Supplements

4. Experimental

4.3. Isolation of lipids

The extraction procedure was based on the method of Bligh and Dyer (1959), except that 2-propanol was substituted for methanol since 2-propanol does not serve as a substrate for phospholipases (Kates and Volcani, 1996). The alcohol-water mixture was cooled, one part chloroform was added and the lipids from the lyophilized cells of different cultivations of dinoflagellates were extracted for 30 min. Insoluble material was sedimented by centrifugation and the supernatant was separated into two phases. The aqueous phase was aspirated off and the chloroform phase was washed three times with two parts 1 M KCl each. The resulting chloroform phase was evaporated to dryness under reduced pressure.

Total lipid extracts were applied on Sep-Pak Vac Silica cartridge 35cc (Waters; with 10 grams of normal-phase silica), and TAGs were subsequently eluted from the cartridge with 40 mL of chloroform-methanol (9:1), which was injected for HPLC analysis. Further, polar lipids were eluted from the cartridge by a mixture of 50 ml of methanol acidified with 0.1% of formic acid. The eluate of polar lipids was evaporated and the oil samples were dissolved in an acetonitrile-2-propanol-hexane mixture (1:1:1, v/v/v).

4.4. FAMEs analysis

The lipids (both TAGs and polar lipids) (~5 mg) were saponified overnight in 10% potassium hydroxide-methanol at room temperature. A fatty acid fraction obtained from saponification was partitioned between alkali solution (pH 9) and diethyl ether to remove basic and neutral components. The aqueous phase, containing fatty acids, was acidified to pH 2 and extracted with hexane. The fatty acid fraction was methylated using CH_2N_2. GC-MS of fatty acid methyl ester (FAME) mixture was done on a Finnigan 1020 B (Thermo Fisher Scientific Inc., MA, USA) in EI mode. Splitless injection was at 100 °C, and a fused silica capillary column (Supelcowax 10; 60 m x 0.25 mm i.d., 0.25 mm film thickness; Supelco, Prague) was used. The temperature program was as follows: 100 °C for 1 min, subsequently increasing at 20 °C/min to 180 °C and at 2 °C/min to 280 °C, which was maintained for 1 min. The carrier gas was helium at a linear velocity of 60 cm/s. All spectra were scanned within the range of *m/z* 50–500. The structures of FAMEs were confirmed by comparison of retention times and fragmentation patterns with those of the standard FAMEs (Supelco, Prague) (Rezanka and Podojil, 1986; Vancura et al., 1987).

4.5. HILIC/MS-ESI

The HPLC equipment consisted of a 1090 Win system, PV5 ternary pump and automatic injector (HP 1090 series, Hewlett Packard, USA), and Ascentis® Express OH5, high performance liquid chromatography (HPLC) HILIC column (2.7 µm particle size, L × I.D. 15 cm × 2.1 mm) (Supelco, Prague, Czech Republic) with an injection volume of 10 µL. HPLC was performed at a flow rate of 0.33 mL/min for the polar lipids from three cultivations, with a linear gradient from mobile phase containing methanol/acetonitrile/aqueous 1 mM ammonium acetate (50:30:20, v/v/v) to methanol/acetonitrile/aqueous 1 mM ammonium acetate (10:70:20, v/v/v) for 60 min. Column temperature was 35 °C and a re-equilibration period between runs was 30 min. The 10 % UHPLC flow was introduced into the ESI source and 90 % of the flow containing fractions of lipid classes were collected manually. We collected the peaks that contained only the molecular species of VLCFAs, see Fig. 1 Thee were further evaporated, and redissolved in the mobile phase used for second dimension of 2D-LC.

LTQ Orbitrap Velos (Thermo Fisher Scientific, Bremen, Germany), a high resolution hybrid mass spectrometer equipped with a heated electrospray interface (HESI) was used. ESI–MS analysis was performed in the Fourier transform positive ion mode. MS spectra were acquired with target mass resolution of R = 105,000 at *m/z* 800. The ion spray voltage was set at 3.5 kV and the scan range of the instruments was set to *m/z* 200–1500. Nitrogen was used as a nebulizer gas - set at 18 arbitrary units (sheath gas) and 7 arbitrary units (auxiliary gas). Helium was used as a collision gas for collision-induced dissociation (CID) experiments. The CID normalization energy of 35% was used for the fragmentation of parent ions. The MS/MS product ions were detected by the high resolution FT mode. Further source conditions in the positive mode: vaporizer temperature, 250°C; capillary temperature, 230°C; capillary voltage, 50 V; tube lens voltage, 170 V.

The same apparatus was used for negative ion mode. MS spectra were acquired with target mass resolution of R = 50,000 at *m/z* 400. The ion spray voltage was set at -2500V and the scan range of the instruments was set to m/z 200–2000. Nitrogen was used as a nebulizer gas – set at 18 arbitrary units (sheath gas) and 7 arbitrary units (aux gas). Helium was used as a collision gas for CID experiments. The CID normalization energy of 35% was used for the parent ions fragmentation. The MS/MS product ions were detected by the high resolution FT mode. The HESI temperature was set to 250 °C.

4.6. Separation and identification in second dimension RP-HPLC/MS^2

In the second dimension, collected fractions of lipid classes were analyzed using two RP-HPLC methods according to their polarity. LTQ Orbitrap Velos (Thermo Fisher

Scientific, Bremen, Germany), a high resolution hybrid mass spectrometer equipped with HESI was used, see above.

4.6.1 TAGs

LC equipment was described above. Two columns HIRPB-250AM (Hichrom Limited, UK) - 250 x 2.1 mm ID, 5 μm particle size, in series were used and chromatography was performed with the following parameters: flow rate of 1 mL/min, injection volume of 10 μL, column temperature of 25 °C, a solvent gradient program with acetonitrile (ACN) containing 5 mM aqueous ammonium acetate, and 2-propanol (iPrOH) also containing 5 mM aqueous ammonium acetate as follows: initial ACN/iPrOH (99:1, vol/vol); linear from 5 min to 110 min of ACN/iPrOH 30:70 (vol/vol); held for 10 min. The composition was returned to the initial conditions over 10 min. The performance was measured by triheptadecenoin as an internal standard under the conditions given above.

4.6.2 PC

The PC fraction was analyzed using the same two columns connected in series, see above. The flow rate was 0.5 mL/min, injection volume 10 μL, column temperature 35 °C, solvent gradient program with acetonitrile (ACN) containing 5 mM aqueous ammonium acetate, and 2-propanol (iPrOH) also containing 5 mM aqueous ammonium acetate as follows: initial ACN/iPrOH (75:25, vol/vol); linear from 5 min to 90 min of ACN/iPrOH 90:10 (vol/vol); held for 10 min. The composition was returned to the initial conditions over 10 min. The performance was measured by 1,2-diheptadecanoyl-*sn*-glycero-3-phosphatidylcholine as an internal standard under the conditions given above.

4.7. Enzymatic synthesis of TAGs

1,2-Dioleoyl-*sn*-glycero-3-phosphocholine was treated with phospholipase C (Type I from *C. perfringens* (*C. welchii*)) as described by Christie (1989). In brief, phospholipase C from *C. welchii* (4 mg) in 0.5 M tris(hydroxymethyl)methylamine (tris) buffer (pH 7.5; 2 mL), 2 x 10^{-3} M in calcium chloride, was added to phosphatidylcholine (11 mg) in diethyl ether (2 mL). The mixture was shaken at room temperature for 3 hours and extracted three times with diethyl ether (4 mL portions). The ether layer was dried over anhydrous sodium sulfate before being evaporated in a stream of nitrogen at ambient temperature. Pure 1,2-dioleoyl -*sn*-glycerol was obtained by preparative TLC on a layer of silica gel G impregnated with boric acid (10%, w/w), with hexane-diethyl ether (50:50, v/v) as solvent system. The appropriate band was located under UV light and was eluted from the adsorbent with diethyl ether (Christie 1989).

The esterification of 1,2-dioleoyl-*sn*-glycerol with acids was described previously (Ziegler and Berger, 1979; Halldorsson et al., 2003). Briefly, a solution of 1,2-dioleoyl-*sn*-glycerol (~6 μM) and montanic acid (28:0) as a free acid in dichloromethane (1.0 mL) was added to DMAP (6.1 mg, 5 μM) and EDCI (18.6 mg, 1.2 μM) in dichloromethane (1.0 mL) under an inert atmosphere (argon). The resulting solution was stirred at room temperature for 15 h. The reaction was stopped by passing the reaction mixture in ether/dichloromethane (10:90) through a short column packed with silica gel. Solvent removal *in vacuo* afforded the pure products as yellowish oil. The yields of the target 28:0/18:1/18:1 (Fig. 1S) was 4.0 mg.

References not listed in the main text:

Christie, W.W., 1989. Gas Chromatography and Lipids. Oily Press, Ayr, Scotland.

Halldorsson, A., Magnusson, C.D., Haraldsson, G.G., 2003. Chemoenzymatic synthesis of structured triacylglycerols by highly regioselective acylation. Tetrahedron 59, 9101–9109.

Ziegler, F.E., Berger, G.D., 1979. Mild method for the esterification of fatty-acids. Synth. Commun. 9, 539–543.

Table 1S. Mass spectrometry in positive ion mode for precursor-ion analysis of 12 classes of polar lipids using a HILIC (diol)-ESI-MS/MS.

Polar lipids	**Lipid class**	**Precursor ion**	**Scan type**	**Neutral loss or product ion mass (Da)**	**Molecular formula of fragment neutral loss or product ion**
Phospholipids	PC	$[M + H]^+$	PIS	184.1	$[C_5H_{15}NO_4P]^+$
	PE	$[M + H]^+$	NL	141.0	$[C_2H_8NO_4P]^+$
	PG	$[M + NH_4]^+$	NL	189.0	$[C_3H_{12}NO_6P]^+$
	PS	$[M + H]^+$	NL	185.0	$[C_3H_8NO_6P]^+$
	PA	$[M + NH_4]^+$	NL	115.0	$[H_6NO_4P]^+$
	PI	$[M + NH_4]^+$	NL	277.0	$[C_6H_{16}NO_9P]^+$
Glycolipids	MGDG	$[M + NH_4]^+$	NL	179.1	$[C_6H_{13}NO_5]^+$
	DGDG	$[M + NH_4]^+$	NL	341.1	$[C_{12}H_{23}NO_{10}]^+$
	SQDG	$[M + NH_4]^+$	NL	261.0	$[C_6H_{15}NO_8S]^+$
Betaine lipids	DGCC	$[M + H]^+$	PIS	104.0	$[C_5H_{14}NO]^+$
	DGTA and/or DGTS	$[M + H]^+$	PIS	236.0	$[C_{10}H_{22}NO_5]^+$

Table 2S. Description of tandem mass spectra of 32:1/30:1/28:1 and 28:1/28:2/18:1 TAGs.

TAG 32:1/30:1/28:1		**TAG 28:1/28:2/18:1**		
m/z	%	*m/z*	%	Ion Description
1407.3811	25	1181.1152	32	Precursor ion $[M+NH_4]^+$
1390.3541	5	1164.0879	7	Precursor ion $[M+H]^+$
1372.3434	2	1146.0771	4	Precursor ion $[M+H]^+$ with loss of H_2O
967.9421	100	881.8326	100	Neutral loss of *sn-3* $RCOOH+NH_3$ from $[M+NH_4]^+$
939.9108	55	743.6917	65	Neutral loss of *sn-2* $RCOOH+NH_3$ from $[M+NH_4]^+$
911.8795	88	741.6761	92	Neutral loss of *sn-1* $RCOOH+NH_3$ from $[M+NH_4]^+$
535.5085	45	479.4459	35	sn3 acyl chain ([RC=O +74]+)
517.4979	23	479.4459	42	sn1 acyl chain ([RC=O +74]+)
507.4772	34	477.4302	17	sn2 acyl chain ([RC=O +74]+)
489.4666	19	461.4353	22	sn3 acyl chain ([RC=O +74]+ with loss of H2O)
479.4459	38	461.4353	16	sn1 acyl chain ([RC=O +74]+ with loss of H2O)
461.4722	16	459.4196	14	sn2 acyl chain ([RC=O +74]+ with loss of H2O)
461.4353	22	405.4091	9	sn3 acyl chain ([RC=O]+)
443.4617	11	405.4091	8	sn1 acyl chain ([RC=O]+)
433.4409	17	403.3934	34	sn2 acyl chain ([RC=O]+)
415.4304	12	387.3985	19	sn3 acyl chain ([RC=O]+ with loss of H2O)
405.4096	19	387.3985	12	sn1 acyl chain ([RC=O]+ with loss of H2O)
387.3991	13	385.3829	7	sn2 acyl chain ([RC=O]+ with loss of H2O)

Table 3S. Description of tandem mass spectrum of 30:2/18:1/18:1 TAG.

30:2/18:1/18:1		
m/z	%	Ion Description
1068.9893	26	Precursor ion $[M+NH_4]^+$
1051.9633	5	Precursor ion $[M+H]^+$
1033.9527	2	Precursor ion $[M+H]^+$ with loss of H_2O
769.7074	100	Neutral loss of sn1/3 RCOOH + NH_3 from $[M+NH_4]^+$
603.5352	66	Neutral loss of *sn-2* RCOOH + NH_3 from $[M+NH_4]^+$
505.4615	35	*sn-1* acyl chain ($[RC=O+74]^+$)
487.4509	17	*sn-1* acyl chain ($[RC=O+74]^+$ with loss of H_2O)
431.4253	19	*sn-1* acyl chain ($[RC=O]^+$)
413.4147	9	*sn-1* acyl chain ($[RC=O]^+$ with loss of H_2O)
339.2894	42	*sn*-2/3 acyl chain ($[RC=O+74]^+$)
321.2788	23	*sn*-2/3 acyl chain ($[RC=O+74]^+$ with loss of H_2O)
265.2531	21	*sn*-2/3 acyl chain ($[RC=O]^+$)
247.2426	11	*sn*-2/3 acyl chain ($[RC=O]^+$ with loss of H_2O)

Table 4S. Description of tandem mass spectrum of 28:1/18:1/28:1 TAG

28:1/18:1/28:1 *m/z*	%	Ion Description
1183.1301	26	Precursor ion $[M+NH_4]^+$
1166.1036	5	Precursor ion $[M+H]^+$
1148.0931	2	Precursor ion $[M+H]^+$ with loss of H_2O
883.8482	100	Neutral loss of *sn*-3 RCOOH+NH_3 from $[M+NH_4]^+$
743.6917	34	Neutral loss of *sn*-1/2 RCOOH+NH_3 from $[M+NH_4]^+$
479.4459	35	*sn*-1/3 acyl chain ($[RC{=}O+74]^+$)
461.4353	17	*sn*-1/3 acyl chain ($[RC{=}O+74]^+$ with loss of H_2O)
405.4091	19	*sn*-1/3 acyl chain ($[RC{=}O]^+$)
339.2899	9	*sn*-2 acyl chain ($[RC{=}O+74]^+$)
387.3985	42	*sn*-1/3 acyl chain ($[RC{=}O]^+$ with loss of H_2O)
321.2795	23	*sn*-2 acyl chain ($[RC{=}O+74]^+$ with loss of H_2O)
265.2526	21	*sn*-2 acyl chain ($[RC{=}O]^+$)
247.2421	11	*sn*-2 acyl chain ($[RC{=}O]^+$ with loss of H_2O)

Table 5S. Description of tandem mass spectraof four molecular species (28:0/18:0-PC; 28:1,18:0-PC; 26:1,18:0-PC; 24:1,18:0-PC), see Fig. 6 for mass spectra.

	28:0/18:0-PC	28:1/18:0-PC	26:1/18:0-PC	24:1/18:0-PC
$[M+acetate]^-$	988.7946	986.7789	958.7476	930.7163
$[M+NH_4]^+$ (for reference only)	947.8156	945.8000	917.7687	889.7374
$[M-CH_3]^-$	914.7578	912.7421	884.7108	856.6795
$[M-choline+H]^-$	843.6843	841.6686	813.6373	785.6060
$[(M-CH_3)-R_2'CHCO+H]^-$	648.4968	646.4812	618.4499	590.4186
$[(M-CH_3)-R_2COOH]^-$	630.4863	628.4706	600.4393	572.4080
$[(M-CH_3)-R_1'CHCO+H]^-$	508.3403	508.3403	508.3403	508.3403
$[(M-CH_3)-R_1COOH]^-$	490.3297	490.3297	490.3297	490.3297
$[R_1COO]^-$	423.4202	421.4046	393.3733	365.3420
$[R_2COO]^-$	283.2637	283.2637	283.2637	283.2637
$[(M-CH_3)-RCOOH-R'CHCO]^-$	224.0688	224.0688	224.0688	224.0688
$[phosphocholine-CH_3]^-$	168.0426	168.0426	168.0426	168.0426
$[(M-CH_3)-RCOOH-R'CHCO-(choline-methyl)+H]^-$	152.9953	152.9953	152.9953	152.9953
$[C_3H_6O_5P]^-$	152.9953	152.9953	152.9953	152.9953

Table 6S. High-performance liquid chromatography/electrospray ionization-mass spectrometry (HPLC/ESI-MS) of the TAGs from the five green algae, retention time (t_R, min), acyl carbon number (ACN) number of double bond(s) (DB), effective carbon number (ECN), precursor ion $[M+NH_4]^+$, molecular species of TAGs and relative quantities (%) of molecular species of TAGs.

t_R	ACN	DB	ECN	$[M+NH_4]^+$	TAG	*B. braunii* 220	*B. braunii* 778	*B. braunii* 835	*B.braunii* 933	*B. sudetica* 780
34.7	50	9	32	834.6612	18:3/16:3/16:3	0.00	0.00	0.00	0.00	0.10
35.1	48	9	30	806.6299	16:3/16:3/16:3	0.00	0.00	0.00	0.00	0.02
35.8	48	8	32	808.6455	16:2/16:3/16:3	0.00	0.00	0.00	0.00	0.00
39.4	50	9	32	834.6612	16:3/16:3/18:3	0.00	0.00	0.00	0.00	0.10
40.8	48	7	34	810.6610	16:3/16:3/16:1	0.00	0.00	0.00	0.00	0.01
40.8	52	9	34	862.6925	18:3/18:3/16:3	0.00	0.00	0.00	0.00	0.68
40.9	48	7	34	810.6611	16:2/16:3/16:2	0.00	0.00	0.00	0.00	0.00
41.4	50	8	34	836.6768	16:2/18:3/16:3	0.00	0.00	0.00	0.00	0.01
41.8	50	8	34	836.6768	18:2/16:3/16:3	0.00	0.00	0.00	0.00	0.12
43.6	54	9	36	890.7227	18:3/18:3/18:3	0.00	0.00	0.00	0.00	4.57
45.3	52	8	36	864.7081	18:2/18:3/16:3	0.00	0.00	0.00	0.00	0.79
45.5	52	8	36	864.7081	18:3/16:2/18:3	0.00	0.00	0.00	0.00	0.07
45.8	50	7	36	838.6925	16:1/16:3/18:3	0.00	0.00	0.00	0.00	0.05
46.8	48	6	36	812.6768	16:0/16:3/16:3	0.00	0.00	0.00	0.00	0.10
47.3	52	8	36	864.7081	16:2/18:3/18:3	0.00	0.00	0.00	0.00	0.07
48.7	54	8	38	894.7545	18:2/18:3/18:3	0.00	0.00	0.00	0.00	5.28
50.2	52	7	38	866.7232	18:3/16:1/18:3	0.00	0.00	0.00	0.00	0.36
50.4	52	7	38	866.7238	16:2/18:2/18:3	0.00	0.00	0.00	0.00	0.08
54.2	54	7	40	894.7540	18:2/18:2/18:3	0.00	0.00	0.00	0.00	6.09
54.3	50	6	38	840.7081	18:2/16:2/16:2	0.00	0.00	0.00	0.00	0.00
54.4	48	5	38	814.6924	16:2/16:2/16:1	0.00	0.00	0.00	0.00	0.00
54.5	48	5	38	814.6925	16:1/16:1/16:3	0.00	0.00	0.00	0.00	0.00
54.6	48	5	38	814.6923	16:0/16:2/16:3	0.00	0.00	0.00	0.00	0.01
54.9	46	4	38	788.6768	14:0/16:2/16:2	0.00	0.00	0.00	0.00	0.00

55.8	54	7	40	894.7542	18:1/18:3/18:3	0.00	0.00	0.00	0.00	3.28
57.0	52	6	40	868.7391	16:1/18:2/18:3	0.00	0.00	0.00	0.00	0.42
58.0	52	6	40	868.7391	18:3/18:3/16:0	0.00	0.00	0.00	0.00	4.69
58.3	54	6	42	896.7698	18:1/18:2/18:3	0.00	0.00	0.00	0.00	3.79
59.2	50	5	40	842.7232	16:1/16:1/18:3	0.00	0.00	0.00	0.00	0.03
59.5	48	4	40	816.7076	16:0/16:1/16:3	0.00	0.00	0.00	0.00	0.06
59.6	50	5	40	842.7232	14:0/18:2/18:3	0.00	0.00	0.00	0.00	0.31
59.7	48	4	40	816.7077	16:0/16:2/16:2	0.00	0.00	0.00	0.00	0.00
59.8	56	7	42	922.7858	20:1/18:3/18:3	0.00	0.00	0.00	0.00	0.07
60.0	54	6	42	896.7702	18:0/18:3/18:3	0.00	0.00	0.00	0.00	0.34
60.2	48	4	40	816.7077	14:0/16:1/18:3	0.00	0.00	0.00	0.00	0.02
60.3	48	4	40	816.7074	16:1/16:2/16:1	0.00	0.00	0.00	0.00	0.00
60.6	50	4	42	844.7394	16:0/18:2/16:2	0.00	0.00	0.00	0.00	0.09
60.7	54	6	42	896.7698	18:2/18:2/18:2	0.31	0.28	0.14	0.09	7.03
60.8	52	5	42	870.7535	16:0/18:2/18:3	0.00	0.00	0.00	0.00	5.42
61.0	50	4	42	844.7388	16:0/16:1/18:3	0.00	0.00	0.00	0.00	0.37
61.1	50	4	42	844.7388	16:1/16:1/18:2	1.24	1.15	1.34	1.33	0.03
61.3	52	5	42	870.7535	16:1/18:2/18:2	0.62	0.56	0.44	0.35	0.49
61.4	46	2	42	792.7073	14:0/16:1/16:1	0.18	0.46	0.37	0.41	0.00
61.5	50	4	42	844.7391	16:1/16:2/18:1	0.00	0.00	0.00	0.00	0.00
61.6	47	2	43	806.7232	br15:0/16:1/16:1	0.04	0.07	0.10	0.12	0.00
61.8	52	5	42	870.7535	18:1/18:3/16:1	0.00	0.00	0.00	0.00	0.26
61.9	50	4	42	844.7388	14:0/18:3/18:1	0.00	0.00	0.00	0.00	0.19
62.0	50	4	42	844.7389	18:3/16:1/16:0	0.00	0.00	0.00	0.00	0.37
62.1	48	3	42	818.7228	16:0/16:1/16:2	0.00	0.00	0.00	0.00	0.01
62.2	50	4	42	844.7388	14:0/18:2/18:2	0.05	0.11	0.04	0.03	0.36
62.4	48	3	42	818.7229	16:1/16:1/16:1	2.48	2.34	4.12	5.01	0.00
62.5	48	3	42	818.7229	16:0/16:0/16:3	0.00	0.00	0.00	0.00	0.72
62.8	48	3	42	818.7229	14:0/18:2/16:1	0.09	0.23	0.12	0.11	0.02
63.5	54	5	44	898.7856	18:1/18:1/18:3	0.00	0.00	0.00	0.00	2.36

63.7	50	3	44	846.7545	18:1/18:2/14:0	0.15	0.24	0.14	0.13	0.22
63.8	47	2	43	806.7232	15:0/16:1/16:1	0.04	0.07	0.04	0.05	0.00
64.0	48	3	42	818.7229	14:0/16:0/18:3	0.00	0.00	0.00	0.00	0.27
64.1	54	5	44	898.7856	18:0/18:2/18:3	0.00	0.00	0.00	0.00	0.39
64.2	49	3	43	832.7389	16:1/16:1/17:1	0.06	0.09	0.08	0.12	0.00
64.3	52	4	44	872.7692	18:3/18:1/16:0	0.00	0.00	0.00	0.00	3.37
64.4	54	5	44	898.7856	18:1/18:2/18:2	1.01	0.59	0.50	0.42	4.37
64.5	52	4	44	872.7693	18:3/18:0/16:1	0.00	0.00	0.00	0.00	0.03
64.6	46	1	44	794.7232	14:0/14:0/18:1	0.02	0.10	0.04	0.04	0.01
64.7	50	3	44	846.7545	16:0/16:1/18:2	1.44	1.79	1.45	1.20	0.43
64.8	46	1	44	794.7230	14:0/16:1/16:0	0.21	0.72	0.40	0.37	0.02
65.1	56	6	44	924.8015	20:0/18:3/18:3	0.00	0.00	0.00	0.00	0.07
65.6	44	1	42	766.6919	14:0/14:0/16:1	0.01	0.09	0.03	0.03	0.00
65.7	52	4	44	872.7693	16:1/18:1/18:2	2.03	1.20	1.53	1.58	0.30
65.9	50	3	44	846.7545	16:1/16:1/18:1	4.06	2.44	4.70	5.95	0.02
66.1	48	2	44	820.7386	16:1/16:1/16:0	2.87	3.65	4.45	4.50	0.03
66.3	48	2	44	820.7386	14:0/16:0/18:2	0.11	0.35	0.13	0.10	0.32
66.5	52	4	44	872.7693	16:0/18:2/18:2	0.72	0.88	0.47	0.32	6.25
66.8	48	3	42	818.7227	14:0/16:1/18:2	0.09	0.23	0.12	0.11	0.02
67.2	50	3	44	846.7545	16:0/16:0/18:3	0.00	0.00	0.00	0.00	4.82
67.5	51	2	47	862.7858	br15:0/18:1/18:1	0.11	0.08	0.13	0.16	0.00
68.2	51	3	45	860.7702	16:1/17:1/18:1	0.09	0.09	0.09	0.14	0.00
68.4	49	2	45	834.7545	16:1/16:0/17:1	0.07	0.14	0.09	0.10	0.01
68.5	50	2	46	848.7693	16:1/16:1/18:0	1.45	2.44	2.62	2.57	0.00
68.7	54	4	46	900.8015	18:0/18:1/18:3	0.00	0.00	0.00	0.00	0.24
68.8	56	5	46	926.8163	20:1/18:1/18:3	0.00	0.00	0.00	0.00	0.04
69.0	48	1	46	822.7541	16:0/16:0/16:1	3.33	5.70	4.81	4.05	0.38
69.1	46	2	42	792.7076	14:0/14:0/18:2	0.01	0.04	0.01	0.01	0.02
69.2	49	1	47	836.7702	br15:0/16:0/18:1	0.08	0.12	0.13	0.12	0.00
69.4	56	5	46	926.8163	20:0/18:2/18:3	0.00	0.00	0.00	0.00	0.08

69.9	56	5	46	926.8163	20:1/18:2/18:2	0.11	0.01	0.01	0.01	0.07
70.0	52	3	46	874.7858	18:0/18:3/16:0	0.00	0.00	0.00	0.00	0.35
70.1	50	2	46	848.7693	18:1/16:1/16:0	4.70	3.81	5.07	5.35	0.27
70.2	54	4	46	900.8004	18:0/18:2/18:2	0.36	0.59	0.28	0.18	0.45
70.3	52	3	46	874.7850	16:1/18:1/18:1	6.64	2.55	5.35	7.07	0.19
70.6	54	4	46	900.8004	18:1/18:1/18:2	3.32	1.25	1.74	1.88	2.72
70.8	49	1	47	836.7702	15:0/16:0/18:1	0.08	0.12	0.05	0.05	0.02
71.2	46	0	46	796.7389	14:0/16:0/16:0	0.25	1.13	0.43	0.33	0.28
71.3	62	7	48	1006.8783	26:1/18:3/18:3	0.00	0.00	0.00	0.00	0.00
71.4	58	6	46	952.8328	22:1/18:2/18:3	0.00	0.00	0.00	0.00	0.00
71.5	51	2	47	862.7858	16:0/17:1/18:1	0.11	0.15	0.10	0.12	0.05
71.6	52	3	46	874.7850	18:1/18:2/16:0	2.35	1.87	1.65	1.42	3.89
71.8	53	3	47	890.8171	17:1/18:1/18:1	0.15	0.10	0.11	0.16	0.04
71.9	50	2	46	848.7693	14:0/18:1/18:1	0.49	0.50	0.48	0.58	0.14
72.1	52	2	48	876.8009	16:1/16:1/18:0	1.45	2.44	2.62	2.57	0.00
72.5	50	1	48	850.7853	16:1/16:0/18:0	1.68	3.81	2.83	2.31	0.03
72.7	54	3	48	902.8160	18:1/18:1/18:1	10.86	2.67	6.10	8.40	1.69
72.9	50	2	46	848.7693	16:0/16:0/18:2	1.66	2.79	1.56	1.08	5.56
73.1	50	1	48	850.7853	14:0/18:1/18:0	0.18	0.50	0.27	0.25	0.01
73.9	54	3	48	902.8171	18:0/18:3/18:0	0.00	0.00	0.00	0.00	0.03
74.2	50	1	48	850.7853	18:1/16:0/16:0	5.45	5.95	5.48	4.81	3.46
74.5	52	2	48	876.8009	16:1/18:0/18:1	2.37	2.55	2.98	3.06	0.02
74.6	51	1	49	864.8015	br15:0/18:1/18:0	0.04	0.08	0.07	0.07	0.00
75.4	53	2	49	890.8171	br17:0/18:1/18:1	0.15	0.05	0.19	0.29	0.04
75.6	51	1	49	864.8015	15:0/18:1/18:0	0.04	0.08	0.03	0.03	0.00
75.8	64	7	50	1034.9104	28:1/18:3/18:3	0.00	0.00	0.00	0.00	0.00
76.0	56	4	48	928.8328	20:0/18:2/18:2	0.02	0.01	0.02	0.01	0.10
76.2	54	3	48	902.8160	18:0/18:1/18:2	1.19	1.25	0.97	0.81	0.28
76.3	51	1	49	864.8015	br17:0/16:0/18:1	0.11	0.07	0.18	0.22	0.04
76.4	56	4	48	928.8328	20:0/18:1/18:3	0.00	0.00	0.00	0.00	0.05

76.6	52	2	48	876.8009	16:0/18:1/18:1	7.69	3.98	5.78	6.36	2.42
76.7	48	0	48	824.7702	14:0/16:0/18:0	0.12	0.75	0.25	0.19	0.04
77.0	56	3	50	930.8468	20:0/18:1/18:2	0.07	0.02	0.07	0.05	0.06
77.1	51	1	49	864.8015	16:0/17:1/18:0	0.04	0.15	0.06	0.05	0.02
77.4	51	1	49	864.8015	16:0/17:0/18:1	0.16	0.32	0.13	0.17	0.11
77.6	53	2	49	890.8171	17:0/18:1/18:1	0.23	0.21	0.13	0.23	0.08
77.7	54	2	50	904.8328	18:0/18:2/18:0	0.42	1.25	0.54	0.35	0.03
78.1	48	0	48	824.7696	16:0/16:0/16:0	3.86	8.89	5.19	3.64	4.95
78.2	52	1	50	878.8171	16:1/18:0/18:0	0.85	2.55	1.66	1.32	0.00
78.4	58	5	48	954.8484	22:1/18:2/18:2	0.02	0.02	0.03	0.01	0.00
78.5	52	2	48	876.8009	16:0/18:0/18:2	0.84	1.87	0.92	0.62	0.40
78.6	56	3	50	930.8468	20:0/18:0/18:3	0.00	0.00	0.00	0.00	0.01
78.7	49	0	49	838.7858	br17:0/16:0/16:0	0.08	0.11	0.17	0.17	0.05
79.0	56	3	50	930.8468	20:1/18:1/18:1	1.13	0.03	0.11	0.16	0.03
79.6	49	0	49	838.7858	16:0/16:0/17:0	0.11	0.47	0.12	0.13	0.15
81.9	60	6	48	980.8641	24:1/18:2/18:3	0.00	0.00	0.00	0.00	0.00
83.0	54	2	50	904.8321	20:1/18:1/16:0	0.80	0.05	0.10	0.12	0.04
83.4	54	2	50	904.8322	18:1/18:1/18:0	3.88	2.67	3.40	3.63	0.18
85.6	50	0	50	852.8015	16:0/16:0/18:0	1.95	5.95	3.05	2.08	0.36
85.8	52	1	50	878.8171	16:0/18:0/18:1	2.75	3.98	3.22	2.75	0.25
86.0	58	4	50	956.8641	22:1/18:1/18:2	0.08	0.05	0.09	0.07	0.00
86.5	50	0	50	852.8015	14:0/18:0/18:0	0.06	0.50	0.15	0.11	0.00
86.8	60	5	50	982.8797	24:1/18:2/18:2	0.01	0.03	0.01	0.01	0.00
87.0	53	1	51	892.8328	br17:0/18:1/18:0	0.05	0.05	0.10	0.13	0.00
87.4	50	0	50	852.8015	16:0/17:0/17:0	0.00	0.03	0.00	0.00	0.00
87.8	53	1	51	892.8328	17:0/18:1/18:0	0.08	0.21	0.07	0.10	0.02
88.0	51	0	51	866.8171	br17:0/16:0/18:0	0.04	0.07	0.10	0.10	0.00
88.3	53	1	51	892.8328	17:1/18:0/18:0	0.02	0.10	0.03	0.03	0.00
88.9	51	0	51	866.8171	16:0/17:0/18:0	0.06	0.32	0.07	0.07	0.01
89.6	54	1	52	906.8484	18:1/18:0/18:0	1.39	2.71	1.89	1.57	0.02

91.4	58	3	52	958.8797	22:1/18:1/18:1	0.26	0.10	0.32	0.29	0.00
93.4	56	2	52	932.8631	20:0/18:1/18:1	0.23	0.05	0.24	0.23	0.04
95.5	60	4	52	984.8954	24:1/18:1/18:2	0.05	0.07	0.04	0.04	0.00
96.2	53	0	53	894.8484	br17:0/18:0/18:0	0.02	0.05	0.06	0.05	0.00
97.0	64	6	52	1036.9253	28:2/18:3/18:1	0.00	0.00	0.00	0.00	0.00
97.1	53	0	53	894.8484	17:0/18:0/18:0	0.03	0.21	0.04	0.04	0.00
97.3	62	5	52	1010.9097	26:1/18:1/18:3	0.00	0.00	0.00	0.00	0.00
97.5	64	6	52	1036.9253	28:0/18:3/18:3	0.00	0.00	0.00	0.00	0.00
98.6	56	2	52	932.8631	20:1/18:1/18:0	0.40	0.03	0.06	0.07	0.00
100.2	56	1	54	934.8797	20:1/18:0/18:0	0.14	0.03	0.03	0.03	0.00
101.6	56	1	54	934.8797	20:0/18:1/18:0	0.08	0.05	0.13	0.10	0.00
104.5	62	4	54	1012.9268	28:0/18:3/16:1	0.00	0.00	0.00	0.00	0.00
105.8	66	6	54	1064.9567	30:2/18:3/18:1	0.00	0.00	0.00	0.00	0.00
107.6	60	3	54	986.9106	24:1/18:1/18:1	0.15	0.15	0.13	0.19	0.00
110.0	62	4	54	1012.9254	28:2/18:1/16:1	0.30	0.00	0.38	0.36	0.00
110.2	64	5	54	1038.9409	28:2/18:2/18:1	0.15	0.00	0.12	0.09	0.00
110.6	64	5	54	1038.9409	28:1/18:2/18:2	0.06	0.04	0.03	0.03	0.00
110.9	64	5	54	1038.9416	28:0/18:3/18:2	0.00	0.00	0.00	0.00	0.00
121.2	64	4	56	1040.9567	28:0/18:3/18:1	0.00	0.00	0.00	0.00	0.00
122.4	66	5	56	1066.9723	30:2/18:2/18:1	0.35	0.00	0.05	0.03	0.00
125.4	62	3	56	1014.9410	26:1/18:1/18:1	0.15	0.23	0.13	0.26	0.00
125.8	64	4	56	1040.9561	28:2/18:1/18:1	0.49	0.00	0.43	0.42	0.00
128.4	62	2	58	1016.9573	28:0/18:1/16:1	0.14	0.20	0.58	0.51	0.00
133.0	66	4	58	1068.9885	30:2/18:1/18:1	1.13	0.00	0.16	0.13	0.00
136.7	62	1	60	1018.9727	28:0/18:1/16:0	0.16	0.32	0.61	0.46	0.00
140.6	64	2	60	1044.9877	28:0/18:1/18:1	0.23	0.21	0.64	0.58	0.00
141.9	64	3	58	1042.9721	30:2/18:1/16:0	0.80	0.00	0.15	0.13	0.00
142.3	64	3	58	1042.9721	28:1/18:1/18:1	0.64	0.18	0.39	0.58	0.00
160.2	66	3	60	1070.9993	30:1/18:1/18:1	0.38	0.13	0.48	0.39	0.00
179.5	72	4	64	1153.0830	28:2/26:1/18:1	0.01	0.00	0.01	0.01	0.00

180.6	74	5	64	1179.0975	28:2/28:2/18:1	0.02	0.00	0.04	0.02	0.00
197.3	74	4	66	1181.1132	28:1/28:2/18:1	0.03	0.00	0.03	0.04	0.00
205.6	72	3	66	1155.0990	28:1/26:1/18:1	0.01	0.01	0.01	0.02	0.00
219.7	74	3	68	1183.1252	28:1/28:1/18:1	0.04	0.01	0.02	0.05	0.00
225.7	74	2	70	1185.1458	28:0/28:1/18:1	0.01	0.01	0.04	0.04	0.00
245.2	76	2	72	1213.1771	30:0/28:1/18:1	0.02	0.00	0.01	0.01	0.00

Table 7S. High-performance liquid chromatography/electrospray ionization-mass spectrometry (HPLC/ESI-MS) of the PCs from the two green algae, retention time (t_R, min), acyl carbon number (ACN) number of double bond(s) (DB), effective carbon number (ECN), molecular species of PCs and relative quantities (%) of molecular species of PCs.

t_R	mol spec	[M+OCOCH3]-	*sn*-1 acyl/*sn*-2 acyl	ACN	DB	ECN	*Botryococcus braunii* CCALA 220	*Botryosphaerella sudetica* CCALA 780
30.48	PC 32:6	736,5134	16:3/16:3	32	6	20	0.00	1.03
34.73	PC 34:6	764,5446	16:3/18:3	34	6	22	0.00	1.19
35.80	PC 32:5	764,5446	16:2/16:3	32	5	22	0.00	0.60
36.72	PC 36:6	762,5290	18:3/18:3	36	6	24	0.00	4.09
37.48	PC 34:5	762,5290	18:2/16:3	34	5	24	0.00	0.81
37.79	PC 34:5	760,5134	18:3/16:2	34	5	24	0.00	0.38
38.10	PC 32:4	778,5602	16:2/16:2	32	4	24	0.00	0.43
38.40	PC 32:4	776,5446	16:1/16:3	32	4	24	0.00	1.46
39.47	PC 36:5	792,5759	18:3/18:2	36	5	26	0.00	4.41
39.64	PC 36:5	792,5759	18:2/18:3	36	5	26	0.00	4.81
39.78	PC 34:4	792,5759	16:3/18:1	34	4	26	0.00	0.70
39.85	PC 34:4	790,5603	16:1/18:3	34	4	26	0.00	0.52
39.93	PC 32:3	790,5603	14:0/18:3	32	3	26	0.00	2.08
40.07	PC 30:2	790,5603	16:1/14:1	30	2	26	0.55	0.22
40.24	PC 35:4	790,5603	17:1/18:3	35	4	27	0.00	0.39
40.70	PC 36:4	788,5447	18:1/18:3	36	4	28	0.00	2.26
40.77	PC 36:4	788,5447	18:3/18:1	36	4	28	0.00	2.56
40.93	PC 36:4	788,5447	18:2/18:2	36	4	28	0.00	4.21
41.09	PC 33:3	788,5447	17:0/16:3	33	3	27	0.00	0.16
41.16	PC 33:3	788,5447	15:0/18:3	33	3	27	0.00	0.15
41.35	PC 34:3	786,5291	16:0/18:3	34	3	28	0.00	3.69
41.46	PC 34:3	784,5135	18:0/16:3	34	3	28	0.00	0.38
41.61	PC 33:2	784,5135	18:2/15:0	33	2	29	0.00	0.14
41.77	PC 34:3	782,4979	18:3/16:0	34	3	28	0.00	4.20
41.84	PC 34:3	780,4822	18:2/16:1	34	3	28	0.95	3.69

41.92	PC 34:3	806,5915	18:1/16:2	34	3	28	0.00	0.49
41.98	PC 34:3	804,5759	16:1/18:2	34	3	28	0.76	1.53
42.02	PC 35:3	804,5759	17:1/18:2	35	3	29	0.29	0.12
42.03	PC 33:2	804,5759	17:0/16:2	33	2	29	0.21	0.11
42.05	PC 38:4	802,5603	20:1/18:3	38	4	30	0.00	0.28
42.53	PC 33:2	802,5603	15:0/18:2	33	2	29	0.33	0.28
42.69	PC 34:3	802,5603	16:2/18:1	34	3	28	0.00	0.76
42.76	PC 32:2	800,5447	14:1/18:1	32	2	28	0.37	0.19
42.84	PC 32:2	800,5447	18:1/14:1	32	2	28	0.19	0.18
42.99	PC 36:3	820,6072	18:1/18:2	36	3	30	1.65	3.39
43.05	PC 36:3	820,6072	18:2/18:1	36	3	30	1.04	1.97
43.18	PC 32:2	820,6072	14:0/18:2	32	2	28	0.48	0.28
43.30	PC 32:2	818,5916	18:2/14:0	32	2	28	0.55	0.27
43.52	PC 31:1	818,5916	15:0/16:1	31	1	29	0.25	0.21
43.61	PC 36:3	818,5916	18:3/18:0	36	3	30	0.00	2.01
43.72	PC 32:2	816,5760	16:1/16:1	32	2	28	3.44	1.90
43.81	PC 34:2	816,5760	16:0/18:2	34	2	30	7.69	0.33
43.85	PC 34:2	816,5760	18:2/16:0	34	2	30	10.40	5.40
43.89	PC 38:3	816,5760	18:2/20:1	38	3	32	0.37	0.41
43.91	PC 34:2	814,5604	18:1/16:1	34	2	30	2.76	3.23
44.00	PC 35:2	814,5604	17:1/18:1	35	2	31	0.21	0.12
44.06	PC 38:3	814,5604	20:0/18:3	38	3	32	0.00	0.18
44.22	PC 34:2	814,5604	16:1/18:1	34	2	30	7.69	2.67
44.31	PC 30:1	814,5604	14:1/16:0	30	1	28	0.36	0.21
44.52	PC 30:1	814,5604	16:1/14:0	30	1	28	0.32	0.34
44.68	PC 32:1	814,5604	14:0/18:1	32	1	30	0.21	0.28
44.70	PC 28:0	812,5447	14:0/14:0	28	0	28	0.55	0.28
44.83	PC 32:1	812,5447	16:0/16:1	32	1	30	3.39	2.21
44.84	PC 35:2	810,5291	17:0/18:2	35	2	31	2.29	1.41
45.07	PC 33:1	810,5291	17:0/16:1	33	1	31	0.32	0.12
45.14	PC 32:1	808,5135	18:1/14:0	32	1	30	0.42	0.18
45.29	PC 33:1	834,6229	15:0/18:1	33	1	31	0.33	0.11

45.67	PC 32:1	832,6073	18:0/14:1	32	1	30	0.33	0.16
45.75	PC 30:0	832,6073	16:0/14:0	30	0	30	0.47	0.23
45.80	PC 30:0	830,5917	14:0/16:0	30	0	30	0.37	0.41
45.85	PC 38:3	830,5917	20:1/18:2	38	3	32	0.72	0.23
45.90	PC 31:0	828,5760	15:0/16:0	31	0	31	0.36	0.19
46.38	PC 33:1	826,5604	18:1/15:0	33	1	31	0.27	0.15
46.51	PC 36:2	848,6385	18:2/18:0	36	2	32	0.72	0.21
46.82	PC 36:2	848,6385	18:1/18:1	36	2	32	3.29	2.33
47.12	PC 35:1	846,6229	17:1/18:0	35	1	33	0.36	0.11
47.28	PC 35:1	846,6229	17:0/18:1	35	1	33	0.37	0.23
47.58	PC 36:2	846,6229	18:0/18:2	36	2	32	2.21	1.53
47.79	PC 34:1	844,6073	16:0/18:1	34	1	32	3.32	1.22
47.81	PC 42:4	844,6073	24:1/18:3	42	4	34	0.00	0.18
48.04	PC 34:1	844,6073	18:1/16:0	34	1	32	3.87	1.51
48.40	PC 40:3	842,5917	22:1/18:2	40	3	34	1.27	0.00
48.50	PC 33:0	842,5917	17:0/16:0	33	0	33	0.25	0.15
48.65	PC 32:0	842,5917	16:0/16:0	32	0	32	4.80	1.73
48.96	PC 32:0	840,5761	14:0/18:0	32	0	32	0.52	0.23
49.50	PC 34:1	840,5761	16:1/18:0	34	1	32	1.77	1.16
49.58	PC 38:2	840,5761	20:0/18:2	38	2	34	0.36	0.40
49.73	PC 38:2	838,5605	18:2/20:0	38	2	34	0.34	0.40
49.80	PC 32:0	838,5605	18:0/14:0	32	0	32	0.36	0.15
50.03	PC 38:2	836,5449	18:1/20:1	38	2	34	0.29	0.23
50.18	PC 38:2	860,6386	20:1/18:1	38	2	34	0.48	0.36
50.38	PC 36:1	876,6698	16:0/20:1	36	1	34	0.63	0.23
50.49	PC 37:1	876,6698	17:0/20:1	37	1	35	0.29	0.09
50.80	PC 36:1	874,6542	18:0/18:1	36	1	34	1.85	0.94
51.34	PC 34:0	874,6542	14:0/20:0	34	0	34	1.28	0.76
51.50	PC 36:1	874,6542	18:1/18:0	36	1	34	3.83	3.18
51.62	PC 34:0	872,6386	16:0/18:0	34	0	34	0.19	1.37
51.70	PC 34:0	872,6386	18:0/16:0	34	0	34	2.49	1.62
51.73	PC 42:3	872,6386	24:1/18:2	42	3	36	0.35	0.16

52.00	PC 35:0	872,6386	17:0/18:0	35	0	35	0.33	0.15
52.17	PC 40:2	870,6230	22:0/18:2	40	2	36	0.27	0.00
52.94	PC 40:2	870,6230	20:1/20:1	40	2	36	0.24	0.09
53.40	PC 38:1	870,6230	20:0/18:1	38	1	36	0.52	0.22
53.55	PC 38:1	868,6074	22:1/16:0	38	1	36	0.45	0.00
53.86	PC 38:1	902,6855	18:0/20:1	38	1	36	0.63	0.20
54.40	PC 36:0	900,6699	18:0/18:0	36	0	36	1.32	0.76
55.50	PC 36:0	900,6699	20:0/16:0	36	0	36	0.40	0.34
56.40	PC 44:3	898,6543	26:1/18:2	44	3	38	0.53	0.00
56.80	PC 42:2	930,7167	24:1/18:1	42	2	38	0.45	0.00
56.92	PC 40:1	930,7167	22:1/18:0	40	1	38	0.19	0.00
57.12	PC 38:0	928,7011	20:0/18:0	38	0	38	0.22	0.19
58.00	PC 38:0	926,6855	18:0/20:0	38	0	38	0.25	0.17
58.91	PC 46:3	924,6699	28:2/18:1	46	3	40	0.36	0.00
59.21	PC 44:2	960,7635	26:1/18:1	44	2	40	0.30	0.00
59.26	PC 44:2	958,7479	28:1/16:1	44	2	40	0.52	0.00
59.85	PC 42:1	958,7479	24:0/18:1	42	1	40	0.41	0.00
61.00	PC 42:1	956,7323	24:1/18:0	42	1	40	0.34	0.00
61.06	PC 48:3	956,7323	30:2/18:1	48	3	42	0.41	0.00
62.12	PC 46:2	958,7479	28:1/18:1	46	2	42	1.21	0.00
62.27	PC 46:2	954,7167	28:2/18:0	46	2	42	0.39	0.00
62.42	PC 44:2	988,7948	28:1/16:0	44	1	42	0.54	0.00
62.58	PC 44:1	986,7792	26:1/18:0	44	1	42	0.43	0.00
64.60	PC 44:1	984,7636	28:0/16:1	44	1	42	0.44	0.00
66.10	PC 50:3	984,7636	30:2/20:1	50	3	44	0.26	0.00
68.80	PC 48:2	982,7480	30:1/18:1	48	2	44	0.41	0.00
71.15	PC 46:1	1014,8105	28:1/18:0	46	1	44	0.26	0.00
72.30	PC 44:0	1012,7949	28:0/16:0	44	0	44	0.48	0.00
74.70	PC 50:2	1010,7793	30:1/20:1	50	2	46	0.29	0.00
76.42	PC 48:1	1042,8418	30:1/18:0	48	1	46	0.27	0.00
78.50	PC 46:0	1040,8262	28:0/18:0	46	0	46	0.25	0.00
80.70	PC 50:1	1038,8106	30:1/20:0	50	1	48	0.22	0.00

Fig. 1S. *Botryococcus braunii*, strain CCALA 220

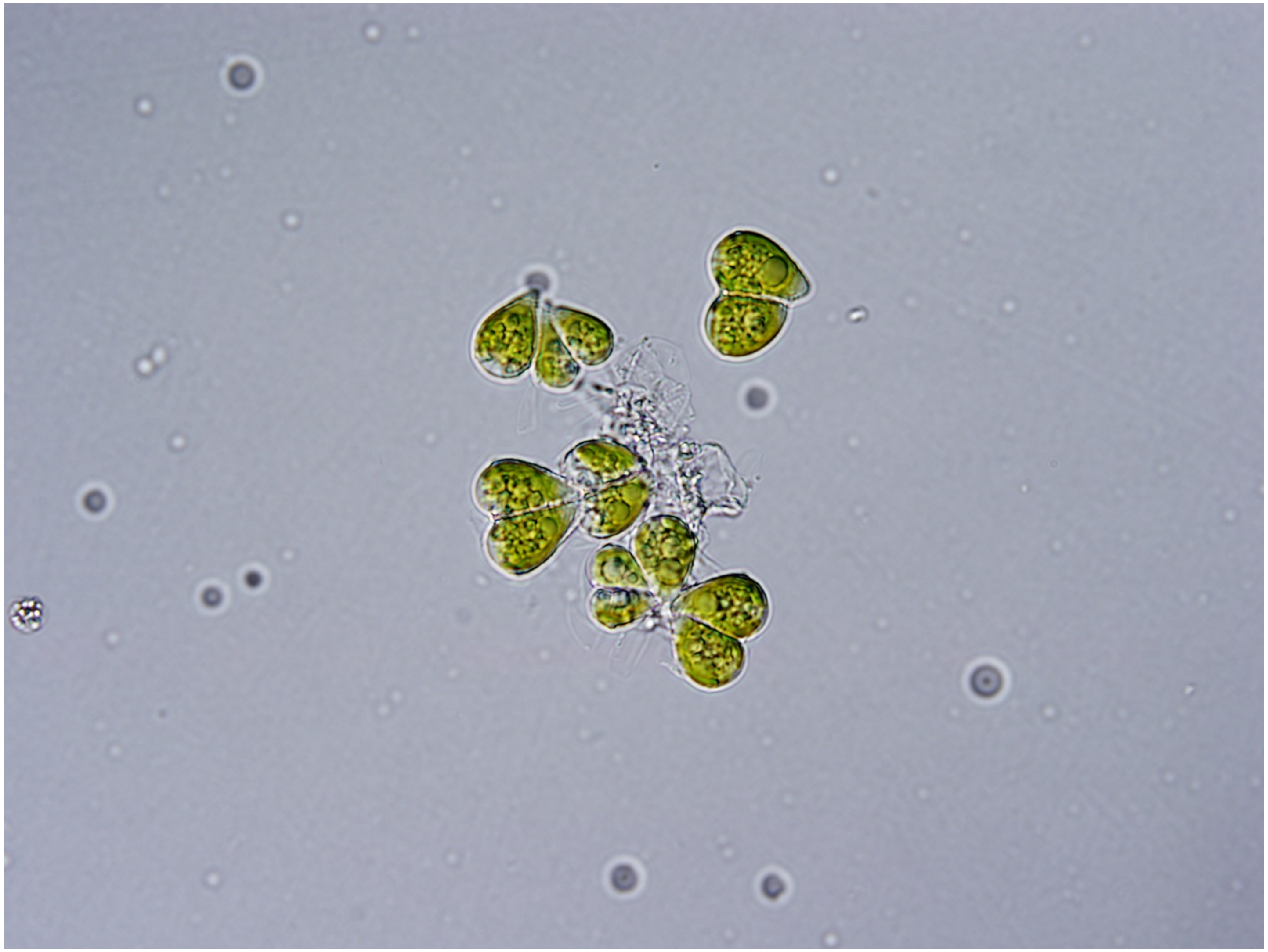

Fig. 2S. *Botryosphaerella sudetica*, strain CCALA 780