MIB-derived odor management based upon hydraulic regulation in small drinking water reservoirs: principle and application

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Supplementary Material

Figures and/or tables are provided below as the supplementary evidences to the main text.

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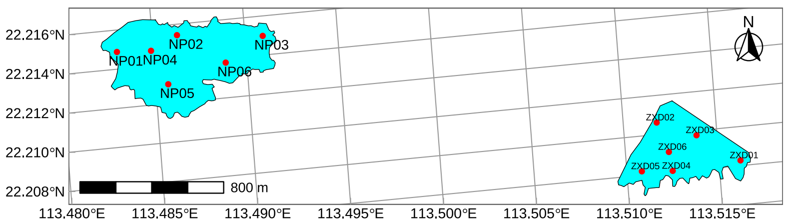

Fig. 1The sampling sites in NP (A) and ZXD (B) Reservoirs

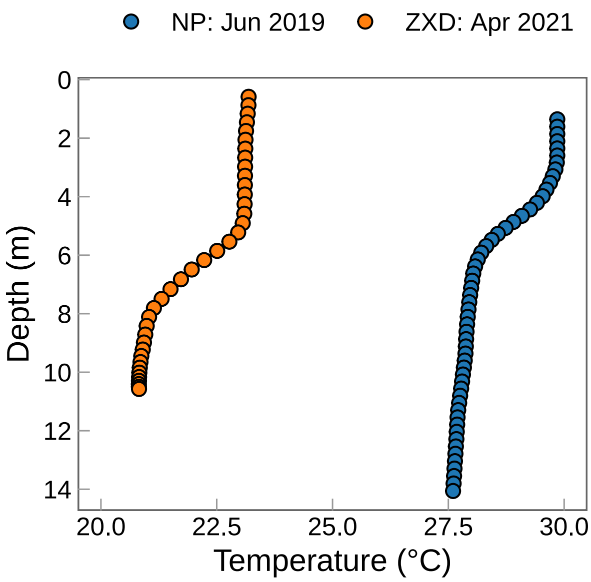

Fig. 2Temperature profile of NP and ZXD Reservoirs

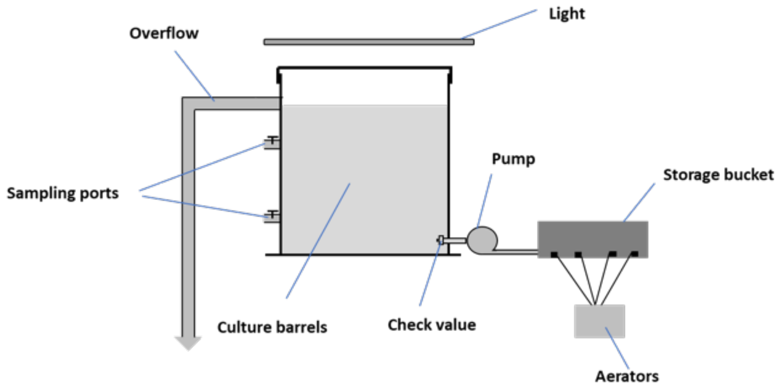

Fig. 3The schematic diagram of the experimental apparatus and the detailed design for the experiment

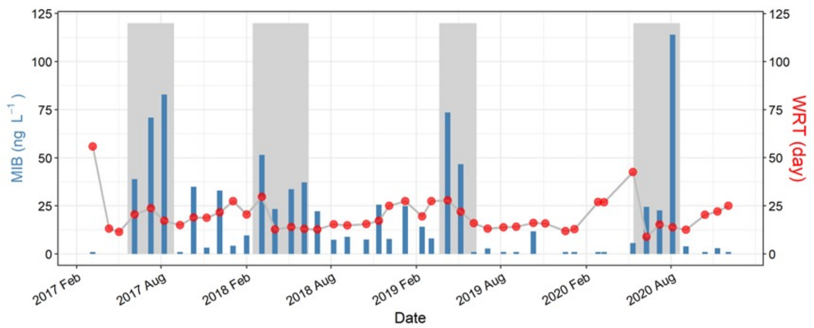

Fig. 4The monthly variation of water residence time and MIB from 2017 to 2020. (The MIB episodes are represented by grey areas)

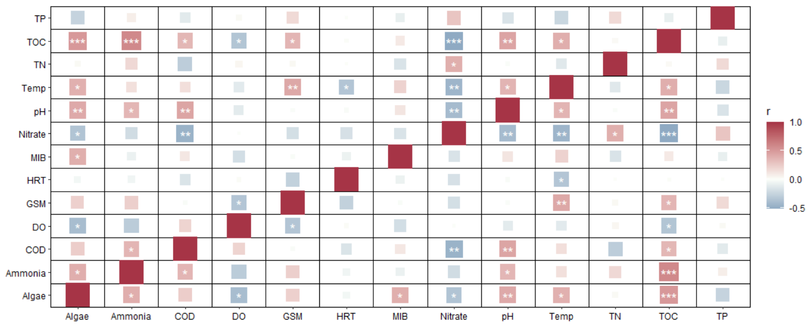

Fig. 5The correlation analysis between MIB and some limnological parameters in NP Reservoir

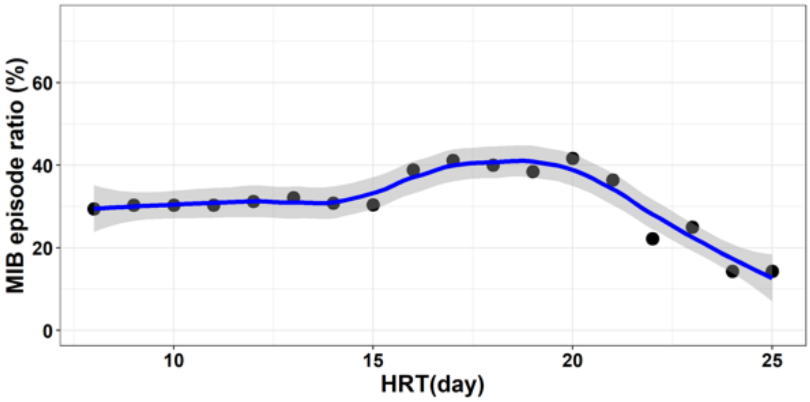

Fig. 6The relationship between MIB episode ration and HRT in NP Reservoir

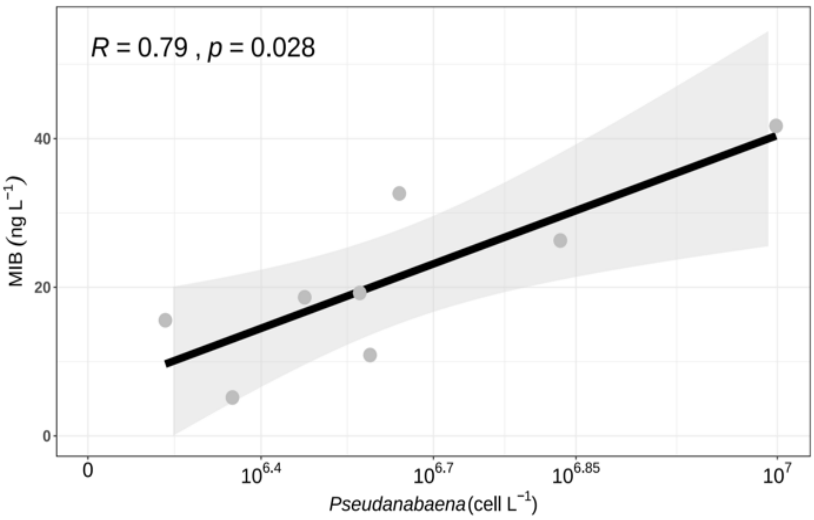

Fig. 7The relationship between *Pseudanabaena* abundance and MIB concentration in ZXD Reservoir.

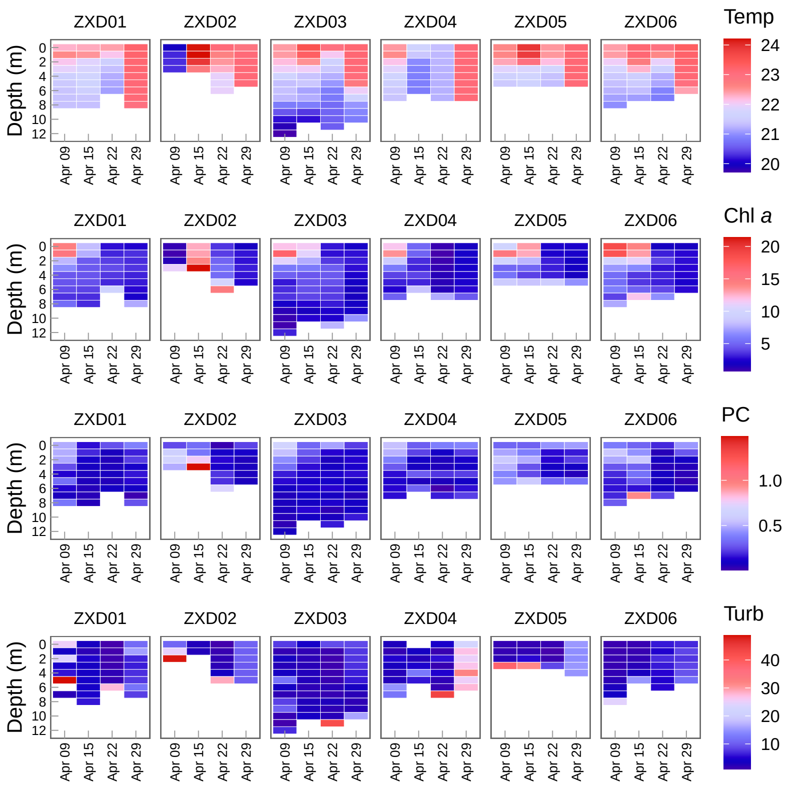

Fig. 8The vertical variation of water quality parameters in ZXD Reservoir during the investigation period (April 2021) (A: Temperature (Temp); B : Chlorophyll *a* (Chl *a*); C : Phycocyanin (PC); D : Turbidity (Turb).

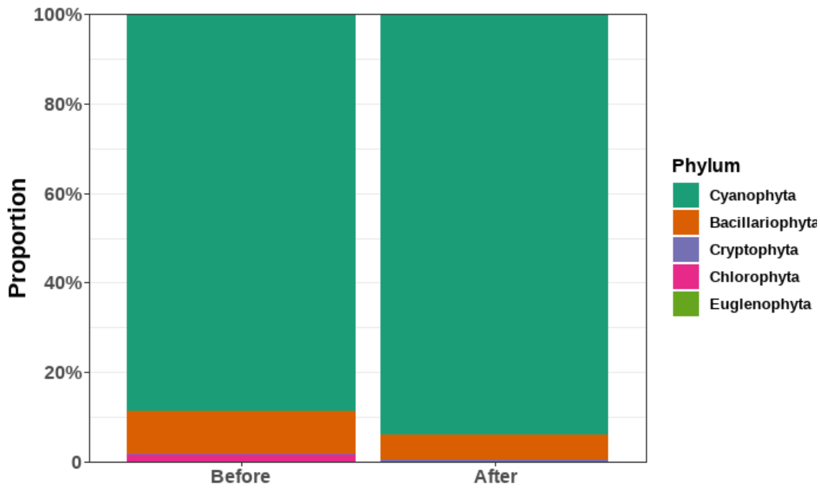

Fig. 9The phytoplankton phylum in ZXD Reservoir before and after HRT regulation

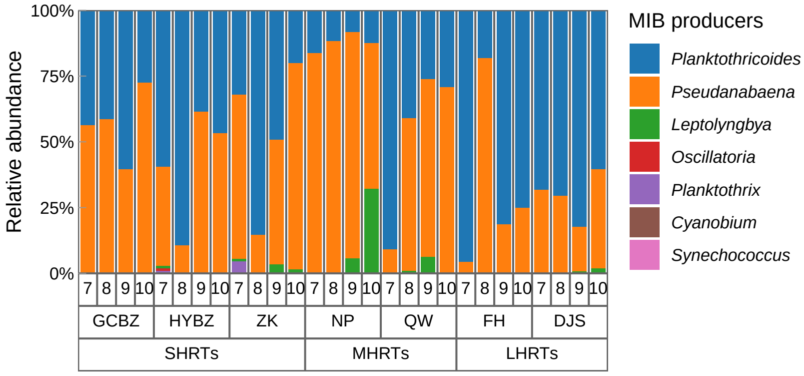

Fig. 10The MIB-producing cyanobacteria genus in Zhuhai water sources

To identify the MIB-producing cyanobacteria genera in Zhuhai, seven water sources (GCBZ, HYBZ, ..., FH,DJS) were select and water samples were collected from July to October, 2020 when there were MIB episode. The universal primer for MIB gene (*mic*) (Suruzzaman et al., 2022) was used to amplify samples genome and was Illumina MiSeq sequenced. The data was phylogenetic classification assigned using Silva 128 database. The result declared that the MIB-producers in Zhuhai was *Pseudanabaena* and *Planktothricoides* with the later more abundant.

Table 1Sampling description

Reservoir	Sampling	Time	Sites	Layers	Frequency
NP	Routine	Mar., 2017~Dec., 2020	NP03	Surface (0.5 m)	monthly
NP	MIB episodes	Jul., 2017	NP01, NP02, …, NP06	Surface (0.5 m)	daily
NP	MIB episodes	Apr., 2018	NP01, NP02, …, NP06	Surface (0.5 m)	daily
ZXD	MIB episodes	Mar. ~ Apr. , 2021	ZXD01, ZXD02, …,ZXD06	Surface (0.5 m)	daily
ZXD	MIB episodes	Apr. , 2021	ZXD01	Surface (0.5 m), middle (3 m), bottom (5~7 m)	weekly
ZXD	MIB episodes	Apr. , 2021	ZXD02	Surface (0.5 m), middle (2 m), bottom (3~5 m)	weekly
ZXD	MIB episodes	Apr. , 2021	ZXD03	Surface (0.5 m), middle (5 m), bottom (10~11 m)	weekly
ZXD	MIB episodes	Apr. , 2021	ZXD04	Surface (0.5 m), middle (3 m), bottom (6~7 m)	weekly

Reservoir	Sampling	Time	Sites	Layers	Frequency
ZXD	MIB episodes	Apr. , 2021	ZXD05	Surface (0.5 m), middle (2.5 m), bottom (5~6 m)	weekly
ZXD	MIB episodes	Apr. , 2021	ZXD06	Surface (0.5 m), middle (3.5 m), bottom (6~8 m)	weekly

Table 2Light intensity for all sets was 54 μmol $m^{-2}s^{-1}$, and culture temperature was 30 °C; 10 samplings were performed for each set. The lab experiment design to investigate the effect of hydraulic residence time to *P. raciborskii* growth is shown in the table above.

ID	**HRT (d)**	**Flowrate (L d^{-1})**
I	2	4.5
II	5	1.8
III	10	0.9
IV	20	0.45
V	40	0.225
VI	80	0.113

The raw NP Reservoir was first collected and transported to laboratory, then filtered using glass fiber membrane (0.7 μm)to remove phytoplankton, the filtrate was further sterilized to remove microorganisms that may produce MIB, such as actinomycetes. Then fill the 9 L culture barrels with this sterilized solution and the rest served as the dilution solution was stored and aerated in the black storage bucket to minimize potential MIB accumulation. The enriched pure *P. raciborskii* was first filtered using polyester fiber membrane (1.2 μm, Millipore, USA) to remove excess nutrients from the original culture solution and washed 3 times with ultrapure water. Then *P. raciborskii* was cultured into the culture barrels at cell density of 1× 10^7 cell L^{-1} with three replicates, the temperature and light intensity were 30 °C and 54 μmol photon m^{-2} s^{-1}. The residence time setting (2, 5, 10, 20, 40, 80 day) in different barrels was achieved by adjusting the flow rate (4.5, 1.8, 0.9, 0.45, 0.225, 0.113 L d^{-1}) of dilution solution pumped from the storage bucket. The 20 mL (10 mL for each sampling port and mixed into 20 mL) samples were taken every two days for odor compounds concentration and cell density quantification, the whole experiment was last for 19 days.

Table 3The main water quality parameter in NP Reservoir (2017 ~ 2020, all values are expressed as mean values with standard deviations, variance analysis were performed to compare the differences (n = 71).).

Parameter	**Spring**	**Summer**	**Fall**	**Winter**	***p*-value**
MIB_t (ng L^{-1})	27.1 ± 25.9	35.5 ± 36.1	9.27 ± 11.2	9.78 ± 11.2	$p = 0.0334$
GSM_t (ng L^{-1})	1.0 ± 0.0	2.9 ± 2.6	3.7 ± 2.9	1.9 ± 1.5	$p = 0.0425$
Temp. (°C)	22.5 ± 2.3	26.5 ± 1.3	25.1 ± 2.5	20.8 ± 3.7	$p < 0.0001$
TP (μg L^{-1})	41 ± 27	22 ± 13	36 ± 26	48 ± 44	$p = 0.1863$
TN (μg L^{-1})	1470 ± 167	1370 ± 500	1500 ± 455	1710 ± 357	$p = 0.3051$
TOC (mg L^{-1})	1.65 ± 0.16	1.76 ± 0.49	1.49 ± 0.29	1.40 ± 0.22	$p = 0.0565$
pH	8.5 ± 0.4	8.6 ± 0.5	8.1 ± 0.4	8.0 ± 0.4	$p = 0.0023$
NO_3-N (μg L^{-1})	1030 ± 389	872 ± 404	1150 ± 301	1410 ± 250	$p = 0.0065$
NH_4-N (μg L^{-1})	193 ± 77	159 ± 123	155 ± 123	94 ± 83	$p = 0.2090$
DO (mg L^{-1})	6.5 ± 1.5	6.6 ± 1.3	7.2 ± 1.4	7.3 ± 1.6	$p = 0.4690$
COD (mg L^{-1})	5.3 ± 1.4	6.1 ± 2.7	5.6 ± 1.9	5.2 ± 2.2	$p = 0.7364$
Phytoplankton (×10^6 cell L^{-1})	39.7 ± 38.2	54.1 ± 48.8	13.6 ± 19.6	9.6 ± 15.4	$p = 0.0084$
HRT (d)	25.8 ± 13.8	15.3 ± 3.9	16.8 ± 2.8	21.8 ± 5.7	$p = 0.0092$

Table 4The MIB-producing cyanobacteria genera identified by *mic* sequence in NP Reservoir

Phylum	**Order**	**Genus**	**July**	**August**
Cyanobacteria	Synechococcales	*Pseudanabaena*	83.6 %	88.3 %
Cyanobacteria	Oscillatoriales	*Planktothricoides*	16.4 %	11.7%

To identify the MIB-producing cyanobacteria genera in NP Reservoir, water samples were collected in July and August, 2020 when serious MIB episode occurred. The universal primer for MIB gene (*mic*) (Suruzzaman et al., 2022) was used to amplify samples genome and was Illumina MiSeq sequenced. The data was phylogenetic classification assigned using Silva 128 database. The result declared that the MIB-producers in NP Reservoir was *Pseudanabaena* and *Planktothricoides*.

Table 5The differences of main limnological parameters characteristics between the periods with and without MIB episodes (MIB > 10 ng L^{-1}), all values are expressed as mean values with standard deviations, variance analysis were performed to compare the differences (n = 45).

Parameters	**MIB episodes**	**No MIB episodes**	***p*-value**
MIB_t (ng L^{-1})	56.1 ± 26.2	8.3 ± 8.9	$p < 0.0001$
GSM_t (ng L^{-1})	3.2 ± 2.6	2.3 ± 2.2	$p = 0.2721$
Temp. (°C)	24.9 ± 3.2	23.2 ± 3.4	$p = 0.1632$
TP (μg L^{-1})	33 ± 26	38 ± 33	$p = 0.6973$
TOC (mg L^{-1})	1.68 ± 0.40	1.55 ± 0.33	$p = 0.2857$
TN (μg L^{-1})	1505 ± 442	1523 ± 403	$p = 0.8980$
pH	8.3 ± 0.5	8.2 ± 0.5	$p = 0.5538$
NO_3-N (μg L^{-1})	972 ± 277	1165 ± 408	$p = 0.1570$
NH_4-N (μg L^{-1})	151 ± 119	149 ± 107	$p = 0.9675$
DO (mg L^{-1})	6.1 ± 1.4	7.2 ± 1.4	$p = 0.0257$
COD (mg L^{-1})	5.6 ± 2.6	5.5 ± 1.8	$p = 0.8614$
Phytoplankton (×10^6 cell L^{-1})	62.3 ± 52.1	18.1 ± 24.9	$p = 0.0008$
HRT (d)	20.2 ± 5.5	20.2 ± 9.8	$p = 0.9987$

Table 6The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus	ρ_{10}	ρ_{50}	ρ_{90}
Synechococcus	0.17	0.72	3.06
Limnothrix	0.18	0.47	0.70
Planktothrix	0.16	0.44	0.71
Aphanizomenon	0.24	0.42	0.89
Cylindrospermopsis	0.14	0.36	0.74
Plectonema	0.11	0.34	2.06
Microcystis	0.10	0.33	0.67
Planktothricoides	0.17	0.33	1.18
Microcoleus	0.17	0.29	1.25
Oscillatoria	0.09	0.26	0.64
Dolichospermum	0.10	0.20	0.99
Pseudanabaena	0.03	0.20	0.25
Phormidium	0.09	0.20	0.31
Lyngbya	0.05	0.15	0.27

The table above exhibits the growth rates of 14 typical cyanobacterial genera based on 1480 records from the references, where ρ_{10}, ρ_{50} and ρ_{90} represent the 10th, 50th and 90th quantile values of the corresponding cyanobacterial genera growth rates, respectively. The raw data for these cyanobacterial growth rates and the corresponding references are summarised in an additional excel sheet.

Table 7Main water quality parameters in ZXD reservoir during the investigation period (Apri 2021, n = 71), all values are expressed as mean values with standard deviations, variance analysis were performed to compare the differences.

Parameter	**Bottom**	**Middle**	**Surface**	***p*-value**
MIB_t (ng L^{-1})	13.2 ± 7.6	15.5 ± 10.3	17.2 ± 10.3	$p = 0.3651$
GSM_t (ng L^{-1})	4.6 ± 0.9	4.7 ± 0.2	4.8 ± 0.2	$p = 0.3885$
MIB_d (ng L^{-1})	10.0 ± 5.8	11.3 ± 5.4	11.7 ± 5.7	$p = 0.5733$
GSM_d (ng L^{-1})	6.3 ± 1.0	6.2 ± 0.8	6.2 ± 0.9	$p = 0.9785$
TN (μg L^{-1})	1587 ± 165	1629 ± 133	1626 ± 132	$p = 0.5374$
TP (μg L^{-1})	15 ± 4	15 ± 3	15 ± 2	$p = 0.7628$
NH_4-N (μg L^{-1})	80 ± 71	67 ± 56	73 ± 50	$p = 0.7645$
NO_3-N (μg L^{-1})	1438 ± 153	1441 ± 133	1435 ± 142	$p = 0.9866$
pH	8.4 ± 0.1	8.4 ± 0.1	8.4 ± 0.1	$p = 0.9002$
DO (mg L^{-1})	5.8 ± 2.2	7.7 ± 0.8	8.0 ± 0.5	$p < 0.0001$
Turb. (NTU)	17.2 ± 39.8	5.5 ± 6.3	4.7 ± 5.4	$p = 0.1245$
Temp. (°C)	21.5 ± 1.0	22.2 ± 0.8	22.8 ± 0.8	$p < 0.0001$
Salinity (psu)	0.16 ± 0.01	0.16 ± 0.01	0.16 ± 0.01	$p = 0.5897$
Cond. (μs cm^{-1})	342.9 ± 20.4	337.4 ± 15.4	337.9 ± 13.9	$p = 0.4739$
TDS (mg L^{-1})	221.5 ± 13.1	218.1 ± 10.0	218.8 ± 8.9	$p = 0.5300$
Chl *a* (μg L^{-1})	7.3 ± 14.8	7.8 ± 13.1	7.3 ± 6.3	$p = 0.9861$

Parameter	Bottom	Middle	Surface	***p*-value**
PC (μg L^{-1})	0.1 ± 0.22	0.2 ± 0.2	0.3 ± 0.2	p = 0.0191
ORP (mv)	-75.4 ± 214.4	-75.9 ± 214.4	-81.3 ± 216.0	p = 0.9946

Table 8Main water quality in surface layer ZXD reservoir during the investigation period (Apri 2021, n = 71), all values are expressed as mean values with standard deviations, variance analysis were performed to compare the differences.

Parameter	**ZXD01**	**ZXD02**	**ZXD03**	**ZXD04**	**ZXD05**	**ZXD06**	***p*-value**
MIB_t (ng L^{-1})	16.3 ± 9.0	12.1 ± 9.2	16.9 ± 8.8	11.8 ± 11.0	16.4 ± 9.3	18.2 ± 9.8	$p = 0.4704$
GSM_t (ng L^{-1})	4.8 ± 0.3	4.7 ± 0.1	4.7 ± 0.1	4.4 ± 1.1	4.8 ± 0.2	4.7 ± 0.2	$p = 0.3951$
MIB_d (ng L^{-1})	11.1 ± 4.0	8.9 ± 5.9	11.2 ± 5.3	10.5 ± 7.3	12.4 ± 6.3	12.0 ± 4.8	$p = 0.7544$
GSM_d (ng L^{-1})	6.9 ± 0.5	5.8 ± 0.7	5.9 ± 0.8	6.6 ± 1.0	6.2 ± 0.8	6.0 ± 1.1	$p = 0.0105$
TN (µg L^{-1})	1620 ± 62	1649 ± 136	1548 ± 137	1640 ± 203	1608 ± 160	1625 ± 131	$p = 0.6064$
TP (µg L^{-1})	15 ± 3	15 ± 3	14 ± 4	14 ± 3	16 ± 3	15 ± 3	$p = 0.8021$
NH_4-N (µg L^{-1})	67 ± 59	71 ± 76	70 ± 59	81 ± 45	75 ± 67	74 ± 57	$p = 0.9955$
NO_3-N (µg L^{-1})	1422 ± 63	1491 ± 110	1366 ± 166	1495 ± 189	1442 ± 145	1418 ± 120	$p = 0.2115$
pH	8.4 ± 0.1	8.4 ± 0.1	8.4 ± 0.1	8.4 ± 0.1	8.4 ± 0.1	8.4 ± 0.1	$p = 0.9492$
DO (mg L^{-1})	7.6 ± 0.8	7.2 ± 1.3	6.1 ± 2.8	7.3 ± 1.3	7.7 ± 0.9	7.2 ± 1.7	$p = 0.1643$
Turb. (NTU)	3.2 ± 2.0	29.5 ± 55.1	3.0 ± 2.6	7.9 ± 9.9	4.9 ± 5.4	7.4 ± 10.0	$p = 0.0593$
Temp. (°C)	22.3 ± 0.8	22.2 ± 1.4	21.8 ± 1.2	21.9 ± 0.9	22.5 ± 0.8	22.2 ± 0.9	$p = 0.6057$
Salinity (psu)	0.16 ± 0.01	0.16 ± 0.01	0.17 ± 0.01	0.16 ± 0.01	0.16 ± 0.01	0.16 ± 0.01	$p = 0.4115$
Cond. (µs cm^{-1})	332.0 ± 18.2	343.1 ± 17.2	344.6 ± 19.1	336.3 ± 16.2	341.4 ± 14.0	339.2 ± 15.2	$p = 0.4689$
TDS (mg L^{-1})	214.8 ± 11.6	221.7 ± 10.8	222.7 ± 12.1	217.3 ± 10.8	220.8 ± 8.9	219.3 ± 9.9	$p = 0.4936$
Chl *a* (µg L^{-1})	5.5 ± 3.9	18.4 ± 25.8	5.6 ± 5.5	4.2 ± 4.4	5.5 ± 4.8	6.6 ± 6.4	$p = 0.0352$

Parameter	**ZXD01**	**ZXD02**	**ZXD03**	**ZXD04**	**ZXD05**	**ZXD06**	***p*-value**
PC (µg L^{-1})	0.16 ± 0.16	0.30 ± 0.35	0.21 ± 0.21	0.17 ± 0.18	0.21 ± 0.17	0.22 ± 0.19	$p = 0.6865$
ORP (mv)	-111.9 ± 232.9	-88.6 ± 228.1	-78.2 ± 223.5	-62.3 ± 209.4	-69.5 ± 213.1	-55.7 ± 206.5	$p = 0.9911$
SD (cm)	163.3 ± 70.9	151.5 ± 69.8	160.0 ± 82.8	168.8 ± 106.9	150.0 ± 86.8	166.3 ± 76.0	$p = 0.9993$
z_{max} (m)	6.4 ± 1.3	4.5 ± 1.4	11.0 ± 0.5	6.7 ± 0.5	4.9 ± 0.3	7.0 ± 0.8	$p < 0.0001$

Table 9Main water quality variation before and after construction in reservoir (considering all three layers, n = 71), all values are expressed as mean values with standard deviations, variance analysis were performed to compare the differences.

Parameter	**Before**	**After**	***p*-value**
MIB_t (ng L^{-1})	22.2 ± 8.7	8.6 ± 3.7	$p < 0.0001$
GSM_t (ng L^{-1})	4.6 ± 0.8	4.7 ± 0.1	$p = 0.4035$
MIB_d (ng L^{-1})	14.8 ± 5.4	7.4 ± 2.5	$p < 0.0001$
GSM_d (ng L^{-1})	6.3± 1.0	6.2 ± 0.82	$p = 0.9307$
TN (µg L^{-1})	1563 ± 97	1664 ± 163	$p = 0.0023$
TP (µg L^{-1})	14 ± 2	15 ± 3	$p = 0.1520$
NH_4-N (µg L^{-1})	98 ± 60	48± 46	$p = 0.0002$
NO_3-N (µg L^{-1})	1368 ± 118	1507 ± 128	$p < 0.0001$
pH	8.4 ± 0.1	8.3± 0.1	$p < 0.0001$
DO (mg L^{-1})	6.8 ± 2.2	7.5 ± 0.9	$p = 0.0661$
Turb. (NTU)	6.0 ± 11.4	12.0 ± 31.0	$p = 0.2885$
Temp. (°C)	21.9 ± 1.1	22.4 ± 0.9	$p = 0.0490$
Salinity (psu)	0.17 ± 0.01	0.16 ± 0.01	$p < 0.0001$
Cond. (µs cm^{-1})	351.5 ± 12.4	327.6 ± 10.9	$p < 0.0001$
TDS (mg L^{-1})	227.2 ± 7.8	211.9 ± 7.1	$p < 0.0001$
Chl *a* (µg L^{-1})	11.3 ± 14.5	3.7 ± 6.5	$p = 0.0053$

Parameter	**Before**	**After**	***p*-value**
PC (μg L^{-1})	0.30 ± 0.25	0.12 ± 0.11	$p = 0.0001$
ORP (mv)	41.3 ± 18.6	-193.2 ± 248	$p < 0.0001$
SD (cm)	157.5 ± 19.1	162.4 ± 105.1	$p = 0.8748$
z_{mix} (m)	4.0 ± 0.9	4.7 ± 2.8	$p = 0.7552$
z_{max} (m)	6.7 ± 2.6	6.8 ± 2.1	$p = 0.9401$
HRT (day)	18.0 ± 2.2	5.4 ± 0.8	$p < 0.0001$

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Aphanizomenon aphanizomenoides			28.8	0.36	(Mehnert et al., 2010)
Aphanizomenon flos-aquae			25.0	1.11	(Foy et al., 1976)
Aphanizomenon flos-aquae			22.0	0.16	(Lehtimaki et al., 1997)
Aphanizomenon flos-aquae			24.7	0.27	(Mehnert et al., 2010)
Aphanizomenon flos-aquae			30.0	0.22	(Rapala et al., 1993)
Aphanizomenon flos-aquae			23.0	0.90	(Tsujimura et al., 2001)
Aphanizomenon gracile			27.1	0.29	(Mehnert et al., 2010)
Aphanizomenon gracile			20.0	0.42	(Lürling et al., 2013)
Aphanizomenon gracile			25.0	0.58	(Lürling et al., 2013)
Aphanizomenon gracile			37.5	0.81	(Lürling et al., 2013)
Aphanizomenon gracile			12.5	0.75	(Lürling et al., 2013)
Aphanizomenon gracile			27.5	0.87	(Lürling et al., 2013)
Aphanizomenon gracile			37.5	0.85	(Lürling et al., 2013)
Aphanizomenon ovalisporum			32.8	0.36	(Mehnert et al., 2010)
Aphanizomenon sp.			25.0	0.28	(Konopka and Brock, 1978)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii ACT-9502	Z8	10.0	25.0	0.28	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	22.0	25.0	0.45	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	26.0	25.0	0.54	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	42.0	25.0	0.57	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	55.0	25.0	0.60	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	60.0	25.0	0.60	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	70.0	25.0	0.65	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	90.0	25.0	0.66	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii ACT-9502	Z8	110.0	25.0	0.69	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	145.0	25.0	0.62	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	175.0	25.0	0.65	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	220.0	25.0	0.63	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	295.0	25.0	0.61	(Briand et al., 2004)
Cylindrospermopsis raciborskii ACT-9502	Z8	390.0	25.0	0.54	(Briand et al., 2004)
Cylindrospermopsis raciborskii C1	Modified JM	10.0	20.0	0.20	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	10.0	20.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	10.0	20.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	10.0	28.0	0.22	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii C1	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	30.0	20.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	30.0	20.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	30.0	20.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	30.0	28.0	0.43	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	30.0	28.0	0.42	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	30.0	28.0	0.45	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	50.0	20.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	50.0	20.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	50.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	50.0	28.0	0.49	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	50.0	28.0	0.53	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	50.0	28.0	0.47	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	100.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	100.0	20.0	0.30	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii C1	Modified JM	100.0	20.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	100.0	28.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	100.0	28.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C1	Modified JM	100.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	10.0	20.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	10.0	20.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	10.0	20.0	0.23	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	10.0	28.0	0.22	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	30.0	20.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	30.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	30.0	20.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	30.0	28.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	30.0	28.0	0.31	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	30.0	28.0	0.26	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii C3	Modified JM	50.0	20.0	0.41	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	50.0	20.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	50.0	20.0	0.44	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	50.0	28.0	0.60	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	50.0	28.0	0.62	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	50.0	28.0	0.69	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	100.0	20.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	100.0	20.0	0.41	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	100.0	20.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	100.0	28.0	0.33	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	100.0	28.0	0.43	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C3	Modified JM	100.0	28.0	0.39	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	10.0	20.0	0.18	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	10.0	20.0	0.15	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	10.0	20.0	0.18	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	10.0	28.0	0.20	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii C6	Modified JM	10.0	28.0	0.20	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	30.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	30.0	20.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	30.0	20.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	30.0	28.0	0.31	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	30.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	30.0	28.0	0.33	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	50.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	50.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	50.0	20.0	0.31	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	50.0	28.0	0.38	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	50.0	28.0	0.35	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	50.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	100.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	100.0	20.0	0.32	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii C6	Modified JM	100.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	100.0	28.0	0.44	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	100.0	28.0	0.44	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C6	Modified JM	100.0	28.0	0.47	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	10.0	20.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	10.0	20.0	0.20	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	10.0	20.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	10.0	28.0	0.20	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	10.0	28.0	0.24	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	10.0	28.0	0.23	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	30.0	28.0	0.41	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	30.0	28.0	0.41	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	30.0	28.0	0.43	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	50.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii C9	Modified JM	50.0	28.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	50.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii C9	Modified JM	50.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii CIRF-01			20.0	0.40	(Lürling et al., 2013)
Cylindrospermopsis raciborskii CIRF-01			25.0	0.74	(Lürling et al., 2013)
Cylindrospermopsis raciborskii CIRF-01			22.5	0.81	(Lürling et al., 2013)
Cylindrospermopsis raciborskii CIRF-01			27.5	NA	(Lürling et al., 2013)
Cylindrospermopsis raciborskii CIRF-01			40.0	0.79	(Lürling et al., 2013)
Cylindrospermopsis raciborskii CIRF-01			15.0	0.72	(Lürling et al., 2013)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	20.0	0.56	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	25.0	0.98	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	30.0	1.04	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	35.0	0.87	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	20.0	0.63	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	25.0	1.20	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	30.0	1.28	(Saker and Griffiths, 2000)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	35.0	0.92	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	20.0	0.49	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	25.0	0.76	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	30.0	0.80	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR1	ASM-1	50.0	35.0	0.81	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	20.0	0.41	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	25.0	1.09	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	30.0	1.00	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	35.0	0.81	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	20.0	0.47	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	25.0	1.30	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	30.0	1.07	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	35.0	0.87	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	20.0	0.33	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	25.0	0.87	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	30.0	0.95	(Saker and Griffiths, 2000)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii CR2	ASM-1	50.0	35.0	0.75	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	20.0	0.00	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	25.0	0.45	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	30.0	0.54	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	35.0	0.45	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	20.0	0.00	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	25.0	0.70	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	30.0	0.59	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	35.0	0.46	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	20.0	0.00	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	25.0	0.20	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	30.0	0.54	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR3	ASM-1	50.0	35.0	0.46	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	20.0	0.51	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	25.0	0.87	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	30.0	1.06	(Saker and Griffiths, 2000)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	35.0	0.71	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	20.0	0.79	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	25.0	1.23	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	30.0	1.17	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	35.0	0.93	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	20.0	0.24	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	25.0	0.52	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	30.0	0.94	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR4	ASM-1	50.0	35.0	0.48	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	20.0	0.30	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	25.0	0.91	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	30.0	1.22	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	35.0	1.11	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	20.0	0.36	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	25.0	1.07	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	30.0	1.28	(Saker and Griffiths, 2000)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	35.0	1.40	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	20.0	0.24	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	25.0	0.78	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	30.0	1.16	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR5	ASM-1	50.0	35.0	0.81	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	20.0	0.37	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	25.0	0.86	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	30.0	1.13	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	35.0	0.90	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	20.0	0.38	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	25.0	1.15	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	30.0	1.32	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	35.0	1.03	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	20.0	0.37	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	25.0	0.57	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	30.0	0.97	(Saker and Griffiths, 2000)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii CR6	ASM-1	50.0	35.0	0.75	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	20.0	0.45	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	25.0	0.70	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	30.0	1.18	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	35.0	1.18	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	20.0	0.50	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	25.0	0.70	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	30.0	1.39	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	35.0	1.49	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	20.0	0.39	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	25.0	0.69	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	30.0	0.96	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CR7	ASM-1	50.0	35.0	0.77	(Saker and Griffiths, 2000)
Cylindrospermopsis raciborskii CYP-026J	Z8	11.0	25.0	0.33	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii CYP-026J	Z8	22.0	25.0	0.49	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	38.0	25.0	0.61	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	45.0	25.0	0.62	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	52.0	25.0	0.64	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	58.0	25.0	0.73	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	60.0	25.0	0.60	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	68.0	25.0	0.69	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	135.0	25.0	0.73	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii CYP-026J	Z8	160.0	25.0	0.63	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	211.0	25.0	0.59	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	265.0	25.0	0.70	(Briand et al., 2004)
Cylindrospermopsis raciborskii CYP-026J	Z8	380.0	25.0	0.60	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	10.0	25.0	0.33	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	11.0	25.0	0.26	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	22.0	25.0	0.47	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	50.0	25.0	0.73	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	70.0	25.0	0.73	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	90.0	25.0	0.74	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	110.0	25.0	0.79	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	145.0	25.0	0.71	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii ITEP-A3	Z8	180.0	25.0	0.74	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	225.0	25.0	0.70	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	290.0	25.0	0.70	(Briand et al., 2004)
Cylindrospermopsis raciborskii ITEP-A3	Z8	400.0	25.0	0.56	(Briand et al., 2004)
Cylindrospermopsis raciborskii MVCC14	BG11	5.0	26.0	0.12	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	15.0	26.0	0.35	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	35.0	26.0	0.49	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	45.0	26.0	0.53	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	60.0	26.0	0.54	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	80.0	26.0	0.59	(Bonilla et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii MVCC14	BG11	78.0	26.0	0.65	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	100.0	26.0	0.71	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	125.0	26.0	0.39	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	150.0	26.0	0.73	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	5.0	26.0	0.23	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	15.0	26.0	0.45	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	35.0	26.0	0.53	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	70.0	26.0	0.50	(Bonilla et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii MVCC14	BG11	80.0	26.0	0.69	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	78.0	26.0	0.87	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	100.0	26.0	0.59	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	110.0	26.0	0.51	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	150.0	26.0	0.46	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	5.0	26.0	0.14	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	15.0	26.0	0.40	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	35.0	26.0	0.58	(Bonilla et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii MVCC14	BG11	45.0	26.0	0.45	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	75.0	26.0	0.65	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	80.0	26.0	0.76	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	125.0	26.0	0.38	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	100.0	26.0	0.74	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	70.0	26.0	0.55	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	145.0	26.0	0.53	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	5.0	26.0	0.18	(Bonilla et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii MVCC14	BG11	35.0	26.0	0.52	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	45.0	26.0	0.46	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	90.0	26.0	0.57	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	100.0	26.0	0.72	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	120.0	26.0	0.73	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii MVCC14	BG11	145.0	26.0	0.50	(Bonilla et al., 2012)
Cylindrospermopsis raciborskii PMC117.02	Z8	10.0	25.0	0.26	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	15.0	25.0	0.33	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii PMC117.02	Z8	22.0	25.0	0.47	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	32.0	25.0	0.39	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	36.0	25.0	0.59	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	40.0	25.0	0.45	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	85.0	25.0	0.45	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	117.0	25.0	0.50	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	145.0	25.0	0.54	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	178.0	25.0	0.56	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii PMC117.02	Z8	210.0	25.0	0.57	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	245.0	25.0	0.56	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	290.0	25.0	0.57	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	360.0	25.0	0.55	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	400.0	25.0	0.56	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC117.02	Z8	486.0	25.0	0.54	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	10.0	25.0	0.37	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	22.0	25.0	0.50	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii PMC98.14	Z8	26.0	25.0	0.64	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	42.0	25.0	0.67	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	51.0	25.0	0.68	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	55.0	25.0	0.68	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	75.0	25.0	0.70	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	86.0	25.0	0.72	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	110.0	25.0	0.64	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	125.0	25.0	0.64	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii PMC98.14	Z8	165.0	25.0	0.68	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	200.0	25.0	0.65	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	280.0	25.0	0.64	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	380.0	25.0	0.54	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	30.0	15.0	0.08	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	30.0	20.0	0.25	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	30.0	25.0	0.41	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	30.0	30.0	0.42	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii PMC98.14	Z8	30.0	35.0	0.38	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC98.14	Z8	30.0	40.0	0.17	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	10.0	25.0	0.32	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	22.0	25.0	0.44	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	42.0	25.0	0.53	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	26.0	25.0	0.49	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	51.0	25.0	0.54	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	60.0	25.0	0.56	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii PMC99.12	Z8	90.0	25.0	0.56	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	110.0	25.0	0.58	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	125.0	25.0	0.64	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	140.0	25.0	0.56	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	175.0	25.0	0.63	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	210.0	25.0	0.62	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	275.0	25.0	0.59	(Briand et al., 2004)
Cylindrospermopsis raciborskii PMC99.12	Z8	365.0	25.0	0.57	(Briand et al., 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WC01	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC01	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC01	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC02	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC02	Modified JM	15.0	28.0	0.17	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC02	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC03	Modified JM	15.0	28.0	0.22	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC03	Modified JM	15.0	28.0	0.21	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC03	Modified JM	15.0	28.0	0.20	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC03	Modified JM	10.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	10.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	10.0	20.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	30.0	20.0	0.18	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	30.0	20.0	0.20	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	30.0	20.0	0.19	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	10.0	28.0	0.23	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WC03	Modified JM	10.0	28.0	0.23	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	10.0	28.0	0.24	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	30.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	30.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	30.0	28.0	0.33	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	50.0	20.0	0.38	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	50.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	50.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	100.0	20.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	100.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	100.0	20.0	0.22	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	100.0	28.0	0.43	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC03	Modified JM	100.0	28.0	0.44	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WC03	Modified JM	100.0	28.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC04	Modified JM	15.0	28.0	0.17	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC04	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC04	Modified JM	15.0	28.0	0.19	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC05	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC05	Modified JM	15.0	28.0	0.17	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC05	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC05	Modified JM	10.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	10.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	10.0	20.0	0.28	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	30.0	20.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	30.0	20.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	30.0	20.0	0.24	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	10.0	28.0	0.22	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	10.0	28.0	0.22	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	10.0	28.0	0.22	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WC05	Modified JM	30.0	28.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	30.0	28.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	30.0	28.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	50.0	20.0	0.28	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	50.0	20.0	0.28	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	50.0	20.0	0.24	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	50.0	28.0	0.25	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	50.0	28.0	0.28	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	50.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	100.0	20.0	0.39	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	100.0	20.0	0.41	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	100.0	20.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	100.0	28.0	0.39	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	100.0	28.0	0.38	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC05	Modified JM	100.0	28.0	0.33	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC06	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WC06	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC06	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC07	Modified JM	15.0	28.0	0.22	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC07	Modified JM	15.0	28.0	0.21	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC07	Modified JM	15.0	28.0	0.20	(Willis et al., 2016)
Cylindrospermopsis raciborskii WC09	Modified JM	10.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	10.0	20.0	0.31	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	10.0	20.0	0.31	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	30.0	20.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	30.0	20.0	0.28	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	30.0	20.0	0.35	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	10.0	28.0	0.25	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	10.0	28.0	0.22	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	10.0	28.0	0.20	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	30.0	28.0	0.35	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	30.0	28.0	0.36	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WC09	Modified JM	30.0	28.0	0.33	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	50.0	20.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	50.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	50.0	20.0	0.33	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	50.0	28.0	0.35	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	50.0	28.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	50.0	28.0	0.38	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	100.0	20.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	100.0	20.0	0.20	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	100.0	20.0	0.22	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	100.0	28.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	100.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WC09	Modified JM	100.0	28.0	0.35	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	15.0	28.0	0.12	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS01	Modified JM	15.0	28.0	0.13	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS01	Modified JM	15.0	28.0	0.11	(Willis et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WS01	Modified JM	10.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	10.0	20.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	10.0	20.0	0.19	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	10.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	10.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	10.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	30.0	20.0	0.21	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	30.0	20.0	0.28	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	30.0	20.0	0.28	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	30.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	30.0	28.0	0.40	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	30.0	28.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	50.0	20.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	50.0	20.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	50.0	20.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WS01	Modified JM	50.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	50.0	28.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	100.0	20.0	0.45	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	100.0	20.0	0.46	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	100.0	20.0	0.45	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	100.0	28.0	0.39	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	100.0	28.0	0.44	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS01	Modified JM	100.0	28.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS02	Modified JM	15.0	28.0	0.10	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS02	Modified JM	15.0	28.0	0.12	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS02	Modified JM	15.0	28.0	0.08	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS03	Modified JM	15.0	28.0	0.13	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS03	Modified JM	15.0	28.0	0.17	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS03	Modified JM	15.0	28.0	0.21	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS04	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS04	Modified JM	15.0	28.0	0.21	(Willis et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WS04	Modified JM	15.0	28.0	0.09	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS05	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS05	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS05	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS05	Modified JM	10.0	20.0	0.17	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	10.0	20.0	0.16	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	10.0	20.0	0.17	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	10.0	28.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	10.0	28.0	0.34	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	10.0	28.0	0.24	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	30.0	20.0	0.27	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	30.0	20.0	0.26	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	30.0	20.0	0.29	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	30.0	28.0	0.33	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	30.0	28.0	0.37	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	30.0	28.0	0.42	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WS05	Modified JM	50.0	20.0	0.31	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	50.0	20.0	0.30	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	50.0	20.0	0.32	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	50.0	28.0	0.42	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	50.0	28.0	0.41	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	50.0	28.0	0.41	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	100.0	20.0	0.35	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	100.0	20.0	0.38	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	100.0	20.0	0.36	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	100.0	28.0	0.49	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	100.0	28.0	0.51	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS05	Modified JM	100.0	28.0	0.51	(Xiao et al., 2017)
Cylindrospermopsis raciborskii WS06	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS06	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS06	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS07	Modified JM	15.0	28.0	0.10	(Willis et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WS07	Modified JM	15.0	28.0	0.11	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS07	Modified JM	15.0	28.0	0.12	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS08	Modified JM	15.0	28.0	0.11	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS08	Modified JM	15.0	28.0	0.12	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS08	Modified JM	15.0	28.0	0.10	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS09	Modified JM	15.0	28.0	0.12	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS09	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS09	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS10	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS10	Modified JM	15.0	28.0	0.13	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS10	Modified JM	15.0	28.0	0.12	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS11	Modified JM	15.0	28.0	0.13	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS11	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS11	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS12	Modified JM	15.0	28.0	0.19	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS12	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii WS12	Modified JM	15.0	28.0	0.17	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS13	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS13	Modified JM	15.0	28.0	0.17	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS13	Modified JM	15.0	28.0	0.19	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS14	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS14	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS14	Modified JM	15.0	28.0	0.13	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS15	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS15	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS15	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS16	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS16	Modified JM	15.0	28.0	0.17	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS16	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS17	Modified JM	15.0	28.0	0.14	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS17	Modified JM	15.0	28.0	0.15	(Willis et al., 2016)
Cylindrospermopsis raciborskii WS17	Modified JM	15.0	28.0	0.16	(Willis et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii floridaD	WC	100.0	15.0	-0.08	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	15.0	-0.08	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	15.0	-0.10	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	15.0	-0.09	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	20.0	0.17	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	20.0	0.17	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	20.0	0.16	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	20.0	0.17	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii floridaD	WC	100.0	25.0	0.40	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	30.0	0.53	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	30.0	0.52	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	30.0	0.51	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	30.0	0.52	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii floridaD	WC	100.0	35.0	0.45	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	35.0	0.44	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	35.0	0.43	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaD	WC	100.0	35.0	0.45	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	15.0	-0.04	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	15.0	-0.03	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	15.0	-0.01	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	15.0	-0.02	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	20.0	0.14	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	20.0	0.13	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	20.0	0.12	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	20.0	0.12	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii floridaE	WC	100.0	30.0	0.49	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	30.0	0.47	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	30.0	0.45	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	30.0	0.46	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	40.0	-0.03	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	40.0	-0.05	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	40.0	-0.07	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	40.0	-0.05	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	35.0	0.33	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	35.0	0.32	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	35.0	0.32	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii floridaE	WC	100.0	35.0	0.36	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	15.0	-0.04	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	15.0	-0.02	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	15.0	-0.03	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	15.0	-0.03	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii indiana	WC	100.0	20.0	0.24	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	20.0	0.23	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	20.0	0.21	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	20.0	0.20	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	25.0	0.38	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	25.0	0.36	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	25.0	0.37	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	25.0	0.36	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	35.0	0.53	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	35.0	0.50	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	35.0	0.45	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	35.0	0.48	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	30.0	0.51	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	30.0	0.50	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	30.0	0.48	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	30.0	0.49	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii indiana	WC	100.0	40.0	-0.10	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	40.0	-0.16	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	40.0	-0.13	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii indiana	WC	100.0	40.0	-0.12	(Thomas and Litchman, 2015)
Cylindrospermopsis raciborskii			30.0	0.00	(Briand et al., 2004)
Cylindrospermopsis raciborskii			29.0	0.60	(Briand et al., 2004)
Cylindrospermopsis raciborskii			31.0	0.70	(Briand et al., 2004)
Cylindrospermopsis raciborskii			30.0	0.40	(Briand et al., 2004)
Cylindrospermopsis raciborskii			29.0	0.60	(Briand et al., 2004)
Cylindrospermopsis raciborskii			29.0	0.80	(Briand et al., 2004)
Cylindrospermopsis raciborskii			29.0	0.70	(Briand et al., 2004)
Cylindrospermopsis raciborskii			31.0	0.40	(Briand et al., 2004)
Cylindrospermopsis raciborskii			30.0	0.50	(Briand et al., 2004)
Cylindrospermopsis raciborskii			30.0	0.50	(Briand et al., 2004)
Cylindrospermopsis raciborskii			27.8	0.34	(Mehnert et al., 2010)
Cylindrospermopsis raciborskii			28.0	0.58	(Saker et al., 1999)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Cylindrospermopsis raciborskii			32.0	0.71	(Soares et al., 2010)
Cylindrospermopsis raciborskii		133.4 ± 13.5	31.3 ± 19.0	0.77	(Xiao et al., 2020)
Dolichospermum aphanizomenoides			35.0	1.46	(Sabour et al., 2009)
Dolichospermum bergii			26.5	0.25	(Mehnert et al., 2010)
Dolichospermum circinalis Ana318	ASM	100.0	25.0	0.12	(Li et al., 2012)
Dolichospermum circinalis Ana318	ASM	10.0	25.0	0.11	(Li et al., 2012)
Dolichospermum circinalis Ana318	ASM	100.0	18.0	0.13	(Li et al., 2012)
Dolichospermum circinalis Ana318	ASM	10.0	18.0	0.12	(Li et al., 2012)
Dolichospermum flos-aquae			20.0	0.78	(Foy et al., 1976)
Dolichospermum flos-aquae			39.0	1.01	(Novak and Brune, 1985)
Dolichospermum flos-aquae			20.0	0.20	(Rapala et al., 1993)
Dolichospermum flos-aquae			20.0	0.19	(Rapala et al., 1993)
Dolichospermum macrospora			25.5	0.19	(Mehnert et al., 2010)
Dolichospermum mendotae			20.0	0.20	(Rapala et al., 1993)
Dolichospermum smithii	CT	60.0	28.0	0.21	(Shen et al., 2020)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Dolichospermum smithii	CT(N elevated)	60.0	28.0	0.22	(Shen et al., 2020)
Dolichospermum spiroides			24.0	0.77	(Seki et al., 1981)
Dolichospermum ucrainica CHAB 2155	CT	30.0	10.0	-0.04	(Wang and Li, 2015)
Dolichospermum ucrainica CHAB 2155	CT	30.0	25.0	0.09	(Wang and Li, 2015)
Dolichospermum ucrainica CHAB 2155	CT	30.0	35.0	0.10	(Wang and Li, 2015)
Dolichospermum ucrainica CHAB 2155	CT	10.0	25.0	0.08	(Wang and Li, 2015)
Dolichospermum ucrainica CHAB 2155	CT	60.0	25.0	0.10	(Wang and Li, 2015)
Dolichospermum ukrainica			26.0	0.78	(Tsujimura and Okubo, 2003)
Dolichospermum variabilis			35.0	1.20	(Kratz and Myers, 1955)
Dolichospermum variabilis			30.0	0.15	(Wang et al., 2007)
Dolichospermum sp.			25.0	0.13	(Konopka and Brock, 1978)
Dolichospermum sp.			32.0	1.25	(Nalewajko and Murphy, 2001)
Dolichospermum sp.			20.0	0.15	(Rapala et al., 1997)
Dolichospermum sp.			25.0	0.14	(Rapala et al., 1997)
Dolichospermum sp.			28.0	0.80	(Vincent and Silvester, 1979)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Dolichospermum sp. PCC7122			20.0	0.46	(Lürling et al., 2013)
Dolichospermum sp. PCC7122			25.0	0.93	(Lürling et al., 2013)
Dolichospermum sp. PCC7122			27.5	0.75	(Lürling et al., 2013)
Dolichospermum sp. PCC7122			30.0	NA	(Lürling et al., 2013)
Dolichospermum sp. PCC7122			32.5	0.53	(Lürling et al., 2013)
Dolichospermum sp. PCC7122			35.0	0.58	(Lürling et al., 2013)
Limnothrix redeckei	BG11	33.8 ~ 54.1	28.0	0.15	(Tiwari et al., 2001)
Limnothrix redekei	MV-NH4	120.0	10.0	0.17	(Nicklisch, 1999)
Limnothrix redekei	MV-NH4	120.0	15.0	0.53	(Nicklisch, 1999)
Limnothrix redekei				0.10	(Nicklisch, 1992)
Limnothrix redekei		24.0	15.0	0.52	(Shatwell et al., 2012)
Limnothrix redekei		32.0	15.0	0.37	(Shatwell et al., 2012)
Limnothrix redekei		27.0	15.0	0.31	(Shatwell et al., 2012)
Limnothrix redekei			15.0	0.21	(Shatwell et al., 2012)
Limnothrix redekei			15.0	0.22	(Shatwell et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Limnothrix redekei			10.0	0.32	(Shatwell et al., 2012)
Limnothrix redekei			20.0	0.70	(Shatwell et al., 2012)
Limnothrix redekei			10.0	0.22	(Shatwell et al., 2012)
Limnothrix redekei			20.0	0.51	(Shatwell et al., 2012)
Limnothrix redekei	Modified MIV	122.0	20.0	0.47	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	75.0	20.0	0.37	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	122.0	20.0	0.53	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	134.0	20.0	0.80	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	56.0	20.0	0.70	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	254.0	20.0	0.50	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	60.0	20.0	1.11	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	183.0	20.0	0.69	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	270.0	20.0	0.70	(Nicklisch, 1998)
Limnothrix redekei	Modified MIV	427.0	20.0	0.28	(Nicklisch, 1998)
Lyngbya dendrobia	BG11	33.8 ~ 54.1	28.0	0.06	(Tiwari et al., 2001)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Lyngbya kuetzinghii			25.0	0.14	(Zhang et al., 2009)
Lyngbya lachneri	BG11	33.8 ~ 54.1	28.0	0.08	(Tiwari et al., 2001)
Lyngbya majuscula				0.33	(Elmetri and Bell, 2004)
Lyngbya majuscula				0.25	(Elmetri and Bell, 2004)
Lyngbya majuscula				0.19	(Elmetri and Bell, 2004)
Lyngbya majuscula				0.14	(Elmetri and Bell, 2004)
Lyngbya majuscula				0.04	(Elmetri and Bell, 2004)
Lyngbya majuscula				0.05	(Elmetri and Bell, 2004)
Lyngbya nigra	BG11	33.8 ~ 54.1	28.0	0.18	(Tiwari et al., 2001)
Lyngbya palmarum	BG11	33.8 ~ 54.1	28.0	0.28	(Tiwari et al., 2001)
Lyngbya spiralis	BG11	33.8 ~ 54.1	28.0	0.22	(Tiwari et al., 2001)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Lyngbya truncicola	BG11	33.8 ~ 54.1	28.0	0.12	(Tiwari et al., 2001)
Microcoleus chthonoplastes MPI CHI-1	BG11	35.0	25.0	0.55	(Karsten, 1996)
Microcoleus chthonoplastes MPI CHI-1	BG11	35.0	25.0	0.47	(Karsten, 1996)
Microcoleus chthonoplastes MPI CHI-1	BG11	35.0	25.0	0.28	(Karsten, 1996)
Microcoleus chthonoplastes MPI EBD-1	BG11	35.0	25.0	0.24	(Karsten, 1996)
Microcoleus chthonoplastes MPI EBD-1	BG11	35.0	25.0	0.26	(Karsten, 1996)
Microcoleus chthonoplastes MPI EBD-1	BG11	35.0	25.0	0.18	(Karsten, 1996)
Microcoleus chthonoplastes MPI GN5-1	BG11	35.0	25.0	0.21	(Karsten, 1996)
Microcoleus chthonoplastes MPI GN5-1	BG11	35.0	25.0	0.23	(Karsten, 1996)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcoleus chthonoplastes MPI GN5-1	BG11	35.0	25.0	0.17	(Karsten, 1996)
Microcoleus chthonoplastes MPI GNL-1	BG11	35.0	25.0	0.23	(Karsten, 1996)
Microcoleus chthonoplastes MPI GNL-1	BG11	35.0	25.0	0.29	(Karsten, 1996)
Microcoleus chthonoplastes MPI GNL-1	BG11	35.0	25.0	0.24	(Karsten, 1996)
Microcoleus chthonoplastes MPI SOL-1	BG11	35.0	25.0	0.13	(Karsten, 1996)
Microcoleus chthonoplastes MPI SOL-1	BG11	35.0	25.0	0.17	(Karsten, 1996)
Microcoleus chthonoplastes MPI SOL-1	BG11	35.0	25.0	0.20	(Karsten, 1996)
Microcoleus chthonoplastes MPI SPW-1	BG11	35.0	25.0	0.29	(Karsten, 1996)
Microcoleus chthonoplastes MPI SPW-1	BG11	35.0	25.0	0.29	(Karsten, 1996)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcoleus chthonoplastes MPI SPW-1	BG11	35.0	25.0	0.18	(Karsten, 1996)
Microcoleus chthonoplastes MPI TOW-1	BG11	35.0	25.0	0.35	(Karsten, 1996)
Microcoleus chthonoplastes MPI TOW-1	BG11	35.0	25.0	0.35	(Karsten, 1996)
Microcoleus chthonoplastes MPI TOW-1	BG11	35.0	25.0	0.33	(Karsten, 1996)
Microcoleus chthonoplastes PCC 7420	BG11	35.0	25.0	0.42	(Karsten, 1996)
Microcoleus chthonoplastes PCC 7420	BG11	35.0	25.0	0.46	(Karsten, 1996)
Microcoleus chthonoplastes PCC 7420	BG11	35.0	25.0	0.21	(Karsten, 1996)
Microcoleus chthonoplastes UBM HID	BG11	35.0	25.0	0.42	(Karsten, 1996)
Microcoleus chthonoplastes UBM HID	BG11	35.0	25.0	0.35	(Karsten, 1996)
Microcoleus chthonoplastes UBM HID	BG11	35.0	25.0	0.25	(Karsten, 1996)
Microcoleus chthonoplastes UBM WIS	BG11	35.0	25.0	0.54	(Karsten, 1996)
Microcoleus chthonoplastes UBM WIS	BG11	35.0	25.0	0.46	(Karsten, 1996)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcoleus chthonoplastes UBM WIS	BG11	35.0	25.0	0.16	(Karsten, 1996)
Microcoleus chthonoplastes	BG11	33.8 ~ 54.1	28.0	0.20	(Tiwari et al., 2001)
Microcoleus paludosus	BG11	33.8 ~ 54.1	28.0	0.17	(Tiwari et al., 2001)
Microcoleus spp.				0.03	(Lababpour and Kaviani, 2016)
Microcoleus spp.				0.06	(Lababpour and Kaviani, 2016)
Microcoleus steenstrupii HS024				3.22	(Giraldo-Silva et al., 2019)
Microcoleus steenstrupii HS024				0.30	(Giraldo-Silva et al., 2019)
Microcoleus steenstrupii HS024				0.30	(Giraldo-Silva et al., 2019)
Microcoleus steenstrupii JS010				1.37	(Giraldo-Silva et al., 2019)
Microcoleus steenstrupii JS010				-1.00	(Giraldo-Silva et al., 2019)
Microcoleus steenstrupii JS010				14.80	(Giraldo-Silva et al., 2019)
Microcoleus vaginatus FB020				1.17	(Giraldo-Silva et al., 2019)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcoleus vaginatus FB020				1.80	(Giraldo-Silva et al., 2019)
Microcoleus vaginatus FB020				0.50	(Giraldo-Silva et al., 2019)
Microcoleus vaginatus HSN003				2.12	(Giraldo-Silva et al., 2019)
Microcoleus vaginatus HSN003				0.60	(Giraldo-Silva et al., 2019)
Microcoleus vaginatus HSN003				0.30	(Giraldo-Silva et al., 2019)
Microcoleus vaginatus			21.0	0.22	(Novak and Brune, 1985)
Microcystis aeruginosa CYA140			20.0	0.26	(Lürling et al., 2013)
Microcystis aeruginosa CYA140			25.0	0.77	(Lürling et al., 2013)
Microcystis aeruginosa CYA140			22.5	0.82	(Lürling et al., 2013)
Microcystis aeruginosa CYA140			27.5	0.94	(Lürling et al., 2013)
Microcystis aeruginosa CYA140			25.0	0.93	(Lürling et al., 2013)
Microcystis aeruginosa CYA140			30.0	0.70	(Lürling et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	15.0	0.29	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	15.0	0.31	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	15.0	0.30	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	20.0	0.51	(Marinho et al., 2013)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa FACHB469	BG11	30.0	20.0	0.53	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	20.0	0.54	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	25.0	0.56	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	25.0	0.55	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	25.0	0.56	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	30.0	0.72	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	30.0	0.68	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	30.0	0.66	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	35.0	0.79	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	35.0	0.77	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	30.0	35.0	0.78	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	10.0	25.0	0.33	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	10.0	25.0	0.31	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	10.0	25.0	0.29	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	15.0	25.0	0.35	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	15.0	25.0	0.33	(Marinho et al., 2013)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa FACHB469	BG11	15.0	25.0	0.35	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	25.0	25.0	0.43	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	25.0	25.0	0.42	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	25.0	25.0	0.43	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	40.0	25.0	0.62	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	40.0	25.0	0.62	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	40.0	25.0	0.63	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	50.0	25.0	0.63	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	50.0	25.0	0.63	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	50.0	25.0	0.62	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	55.0	25.0	0.63	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	55.0	25.0	0.62	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	55.0	25.0	0.63	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	60.0	25.0	0.69	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	60.0	25.0	0.70	(Marinho et al., 2013)
Microcystis aeruginosa FACHB469	BG11	60.0	25.0	0.69	(Marinho et al., 2013)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa FACHB469	BG11	25.0	20.0	0.33	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	25.0	20.0	0.34	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	25.0	20.0	0.32	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	30.0	20.0	0.41	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	30.0	20.0	0.39	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	30.0	20.0	0.37	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	35.0	20.0	0.42	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	35.0	20.0	0.41	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	35.0	20.0	0.40	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	40.0	20.0	0.44	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	40.0	20.0	0.46	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	40.0	20.0	0.43	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	45.0	20.0	0.52	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	45.0	20.0	0.54	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	45.0	20.0	0.50	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	50.0	20.0	0.53	(Li et al., 2014)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa FACHB469	BG11	50.0	20.0	0.55	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	50.0	20.0	0.51	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	55.0	20.0	0.56	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	55.0	20.0	0.58	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	55.0	20.0	0.53	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	60.0	20.0	0.56	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	60.0	20.0	0.55	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	60.0	20.0	0.58	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	25.0	25.0	0.52	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	25.0	25.0	0.54	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	25.0	25.0	0.51	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	30.0	25.0	0.54	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	30.0	25.0	0.56	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	30.0	25.0	0.53	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	35.0	25.0	0.56	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	35.0	25.0	0.57	(Li et al., 2014)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa FACHB469	BG11	35.0	25.0	0.54	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	40.0	25.0	0.60	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	40.0	25.0	0.61	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	40.0	25.0	0.58	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	45.0	25.0	0.60	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	45.0	25.0	0.61	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	45.0	25.0	0.59	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	50.0	25.0	0.61	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	50.0	25.0	0.62	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	50.0	25.0	0.60	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	55.0	25.0	0.62	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	55.0	25.0	0.63	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	55.0	25.0	0.61	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	60.0	25.0	0.63	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	60.0	25.0	0.65	(Li et al., 2014)
Microcystis aeruginosa FACHB469	BG11	60.0	25.0	0.62	(Li et al., 2014)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa FACHB905	Modified BG11	50.0	25.0	0.11	(Shen and Song, 2007)
Microcystis aeruginosa FACHB905	Modified BG11	50.0	25.0	0.11	(Shen and Song, 2007)
Microcystis aeruginosa FACHB905	Modified BG11	50.0	25.0	0.10	(Shen and Song, 2007)
Microcystis aeruginosa FACHB909	Modified BG11	50.0	25.0	0.18	(Shen and Song, 2007)
Microcystis aeruginosa FACHB909	Modified BG11	50.0	25.0	0.20	(Shen and Song, 2007)
Microcystis aeruginosa FACHB909	Modified BG11	50.0	25.0	0.15	(Shen and Song, 2007)
Microcystis aeruginosa FACHB938	Modified BG11	50.0	25.0	0.15	(Shen and Song, 2007)
Microcystis aeruginosa FACHB938	Modified BG11	50.0	25.0	0.16	(Shen and Song, 2007)
Microcystis aeruginosa FACHB938	Modified BG11	50.0	25.0	0.14	(Shen and Song, 2007)
Microcystis aeruginosa FACHB939	Modified BG11	50.0	25.0	0.13	(Shen and Song, 2007)
Microcystis aeruginosa FACHB939	Modified BG11	50.0	25.0	0.14	(Shen and Song, 2007)
Microcystis aeruginosa FACHB939	Modified BG11	50.0	25.0	0.13	(Shen and Song, 2007)
Microcystis aeruginosa FACHB942	Modified BG11	50.0	25.0	0.13	(Shen and Song, 2007)
Microcystis aeruginosa FACHB942	Modified BG11	50.0	25.0	0.14	(Shen and Song, 2007)
Microcystis aeruginosa FACHB942	Modified BG11	50.0	25.0	0.12	(Shen and Song, 2007)
Microcystis aeruginosa FACHB975	Modified BG11	50.0	25.0	0.17	(Shen and Song, 2007)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa FACHB975	Modified BG11	50.0	25.0	0.19	(Shen and Song, 2007)
Microcystis aeruginosa FACHB975	Modified BG11	50.0	25.0	0.21	(Shen and Song, 2007)
Microcystis aeruginosa GullB00	WC	100.0	15.0	0.05	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	15.0	0.04	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	15.0	0.03	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	15.0	0.04	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	20.0	0.16	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	20.0	0.15	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	20.0	0.14	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	20.0	0.15	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	25.0	0.36	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	25.0	0.35	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	25.0	0.34	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	25.0	0.35	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	30.0	0.37	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	30.0	0.35	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa GullB00	WC	100.0	30.0	0.36	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	30.0	0.36	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	35.0	-0.12	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	35.0	-0.14	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	35.0	-0.14	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullB00	WC	100.0	35.0	-0.13	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	15.0	0.06	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	15.0	0.04	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	15.0	0.03	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	15.0	0.04	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	20.0	0.13	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	20.0	0.11	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	20.0	0.10	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	20.0	0.12	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	25.0	0.38	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa GullK00	WC	100.0	25.0	0.37	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	25.0	0.38	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	30.0	0.40	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	30.0	0.38	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	30.0	0.37	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	30.0	0.38	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	35.0	-0.14	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	35.0	-0.15	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	35.0	-0.16	(Thomas and Litchman, 2015)
Microcystis aeruginosa GullK00	WC	100.0	35.0	-0.15	(Thomas and Litchman, 2015)
Microcystis aeruginosa LMECYA	Z8	4.0	20.0	0.07	(Salvador et al., 2016)
Microcystis aeruginosa LMECYA	Z8	20.0	20.0	0.11	(Salvador et al., 2016)
Microcystis aeruginosa LMECYA	Z8	30.0	20.0	0.12	(Salvador et al., 2016)
Microcystis aeruginosa M2	Modified JM	10.0	20.0	0.22	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	10.0	20.0	0.20	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	10.0	20.0	0.21	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa M2	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	30.0	20.0	0.23	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	30.0	20.0	0.23	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	30.0	20.0	0.26	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	30.0	28.0	0.35	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	30.0	28.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	30.0	28.0	0.41	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	50.0	20.0	0.35	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	50.0	20.0	0.33	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	50.0	20.0	0.35	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	50.0	28.0	0.42	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	50.0	28.0	0.42	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	100.0	20.0	0.35	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa M2	Modified JM	100.0	20.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	100.0	20.0	0.39	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	100.0	28.0	0.45	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	100.0	28.0	0.41	(Xiao et al., 2017)
Microcystis aeruginosa M2	Modified JM	100.0	28.0	0.41	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	10.0	20.0	0.29	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	10.0	20.0	0.26	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	10.0	20.0	0.23	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	10.0	28.0	0.27	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	10.0	28.0	0.28	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	10.0	28.0	0.26	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	30.0	20.0	0.30	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	30.0	20.0	0.32	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	30.0	20.0	0.27	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	30.0	28.0	0.29	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	30.0	28.0	0.29	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa M3	Modified JM	30.0	28.0	0.28	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	50.0	20.0	0.38	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	50.0	20.0	0.32	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	50.0	28.0	0.38	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	100.0	20.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	100.0	20.0	0.35	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	100.0	20.0	0.35	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	100.0	28.0	0.31	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	100.0	28.0	0.33	(Xiao et al., 2017)
Microcystis aeruginosa M3	Modified JM	100.0	28.0	0.34	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	10.0	20.0	0.21	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	10.0	20.0	0.18	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	10.0	20.0	0.20	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa M4	Modified JM	10.0	28.0	0.27	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	10.0	28.0	0.28	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	10.0	28.0	0.25	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	30.0	20.0	0.30	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	30.0	20.0	0.23	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	30.0	20.0	0.27	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	30.0	28.0	0.28	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	30.0	28.0	0.29	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	30.0	28.0	0.26	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	50.0	20.0	0.34	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	50.0	20.0	0.33	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	50.0	20.0	0.41	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	50.0	28.0	0.35	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	50.0	28.0	0.41	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	100.0	20.0	0.45	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa M4	Modified JM	100.0	20.0	0.41	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	100.0	20.0	0.45	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	100.0	28.0	0.35	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	100.0	28.0	0.32	(Xiao et al., 2017)
Microcystis aeruginosa M4	Modified JM	100.0	28.0	0.32	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	10.0	20.0	0.27	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	10.0	20.0	0.28	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	10.0	20.0	0.26	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	10.0	28.0	0.16	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	10.0	28.0	0.20	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	30.0	20.0	0.24	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	30.0	20.0	0.24	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	30.0	20.0	0.23	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	30.0	28.0	0.31	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	30.0	28.0	0.30	(Xiao et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa M5	Modified JM	30.0	28.0	0.31	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	50.0	28.0	0.41	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	50.0	28.0	0.38	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	50.0	28.0	0.38	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	50.0	20.0	0.27	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	50.0	20.0	0.29	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	50.0	20.0	0.30	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	100.0	20.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	100.0	20.0	0.32	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	100.0	20.0	0.37	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	100.0	28.0	0.31	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	100.0	28.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa M5	Modified JM	100.0	28.0	0.36	(Xiao et al., 2017)
Microcystis aeruginosa MIC-03	Modified WC	10.0	24.0	0.28	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	10.0	24.0	0.26	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	10.0	24.0	0.26	(Torres et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa MIC-03	Modified WC	60.0	24.0	0.54	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	60.0	24.0	0.53	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	60.0	24.0	0.55	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	100.0	24.0	0.45	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	100.0	24.0	0.45	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	100.0	24.0	0.45	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	500.0	24.0	0.39	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	500.0	24.0	0.41	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	500.0	24.0	0.37	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	40.0	24.0	0.47	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	40.0	24.0	0.46	(Torres et al., 2016)
Microcystis aeruginosa MIC-03	Modified WC	40.0	24.0	0.45	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	10.0	24.0	0.29	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	10.0	24.0	0.28	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	10.0	24.0	0.29	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	60.0	24.0	0.45	(Torres et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa MIC-08	Modified WC	60.0	24.0	0.43	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	60.0	24.0	0.47	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	100.0	24.0	0.56	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	100.0	24.0	0.56	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	100.0	24.0	0.56	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	500.0	24.0	0.58	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	500.0	24.0	0.59	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	500.0	24.0	0.56	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	40.0	24.0	0.54	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	40.0	24.0	0.58	(Torres et al., 2016)
Microcystis aeruginosa MIC-08	Modified WC	40.0	24.0	0.51	(Torres et al., 2016)
Microcystis aeruginosa MIRF	ASM-1	100.0	25.0	0.61	(e. Mello et al., 2012)
Microcystis aeruginosa MIRF	ASM-1	100.0	25.0	0.63	(e. Mello et al., 2012)
Microcystis aeruginosa MIRF	ASM-1	100.0	25.0	0.58	(e. Mello et al., 2012)
Microcystis aeruginosa MT2PCC7806	Modified BG11	39.0	22.0	0.49	(Briand et al., 2012)
Microcystis aeruginosa MT2PCC7806	Modified BG11	39.0	22.0	0.45	(Briand et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa MT2PCC7806	Modified BG11	39.0	22.0	0.53	(Briand et al., 2012)
Microcystis aeruginosa MT2PCC7806	Modified BG11	5.0	22.0	0.11	(Briand et al., 2012)
Microcystis aeruginosa MT2PCC7806	Modified BG11	5.0	22.0	0.10	(Briand et al., 2012)
Microcystis aeruginosa MT2PCC7806	Modified BG11	5.0	22.0	0.12	(Briand et al., 2012)
Microcystis aeruginosa MTPCC7806	MIV/2	4.0	20.0	0.05	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	4.0	20.0	0.05	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	4.0	20.0	0.04	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	9.0	20.0	0.11	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	9.0	20.0	0.10	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	9.0	20.0	0.10	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	11.0	20.0	0.12	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	11.0	20.0	0.11	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	11.0	20.0	0.11	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	20.0	20.0	0.17	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	20.0	20.0	0.15	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	20.0	20.0	0.17	(Hesse et al., 2001)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa MTPCC7806	MIV/2	30.0	20.0	0.22	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	30.0	20.0	0.20	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	30.0	20.0	0.19	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	65.0	20.0	0.21	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	65.0	20.0	0.20	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	65.0	20.0	0.19	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	90.0	20.0	0.21	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	90.0	20.0	0.20	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	90.0	20.0	0.19	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	105.0	20.0	0.23	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	105.0	20.0	0.22	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	105.0	20.0	0.21	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	25.0	20.0	0.18	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	25.0	20.0	0.16	(Hesse et al., 2001)
Microcystis aeruginosa MTPCC7806	MIV/2	25.0	20.0	0.15	(Hesse et al., 2001)
Microcystis aeruginosa Ma17D	BG11	15.0	20.0	0.20	(Bañares-España et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa Ma17D	BG11	15.0	20.0	0.19	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma17D	BG11	15.0	20.0	0.21	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma17D	BG11	176.0	20.0	0.09	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma17D	BG11	176.0	20.0	0.10	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma17D	BG11	176.0	20.0	0.08	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma2M	BG11	15.0	20.0	0.24	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma2M	BG11	15.0	20.0	0.24	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma2M	BG11	15.0	20.0	0.23	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma2M	BG11	176.0	20.0	0.17	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma2M	BG11	176.0	20.0	0.17	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma2M	BG11	176.0	20.0	0.16	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma5D	BG11	15.0	20.0	0.20	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma5D	BG11	15.0	20.0	0.24	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma5D	BG11	15.0	20.0	0.17	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma5D	BG11	176.0	20.0	0.17	(Bañares-España et al., 2012)
Microcystis aeruginosa Ma5D	BG11	176.0	20.0	0.18	(Bañares-España et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa Ma5D	BG11	176.0	20.0	0.17	(Bañares-España et al., 2012)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	20.0	0.26	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	20.0	0.23	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	20.0	0.29	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	25.0	0.77	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	25.0	0.79	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	25.0	0.75	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	27.5	0.82	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	27.5	0.83	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	27.5	0.85	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	30.0	0.94	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	30.0	0.95	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	30.0	0.97	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	32.5	0.93	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	32.5	0.95	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	32.5	0.91	(Lürling et al., 2013)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	35.0	0.70	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	35.0	0.71	(Lürling et al., 2013)
Microcystis aeruginosa NIVA-CYA140	Modified WC	80.0	35.0	0.69	(Lürling et al., 2013)
Microcystis aeruginosa PCC7806	Modified BG11	39.0	22.0	0.46	(Briand et al., 2012)
Microcystis aeruginosa PCC7806	Modified BG11	39.0	22.0	0.43	(Briand et al., 2012)
Microcystis aeruginosa PCC7806	Modified BG11	39.0	22.0	0.49	(Briand et al., 2012)
Microcystis aeruginosa PCC7806	Modified BG11	5.0	22.0	0.12	(Briand et al., 2012)
Microcystis aeruginosa PCC7806	Modified BG11	5.0	22.0	0.11	(Briand et al., 2012)
Microcystis aeruginosa PCC7806	Modified BG11	5.0	22.0	0.13	(Briand et al., 2012)
Microcystis aeruginosa PCC7806	MIV/2	4.0	20.0	0.06	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	4.0	20.0	0.06	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	4.0	20.0	0.07	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	9.0	20.0	0.10	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	9.0	20.0	0.11	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	9.0	20.0	0.10	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	11.0	20.0	0.14	(Hesse et al., 2001)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa PCC7806	MIV/2	11.0	20.0	0.15	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	11.0	20.0	0.14	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	25.0	20.0	0.19	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	25.0	20.0	0.20	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	25.0	20.0	0.18	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	35.0	20.0	0.22	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	35.0	20.0	0.23	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	35.0	20.0	0.20	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	70.0	20.0	0.20	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	70.0	20.0	0.21	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	70.0	20.0	0.19	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	90.0	20.0	0.21	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	90.0	20.0	0.22	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	90.0	20.0	0.20	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	105.0	20.0	0.22	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	MIV/2	105.0	20.0	0.23	(Hesse et al., 2001)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa PCC7806	MIV/2	105.0	20.0	0.21	(Hesse et al., 2001)
Microcystis aeruginosa PCC7806	Modified BG11	50.0	25.0	0.15	(Shen and Song, 2007)
Microcystis aeruginosa PCC7806	Modified BG11	50.0	25.0	0.16	(Shen and Song, 2007)
Microcystis aeruginosa PCC7806	Modified BG11	50.0	25.0	0.14	(Shen and Song, 2007)
Microcystis aeruginosa PCC7806	O2-medium	9.0	22.0	0.20	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	9.0	22.0	0.18	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	9.0	22.0	0.21	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	13.0	22.0	0.17	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	13.0	22.0	0.17	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	13.0	22.0	0.17	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	20.0	22.0	0.26	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	20.0	22.0	0.23	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	20.0	22.0	0.29	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	30.0	22.0	0.28	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	30.0	22.0	0.27	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	30.0	22.0	0.29	(Wiedner et al., 2003)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa PCC7806	O2-medium	38.0	22.0	0.36	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	38.0	22.0	0.34	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	38.0	22.0	0.39	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	43.0	22.0	0.38	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	43.0	22.0	0.35	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	43.0	22.0	0.40	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	65.0	22.0	0.34	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	65.0	22.0	0.34	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	65.0	22.0	0.34	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	125.0	22.0	0.38	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	125.0	22.0	0.36	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	125.0	22.0	0.41	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	150.0	22.0	0.33	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	150.0	22.0	0.28	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	150.0	22.0	0.38	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	250.0	22.0	0.37	(Wiedner et al., 2003)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa PCC7806	O2-medium	250.0	22.0	0.33	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	250.0	22.0	0.41	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	255.0	22.0	0.35	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	255.0	22.0	0.29	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	255.0	22.0	0.42	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	400.0	22.0	0.32	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	400.0	22.0	0.32	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7806	O2-medium	400.0	22.0	0.32	(Wiedner et al., 2003)
Microcystis aeruginosa PCC7820	Modified BG11	50.0	25.0	0.10	(Shen and Song, 2007)
Microcystis aeruginosa PCC7820	Modified BG11	50.0	25.0	0.12	(Shen and Song, 2007)
Microcystis aeruginosa PCC7820	Modified BG11	50.0	25.0	0.09	(Shen and Song, 2007)
Microcystis aeruginosa PCC7941			20.0	0.58	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941			25.0	0.67	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941			22.5	1.05	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941			27.5	NA	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941			25.0	1.16	(Lürling et al., 2013)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa PCC7941			30.0	1.01	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	20.0	0.58	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	20.0	0.57	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	20.0	0.59	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	25.0	0.67	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	25.0	0.72	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	25.0	0.62	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	27.5	1.05	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	27.5	1.04	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	27.5	1.06	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	32.5	1.16	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	32.5	1.16	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	32.5	1.16	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	35.0	1.01	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	35.0	1.02	(Lürling et al., 2013)
Microcystis aeruginosa PCC7941	Modified WC	80.0	35.0	1.00	(Lürling et al., 2013)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa UTEXLB2061	WC	135.0	25.0	0.50	(Sugimoto et al., 2015)
Microcystis aeruginosa UTEXLB2061	WC	135.0	25.0	0.48	(Sugimoto et al., 2015)
Microcystis aeruginosa UTEXLB2061	WC	135.0	25.0	0.49	(Sugimoto et al., 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	0.00	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	0.01	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	0.01	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	0.00	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.21	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.22	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.21	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.21	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.41	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.40	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.40	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.35	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.35	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.34	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.35	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	0.68	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	0.66	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	0.67	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	0.67	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	40.0	-0.21	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	40.0	-0.20	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	40.0	-0.23	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	40.0	-0.21	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	-0.04	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	-0.05	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	-0.02	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	15.0	-0.04	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.13	(Thomas and Litchman, 2015)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.12	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.10	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	20.0	0.12	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.26	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.24	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.25	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	25.0	0.25	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.28	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.27	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.26	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	30.0	0.27	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	-0.15	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	-0.16	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	-0.17	(Thomas and Litchman, 2015)
Microcystis aeruginosa bear AC02	WC	100.0	35.0	-0.16	(Thomas and Litchman, 2015)
Microcystis aeruginosa			30.0	0.81	(Chu et al., 2007)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis aeruginosa			30.0	1.09	(Coles and Jones, 2000)
Microcystis aeruginosa			30.0	0.45	(Imai et al., 2009)
Microcystis aeruginosa			32.0	1.60	(Nalewajko and Murphy, 2001)
Microcystis aeruginosa			27.5	0.80	(Nicklisch and Kohl, 1983)
Microcystis aeruginosa			35.0	1.06	(OHKUBO et al., 1991)
Microcystis aeruginosa			25.0	0.19	(Sivonen et al., 1990)
Microcystis aeruginosa			25.0	0.36	(Staehr and Birkeland, 2006)
Microcystis aeruginosa			32.0	0.59	(Watanabe and Oishi, 1985)
Microcystis aeruginosa			32.0	0.81	(van der Westhuizen and Eloff, 1985)
Microcystis aeruginosa		77.3 ± 11.4	30.0 ± 18.2	0.52	(Xiao et al., 2020)
Microcystis agardhii	Z8	4.0	20.0	0.06	(Salvador et al., 2016)
Microcystis agardhii	Z8	20.0	20.0	0.09	(Salvador et al., 2016)
Microcystis agardhii	Z8	30.0	20.0	0.09	(Salvador et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis ichthyoblabe			35.0	1.32	(Sabour et al., 2009)
Microcystis ma	MLA	60.0	27.0	0.57	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	27.0	0.64	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	27.0	0.50	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	30.0	0.32	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	30.0	0.37	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	30.0	0.26	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	33.0	0.55	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	33.0	0.38	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	33.0	0.73	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	36.0	0.68	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	36.0	0.65	(Mowe et al., 2015)
Microcystis ma	MLA	60.0	36.0	0.62	(Mowe et al., 2015)
Microcystis sp. FACHB1271	CT	25.0	15.0	0.03	(Wu et al., 2011)
Microcystis sp. FACHB1271	CT	25.0	25.0	0.25	(Wu et al., 2011)
Microcystis sp. FACHB1271	CT	25.0	35.0	0.26	(Wu et al., 2011)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Microcystis sp. FACHB1271	CT	25.0	15.0	0.04	(Wu et al., 2011)
Microcystis sp. FACHB1271	CT	25.0	25.0	0.25	(Wu et al., 2011)
Microcystis sp. FACHB1271	CT	25.0	35.0	0.27	(Wu et al., 2011)
Microcystis sp. FACHB1271	CT	25.0	15.0	0.03	(Wu et al., 2011)
Microcystis sp. FACHB1271	CT	25.0	25.0	0.25	(Wu et al., 2011)
Microcystis sp. FACHB1271	CT	25.0	35.0	0.26	(Wu et al., 2011)
Microcystis viridis			25.0	0.17	(OHKUBO et al., 1991)
Microcystis viridis			30.0	0.52	(OHKUBO et al., 1991)
Microcystis wesenbergii			35.0	0.22	(Imai et al., 2009)
Microcystis wesenbergii			35.0	1.50	(OHKUBO et al., 1991)
Microcystis sp.			25.0	0.35	(Konopka and Brock, 1978)
Oscillatoria acuminata	BG11	33.8 ~ 54.1	28.0	0.24	(Tiwari et al., 2001)
Oscillatoria agardhii			30.0	1.12	(Foy et al., 1976)
Oscillatoria agardhii			25.0	0.23	(Sivonen et al., 1990)
Oscillatoria agardhii			35.0	0.64	(TALBOT, 1991)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Oscillatoria agardhii	BG11	33.8 ~ 54.1	28.0	0.09	(Tiwari et al., 2001)
Oscillatoria annae	BG11	33.8 ~ 54.1	28.0	0.17	(Tiwari et al., 2001)
Oscillatoria brevis	BG11	33.8 ~ 54.1	28.0	0.15	(Tiwari et al., 2001)
Oscillatoria cf. chalybea	BG11	40.0	21.5 ~ 28	0.31	(Van Der Ploeg et al., 1995)
Oscillatoria cf. chalybea	BG11	40.0	19.0	0.12	(Van Der Ploeg et al., 1995)
Oscillatoria cf. chalybea	BG11	80.0	28.0	0.62	(Van Der Ploeg et al., 1995)
Oscillatoria cf. chalybea	BG11	73.0	28.0	0.59	(Van Der Ploeg et al., 1995)
Oscillatoria cf. chalybea	BG11	65.3	28.0	0.50	(Van Der Ploeg et al., 1995)
Oscillatoria cf. chalybea	BG11	40.4	28.0	0.28	(Van Der Ploeg et al., 1995)
Oscillatoria cf. chalybea	BG11	31.9	28.0	0.31	(Van Der Ploeg et al., 1995)
Oscillatoria cf. chalybea	BG11	30.3	28.0	0.19	(Van Der Ploeg et al., 1995)
Oscillatoria limosa Agardh ex Gomont	CT	30.0	15.0	0.26	(Cai et al., 2017)
Oscillatoria limosa Agardh ex Gomont	CT	30.0	25.0	0.28	(Cai et al., 2017)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Oscillatoria limosa Agardh ex Gomont	CT	30.0	35.0	0.12	(Cai et al., 2017)
Oscillatoria limosa Agardh ex Gomont	CT	60.0	25.0	0.32	(Cai et al., 2017)
Oscillatoria limosa Agardh ex Gomont	CT	10.0	25.0	0.26	(Cai et al., 2017)
Oscillatoria limosa	BG11	33.8 ~ 54.1	28.0	0.14	(Tiwari et al., 2001)
Oscillatoria mougeotii			30.0	0.56	(Chu et al., 2007)
Oscillatoria priestleyi O-salt	BG20	225.0	20.0	0.29	(Tang et al., 1997)
Oscillatoria proteus	BG11	33.8 ~ 54.1	28.0	0.07	(Tiwari et al., 2001)
Oscillatoria redekei			25.0	1.32	(Foy et al., 1976)
Oscillatoria sancta	BG11	33.8 ~ 54.1	28.0	0.08	(Tiwari et al., 2001)
Oscillatoria simplicissima			28.0	0.22	(Venter et al., 2003)
Oscillatoria simplicissima	BG11	33.8 ~ 54.1	28.0	0.10	(Tiwari et al., 2001)
Oscillatoria sp. E17	BG18	225.0	18.3	0.23	(Tang et al., 1997)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Oscillatoria sp. O-201	BG32	225.0	15.0	0.19	(Tang et al., 1997)
Oscillatoria vizagapatensis	BG11	33.8 ~ 54.1	28.0	0.06	(Tiwari et al., 2001)
Oscillatoria sp.			25.0	1.11	(Coles and Jones, 2000)
Oscillatoria sp.			27.0	0.36	(Novak and Brune, 1985)
Phormidium amoenum Pho012	ASM	100.0	25.0	0.15	(Li et al., 2012)
Phormidium amoenum Pho012	ASM	10.0	25.0	0.07	(Li et al., 2012)
Phormidium amoenum Pho012	ASM	100.0	18.0	0.08	(Li et al., 2012)
Phormidium amoenum Pho012	ASM	10.0	18.0	0.10	(Li et al., 2012)
Phormidium angustissimum	BG11	33.8 ~ 54.1	28.0	0.10	(Tiwari et al., 2001)
Phormidium autumnale O-152	BG28	225.0	24.9	0.15	(Tang et al., 1997)
Phormidium autumnale O-154	BG29	225.0	25.0	0.12	(Tang et al., 1997)
Phormidium bohneri			35.0	1.59	(TALBOT, 1991)
Phormidium bohneri	BG11	33.8 ~ 54.1	28.0	0.21	(Tiwari et al., 2001)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Phormidium foveolarum	BG11	33.8 ~ 54.1	28.0	0.22	(Tiwari et al., 2001)
Phormidium fragile	BG11	33.8 ~ 54.1	28.0	0.18	(Tiwari et al., 2001)
Phormidium murrayi O-099	BG24	225.0	20.0	0.37	(Tang et al., 1997)
Phormidium rubroterricola	BG11	33.8 ~ 54.1	28.0	0.12	(Tiwari et al., 2001)
Phormidium sp. E12	BG17	225.0	24.9	0.24	(Tang et al., 1997)
Phormidium sp. E18	BG19	225.0	20.2	0.29	(Tang et al., 1997)
Phormidium sp. E6a	BG13	225.0	17.7	0.17	(Tang et al., 1997)
Phormidium sp. E7	BG14	225.0	20.8	0.16	(Tang et al., 1997)
Phormidium sp. EIIb	BG16	225.0	18.6	0.28	(Tang et al., 1997)
Phormidium sp. EIIa	BG15	225.0	25.5	0.17	(Tang et al., 1997)
Phormidium sp. F5	BG12	225.0	20.1	0.19	(Tang et al., 1997)
Phormidium sp. F9	BG11	225.0	17.9	0.20	(Tang et al., 1997)
Phormidium sp. O-025	BG21	225.0	16.1	0.20	(Tang et al., 1997)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Phormidium sp. O-042	BG22	225.0	15.0	0.31	(Tang et al., 1997)
Phormidium sp. O-043	BG23	225.0	18.9	0.21	(Tang et al., 1997)
Phormidium sp. O-104	BG26	225.0	20.7	0.25	(Tang et al., 1997)
Phormidium sp. O-109	BG25	225.0	19.3	0.20	(Tang et al., 1997)
Phormidium sp. O-120	BG27	225.0	35.0	0.41	(Tang et al., 1997)
Phormidium sp. O-157	BG30	225.0	16.1	0.16	(Tang et al., 1997)
Phormidium sp. O-160	BG31	225.0	20.1	0.13	(Tang et al., 1997)
Phormidium sp. O-202	BG33	225.0	25.0	0.31	(Tang et al., 1997)
Phormidium sp. O-203	BG34	225.0	20.6	0.24	(Tang et al., 1997)
Phormidium sp. O-204	BG35	225.0	19.6	0.26	(Tang et al., 1997)
Phormidium sp. O-210	BG36	225.0	17.0	0.21	(Tang et al., 1997)
Phormidium sp. O-211	BG37	225.0	15.9	0.30	(Tang et al., 1997)
Phormidium sp. Pho689	WC	100.0	25.0	0.09	(Li et al., 2012)
Phormidium sp. Pho689	WC	10.0	25.0	0.14	(Li et al., 2012)
Phormidium sp. Pho689	WC	100.0	18.0	0.08	(Li et al., 2012)
Phormidium sp. Pho689	WC	10.0	18.0	0.07	(Li et al., 2012)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Planktothricoides raciborskii	BG11			0.39	This study
Planktothricoides raciborskii	BG11			1.96	This study
Planktothricoides raciborskii	BG11			0.39	This study
Planktothricoides raciborskii	BG11			0.08	This study
Planktothricoides raciborskii	BG11			0.27	This study
Planktothricoides raciborskii	BG11			0.27	This study
Planktothrix agardhii	Modified MIV	145.0	20.0	0.38	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	92.0	20.0	0.34	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	145.0	20.0	0.42	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	160.0	20.0	0.62	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	61.0	20.0	0.51	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	308.0	20.0	0.42	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	64.0	20.0	0.66	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	237.0	20.0	0.56	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	309.0	20.0	0.58	(Nicklisch, 1998)
Planktothrix agardhii	Modified MIV	467.0	20.0	0.29	(Nicklisch, 1998)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Planktothrix agardhii	Modified MIII		28.0	0.74	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		24.0	0.72	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		20.0	0.58	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		16.0	0.43	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		12.0	0.23	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		8.0	0.13	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		20.0	0.56	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		20.0	0.57	(Nicklisch et al., 2007)
Planktothrix agardhii	Modified MIII		20.0	0.44	(Nicklisch et al., 2007)
Planktothrix agardhii CYA116			20.0	0.50	(Lürling et al., 2013)
Planktothrix agardhii CYA116			25.0	0.71	(Lürling et al., 2013)
Planktothrix agardhii CYA116			22.5	0.82	(Lürling et al., 2013)
Planktothrix agardhii CYA116			27.5	NA	(Lürling et al., 2013)
Planktothrix agardhii CYA116			25.0	0.70	(Lürling et al., 2013)
Planktothrix agardhii CYA116			30.0	0.40	(Lürling et al., 2013)
Planktothrix agardhii CYA126			20.0	0.43	(Lürling et al., 2013)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Planktothrix agardhii CYA126			25.0	0.60	(Lürling et al., 2013)
Planktothrix agardhii CYA126			22.5	NA	(Lürling et al., 2013)
Planktothrix agardhii CYA126			27.5	0.58	(Lürling et al., 2013)
Planktothrix agardhii CYA126			25.0	NA	(Lürling et al., 2013)
Planktothrix agardhii CYA126			30.0	NA	(Lürling et al., 2013)
Planktothrix sp.	BG11	5.0	25.0	0.02	(Jia et al., 2019)
Planktothrix sp.	BG11	17.0	25.0	0.16	(Jia et al., 2019)
Planktothrix sp.	BG11	36.0	25.0	0.20	(Jia et al., 2019)
Planktothrix sp.	BG11	85.0	25.0	0.16	(Jia et al., 2019)
Planktothrix sp.	BG11	250.0	25.0	0.18	(Jia et al., 2019)
Planktothrix sp.	BG11	4.4	25.0	0.00	(Jia et al., 2019)
Plectonema battersii	BG11	33.8 ~ 54.1	28.0	0.18	(Tiwari et al., 2001)
Plectonema boryanurn UTEX-482				1.44	(Prakash et al., 1999)
Plectonema boryanurn UTEX-482				1.40	(Prakash et al., 1999)
Plectonema boryanurn UTEX-485				0.29	(Miskiewicz et al., 2000)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Plectonema boryanurn UTEX-485				2.05	(Miskiewicz et al., 2000)
Plectonema boryanurn UTEX-485				0.39	(Miskiewicz et al., 2000)
Plectonema boryanurn UTEX-485				2.15	(Miskiewicz et al., 2000)
Plectonema golenkilianum	BG11	33.8 ~ 54.1	28.0	0.07	(Tiwari et al., 2001)
Plectonema nostocorum	BG11	33.8 ~ 54.1	28.0	0.12	(Tiwari et al., 2001)
Plectonema yellowstonense	BG11	33.8 ~ 54.1	28.0	0.14	(Tiwari et al., 2001)
Pseudanabaena frigidum	BG11	33.8 ~ 54.1	28.0	0.26	(Tiwari et al., 2001)
Pseudanabaena sp. FACHB1277	BG11	25.0	25.0	0.25	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	10.0	25.0	0.11	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	40.0	25.0	0.23	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	55.0	25.0	0.19	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	70.0	25.0	0.17	(Zhang et al., 2016)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Pseudanabaena sp. FACHB1277	BG11	85.0	25.0	0.15	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	25.0	10.0	0.08	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	25.0	15.0	0.19	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	25.0	20.0	0.24	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	25.0	30.0	0.24	(Zhang et al., 2016)
Pseudanabaena sp. FACHB1277	BG11	25.0	35.0	0.20	(Zhang et al., 2016)
Pseudanabaena sp. dqh15	CT	10.0	25.0	0.08	(Wang and Li, 2015)
Pseudanabaena sp. dqh15	CT	30.0	25.0	0.09	(Wang and Li, 2015)
Pseudanabaena sp. dqh15	CT	60.0	25.0	0.04	(Wang and Li, 2015)
Pseudanabaena sp. dqh15	CT	30.0	10.0	0.18	(Wang and Li, 2015)
Pseudanabaena sp. dqh15	CT	30.0	35.0	0.07	(Wang and Li, 2015)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	15.0	0.13	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	20.0	0.17	(Gao et al., 2018)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.19	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	30.0	0.16	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	35.0	0.13	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	40.0	-0.02	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	0.0	25.0	-0.13	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	9.0	25.0	0.18	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	18.0	25.0	0.21	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	27.0	25.0	0.23	(Gao et al., 2018)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	36.0	25.0	0.22	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	45.0	25.0	0.22	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.22	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	142.0	25.0	0.21	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	216.0	25.0	0.21	(Gao et al., 2018)
Pseudanabaena sp.	TN:0 mg/L,TP: 7.12 mg/L	71.0	25.0	-0.11	(Gao et al., 2018)
Pseudanabaena sp.	TN:2.4mg/L,TP: 7.12 mg/L	71.0	25.0	-0.01	(Gao et al., 2018)
Pseudanabaena sp.	TN:4.8mg/L,TP: 7.12 mg/L	71.0	25.0	0.04	(Gao et al., 2018)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Pseudanabaena sp.	TN:9.6mg/L,TP: 7.12 mg/L	71.0	25.0	0.09	(Gao et al., 2018)
Pseudanabaena sp.	TN:19.2mg/L,TP: 7.12 mg/L	71.0	25.0	0.17	(Gao et al., 2018)
Pseudanabaena sp.	TN:38.4mg/L,TP: 7.12 mg/L	71.0	25.0	0.19	(Gao et al., 2018)
Pseudanabaena sp.	TN:76.8mg/L,TP: 7.12 mg/L	71.0	25.0	0.20	(Gao et al., 2018)
Pseudanabaena sp.	TN:153.6mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)
Pseudanabaena sp.	TN:230.4mg/L,TP: 7.12 mg/L	71.0	25.0	0.22	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:0mg/L	71.0	25.0	0.06	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:0.04mg/L	71.0	25.0	0.22	(Gao et al., 2018)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Pseudanabaena sp.	TN: 247 mg/L,TP:0.16mg/L	71.0	25.0	0.25	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:0.32mg/L	71.0	25.0	0.27	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:0.64mg/L	71.0	25.0	0.28	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:1.28mg/L	71.0	25.0	0.28	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:5.12mg/L	71.0	25.0	0.24	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:10.24mg/L	71.0	25.0	0.23	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP:102.4mg/L	71.0	25.0	0.05	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.00	(Gao et al., 2018)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.24	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.23	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.24	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.22	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.00	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.00	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)

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Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.25	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.25	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.22	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.20	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.20	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.20	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)

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Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)
Pseudanabaena sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)
Selenastrum capricornutum			30.0	0.61	(Fujimoto et al., 1994)
Selenastrum capricornutum			21.0	1.08	(Novak and Brune, 1985)
Selenastrum minutum			35.0	1.73	(Bouarab et al., 2002)
Synechococcus elongatus PCC6301			20.0	0.30	(Lürling et al., 2013)
Synechococcus elongatus PCC6301			25.0	0.67	(Lürling et al., 2013)
Synechococcus elongatus PCC6301			22.5	0.64	(Lürling et al., 2013)
Synechococcus elongatus PCC6301			27.5	0.72	(Lürling et al., 2013)
Synechococcus elongatus PCC6301			25.0	0.82	(Lürling et al., 2013)
Synechococcus elongatus PCC6301			30.0	0.91	(Lürling et al., 2013)
Synechococcus sp. CCMP1768		43.0		0.23	(Glibert et al., 2009)
Synechococcus sp. CCMP1768		43.0		0.49	(Glibert et al., 2009)
Synechococcus sp. strain PCC6301				0.03	(Lepp and Schmidt, 2004)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (μE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Synechococcus sp. strain PCC6301				0.48	(Lepp and Schmidt, 2004)
Synechococcus sp. strain PCC6301				3.40	(Lepp and Schmidt, 2004)
Synechococcus sp. strain PCC6301				1.37	(Lepp and Schmidt, 2004)
Synechococcus sp. strain PCC6301				0.19	(Lepp and Schmidt, 2004)
Synechococcus spp.	Nitrate:1.7μM		25.2	2.16	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.1μM		26.5	3.12	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.1μM		26.6	-0.24	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0μM		28.2	0.24	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.4μM		28.6	1.44	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.4μM		27.4	0.96	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:4.6μM		24.8	9.36	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:37.2μM		22.5	0.72	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:29.5μM		24.7	2.40	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.3μM		25.3	-1.92	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.6μM		26.4	4.08	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.4μM		26.1	2.16	(Gong and Tsai, 2019)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Synechococcus spp.	Nitrate:0.3µM		25.9	-0.24	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.2µM		26.1	1.68	(Gong and Tsai, 2019)
Synechococcus spp.	Nitrate:0.1µM		29.9	1.44	(Gong and Tsai, 2019)
Synechococcus spp.				0.70	(Liu et al., 1998)
Synechococcus spp.				1.33	(Liu et al., 1998)
Synechococcus spp.				0.44	(Liu et al., 1998)
Synechococcus spp.				1.35	(Liu et al., 1998)
Synechococcus spp.				1.49	(Liu et al., 1998)
Synechococcus spp.	NO3:2.3µM; PO4:0.4µM		28.5	0.60	(Tsai and Mukhanov, 2021)
Synechococcus spp.	NO3:19.4µM; PO4:1.9µM			0.66	(Tsai and Mukhanov, 2021)
Synechococcus spp.	NO3:1.8µM; PO4:0.5µM		30.0	0.62	(Tsai and Mukhanov, 2021)
Synechococcus spp.	NO3:18.6µM; PO4:1.8µM			0.65	(Tsai and Mukhanov, 2021)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Synechococcus spp.	NO3:3.1µM; PO4:0.8µM		29.0	0.59	(Tsai and Mukhanov, 2021)
Synechococcus spp.	NO3:16.2µM; PO4:1.5µM			0.64	(Tsai and Mukhanov, 2021)
Synechococcus spp.	NO3:3.5µM; PO4:0.7µM		28.5	0.54	(Tsai and Mukhanov, 2021)
Synechococcus spp.	NO3:18.9µM; PO4:1.6µM			0.56	(Tsai and Mukhanov, 2021)
Synechococcus spp.				-0.25	(Heng et al., 2017)
Synechococcus spp.				0.98	(Heng et al., 2017)
Synechococcus spp.				0.29	(Heng et al., 2017)
Synechococcus spp.				0.82	(Heng et al., 2017)
Synechococcus sp.			20.0	0.98	(Malinsky-Rushansky, 2002)
Synechococcus sp.			28.0	1.19	(Malinsky-Rushansky, 2002)
Synechococcus sp.	N:2.54µM N d–1; P:1/20N			1.17	(Agawin et al., 2000)

Table 10The summary of the main cyanobacteria specific growth rates under different culture conditions

Genus/Strain	Nutrient cond.	Light (µE)	Temp. (°C)	Growth rate (d^{-1})	Ref.
Synechococcus sp.	0~10.18µM N d–1; P:1/20N			5.00	(Agawin et al., 2000)
Synechococcus sp.	0.25µM N d–1; P:1/20N			3.05	(Agawin et al., 2000)

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