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LAMPIRAN

Lampiran 1. Pengambilan sampel rumput laut *Gracilaria verrucosa* di Desa Laikang



Lampiran 2. Preparasi sampel

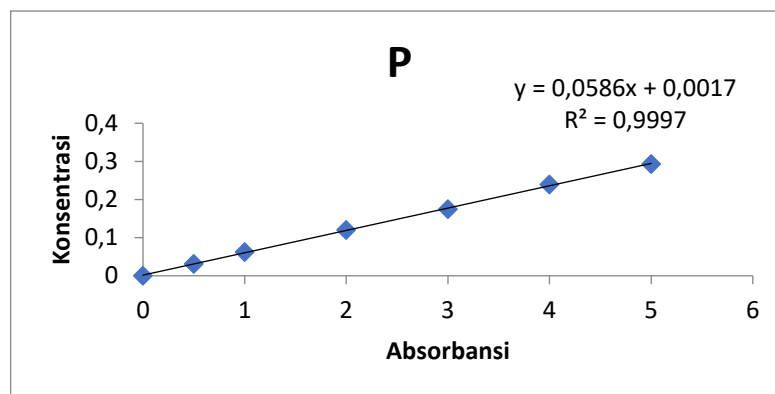


Lampiran 3. Hasil uji kadar proksimat sampel

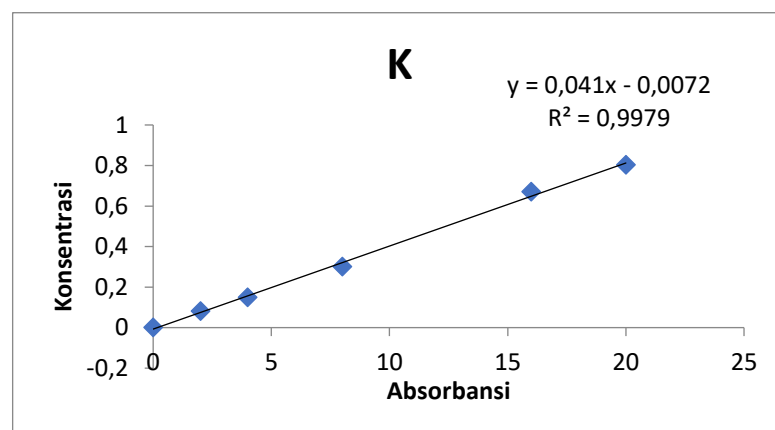
No	Parameter	(%)	Metode
1	Kadar Air	29,18	AOAC 930.15
2	Kadar Abu	27,46	AOAC 942.05
3	Protein	8,27	AOAC 984.13
4	Lemak	0,42	AOAC 920.39
5	Serat Kasar	5,4	AOAC 962.09
6	Karbohidrat	29,27	<i>By difference</i>

Lampiran 4. Hasil uji mineral sampel

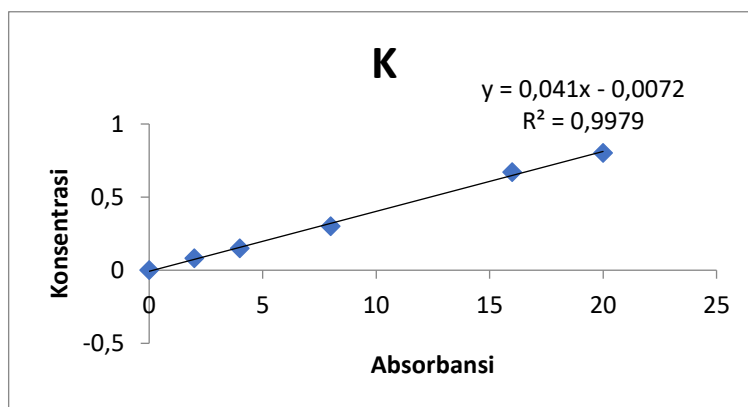
Kurva strandar fosfor



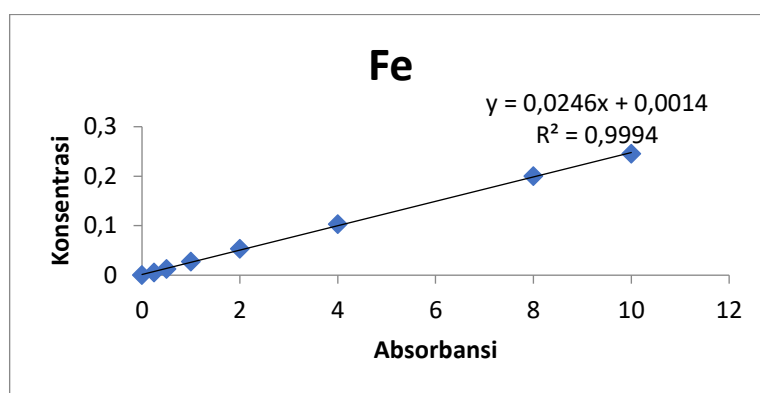
Kurva strandar kalium



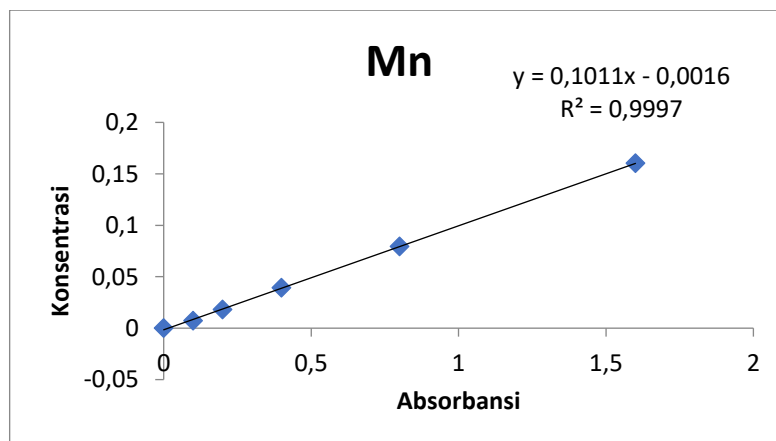
Kurva standar kalium



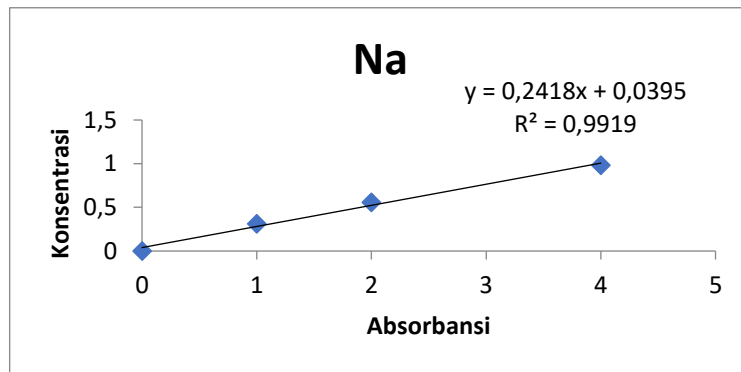
Kurva standar besi



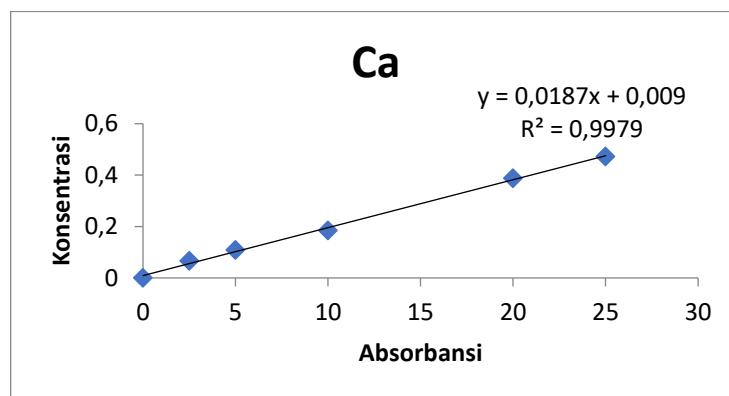
Kurva standar mangan



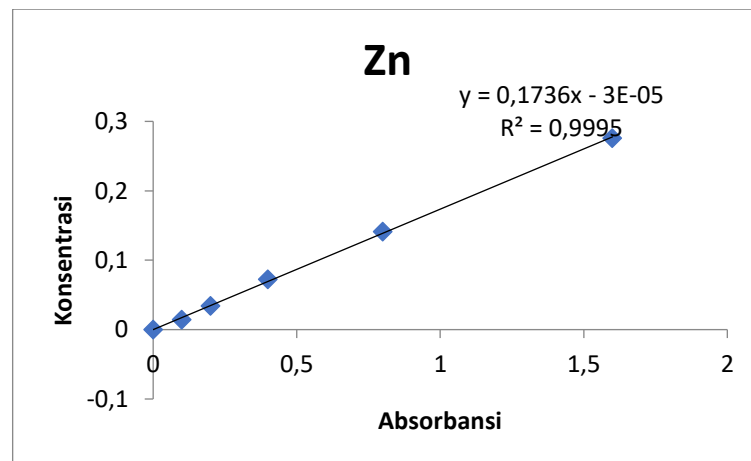
Kurva standar natrium



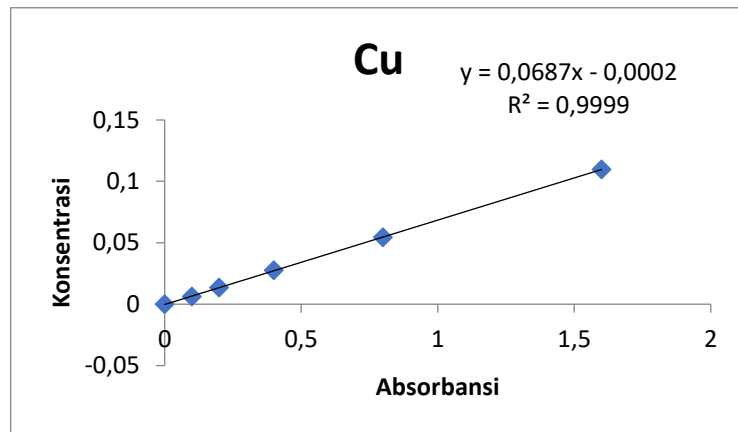
Kurva standar kalsium



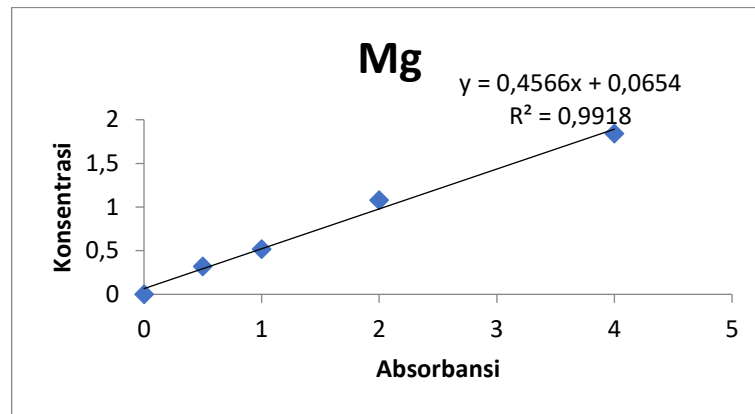
Kurva standar seng



Kurva standar tembaga



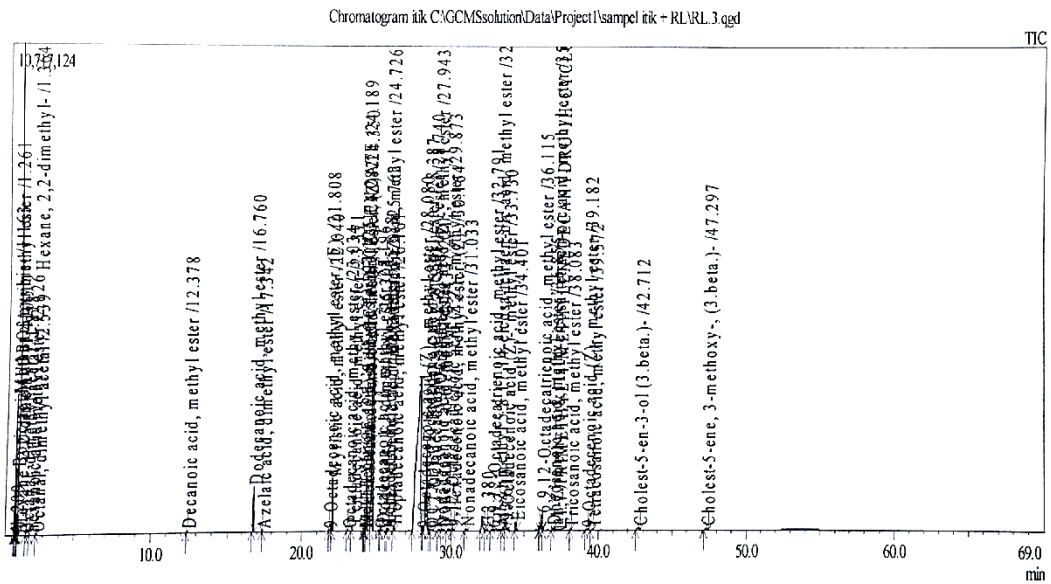
Kurva standar magnesium



Mineral makro	(%)	Mineral mikro	(ppm)
P (%)	0,09	I (ppm)	0,3
K (%)	4,89	Fe (ppm)	79,09
Na (%)	0,83	Mn (ppm)	16,68
Ca (%)	0,68	Zn (ppm)	23,47
Mg (%)	0,96	Cu (ppm)	5,66

Lampiran 5. Hasil uji asam lemak sampel

Kromatogram asam lemak



No	Komponen asam lemak	kons. std	Area std	Bobot molekul (BM) (g/mol)		Area sampel	Hasil b/b % terhadap sampel
		(CRM)		FAME	Fatty Acid (FA)		
		%b/v					
	Bobot Sampel (mg)					3	31,1
1	caproic acid, C6:0	0,0405	658081	130,19	116,19	87263	0,1541
2	Capric acid, C10:0	0,0405	2240142	186,29	172,29	1012937	0,5446
3	Lauric Acid, C12:0	0,0405	2249554	214,34	200,34	271562	0,1469
4	Myristic Acid, C14:0	0,0404	2203707	242,40	228,40	1119270	0,6217
5	Pentadecanoic Acid, C15:0	0,0202	1066847	256,43	242,43	124262	0,0715
6	Palmitic Acid, C16:0	0,0612	3194593	270,50	256,50	2067642	1,2077
7	Palmitoleic Acid, C16:1	0,0204	270882	268,43	254,43	217662	0,4996
8	Heptadecanoic Acid, C17:0	0,0101	436256	284,48	270,48	192763	0,1364
9	Stearic Acid, C18:0	0,0408	2045652	298,51	284,51	208762	0,1276
10	Elaidic Acid, C18:1n9t	0,0202	309256	296,49	282,49	182658	0,3655
11	Oleic Acid, C18:1n9c	0,0407	940558	296,50	282,50	1001821	1,3281
12	Linolelaidic Acid, C18:2n9t	0,0202	240989	294,47	280,47	117662	0,3020
13	Linoleic Acid, C18:2n6c	0,0203	367431	294,47	280,47	182786	0,3093

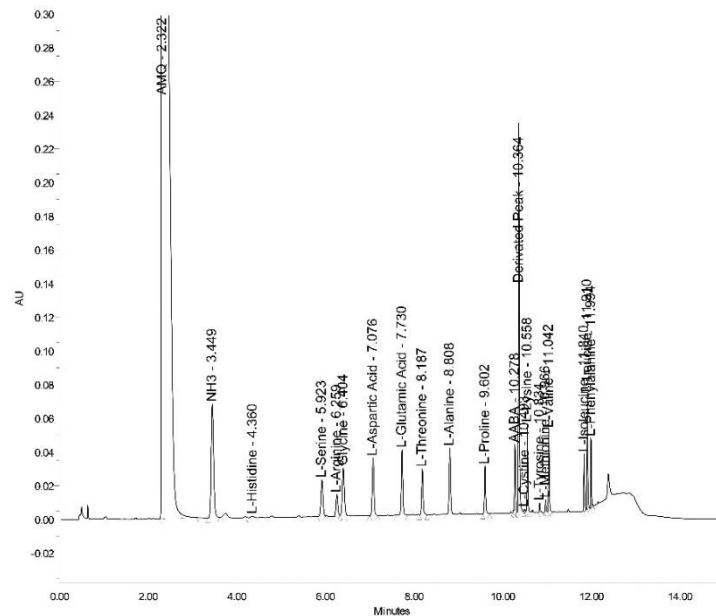
14	Arachidic Acid, C20:0	0,0408	1734816	326,56	312,56	2017872	1,4605
15	γ -Linolenic Acid, C18:3n6	0,0202	264238	292,46	278,46	98367	0,2302
16	Behenic Acid, C22:0	0,0405	1440305	354,61	340,61	1026763	0,8917
17	Tricosanoic Acid, C23:0	0,0165	402750	368,64	354,64	266582	0,3378
18	Arachidonic Acid, C20:4n6	0,0202	169506	318,50	304,50	156528	0,5734
19	Lignoceric Acid, C24:0	0,0405	821497	382,66	368,66	499217	0,7624

Kadar asam lemak (%) =

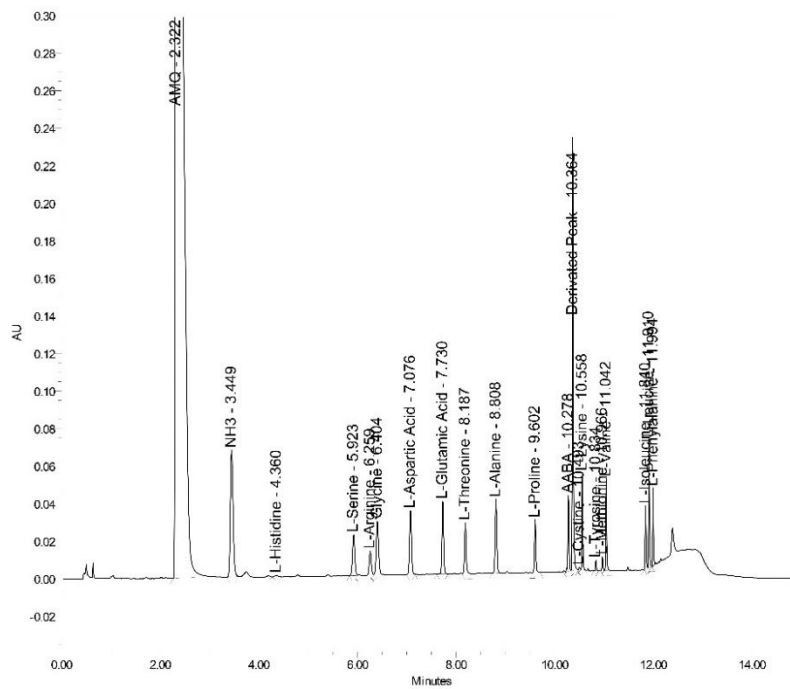
$$\frac{\text{Area sampel}}{\text{Area standar}} \times \frac{\text{Kons. standar (\%b/v)}}{\text{Bobot sampel (g)}} \times \frac{\text{BM asam lemak (g/mol)}}{\text{BM FAME (g/mol)}}$$

Lampiran 6. Hasil uji asam amino sampel

Kromatogram asam amino simple



Kromatogram asam amino diplo



No	Parameter	Simplo (mg/kg; mg/L)	Duplo (mg/kg; mg/L)	Kadar asam amino	
				(mg/kg; mg/L)	(% bk bahan)
1	L-Histidin	245,75	240,27	486,02	0,04
2	L-Serin	2609,54	2603,98	5213,52	0,52
3	L-Arginin	2353,57	2356,46	4710,03	0,48
4	Glisin	2526,17	2524,41	5050,58	0,5
5	L-Asam Aspartat	4373,81	4378,64	8752,45	0,88
6	L-Asam Glutamat	4698,8	4699,98	9398,78	0,94
7	L-Threonin	2522,36	2519,14	5041,5	0,5
8	L-Alanin	2774,44	2773,64	5548,08	0,56
9	L-Prolin	2224,06	2234,88	4458,94	0,44
10	L-sistin	56,17	55,55	111,72	0,02
11	L-Lisin	1792,04	1794,29	3586,33	0,36
12	L-Tirosin	435,64	435,75	871,39	0,08
13	L-Metionin	511,5	509,3	1020,8	0,1
14	L-Valin	2508,46	2504,6	5013,06	0,5
15	L-Isoleusin	1902,65	1895,85	3798,5	0,38
16	L-Leusin	3414,89	3401,96	6816,85	0,68
17	L-Fenilalanin	2351,55	2342,59	4694,14	0,47
TOTAL		37301,38	37271,28	74572,66	7,46

Kadar asam amino (mg/Kg) =

$$\frac{\text{Rasio sampel}}{\text{Rasio standar}} \times \frac{\text{C. standar injeksi}}{1.000.000.000} \times \text{BM} \times \text{FP} \times \text{Volume akhir} \times 1000$$

Bobot sampel (g)

$$\text{Kadar asam amino (\%)} = \frac{\text{Kadar asam amino (mg/Kg)}}{10.000}$$