

DAFTAR PUSTAKA

- Aisyah, R. 2012. *Microalgae Lipid Productivity: Key Characteristics of Selecting Microalgae* [Online]. Diakses dari: <http://www.researchalgae.com/microalgae-biofuel/what-is-the-key-for-choosing-appropriate-microalgae-species-for-biodiesel-production.html>.
- Allen, A.E., Ward, B.B. & Song, B. 2005. Characterization of diatom (Bacillariophyceae) nitrate reductase genes and their detection in marine phytoplankton communities. *Journal of Phycology* 41: 95-104.
- Alsull, M. & W. M. W. Omar 2012. Responses of *Tetraselmis* sp. and *Nannochloropsis* sp. Isolated from Penang National Park Coastal Waters, Malaysia, to the Combined Influences of Salinity, Light and Nitrogen Limitation. *International Conference on Chemical, Ecology and Environmental Sciences*.
- Amaro, H. M., Â. C. Macedo & F. X. Malcata 2012. Microalgae: An alternative as sustainable source of biofuels? *Energy*. 44: 58-166.
- Amin, S. A., D. H. Green, M. C. Hart, F. C. Küpper, W. G. Sunda & C. J. Carrano 2009. Photolysis of iron-siderophore chelates promotes bacterial-algal mutualism. *Proceedings of the National Academy of Sciences of the United States of America*. 106: 17071-17076.
- Apt KE, Kroth-Pancic PG, Grossman AR. 1996. Stable nuclear transformation of the diatom *P. tricornutum*. *Molecular Genetica*. 252: 572-579.
- Asghari, F. and Yoshida, H. (2006). Acid-catalyzed production of 5-hydroxymethylfurfural from d-fructose in subcritical water. *Industrial and Engineering Chemistry Research*, 45(7): 2163-2173
- Bauerlein, E. 2004. *Biomining From Biology to Biotechnology and Medical Application 2nd ed*. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim. Pp: 159-176.
- Barsanti, L. and Gualtieri, P. 2006. *Algae. Anatomy, Biochemistry, and Biotechnology*. Taylor & Francis group. Pp: 159-301
- Bartual, A., Villazán, B., & Brun, F. G. 2011. Monitoring the long-term stability of pelagic morphotypes in the model diatom *Phaeodactylum tricornutum*. *Diatom Research*, 26(2): 243-253.
- Bayu, Asep. 2010. Biodiesel dari Mikroalga Laut: Potensi dan Tantangan. *Jurnal Oseana*. 35 (1): 15-24.
- Benemann, J.R., J.C. Van Olst, M.J. Massingil, J.C. Weissman and D.E. Brune. 1997. *The Controlled Eutrophication Process : Using Microalgae for CO2 Utilization and Agricultural Fertilizer Recycling*. Academic Press. p: 15.

- Bischoff, H. W. & H. C. Bold 1963. *Phycological Studies IV. Some Soil Algae From Enchanted Rock and Related Algal Species*, Austin, University of Texas.
- Borowitzka MA, 1999, Pharmaceuticals and agrochemicals from microalgae. In: Cohen Z, editor. *Chemicals from Microalgae*. Taylor & Francis. Pp: 313-352
- Brennan, L. and P. Owende, 2010. Biofuels from microalgae—a review of technologies for production, processing, and extractions of biofuels and co-products. *Renewable Sustainable Energy Reviews*. 14: 557–577.
- Brzezinski, M.A., R.J. Olson, and S.W. Chisholm. 1990. Silicon availability and cell-cycle progression in marine diatoms. *Marine Ecology*. 67:83-96.
- Campbell, N.A., Reece, J.B., Mitchell, L.G. 2002. *Biologi Edisi kelima Jilid 1*. Alih bahasa lestari, R et al. safitri, A., simarmata, L., Hardani, H.W. (eds). Erlangga. Jakarta.
- Carpenter, A., T. Jones, M. Lamprecht, C. Clarke, I. Kang, O. Friman, D. Guertin, J. Chang, R. Lindquist, J. Moffat, P. Golland & D. Sabatini 2006. CellProfiler: image analysis software for identifying and quantifying cell phenotypes. *Genome Biology*. 7: 100-101.
- Ceron Garcia M, Garcia Camacho F, Sanchez Miron A, Fernandez Sevilla JM, Molina Grima E. 2006. Mixotrophic production of marine microalga *Phaeodactylum tricornutum* on various carbon sources. *Journal of Microbiology. Biotechnology*. 16: 689–694
- Chinn, M.S., S.E. Nokes, and H.J. Strobel, 2006, Screening of Thermophilic Anaerobic Bacteria For Solid Substrate Cultivation On Lignocellulosic Substrates. *Biotechnology*. 22: 53-59.
- Chisti, Y. 2007. Biodiesel from microalgae. *Biotechnology Advances*. 25: 294-306.
- Conley, D.J., C.L. Schelske, and E.F. Stoermer. 1993. Modification of the biogeochemical cycle of silica with eutrophication. *Marine Ecology Progress Series*, 101:179-192.
- Croft, M. T., A. D. Lawrence, E. Raux-Deery, M. J. Warren & A. G. Smith 2005. Algae acquire vitamin B12 through a symbiotic relationship with bacteria. *Nature*. 438: 90-93.
- Daniello, Olivier. 2005. “*An Algae Based Fuel*”. Biofutur No. 255 /Mei 2005.
- Darley, W. M. 1982. *Algal biology: A physiological approach*. Blackwell Science. London.

- Del Amo, Y., L. P. Olivier, T. Paul, Q. Bernard, M. Alain, and A. Alain. 1997. Impacts of high-nitrate freshwater inputs on macrotidal ecosystem: I. Seasonal evolution of nutrient limitation for the diatom-dominated phytoplankton of the Bay of Brest (France). *Marine Ecology*. 161:213–224.
- Del Amo Y., Brzezinski M.A. 1999. The chemical form of dissolved Si taken up by marine diatoms. *Journal of Phycology*, (35): 1162-1170.
- Demain, A.L., M. Newcomb, and J.H.D. Wu., 2005. Cellulase, Clostridia, and Ethanol. *Microbiology Molecular Biology*. 69(1): 124–154.
- Desai, S.G., M.L. Guerinot, and L.R. Lynd, 2004, Cloning of L-lactate Dehydrogenase And Elimination of Lactic Acid Production Via Gene Knockout in *Thermoanaerobacterium saccharolyticum* JW/SL-YS485. *Applied Microbiology Biotechnology*. 65: 600-605.
- Doan, T.-T. & J. Obbard 2011. Improved Nile Red staining of *Nannochloropsis* sp. *Journal of Applied Phycology*. 23: 895-901.
- Domozych, D. S., M. Ciancia, J. U. Fangel, M. D. Mikkelsen, P. Ulvskov and W. G. T. Willats. 2012. The cell walls of green algae: a journey through evolution and diversity. *Frontiers in Plant Science*. 3: 82.
- Dien, B.S., M.A. Cotta, and T.W. Jeffries, 2003, Bacteria Engineered For Fuel Ethanol Production: Current Status, *Applied Microbiology Biotechnology*. 63: 258-266.
- Dreywood, R. (1946). Qualitative test for carbohydrate material. *Industrial and Engineering Chemistry-Analytical Edition*, 18(8): 498–499
- Dring, M. J. 1974. *Algae Physiology and Biochemistry*. Blackwell Science. London.
- Dubois, M., J. Gilles, J. Hamilton, P. Rebers and F. Smith. 1956. Colorimetric method for determination of sugars and related substance. *Analytical Chemistry*. 28 (3): 350-356.
- Durr, H. H., M. Meybeck, J. Hartmann, G. G. Laruelle, and V. Roubex. 2011. Global spatial distribution of natural riverine silica inputs to the coastal zone. *Biogeosciences*, 8:597-620.
- Eryanto, A. 2003. *Suatu Pendekatan Biologi dan Manajemen Plankton dalam Budidaya Udang*. PT. CPB. Surabaya.
- Fehling, J., K. Davidson, C.J.S. Bolch, T.D. Brand, and B.E. Narayanaswamy. 2012. The relationship between phytoplankton distribution and water column characteristics in North West European Shelf Sea Waters. *PLoS ONE*. 7(3): 34-98.

- Feng, G. D., F. Zhang, L. H. Cheng, X. H. Xu, L. Zhang & H. L. Chen 2013. Evaluation of FT-IR and Nile Red methods for microalgal lipid characterization and biomass composition determination. *Bioresource Technology*. 128: 107-112.
- Fisher T.R., E.R. Peele, J.W. Ammerman, and L.W. Harding Jr. 1992. Nutrient limitation of phytoplankton in Chesapeake Bay. *Marine Ecology Progress Series*, 82:51-63.
- Francisco, Erika C. 2009. Microalgae as feedstock for biodiesel production: Carbon dioxide sequestration, lipid production and biofuel quality. *Journal of Chemistry Technology Biotechnology*. 2010; 85: 395–403.
- García, MCC., Sevilla JMF , Fernandez FGA, Grima EM, Camacho FG .2000. Mixotrophic growth of *Phaeodactylum tricorutum* on glycerol: growth rate and fatty acid profile. *Journal of Applied Phycology*, 12(3-5): 239-248.
- Girio, F. M., Fonseca, C., Calvarhiero, F., Duarte, L.C., Marques, s., Bogel-Lukasik, R., 2010. Hemisellulosa for fuel ethanol: a review. *Bioresource Technology*. 101:4775-4800
- Gliwicz, Z. M. 2002. On the different nature of top-down and bottom-up effects in pelagic food webs. *Freshwater Biology*. 47: 2296-2312.
- Greenspan, P., E. P. Mayer & S. D. Fowler .1985. Nile red: a selective fluorescent stain for intracellular lipid droplets. *The Journal of Cell Biology*. 100: 965-973.
- Gurr, M. I., J. L. Harwood & K. N. Frayn.2002. *Lipid Biochemistry: An Introduction*, Oxford, UK, Blackwell.
- Guschina, I. & J. Harwood 2009. Algal lipids and effect of the environment on their biochemistry. *Dalam: Kainz, M., Brett, M. T. & Arts, M. T. (eds.) Lipids in Aquatic Ecosystems*. Springer New York.
- Hahn-Hagerdal, B., Karhumaa, K., Fonseca, C., Spencer-Martine, I., Gorwa, Grauslund, N.F.2007. Toward industrial pentose-fermenting yeast strain. *Applied Microbiology Biotechnology*. 74:937-953
- Harsanto, S. 2009. Analisis asam lemak mikroalga *Nannochloropsis oculata*. *Tesis*. Program Magister Bidang Keahlian Kimia Organik Jurusan Kimia FMIPA. Institut Teknologi Sepuluh Nopember. Surabaya. p:72
- Harun, R., W. S. Y. Jason, T. Cherrington and M. K. Danquah. 2010. Microalgal biomass as a cellulosic fermentation feedstock for bioethanol production. *Renewable Sustainable Energy Reviews*. Uncorrected Proof.

- Herve, V., J. Derr, S. Douady, M. Quinet, L. Moisan, and P. J. Lopez. (2012). Multiparametric Analyses Reveal the pH- Dependence of Silikon Biomineralization in Diatoms. *PLoS ONE*. 7 (10) :1-12.
- Hill, J., E. Nelson, D. Tilman, S. Polasky and D. Tiffany, 2006, *Environmental, Economic, and Energetic Costs and Benefits of Biodiesel and Ethanol Biofuels*, Proceeding of The National Academy of Science, USA 103: 11206-11210.
- Ho, S. H., C. Y. Chen and J. S. Chang. 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*. Pp: 244–252.
- Isnansetyo, A. dan Kurniastuty. 1995. *Teknik Kultur Fitoplankton dan Zooplankton*. Kanisius. Yogyakarta.
- Jiang H., & Gao, K. 2004. Effect of lowering temperature during culture on the production of polyunsaturated fatty acid in the marine diatom *Phaeodactylum tricorutum* (Bacillariophyceae). *Journal of Phycology*.40:651-654.
- John, R. P., G. S. Anisha, K. M. Nampoothiri and A. Pandey. 2011. Micro and macroalgal biomass: a renewable source for bioethanol. *Bioresource Technology*. 102: 186–193.
- Kacem, I., H. Majdoub and S. Roudesli. 2008. Physicochemical properties of pectin from retama raetam obtained using sequential extraction. *Journal of Applied Sciences*. 8(9):1713– 1719.
- Kahlil, Y.E.,M.M.S. Asker,S.El-sayed, I.A.Kobbia. 2010. Effect of ph on growth and biochemical responses of *Dunaliella bardawil* ang *Chlorella ellipsoidea*, *Wold Journal of Microbiology Biotechnology*.26:1225-1231
- Kazamia, E., D. C. Aldridge & A. G. Smith. 2012. Synthetic ecology - A way forward for sustainable algal biofuel production? *Journal of Biotechnology*. 162: 163-169.
- Keating, J.D., C. Panganiban, and S.D. Mansfield, 2006, *Tolerance and Adaptation of Ethanologenic Yeasts To Lignocellulosic Inhibitory Compounds, Biotechnology and Bioengineering*. Published online 9 February 2006 in Wiley InterScience (www.interscience.wiley.com). [9 September 2015]
- Kennington, K., J.R. Allen, A. Wither, T.M. Shammon, and R.G.Hartnoll. 1999. Phytoplankton and nutrient dynamics in the north-east Irish Sea. *Hydrobiologia*, 393:57–67.
- Knothe, G. 2006. Analyzing biodiesel: standards and pother methods. *Journal American Oil Chemical Society*. 83 (10): 823–833.

- Keshtacher-Liebson, E., Y. Hadar & Y. Chen 1995. Oligotrophic bacteria enhance algal growth under iron-deficient conditions. *Applied and Environmental Microbiology*. 61: 2439-2441.
- Kumar, H.D, dan Singh, H. N. 1979. *A Text book On Algae*. Mac. Milan Int. College ed, London.
- Lavens P dan Sorgeloos P (eds). 1996. Manual on the production and use of live food for aquaculture. *FAO Fisheries Technical Paper*. No. 361. Rome: Food and Agriculture Organization of the United Nations.
- Lee, Y.-K. & H. Shen 2004. Basic Culturing Techniques. *Dalam: Richmond, A. (ed.) Handbook of Microalgal Culture: Biotechnology and Applied Phycology*. Blackwell Publishing Ltd.
- Lee, Y. K. 2001. Microalgal mass culture systems and methods: Their limitation and potential. *Journal of Applied Phycology*. 13: 307-315.
- Lewin J. C. 1958. The taxonomic position of *Phaeodactylum tricornutum*. *Journal of general Microbiology*, 18: 427-432.
- Lv, J.-M., L.-H. Cheng, X.-H. Xu, L. Zhang & H.-L. Chen 2010. Enhanced lipid production of *Chlorella vulgaris* by adjustment of cultivation conditions. *Bioresource Technology*. 101: 6797-6804.
- Martin-Jezequel, V., Hildebrand, M. And Brzezinski, M.A. 2000. Silikon Metabolism in Diatoms: Implications for Growth. *Journal of Phycology*. (36): 821-840.
- Masojidek, J., M. Koblížek and G. Torzillo. 2004. *Photosynthesis in Microalgae*. In: A. Richmond (ed) *Handbook of Microalgal Culture: Biotechnology and Applied Phycology*. Blackwell Publishing Ltd. Oxford. pp. 20–39.
- Mata, T. M., A. A. Martins and N. S. Caetano. 2010. Microalgae for biodiesel production and other applications: a review. *Renewable Sustainable Energy Reviews*. 14: 217-232.
- May, R. M. 1977. Thresholds and breakpoints in ecosystems with a multiplicity of stable states. *Nature*. 269: 471-477.
- Michael. 1994. *Metode Ekologi untuk Penyelidikan Lapangan dan Laboratorium*. UI Press. Jakarta.
- Michel, H. 2012. Editorial: The nonsense of biofuels. *Angewandte Chemie - International Edition*. 51: 2516-2518.
- Morais. 2009. *Phaeodactylum Tricornutum* Microalgae Growth rate in heterotrophic and mixotrophic conditions. *Engenharia Térmica (Thermal Engineering)*, 8 (1) : 84-89.

- Mulyadi. A. 1999. Pertumbuhan dan dayaserap nutrien dari ganggang mikro *Dunaliella tertiolecta* yang dipelihara pada limbah domestik. *Natur Indonesia*. 2 (1): 65-68.
- Munasinghe, C. P., Khanal, S. K. 2010. Biomass derived syngas fermentation into biofuels: opportunities and challenges. *Bioresource Technology*.101: 5013–5022.
- Nelson, D.L., M.M. Cox. 2006. *Lehninger Principles of Biochemistry* 4th ed. John Wiley and sons inc. New York.
- Nigam,P.S.,Sighn,A., 2011. Productin of liquid biofuel from renewable resources. *Program Energy Combust*. 37(1):52-68
- Nuhamunada, M. 2014. Produksi lipid dan biomassa mikroalga kultur tunggal *Chlorella zofingiensis* Dönz dan kultur campuran isolate glagah dalam *raceway pond*. *Skripsi*. Fakultas Biologi Universitas Gadjah Mada.
- Officer, C.B. and J.H. Ryther. 1980. The possible importance of silicon in marine eutrophication. *Marine Ecology*, 3:83-91.
- Oh-Hama. T. & Miyachi, S.1992. *Chlorella: Micro-Algal Biotechnology*. In Borowitzka, M.A. and Borowitzka, L. *Journal of Cambridge*. University Press.
- Oh-Hama T. and Miyachi, S. 1988. *Microalgal Biotechnology*. Cambridge Press. Cambridge.
- O'Reilly, A. M., Scott, J. A. 1995. Defined coimmobilization of mixed microorganism cultures. *Enzyme Microbiology Technology*. 17:636–646.
- Panggabean *et al.*, 2010. *Mikroalga Laut Sebagai Produsen Biodiesel*. Pusat penelitian Oseanografi Lembaga Ilmu Pengetahuan Indonesia.
- Pantunarubun, C., Suratno, W., Adyaningsih, P., dan Haerudin, H. 1873. Penelitian Pendahuluan Mengenai Pembuatan Biodiesel dan Bioetanol Dari *Chlorella* sp. Secara Simultan. *Journal of Sains MIPA*, April 2018. 18(1): 1 - 6 ISSN 1978-1873. Bandung.
- Papone, T., Kookkhunthod, S., and R. Leesing. 2012. Microbial oil production by monoculture and mixed cultures of microalgae and oleaginous yeasts using sugarcane juice as substrate. *World Academy of Science, Engineering and Technology*. (64): 908-912.
- Pereira, H., H. M. Amaro, N. G. Katkam, L. Barreira, A. Catarina Guedes, J. Varela & F. X. Malcata 2013. *Microalgal Biodiesel*.Academy Press.
- Prescott, A.M., J. Harley, and Dann.2002.*Microbiology*.McGraw-Hill, New York.

- Rachmaniah, O., Setyarini R.D., dan Maulida, L. 2010. *Pemilihan Metode Ekstraksi Minyak Alga dari Chlorella sp. dan Prediksinya sebagai Biodiesel*. Surabaya..
- Richmond, A. 2004b. *Handbook of Microalgal Culture: Applied Phycology and Biotechnology*.
- Rismani-Yazdi, H., B. Z. Haznedaroglu, K. Bibby, J. Peccia. 2011. Transcriptome sequencing and annotation of the microalgae *Dunaliella tertiolecta*: pathway description and gene discovery for production of next-generation biofuels. *Biology Medicine Central Genomics*. 12: 148.
- Radakovits, R., R. E. Jinkerson, A. Darzins & M. C. Posewitz 2010. Genetic engineering of algae for enhanced biofuel production. *Eukaryotic Cell*. 9: 486-501.
- Rodolfi, L., G. C. Zittelli, N. Bassi, G. Padovani, N. Biondi, G. Bonini & M. R. Tredici 2009. Microalgae for oil: Strain selection, induction of lipid synthesis and outdoor mass cultivation in a low-cost photobioreactor. *Biotechnology and Bioengineering*. 102: 100-112.
- Rubin, E. M., 2008. Genomics of cellulosic biofuels. *Nature*. 454: 841–845.
- Russell, P.J.; Hertz, P.E.; McMillan, B. 2011. *Biology: The Dynamic Science* 2nd edition. Belmont, CA: Cengage Learning. ISBN 9780538493727.
- Samudra, Thoriq. T. 2014. Kombinasi Cahaya Merah-Biru Dan Starvasi Nitrogen Untuk Peningkatan Pertumbuhan Dan Kandungan Lipid Pada Kultur Mikroalga *Tetraselmis* Sp. Sebagai Upaya Peningkatan Produktifitas Biodiesel. Skripsi. Fakultas Biologi Universitas Gadjah Mada.
- Shahzad, I., Hussain, K., Nawaz, K., and Nisar, M.F. 2010. Review algae as an alternative and renewable resource for biodiesel production. *The Biology. (E-Journal of Life Sciences)*. 1(1):16–23. <http://www.thebiol.com/Paper-3.pdf>. Accessed on September 9, 2015.
- Sharma, K. K., H. Schuhmann & P. M. Schenk 2012. High lipid induction in microalgae for biodiesel production. *Energies*. 5: 1532-1553.
- Sheehan J., Dunahay, T., Banneman, J., Roessler, P. 1998. A look back at the department of energy's aquatic species program-biodiesel from algae. *National Renewable Energy Laboratory*. (23): 167-172.
- Schenk, P. M., S. R. Thomas-Hall, E. Stephens, U. C. Marx, J. H. Mussgnug, C. Posten, O. Kruse and B. Hankamer. 2008. Second generation biofuels: high-efficiency microalgae for biodiesel production. *Bioenergy Research*. 1: 20-43.
- Schlesinger, W. H. 1997. *Biogeochemistry: an analysis of global change*, Academic Press, San Diego. p.588

- Smith, V. H., B. S. M. Sturm, F. J. Denoyelles & S. A. Billings 2009. The ecology of algal biodiesel production. *Trends in Ecology & Evolution*. 25: 301-309.
- Stockenreiter, M. 2012. *Ecological optimization of biomass and lipid production by microalgae*. Dissertation, LMU München.
- Su, C. H., C. C. Fu, Y. C. Chang, G. R. Nair, J. L. Ye, I. M. Chu & W. T. Wu 2008. Simultaneous estimation of chlorophyll a and lipid contents in microalgae by three-color analysis. *Biotechnology and Bioengineering*. 99: 1034-1039.
- Sudarmadji, Slamet, Suhardi dan Bambang Haryono. 1989. *Analisis Bahan Makanan dan Pertanian*. Yogyakarta : Liberti Yogyakarta.
- Sudrajat dan Setiawan, D. 2003. Teknologi pembuatan biodiesel dari minyak biji jarak pagar. *Jurnal Penelitian Hasil Hutan*. 23: 53-68.
- Suyono, E. A. and E. Albers. 2012. Growth optimality and ethanol production from *Tetraselmis* sp. Isolated from Ancol, Indonesia. *Chalmers Expo 2012*. Gothenburg, Sweden.
- Syahrudin, K., M.Sjahrul., Hanapi Usman. 2013. Pemanfaatan Medium Arschat Pada Produksi Biomassa Fitoplankton Laut yang Potensial Sebagai Bahan Baku Biofuel Jenis Bioetanol. *Seminar Nasional FMIPA UNDIKSHA III*. F. MIPA Kimia Universitas Hasanuddin. Makasar. pp: 354-355
- Taiz, L. and E. Zeiger. 2002. *Plant Physiology*. 3rd Edition. Sinauer Associates. Sunderland. pp.116-119.
- Thompson Jr, G. A. 1996. Lipids and membrane function in green algae. *Biochimica et Biophysica Acta (BBA) - Lipids and Lipid Metabolism*. 1302: 17-45.
- Tomas, C.R., Eds .1996. *Identifying marine diatoms and dinoflagellates* San Diego: Academic Press Inc. pp. 1-858.
- Turner, R.E., N. Qureshi, N.N. Rabalais, Q. Dortch, D. Justic , R.F. Shaw, and J. Cope, 1998. Fluctuating silicate: nitrate ratios and coastal plankton food webs. *Proceedings of the National Academy of Sciences of the USA (PNAS)*,95:13048-13051.
- Turpir.D.H.,1991. Effect of inorganic N availability on algal photosynthesis and carbon metabolism, *Journal of Phycology*. 27:14-20
- Vashista, B.R. 1979. *Botany for Degree Student*. S. Chand Company Ltd. Ram Nager. New Delhi.

- Verma, N.H., Mehrotra, S., Amitesh Shukla, A., and Mishra, B.N. 2010. Prospective of biodiesel production utilizing microalgae as the cell factories: A comprehensive discussion. *African Journal of Biotechnology*. 9 (10): 1402–1411.
- Waltz, E. 2009. Biotech's green gold? *Nature Biotechnology*. 27: 15-18.
- Wang, Z. T., N. Ullrich, S. Joo, S. Waffenschmidt & U. Goodenough 2009. Algal lipid bodies: Stress induction, purification, and biochemical characterization in wild-type and starchless *Chlamydomonas reinhardtii*. *Eukaryotic Cell*. 8: 1856-1868.
- Wu, J.T. and T.L. Chou. 2003. Silicate as the limiting nutrient for phytoplankton in a subtropical eutrophic estuary of Taiwan. *Estuarine, Coastal and Shelf Science*, 58:155-162.
- Yamada, T., K. Sakaguchi. 1982. Comparative studies on *Chlorella* cell-walls-induction on protoplast formation. *Microbiology*. 132:10-13
- Yu, E., Zendejas, F., Lane, P., Gaucher, S., Simmons, B., Lane, T., 2009. Triacylglycerol accumulation and profiling in the model diatoms *Thalassiosira pseudonana* and *Phaeodactylum tricoratum* (Bacillariophyceae) during starvation. *Journal of Applied Phycology*. 21: 669–681.
- Zhang, Y., Dube, M.A., McLean, D.D., and Kates, M. 2003. Biodiesel production from waste cooking oil: process design and technological assesment. *Biosource Technology*. 89: 1–16.
- Zhiguo. Ju, L., D, F., Zheng, Q., Zhang, Y., Li Effects of silicon, calcium or boron on cell growth and lipid accumulation in *Pinnularia gibbavar. linearis*. In X., Li Ed Agri. and Ani. Sci. *IACSIT Press* Vol 22 pp: 100-104,
- Zhiguo Ju, Lixiao Ding, Qingwu Zheng, Zhigang Wu, and Faxin Zheng. 2011. Diatoms as a Model System in Studying Lipid Biosynthesis Regulation. *International Journal of Environmental Science and Development*. 2(6):1-6.