

DAFTAR PUSTAKA

- Abusham, R.A., Rahman, R.N., Salleh, A.B. & Basri, M., 2009, Optimization of Physical Factors Affecting the Production of Thermo-stable Organic Solvent-tolerant Protease from a Newly Isolated Halo Tolerant *Bacillus subtilis* strain Rand, *Microbial Cell Factories*, 8 : 20.
- Aditiawati, P., Pikoli, M.R. & Indiani, D.A., 2001, Isolasi Bertahap Bakteri Pendegradasi Minyak Bumi dari Sumur Bangko, *Proceeding Simposium Nasional*, IATMI, 3 - 5 Oktober di Yogyakarta.
- Ahmed, N., Uzair, B., Ayaz, S. & Ahmed, V.U., 2008, Antibacterial Activity of Marine Bacteria from Arabian Sea of Pakistan Karachi, *Journal of Microbiology*, 4 (2) : 1 - 11.
- Almas, S., Hameed, A., Shelly, D. & Mohan, P., 2009, Purification and Characterization of a Novel Protease from *Bacillus* Strain SAL1, *African Journal of Biotechnology*, 8 (15) : 3603 - 3609.
- Almatsier, S., 2004, *Prinsip Dasar Gizi*, PT. Gramedia Pustaka Umum, Jakarta
- Alongi., Clough, B.F. & Robertson, A.I., 2005, Nutrient-use Efficiency in Arid-zone Forests of the Mangroves *Rhizophora stylosa* and *Avicennia marina*, *Aquatic Botany*, 82 : 121 – 131.
- Altschul, S.F., Madden, T.L., Schaffer, A.A., Zhang, J., Zhang, Z., Miller, W. & Lipman, D.J., 1997, Gapped BLAST and PSI-BLAST: A New Generation of Protein Database Search Program, *Nucleic Acids Research*, 25 (17) : 3389 - 3402.
- Alviyulitha, M., Pinta, R. M. H. & Farida, H., 2014, Pengaruh Penambahan Amonium Sulfat (NH₄) dan Waktu Perendaman Buffer Fosfat Terhadap Perolehan *Crude* Papain dari Daun Pepaya (*Carica papaya*, L), *Jurnal Teknik Kimia USU*, 3 (3): 8 - 12.
- American Public Health Association (APHA), 1998, *Standart Methods for The Examination of Water and Wastewater*, 20th Edition American Public Health Assosiation, USA, Washington DC, pp. 2 – 53.
- Anderson, A. & Vijayakumar, S., 2012, Isolation and Optimization of *Pseudomonas Aeruginosa* for Uricase Production India, *International Journal of Pharma and Biology Sciences*, 3 (1) : 143 - 150.
- Annamalai, N., Kumar, A., Saravanakumar, A., Vijaylakshmi, A. & Balasubramanian, T., 2011, Characterization of Protease from *Algaligens faecalis* and Its antibacterial Activity on Fish Patogens, *Journal of Environmental Biology*, 32: 781 - 786.

- Antony, S.P. & Philip, R., 2006, Bioremeditation in Shrimp Culture Systems. *NAGA, Worldfish Center Quarter*, 29 (3 & 4) : 62 - 66.
- Arizuna, M., Djoko, S. & Max, R.M., 2014, Kandungan Nitrat dan Fosfat dalam Air Pori Sedimen di Sungai dan Muara Sungai Wedung Demak, *Diponegoro Journal of Maquares*, 3 (1) : 7 - 16.
- Atmomarsono, M., Muliani. & Nurbaya, 2009, Penggunaan Bakteri Probiotik dengan Komposisi Berbeda Untuk Perbaikan Kualitas Air dan Sintasan Pascalarba Udang Windu, *Jurnal Riset Akuakultur*, 4 (1) : 73 - 83.
- Avnimelech, Y. & Ritvo, G., 2003, Shrimp and Fish Pond Soils: Processes and Management, *Aquaculture*, 220 : 549 - 567.
- Awwaly, K. U. A., Mustakim & Rachmat, A. B., 2008, Karakteristik Ekstrak Kasar Enzim Renin *Mucor pusillus* Terhadap Lingkungan, *Jurnal Ilmu dan Teknologi Hasil Ternak*, 3 (2) : 1 - 7.
- Azizi, A., 2005, Produksi Tokolan Udang *Penaeus monodon* Fabricus dalam Sistem Resirkulasi dengan Padat Tebar 25, 50, 75, dan 100 ekor/L, Skripsi: Bogor: Departemen Budidaya Perairan, Fakultas Perikanan dan Ilmu Kelautan, Institut Pertanian Bogor.
- Badjoeri, M. & Widiyanto, T., 2014, Penggunaan Bakteri Nitrifikasi untuk Bioremediasi dan Pengaruhnya Terhadap Konsentrasi Amonia dan Nitrit di Tambak Udang, *Jurnal Oseanologi dan Limnologi*, 261-278.
- Bahagiawati, 2002, Penggunaan *Bacillus thuringiensis* sebagai Bioinsektisida, *Buletin AgroBio*, 5 (1) : 21 - 28.
- Bairagi, A., Ghosh, K., Kumarsen, S. & Ray, A.K., 2002, Enzyme Producing Bacterial Flora Isolated From Fish Digestive Tracts, *Aquaculture International*, 10 : 109 - 121.
- Balcazar, J. L. & Tryson, R.L., 2007, Inhibitory Activity of Probiotic *Bacillus subtilis* UTM 126 Against *Vibrio* Species Confers Protection Against Vibriosis in Juvenile Shrimp (*Litopenaeus vannamei*), Faculty of Aquaculture, Technical University of Machala, Machala, Ecuador.
- Benner, K., Lingchong, Y. & Frances, H.A., 2008, Engineering Microbial Consortia: a New Frontier in Synthetic Biology, *Trends in Biotechnology*, 26 (9) : 483 - 489.
- Bernini, E. & Rezende, C.E., 2010, Litterfall in A Mangrove in Southeast Brazil, *Panamjas American Journal of Aquatic Sciences*, 5 (4) : 508 - 519.
- Bhunja, B., Bikram B., Sagnik, C. & Apurba, D., 2014, A Review on Application of Microbial Protease in Bioremediation, *Research Gate*, 14 : 217 - 230.

- Bintang, M., 2010, *Biokimia: Teknik Penelitian*, Jakarta: EGC.
- Boopathy, R., 2000, Factors Limiting Bioremediation Technologies, *Bioresource Technology*, 74 : 63 – 67.
- Bradford, M.M., 1976, *A Rapid and Sensitive Method for The Quantitation of Microgram Quantities of Protein Utilizing the Principle of Protein-dye binding Analytical Biochemistry*, Reproduction Research Laboratoris, Department of Biochemistry, Georgia: University of Georgia, hal. 248 - 254.
- Brune, D.E., Schwartz G., Eversole A.G., Collier J.A. & Schwadler, T.E., 2003, Intensification of Pond Aquaculture and High Rate Photosynthetic Systems, *Aquaculture Engineering*, 28 : 65 - 86.
- Budianto A. K., 2009, Pangan, Gizi, dan Pengembangan Manusia Indonesia: Dasar Ilmu Gizi, Malang UMM Press, 1 - 16
- Burford, M.A., Thompson, P.J., McIntosh, R.P., Bauman, R.H. & Pearson, D.C., 2003, Nutrient and Microbial Dynamics in High-Intensity, Zero-Exchange Shrimp Ponds in Belize, *Aquaculture*, 219 : 393 - 411.
- Burford, M. A. & Lorenzen, K., 2004, Modeling Nitrogen Dynamics in Intensive Shrimp Ponds: the Role of Sediment Remineralization, *Aquaculture*, 229 : 129 - 145.
- Chamberlain, G., Avnimelech, Y., McIntosh, R.P. & Velasco, M., 2001, Advantages of Aerated Microbial Reuse Systems with Balanced C/N: Nutrient Transformation and Water Quality Benefits, *Global Aquaculture Alliance*: April 2001.
- Chantawannakul, P., Onchalee, A., Klanbut, K., Chukeatirote, E. & Lumyong, S., 2002, Characterization of Proteases of *Bacillus subtilis* Strain 38 Galured from Traditionally Fermented Soybean in Northern Thailand, *Science Asia*, 28 : 241 - 245.
- Das, P., Samantaray, S. & Rout, G.R., 1998, Studies on Cadmium Toxicity in Plants: A Review, *Environment Pollution*, 98 : 29 - 36.
- Effendi, H., 2000, *Telaah Kualitas Air: Bagi Pengelolaan Sumberdaya dan Lingkungan Perairan*, Jakarta: Gramedia.
- Effendi, H., 2003, *Telaah Kualitas Air: Bagi Pengelolaan Sumberdaya dan Lingkungan Perairan*, Cetakan Kelima, Yogyakarta : Kanisius.

- Erler, D., Putth, S., Teeyaporn, K. & Kanit, C., 2005, Preliminary Investigation into the Effect of Carbon Addition on Growth, Water Quality and Nutrient Dynamics in Zero Exchange Shrimp (*Penaeus monodon*) Culture System, *Asian Fisheries Science*, 18 : 195 - 204.
- Farzanfar, A., 2006, The Use of Probiotics in Shrimp Aquaculture, *FEMS Immunol, Medicine of Microbiology*, 48 : 149 - 158.
- Fattah, F.M.A. & Hoda, M.A.H.S., 2011, Amylase Production from *Aspergillus oryzae* LS1 by Solidstate Fermentation and Its Use for The Hydrolysis of Wheat Flour, *Iranian Journal of Biotechnology*, 9 : 267 - 274.
- Fauziah, P.N., Nurhajati, J. & Chrysanti, 2012, Penghambatan Adhesi Berbagai strain *Klebsiella pneumoniae* oleh *Lactobacillus bulgaris* dalam Soyghurt secara in Vitro pada Hep-2 Cell Lines dengan Berbagai Proses Perlakuan Infeksi, Skripsi: Universitas Padjajaran
- Feliatra, 2000, Penggunaan Salinitas pada Isolat Bakteri Nitrifikasi yang Diisolasi dari Perairan Tambak Bengkalis, *Jurnal Nature Indonesia*, 3 : 32 - 38.
- Fuady, M.F., Mustofa N.S. & Haeruddin, 2013, Pengaruh Pengelolaan Kualitas Air Terhadap Air Tingkat Kelulusan Hidup dan Laju Pertumbuhan Udang Vaname (*Litopenaeus vannamei*), *Diponegoro Journal of Maquares, Management Aquatic Resources*, 2 (4) : 155-162.
- Garno, S.Y., 2004, *Biomanipulasi Paradigma Baru Dalam Pengendalian Limbah Organik Pada Budidaya Perikanan Di Waduk Dan Tambak*, Orasi ilmiah Pengukuhan Ahli Peneliti Utama, Badan Pengkajian dan Penerapan Teknologi, Jakarta, hal. 58.
- Gevers, D., Geert, H. & Jean, S., 2001, Applicability of rep-PCR Fingerprinting for Identification of Lactobacillus species, *FEMS Microbiology Letters*, 205 : 31 - 36.
- Govind, N.S., Mehta, B., Sharma, M. & Movi, V.V., 1981, Protease and Carotenogenesis in *Blakeslea triposa*, *Phytochemistry*, 20 : 2483 - 2485.
- Grasshoff, K., 1976, *Determination of Nitrate: Methods of Seawater Analysis* (Grasshoffed), Verlag chemic-Weinheim-New York : 137 - 145.
- Gregory, L.G., Bond, P.L., Richardson, D.J. & Spiro, S., 2003, Characterization of a Nitrate-respiring Bacterial Community Using the Nitrate Reductase Gene (NarG) as a Functional Marker, *Microbiology*, 149 : 229 - 237.
- Gullian, M., Thompson, F. & Rodriguez, J., 2004, Selection of Probiotic Bacteria and Study of their Immunostimulatory Effect in *Pennaeus vannamei*, *Aquaculture*, 233 : 1 - 14.

- Gupta, N., Das, S. & Basak, U.C., 2007, Useful Extracellular Activity of Bacteria Isolated from Bhitarkanika Mangrove Ecosystem of Orissa Coast, *Malaysian Journal of Microbiology*, 3 : 15 - 18.
- Haba, K. & Beaumont, R., 2010, *Biotechnology and Genetics in Fisheries and Aquaculture*, London, Blackwell Publishing.
- Hadioetomo, R.S., 1993, *Mikrobiologi Dasar dalam Praktek: Teknik dan Prosedur Dasar Laboratorium*, Jakarta: Gramedia Pustaka Utama.
- Hames, B.D. & Hooper, N.M., 2000, *Biochemistry: The Instant Notes*, Ed. ke-2. Hongkong: Springer-Verlag.
- Harris, E.L.V. & Angal, S., 1989, *Protein Purification Methods. A Practical approach*, IRL Press, Oxford New York Tokyo.
- Hasniar, F. & Yunarti., 2013, Efektif Penggunaan Probiotik dan Antibiotik Terhadap Kualitas Air dalam meningkatkan Sintasan Post Larva, *Jurnal Galung Tropika*, 1 : 14 - 22.
- Haryanti, G.N., Permana, S.B., Moria, N.A., Giri, K. & Sugana, 2002, Penggunaan Bakteri Probiotik *Alteromonas* sp. BY-9 dalam Pemeliharaan Larva Udang Melalui Pakan Alami dan Buatan, *Jurnal Penelitian Perikanan Indonesia*, 8 : 55 - 66.
- Hatmanti, A., 2003, Penyakit Bakterial pada Budidaya Krustasea serta Cara Penanganannya, *Oceana*, 38 : 1 - 10.
- Hendrianie, N. N., 2001, *Mikrobiologi Industri*, Teknik Kimia, FTI ITS, Surabaya.
- Herdianti, L., Kardawan, S. & Sigit, H., 2015, Efektivitas Penggunaan Bakteri Untuk Perbaikan Kualitas Air Media Budidaya Udang Vaname (*Litopenaeus vannamei*) Super Intensif, *Jurnal Ilmu Pertanian Indonesia*, 20 (3) : 265 - 271.
- Hermawan, D.R.W.A., Utami, T. & Cahyanto, M.N., 2000, Fermentasi Etanol dari Buah Semu Jambu Mete (*Anacardium occidentale L.*) oleh *Saccharomyces cerevisiae* FNCC 3015 Menggunakan Amonium Sulfat dan Urea sebagai Sumber Nitrogen, *Agritechnology*, 20 : 93 - 98.
- Hoffman, M. & Decho, A.W., 2000, Proteolytic Enzymes in the Marine Bacterium *Pseudoalteromonas atlantica*: Post-secretional Activation and Effects of Environmental Conditions, *Aquatic Microbiology Ecology*, 23 : 29 - 39.

- Holguin, G., Vazquez, P., & Bashan, Y., 2001, The Role of Sediment Microorganisms in the Productivity, Conservation, and Rehabilitation of The Mangrove Ecosystems: an Overview, *Biology of Fertilization Soils*, 33 : 265 - 278.
- Holmer, M., Marba, N., Diaz-Almela, E., Duarte, C.M., Tsapakis, M. & Danovaro, R., 2007, Sedimentation of Organic Matter from Fish Farms in Oligotrophic Mediterranean Assessed through Bulk & Stabel Isotope (D13c & D15n) Analysis, *Aquaculture*, 262 : 268 – 280.
- Hoorman, J.J. & Islam, R., 2010, *Understanding Soil Microbes and Nutrient Recycling. Fact Sheet Agriculture and Natural Resources*, The Ohio State University.
- Hoq, M.E., Islam, M.L., Paul, H.K. & Ahmed, S.U., 2002, Decomposition and Seasonal Changes in Nutrient Constituents in Mangrove Litter of Sundarbas Mangrove, Bangladesh, *Indian Journal of Marine Science*, 31 (2): 130 – 135.
- Hsu, S. & Chen., 2007, The Immune Response Of White Shrimp *Penaeus Vannamei* And Its Susceptibility To *Vibrio Alginolyticus* Under Sulfide Stress, *Aquaculture*, 271 : 61 - 69.
- Huckle, Menard, R. & Storer, A., 2000, *Handbook of Proteolytic Enzyme*, Academic Press, London.
- Huisman, E.A., 1987, *The Principles of Fish Culture Production*, Netherland: Wageningen University Press.
- Hutabarat, S. & Evans, M.S., 1985, *Pengantar Oseanografi*, Jakarta: UI Press.
- Irfan, M., Safdar, A., Syed, Q. & Nadeem, M., 2012, Isolation and Screening of Cellulolytic Bacteria from Soil and Optimization of Cellulase Production and Activity Turkish, *Turkish Journal of Biochemistry*, 37 (3) : 287 – 293.
- Irina, V.P., Philippe, B., Bernard, V. & Bernard, F., 2001, In Vitro Anti Helicobacter Pylori Activity of the Probiotic Strain *B. subtilis* 3 is Due to Secretion of Antibiotic, *Journal of Antimicroba Agent Chemother*, 45 : 3156 - 3161.
- Isnansetyo, A. & Kamei, Y., 2009, Bioactive Substances Produced by Marine Isolates of Pseudomonas, *Jurnal Indonesia Microbiology Biotechnology*, 36 : 1239 – 1248.
- Izzati, M., 2011, Perubahan Kandungan Ammonia, Nitrit, dan Nitrat dalam Air Tambak pada Model Budidaya Udang Windu dengan Rumput Laut *Sargassum plagyophyllum* dan Ekstraknya, *BIOMA*, 13 (2) : 80 – 84.

- Jack, R.W. & Jung, G., 2000, C Lantibiotics Microcins: Polypeptides with Unusual Chemical Diversity, *Current Opinion Chemical Biology*, 4 : 310 - 317.
- Jackson, C., Preston, N., Thompson, P.J. & Burford, M., 2003, Nitrogen Budget and Effluent Nitrogen Components at an Intensive Shrimp Farm, *Aquaculture*, 218 : 397 – 411.
- Kamiso, 2004, Status Penyakit Ikan dan Pengendaliannya, *Seminar Penyakit Ikan dan Udang IV*, Purwokerto : 18 – 19 Mei 2004, Universitas Jenderal Soedirman.
- Karigar, C.S. & Rao, S.S., 2011, Role of Microbial Enzymes in the Bioremediation of Pollutants: A Review, *Enzyme Research*, Article ID 805187, 11 hal.
- Kathiresan, K. & Bingham, B. L., 2001, *Biology of Mangrove and Mangrove Ecosystems*, Centre of Advanced Study in Marine Biology, Annamalai University, Huxley College of Environmental Studies, Western Washington University, Annamalai, India.
- Kathiresan, K., Manivannan, S., Nabeel, M.A. & Dhivya, B., 2009, Studies on Silver Nanoparticles Synthesized by a Marine Fungus, *Penicillium fellutanum* Isolated from Coastal Mangrove Sediment, *Colloids and surfaces B: Biointerfaces*, 71 (1) : 133 – 137.
- Kautsky, N., Rönnbäck, P., Tedengren, M. & Troell, M., 2000, Ecosystem Perspectives on Management of Disease in Shrimp Pond Farming, *Aquaculture*, 191 : 145 - 161.
- Kezia, D., Chandrakala, G., Prasanthi, V., Naidu, S.V. & Narasimha, R.M., 2011, Influence of Different Factors on Production Of Purified Protease by *Bacillus subtilis* DKMNR India, *International Journal Of Pharma and Biology Sciences*, 2 (3).
- Komarawidjaja, W., 2006, Pengaruh Aplikasi Konsorsium Mikroba Penitrifikasi terhadap konsentrasi Amonia (NH₃) pada Air Tambak, *Jurnal Teknik Lingkungan P3TL-BPPT*, 4 (2) : 62 - 67.
- Kordi, M.G.H. & Tancung, A.B., 2007, *Pengelolaan Kualitas Air dalam Budidaya Perairan*, Jakarta: Rineka Cipta.
- Koskinen, P., 2008, The Development and Microbiology of Bioprocesses for The Production of Hydrogen and Ethanol by Dark Fermentation, Thesis: Doctor of Technology, Tampere University of Technology, Finland.
- Kotay, S.M. & Das, D., 2006, Microbial Hydrogen Production with *Bacillus coagulans* IIT – BT S1 Isolated from Anaerobic Sewage Sludge, *Bioresource Technology*, 98 : 1183 – 1190.

- Kristensen, E., Bouillon. S., Dittmar, T. & Machand, C., 2008, Organic Carbon Dynamic in Mangrove Ecosystems: A Review, *Aquatic botany*, 89 : 201 - 219.
- Kumar, A., Bisht, B.S., Joshi, V.D. & Dhewa, T., 2011, Review on Bioremediation of Polluted Environment: A Management Tool, *International Journal of Environmental Sciences*, 6 : 1079 – 1093.
- Kurniawan, C.A., Rudhi, P. & Nirwani, 2014, Struktur dan Komposisi Vegetasi Mangrove di *Tracking Mangrove* Kemujan Kepulauan Karimun Jawa, *Jurnal Ilmu Kelautan*, 3 : 351 – 358
- Kusumastuti, W., Hendrarto, B. & Sutrisnanto, D., 2011, Evaluasi Lahan Basah Buatan Vegetasi Mangrove dalam Mengurangi Pencemaran Lingkungan (Studi Kasus di Desa Kepentingan Kabupaten Sidoarjo), *Jurnal Ilmu Lingkungan*, 9 (2) : 69 - 74.
- Laemmli, U. K., 1970, Cleavage of Structural Proteins during the Assembly of the Head of Bacteriophage T4, *Nature*, 227 : 680 - 685.
- Lakshmi, B.K.M., Sri, P.V.R., Devi, K.A. & Hemalatha, K.P.J., 2014, Media Optimization of Protease Production by *Bacillus licheniformis* and Partial Characterization of Alkaline Protease, *International Journal of Current Microbiology and Applied Sciences*, 3 (5) : 650 – 659.
- Lekatompessy, S.T.A. & Tutuhaturunewa, A., 2010, Kajian Kontruksi Model Peredam Gelombang dengan Menggunakan Mangrove di Pesisir Lateri – Kota Ambon, *ARIKA*, 4 (1) : 51 - 60.
- Lisboa, M.P., Bonatto, D., Bizani, D., Henriques, J.A. & Brandelli, A., 2006, Characterization of a Bacteriocin-like Substance Produced by *Bacillus amyloliquefaciens* Isolated from the Brazilian Atlantic Forest, *Journal International of Microbiology*, 9 : 111 - 118.
- Lønborg, C. & Søndergaard, M., 2009, Microbial Availability and Degradation of Dissolved Organic Carbon and Nitrogen in Two Coastal Areas, Estuarine, *Coastal and Shelf Science*, 81 : 513 – 520.
- Lopez, J., 2000, Probiotics in Animal Nutrition: Recent Advances in Animal Nutrition, *Journal of Animal Sciences*, 13 : 12 - 36.
- Lovelock, C.E., Feller, I.C., Mckee, K.L. & Thompson, R., 2005, Variation in Mangrove Forest Structure and Sediment Characteristics in Bocas Del Toro, Panama, *Caribbean Journal Of Science*, 41 (3) : 456 - 464.
- Madigan, M.T., 2000, Bacteria Habitats in Extreme Environments, In *Journey to Diverse Microbial World-Adaptaion to Exoic Environments*, ed. J Seckbach, 61 - 72.

- Madigan, M. T. & Martinko, J.M., 2003, *Brock Biology of Microorganisms*, America : Pearson Education, Inc.
- Mahasneh, A.M., 2001, Bacterial Decomposition of *Avicennia marina* Leaf Litter from Al-khor (Qatar-Arabian Gulf), *Journal of Biology Sciences*, 1 : 717 - 719.
- Mahdhi, A., Maria, Á.E., Zeineb, H., Karima, B., Fathi, K., Amina, B. & Boubaker, K., 2012, Survival and Retention of the Probiotic Properties of *Bacillus* sp. Strains Under Marine Stress Starvation Conditions and their Potential Use as a Probiotic in Artemia Culture, *Research in Veterinary Science*, 93 (31) : 151 - 159.
- Marchand, C., Lallier-Vergès, E. & Baltzer, F., 2003, The Composition of Sedimentary Organic Matter in Relation to the Dynamic Features of a Mangrove-fringed Coast in French Guiana, Estuarine Coastal and Shelf, *Sciences*, 56 : 119 – 130.
- Marchesi, J.R., Sato, A.J.T., Weightman, T.A., Martin, J.C., Fry, S.J., Hiom. & Wade, W.G., 1998, Design and Evaluation of Useful Bacterium-Specific PCR Primers That Amplify Genes Coding for Bacterial 16S-rRNA, *Applied of Environmental Microbiology*, 64 (2) : 795 – 799.
- Margino, S., Martani, E. & Magdalena, M., 2007, Superoxide Dismutase of *Micrococcus* sp. S2 and its Involve in Paraquat Detoxification, *Indonesian Journal of Biotechnology*, 12 : 973 - 979.
- Martani, E., Sebastian, M. & Elisa, N., 2011, Isolasi dan Karakteristik Jamur Pendegradasi Zat Pewarna Tekstil, *Jurnal Manusia dan Lingkungan*, 18 (2) : 127 - 136.
- Maruthamalai, R.R.P. & Mahalingam, P.U., 2014, Screening and Characterization of Lignin Degrading Bacteria from Decayed Sawdust India, *International Journal of Pure Applied Sciences and Technology*, 23 (2) : 43 - 52.
- Mishrafer, U. & Dhar, D.W., 2004, Biodiversity and Biological Degradation of Soil, General Article, IARI, New Delhi 110012, *Resonance*, 23 – 28.
- Mohammed, M.H., El-Aziz, A.N, Omran, S., Anwar, S., Awad, M. & El-Soda, 2009, Rep-PCR Characterization and Biochemical Selection of Lactic Acid Bacteria Isolate from the Delta Area of Egypt, *International Journal of Food Microbiology*, 128 : 417 – 423.
- Moriarty, D.J.W., 1999, Disease Control in Shrimp Aquaculture with Probiotic Bacteria, Proceedings of the 8th International Symposium on Microbial Ecology, Bell CR, Brylinsky M, Johnson-Green P (eds) Atlantic Canada Society for Microbial Ecology, Canada: Halifax.

- Mugnier, P., Poirel, L., Pitout, M. & Nordmann, P., 2008, Carbapenem-resistant and OXA-23-Producing *Acinetobacter baumannii* Isolates in the United Arab Emirates, *Clinic Microbiology Infection*, 14 : 879 – 882.
- Muliani, Antonius, S. & Yusminah, H., 2003, Isolasi dan Karakterisasi Bakteri Asal Laut Sulawesi untuk Biokontrol Penyakit Vibriosis pada Larva Udang Windu (*Penaeus monodon* Fab.), *Hayati*, 10 (1) : 6 – 11.
- Muzaki, A., 2004, Produksi Udang Vaname (*Litopenaeus vannamei*) pada Padat Penebaran Berbeda di Tambak Biocrete, Skripsi : Institut Pertanian Bogor.
- Nag, K.S.C., Pramod, P. & Karanth, K.P., 2011, Taxonomic Implications of a Field Study of Morphotypes of Hanuman Langurs (*Semnopithecus entellus*) in Peninsular India, *International Journal of Primatology*, 32 : 830 – 848.
- Naiola, E. & Widhyastuti, N., 2007, Semi Purifikasi dan Karakterisasi Enzim Protease *Bacillus* sp. Berk, *Hayati*, 13 : 51 - 56.
- Negrulescu, A., Viorica, P., Manuela, M.M., Cosmin, I., Beatrice, A.V. & Vasile, O., 2012, Adapting the Reducing Sugars Method with Dinitrosalicylic Acid to Microtiter Plates and Microwave Heating, *Journal of Brazillian Chemistry Society*, 23 (12) : 2176 - 2182.
- Nes, I.F. & Holo, H., 2000, Class II Antimicrobial Peptides from Lactic Acid Bacteria, *Biopolymer Peptide Science*, 55 : 50 - 61.
- Nimrat, S., Suksawat, S., Maleeweach, P. & Vuthiphandchai, V., 2008, Effect of Different Shrimp Pond Bottom Soil Treatments On The Change Of Physical Characteristics and Patogenic Bacteria in Pond Bottom Soil, *Aquaculture*, 285: 123 - 129.
- Noor, T., Nazima, B., Roomina, M. & Noshin, I., 2016, Effects of Siltation, Temperature and Salinity on Mangrove Plants, *European Academic Research*, 2 (11) : 14172 – 14179.
- Nooralabettu, K.P., 2014, Optimization of Ammonium Sulfate Precipitation Method to Achieve High Through put Concentration of Crude Alkaline Phosphatase from Brown Shrimp (*Metapenaeus monoceros*) Hepatopancreas, *International Journal of Analytical Biology-Sciences*, 2 (1): 7 – 16.
- Notodarmojo, S., 2005, *Pencemaran Tanah dan Air Tanah*. Bandung: ITB.
- Nunn, B.L., Norbeck, A. & Keil, R.G., 2003, Hydrolysis Patterns and the Production of Peptida Intermediates During Protein Degradation in Marine Systems, *Marine Chemistry*, 83 : 59 – 73.

- Nurhayati, T., Suhartono, M.T., Nuraida, L. & Poerwanto, S.B., 2010, Pemurnian dan Karakterisasi Inhibitor Protease dari *Chromohalobacter* sp. 6A3, Bakteri yang berasosiasi dengan Spons *Xetospongia testudinaria* Bogor, *Jurnal Teknologi dan Industri Pangan*, 21 (2) : 143 - 150.
- Ogino, H.T., Miura, K., Ishimi, M. & Yoshida, S.H., 2005, Hydrogen Production from Glucose by Anaerobes, *Biotechnology Progress*, 21 : 1786 – 1788.
- Oscariz, J.C. & Pisabarro, A.G., 2000, Characterization and Mechanism of Action of Cerein 7, a Bacteriocin Produced by *Bacillus cereus* Bc 7, *Journal of Applied Microbiology*, 89 : 361 - 369.
- Pandey, B. & Fulekar, M.H., 2012, Bioremediation Technology: A New Horizon for Environmental Cleanup, *Biology and Medicine*, 4 (1) : 51 - 59.
- Patel, S, K.S., Purovit, H., J. & Kalia, C., 2010, Dark Fermentation Hydrogen Production by Defined Mixed Microbial Cultures Immobilized on Ligno-cellulosic Waste Materials, *International Journal of Hydrogen Energy*, 35 : 10674 – 10681.
- Poedjiadi, A. & Supriyanti, T., 2007, *Dasar – dasar Biokimia*, Universitas Indonesia.
- Pogacic, T., Mancini, A., Santarelli, M., Bottari, B.A., Lazzi, C., Neviani, E. & Gatti, M., 2013, Diversity & Dynamic of Lactic Acid Bacteria Strains During Aging of a Long Ripened Hard Cheese Produced from Raw Milk and Undefined Natural Starter, *Food Microbiology*, 36 : 207 - 215.
- Polak-Berecka, M.A., Wasko, M., Kordowska-Wiater, M., Podlesny, Z., Targonski, A. & Kubik-Komar, 2010, Optimization of Medium Composition for Enhancing Growth of *Lactobacillus rhamnosus* PEN using Response Surface Methodology, *Polish Journal of Microbiology*, 59 : 113 - 118.
- Poliana, J. & MacCabe, A.P., 2007, *Industrial Enzymes: Structure, Function, and Applications*, Dordrecht, Springer, ISBN, Hal. 24.
- Poernomo, B., 2004, *Bahan Kuliah Dasar-dasar Mikrobiologi*, PS. IHPT, Faperta, Malang: Universitas Brawijaya, Hal 1 - 7.
- Pratiwi, S.T., 2008, *Mikrobiologi Farmasi*, Jakarta: Erlangga.
- Prawira, M.A., 2014, Penggantian Tepung Ikan dengan Tepung Kepala Lele dalam Pakan Terhadap Efisiensi Pemanfaatan Pakan dan Pertumbuhan Juvenil Udang Vaname (*Litopenaeus vanamei*), Skripsi: Universitas Diponegoro.

- Prescott, L.M., Harley, J.P., & Klein, D.A., 2000, *Microbiology*, Ed. Ke – 5, USA: McGraw – Hill Companies.
- Priest, F.G., Goodfellow, M. & Todd, C, 1988, A Numerical Classification of the Genus *Bacillus*, *Journal of General Microbiology*, 134 : 1847 - 1882.
- Purnomo & Purwanto, 2003, *Rekayasa Paket Teknologi Produksi Stater dan Enzim Mikroba dan Paket Aplikasinya pada Pengolahan Susu*, Malang: UMM Press.
- Purwoko, T., 2007, *Fisiologi Mikroba*, Jakarta: PT. Bumi Aksara.
- Qian, P.Y., Wu, M.C.S. & Ni, I.H., 2001, Comparison of Nutrients Release Among Some Maricultured Animals, *Aquaculture*, 200 : 305 – 316.
- Rachmaniar, R., 1997, Potensi Spon asal Kepulauan Spermonde sebagai Antimikroba, *Seminar perikanan Indonesia II*, Ujung Pandang: 2 – 3 Desember 1997.
- Raeisi, S.N., Quoba, L.I.I., Farahmand, N., Sutherland, J. & Ghodduzi, H.B., 2013, Variation, Viability and Validity of Bifidobacteria in Fermented Milk Products, *Food control*, 34 : 691 - 697.
- Rahman, M.A., 2005, Kajian Aspek Teknis dan Ekonomis Budidaya Udang Intensif di Tambak (Studi Kasus di Kabupaten Situbondo), *Journal of Fish Science*, 7 (1) : 71 – 79.
- Reitzer, L., 2003, Nitrogen Assimilation and Global Regulation in *Escherichia coli*, *Annual Reviews Microbiology*, 146 : 551 – 571.
- Rengpipat, S., Phianphak, W., Piyatiratitivorakul, S. & Menaveta, P., 2003, Effects of a Probiotic Bacterium on Black Tiger Shrimp *Penaeus monodon* Survival and Growth, *Aquaculture*, 167 : 301 - 313.
- Richardson, D.J., 2000, Bacterial Respiration: a Flexible Process for a Changing Environment, *Microbiology*, 146: 551 - 571.
- Rinanda, T., 2011, Analisis Sekuensing 16S-rRNA di Bidang Mikrobiologi, *Jurnal Kedokteran Syiah Kuala*, 3 : 172 - 177.
- Riquelme, C., Araya, R., Vergara, N., Rojas A., Guaita, M. & Candia, M., 1997, Potential Probiotic strains in the Culture of the Chilean scallop *Argopecten purpuratus* (Lamarck 1819), *Aquaculture*, 154 : 17 – 26.
- Romadhon, 2012, Isolasi, Karakterisasi, dan Uji Potensi Bakteriosin Bakteri Asam Laktat dari Udang, Tesis: Universitas Gajah Mada Yogyakarta.

- Ropiah, S. & Mahyuddin, K., 2000, *Pengelolaan Kualitas Air: Keterampilan Pertanian Budidaya Ikan*, Jakarta: Grafika.
- Rusmana, 2003b, Nitrous Oxide Formation in Bacteria, *Journal of Microbiology Indonesia*, 8 : 63 - 66.
- Sahoo, K. & Dhal, N.K., 2008, Potential Microbial Diversity in Mangrove Ecosystems, *Indian Journal of Marine Sciences*, 38 (2) : 249 - 256.
- Samocha, M.T., Susmita, P., Mike, S., Abdul, M.A., Josh, M.B., Rodrigo, V.A., Zarrein, A., Margosanto, H., Ami, H. & David, L.B., 2007, Use of Molasses as Carbon Source in Limited Discharge Nursery and Grow-out Systems for *Litopenaeus vannamei*, *Aquaculture Engineering*, 36 : 184 - 191.
- Samsundari, S. & Ganjar, A. W., 2013, Analisa Penerapan Biofilter dalam Sistem Resirkulasi Terhadap Mutu Kualitas Air Budidaya Ikan Sidat (*Anguilla bicolor*), *Jurnal Gamma*, 8 (2) : 86 - 97
- Saputra, W.H., 2008, Pengaruh Penambahan Molase terhadap Kelangsungan Hidup dan Pertumbuhan Larva Udang Windu *Penaeus monodon* Fab yang diberi Bakteri Probiotik *Vibrio* SKT-b, Skripsi: Departemen Budidaya Perairan, Fakultas Perikanan dan Ilmu Kelautan, Institut Pertanian Bogor, Bogor.
- Sari, R., & Retno, P., 2015, *Rhizobium*: Pemanfaatannya sebagai Bakteri Penambat Nitrogen, *Info Teknis EBONI*, 12 (1) : 51 – 64.
- Sarkar, P., Mukesh, M. & Rajni, S., 2011, Microbial Consortium: A New Approach in Effective Degradation of Organic Kitchen Wastes, *International Journal of Environmental Sciences Development*, 2 (3).
- Sary, V.V., 2013, Isolasi Lektin Buah *Jatropha multifida* L dan Uji Aktivitas terhadap Proliferasi Sel Limfosit Mencit serta Implementasinya pada Pembelajaran Kelompok SAINS dengan Menggunakan Modul, Tesis: Universitas Bengkulu
- Sathynarayanan, J., Kunthala, J. & Gurumurthy, K., 2011, Optimization of MRS Media Components using Response Surface Methodology for the Riboflavin Production by *Lactobacillus fermentum* Isolated from Yoghurt Sample, *International Food Research Journal*, 18 : 149 – 158.
- Setyati, W.A., 2000, Suksesi Populasi Mikroorganisme Selama Proses Dekomposisi Serasah Daun *Rhizophora stylosa* dan *Avicenia alba* dalam Lingkungan Mangrove di Desa Semat Jepara, *IJMS*, 5 (19) : 187 - 195.

- Setyati, W.A., Erni, M., Triyanto, Subagiyo. & Zainuddin, M., 2014, Selection Identification and Optimization of the Growth Water Probiotic Consortium of Mangrove Ecosystems as Bioremediation and Biocontrol in Shrimp Ponds, *Jurnal Pengolahan Hasil Perikanan Indonesia*, 17 (3) : 242 - 252.
- Sharma, S., 2012, Bioremediation: Features, Strategies and Applications, *Asia Journal of Pharmacy and Life Science*, 2 (2) : 202 - 210.
- Silambarasan, S., Kumar, E.P., Murugan, T., Saravanan, D. & Balagurunathan, R., 2012, Antibacterial and Antifungal Activities of Actinobacteria Isolated from Rathnagiri hills, *Journal of Applied Pharmaceutical Science*, 2 (10) : 99 - 103.
- Sinatari, A. & Sarjono, 2013, Pemurnian Selulase dari Isolat KB Kompos Termofilik Desa Bayat Klaten Menggunakan Fraksinasi Amonium Sulfat, *Journal of Chemical*, 1 : 130 - 140.
- Siswanto, 2002, *Metode Penelitian Air*, Surabaya: Usaha Nasional.
- Soeka, Y. S. & Sulistiani, 2014, Karakterisasi Protease *Bacillus subtilis* A1 InaCC B398 yang Diisolasi dari Terasi Samarinda, *Berita Biologi*, 13 (2) : 203 - 212.
- Sombatjinda, S., Nimaradee, B., Marasri, R., Chalermraj, W., Boonsirm, W. & Somkiet, T., 2011, Dynamics of Microbial Communities in an Earthen Shrimp During the Shrimp Growing Period, *Environment and Natural Resources Research*, 1 : 171 - 180.
- Soundarapandian, P., Ramanan, V. & Dinakaran, G.K., 2010, Effect of Probiotics on The Growth and Survival of *Penaeus monodon* (fabricus), *Current Research Journal of Social Sciences*, 2 (2) : 51 - 57.
- Sreekumar, G., Dhurga, D., Maheswari, N.U. & Krishnan, S., 2010, Comparative Study on the Antimicrobial Activity of Probiotic *Bacillus subtilis* SK09 against Microbial Isolates from Dairy Effluent, *Advanced Biotechnology*, 10 : 32 - 34.
- Suedy, S.W.A., Tri, R.S., A. Tjipto, S. & Khoiril, A. M., 2006, Keanekaragaman Flora Hutan Mangrove di Pantai Kaliuntu-Rembang Berdasarkan Bukti Palinologinya, *Biodiversitas*, 7 : 322 - 32.
- Sugiyono, A.J., Lintang, R.A. & Sabe., 2003, Penapisan dan Karakterisasi Protease Bakteri Termofilik Asal Mata Air Laut Panas Poso Sulawesi Tengah, 3 : 49 - 55.
- Sumardjo, D., 2009, *Pengantar Kimia*, Cetakan I, Jakarta: Penerbit Buku Kedokteran EGC.

- Supardjo, M.N., 2008, Identifikasi Vegetasi Mangrove di Segoro Anak Selatan, Taman Nasional Alas Purwo, Banyuwangi, *Jurnal Saintek Perikanan*, 3 : 9 – 15
- Suryono, C.A., 2006, Struktur Populasi Vegetasi Mangrove di Laguna Segara Anakan, Cilacap, *Jurnal Ilmu Kelautan*, 11 : 112 – 118.
- Susanti, E, 2003, Isolasi dan Karakterisasi Protease dari *Bacillus subtilis* 1012M15, *Biodiversitas*, 4 (1) : 12 - 17.
- Suyanto, S.R., & Mujiman, A., 2004, *Budidaya Udang Windu*, Jakarta: Penebar Swadaya.
- Tagg, J.R., Dajani, A.S. & Wannamaker, L.W., 1976, Bacteriocins of Gram Positive Bacteria, *Bacteria Reviews.*, 40 : 722 - 756.
- Tahe, S. & Agus, N., 2012, Respons Yuwana Udang Vaname (*Litopenaeus vannamei*) pada Tingkat Salinitas yang Berbeda, Prosiding Indoaqua-Forum Inovasi Teknologi Akuakultur.
- Tambekar, D.H. & Bhutada, S.A., 2010, An Evaluation of Probiotic Potential of *Lactobacillus sp.* from Milk of Domestic Animals and Commercial Available Probiotic Preparations in Prevention of Enteric Bacterial Infections, *Recent Research Science and Technology*, 2 (10) : 82 - 88.
- Teixeira, P. & Oliveira, R., 2002, Metabolism of *Alcaligenes denitrificans* in Bio Film vs Planktonic Cells, *Journal of Applied Microbiology*, 92 : 256 - 260.
- Thakur, D.P. & Lin, C.K., 2003, Water Quality and Nutrient Budget in Closed Shrimp (*Penaeus monodon*) Culture Systems, *Aquacultural Engineering*, 27 : 159 - 176.
- Tortora, J.G., Funke, B.R. & Case, C.L., 2001, *Microbiology an introduction 7th edition*, Addison Wesley Longman Inc.
- Tran, K.T.M., Maya, B.K., Smookera, P.M., Vana, T.T.H. & Coloea, P.J., 2011, Distribution and Genetic Diversity of Lactic Acid Bacteria from Traditional Fermented Sausage, *Food Research International*, 44 (2011) : 338 – 344.
- Trismilah, S & Sumaryanto, 2005, Pengaruh Kadar Nitrogen dalam Media pada Pembuatan Protease Menggunakan *Bacillus megaterium* DSM 319, *Jurnal Ilmu Kefarmasian Indonesia*, 3 (1) : 9 - 12.
- Umoro, A., 2016, Isolasi *Bacillus sp.* Penghasil Bakteriosin dan Peningkatan Aktivitasnya Sebagai Penghambat *Vibrio harveyi*, Tesis: Institut Pertanian Bogor.

- Verges, E.L., Marchand, C., Disnar, J.R. & Lottier, N., 2008, Origin and Diagenesis of Lignin and Carbohydrates in Mangrove Sediments of Guadeloupe (French West Indies): Evidence for a Two-step Evolution of Organic Deposits, *Chemical Geology*, Elsevier, 255 : 388 - 398.
- Verschuere, L., Geert, R., Patrick, S. & Willy, V., 2000, Probiotic Bacteria as Biological Control Agents in Aquaculture, *Microbiology and Molecular Biology Reviews*, 655 – 671.
- Vidali, M., 2001, Bioremediation An Overview, *Pure Applied Chemistry*, 73 : 1163 - 1172.
- Vijayan, K.K., Singh, B.I.S., Jayaprakash, N.S., Alavandi, S.V., Pai Somnath, S., Preetha, R., Rajan, J.J.S. & Santiago, T.C., 2006, A Brackishwater Isolate of Pseudomonas PS-102, a Potential Antagonistic Bacterium Against Pathogenic Vibrios in Penaeid and Non-penaeid Rearing Systems, *Aquaculture*, 251 : 192 – 200.
- Vogel, H.C. & Torado, C.L., 1996, Fermentation and Biochemical Engineering Handbook; *Principles, Process Design and Equipment* Noyes Publication, New Jersey.
- Waluyo, L., 2008, *Teknik Metode Dasar Mikrobiologi*, Universitas Muhammadiyah Malang Press, Malang.
- Walker, J.M., 2002, *The Protein Protocols Handbook*, Totowa: Humana.
- Wickins, J.F., 1985, Ammonia Production and Oxidation During The Culture of Marine Prawn and Lobsters in Laboratory Recirculation System, *Aquaculture Engineering*, 155 – 174.
- Widarnani., Sugiyo, H.P. & Sukenda, 2009, Seleksi Bakteri Nitrifikasi dan Denitrifikasi serta Aplikasinya pada Media Budidaya Udang Vaname (*Litopenaeus vannamei*), *Jurnal Akuakultur Indonesia*, 9 (2) : 184 – 195.
- Widhyastuti, & Dewi, 2001, Purifikasi dan Karakterisasi Xilanase Ekstraseluler *Streptomyces* sp. SKK1 – 8 asal Sukabumi, Tesis: Sekolah Pasca Sarjana Institut Pertanian Bogor.
- Widjaja, T., Altway, A., Permasari, A.R. & Gunawan, S., 2014, Production of Ethanol As A Renewable Energy By Extractive-Fermentation, *Applied Mechanic and Material*, 493 : 300 – 305.
- Willet, D. & Morrison C., 2006, Using Molasse to Control Inorganic Nitrogen and pH in Aquaculture Ponds, www.dpi.qld.gov.au/cps/rde/xchg/dpi/hs.xsl/30_2790_ENA_Print.html (diakses 16 November 2016).

- Woon, B.H., 2007, Removal of Nitrate Nitrogen Inconventional Wastewater Treatment Plants, Skripsi: Faculty of Civil Engineering, Universitas Teknologi Malaysia.
- Wullschlegera, S., Lacroixa, C., Bonfohb, B., Sissoko-Thiamc, A., Hugenschmidta, S., Romanensa, E., Baumgartnera, S., Traoréc, I., Yaffeea, M., Jansa, C. & Meilea, L., 2013, Analysis of Lactic Acid Bacteria Communities and Their Seasonal Variations in a Spontaneously Fermented Dairy Product (Malian fènè) by Applying a Cultivation/genotype-based Binary Model, *International Dairy Journal*, 29 : 28 – 35.
- Wuryanti, 2008, Pengaruh Penambahan Biotin pada Media Pertumbuhan terhadap Produksi Sel *Aspergillus niger*, *Bioma*, 10 (2) : 46 - 50.
- Yudiati, E., Arifin, Z., & Ita, R., 2010, Pengaruh Aplikasi Probiotik terhadap Laju Sintasan dan Pertumbuhan Tokolan Udang Vaname (*Litopenaeus vannamei*), Populasi Bakteri *Vibrio*, serta Kandungan Amoniak dan Bahan Organik Media Budidaya, *IJMS*, 15 (3) : 153 – 158.
- Yulinery, T., E. Yulianto, N. & Nurhidayat, N., 2006, Uji Bakteri Berpotensi Probiotik Dari Ikan (*Cyprinus carpio*) Indegenous Jantho Berdasarkan Aktivitas Antibakteri Secara In Vitro Banda Aceh, *Jurnal Teknologi dan Pertanian Indonesia*, 6 (1) : 19 – 24.
- Yunafsi, 2006, Dekomposisi Serasah Daun *Avicennia marina* oleh Bakteri dan Fungi pada berbagai Tingkat Salinitas, Tesis: Institut Pertanian Bogor.
- Yuniati, R., Titania, T.N. & Fifi, P., 2015, Uji Aktivitas Enzim Protease dari Isolat *Bacillus* sp. Galur Lokal Baru, *JOM FMIPA*, 1 (2) : 116 - 122.
- Yusriah, & Nengah, D. K., 2013, Pengaruh pH dan Suhu Terhadap Aktivitas Protease *Penicillium* sp., *Jurnal Sains dan Seni Pomits*, 2 (1) : 2337 - 3520.
- Zhang, G., Breuer, M., Förster, A., Egger-Adam, D. & Wodarz, A., 2009, Mars, a Drosophila Protein Related to Vertebrate HURP, is Required for the Attachment of Centrosomes to the Mitotic Spindle during Syncytial Nuclear Divisions, *Journal of Cell Sciences*, 122 (4) : 535 – 545.
- Zilda, D.S., Kusumarini, A. & Chasanah, E., 2008, Penapisan dan Karakterisasi Protease Dari Bakteri Termo-Asidofilik P5-A dari Sumber Air Panas Tambarana, *Jurnal Pascapanen dan Bioteknologi Kelautan dan Perikanan*, 3 (2) : 113 – 121.
- Zuhri, R., Anthoni, A. & Yetria, R., 2013, Pengaruh Sumber Karbon dan Nitrogen Terhadap Produksi Protease Alkali dari *Bacillus* sp. M_{1,2,3} Termofilik, *Jurnal Biologika*, 2 (1) : 40 - 46.