

An overview of previous reconstructions of *Synechocystis* sp. PCC 6803

Publication	Year	GRR	#Genes	#Reactions	#Metabolites	GS	Comments
Shastri and Morgan [10]	2005	n	--	93	46	y	The first reconstruction. Forward and reverse reactions are treated separately. The TCA cycle is closed by the glyoxylate shunt.
Hong and Lee [11]	2007	y	78	56	54	y	An extension of the model of Shastri and Morgan, including gene-reaction relationship
Fu [12]	2009	y	633	831	704	y	The first genome-scale reconstruction. Only little manual curation.
Knoop et al. [13]	2010	y	337	380	291	n	Contains a more detailed representation of photorespiration, the TCA cycle is closed by the GABA shunt.
Montagud et al. [14]	2010	y	669	882	790	y	Based on BioCyc software.
Montagud et al. [15]	2011	y	811	956	911	y	An extension of the earlier model. The reconstruction is not provided as supplemental information of the article.
Yoshikawa et al. [16]	2011	y	376	493	465	y	The study also compares the reconstruction of Knoop et al. and Montagud et al.
Nogales et al. [17]	2012	y	678	863	795	n	Makes use of a refined biomass objective function. The TCA cycle is closed by the GABA shunt.
Saha et al. [18]	2012	y	731	1156	996	n	Contains the TCA bypass identified by Zhang and Bryant.
This study	2013	y	677	759/1035	601	n	Contains the TCA bypass identified by Zhang and Bryant.

GPR: Gene-reaction relationships

GS: Glyoxylate shunt

Reaction and metabolite numbers are taken from the respective network description. Metabolite numbers also contain external metabolites that are not balanced.