

# MULTICULTIVATOR— MC-1000

## LIST OF REFERENCES

**2024**

ANGELINI, F., BELLINI, E., MARCHETTI, A., SALVATORI, G., VILLANO, M., ET AL. (2024). Efficient utilization of monosaccharides from agri-food byproducts supports *Chlorella vulgaris* biomass production under mixotrophic conditions. *Algal Res*, 77, 103358.

**DOI: 10.1016/j.algal.2023.103358**

BACA-PORCEL, Á., LEGERET, B., AUROY-TARRAGO, P., VEILLET, F., GIACALONE, C., ET AL. (2024). Microbial photoproduction of heptane. *bioRxiv*, 2024.07.17.603920.

**DOI: 10.1101/2024.07.17.603920**

BANDYOPADHYAY, A., SENGUPTA, A., ELVITIGALA, T., & PAKRASI, H.B. (2024). Endogenous clock-mediated regulation of intracellular oxygen dynamics is essential for diazotrophic growth of unicellular cyanobacteria. *Nature Communications*, 15, 3712.

**DOI: 10.1038/s41467-024-48039-0**

BEN-SHELEG, A., & VONSHAK, A. (2024). Tolerance to exogenously added ROS examined for correlation to enhanced specific growth rates of *A. Platensis*. *Authorea*.

**DOI: 10.22541/au.170668788.83463649/v1**

ESPINOZA-CORRAL, R., IWAI, M., ZAVŘEL, T., LECHNO-YOSSEF, S., SUTTER, M. ET AL. (2024). Phycobilisome protein *ApcG* interacts with *PSII* and regulates energy transfer in *Synechocystis*. *Plant Physiol*, 194(3), 1383-1396.

**DOI: 10.1093/plphys/kiad615**

ESPINOZA-CORRAL, R., ZAVŘEL, T., SUTTER, M., LESLIE, C.H., YANG, K., ET AL. (2024). The new phycobilisome linker protein *Apcl* regulates high light adaptation in *Synechocystis* sp. PCC 6803. *bioRxiv*, 2024.09.09.612062.

**DOI: 10.1101/2024.09.09.612062**

GROßE, R., HEUSER, M., TEIKARI, J.E., ET AL. (2024). Microcystin shapes the *Microcystis* phycosphere through community filtering and by influencing cross-feeding interactions. *bioRxiv*, 2024.09.18.613610.

**DOI: 10.1101/2024.09.18.613610**

HEMKER, F., AMMELBURGER, N. & JAHNS, P. (2024) Intervening dark periods negatively affect the photosynthetic performance of *Chlamydomonas reinhardtii* during growth under fluctuating high light. *Plant, Cell & Environment*, 1–13.

**DOI: 10.1111/pce.15020**

HEMKER, F., ZIELASEK, F., & JAHNS, P. (2024). Combined high light and salt stress enhances accumulation of PsbS and zeaxanthin in *Chlamydomonas reinhardtii*. *Physiologia Plantarum*, 176(2), e14233.

**DOI: 10.1111/ppl.14233**

KANG, M.-J., RYU, H.-B., PARK, H.S., ET AL. (2024). Polyphosphate accumulation induced by overexpression of polyphosphate kinase in *Synechocystis* sp. PCC6803 without phosphate deficiency. *Res Square*.

**DOI: 10.21203/rs.3.rs-4831758/v1**

LE, T.T., CORATO, A., GERARDS, T., ET AL. (2024). Heterotrophy Compared to Photoautotrophy for Growth Characteristics and Pigment Compositions in Batch Cultures of Four Green Microalgae. *Plants*, 13, 1182.

**DOI: 10.3390/plants13091182**

LEYLAND, B., NOVICHKOVA, E., DOLUI, A.K., JALLET, D., DABOUSSI, F., ET AL. (2024). Acyl-CoA binding protein is required for lipid droplet degradation in the diatom *Phaeodactylum tricornutum*. *Plant Physiol*, 194(2), 958-981.

**DOI: 10.1093/plphys/kiad525**

MANTOVANI, O., HAFNER, M., WALKE, P. ET AL. (2024). The redox-sensitive R-loop of the carbon control protein SbtB contributes to the regulation of the cyanobacterial CCM. *Sci Rep* 14, 7885.

**DOI: 10.1038/s41598-024-58354-7**

MENDAÑA, A., SANTOS-MERINO, M., GUTIÉRREZ-LANZA, R., DOMÍNGUEZ-QUINTERO, M., MEDINA, J.M., ET AL. (2024). Long-term evolution reveals the role of the circadian cycle in the environmental adaptation of cyanobacteria. *bioRxiv*, 2024.03.12.584591.

**DOI: 10.1101/2024.03.12.584591**

PATYI, G., HÓDI, B., MALLICK, I., ET AL. (2024) Investigation of singlet-oxygen-responsive genes in the cyanobacterium *Synechocystis* PCC 6803. *Physiologia Plantarum*, 176(4), e14468.

**DOI: 10.1111/ppl.14468**

POHLAND, A.C., BERNÁT, G., GEIMER, S. ET AL. (2024). Mg<sup>2+</sup> limitation leads to a decrease in chlorophyll, resulting in an unbalanced photosynthetic apparatus in the cyanobacterium *Synechocystis* sp. PCC6803. *Photosynth Res* 162, 13–27.

**DOI: 10.1007/s11120-024-01112-7**

RAJARATHINAM, Y., WITTEMEIER, L., GUTEKUNST, K., HAGEMANN, M., & KOPKA, J. (2024). Dynamic photosynthetic labelling and carbon-positional mass spectrometry monitor in vivo carbon assimilation rates by ribulose-1,5-bisphosphate carboxylase. *bioRxiv*, 2024.07.18.604122.

**DOI: 10.1101/2024.07.18.604122**

REIS, M., ZENKER, S., VIEHÖVER, P., ET AL. (2024). Study of excess manganese stress response highlights the central role of manganese exporter Mnx for holding manganese homeostasis in the cyanobacterium *Synechocystis* sp. PCC 6803. *bioRxiv*, 2024.08.16.608223.

**DOI: 10.1101/2024.08.16.608223**

SATO, M., KAWAGUCHI, T., MAEDA, K., WATANABE, M., IKEUCHI, M., ET AL. (2024). Functional Modification of Cyanobacterial Phycobiliprotein and Phycobilisomes through Bilin Metabolism Control. *bioRxiv*.

**DOI: 10.1101/2024.02.04.578791**

SENGUPTA, A., BANDYOPADHYAY, A., SARKAR, D., HENDRY, JI., SCHUBERT, M.G. ET AL (2024). Genome streamlining to improve performance of a fast-growing cyanobacterium *Synechococcus elongatus* UTEX 2973. *mBio* 15:e03530-23.

**DOI: 10.1128/mbio.03530-23**

SUTARDJA, L.C., DODGE, N., WALBY, S.L., BUTLER, N.J., GNANASEKARAN, T., ET AL. (2024). Modulation of the MEP Pathway for Overproduction of 13-R-manoyl Oxide in Cyanobacteria. *Synthetic Biology and Engineering*, 2(1), 10005.

**DOI: 10.35534/sbe.2024.10005**

SUTARDJA, L., MELLOR, S.B., DODGE, N., MATTHES, A., BUROW, M., ET AL. (2024). Expression of Redox Partner Fusions for Light Driven Cytochrome P450s in the Cyanobacterium *Synechocystis* sp. PCC. 6803. *Synthetic Biology and Engineering*, 2(2), 10008.

**DOI: 10.35534/sbe.2024.10008**

TÓTH, D., KUNTAM, S., FERENCZI, Á., VIDAL-MEIRELES, A., KOVÁCS, L., ET AL. (2024). Chloroplast phosphate transporter CrPHT4-7 regulates phosphate homeostasis and photosynthesis in *Chlamydomonas*. *Plant Physiol*, 194(3), 1646-1661.

**DOI: 10.1093/plphys/kiad607**

VILLANOVA, V., ENGELBREKTSSON, J., STRÖMBERG, N., EKENDAHL, S. & SPETEA, C. (2024). Unveiling the ecological resilience and industrial potential of *Skeletonema marinoi* through mixotrophic cultivation in Nordic winter condition. *Physiologia Plantarum*, 176(3), e14308.

**DOI: 10.1111/ppl.14308**

WITTEMEIER, L., RAJARATHINAM, Y., ERBAN, A., HAGEMANN, M., & KOPKA, J. (2024). Positional 13C Enrichment Analysis of Aspartate by GC-MS to Determine PEPC Activity In Vivo. *bioRxiv*, 2024.05.07.592938.

**DOI: 10.1101/2024.05.07.592938**

WITTING, L., SEIFFARTH, J., STUTE, B., SCHULZE, T., HOFER, J.M. ET AL. (2024). A microfluidic system for cultivation of cyanobacteria with precise light intensity and CO2 control: Enabling growth data acquisition at single-cell resolution. *ChemRxiv*. 2024.

**DOI: 10.26434/chemrxiv-2024-wn1m8**

XIE, N., SHARMA, C., RUSCHE, K., & WANG, X. (2024). Phosphoketolase and KDPG aldolase metabolism modulate photosynthetic carbon yield in cyanobacteria. *bioRxiv*, 2024.02.12.579767.

**DOI: 10.1101/2024.02.12.579767**

YUN, L., ZEGARAC, R., & DUCAT, D.C. (2024). Impact of irradiance and inorganic carbon availability on heterologous sucrose production in *Synechococcus elongatus* PCC 7942. *Front Plant Sci*, 15:1378573.

**DOI: 10.3389/fpls.2024.1378573**

## 2023

ABDEL-SALAM, E.M., FIGUEROA-GONZALES, T., & LEISTER, D. (2023). Transcriptomic meta-analysis and functional validation identify genes linked to adaptation and involved in high-light acclimation in *Synechocystis* sp. PCC 6803. *Front Photobiol.* 1:1290382.

**DOI: 10.3389/fphbi.2023.1290382**

ALVARENGA-LUCIUS, L., LINHARTOVÁ, M., SCHUBERT, H., MAAß, S., BECHER, D., ET AL. (2023). The high-light-induced protein *SlIP4* binds to *NDH1* and photosystems facilitating cyclic electron transport and state transition in *Synechocystis* sp. PCC 6803. *New Phytol*, 239: 1083-1097.

**DOI: 10.1111/nph.18987**

AMENDOLA, S., KNEIP, J.S., MEYER, F., PEROZENI, F., CAZZANIGA, S., ET AL. (2023). Metabolic Engineering for Efficient Ketocarotenoid Accumulation in the Green Microalga *Chlamydomonas reinhardtii*. *ACS Synth. Biol.*, 12, 3, 820–831.

**DOI: 10.1021/acssynbio.2c00616**

BARSKÉ, T., SPÄT, P., SCHUBERT, H., ET AL. (2023). The Role of Serine/Threonine-Specific Protein Kinases in Cyanobacteria - *SpkB* Is Involved in Acclimation to Fluctuating Conditions in *Synechocystis* sp. PCC 6803. *MCP Res*, 22(11), 100656.

**DOI: 10.1016/j.mcpro.2023.100656**

BINDER, P.M., FRISON, N., GUERRA-GOROSTEGI, N. ET AL. (2023). Innovative multiple resource recovery pathways from EBPR wastewater treatment–derived sludge. *Biomass Conv. Bioref.* 13, 16421–16440.

**DOI: 10.1007/s13399-023-03849-y**

BROADWELL, E.L.M., PICKFORD, R.E., PERKINS, R.G., SGOURIDIS, F., & WILLIAMSON, C.J. (2023). Adaptation versus plastic responses to temperature, light, and nitrate availability in cultured snow algal strains. *FEMS Microbiol Ecol*, 99(9), fiad088.

**DOI: 10.1093/femsec/fiad088**

CHE S., DU G., ZHONG X., ET AL. (2023). Quantification of Photosynthetic Pigments in *Neopyropia yezoensis* Using Hyperspectral Imagery. *Plant Phenomics* 5:Article 0012.

**DOI: 10.34133/ plantphenomics.0012**

DIAZ-MACADOO, D., NAGAI, S., MATA, M.T., ET AL. (2023). Comparative analysis of carotenoid synthesis and transcriptome of a microalga *Chlorophyta* MCH-35, potential lutein producer, in response to different quality light. *Algal Res*, 74, 103206.

**DOI: 10.1016/j.algal.2023.103206**

DODSON, E.J., MA, J., SZLEJF, M.S., MAROUDAS-SKLARE, N., PALTIEL, Y., ET AL. (2023). The structural basis for light acclimation in phycobilisome light harvesting systems systems in *Porphyridium purpureum*. *Communications Biology*, 6, 1210.

**DOI: 10.1038/s42003-023-05586-4**

FISHER, N.L., HALSEY, K.H., SUGGET, D.J., POMBROL, M., RALPH, P.J., ET AL. (2023). Light-dependent metabolic shifts in the model diatom *Thalassiosira pseudonana*. *Algal Res*, 74, 103172.

**DOI: 10.1016/j.algal.2023.103172**

GAO, Y., BERNARD, O., FANESI, A., PERRÉ, P., & LOPES, F. (2023). The impact of light/dark regimes on structure and physiology of *Chlorella vulgaris* biofilms. *Front. Microbiol.* 14.

**DOI: 10.3389/fmicb.2023.1250866**

KRUPNIK, T., ZIENKIEWICZ, M., WASILEWSKA-DĘBOWSKA, W., DROŻAK, A., & KANIA, K. (2023). How Light Modulates the Growth of *Cyanidioschyzon merolae* Cells by Changing the Function of Phycobilisomes. *Cells*, 12, 1480.

**DOI: 10.3390/cells12111480**

LLOP, A., LABELLA, J.I. BORISOVA, M., ET AL. (2023). Pleiotropic effects of PipX, PipY, or RelQ overexpression on growth, cell size, photosynthesis, and polyphosphate accumulation in the cyanobacterium *Synechococcus elongatus* PCC7942. *Front Microbiol*, 14:1141775.

**DOI: 10.3389/fmicb.2023.1141775**

MIAO, R., JAHN, M., SHABESTARY, K., PELTIER, G., & HUDSON, E.P. (2023). CRISPR interference screens reveal growth–robustness tradeoffs in *Synechocystis* sp. PCC 6803 across growth conditions. *Plant Cell*, 35(11), 3937-3956.

**DOI: 10.1093/plcell/koad208**

PATEL, A., RANTZOS, C., KRIKIGIANNI, E. ET AL. (2023). A bioprocess engineering approach for the production of hydrocarbons and fatty acids from green microalga under high cobalt concentration as the feedstock of high-grade biofuels. *Biotechnol Biofuels* 17, 64.

**DOI: 10.1186/s13068-024-02512-6**

PATYI, G., HÓDI, B., MALLICK, I., MARÓTI, G., KÓS, P.B., ET AL. (2023). Investigation of singlet oxygen sensitive genes in the cyanobacterium *Synechocystis* PCC 6803. *bioRxiv*, 2023.09.22.558817.

**DOI: 10.1101/2023.09.22.558817**

PERIN, G., BELLAN, A., MICHELBERGER, T., LYSKA, D., WAKAO, S., ET AL. (2023). Modulation of xanthophyll cycle impacts biomass productivity in the marine microalga *Nannochloropsis*. *PNAS*, 120(25), e2214119120.

**DOI: 10.1073/pnas.2214119120**

SCHAD A., WAGNER H., AND WILHELM C. (2023). Optimising biotechnological glycolate production in *Chlamydomonas reinhardtii* by improving carbon allocation towards the product. *Chemical Engineering Journal*, 141432.

**DOI: 10.1016/j.cej.2023.141432**

SCHMIDT, N., STAPPERT, N., NIMURA-MATSUNE, K., WATANABE, S., SOBOTKA, R., ET AL. (2024). Epigenetic control of tetrapyrrole biosynthesis by m4C DNA methylation in a cyanobacterium. *bioRxiv*, 2024.08.20.608618.

**DOI: 10.1101/2024.08.20.608618**



SCHUBERT, M.G., TANG, T.-C., GOODCHILD-MICHELMAN, I.M., RYON, K.A., HENRIKSEN, J.R., ET AL. (2023). Cyanobacteria newly isolated from marine volcanic seeps display rapid sinking and robust, high density growth. *bioRxiv*, 2023.10.30.564770.

**DOI: 10.1101/2023.10.30.564770**

SELIM, K.A., HAFFNER, M., MANTOVANI, O., ALBRECHT, R., ZHU, H., ET AL. (2023). Carbon signaling protein SbtB possesses atypical redox-regulated apyrase activity to facilitate regulation of bicarbonate transporter SbtA. *PNAS*, 120(8), e2205882120.

**DOI: 10.1073/pnas.220588212**

SENGUPTA, A., BANDYOPADHYAY, A., SCHUBERT, M.G., CHURCH, G.M., & PAKRASI, H.B. (2023). Antenna Modification in a Fast-Growing Cyanobacterium *Synechococcus elongatus* UTEX 2973 Leads to Improved Efficiency and Carbon-Neutral Productivity. *Microbiol Spectr* 11:e00500-23.

**DOI: 10.1128/spectrum.00500-23**

SPORRE, E., KARLSEN, J., SCHRIEVER, K. ET AL. (2023). Metabolite interactions in the bacterial Calvin cycle and implications for flux regulation. *Commun Biol* 6, 947.

**DOI: 10.1038/s42003-023-05318-8**

SUN H., LUAN G., MA Y., ET AL. (2023). Engineered hypermutation adapts cyanobacterial photosynthesis to combined high light and high temperature stress. *Nat Commun* 14, 1238.

**DOI: 10.1038/s41467-023-36964-5**

VIDAL-MEIRELES, A., KUNTAM, S., SZÉLES, E., ET AL. (2023). The lifetime of the oxygen-evolving complex subunitPSBO depends on light intensity and carbon availabilityin *Chlamydomonas*. *Plant Cell Environ*, 46:422–439.

**DOI: 10.1111/pce.14481**

VILLANOVA, V., ROQUES, J.A.C., FORGHANI, B., ET AL. (2023). Two-phase microalgae cultivation for RAS water remediation and high-value biomass production. *Front Plant Sci*, 14:1186537.

**DOI: 10.3389/fpls.2023.1186537**

ZAMPIERI, R.M., CALDARA, F. & LA ROCCA, N. Assessment of optimal growth conditions for biomass and exopolysaccharides production in the thermotolerant cyanobacterium *Phormidium* sp. ETS-05. *J Appl Phycol* 35, 1575–1587.

**DOI: 10.1007/s10811-023-02995-0**

## 2022

BISWAS S., NIEDZWIEDZKI D. M., PAKRASI H. B. (2022). Introduction of cysteine-mediated quenching in the CP43 protein of photosystem II builds resilience to high-light stress in a cyanobacterium, *Biochimica et Biophysica Acta (BBA) – Bioenergetics*. Volume 1863.

**DOI: 10.1016/j.bbabi.2022.148580.**

DIAZ-MACADOO, D.; MATA, M.T.; RIQUELME, C. (2022). Influence of Irradiance and Wavelength on the Antioxidant Activity and Carotenoids Accumulation in *Muriellopsis* sp. Isolated from the Antofagasta Coastal Desert. *Molecules* 27. 2412.

**DOI: 10.3390/ molecules27082412**

FATTORE N., BUCCI F., BELLAN A., ET AL. (2022). An increase in the membrane lipids recycling by PDAT overexpression stimulates the accumulation of triacylglycerol in *Nannochloropsis gaditana*. *Journal of Biotechnology*. Volume 357.

**DOI: 10.1016/j.jbiotec.2022.07.007.**

JIA M., MUNZ J., LEE J., ET AL. (2022), The bHLH family NITROGEN-REPLETION INSENSITIVE1 represses nitrogen starvation-induced responses in *Chlamydomonas reinhardtii*. *Plant J*, 110: 337-357

**DOI: 10.1111/tpj.15673**

KAREYA M.S., MARIAM I., RAJACHARYA G.H., NESAMMA A.A. AND JUTUR, P.P. (2022), Valorization of carbon dioxide (CO<sub>2</sub>) to enhance production of biomass, biofuels, and biorenewables (B<sup>3</sup>) in *Chlorella saccharophila* UTEX247: a circular bioeconomy perspective. *Biofuels, Bioprod. Bioref.*, 16: 682-697.

**DOI: 10.1002/bbb.2295**

LIBERTON M., BISWAS, S. AND PAKRASI, H.B. (2022). Photosynthetic modulation during the diurnal cycle in a unicellular diazotrophic cyanobacterium grown under nitrogen-replete and nitrogen-fixing conditions. *Sci Rep* 12, 18939.

**DOI:10.1038/s41598-022-21829-6**

LIN J-Y., TAN S-I., YI Y-CH., ET AL (2022). High-level production and extraction of C-phycocyanin from cyanobacteria *Synechococcus* sp. PCC7002 for antioxidation, antibacterial and lead adsorption. *Environmental Research*. Volume 206.

**DOI: 10.1016/j.envres.2021.112283.**

MILLS L.A., MORENO-CABEZUELO J.Á., WŁODARCZYK A., ET AL. (2022). Development of a Biotechnology Platform for the Fast-Growing Cyanobacterium *Synechococcus* sp. PCC 11901. *Biomolecules* 12, 872.

**DOI: 10.3390/ biom12070872**

NAĎ M., BRUMMER V., LOŠÁK P., ET AL. (2022). Waste-to-energy plants flue gas CO<sub>2</sub> mitigation using a novel tubular photobioreactor while producing *Chlorella* algae. *Journal of Cleaner Production*. Volume 385,

**DOI: 10.1016/j.jclepro.2022.135721.**

PATEL A., KRIKIGIANNI E., ROVA U., ET AL. (2022). Bioprocessing of volatile fatty acids by oleaginous freshwater microalgae and their potential for biofuel and protein production. *Chemical Engineering Journal*. Volume 438.

**DOI: 10.1016/j.cej.2022.135529.**

PERIN G, GAMBARO F AND MOROSINOTTO T. (2022) Knowledge of Regulation of Photosynthesis in Outdoor Microalgae Cultures Is Essential for the Optimization of Biomass Productivity. *Front. Plant Sci*. 13:846496.

**DOI: 10.3389/fpls.2022.846496**

SANTOS-MERINO M., GUTIÉRREZ-LANZA R.; NOGALES J., ET AL. (2022). *Synechococcus elongatus* PCC 7942 as a Platform for Bioproduction of Omega-3 Fatty Acids. *Life* 2022, 12, 810.

**DOI: 10.3390/life12060810**

SHINDE S., SINGAPURI S., ZHENXIONG JIANG, ET AL. (2022). Thermodynamics contributes to high limonene productivity in cyanobacteria. *Metabolic Engineering Communications*. Volume 14.

**DOI: 10.1016/j.mec.2022.e00193.**

SZÉLES E., NAGY K., ÁBRAHÁM Á., ET AL. (2022). Microfluidic Platforms Designed for Morphological and Photosynthetic Investigations of *Chlamydomonas reinhardtii* on a Single-Cell Level. *Cells* 2022, 11, 285.

**DOI: 10.3390/cells11020285**

VILLANOVA V., GALASSO C., VITALE G.A., DELLA SALA G., S. ET AL. (2022). Mixotrophy in a Local Strain of *Nannochloropsis granulata* for Renewable High-Value Biomass Production on the West Coast of Sweden. *Mar. Drugs*. 20, 424.

**DOI: 10.3390/md20070424**

WALKER P. L., & PAKRASI, H. B. (2022). A ubiquitously conserved cyanobacterial protein phosphatase essential for high light tolerance in a fast-growing cyanobacterium. *Microbiology spectrum*, 10(4), e01008-22.

**DOI: 10.1128/spectrum.01008-22**

ZHAO L-S., LI CH-Y., CHEN X-L., ET AL. (2022). Native architecture and acclimation of photosynthetic membranes in a fast-growing cyanobacterium. *Plant Physiology*, Volume 190. Issue 3.

**DOI: 10.1093/plphys/kiac372**

ZHENG Z., HE B., GUO M. L., ET AL. (2022). Overexpression of OHPs in *Neopyropia yezoensis* (Rhodophyta) reveals their possible physiological roles. *Algal Research*. Volume 64.4,

**DOI: 10.1016/j.algal.2022.102714.**

CANIZALES S., SŁIWSZCINKA M., RUSSO A. ET AL. (2021). Cyanobacterial growth and cyanophycin production with urea and ammonium as nitrogen source. *J Appl Phycol* 33, 3565–3577.

**DOI: 10.1007/s10811-021-02575-0**

GACHELIN M., BOUTOUTE M., CARRIER G. ET AL. (2021). Enhancing PUFA-rich polar lipids in *Tisochrysis lutea* using adaptive laboratory evolution (ALE) with oscillating thermal stress. *Appl Microbiol Biotechnol* 105.

**DOI: 10.1007/s00253-020-11000-4**

HUOKKO T., NI T., DYKES G.F., ET AL. (2021). Probing the biogenesis pathway and dynamics of thylakoid membranes. *Nat Commun* 12, 3475.

**DOI: 10.1038/s41467-021-23680-1**

KONA R., PALLERLA P., ADDIPILLI R., ET AL. (2021). Lutein and  $\beta$ -carotene biosynthesis in *Scenedesmus* sp. SVMIICT1 through differential light intensities. *Bioresource Technology*. Volume 341.

**DOI: 10.1016/j.biortech.2021.125814.**



PIVATO M., PEROZENI F., LICAUSI F., ET AL. (2021). Heterologous expression of cyanobacterial Orange Carotenoid Protein (OCP2) as a soluble carrier of ketocarotenoids in *Chlamydomonas reinhardtii*. *Algal Research*. Volume 55.

**DOI: 10.1016/j.algal.2021.102255.**

RANI V.; MARÓTI G. (2021). Assessment of Nitrate Removal Capacity of Two Selected Eukaryotic Green Microalgae. *Cells* 10, 2490.

**DOI: 10.3390/cells10092490**

RODRIGUES J.S., LINDBERG P. (2021). Metabolic engineering of *Synechocystis* sp. PCC 6803 for improved bisabolene production. *Metabolic Engineering Communications*. Volume 12.,

**DOI: 10.1016/j.mec.2020.e00159.**

SHABESTARY K., HERNÁNDEZ H. P., MIAO R., ET AL. (2021). Cycling between growth and production phases increases cyanobacteria bioproduction of lactate. *Metabolic Engineering*. Volume 68.

**DOI: 10.1016/j.ymben.2021.09.010.**

AHMAD, A., PATHANIA, R., & SRIVASTAVA, S. (2020). Biochemical Characteristics and a Genome-Scale Metabolic Model of an Indian Euryhaline Cyanobacterium with High Polyglucan Content. *Metabolites*, 10(5), 177.

**DOI:10.3390/metabo10050177**

CECCHIN, M., BERTEOTTI, S., PALTRINIERI, S., VIGLIANTE, I., ET AL. (2020). Improved lipid productivity in *Nannochloropsis gaditana* in nitrogen-replete conditions by selection of pale green mutants. *Biotechnology for Biofuels*, 13(1).

**DOI:10.1186/s13068-020-01718-8**

CUTOLO, E., TOSONI, M., BARERA, S., HERRERA-ESTRELLA, L., ET AL. (2020). A Phosphite Dehydrogenase Variant with Promiscuous Access to Nicotinamide Cofactor Pools Sustains Fast Phosphite-Dependent Growth of Transplastomic *Chlamydomonas reinhardtii*. *Plants*, 9(4), 473.

**DOI:10.3390/plants9040473**

DIENST, D., WICHMANN, J., MANTOVANI, O., RODRIGUES, J. S., & LINDBERG, P. (2020). High density cultivation for efficient sesquiterpenoid biosynthesis in *Synechocystis* sp. PCC 6803. *Scientific Reports*, 10(1).

**DOI:10.1038/s41598-020-62681-w**

DE ALVARENGA, L. V., HESS, W. R., & HAGEMANN, M. (2020). AcpSP – A Novel Small Protein Regulator of Aconitase Activity in the Cyanobacterium *Synechocystis* sp. PCC 6803. *Frontiers in Microbiology*, 11.

**DOI:10.3389/fmicb.2020.01445**

GUPTA, J. K., RAI, P., JAIN, K. K., & SRIVASTAVA, S. (2020). Overexpression of bicarbonate transporters in the marine cyanobacterium *Synechococcus* sp. PCC 7002 increases growth rate and glycogen accumulation. *Biotechnology for Biofuels*, 13(1).

**DOI:10.1186/s13068-020-1656-8**

IASIMONE F., SEIRA J., DESMOND-LE QUÉMÉNER E., ET AL. (2020). Bioflocculation and settling studies of native wastewater filamentous cyanobacteria using different cultivation systems for a low-cost and easy to control harvesting process. *Journal of Environmental Management*. Volume 256.

**DOI: 10.1016/j.jenvman.2019.109957.44**

JAISWAL, D., SENGUPTA, A., SENGUPTA, S., MADHU, S., PAKRASI, H. B., & WANGIKAR, P. P. (2020). A Novel Cyanobacterium *Synechococcus elongatus* PCC 11802 has Distinct Genomic and Metabolomic Characteristics Compared to its Neighbor PCC 11801. *Scientific Reports*, 10(1).

**DOI:10.1038/s41598-019-57051-0**

KNOOT, C.J., BISWAS S. AND PAKRASI, H. B. (2020). Tunable Repression of Key Photosynthetic Processes Using Cas12a CRISPR Interference in the Fast-Growing Cyanobacterium *Synechococcus* sp. UTEX 2973. *CS Synth. Biol.* 2020, 9, 1, 132–143.

**DOI: 10.1021/acssynbio.9b00417**

MINHAS, A. K., BARROW, C. J., HODGSON, P., & ADHOLEYA, A. (2020). Microalga *Scenedesmus bijugus*: Biomass, lipid profile, and carotenoids production in vitro. *Biomass and Bioenergy*, 142, 105749.

**DOI:10.1016/j.biombioe.2020.105749**

MOULIN S., BEYLY A., BLANGY S., ET AL. (2020). Fatty acid photodecarboxylase is an ancient photoenzyme responsible for hydrocarbon formation in the thylakoid membranes of algae. *bioRxiv* 2020.06.23.166330;

**DOI: 10.1101/2020.06.23.166330**

MUNZ, J., XIONG, Y., KIM, J. Y. H., SUNG, Y. J., ET AL. (2020). Arginine-fed cultures generates triacylglycerol by triggering nitrogen starvation responses during robust growth in *Chlamydomonas*. *Algal Research*, 46, 101782.

**DOI:10.1016/j.algal.2019.101782**

NZAYISENGA, J. C., FARGE, X., GROLL, S. L., & SELLSTEDT, A. (2020). Effects of light intensity on growth and lipid production in microalgae grown in wastewater. *Biotechnology for Biofuels*, 13(1).

**DOI:10.1186/s13068-019-1646-x**

ROHNKE, B. A., RODRÍGUEZ PÉREZ, K. J., & MONTGOMERY, B. L. (2020). Linking the Dynamic Response of the Carbon Dioxide-Concentrating Mechanism to Carbon Assimilation Behavior in *Fremyella diplosiphon*. *mBio*, 11(3).

**DOI:10.1128/mbio.01052-20**

SENGUPTA, A., PRITAM, P., JAISWAL, D., BANDYOPADHYAY, A., ET AL. (2020). Photosynthetic Co-Production of Succinate and Ethylene in A Fast-Growing Cyanobacterium, *Synechococcus elongatus* PCC 11801. *Metabolites*, 10(6), 250.

**DOI:10.3390/metabo10060250**

SENGUPTA, S., JAISWAL, D., SENGUPTA, A. ET AL. (2020). Metabolic engineering of a fast-growing cyanobacterium *Synechococcus elongatus* PCC 11801 for photoautotrophic production of succinic acid. *Biotechnol Biofuels* 13, 89.

**DOI: 10.1186/s13068-020-01727-7**

SHINDE S., ZHANG X., SINGAPURI S.P., ET AL. (2020). Glycogen Metabolism Supports Photosynthesis Start through the Oxidative Pentose Phosphate Pathway in Cyanobacteria , *Plant Physiology*. Volume 182.

**DOI:10.1104/pp.19.01184**

VARSHNEY, P., BEARDALL, J., BHATTACHARYA, S. ET AL. (2020). Effect of elevated carbon dioxide and nitric oxide on the physiological responses of two green algae, *Asterarcys quadricellulare* and *Chlorella sorokiniana*. *J Appl Phycol* 32, 189–204 (2020).

**DOI: 10.1007/s10811-019-01950-2**

VONSHAK, A., NOVOPLANSKY, N., SILVA BENAVIDES, A.M. ET AL. (2020). Photosynthetic characterization of two *Nannochloropsis* species and its relevance to outdoor cultivation. *J Appl Phycol* 32, 909–922.

**DOI: 10.1007/s10811-019-01985-5**

YAO, L., SHABESTARY, K., BJÖRK, S. M., ET AL. (2020). Pooled CRISPRi screening of the cyanobacterium *Synechocystis* sp PCC 6803 for enhanced industrial phenotypes. *Nature Communications*, 11(1).

**DOI:10.1038/s41467-020-15491-7**

ZHANG, B., XIE, X., LIU, X., HE, L., SUN, Y., & WANG, G. (2020). The carbonate concentration mechanism of *Pyropia yezoensis* (Rhodophyta): evidence from transcriptomics and biochemical data. *BMC Plant Biology*, 20(1).

**DOI:10.1186/s12870-020-02629-4**

ZHAO, L., HUOKKO, T., WILSON, S. ET AL. (2020). Structural variability, coordination and adaptation of a native photosynthetic machinery. *Nat. Plants* 6, 869–882.

**DOI: 10.1038/s41477-020-0694-3**

BARCHEWITZ, T., GULIAMOW, A., MEISSNER, S., TIMM, S., ET AL. (2019). Non-canonical localization of RubisCO under high light conditions in the toxic cyanobacterium *Microcystis aeruginosa* PCC7806. *Environmental Microbiology*.

**DOI:10.1111/1462-2920.14837**

BELLAN, A., BUCCI, F., PERIN, G., ALBORESI, A., & MOROSINOTTO, T. (2019). Photosynthesis regulation in response to fluctuating light in the secondary endosymbiont alga *Nannochloropsis gaditana*. *Plant and Cell Physiology*.

**DOI:10.1093/pcp/pcz174**

BEN-ZVI, O., DAFNI, E., FELDMAN, Y., & YACOBY, I. (2019). Re-routing photosynthetic energy for continuous hydrogen production in vivo. *Biotechnology for Biofuels*, 12(1).

**DOI:10.1186/s13068-019-1608-3**

BOGAERT K. A., PEREZ E., RUMIN J., ET AL. (2019). Metabolic, Physiological, and Transcriptomics Analysis of Batch Cultures of the Green Microalga *Chlamydomonas* Grown on Different Acetate Concentrations. *Cells*, 8(11), 1367.

**DOI:10.3390/cells8111367**

BREY L. F., WŁODARCZYK A. J., BANG THØFNER J. F., ET AL. (2020). *Metabolic engineering of Synechocystis sp. PCC 6803 for the production of aromatic amino acids and derived phenylpropanoids. Metabolic Engineering, Volume 57.*

**DOI: 10.1016/j.ymben.2019.11.002.**

CHMELÍK, D., HROUZEK, P., FEDORKO, J., VU, D. L., URAJOVÁ, P., MAREŠ, J., & ČERVENÝ, J. (2019). *Accumulation of cyanobacterial oxadiazine nocuolin A is enhanced by temperature shift during cultivation and is promoted by bacterial co-habitants in the culture. Algal Research, 44, 101673.*

**DOI:10.1016/j.algal.2019.101673**

DERAKHSHANDEH, M., & TEZCAN UN, U. (2019). *Optimization of microalgae Scenedesmus SP. growth rate using a central composite design statistical approach. Biomass and Bioenergy, 122, 211–220.*

**DOI: 10.1016/j.biombioe.2019.01.022**

DJEDIAT, C., FEILKE, K., BROCHARD, A., ET AL. (2019). *Light stress in green and red Planktothrix strains: The orange carotenoid protein and its related photoprotective mechanism. Biochimica et Biophysica Acta (BBA) - Bioenergetics.*

**DOI: 10.1016/j.bbabi.2019.06.009**

DU, W., JONGBLOETS, J. A., GUILLAUME, M., VAN DE PUTTE, B., ET AL. (2019). *Exploiting day- and night-time metabolism of Synechocystis sp. PCC 6803 for fitness-coupled fumarate production around the clock. ACS Synthetic Biology.*

**DOI:10.1021/acssynbio.9b00289**

FANESI, A., PAULE, A., BERNARD, O., BRIANDET, R., & LOPES, F. (2019). *The Architecture of Monospecific Microalgae Biofilms. Microorganisms, 7(9), 352.*

**DOI:10.3390/microorganisms7090352**

HUYSMAN, N. D., LANE, P. D., LIU, F., SICCARDI, A. J., ET AL. (2019). *Facile processing of Microchloropsis salina biomass for phosphate recycle. Algal Research, 40, 101498.*

**DOI:10.1016/j.algal.2019.101498**

KAREYA M.S., MARIAM I., SHAIKH K.M., NESAMMA A.A. AND JUTUR P.P. (2019) *Photosynthetic Carbon Partitioning and Metabolic Regulation in Response to Very-Low and High CO2 in Microchloropsis gaditana NIES 2587. Front. Plant Sci. 11:981.*

**DOI:10.3389/fpls.2020.00981**

KNOOT, C.J., & PAKRASI, H. B. (2019). *Diverse hydrocarbon biosynthetic enzymes can substitute for olefin synthase in the cyanobacterium Synechococcus sp. PCC 7002. Scientific Reports 9:1360.*

**DOI: 10.1038/s41598-018-38124-y**

KNOOT, C. J., KHATRI, YOGAN, HOHLMAN, R. M., SHERMAN, D. H., & PAKRASI, H. B. (2019). *Engineered production of hapalindole alkaloids in the cyanobacterium Synechococcus sp. UTEX 2973. ACS Synthetic Biology.*

**DOI:10.1021/acssynbio.9b00229**

LIBERTON, M., BANDYOPADHYAY, A., & PAKRASI, H. B. (2019). Enhanced nitrogen fixation in a *glgX* deficient strain of *Cyanotheca* sp. ATCC 51142, a unicellular nitrogen-fixing cyanobacterium. *Applied and Environmental Microbiology*.

**DOI:10.1128/aem.02887-18**

LI, Y., GU, W., HUANG, A. ET AL (2019). Transcriptome analysis reveals regulation of gene expression during photoacclimation to high irradiance levels in *Dunaliella salina* (Chlorophyceae). *Phycological Research*.

**DOI:10.1111/pre.12379**

LIU, F., LANE, P., HEWSON, J. C. ET AL (2019). Development of a closed-loop process for fusel alcohol production and nutrient recycling from microalgae biomass. *Bioresource Technology*.

**DOI:10.1016/j.biortech.2019.03.006**

MARTÍNEZ, J. M., GOJKOVIC, Z., FERRO, L., MAZA, M., ÁLVAREZ, I., RASO, J., & FUNK, C. (2019). Use of Pulsed Electric Field permeabilization to extract astaxanthin from the Nordic microalga *Haematococcus pluvialis*. *Bioresource Technology*, 121694.

**DOI:10.1016/j.biortech.2019.121694**

MINHAS, A. K., HODGSON, P., BARROW, C. J., & ADHOLEYA, A. (2019). Two-phase method of cultivating *Coelastrella* species for increased production of lipids and carotenoids. *Bioresource Technology Reports*, 100366.

**DOI:10.1016/j.biteb.2019.100366**

MUNDT F., HANELT D., HARMS L. AND HEINRICH S. (2019). Darkness-induced effects on gene expression in *Cosmarium crenatum* (Zygnematophyceae) from a polar habitat. *Scientific Reports* 9,

**DOI: 10.1038/s41598-019-47041-7**

NAGARAJAN, A., ZHOU, M., NGUYEN, A. Y., ET AL. (2019). Proteomic Insights into Phycobilisome Degradation, A Selective and Tightly Controlled Process in The Fast-Growing Cyanobacterium *Synechococcus elongatus* UTEX 2973. *Biomolecules*, 9(8), 374.

**DOI:10.3390/biom9080374**

NIELSEN, S. L., & HANSEN, B. W. (2019). Evaluation of the robustness of optical density as a tool for estimation of biomass in microalgal cultivation: The effects of growth conditions and physiological state. *Aquaculture Research*, 50(9), 2698–2706.

**DOI:10.1111/are.14227**

PATEL, A., MATSAKAS, L., HRŮZOVÁ, K. ET AL (2019). Biosynthesis of Nutraceutical Fatty Acids by the Oleaginous Marine Microalgae *Phaeodactylum tricornutum* Utilizing Hydrolysates from Organosolv-Pretreated Birch and Spruce Biomass. *Marine Drugs* 17(2), 119.

**DOI: 10.3390/md17020119**

PATEL, A., HRŮZOVÁ, K., ROVA, U., CHRISTAKOPOULOS, P., & MATSAKAS, L. (2019). Sustainable biorefinery concept for biofuel production through holistic valorization of food waste. *Bioresource Technology*, 122247.

**DOI:10.1016/j.biortech.2019.122247**



PÉREZ, A. A., CHEN, Q., HERNÁNDEZ, H. P., BRANCO DOS SANTOS, F., & HELLINGWERF, K. J. (2019). On the use of oxygenic photosynthesis for the sustainable production of commodity chemicals. *Physiologia Plantarum*.  
**DOI:10.1111/ppl.12946**

PEROZENI, F., CAZZANIGA, S., BAIER, T. ET AL (2019). Turning a green alga red: engineering astaxanthin biosynthesis by intragenic pseudogene revival in *Chlamydomonas reinhardtii*. *bioRxiv*.  
**DOI:10.1101/535989**

RUSSO, D. A., ZEDLER, J. A. Z., WITTMANN, D. N., ET AL. (2019). Expression and secretion of a lytic polysaccharide monoxygenase by a fast-growing cyanobacterium. *Biotechnology for Biofuels*, 12(1).  
**DOI:10.1186/s13068-019-1416-9**

SHINDE, S., SINGAPURI, S.P., ZHANG, X. ET AL (2019). Glycogen metabolism jump-starts photosynthesis through the oxidative pentose phosphate pathway (OPPP) in cyanobacteria. *bioRxiv*.  
**DOI:10.1101/657304**

SHELEG, A. B., NOVOPLANSKY, N., & VONSHAK, A. (2019). Can Rose Bengal resilience be used as a marker for photosynthetic resilience of *Nannochloropsis oceanica* strains in excess light environments? *Algal Research*, 41, 101562.  
**DOI: 10.1016/j.algal.2019.101562**

TAPARIA, Y., ZARKA, A., LEU, S. ET AL (2019). A novel endogenous selection marker for the diatom *Phaeodactylum tricorutum* based on a unique mutation in phytoene desaturase 1. *Scientific Reports* 9:8217.  
**DOI: 10.1038/s41598-019-44710-5**

ZHENG, Z., GAO, S., & WANG, G. (2019). Far red light induces the expression of LHCSR to trigger nonphotochemical quenching in the intertidal green macroalgae *Ulva prolifera*. *Algal Research*, 40, 101512.  
**DOI:10.1016/j.algal.2019.101512**

BOGAERT, K. A., MANOHARAN-BASIL, S. S., ET AL. (2018). Surprisal analysis of genome-wide transcript profiling identifies differentially expressed genes and pathways associated with four growth conditions in the microalga *Chlamydomonas*. *PLOS ONE*, 13(4), e0195142.  
**DOI:10.1371/journal.pone.0195142**

DE-LUCA, R., BERNARDI, A., MENEGHESSO, A., MOROSINOTTO, T., & BEZZO, F. (2018). Modelling the photosynthetic electron transport chain in *Nannochloropsis gaditana* via exploitation of absorbance data. *Algal Research*, 33, 430–439.  
**DOI:10.1016/j.algal.2018.06.016**

FERRO L., GORZSÁS A., GENTILI F. G., (2018). Subarctic microalgal strains treat wastewater and produce biomass at low temperature and short photoperiod. *Algal Research*. Volume 35. Pages 160-167.  
**DOI: 10.1016/j.algal.2018.08.031.**

HAKKILA, K., VALEV, D., ANTAL, T., TYYSTJÄRVI, E., & TYYSTJÄRVI, T. (2018). Group 2 Sigma Factors Are Central Regulators of Oxidative Stress Acclimation in Cyanobacteria. *Plant and Cell Physiology*.

**DOI:10.1093/pcp/pcy221**

HUANG, J.-Y., HUNG, N.-T., LIN, K.-M., ET AL. (2018). Regulating photoprotection improves photosynthetic growth and biomass production in QC-site mutant cells of the cyanobacterium *Synechocystis* sp. PCC 6803. *Photosynthetica*, 56(1), 192–199.

**DOI:10.1007/s11099-018-0765-0**

ILIK P., SPUNDOV M., SICNER M., ET AL. (2018). Estimating heat tolerance of plants by ion leakage: a new method based on gradual heating. *New Phytologist* 218: 1278–1287.

**DOI: 10.1111/nph.15097**

MUNDT, F., HEINRICH, S., & HANELT, D. (2018). RNA isolation from taxonomically diverse photosynthetic protists. *Limnology and Oceanography: Methods*.

**DOI:10.1002/lom3.10299**

MUNZ J., XIONG Y., KARIYAWASAM T., ET AL. (2018). Arginine culture turns on the elusive nitrogen starvation signal during robust phototrophic growth in *Chlamydomonas*. *BioRxiv* 416594.

**DOI: 10.1101/416594**

NAGY, V., PODMANICZKI, A., VIDAL-MEIRELES, A., ET AL. (2018). Water-splitting-based, sustainable and efficient H<sub>2</sub> production in green algae as achieved by substrate limitation of the Calvin–Benson–Bassham cycle. *Biotechnology for Biofuels*, 11(1).

**DOI:10.1186/s13068-018-1069-0**

PEROZENI F., STELLA G. R. AND BALLOTTARI M. (2018). LHCSR Expression under HSP70/RBCS2 Promoter as a Strategy to Increase Productivity in Microalgae. *Int. J. Mol. Sci.* 2018, 19(1), 155.

**DOI:10.3390/ijms19010155**

SENGUPTA, A., SUNDER, A. V., SOHONI, S. V., & WANGIKAR, P. P. (2018). The effect of CO<sub>2</sub> in enhancing photosynthetic cofactor recycling for alcohol dehydrogenase mediated chiral synthesis in cyanobacteria. *Journal of Biotechnology*.

**DOI:10.1016/j.jbiotec.2018.11.002**

THOISEN, C., VU, M. T. T., CARRON-CABARET, T., JEPSEN, P. M., NIELSEN, S. L., & HANSEN, B. W. (2018). Small-scale experiments aimed at optimization of large-scale production of the microalga *Rhodomonas salina*. *Journal of Applied Phycology*, 30(4), 2193–2202.

**DOI:10.1007/s10811-018-1434-1**

UNGERER, J., LIN, P.-C., CHEN, H.-Y., & PAKRASI, H. B. (2018). Adjustments to Photosystem Stoichiometry and Electron Transfer Proteins Are Key to the Remarkably Fast Growth of the Cyanobacterium *Synechococcus elongatus* UTEX 2973. *mBio*, 9(1), e02327–17.

**DOI:10.1128/mbio.02327-17**

VASUDEVAN R., GALE G. A. R, SCHIAVON A. A., ET AL. (2018). CyanoGate: A Golden Gate modular cloning suite for engineering cyanobacteria based on the plant MoClo syntax. *bioRxiv* 426700;

**DOI: 10.1101/426700**

ZAVŘEL, T., SZABÓ, M., TAMBURIC, B., EVENHUIS, C., ET AL. (2018). Effect of carbon limitation on photosynthetic electron transport in *Nannochloropsis oculata*. *Journal of Photochemistry and Photobiology B: Biology*, 181, 31–43.

**DOI:10.1016/j.jphotobiol.2018.02.020**

BEKOE D., WANG L., ZHANG B., ET AL. (2017). Aerobic treatment of swine manure to enhance anaerobic digestion and microalgal cultivation. *J Enviro. Sci. and Health*. 53.

**DOI: 10.1080/03601234.2017.1397454**

BERNARDI A., NIKOLAOU A., MENEGHESSO A., ET AL. (2017). Semi-empirical modeling of microalgae photosynthesis in different acclimation states - Application to *N. gaditana*. *J. Biotech.* 259: 63-72.

**DOI:10.1016/j.jbiotec.2017.08.002.**

JOUHET, J., LUPETTE, J., CLERC, O., MAGNESCHI, L., ET AL. (2017). LC-MS/MS versus TLC plus GC methods: Consistency of glycerolipid and fatty acid profiles in microalgae and higher plant cells and effect of a nitrogen starvation. *PLOS ONE*, 12(8),

**DOI:10.1371/journal.pone.0182423**

KÄMÄRÄINEN, J., HUOKKO, T., KREULA, S., (2017). Pyridine nucleotide transhydrogenase PntAB is essential for optimal growth and photosynthetic integrity under low-light mixotrophic conditions in *Synechocystis* sp. PCC 6803. *New Phytol*, 214.

**DOI:10.1111/nph.14353**

MITCHELL M. C., METODIEVA G., METODIEV M. V., ET AL. (2017). Pyrenoid loss impairs carbon-concentrating mechanism induction and alters primary metabolism in *Chlamydomonas reinhardtii*. *Journal of experimental botany ournal of Experimental Botany*, Volume 68. Pages 3891–3902.

**DOI: 10.1093/jxb/erx121**

MORSCHETT, H., SCHIPROWSKI, D., ROHDE, J., WIECHERT, W., & OLDIGES, M. (2017). Comparative evaluation of phototrophic microtiter plate cultivation against laboratory-scale photobioreactors. *Bioprocess and Biosystems Engineering*, 40(5), 663–673.

**DOI:10.1007/s00449-016-1731-5**

MUELLER, T. J., UNGERER, J. L., PAKRASI, H. B., & MARANAS, C. D. (2017). Identifying the Metabolic Differences of a Fast-Growth Phenotype in *Synechococcus* UTEX 2973. *Scientific Reports*, 7, 41569.

**DOI: 10.1038/srep41569**

NELSON D. R., KHRAIWESH B., FU W., (2017). Data from: The genome and phenome of the green alga *Chloroidium* sp. UTEX 3007 reveal adaptive traits for desert acclimatization. *Dryad*.

**DOI: 10.5061/dryad.k83g4**

PARVEEN M., ASAEEDA T, RASHID M. H. (2017). Hydrogen sulfide induced growth, photosynthesis and biochemical responses in three submerged macrophytes. *Flora*. Volume 230. Pages 1-11.

**DOI: 10.1016/j.flora.2017.03.005.**

RADEMACHER N., WROBEL T. J., ROSSONI A. W., ET AL. (2017). *Transcriptional response of the extremophile red alga Cyanidioschyzon merolae to changes in CO<sub>2</sub> concentrations. Journal of Plant Physiology. Volume 217. Pages 49-56,*

**DOI: 10.1016/j.jplph.2017.06.014.**

SOITAMO, A., HAVURINNE, V. AND TYYSTJÄRVI, E. (2017), *Photoinhibition in marine picocyanobacteria. Physiol Plantarum, 161: 97–108.*

**DOI :10.1111/ppl.12571**

THIEL K., VUORIO E., ARO E. M. ET AL. (2017). *The effect of enhanced acetate influx on Synechocystis sp. PCC 6803 etabolism. Microbial Cell Factories. 16.*

**DOI: 10.1186/s12934-017-0640-x**

VARSHNEY P., BEARDALL J., BHATTACHARYA S., ET AL. (2017). *Isolation and biochemical characterisation of two thermophilic green algal species-Asterarcys quadricellulare and Chlorella sorokiniana, which are tolerant to high levels of carbon dioxide and nitric oxide. Algal Research. 30. 28-37.*

**DOI: 10.1016/j.algal.2017.12.006.**

ALBORESI A., PERIN G., VITULO N., ET AL. (2016). *Light Remodels Lipid Biosynthesis in Nannochloropsis gaditana by Modulating Carbon Partitioning between Organelles. Plant Physiology. Volume 171. Pages 2468-2482.*

**doi: 10.1104/pp.16.00599.**

BERNARDI A, NIKOLAOU A, MENEGHESSO A., ET AL. (2016). *Correction: High-Fidelity Modelling Methodology of Light-Limited Photosynthetic Production in Microalgae. PLOS ONE. Volume 11.*

**DOI: 10.1371/journal.pone.0156922**

BERTEOTTI, S., BALLOTTARI, M. AND BASSI, R. (2016). *Increased biomass productivity in green algae by tuning non-photochemical quenching. Scientific Reports. Volume 6.*

**DOI: 10.1038/srep21339**

DU W., JONGBLOETS J. A., HERNÁNDEZ H. P., ET AL. (2016). *Photonfluxostat: A method for light-limited batch cultivation of cyanobacteria at different, yet constant, growth rates. Algal Research. Volume 20. Pages 118-125.*

**DOI: 10.1016/j.algal.2016.10.004.**

GERIN S., LEPRINCE P., SLUSE F., ET AL. (2016). *New Features on the Environmental Regulation of Metabolism Revealed by Modeling the Cellular Proteomic Adaptations Induced by Light, Carbon, and Inorganic Nitrogen in Chlamydomonas reinhardtii. Frontiers in Plant Science. Volume 7.*

**DOI: 10.3389/fpls.2016.01158**

GRAMA B. S., AGATHOS S. N. AND JEFFRYES C. S. (2016). *Balancing Photosynthesis and Respiration Increases Microalgal Biomass Productivity during Photoheterotrophy on Glycerol. ACS Sustainable Chem. Eng., Volume 4. Pages 1611–1618.*

**DOI: 10.1021/acssuschemeng.5b01544**

KRUJATZ F., FEHSE K., JAHNEL M., ET AL. (2016). *MicrOLED-photobioreactor: Design and characterization of a milliliter-scale Flat-Panel-Airlift-photobioreactor with optical process monitoring.* *Algal Research*. Volume 18. Pages 225-234.

**DOI: 10.1016/j.algal.2016.06.018.**

MENEGHESSO, A., SIMIONATO, D., GEROTTO, C. ET AL. (2016). *Photoacclimation of photosynthesis in the Eustigmatophycean Nannochloropsis gaditana.* *Photosynth Res*. Volume 129.

**DOI: 10.1007/s11120-016-0297-z**

MINHAS A. K., HODGSON P., BARROW C. J., ET AL. (2016). *The isolation and identification of new microalgal strains producing oil and carotenoid simultaneously with biofuel potential.* *Bioresource Technology*. Volume 211. Pages 556-565.

**DOI: 10.1016/j.biortech.2016.03.121.**

RADEMACHER N., KERN R., FUJIWARA T., ET AL. (2016). *Photorespiratory glycolate oxidase is essential for the survival of the red alga Cyanidioschyzon merolae under ambient CO<sub>2</sub> conditions.*, *J. Exp. Bot.* Volume 67. Pages 3165-3175.

**DOI: 10.1093/jxb/erw118**

SERRA-MAIA R., BERNARD O., GONÇALVES A., ET AL. (2016). *Influence of temperature on Chlorella vulgaris growth and mortality rates in a photobioreactor.* *Algal Research*. Volume 18. Pages 352–359.

**DOI: 10.1016/j.algal.2016.06.016**

ŠEVČÍKOVÁ T., KLIMEŠ V., ZBRÁNKOVÁ V., ET AL. (2016). *A Comparative Analysis of Mitochondrial Genomes in Eustigmatophyte Algae.* *Genome Biol Evol*. Volume 8. Pages 705-722.

**DOI: 10.1093/gbe/evw027**

THIEL K., VUORIO E., ARO E. M. AND KALLIO P. T. (2017). *The effect of enhanced acetate influx on Synechocystis sp. PCC 6803 metabolism.* *Microb Cell Fact* 16(21): 1-12.

**DOI: 10.1186/s12934-017-0640-x**

VARSHNEY P., SOHONI S., WANGIKAR P.P. ET AL. (2016). *Effect of high CO<sub>2</sub> concentrations on the growth and macromolecular composition of a heat- and high-light-tolerant microalga.* *J Appl Phycol*. Volume 28.

**DOI:10.1007/s10811-016-0797-4**

ZHANG B., WANG L., RIDDICKA B. A., ET AL. (2016). *Sustainable Production of Algal Biomass and Biofuels Using Swine Wastewater in North Carolina, US.* *Sustainability*. Volume 8.

**DOI:10.3390/su8050477**

ZHU Y., LIBERTON M. AND HIMADRI B. PAKRASI H. B. (2016). *A Novel Redoxin in the Thylakoid Membrane Regulates the Titer of Photosystem I.* *The Journal of Biological Chemistry*. Volume 291.

**DOI: 10.1074/jbc.M116.721175**



ZULIANI L, FRISON N., JELIC A., ET AL. (2016). *Microalgae Cultivation on Anaerobic Digestate of Municipal Wastewater, Sewage Sludge and Agro-Waste*. *Int. J. Mol. Sci.* Volume 17.

**DOI:10.3390/ijms17101692**

FLOWERS J. M., HAZZOURI K. M., PHAM G. M., ET AL. (2015). *Whole-Genome Resequencing Reveals Extensive Natural Variation in the Model Green Alga Chlamydomonas reinhardtii*. *The Plant Cell*. Volume 27, Pages 2353-2369

**DOI: 10.1105/tpc.15.00492**

GLEMSEK M., HEINING M., SCHMIDT J. ET AL. (2015). *Application of light-emitting diodes (LEDs) in cultivation of phototrophic microalgae: current state and perspectives*. *Applied Microbiology and Biotechnology*. Pages 1-12.

**DOI: 10.1007/s00253-015-7144-6**

GRIS B., CAVEDON G., LENUCCI M., ET AL. (2015). *Optimizing biomass and high value compound production in Cyanobacterium aponinum PCC 10605*. *Societa Botanica Italiana*. Venezia.

MAKOWER A. K., SCHUURMANS J. M., GROTH D., ET AL. (2015). *Transcriptomics aided dissection of the intracellular and the extracellular role of 1 microcystin in M. aeruginosa PCC 7806*. *Applied and Environmental Microbiology*. Volume 81, Pages 544-554.

**DOI:10.1128/AEM.02601-14**

NIKOLAOU A., BERNARDI A., MENEGHESSO A. ET AL. (2015). *A model of chlorophyll fluorescence in microalgae integrating photoproduction, photoinhibition and photoregulation*. *Journal of Biotechnology*. Volume 194, Pages 91-99.

**DOI: 10.1016/j.jbiotec.2014.12.00**

YU, J., LIBERTON M., CLIFTON P. F., ET AL. (2015). *Synechococcus elongatus UTEX 2973, a fast growing cyanobacterial chassis for biosynthesis using light and CO<sub>2</sub>*. *Scientific Reports* 5, Pages 8132.

**DOI:10.1038/srep08132 (2015)**

GRAMA B. S., CHADER S., KHELIFI D. ET AL. (2014). *Induction of canthaxanthin production in a Dactylococcus microalga isolated from the Algerian Sahara*. *Bioresource Technology*. Volume 15, Pages 297-305.

**DOI: 10.1016/j.biortech.2013.10.073**

GERIN S., MATHY G. AND FRANCK F. (2014): *Modeling the dependence of respiration and photosynthesis upon light, acetate, carbon dioxide, nitrate and ammonium in Chlamydomonas reinhardtii using design of experiments and multiple regression*. *BMC Systems Biology*. Volume 8.

**DOI: 10.1186/s12918-014-0096-0**

MIAZEK K., GOFFIN D., RICHEL A., ET AL. (2014). *Growth of Chlorella in the presence of organic carbon: A photobioreactor study*. *Conference – Process of technics 2014 – Prague*.

ŠANTRŮČEK J., VRABALOVÁ M., ŠIMKOVÁ M., ET AL. (2014). *Stomatal and pavement cell density linked to leaf internal CO<sub>2</sub> concentration*. *Annals of Botany*. Pages 1-12.



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**DOI: 10.1093/aob/mcu095**

*ZHANG B., WANG L., HASAN R., ET AL. (2014). Characterization of a Native Algae Species Chlamydomonas debaryana: Strain Selection, Bioremediation Ability, and Lipid Characterization. BioResources. Volume 9, Pages 6130-6140.*

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