

Synechococcus sp. Kurzzusammenfassung (Bernhard Quirbach)

Links

Hemmstoffe

<https://www.mdpi.com/2072-6651/10/1/48/htm>

Toxine

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2901829/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4377996/>

<https://pdfs.semanticscholar.org/75c1/b3e6c6ca3d8799466135544ab5cc519862c1.pdf>

[http://images.biomedsearch.com/20411110/marinedrugs-08-00471.pdf?](http://images.biomedsearch.com/20411110/marinedrugs-08-00471.pdf?AWSAccessKeyId=AKIAIBOKHYOLP4MBMRGQ&Expires=1545436800&Signature=VoVzL5H7lgDCGeGsUq9x%2FnLyVog%3D)

[AWSAccessKeyId=AKIAIBOKHYOLP4MBMRGQ&Expires=1545436800&Signature=VoVzL5H7lgDCGeGsUq9x%2FnLyVog%3D](http://images.biomedsearch.com/20411110/marinedrugs-08-00471.pdf?AWSAccessKeyId=AKIAIBOKHYOLP4MBMRGQ&Expires=1545436800&Signature=VoVzL5H7lgDCGeGsUq9x%2FnLyVog%3D)

Zucht

<https://open.library.ubc.ca/media/stream/pdf/24/1.0166886/1>

Fütterungsvergleiche

https://www.jstage.jst.go.jp/article/suisan1932/45/1/45_1_11/_pdf

Table 1

Showing the significance of the difference between days, species and replications based on (a) Total chlorophyll (b) Cell count (c) Chlorophyll a (d) Chlorophyll b (e) Carotenoids (f) Proteins (g) Carbohydrates using 3way ANOVA

source	Total chlorophyll F ratio	Cell count F ratio	Chlorophyll A F ratio	Chlorophyll B F ratio	Carotenoids F ratio	Proteins F ratio	Carbohydrates F ratio	d o f Of F ratio
Days (A)	14674.3**	43081.7**	11626.1**	3896.20**	13365.4**	84090.1**	3246.41**	(5,70)
Species (B)	26659.8**	8781.228**	18454.2**	4111.39**	8952.81**	241553.0**	7494.54**	(7,70)
Replications (C)	6.4238**	2.4848*	3.5714*	1.9422	1.2784	0.8333	2.8116*	(2,70)
AB interaction	5668.40**	1365.36**	4429.75**	2092.34**	5247.80**	63475.1**	1709.71**	(35,70)
BC interaction	0.7895	1.2475	0.9694	1.2456	0.8401	1.5476	1.5476	(14,70)
AC interaction	1.3036	0.9939	1.3214	1.2314	0.6136	1.6667	0.8063	(10,70)
Error	0.000323	14.0857	0.0002563	0.000046158	0.00013428	9.6000	0.7558	70
Total	493.154	31064900	312.977	15.6353	149.593	275117000	396554.0	143

Table 2 Fatty acid profile (FA) (wt %) of Marine microalgae

Fatty acid	Structure	<i>Chaetoceros</i> sp	<i>Chlorella</i> sp	<i>Dicrateria</i> sp	<i>Dunaliella</i> sp	<i>Isochrysis</i> sp	<i>Nannochloropsis</i> sp	<i>Synechococcus</i> sp	<i>Tetraselmis</i> sp
Saturated									
Lauric acid	C12:0	0.11	0.06	0.2	0.24	0.19	0.15	0.4	0.27
Myristic acid	C14:0	1.22	1.37	0.2	3.51	0.98	0.13	2.6	2.18
Palmitic acid	C16:0	17.32	18.17	3.8	26.46	28.09	24.89	3.4	26.86
Stearic acid	C18:0	5.1	5.11	0	4.44	6.62	5.91	0	10.93
Arachidic acid	C20:0	0.2	10.87	0	0.87	1.73	1.17	0	18.38
Behenic acid	C22:0	0.9	1.82	0	2.05	2.03	2.36	0	1.06
	Sum	24.85	37.4	4.2	37.57	39.64	34.61	6.4	59.68
Monounsaturated									
Palmitoleic acid	C16:1	1.8	1.72	1.5	7.51	0.25	1.64	1.02	1.17
	C18:1								
Oleic acid	(ω-9)	9.47	27.72	2.1	27.42	28.02	28.98	0.84	14.08
Erucic acid	C22:1	0.1	0.52	0	6.93	0.19	1.31	0	2.53
	Sum	11.37	29.96	3.6	41.86	28.46	31.93	1.86	17.78

Polyunsaturated

Linoleic acid	C18:2 (ω-6)	0.7	14.84	0.5	18.27	18.45	15.07	0	12.32
Linolenic acid	C18:3 (ω-3)	1.1	0	0.12	0	0.55	1.35	0	0
Arachidonic acid (AA)	C20:4 (ω-6)	0.1	0	0	0	0.2	1.17	0	2.05
Eicosapentanoic acid (EPA)	C20:5 (ω-3)	1.8	0.38	0	0.93	0.42	15.8	0	5.37
Docosahexanoic acid (DHA)	C22:6 (ω-3)	0.8	0.4	0	0	12.26	0	0	2.96
	Sum	4.5	15.62	0.62	19.2	31.88	33.39	0	22.7

0 = Not Detected

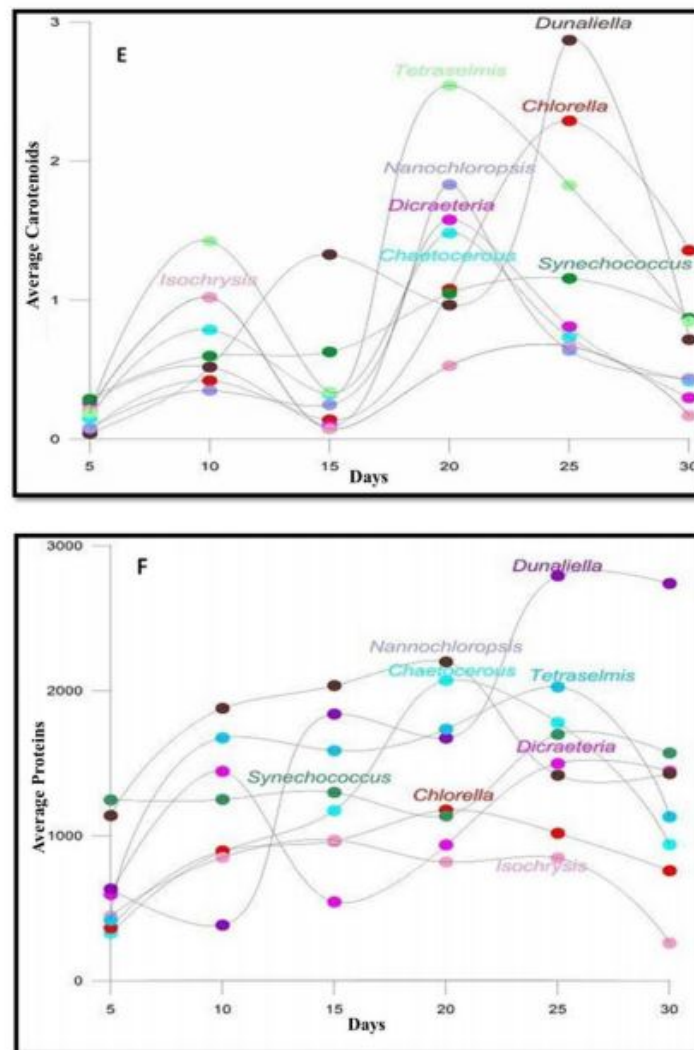


Figure 1. E and F. Biochemical composition of eight marine microalgae grown in batch culture using f/2 medium (A) Cell Count (B) Total chlorophyll (C) Chlorophyll a (D) Chlorophyll b (E) Carotenoids (F) Protein (G) Carbohydrate

Table 1 Fatty acid composition of *Synechococcus* (*Syn*) and *Scenedesmus* (*Scen*; $\mu\text{g C mg}^{-1}\text{ C}$) and fish oil (% of total fatty acids; only values $\geq 1\%$ are listed). Polyunsaturated fatty acids (PUFA) contain two or more unsaturated bonds. $\omega 3$ fatty acids are shown in bold; 'nd' means 'not detected'

Fatty acid	<i>Syn</i> ($\mu\text{gC mgC}^{-1}$)	<i>Scen</i> ($\mu\text{gC mgC}^{-1}$)	Fish oil (%)
10:00	1.28	ND	6
12:00	0.85	0.001	
14:00	12.78	0.27	
14:1 ω 7	2.38	0.04	
14:1 ω 5	0.46	ND	
15:00	0.28	ND	
16:00	25.76	29.52	14
16:1 ω 7	25.53	0.76	7
16:1 ω 5	0.31	ND	1
16:2 ω 7/ ω 4	0.37	0.52	
16:3 ω 4	0.41	ND	1
16:4 ω 1	0.10	1.96	1
17:00	0.47	0.45	1
18:00	1.69	2.33	3
18:1 ω 12/ ω 9	1.79	17.24	15
18:1 ω 7	5.25	0.59	4
18:2 ω 6	0.88	7.99	3
18:3 ω 6	ND	ND	
18:3 ω 3	3.39	18.50	6
18:4 ω 3	0.10	3.29	
20:0	0.14	ND	
20:1 ω 9	ND	ND	
20:1 ω 7	ND	ND	
20:2 ω 6	0.06	ND	
20:2 ω 4	ND	ND	
20:3 ω 6	0.17	ND	
20:3 ω 3	0.47	ND	
20:4 ω 6	ND	ND	1
20:5 ω 3	0.11	0.84	13
22:00	0.11	0.53	
22:1 ω 9	1.67	ND	11
22:2 ω 6	ND	ND	
22:6 ω 3	ND	2.11	10
23:00	0.54	0.10	
24:00	0.13	0.41	
24:1 ω 9	0.86	0.82	
Sum FA	88.34	88.26	100
Sum sat. FA	44.03	33.60	24
Sum ω 3 FA	4.07	24.74	29
Sum ω 6 FA	1.11	7.99	4
Sum PUFA	6.06	35.41	35
PUFA/FA	0.069	0.40	0.35