Biosynthesis of 2-methylisoborneol is regulated by chromatic acclimation of *Pseudanabaena*

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Supplementarty Material

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

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Images of culture solution

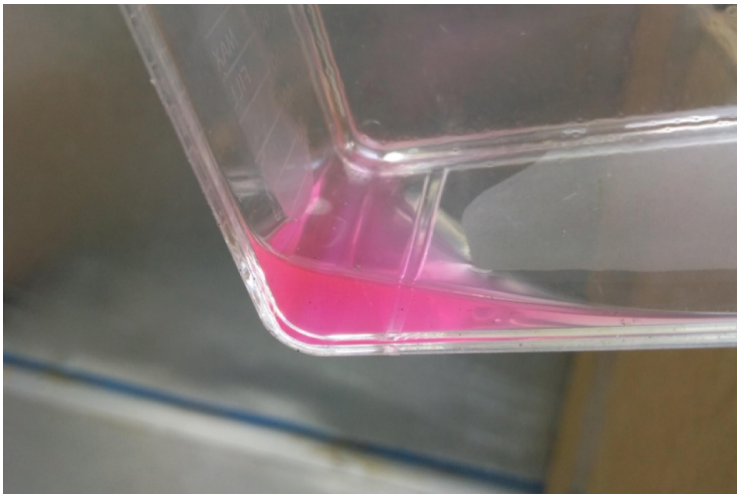

Fig. S1Pink color of *Pseudanabaena* (FACHB-1277) in decline phase

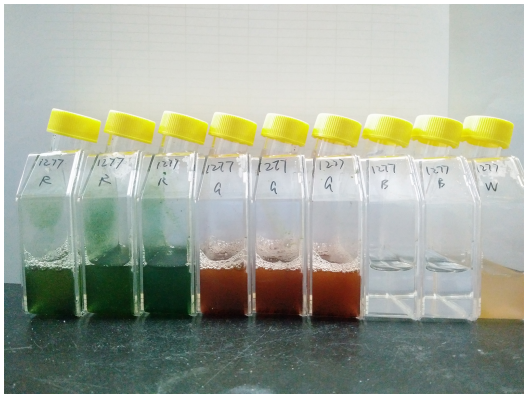

Fig. S2Photo in the light color batch culture experiment

Relative abundances of pigments under different light color culture conditions

Four typical cyanobacterial photosynthetic pigments were identified according to their fluorescence excitation (Table S1).

Table S1Fluorescence excitation and emission wavelength of typical photosynthetic pigments

Photosynthetic pigments	excitation wavelength	emission wavelength
Chlorophyll *a* (Chl*a*)	427 nm	680 nm
phycoerythrin (PE)	488 nm	588 nm
phycocyanin (PC)	600 nm	660 nm
Allophycocyanin (APC)	633 nm	660 nm
Carotenoids	513 nm	556 nm

The relative abundances of each pigment were further estimated by the absorption spectrum of the culture solution under different light color conditions. In more detail, Chl *a*, PC, PE and carotenoids were identified and APC was not detected in the culture solutions according to Table S1, hence we regarded the amount of APC is ignorable. Subsequently, we identified the absorption spectrums of each pure pigment (Fig. S3), and linear models were constructed between the absorption spectrum of culture soloutions (Y_i, $i = (W, R, G, B)$) and Chl *a* (p_1), PC (p_2), PE (p_3) and carotenoids (p_4) for different light color culture conditions Eq. S1, and the relative abundances of each pigments of culture solutions under white (λ_W), Red (λ_R), Green (λ_G), Blue (λ_B) light conditions were determined according to the least squares algorithm.

$$Y_i = \lambda_{1i}p_1 + \lambda_{2i}p_2 + \lambda_{3i}p_3 + \lambda_{4i}p_4 \tag{S1}$$

References

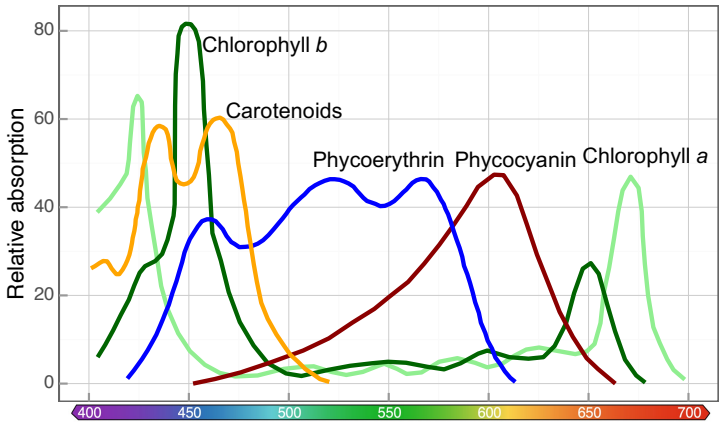

Fig. S3Relative absorption of photosynthetic pigments