarkan di atas lapisan dasar mentega putih di dalam *chassis*
- Ditutup dengan *aluminium foil* kemudian dilapisi kembali dengan *wrap bag*
- Disimpan pada suhu ruang selama 24 jam
- Diganti bunga mawar yang baru setiap hari selama 7 hari

↓

Lemak Jenuh *(pomade)*

- Diambil dengan spatula, dimasukkan ke dalam gelas piala
- Dilarutkan menggunakan pelarut n-heksan sebanyak 150 ml
- Dipanaskan sampai mentega larut

↓

Campuran Mentega dan pelarut *(concrete)*

- Disimpan di dalam *freezer* selama 24 jam
- Didiamkan pada suhu ruang sampai campuran mencair
- Disaring dengan kertas saring dan dihitung rendemen *concrete*

↓

Filtrat

- Disimpan di dalam botol vial dan terlindung dari cahaya dan udara
- Dilakukan analisis GC-MS

↓

Hasil

- Analisis jenis minyak atsiri

1.2. Metode Maserasi

80 gram Mahkota Bunga Mawar

- Dimasukkan ke dalam botol reagen berwarna gelap
- Ditambahkan 150 mL pelarut heksana
- Ditutup dan disimpan di tempat yang terlindung dari cahaya
- Disimpan pada suhu kamar selama 24 jam
- Disaring menggunakan corong

Filtrat

- Dipindahkan ke dalam botol vial yang tertutup rapat dan terhindar dari sinar matahari
- Dilakukan analisis GC-MS
- Dihitung rendemen*concrete*

Hasil

Lampiran 2. Perhitungan

2.1 Perhitungan persen hasil metode enfleurasi

Massa minyak atsiri = 10,382 gram
Massa bunga mawar = 80 gram
Persen Hasil = $\frac{10,382}{80}$ x 100 %
= 12,97 %

2.2. Perhitungan persen hasil metode maserasi

Massa minyak atsiri = 5,976 gram
Massa bunga mawar = 80 gram
Persen Hasil = $\frac{5,976}{80}$ x 100 %
= 7,47 %

Lampiran 3. Data GC-MS

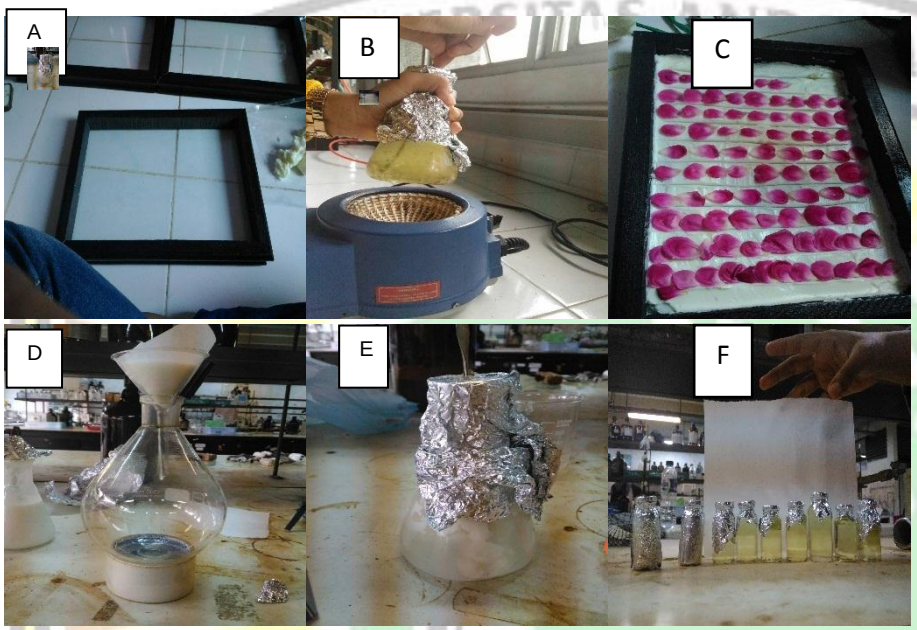
3.1 Data GC-MS Enfleurasi

Peak#	R.Time	I.Time	F.Time	Area	Area%	Height	Height%	A/H	Mark	Name
1	9.146	9.080	9.220	2399084	0.50	811133	1.53	2.96		Phenylethyl Alcohol
2	11.626	11.560	11.700	1151470	0.24	354702	0.67	3.25		Acetic acid, 2-phenylethyl ester
3	15.993	15.925	16.065	1602272	0.33	493884	0.93	3.24		3-tert-Butyl-4-hydroxyanisole
4	24.668	24.590	24.745	1343481	0.28	359024	0.68	3.74		Hexadecanoic acid, methyl ester (CAS) Methyl
5	25.612	25.260	25.920	100472193	20.83	7578995	14.32	13.26		l-(+)-Ascorbic acid 2,6-dihexadecanoate
6	25.935	25.920	26.005	5764244	1.19	1231062	2.33	4.68	V	l-(+)-Ascorbic acid 2,6-dihexadecanoate
7	26.052	26.005	26.230	8813732	1.83	996030	1.88	8.85	V	cis-9-Hexadecenal
8	27.526	27.470	27.585	1491734	0.31	427216	0.81	3.49	V	Stearic anhydride
9	27.652	27.595	27.715	1766237	0.37	548494	1.04	3.22		9-Octadecenoic acid (Z)-, methyl ester (CAS) M
10	28.389	27.865	28.840	54917084	11.38	4924061	9.31	11.15		Oleic Acid
11	29.687	29.520	29.800	13393918	2.78	2729285	5.16	4.91		Palmitic acid vinyl ester
12	29.850	29.800	29.950	997115	0.21	226588	0.43	4.40	V	9-Octadecen-1-ol, (E)-
13	30.364	30.210	30.510	60343526	12.51	10224043	19.32	5.90		Glycidol stearate
14	30.554	30.510	30.820	4183247	0.87	568108	1.07	7.36	V	Hexadecanoic acid, 2-propyl-, methyl ester
15	31.440	31.310	31.720	3639926	0.75	497979	0.94	7.31		9-Tricosene, (Z)-
16	32.234	31.930	32.440	20143586	4.18	2643943	5.00	7.62		Oleoyl chloride
17	32.631	32.440	32.780	1921798	0.40	279961	0.53	6.86	V	Stearic acid chloride
18	33.099	32.810	33.270	95374432	19.77	10042258	18.98	9.50		9-Octadecenoic acid, 1,2,3-propanetriyl ester, (I
19	33.443	33.270	33.600	26689640	5.53	2701067	5.11	9.88	V	Glycidol stearate
20	33.691	33.600	34.200	16828924	3.49	850813	1.61	19.78	V	Hexadecanoic acid, 2-hydroxy-1-(hydroxymethy
21	34.387	34.200	34.470	6499137	1.35	732723	1.38	8.87	V	13-Docosen-1-ol, (Z)-
22	34.524	34.470	34.760	2812719	0.58	375215	0.71	7.50	V	13-Docosen-1-ol, (Z)-
23	37.227	37.060	37.350	1446767	0.30	181894	0.34	7.95		DODECANOIC ACID, 2-PHENYLETHYL ES
24	37.590	37.470	37.680	1308115	0.27	148456	0.28	8.81		TETRAPENTACOSAN
25	37.733	37.680	38.040	1901635	0.39	214090	0.40	8.88	V	15-Hydroxypentadecanoic acid
26	39.306	39.140	39.480	5379496	1.12	652265	1.23	8.25		Decyl sulfide
27	40.247	39.730	40.745	25462892	5.28	1043249	1.97	24.41		16-Hentriacontanone (CAS) Palmitone
28	40.913	40.745	41.195	3458880	0.72	428879	0.81	8.06		2,6,10,14,18,22-Tetracosahexaene, 2,6,10,15,1
29	45.919	45.420	46.545	9475792	1.96	544721	1.03	17.40		4-Trifluoromethylbenzoic acid. 4-hexadecyl est
30	46.945	46.545	47.220	1427786	0.30	99179	0.19	14.40	V	Decyl sulfide

3.2 Data GC-MS Maserasi

Peak#	R.Time	I.Time	F.Time	Area	Area%	Height	Height%	A/H	Mark	Name
1	9.132	9.070	9.200	2907911	0.27	997408	1.19	2.92		Benzeneethanol (CAS) Phenethyl alcohol
2	9.647	9.575	9.735	1750743	0.16	386072	0.46	4.53		2,4-Decadienal, (E,E)-
3	10.842	10.725	10.975	15211373	1.40	2813799	3.35	5.41		3-Allyl-6-methoxyphenol
4	12.129	12.060	12.220	1781792	0.16	400007	0.48	4.45		(Z)-3-PHENYL-2-PROPENOIC ACID, METH
5	13.849	13.790	13.920	1355788	0.12	386639	0.46	3.51		.alpha.-Guaiene
6	15.598	15.510	15.670	2005183	0.18	513419	0.61	3.91		Azulene, 1,2,3,5,6,7,8,8a-octahydro-1,4-dimeth
7	19.304	19.225	19.405	3354716	0.31	747585	0.89	4.49		Patchouli alcohol
8	20.888	20.720	21.080	10797212	0.99	1136677	1.35	9.50		Tetradecanoic acid
9	24.643	24.550	24.740	5838461	0.54	1416629	1.68	4.12		Hexadecanoic acid, methyl ester (CAS) Methyl
10	25.820	25.175	26.000	312385000	28.69	12318985	14.65	25.36		l-(+)-Ascorbic acid 2,6-dihexadecanoate
11	26.044	26.000	26.270	9036379	0.83	1299119	1.54	6.96	V	cis-9-Hexadecenal
12	27.260	27.200	27.460	2628202	0.24	227686	0.27	11.54		Octadecanoic acid, 2-propenyl ester (CAS) ALI
13	27.523	27.460	27.590	5927291	0.54	1134963	1.35	5.22	V	15-Hydroxypentadecanoic acid
14	27.650	27.590	27.710	12570742	1.15	3135369	3.73	4.01	V	9-Octadecenoic acid (Z)-, methyl ester (CAS) M
15	27.740	27.710	27.810	3770066	0.35	786923	0.94	4.79	V	9-Octadecenoic acid (Z)-, methyl ester (CAS) M
16	28.010	27.810	28.070	12064457	1.11	1143176	1.36	10.55	V	Octadecanoic acid, methyl ester
17	28.586	28.070	29.520	309527654	28.42	12293333	14.62	25.18	SV	2,3-Dihydroxypropyl elaidate
18	29.700	29.520	30.020	34552737	3.17	5030542	5.98	6.87	V	Palmitic acid vinyl ester
19	30.070	30.020	30.220	3340072	0.31	361565	0.43	9.24	V	9-Octadecenoic acid, 1,2,3-propanetriyl ester, (I
20	30.378	30.220	30.945	83764529	7.69	11460144	13.63	7.31	V	Glycidol stearate
21	31.441	30.945	31.720	11111869	1.02	1006585	1.20	11.04	V	9-Tricosene, (Z)-
22	32.244	31.945	32.445	35761485	3.28	4692160	5.58	7.62		Oleoyl chloride
23	32.633	32.445	32.845	3149169	0.29	462006	0.55	6.82	V	Stearic acid chloride
24	33.105	32.845	33.270	104921842	9.63	10338001	12.29	10.15		9-Octadecenoic acid, 1,2,3-propanetriyl ester, (I
25	33.443	33.270	33.570	24787803	2.28	2916755	3.47	8.50	V	Glycidol stearate
26	33.682	33.570	34.195	22756977	2.09	1931313	2.30	11.78	V	Hexadecanoic acid, 2-hydroxy-1-(hydroxymeth
27	34.379	34.195	34.745	14723458	1.35	1396240	1.66	10.55	V	13-Docosen-1-ol, (Z)-
28	37.582	37.245	37.995	20498833	1.88	1736346	2.06	11.81		Dotriacontane (CAS) n-Dotriacontane
29	39.275	39.070	39.470	7556507	0.69	937423	1.11	8.06		Decyl sulfide
30	45.858	45.470	46.145	9144263	0.84	679122	0.81	13.46		4-Trifluoromethylbenzoic acid. 4-hexadecyl est

Lampiran 4. Foto Pengamatan



Gambar Lampiran. (a) *Chassis* sebelum ditambahkan mentega putih (b) Pelarutan mentega putih dengan n-heksan (c) mawar yang ditaburkan di permukaan lemak(d) Pemisahan minyak atsiri dari mentega putih dengan proses penyaringan (e) Campuran lemak dan n-heksan setelah disimpan dalam *freezer* (f) minyak atsiri yang dihasilkan metode enfleurasi dan maserasi

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