

DAFTAR PUSTAKA

- Abdullah, S., Mudalip, S.K.A., Shaarani, S.Md., dan Pi, N.A.C., 2010, Ultrasonic extraction of oil from *Monopterus albus*: Effects of different ultrasonic power, solvent volume and sonication time, *J. Appl. Sci.*, 10, 2713-1716.
- Ackerman, E., Ellis, L.B.M., dan Williams, L.E., 1998, *Ilmu Biofisika*, terjemahan oleh Abdulbasir Redjani, Airlangga University Press, Surabaya.
- Adam, F., Albert-Vian, M., Peltier, G., dan Chemat, F., 2012, "Solvent-free" ultrasound-assisted extraction of lipids from fresh microalgae cells: A green, clean and scalable process, *Bioresour. Technol.*, 114, 457-465.
- Andayani, T. R. dan Putra, S. R., 2009, Analisis Asam Lemak Mikroalga *Tetraselmis Chuii*, *Proceeding Seminar Nasional Kimia*, Jurusan Kimia FMIPA-ITS, Surabaya.
- Bradshaw, B.G. dan Meuly, W.C., 1994, *Preparation of Detergent*, US Patent Office.
- Bligh, E.G., dan Dyer, W.J., 1959, A rapid method for total lipid extraction and purification, *Can. J. Biochem. Physiol.*, 37, 911-917.
- Bueche, R.J., 1986, *Introduction to Physics for Scientists and Engineers*, McGraw-Hill, New York.
- Butcher, R.W., 1959, *An introductory account of the smaller algae of British coastal waters. Part I: Introduction and Chlorophyceae*, Minist. Agric. Fish. Food, Fish. Invest., Great Britain.
- Cameron, J.R., dan Skofronick, J.G., 1978, *Medical Physics*, John Wiley & Sons Inc., New York.
- Chisti, Y., 2007, Biodiesel from microalgae, *Biotechnol. Adv.*, 25, 294-306.
- Chisti, Y., 2007, Biodiesel from microalgae beats bioethanol, *Trends Biotechnol.*, 26, 126-131.
- Cravotto, G., Boffa, L., Mantegna S., Perego, P., Avogadro, M. dan Cintas, P., 2008, Improved extraction of vegetable oils under high-intensity ultrasound and/or microwaves, *Ultrason. Sonochem.*, 15, 898-902.
- Demirbas, A., 2002, Biodiesel from vegetable oils via transesterification in supercritical methanol, *Energy. Convers. Manage.*, 43, 2349-2356.
- Demirbas, A. dan Demirbas, M.F., 2010, *Algae Energy: Algae as a new source of biodiesel*, Springer-Verlag, London.

- Deshmane, V.G., Gogate, P.R. dan Pandit, A.B., 2009, Ultrasound-assisted synthesis of biodiesel from palm fatty acid distillate, *Ind. Eng. Chem. Res.*, 48, 7923-7927.
- Domozych, D. S., Stewart, K. D. dan Mattox, K. R., 1981, Development of the cell wall in *Tetraselmis*: Role of the golgi Apparatus and extracellular wall assembly, *J. Cell Sci.*, 52, 351-371.
- Lee, R.E., 2008, *Phycology*, 4th Ed., Cambridge University Press, New York.
- Fogler, H.S., 2006, *Elements of Chemical Reaction Engineering*, 4th Ed., Prentice Hall, USA.
- Freedman, B., Pryde, E.H., dan Mounts, T.L., 1984, Variables affecting the yields of fatty esters from transesterification vegetable oils, *J. Am. Oil Chem. Soc.*, 61, 1643-1683.
- Geller, D.P. dan Goodrum, J.W., 2008, Effects of specific fatty acid methyl esters on diesel fuel lubricity, *Fuel*, 83, 2351-2356.
- Gerde, J.A., Montalbo-Lomboy, M., Yao, L., Grewell, D., dan Wang, T., 2012. Evaluation of microalgae cell disruption by ultrasonic treatment. *Bioresour. Technol.*, 125, 175-181.
- Giancoli, D.C., 1998, *Fisika*, Penerjemah Yuhilsa Hanum, Erlangga, Jakarta.
- Greenspan, P., Mayer, E.P., dan Fowler, S.D., 1985, Nile Red" A Selective Fluorescent Stain for Intracellular Lipid Droplets, *J. Cell Biol.*, 100, 965-973.
- Halim, R., Gladman, B., Danquah, M.K., dan Webley, P.A., 2011, Oil extraction from microalgae for biodiesel production, *Bioresour. Technol.*, 102, 178-185.
- Hromadkova, Z., Kovacikova, J. dan Ebringerova, A., 1999, Study of the classical and ultrasound-assisted extraction of the corn cob xylan, *Ind. Crops Prod.*, 9, 101-109.
- IEA., 2013, *CO₂ Emissions From Fuel Combustion: Highlights*. International Energy Agency, Paris.
- IEO., 2013, *International Energy Outlook 2013*, U.S. Energy Information Administration DOE/EIA, Washington.
- Isnansetyo, A. dan Kurniastuty, 1995, *Teknik Kultur Phytoplankton Zooplankton. Pakan Alam untuk pembenihan organism laut*, Kanisius, Yogyakarta.
- Knothe, G., 2005, Dependence of biodiesel fuel properties on the structure of fatty acid alkyl esters, *Fuel Process. Technol.*, 86, 1059-1070.

- Knothe, G., 2008, “Designer” Biodiesel: Optimizing fatty ester composition to improve fuel properties, *Energy Fuels*, 22, 1358–1364.
- Lee, A.K., Lewis, D.M. dan Ashman, P.J., 2012, Disruption of microalgae cells for the extraction of lipids for biofuels: Processes and specific energy requirements, *Biomass Bioenergy*, 46, 89-101.
- Luo, J., Fang, Z. dan Smith Jr., R.L., 2014, Review: Ultrasound-enhanced conversion of biomass to biofuels, *Prog. Energy Combust. Sci.*, 41, 56-93.
- Mahamuni, N.N. dan Adewuyi, Y.G., 2009, Optimization of the synthesis of biodiesel via ultrasound-enhanced base-catalysed transesterification of soybean oil using a multifrequency ultrasonic reactor, *Energy Fuels*, 23, 2757-2766.
- Marlinda, 2010, Proses Pembuatan Biodiesel dari minyak sawit (palm-oil) dengan bantuan gelombang ultrasonik, *Tesis*, Teknik Kimia UGM, Yogyakarta.
- Martinez-Guerra, E., Gude, V.G., Mondala, A., Holmes, W. dan Hernandez, R., 2014, Microwave and ultrasound enhanced extractive-transesterification of algal lipids, *Appl. Energ.*, 129, 354–363.
- Mason, T. dan Lorimer, J., 2002, *Applied Sonochemistry: The Uses of Power Ultrasound in Chemistry and Processing*, Wiley-VCH, Darmstadt, Jerman.
- Mata, T.M., Martins, A.A., dan Caetano, N.S., 2010, Microalgae for biodiesel production and other applications: A review, *Renew. Sust. Energ. Rev.*, 14, 217–232.
- Mercer, P. dan Armenta, R.E., 2011, Review Article: Developments in oil extraction from microalgae, *Eur. J. Lipid Sci. Technol.*, 113, 539–547.
- Metzger, P. dan Largeau, C., 2005, *Botryococcus braunii* a rich source for hydrocarbons and related ether lipids, *Appl. Microbiol. Biotechnol.*, 66, 486-496.
- Mittlebach, M., dan Remschmidt, C., 2004, *Biodiesel The Comprehensive Handbook*, Boersedruck Ges.m.bH., Vienna.
- Mujiman, A., 2004, *Makanan Ikan*, Cetakan 14, Penebar Swadaya, Jakarta.
- Mohammady, N. G-E., Rieken, C.W., Lindell, S.R., Reddy, C.M., Taha, H.M., Lau, C.P.L. dan Carmichael, C.A., 2012, Age of nitrogen microalgal cells is a key factor for maximizing lipid content, *Res. J. Phytochemistry*, 6, 2, 42-53.
- Neto, A.M.P., de Souza, R.A.S., Leon-Nino, A.D., da Costa, J.D.A., Tiburcio, R. S., Nunes, T.A., de Mello, T.C.S., Kanemoto, F.T., Saldanha-Corrêa, F.M.P.,

- dan Giancesella, S.M.F., 2013, Improvement in microalgae lipid extraction using a sonication-assisted method, *Renew. Energ.*, 55, 525-531.
- Oliveira, M.A.C.L.D., Monteiro, M.P.C., Robbs, P.G. dan Leite, S.G.F., 1999, Growth and chemical composition of *Spirulina maxima* and *Spirulina platensis* biomass at different temperatures, *Aquac Int.*, 7, 261-275.
- Patil, P.D., Gude, V.G., Mannarswamy, A., Deng, S., Cooke, P., Munson-McGee, S., Rhodes, I., Lammers, P. dan Nirmalakhandan, N., 2011, Optimization of direct conversion of wet algae to biodiesel under supercritical methanol conditions, *Bioresour. Technol.*, 102, 1, 118-122.
- Popinet, E. dan Zaleski, E., 2002, Bubble collapse near a solid boundary: a numerical study of the influence of viscosity, *J. Fluid Mech.*, 464, 137-163.
- Pratama, L., Yoeswono, Triyono dan Tahir., I., 2009, Pengaruh temperatur dan kecepatan pengadukan terhadap konversi biodiesel dari minyak kelapa dengan pemanfaatan abu tandan kosong sawit sebagai katalis basa, *Indo. J. Chem.*, 165-172.
- Raichel, D. R., 2006, The science and applications of acoustics, Springer Science & Business Media, New York.
- Ramesh, D., 2013, Lipid Identification and Extraction Techniques, dalam *Biotechnological Applications of Microalgae. Biodiesel and Value-Added Products*, ed. Bux, F., CRC Press, Boca Raton, Florida.
- Ranjan, A., Patil, C. dan Moholkar, V.S., 2010, Mechanistic assessment of microalgal lipid extraction, *Ind. Eng. Chem. Res.*, 49, 2979-85.
- Rawat, I., Kumar, R.R., Mutanda, T., dan Bux, F., 2013, Biodiesel from microalgae: A critical evaluation from laboratory to large, *Appl. Energ.*, 103, 444-467.
- Resnick, R. dan Halliday D., 1992, *Fisika*, Penerjemah Pantur Silaban dan Erwin Sucipto, Erlangga, Jakarta.
- Sabbagha, R.E., 1980, *Diagnostic Ultrasound Applied to Obstetrics and Gynecology*, Haper & Row, London.
- Santos, F.F.P., Matos, L.J.B.L., Rodrigues, S. dan Fernandes, F.A.N., 2009, Optimization of the production of methyl ester from soybean waste oil applying ultrasound technology, *Energy Fuels*, 23, 4116-4120.
- Sappewali, 2009, Penentuan intensitas cahaya optimum pada pertumbuhan dan kadar lipid mikroalga *Tetraselmis chuii*, *Tesis*, Jurusan Kimia, ITS, Surabaya.

- Schuchardt, U., Serchui, R. dan Vargas, R.M., 1998, Transesterification of Vegetables Oil, *J. Braz. Chem. Soc.*, 199-210.
- Sholkamy, E.N., Abdel-Megeed, A., Elnakieb, Fatma, A.A. dan Al-Arfaj, A.A., 2012, Biodiesel Production and Biotechnological Applications from Microalgae Isolated from Water System of Riyadh, Saudi Arabia, *J. Pure Appl. Microbio.*, 6, 4, 1653-62.
- Suslick, K. S., 1988, *Ultrasound: its chemical, physical, and biological effects*, VCH, New York.
- Suslick, K.S, dan Price, G.J., 1999, Applications of ultrasound to materials chemistry, *Annu. Rev. Mater. Sci.*, 29, 295–326.
- Suslick, K.S., Dienko, Y., dan Fang, M., 1999, *Acoustic Cavitation and Chemical Consequence*, The Royal Society, London.
- Suyono, E.A., Mudasir, Daryono, B.S., Haryanti, Albers, E., 2012, The effect of light and NP ratio on growth and chemical content of *Rhinomonas* sp. and *Tetraselmis* sp. isolated from Ancol, Indonesia, Tidak dipublikasikan.
- Thao, N.T.P., Tin, N.T. dan Thanh, B.X., 2013, Biodiesel Production from Microalgae by Extraction–Transesterification Method, *Waste Tech.*, 1, 6-9.
- Trisnobudi, A., 2001, *Diktat Kuliah Teori Ultrasonik*, Penerbit ITB, Bandung.
- Wiyarno, B., Yunus, R.M., dan Mel, M., 2011, Extraction of algae oil from *Nannochloropsis* sp.: A study of soxhlet and ultrasonic-assisted extractions, *J. Applied Sci.*, 11, 3607-3612.
- Wiyarno, B., 2009, *Biodiesel Microalgae: Bahan bakar generasi ketiga*, ISBN: 978-979-8339-35-6.
- Vonshak, A., 2002, *Spirulina platensis (Arthrospira): Physiology, cell-biology and biotechnology*, Taylor & Francis Ltd., London.
- Zhang, Z-S., Wang, L-J., Li, D., Jiao, S-S., Chen, X. D. dan Mao, Z-H., 2008, Ultrasound-assisted extraction of oil from flaxseed, *Sep. Purif. Technol.*, 62, 192–198.