

Chemical	Titer (mg/L)	Host Strain	Reference
Alcohols and related chemicals			
Ethanol	5500	<i>Synechocystis</i> sp. PCC6803	(Gao et al, 2012)
Ethanol	460	<i>Synechocystis</i> sp. PCC6803	(Dexter & Fu, 2009)
Ethanol	230	<i>S. elongatus</i> PCC7942	(Deng & Coleman, 1999)
1,2-propanediol	150	<i>S. elongatus</i> PCC7942	(Li & Liao, 2013)
1-butanol	14.5	<i>S. elongatus</i> PCC7942	(Lan & Liao, 2011)
1-butanol	30	<i>S. elongatus</i> PCC7942	(Lan & Liao, 2012)
1-butanol	404	<i>S. elongatus</i> PCC7942	(Lan et al, 2013)
2,3-butanediol	2380	<i>S. elongatus</i> PCC7942	(Oliver et al, 2013)
2,3-butanediol	430	<i>Synechocystis</i> sp. PCC6803	(Savakis et al, 2013)
2-methyl-1-butanol	200	<i>S. elongatus</i> PCC7942	(Shen & Liao, 2012)
3-methyl-1-butanol	70	<i>S. elongatus</i> PCC7942	(Li et al, 2014)
Isobutyraldehyde	1200	<i>S. elongatus</i> PCC7942	(Atsumi et al, 2009)
Isobutanol	500	<i>S. elongatus</i> PCC7942	(Li et al, 2014)
Isobutanol	450	<i>S. elongatus</i> PCC7942	(Atsumi et al, 2009)
Isobutanol	300	<i>S. elongatus</i> PCC7942	(Varman et al, 2013b)
Isopropanol	26.5	<i>S. elongatus</i> PCC7942	(Kusakabe et al, 2013)
Acetone	36	<i>Synechocystis</i> sp. PCC6803	(Zhou et al, 2012)
D-Lactate	55	<i>S. elongatus</i> PCC7942	(Niederholtmeyer et al, 2010)
D-Lactate	1140	<i>Synechocystis</i> sp. PCC6803	(Varman et al, 2013a)
L-Lactate	1800	<i>Synechocystis</i> sp. PCC6803	(Angermayr & Hellingwerf, 2013)
L-Lactate	290	<i>Synechocystis</i> sp. PCC6803	(Angermayr et al, 2012)
L-Lactate	15	<i>Synechocystis</i> sp. PCC6803	(Joseph et al, 2013)
Lipid based biofuels			
Fatty acids	197	<i>Synechocystis</i> sp. PCC6803	(Liu et al, 2011)
Fatty alcohols	2	<i>Synechocystis</i> sp. PCC6803	(Tan et al, 2011)
Alkanes	26	<i>Synechocystis</i> sp. PCC6803	(Wang et al, 2013b)
Alkanes	2.3	<i>Synechocystis</i> sp. PCC6803	(Kaiser et al, 2013)
Sugars			
Glucose/fructose	45	<i>S. elongatus</i> PCC7942	(Niederholtmeyer et al, 2010)
Sucrose	300	<i>Synechocystis</i> sp. PCC6803	(Du et al, 2013)
Sucrose	3423	<i>S. elongatus</i> PCC7942	(Ducat et al, 2012)
Mannitol	1100	<i>Synechococcus</i> sp. PCC 7002	(Jacobsen & Frigaard, 2014)
Biomaterials and high value compounds			
p-Coumaric acid	82.6	<i>Synechocystis</i> sp. PCC6803	(Xue et al, 2014)
Isoprene	50µg/gDW/d	<i>Synechocystis</i> sp. PCC6803	(Lindberg et al, 2010)
Isoprene	2 µg isoprene / L culture / h	<i>Synechocystis</i> sp. PCC6803	(Bentley & Melis, 2012)
Poly-3-HB	30% of DCW	<i>Synechococcus</i> sp. MA19	(Miyake et al, 2000)
(S),(R)-3-hydroxybutyrate	533	<i>Synechocystis</i> sp. PCC6803	(Wang et al, 2013a)
Ethylene	171 mg/L/h	<i>Synechocystis</i> sp. PCC6803	(Ungerer et al, 2012)
Ethylene	150 mg/L/h	<i>Synechocystis</i> sp. PCC6803	(Guerrero et al, 2012)
Ethylene	451nl/ml/h/OD730	<i>Synechocystis</i> sp. PCC6803	(Takahama et al, 2003)
Ethylene	N/A	<i>Synechocystis</i> sp. PCC6803	(Sakai et al, 1997)

β -phellandrene	0.192	<i>Synechocystis</i> sp. PCC6803	(Bentley et al, 2013)
Squalene	0.67 mg OD750/L	<i>Synechocystis</i> sp. PCC6803	(Englund et al, 2014)
Limonene	1.1	<i>Synechocystis</i> sp. PCC6803	(Kiyota et al, 2014)
β -caryophyllene	0.046	<i>Synechocystis</i> sp. PCC6803	(Reinsvold et al, 2011)
Eicosapentaenoic acid	2.24	<i>Synechococcus</i> sp. NKBG15041c	(Yu et al, 2000)
Eicosatetraenoic acid	1.49	<i>Synechococcus</i> sp. NKBG15041c	(Yu et al, 2000)

Table S1: Studies describing photosynthetic chemical production in cyanobacteria. Not all the publications reported titers and in these cases we include the original units.

Abbreviations: Not available (N/A), gram dry weight (gDW), dry cell weight (DCW).

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