REFERENCES

Asada C, Doi K, Sasaki C, et al. (2012a) Efficient Extraction of Starch from Microalgae Using Ultrasonic Homogenizer and Its Conversion into Ethanol by Simultaneous Saccharification and Fermentation.

Asada C, Doi K, Sasaki C, et al. (2012b) Efficient extraction of starch from microalgae using ultrasonic homogenizer and its conversion into ethanol by simultaneous saccharification and fermentation. *Natural Resources* 3: 175.

Bahadar A and Khan MB. (2013) Progress in energy from microalgae: a review. *Renewable and Sustainable Energy Reviews* 27: 128-148.

Ball SG, Dirick L, Decq A, et al. (1990) Physiology of starch storage in the monocellular alga Chlamydomonas reinhardtii. *Plant Science* 66: 1-9.

Ballin G, Doucha J, Zachleder V, et al. (1988) Macromolecular syntheses and the course of cell cycle events in the chlorococcal algaScenedesmus quadricauda under nutrient starvation: Effect of nitrogen starvation. *Biologia Plantarum* 30: 81-91.

Becker EW. (1994) *Microalgae: biotechnology and microbiology*: Cambridge University Press.

Behrens PW, Bingham SE, Hoeksema SD, et al. (1989) Studies on the incorporation of CO2 into starch by Chlorella vulgaris. *Journal of Applied Phycology* 1: 123-130.

Berdalet E, Latasa M and Estrada M. (1994) Effects of nitrogen and phosphorus starvation on nucleic acid and protein content of Heterocapsa sp. *Journal of Plankton Research* 16: 303-316.

Biller P and Ross A. (2011) Potential yields and properties of oil from the hydrothermal liquefaction of microalgae with different biochemical content. *Bioresource Technology* 102: 215-225.

Bligh EG and Dyer WJ. (1959) A rapid method of total lipid extraction and purification. *Canadian journal of biochemistry and physiology* 37: 911-917.

Bondioli P, Della Bella L, Rivolta G, et al. (2012) Oil production by the marine microalgae Nannochloropsis sp. F&M-M24 and Tetraselmis suecica F&M-M33. *Bioresource Technology* 114: 567-572.

Borowitzka MA. (2008) Marine and halophilic algae for the production of biofuels. *Journal of Biotechnology* 136: S7.

Brányiková I, Maršálková B, Doucha J, et al. (2011) Microalgae—novel highly efficient starch producers. *Biotechnology and Bioengineering* 108: 766-776.

Champagne P. (2007) Feasibility of producing bio-ethanol from waste residues: a Canadian perspective: feasibility of producing bio-ethanol from waste residues in Canada. *Resources, Conservation and Recycling* 50: 211-230.

Chandel AK, Chandrasekhar G, Narasu ML, et al. (2010) Simultaneous saccharification and fermentation (SSF) of aqueous ammonia pretreated Saccharum spontaneum (wild sugarcane) for second generation ethanol production. *Sugar Tech* 12: 125-132.

Chen P, Min M, Chen Y, et al. (2010) Review of biological and engineering aspects of algae to fuels approach. *International Journal of Agricultural and Biological Engineering* 2: 1-30.

Cheng D, Li D, Yuan Y, et al. (2017) Improving carbohydrate and starch accumulation in Chlorella sp. AE10 by a novel two-stage process with cell dilution. *Biotechnology for biofuels* 10: 75.

Cheng J, Huang R, Yu T, et al. (2014) Biodiesel production from lipids in wet microalgae with microwave irradiation and bio-crude production from algal residue through hydrothermal liquefaction. *Bioresource Technology* 151: 415-418.

Chiaramonti D. (2007) Bioethanol: role and production technologies. *Improvement of crop plants for industrial end uses.* Springer, 209-251.

Chisti Y. (2007) Biodiesel from microalgae. *Biotechnology Advances* 25: 294-306.

Choi SP, Nguyen MT and Sim SJ. (2010) Enzymatic pretreatment of Chlamydomonas reinhardtii biomass for ethanol production. *Bioresource Technology* 101: 5330-5336.

Contreras A, Chisti Y and Molina E. (1998) A reassesment of relationship between riser and downcomer gas holdups in airlift reactors. *Chemical Engineering Science* 53: 4151-4154.

Davis RA. (2008) Parameter estimation for simultaneous saccharification and fermentation of food waste into ethanol using Matlab Simulink. *Applied Biochemistry and Biotechnology* 147: 11-21.

De Morais MG and Costa JAV. (2007) Carbon dioxide fixation by Chlorella kessleri, C. vulgaris, Scenedesmus obliquus and Spirulina sp. cultivated in flasks and vertical tubular photobioreactors. *Biotechnology Letters* 29: 1349-1352.

Demuez M, Mahdy A, Tomás-Pejó E, et al. (2015) Enzymatic cell disruption of microalgae biomass in biorefinery processes. *Biotechnology and Bioengineering* 112: 1955-1966.

Dien B, Cotta M and Jeffries T. (2003) Bacteria engineered for fuel ethanol production: current status. *Applied microbiology and biotechnology* 63: 258-266.

Domozych DS. (2012) The quest for four-dimensional imaging in plant cell biology: it's just a matter of time. *Annals of Botany* 110: 461-474.

Douskova I, Doucha J, Machat J, et al. (2008) Microalgae as a means for converting flue gas CO2 into biomass with high content of starch. *Proceedings of the International Conference: Bioenergy: Challenges and Opportunities, 6th/9th April.*

Dragone G, Fernandes BD, Abreu AP, et al. (2011) Nutrient limitation as a strategy for increasing starch accumulation in microalgae. *Applied Energy* 88: 3331-3335.

Dubois M, Gilles KA, Hamilton JK, et al. (1956) Colorimetric method for determination of sugars and related substances. *Analytical Chemistry* 28: 350-356.

Eklund R and Zacchi G. (1995) Simultaneous saccharification and fermentation of steam-pretreated willow. *Enzyme and Microbial Technology* 17: 255-259.

El-Dalatony MM, Kurade MB, Abou-Shanab RA, et al. (2016) Long-term production of bioethanol in repeated-batch fermentation of microalgal biomass using immobilized Saccharomyces cerevisiae. *Bioresource Technology* 219: 98-105.

Fernandes B, Teixeira J, Dragone G, et al. (2013) Relationship between starch and lipid accumulation induced by nutrient depletion and replenishment in the microalga Parachlorella kessleri. *Bioresource Technology* 144: 268-274.

Ferreira AF, Dias APS, Silva CM, et al. (2016) Effect of low frequency ultrasound on microalgae solvent extraction: analysis of products, energy consumption and emissions. *Algal research* 14: 9-16.

Folch J, Lees M and Sloane Stanley G. (1957) A simple method for the isolation and purification of total lipides from animal tissues. *J biol Chem* 226: 497-509.

Gadonneix P, de Castro FB, de Medeiros NF, et al. (2010) Biofuels: Policies, Standards and Technologies. *World Energy Council*.

Gao F, Gao L, Zhang D, et al. (2015a) Enhanced hydrolysis of Macrocystis pyrifera by integrated hydroxyl radicals and hot water pretreatment. *Bioresource Technology* 179: 490-496.

Gao L, Li D, Gao F, et al. (2015b) Hydroxyl radical-aided thermal pretreatment of algal biomass for enhanced biodegradability. *Biotechnology for biofuels* 8: 194.

Gírio FM, Fonseca C, Carvalheiro F, et al. (2010) Hemicelluloses for fuel ethanol: a review. *Bioresource Technology* 101: 4775-4800.

Greenwell H, Laurens L, Shields R, et al. (2009) Placing microalgae on the biofuels priority list: a review of the technological challenges. *Journal of the royal society interface* 7: 703-726.

Grzebyk D, Sako Y and Berland B. (1998) Phylogenetic analysis of nine species of Prorocentrum (Dinophyceae) inferred from 18S ribosomal DNA sequences, morphological comparisons, and description of Prorocentrum panamensis, sp. nov. *Journal of phycology* 34: 1055-1068.

Günerken E, d'Hondt E, Eppink M, et al. (2015) Cell disruption for microalgae biorefineries. *Biotechnology Advances* 33: 243-260.

Guo H, Daroch M, Liu L, et al. (2013) Biochemical features and bioethanol production of microalgae from coastal waters of Pearl River Delta. *Bioresource Technology* 127: 422-428.

Gupta R, Kumar S, Gomes J, et al. (2012) Kinetic study of batch and fed-batch enzymatic saccharification of pretreated substrate and subsequent fermentation to ethanol. *Biotechnology for biofuels* 5: 16.

Hahn-Hägerdal B, Karhumaa K, Fonseca C, et al. (2007) Towards industrial pentose-fermenting yeast strains. *Applied Microbiology and Biotechnology* 74: 937-953.

Harfoot MB, Tittensor DP, Knight S, et al. (2018) Present and future biodiversity risks from fossil fuel exploitation. *Conservation Letters*: e12448.

Hari Krishna S and Chowdary G. (2000) Optimization of simultaneous saccharification and fermentation for the production of ethanol from lignocellulosic biomass. *Journal of Agricultural and Food Chemistry* 48: 1971-1976.

Harun R and Danquah MK. (2011) Influence of acid pre-treatment on microalgal biomass for bioethanol production. *Process Biochemistry* 46: 304-309.

Harun R, Danquah MK and Forde GM. (2010) Microalgal biomass as a fermentation feedstock for bioethanol production. *Journal of Chemical Technology and Biotechnology* 85: 199-203.

Harun R, Jason W, Cherrington T, et al. (2011) Exploring alkaline pre-treatment of microalgal biomass for bioethanol production. *Applied Energy* 88: 3464-3467.

Harun R, Yip JW, Thiruvenkadam S, et al. (2014) Algal biomass conversion to bioethanol–a step-by-step assessment. *Biotechnology journal* 9: 73-86.

Hasan F, Shah AA and Hameed A. (2006) Industrial applications of microbial lipases. *Enzyme and Microbial Technology* 39: 235-251.

Hernández D, Riaño B, Coca M, et al. (2015) Saccharification of carbohydrates in microalgal biomass by physical, chemical and enzymatic pre-treatments as a previous step for bioethanol production. *Chemical Engineering Journal* 262: 939-945.

Ho DP, Ngo HH and Guo W. (2014) A mini review on renewable sources for biofuel. *Bioresource Technology* 169: 742-749.

Ho S-H, Chen C-Y and Chang J-S. (2012) Effect of light intensity and nitrogen starvation on CO2 fixation and lipid/carbohydrate production of an indigenous microalga Scenedesmus obliquus CNW-N. *Bioresource Technology* 113: 244-252.

Ho S-H, Huang S-W, Chen C-Y, et al. (2013a) Bioethanol production using carbohydrate-rich microalgae biomass as feedstock. *Bioresource Technology* 135: 191-198.

Ho S-H, Huang S-W, Chen C-Y, et al. (2013b) Characterization and optimization of carbohydrate production from an indigenous microalga Chlorella vulgaris FSP-E. *Bioresource Technology* 135: 157-165.

Ho S-H, Li P-J, Liu C-C, et al. (2013c) Bioprocess development on microalgae-based CO2 fixation and bioethanol production using Scenedesmus obliquus CNW-N. *Bioresource Technology* 145: 142-149.

Hodge J. (1962) Determination of reducing sugars and carbohydrates. *Methods in carbohydrate chemistry* 1: 380-394.

Huang J, Wei M, Ren R, et al. (2017) Morphological changes of blocklets during the gelatinization process of tapioca starch. *Carbohydrate Polymers* 163: 324-329.

Huntley ME and Redalje DG. (2007) CO 2 mitigation and renewable oil from photosynthetic microbes: a new appraisal. *Mitigation and adaptation strategies for global change* 12: 573-608.

Jang J-S, Cho Y, Jeong G-T, et al. (2012) Optimization of saccharification and ethanol production by simultaneous saccharification and fermentation (SSF) from seaweed, Saccharina japonica. *Bioprocess and Biosystems Engineering* 35: 11-18.

Jang MF and Chou YS. (2013) Modeling and optimization of bioethanol production via a simultaneous saccharification and fermentation process using starch. *Journal of Chemical Technology and Biotechnology* 88: 1164-1174.

Jeon B-H, Choi J-A, Kim H-C, et al. (2013) Ultrasonic disintegration of microalgal biomass and consequent improvement of bioaccessibility/bioavailability in microbial fermentation. *Biotechnology for biofuels* 6: 37.

Ji C-F, Yu X-J, Chen Z-A, et al. (2011) Effects of nutrient deprivation on biochemical compositions and photo-hydrogen production of Tetraselmis subcordiformis. *International Journal of Hydrogen Energy* 36: 5817-5821.

Jiménez-Islas D, Páez-Lerma J, Soto-Cruz NO, et al. (2014) Modelling of Ethanol Production from Red Beet Juice by Saccharomyces cerevisiae under Thermal and Acid Stress Conditions. *Food Technology and Biotechnology* 52: 93.

John RP, Anisha G, Nampoothiri KM, et al. (2011) Micro and macroalgal biomass: a renewable source for bioethanol. *Bioresource Technology* 102: 186-193.

Juneja A, Ceballos R and Murthy G. (2013) Effects of environmental factors and nutrient availability on the biochemical composition of algae for biofuels production: a review. *Energies* 6: 4607-4638.

Kádár Z, Szengyel Z and Réczey K. (2004) Simultaneous saccharification and fermentation (SSF) of industrial wastes for the production of ethanol. *Industrial Crops and Products* 20: 103-110.

Ke J, Laskar DD, Singh D, et al. (2011) In situ lignocellulosic unlocking mechanism for carbohydrate hydrolysis in termites: crucial lignin modification. *Biotechnology for biofuels* 4: 17.

Kim KH, Choi IS, Kim HM, et al. (2014) Bioethanol production from the nutrient stress-induced microalga Chlorella vulgaris by enzymatic hydrolysis and immobilized yeast fermentation. *Bioresource Technology* 153: 47-54.

Klein U. (1987) Intracellular carbon partitioning in Chlamydomonas reinhardtii. *Plant Physiology* 85: 892-897.

Kroen WK and Rayburn WR. (1984) Influence of growth status and nutrients on extracellular polysaccharide synthesis by the soil alga chlamydomonas mexicana (chlorophyceae) 1. *Journal of Phycology* 20: 253-257.

Kroumov AD, Módenes AN and de Araujo Tait MC. (2006) Development of new unstructured model for simultaneous saccharification and fermentation of starch to ethanol by recombinant strain. *Biochemical Engineering Journal* 28: 243-255.

Kumar S, Gupta R, Kumar G, et al. (2013) Bioethanol production from Gracilaria verrucosa, a red alga, in a biorefinery approach. *Bioresource Technology* 135: 150-156.

Kwok AC and Wong JT. (2005) Lipid biosynthesis and its coordination with cell cycle progression. *Plant and cell physiology* 46: 1973-1986.

Lam MK and Lee KT. (2015) Bioethanol production from microalgae. *Handbook of Marine Microalgae.* Elsevier, 197-208.

Laurens L, Nagle N, Davis R, et al. (2015) Acid-catalyzed algal biomass pretreatment for integrated lipid and carbohydrate-based biofuels production. *Green Chemistry* 17: 1145-1158.

Laurens LM, Dempster TA, Jones HD, et al. (2012) Algal biomass constituent analysis: method uncertainties and investigation of the underlying measuring chemistries. *Analytical Chemistry* 84: 1879-1887.

Lee C-G, Kim CH and Rhee SK. (1992) A kinetic model and simulation of starch saccharification and simultaneous ethanol fermentation by amyloglucosidase and Zymomonas mobilis. *Bioprocess Engineering* 7: 335-341.

Lee OK, Kim AL, Seong DH, et al. (2013) Chemo-enzymatic saccharification and bioethanol fermentation of lipid-extracted residual biomass of the microalga, Dunaliella tertiolecta. *Bioresource Technology* 132: 197-201.

Li K, Liu S and Liu X. (2014) An overview of algae bioethanol production. *International Journal of Energy Research* 38: 965-977.

Lin Y and Tanaka S. (2006) Ethanol fermentation from biomass resources: current state and prospects. *Applied Microbiology and Biotechnology* 69: 627-642.

Liu D, Xu L, Xiong W, et al. (2014) Fermentation process modeling with Levenberg-Marquardt algorithm and Runge-Kutta method on ethanol production by Saccharomyces cerevisiae. *Mathematical Problems in Engineering* 2014.

Lodha B and Chaudhari S. (2007) Optimization of Fenton-biological treatment scheme for the treatment of aqueous dye solutions. *Journal of Hazardous Materials* 148: 459-466.

LOEBLICH III A. (1984) Dinoflagellate physiology and biochemistry. *Dinoflagellates*.

López CVG, García MdCC, Fernández FGA, et al. (2010) Protein measurements of microalgal and cyanobacterial biomass. *Bioresource Technology* 101: 7587-7591.

Luo J, Fang Z and Smith Jr RL. (2014) Ultrasound-enhanced conversion of biomass to biofuels. *Progress in Energy and Combustion Science* 41: 56-93.

Mahdy A, Mendez L, Tomás-Pejó E, et al. (2016) Influence of enzymatic hydrolysis on the biochemical methane potential of Chlorella vulgaris and Scenedesmus sp. *Journal of Chemical Technology & Biotechnology* 91: 1299-1305.

Malester A, Green M, Kimchie S, et al. (1988) The effect of the neutralizing capacity of cellulosic materials on the kinetics of cellulose dilute acid hydrolysis. *Biological Wastes* 26: 115-124.

Markou G, Angelidaki I and Georgakakis D. (2012) Microalgal carbohydrates: an overview of the factors influencing carbohydrates production, and of main bioconversion technologies for production of biofuels. *Applied Microbiology and Biotechnology* 96: 631-645.

Markou G and Georgakakis D. (2011) Cultivation of filamentous cyanobacteria (blue-green algae) in agro-industrial wastes and wastewaters: a review. *Applied Energy* 88: 3389-3401.

Markou G and Nerantzis E. (2013) Microalgae for high-value compounds and biofuels production: a review with focus on cultivation under stress conditions. *Biotechnology Advances* 31: 1532-1542.

Masuko T, Minami A, Iwasaki N, et al. (2005) Carbohydrate analysis by a phenol–sulfuric acid method in microplate format. *Analytical Biochemistry* 339: 69-72.

Merchuk JC, Gluz M and Mukmenev I. (2000) Comparison of photobioreactors for cultivation of the red microalga Porphyridium sp. *Journal of Chemical Technology & Biotechnology: International Research in Process, Environmental & Clean Technology* 75: 1119-1126.

Milano J, Ong HC, Masjuki H, et al. (2016) Microalgae biofuels as an alternative to fossil fuel for power generation. *Renewable and Sustainable Energy Reviews* 58: 180-197.

Miller GL. (1959) Use of dinitrosalicylic acid reagent for determination of reducing sugar. *Analytical Chemistry* 31: 426-428.

Miranda J, Passarinho PC and Gouveia L. (2012) Pre-treatment optimization of Scenedesmus obliquus microalga for bioethanol production. *Bioresource Technology* 104: 342-348.

Miron AS, Gomez AC, Camacho FG, et al. (1999) Comparative evaluation of compact photobioreactors for large-scale monoculture of microalgae. *Journal of Biotechnology* 70: 249-270.

Nazir Y, Shuib S, Kalil MS, et al. (2018) Optimization of Culture Conditions for Enhanced Growth, Lipid and Docosahexaenoic Acid (DHA) Production of Aurantiochytrium SW1 by Response Surface Methodology. *Scientific reports* 8: 8909.

Nguyen MT, Choi SP, Lee J, et al. (2009) Hydrothermal acid pretreatment of Chlamydomonas reinhardtii biomass for ethanol production. *Journal of Microbiology and Biotechnology* 19: 161-166.

Nigam PS and Singh A. (2011) Production of liquid biofuels from renewable resources. *Progress in Energy and Combustion Science* 37: 52-68.

Ochoa S, Yoo A, Repke JU, et al. (2007) Modeling and Parameter Identification of the Simultaneous Saccharification-Fermentation Process for Ethanol Production. *Biotechnology Progress* 23: 1454-1462.

Olaizola M. (2000) Commercial production of astaxanthin from Haematococcus pluvialis using 25,000-liter outdoor photobioreactors. *Journal of Applied Phycology* 12: 499-506.

Olofsson K, Bertilsson M and Lidén G. (2008) A short review on SSF–an interesting process option for ethanol production from lignocellulosic feedstocks. *Biotechnology for biofuels* 1: 7.

Packer M. (2009) Algal capture of carbon dioxide; biomass generation as a tool for greenhouse gas mitigation with reference to New Zealand energy strategy and policy. *Energy Policy* 37: 3428-3437.

Petrou EC and Pappis CP. (2009) Biofuels: a survey on pros and cons. *Energy & Fuels* 23: 1055-1066.

Pirwitz K, Rihko-Struckmann L and Sundmacher K. (2016) Valorization of the aqueous phase obtained from hydrothermally treated Dunaliella salina remnant biomass. *Bioresource Technology* 219: 64-71.

Quirós C, Herrero M, García LA, et al. (2007) Application of flow cytometry to segregated kinetic modeling based on the physiological states of microorganisms. *Applied and Environmental Microbiology* 73: 3993-4000.

Ratledge C and Cohen Z. (2008) Microbial and algal oils: do they have a future for biodiesel or as commodity oils? *Lipid Technology* 20: 155-160.

Rosenberg JN, Oyler GA, Wilkinson L, et al. (2008) A green light for engineered algae: redirecting metabolism to fuel a biotechnology revolution. *Current Opinion in Biotechnology* 19: 430-436.

Ruiz HA, Rodríguez-Jasso RM, Aguedo M, et al. (2015) Hydrothermal pretreatments of macroalgal biomass for biorefineries. *Algal biorefineries.* Springer, 467-491.

Saïdane-Bchir F, El Falleh A, Ghabbarou E, et al. (2016) 3rd generation bioethanol production from microalgae isolated from slaughterhouse wastewater. *Waste and Biomass Valorization* 7: 1041-1046.

Scholz MJ, Weiss TL, Jinkerson RE, et al. (2014) Ultrastructure and composition of the Nannochloropsis gaditana cell wall. *Eukaryotic Cell*: EC. 00183-00114.

Schwenzfeier A, Wierenga PA and Gruppen H. (2011) Isolation and characterization of soluble protein from the green microalgae Tetraselmis sp. *Bioresource Technology* 102: 9121-9127.

Sheehan J. (2009) Engineering direct conversion of CO 2 to biofuel. *Nature Biotechnology* 27: 1128.

Shokrkar H, Ebrahimi S and Zamani M. (2017) Bioethanol production from acidic and enzymatic hydrolysates of mixed microalgae culture. *Fuel* 200: 380-386.

Shukla R, Kumar M, Chakraborty S, et al. (2016) Process development for the production of bioethanol from waste algal biomass of Gracilaria verrucosa. *Bioresource Technology* 220: 584-589.

Singh A, Nigam PS and Murphy JD. (2011) Renewable fuels from algae: an answer to debatable land based fuels. *Bioresource Technology* 102: 10-16.

Singh S, Chakravarty I, Pandey KD, et al. (2018) Development of a process model for simultaneous saccharification and fermentation (SSF) of algal starch to third-generation bioethanol. *Biofuels*: 1-9.

Singh S and Singh P. (2014) Effect of CO2 concentration on algal growth: a review. *Renewable and Sustainable Energy Reviews* 38: 172-179.

Soto-Cruz O, Favela-Torres E and Saucedo-Castañeda G. (2002) Modeling of growth, lactate consumption, and volatile fatty acid production by Megasphaera elsdenii cultivated in minimal and complex media. *Biotechnology Progress* 18: 193-200.

Spiden EM, Scales PJ, Yap BH, et al. (2015) The effects of acidic and thermal pretreatment on the mechanical rupture of two industrially relevant microalgae: Chlorella sp. and Navicula sp. *Algal research* 7: 5-10.

Stackler B and Christensen E. (1974) Quantitative determination of ethanol in wine by gas chromatography. *American Journal of Enology and Viticulture* 25: 202-207.

Subhadra B and Edwards M. (2010) Algal biofuel production using integrated renewable energy park approach in United States. *Energy Policy* 38: 4897-4902.

Subramanian S, Barry AN, Pieris S, et al. (2013) Comparative energetics and kinetics of autotrophic lipid and starch metabolism in chlorophytic microalgae: implications for biomass and biofuel production. *Biotechnology for biofuels* 6: 150.

Sui Z, Gizaw Y and BeMiller JN. (2012) Extraction of polysaccharides from a species of Chlorella. *Carbohydrate Polymers* 90: 1-7.

Sun Y and Cheng J. (2002) Hydrolysis of lignocellulosic materials for ethanol production: a review. *Bioresource Technology* 83: 1-11.

Ueda R, Hirayama S, Sugata K, et al. (1996) Process for the production of ethanol from microalgae. Google Patents.

Ugwu C, Aoyagi H and Uchiyama H. (2008) Photobioreactors for mass cultivation of algae. *Bioresource Technology* 99: 4021-4028.

Um B-H and Kim Y-S. (2009) Review: A chance for Korea to advance algal-biodiesel technology. *Journal of Industrial and Engineering Chemistry* 15: 1-7.

Van Wychen S and Laurens LM. (2016) Determination of Total Solids and Ash in Algal Biomass: Laboratory Analytical Procedure (LAP). National Renewable Energy Lab.(NREL), Golden, CO (United States).

Varela-Álvarez E, Andreakis N, Lago-Lestón A, et al. (2006) Genomic DNA isolation from green and brown algae (Caulerpales and Fucales) for microsatellite library construction. *Journal of phycology* 42: 741-745.

Velazquez-Lucio J, Rodríguez-Jasso RM, Colla LM, et al. (2018) Microalgal biomass pretreatment for bioethanol production: a review.

Vunjak-Novakovic G, Kim Y, Wu X, et al. (2005) Air-lift bioreactors for algal growth on flue gas: mathematical modeling and pilot-plant studies. *Industrial & Engineering Chemistry Research* 44: 6154-6163.

Waltz E. (2009) Biotech's green gold? : Nature Publishing Group.

Wang K, Brown RC, Homsy S, et al. (2013) Fast pyrolysis of microalgae remnants in a fluidized bed reactor for bio-oil and biochar production. *Bioresource Technology* 127: 494-499.

Wang L, Min M, Li Y, et al. (2010) Cultivation of green algae Chlorella sp. in different wastewaters from municipal wastewater treatment plant. *Applied Biochemistry and Biotechnology* 162: 1174-1186.

Wijffels RH and Barbosa MJ. (2010) An outlook on microalgal biofuels. *Science* 329: 796-799.

Xiros C, Topakas E and Christakopoulos P. (2013) Hydrolysis and fermentation for cellulosic ethanol production. *Wiley Interdisciplinary Reviews: Energy and Environment* 2: 633-654.

Yao C, Ai J, Cao X, et al. (2012) Enhancing starch production of a marine green microalga Tetraselmis subcordiformis through nutrient limitation. *Bioresource Technology* 118: 438-444.

Yildiz FH, Davies JP and Grossman AR. (1994) Characterization of sulfate transport in Chlamydomonas reinhardtii during sulfur-limited and sulfur-sufficient growth. *Plant Physiology* 104: 981-987.

Zachleder V, Bišová K, Vítová M, et al. (2002) Variety of cell cycle patterns in the alga Scenedesmus quadricauda (Chlorophyta) as revealed by application of illumination regimes and inhibitors. *European Journal of Phycology* 37: 361-371.

Zachleder V and Brányiková I. (2014) Starch overproduction by means of algae. *Algal biorefineries.* Springer, 217-240.

Zachleder V and Vtov M. (2011) Microalgaenovel highly efficient starch producers. *Biotechnol Bioeng* 108: 766776.

Zheng J, Li Q, Hu A, et al. (2013) Dual-frequency ultrasound effect on structure and properties of sweet potato starch. *Starch-Stärke* 65: 621-627.

Zheng Y, Xiao R and Roberts M. (2016) Polymer-enhanced enzymatic microalgal cell disruption for lipid and sugar recovery. *Algal research* 14: 100-108.

Zhu S, Huang W, Xu J, et al. (2014a) Metabolic changes of starch and lipid triggered by nitrogen starvation in the microalga Chlorella zofingiensis. *Bioresource Technology* 152: 292-298.

Zhu S, Wang Y, Huang W, et al. (2014b) Enhanced accumulation of carbohydrate and starch in Chlorella zofingiensis induced by nitrogen starvation. *Applied Biochemistry and Biotechnology* 174: 2435-2445.

Zittelli GC, Rodolfi L and Tredici MR. (2003) Mass cultivation of Nannochloropsis sp. in annular reactors. *Journal of Applied Phycology* 15: 107-114.