

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

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5 **Supplementary Material**

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

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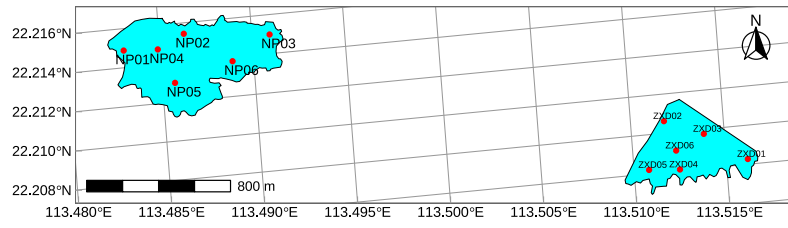


Fig. 1The sampling sites in NP (A) and ZXD (B) Reservoirs

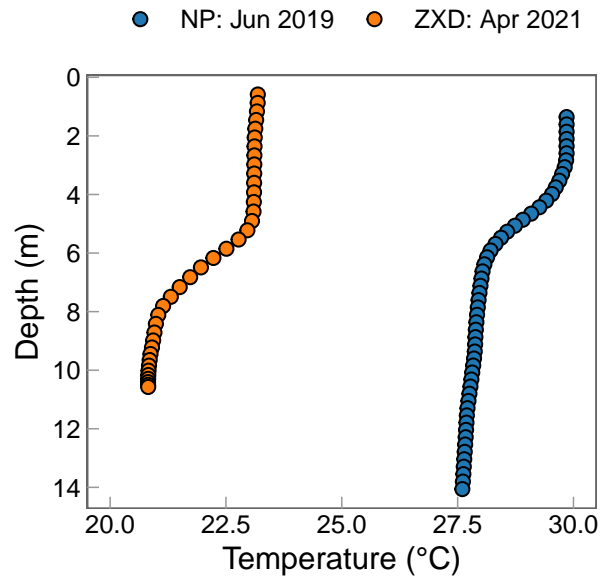


Fig. 2 Temperature profile of NP and ZXD Reservoirs

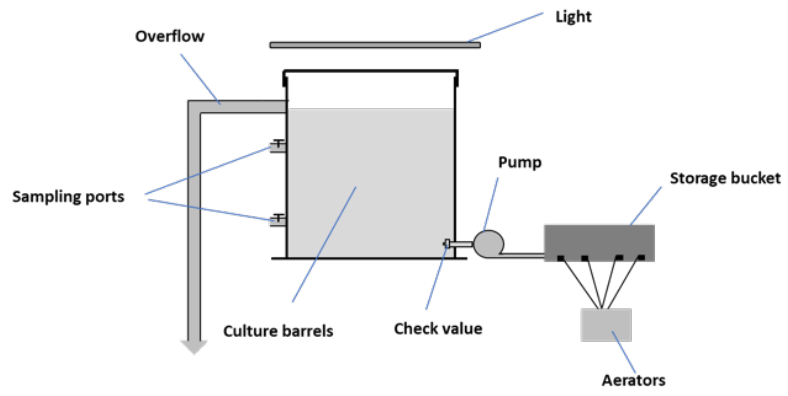


Fig. 3The schematic diagram of the experimental apparatus and the detailed design for the experiment

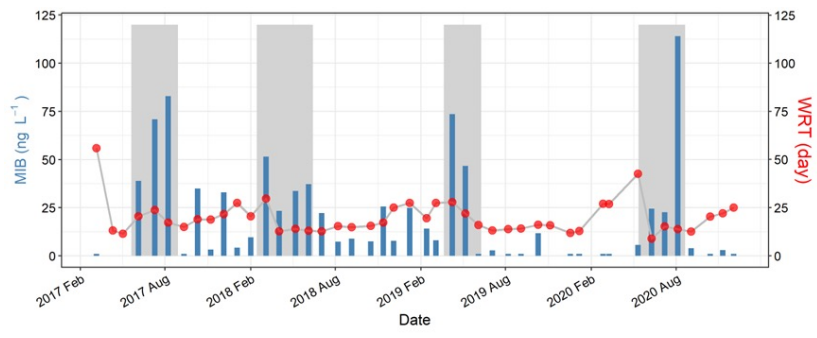


Fig. 4The monthly variation of water residence time and MIB from 2017 to 2020. (The MIB episodes are represented by grey areas)

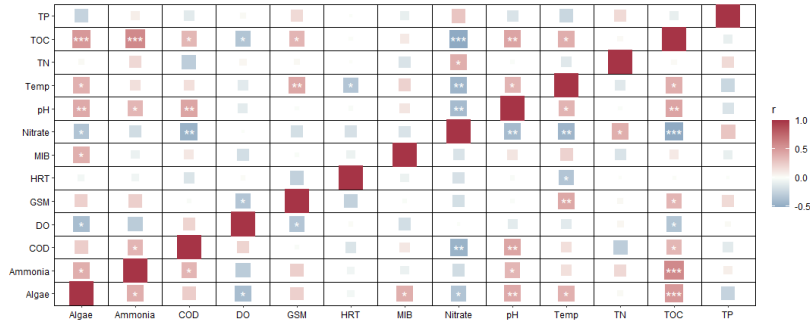


Fig. 5 The correlation analysis between MIB and some limnological parameters in NP Reservoir

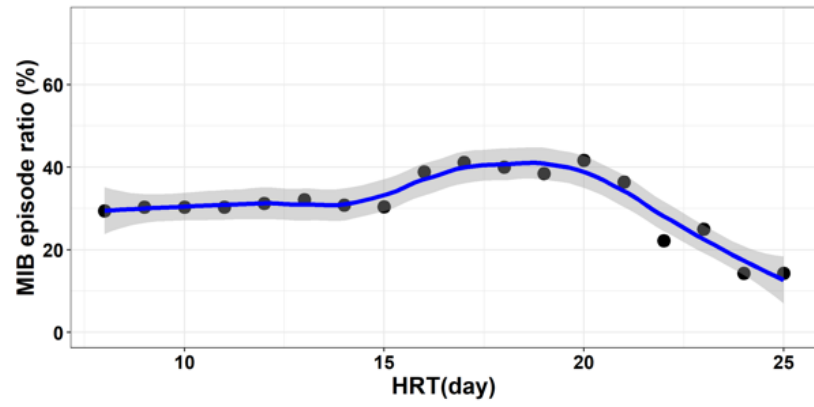


Fig. 6The relationship between MIB episode ration and HRT in NP Reservoir

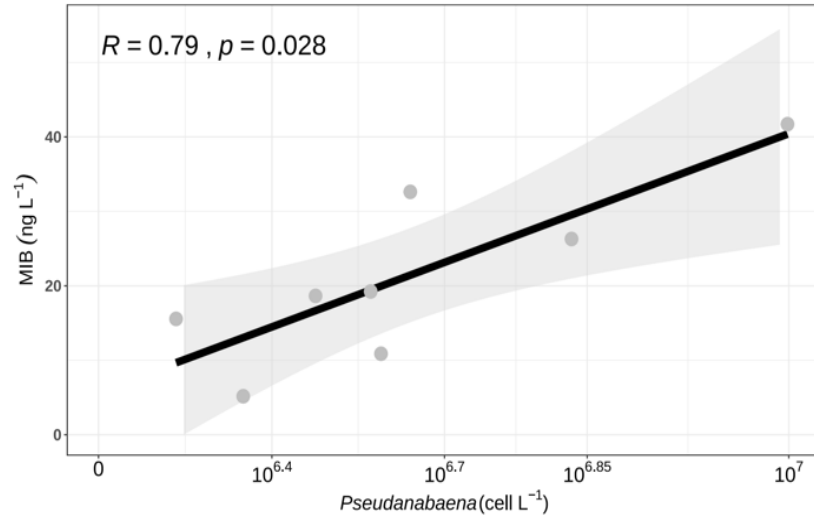


Fig. 7 The relationship between *Pseudanabaena* abundance and MIB concentration in ZXD Reservoir.

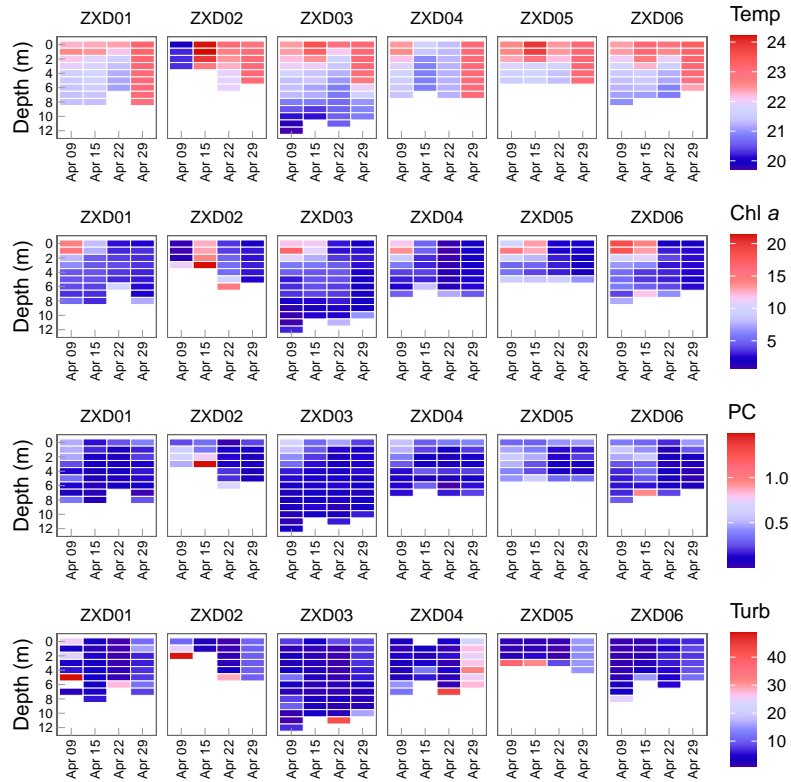


Fig. 8 The vertical variation of water quality parameters in ZXD Reservoir during the investigation period (April 2021) (A: Temperature (Temp); B : Chlorophyll *a* (Chl *a*); C : Phycocyanin (PC); D : Turbidity (Turb)).

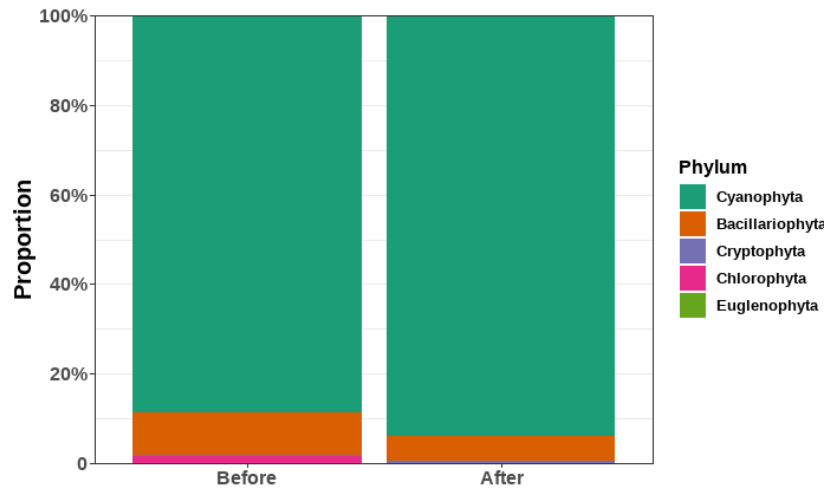


Fig. 9The phytoplankton phylum in ZXD Reservoir before and after HRT regulation

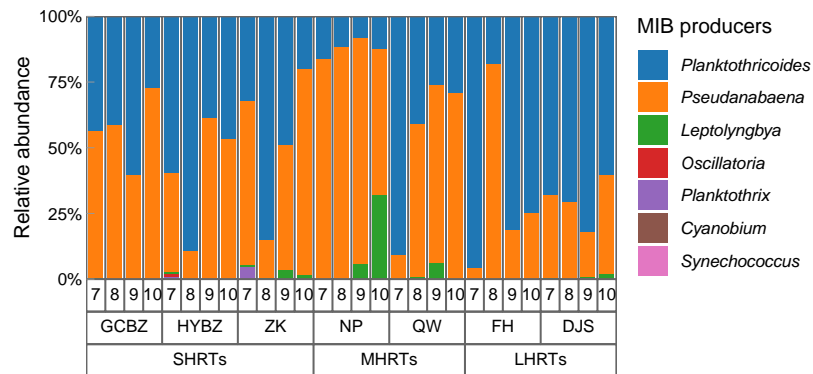


Fig. 10 The MIB-producing cyanobacteria genus in Zhuhai water sources

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

Table 1 Sampling 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
12 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 2 Light intensity for all sets was $54 \mu\text{mol m}^{-2} \text{s}^{-1}$, and culture temperature was $30 \text{ }^\circ\text{C}$; 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

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

Table 3 The 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
15 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 4 The MIB-producing cyanobacteria genera identified by *mic* sequence in NP Reservoir

Phylum	Order	Genus	July	August
Cyanobacteria	Synechococcales	<i>Pseudanabaena</i>	83.6 %	88.3 %
Cyanobacteria	Oscillatoriales	<i>Planktothricoides</i>	16.4 %	11.7%

²⁷ To identify the MIB-producing cyanobacteria genera in NP Reservoir, water samples were collected in July and August, 2020 when serious
²⁸ MIB episode occurred. The universal primer for MIB gene (*mic*) (Suruzzaman et al., 2022) was used to amplify samples genome and was
²⁹ Illumina MiSeq sequenced. The data was phylogenetic classification assigned using Silva 128 database. The result declared that the MIB-
³⁰ producers in NP Reservoir was *Pseudanabaena* and *Planktothricoides*.

Table 5 The 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	<i>p</i> -value
MIB _t (ng L ⁻¹)	56.1 ± 26.2	8.3 ± 8.9	<i>p</i> < 0.0001
GSM _t (ng L ⁻¹)	3.2 ± 2.6	2.3 ± 2.2	<i>p</i> = 0.2721
Temp. (°C)	24.9 ± 3.2	23.2 ± 3.4	<i>p</i> = 0.1632
TP (µg L ⁻¹)	33 ± 26	38 ± 33	<i>p</i> = 0.6973
TOC (mg L ⁻¹)	1.68 ± 0.40	1.55 ± 0.33	<i>p</i> = 0.2857
TN (µg L ⁻¹)	1505 ± 442	1523 ± 403	<i>p</i> = 0.8980
¹⁷ pH	8.3 ± 0.5	8.2 ± 0.5	<i>p</i> = 0.5538
NO ₃ -N (µg L ⁻¹)	972 ± 277	1165 ± 408	<i>p</i> = 0.1570
NH ₄ -N (µg L ⁻¹)	151 ± 119	149 ± 107	<i>p</i> = 0.9675
DO (mg L ⁻¹)	6.1 ± 1.4	7.2 ± 1.4	<i>p</i> = 0.0257
COD (mg L ⁻¹)	5.6 ± 2.6	5.5 ± 1.8	<i>p</i> = 0.8614
Phytoplankton (×10 ⁶ cell L ⁻¹)	62.3 ± 52.1	18.1 ± 24.9	<i>p</i> = 0.0008
HRT (d)	20.2 ± 5.5	20.2 ± 9.8	<i>p</i> = 0.9987

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

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

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

Table 7 Main water quality parameters in ZXD reservoir during the investigation period (April 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
⁶¹ 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 <i>a</i> (μg L ⁻¹)	7.3 ± 14.8	7.8 ± 13.1	7.3 ± 6.3	p = 0.9861

Parameter	Bottom	Middle	Surface	<i>p</i>-value
PC ($\mu\text{g L}^{-1}$)	0.1 \pm 0.22	0.2 \pm 0.2	0.3 \pm 0.2	<i>p</i> = 0.0191
ORP (mv)	-75.4 \pm 214.4	-75.9 \pm 214.4	-81.3 \pm 216.0	<i>p</i> = 0.9946

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

Parameter	ZXD01	ZXD02	ZXD03	ZXD04	ZXD05	ZXD06	<i>p</i> -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	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 0.0105
TN (µg L ⁻¹)	1620 ± 62	1649 ± 136	1548 ± 137	1640 ± 203	1608 ± 160	1625 ± 131	<i>p</i> = 0.6064
TP (µg L ⁻¹)	15 ± 3	15 ± 3	14 ± 4	14 ± 3	16 ± 3	15 ± 3	<i>p</i> = 0.8021
²¹ NH ₄ -N (µg L ⁻¹)	67 ± 59	71 ± 76	70 ± 59	81 ± 45	75 ± 67	74 ± 57	<i>p</i> = 0.9955
NO ₃ -N (µg L ⁻¹)	1422 ± 63	1491 ± 110	1366 ± 166	1495 ± 189	1442 ± 145	1418 ± 120	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 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	<i>p</i> = 0.4936
Chl <i>a</i> (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	<i>p</i> = 0.0352

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

Table 9 Main 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
23 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	<i>p</i>-value
PC ($\mu\text{g L}^{-1}$)	0.30 \pm 0.25	0.12 \pm 0.11	<i>p</i> = 0.0001
ORP (mv)	41.3 \pm 18.6	-193.2 \pm 248	<i>p</i> < 0.0001
SD (cm)	157.5 \pm 19.1	162.4 \pm 105.1	<i>p</i> = 0.8748
z_{mix} (m)	4.0 \pm 0.9	4.7 \pm 2.8	<i>p</i> = 0.7552
z_{max} (m)	6.7 \pm 2.6	6.8 \pm 2.1	<i>p</i> = 0.9401
HRT (day)	18.0 \pm 2.2	5.4 \pm 0.8	<i>p</i> < 0.0001

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	10.0	25.0	0.28	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	22.0	25.0	0.45	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	26.0	25.0	0.54	(Briand et al., 2004)
²⁶ <i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	42.0	25.0	0.57	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	55.0	25.0	0.60	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	60.0	25.0	0.60	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	70.0	25.0	0.65	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ACT-9502	Z8	90.0	25.0	0.66	(Briand et al., 2004)

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

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

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

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

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	10.0	28.0	0.20	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	10.0	28.0	0.21	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	30.0	20.0	0.30	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	30.0	20.0	0.32	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	30.0	20.0	0.37	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	30.0	28.0	0.31	(Xiao et al., 2017)
³¹ <i>Cylindrospermopsis raciborskii</i> C6	Modified JM	30.0	28.0	0.34	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	30.0	28.0	0.33	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	50.0	20.0	0.30	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	50.0	20.0	0.27	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	50.0	20.0	0.31	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	50.0	28.0	0.38	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	50.0	28.0	0.35	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	50.0	28.0	0.32	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	100.0	20.0	0.27	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	100.0	20.0	0.32	(Xiao et al., 2017)

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Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	100.0	20.0	0.27	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	100.0	28.0	0.44	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	100.0	28.0	0.44	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C6	Modified JM	100.0	28.0	0.47	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	10.0	20.0	0.36	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	10.0	20.0	0.20	(Xiao et al., 2017)
³² <i>Cylindrospermopsis raciborskii</i> C9	Modified JM	10.0	20.0	0.29	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	10.0	28.0	0.20	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	10.0	28.0	0.24	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	10.0	28.0	0.23	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	30.0	28.0	0.41	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	30.0	28.0	0.41	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	30.0	28.0	0.43	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	50.0	20.0	0.30	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> C9	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> CR2	ASM-1	50.0	35.0	0.75	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	20.0	0.00	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	25.0	0.45	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	30.0	0.54	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	35.0	0.45	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	20.0	0.00	(Saker and Griffiths, 2000)
³⁵ <i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	25.0	0.70	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	30.0	0.59	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	35.0	0.46	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	20.0	0.00	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	25.0	0.20	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	30.0	0.54	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR3	ASM-1	50.0	35.0	0.46	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR4	ASM-1	50.0	20.0	0.51	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR4	ASM-1	50.0	25.0	0.87	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR4	ASM-1	50.0	30.0	1.06	(Saker and Griffiths, 2000)

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> CR6	ASM-1	50.0	35.0	0.75	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	20.0	0.45	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	25.0	0.70	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	30.0	1.18	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	35.0	1.18	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	20.0	0.50	(Saker and Griffiths, 2000)
³⁸ <i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	25.0	0.70	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	30.0	1.39	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	35.0	1.49	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	20.0	0.39	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	25.0	0.69	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	30.0	0.96	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CR7	ASM-1	50.0	35.0	0.77	(Saker and Griffiths, 2000)
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	11.0	25.0	0.33	(Briand et al., 2004)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	22.0	25.0	0.49	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	38.0	25.0	0.61	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	45.0	25.0	0.62	(Briand et al., 2004)
³⁹ <i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	52.0	25.0	0.64	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	58.0	25.0	0.73	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	60.0	25.0	0.60	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	68.0	25.0	0.69	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> CYP-026J	Z8	135.0	25.0	0.73	(Briand et al., 2004)

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> ITEP-A3	Z8	180.0	25.0	0.74	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ITEP-A3	Z8	225.0	25.0	0.70	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ITEP-A3	Z8	290.0	25.0	0.70	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> ITEP-A3	Z8	400.0	25.0	0.56	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	5.0	26.0	0.12	(Bonilla et al., 2012)
⁴¹ <i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	15.0	26.0	0.35	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	35.0	26.0	0.49	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	45.0	26.0	0.53	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	60.0	26.0	0.54	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	80.0	26.0	0.59	(Bonilla et al., 2012)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	78.0	26.0	0.65	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	100.0	26.0	0.71	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	125.0	26.0	0.39	(Bonilla et al., 2012)
⁴² <i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	150.0	26.0	0.73	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	5.0	26.0	0.23	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	15.0	26.0	0.45	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	35.0	26.0	0.53	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	70.0	26.0	0.50	(Bonilla et al., 2012)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	80.0	26.0	0.69	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	78.0	26.0	0.87	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	100.0	26.0	0.59	(Bonilla et al., 2012)
⁴³ <i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	110.0	26.0	0.51	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	150.0	26.0	0.46	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	5.0	26.0	0.14	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	15.0	26.0	0.40	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	35.0	26.0	0.58	(Bonilla et al., 2012)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	45.0	26.0	0.45	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	75.0	26.0	0.65	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	80.0	26.0	0.76	(Bonilla et al., 2012)
⁴⁴ <i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	125.0	26.0	0.38	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	100.0	26.0	0.74	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	70.0	26.0	0.55	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	145.0	26.0	0.53	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	5.0	26.0	0.18	(Bonilla et al., 2012)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	35.0	26.0	0.52	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	45.0	26.0	0.46	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	90.0	26.0	0.57	(Bonilla et al., 2012)
⁴⁵ <i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	100.0	26.0	0.72	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	120.0	26.0	0.73	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> MVCC14	BG11	145.0	26.0	0.50	(Bonilla et al., 2012)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	10.0	25.0	0.26	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	15.0	25.0	0.33	(Briand et al., 2004)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	22.0	25.0	0.47	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	32.0	25.0	0.39	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	36.0	25.0	0.59	(Briand et al., 2004)
⁴⁶ <i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	40.0	25.0	0.45	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	85.0	25.0	0.45	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	117.0	25.0	0.50	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	145.0	25.0	0.54	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	178.0	25.0	0.56	(Briand et al., 2004)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	210.0	25.0	0.57	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	245.0	25.0	0.56	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	290.0	25.0	0.57	(Briand et al., 2004)
⁴⁷ <i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	360.0	25.0	0.55	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	400.0	25.0	0.56	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC117.02	Z8	486.0	25.0	0.54	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	10.0	25.0	0.37	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	22.0	25.0	0.50	(Briand et al., 2004)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	26.0	25.0	0.64	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	42.0	25.0	0.67	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	51.0	25.0	0.68	(Briand et al., 2004)
⁴⁸ <i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	55.0	25.0	0.68	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	75.0	25.0	0.70	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	86.0	25.0	0.72	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	110.0	25.0	0.64	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	125.0	25.0	0.64	(Briand et al., 2004)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	165.0	25.0	0.68	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	200.0	25.0	0.65	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	280.0	25.0	0.64	(Briand et al., 2004)
⁴⁹ <i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	380.0	25.0	0.54	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	30.0	15.0	0.08	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	30.0	20.0	0.25	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	30.0	25.0	0.41	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC98.14	Z8	30.0	30.0	0.42	(Briand et al., 2004)

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	90.0	25.0	0.56	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	110.0	25.0	0.58	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	125.0	25.0	0.64	(Briand et al., 2004)
⁵¹ <i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	140.0	25.0	0.56	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	175.0	25.0	0.63	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	210.0	25.0	0.62	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	275.0	25.0	0.59	(Briand et al., 2004)
<i>Cylindrospermopsis raciborskii</i> PMC99.12	Z8	365.0	25.0	0.57	(Briand et al., 2004)

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

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

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	30.0	28.0	0.29	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	30.0	28.0	0.27	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	30.0	28.0	0.26	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	50.0	20.0	0.28	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	50.0	20.0	0.28	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	50.0	20.0	0.24	(Xiao et al., 2017)
⁵⁵ <i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	50.0	28.0	0.25	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	50.0	28.0	0.28	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	50.0	28.0	0.34	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	100.0	20.0	0.39	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	100.0	20.0	0.41	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	100.0	20.0	0.37	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	100.0	28.0	0.39	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	100.0	28.0	0.38	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC05	Modified JM	100.0	28.0	0.33	(Xiao et al., 2017)
<i>Cylindrospermopsis raciborskii</i> WC06	Modified JM	15.0	28.0	0.18	(Willis et al., 2016)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	25.0	0.40	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
⁵⁹ <i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	25.0	0.39	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	30.0	0.53	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	30.0	0.52	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	30.0	0.51	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii</i> <i>floridaD</i>	WC	100.0	30.0	0.52	(Thomas and Litchman, 2015)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Cylindrospermopsis raciborskii floridaD</i>	WC	100.0	35.0	0.45	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaD</i>	WC	100.0	35.0	0.44	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaD</i>	WC	100.0	35.0	0.43	(Thomas and Litchman, 2015)
⁹⁹ <i>Cylindrospermopsis raciborskii floridaD</i>	WC	100.0	35.0	0.45	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	15.0	-0.04	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	15.0	-0.03	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	15.0	-0.01	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	15.0	-0.02	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	20.0	0.14	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	20.0	0.13	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	20.0	0.12	(Thomas and Litchman, 2015)
<i>Cylindrospermopsis raciborskii floridaE</i>	WC	100.0	20.0	0.12	(Thomas and Litchman, 2015)

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

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

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

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

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Dolichospermum smithii</i>	CT(N elevated)	60.0	28.0	0.22	(Shen et al., 2020)
<i>Dolichospermum spiroides</i>			24.0	0.77	(Seki et al., 1981)
<i>Dolichospermum ucrainica</i> CHAB 2155	CT	30.0	10.0	-0.04	(Wang and Li, 2015)
<i>Dolichospermum ucrainica</i> CHAB 2155	CT	30.0	25.0	0.09	(Wang and Li, 2015)
<i>Dolichospermum ucrainica</i> CHAB 2155	CT	30.0	35.0	0.10	(Wang and Li, 2015)
<i>Dolichospermum ucrainica</i> CHAB 2155	CT	10.0	25.0	0.08	(Wang and Li, 2015)
¹⁷ <i>Dolichospermum ucrainica</i> CHAB 2155	CT	60.0	25.0	0.10	(Wang and Li, 2015)
<i>Dolichospermum ukrainica</i>			26.0	0.78	(Tsujiura and Okubo, 2003)
<i>Dolichospermum variabilis</i>			35.0	1.20	(Kratz and Myers, 1955)
<i>Dolichospermum variabilis</i>			30.0	0.15	(Wang et al., 2007)
<i>Dolichospermum</i> sp.			25.0	0.13	(Konopka and Brock, 1978)
<i>Dolichospermum</i> sp.			32.0	1.25	(Nalewajko and Murphy, 2001)
<i>Dolichospermum</i> sp.			20.0	0.15	(Rapala et al., 1997)
<i>Dolichospermum</i> sp.			25.0	0.14	(Rapala et al., 1997)
<i>Dolichospermum</i> sp.			28.0	0.80	(Vincent and Silvester, 1979)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Dolichospermum sp. PCC7122</i>			20.0	0.46	(Lürling et al., 2013)
<i>Dolichospermum sp. PCC7122</i>			25.0	0.93	(Lürling et al., 2013)
<i>Dolichospermum sp. PCC7122</i>			27.5	0.75	(Lürling et al., 2013)
<i>Dolichospermum sp. PCC7122</i>			30.0	NA	(Lürling et al., 2013)
<i>Dolichospermum sp. PCC7122</i>			32.5	0.53	(Lürling et al., 2013)
<i>Dolichospermum sp. PCC7122</i>			35.0	0.58	(Lürling et al., 2013)
⁷² <i>Limnothrix redekei</i>	BG11	33.8 ~ 54.1	28.0	0.15	(Tiwari et al., 2001)
<i>Limnothrix redekei</i>	MV-NH4	120.0	10.0	0.17	(Nicklisch, 1999)
<i>Limnothrix redekei</i>	MV-NH4	120.0	15.0	0.53	(Nicklisch, 1999)
<i>Limnothrix redekei</i>				0.10	(Nicklisch, 1992)
<i>Limnothrix redekei</i>		24.0	15.0	0.52	(Shatwell et al., 2012)
<i>Limnothrix redekei</i>		32.0	15.0	0.37	(Shatwell et al., 2012)
<i>Limnothrix redekei</i>		27.0	15.0	0.31	(Shatwell et al., 2012)
<i>Limnothrix redekei</i>			15.0	0.21	(Shatwell et al., 2012)
<i>Limnothrix redekei</i>			15.0	0.22	(Shatwell et al., 2012)

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Lyngbya kuetzinghii</i>			25.0	0.14	(Zhang et al., 2009)
<i>Lyngbya lachneri</i>	BG11	33.8 ~ 54.1	28.0	0.08	(Tiwari et al., 2001)
<i>Lyngbya majuscula</i>				0.33	(Elmetri and Bell, 2004)
<i>Lyngbya majuscula</i>				0.25	(Elmetri and Bell, 2004)
<i>Lyngbya majuscula</i>				0.19	(Elmetri and Bell, 2004)
⁷⁴ <i>Lyngbya majuscula</i>				0.14	(Elmetri and Bell, 2004)
<i>Lyngbya majuscula</i>				0.04	(Elmetri and Bell, 2004)
<i>Lyngbya majuscula</i>				0.05	(Elmetri and Bell, 2004)
<i>Lyngbya nigra</i>	BG11	33.8 ~ 54.1	28.0	0.18	(Tiwari et al., 2001)
<i>Lyngbya palmarum</i>	BG11	33.8 ~ 54.1	28.0	0.28	(Tiwari et al., 2001)
<i>Lyngbya spiralis</i>	BG11	33.8 ~ 54.1	28.0	0.22	(Tiwari et al., 2001)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Microcystis aeruginosa</i> M3	Modified JM	30.0	28.0	0.28	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	50.0	20.0	0.36	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	50.0	20.0	0.38	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	50.0	20.0	0.32	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	50.0	28.0	0.38	(Xiao et al., 2017)
¹⁶ <i>Microcystis aeruginosa</i> M3	Modified JM	50.0	28.0	0.36	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	100.0	20.0	0.36	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	100.0	20.0	0.35	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	100.0	20.0	0.35	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	100.0	28.0	0.31	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	100.0	28.0	0.33	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M3	Modified JM	100.0	28.0	0.34	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M4	Modified JM	10.0	20.0	0.21	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M4	Modified JM	10.0	20.0	0.18	(Xiao et al., 2017)
<i>Microcystis aeruginosa</i> M4	Modified JM	10.0	20.0	0.20	(Xiao et al., 2017)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Oscillatoria agardhii</i>	BG11	33.8 ~ 54.1	28.0	0.09	(Tiwari et al., 2001)
<i>Oscillatoria annae</i>	BG11	33.8 ~ 54.1	28.0	0.17	(Tiwari et al., 2001)
<i>Oscillatoria brevis</i>	BG11	33.8 ~ 54.1	28.0	0.15	(Tiwari et al., 2001)
¹¹³ <i>Oscillatoria cf. chalybea</i>	BG11	40.0	21.5 ~ 28	0.31	(Van Der Ploeg et al., 1995)
<i>Oscillatoria cf. chalybea</i>	BG11	40.0	19.0	0.12	(Van Der Ploeg et al., 1995)
<i>Oscillatoria cf. chalybea</i>	BG11	80.0	28.0	0.62	(Van Der Ploeg et al., 1995)
<i>Oscillatoria cf. chalybea</i>	BG11	73.0	28.0	0.59	(Van Der Ploeg et al., 1995)
<i>Oscillatoria cf. chalybea</i>	BG11	65.3	28.0	0.50	(Van Der Ploeg et al., 1995)
<i>Oscillatoria cf. chalybea</i>	BG11	40.4	28.0	0.28	(Van Der Ploeg et al., 1995)
<i>Oscillatoria cf. chalybea</i>	BG11	31.9	28.0	0.31	(Van Der Ploeg et al., 1995)
<i>Oscillatoria cf. chalybea</i>	BG11	30.3	28.0	0.19	(Van Der Ploeg et al., 1995)
<i>Oscillatoria limosa</i> Agardh ex Gomont	CT	30.0	15.0	0.26	(Cai et al., 2017)
<i>Oscillatoria limosa</i> Agardh ex Gomont	CT	30.0	25.0	0.28	(Cai et al., 2017)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.25	(Gao et al., 2018)
<i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.25	(Gao et al., 2018)
<i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.22	(Gao et al., 2018)
128 <i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.20	(Gao et al., 2018)
<i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.20	(Gao et al., 2018)
<i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)
<i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.20	(Gao et al., 2018)
<i>Pseudanabaena</i> sp.	TN: 247 mg/L,TP: 7.12 mg/L	71.0	25.0	0.21	(Gao et al., 2018)

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

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

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

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

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Synechococcus spp.</i>	Nitrate:0.3 μM		25.9	-0.24	(Gong and Tsai, 2019)
<i>Synechococcus spp.</i>	Nitrate:0.2 μM		26.1	1.68	(Gong and Tsai, 2019)
<i>Synechococcus spp.</i>	Nitrate:0.1 μM		29.9	1.44	(Gong and Tsai, 2019)
<i>Synechococcus spp.</i>				0.70	(Liu et al., 1998)
<i>Synechococcus spp.</i>				1.33	(Liu et al., 1998)
<i>Synechococcus spp.</i>				0.44	(Liu et al., 1998)
<i>Synechococcus spp.</i>				1.35	(Liu et al., 1998)
<i>Synechococcus spp.</i>				1.49	(Liu et al., 1998)
<i>Synechococcus spp.</i>	NO ₃ :2.3 μM ; PO ₄ :0.4 μM		28.5	0.60	(Tsai and Mukhanov, 2021)
<i>Synechococcus spp.</i>	NO ₃ :19.4 μM ; PO ₄ :1.9 μM			0.66	(Tsai and Mukhanov, 2021)
<i>Synechococcus spp.</i>	NO ₃ :1.8 μM ; PO ₄ :0.5 μM		30.0	0.62	(Tsai and Mukhanov, 2021)
<i>Synechococcus spp.</i>	NO ₃ :18.6 μM ; PO ₄ :1.8 μM			0.65	(Tsai and Mukhanov, 2021)

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

Genus/Strain	Nutrient cond.	Light (μE)	Temp. ($^{\circ}\text{C}$)	Growth rate (d^{-1})	Ref.
<i>Synechococcus spp.</i>	NO ₃ :3.1 μM ; PO ₄ :0.8 μM		29.0	0.59	(Tsai and Mukhanov, 2021)
<i>Synechococcus spp.</i>	NO ₃ :16.2 μM ; PO ₄ :1.5 μM			0.64	(Tsai and Mukhanov, 2021)
<i>Synechococcus spp.</i>	NO ₃ :3.5 μM ; PO ₄ :0.7 μM		28.5	0.54	(Tsai and Mukhanov, 2021)
¹³² <i>Synechococcus spp.</i>	NO ₃ :18.9 μM ; PO ₄ :1.6 μM			0.56	(Tsai and Mukhanov, 2021)
<i>Synechococcus spp.</i>				-0.25	(Heng et al., 2017)
<i>Synechococcus spp.</i>				0.98	(Heng et al., 2017)
<i>Synechococcus spp.</i>				0.29	(Heng et al., 2017)
<i>Synechococcus spp.</i>				0.82	(Heng et al., 2017)
<i>Synechococcus sp.</i>			20.0	0.98	(Malinsky-Rushansky, 2002)
<i>Synechococcus sp.</i>			28.0	1.19	(Malinsky-Rushansky, 2002)
<i>Synechococcus sp.</i>	N:2.54 μM N d ⁻¹ ; P:1/20N			1.17	(Agawin et al., 2000)

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

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

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