



## DAFTAR PUSTAKA

- Amirbahman, A., A.L. Reid, T.A. Haines, J.S. Kahl & C. Arnold. 2002. Association of Methylmercury with Dissolved Humic Acids. *Environ.Sci.Technol.* 36:690-695
- Anonim. 1990. Methylmercury, Environmental Health Criteria 101. World Health Organization. Geneva
- Anonim. 1995. Official Methods of Analysis of AOAC International. 16<sup>th</sup> Edition. AOAC International. Virginia.22-25
- Anonim. 2002. US Environmental Protection Agency. Field Analysis of Mercury in Soil and Sediment, Method 7471B
- Anonim. 2004. Report Environmental Assessment Quality of Buyat Bay and Totok Bay. Kantor Kementerian Lingkungan Hidup Republik Indonesia.
- Baldi, F., F Semplici & M. Filippeli. 1991. Enviromental Applications Resistant Bacteria. *Wat. Air Soil Pollut.* 56: 465-475.
- Ball, M.M., P. Carrero, D. Castro, L.A. Yarzabal. 2007. Mercury Resistance in Bacterial Strains Isolated from Mailing Ponds in a Gold Mining Area Near El Callao (Bolivar State, Venuzuela). *Current Mycrobiology.* 54: 149-154
- Barkay, T.1992. Mercury Cycle. *Encyclopedia of Microbiology.* Academic Press Inc. London
- Beaty, R.D., and J.D. Kerber. 1993. Concpets, Instrumentation and Technics in Atomic Absorption Spectrometry. The Perkin-Elmer Corporation. Norwalk. USA
- Benison, G.C., P.D. Lello, J.E. Shokes, N.J. Casper, R.A. Scott, P Legault and G James, 2004. Mercury Containing Complex of the Organomercurial Lyase MerB : Catalyst, Product Release and Direct Transfer to MerA. *Biochem.* 43(26) : 8333-8345.
- Benoit, J.M., C.C. Gilmour & R.P. Mason. 2001. Aspects of Bioavailability of Mercury for Methylation in Pure Culture of *DesulfobuLuria Bertanius propionicus* (1pr3). *Appl. Environ. Microbiol.* 67(1): 51-58
- Bjorn, E., T. Larsson, L. Lambertsson, U. SkylLuria Bertanierg and W. Frech. 2006. Recent Advances in Mercury Speciation Analysis with Focus on Spectrometric Methods and Enriched Stable Isotope Applications. *Ambio.* 36(6): 437-451



- Bollag, W.B. & J.M. Bollag. 1992. *Encyclopedia of Microbiology* 1<sup>st</sup> Vol. Academic Press Inc. New York
- Bridge, T.A.M., C. White & G.M. Gad. 1999. Physiology and Growth Extracellular Metal-Binding Activity of Sulfate-Reducing Bacterium *Desulfococcus multivorians*. *Microbiology*. 145:2987-2995
- Chang, J.S., Y.P. Chao and W.S. Law. 1998. Repeated fed-batch operations for microbial of mercury using wild-type and recombinant mercury-resistant bacteria. *J. Biotechnol.* 64, 219-230
- Calmano, W., U. Forsner. 1996. *Sediments and Toxic Substances Environmental Effects and Ecotoxicity*. Springer-Verlag. Berlin Germany
- Canario, J., R. Prego, C. Vale, V. Branco. 2007. Distribution of Mercury and Methylmercury in Sediment of Vigo Ria, NW Iberian Peninsula
- Craig, J.P. 1986. Organomercury compounds in the environment. *In*: P.J. Craig [Ed.]. *Organometallic Compounds in the Environment*. Wiley, N.Y. pp. 65.
- Discroll, C.T., C Yan, C.L. Schofield, R Munson, J Holsapple. 1995. The Role of dissolved organic carbon in the chemistry and bioavailability of mercury in remote Adirondack Lakes. *Water Air Soil Pollut.* 80 : 499-508
- Eileen, B.E., M.M. Francois, Morel and J.W. Benoit. 2003. Mercury Methylation Independent of the Acetyl-Coenzyme A Pathway in the Sulfate Reducing Bacteria. *Appl. Environ. Microbiol.* 69(9) : 544-5422.
- Gabriel, M.K., D.G. Williamson. 2004. Principal biogeochemical factors affecting the speciation and transport of mercury through the terrestrial environment. *Environmental Geochemistry and Health.* 26 : 421-434
- Gadd, G.M. 1990. Metal Tolerance. *In* *Microbiology Extreme Environments*. C. Edward (Ed). Open University Press. Hilton. Keyne
- Goldman, H.R. and A.J. Horne. 1983. *Lymnology*. Mc.Graw-Hill International Book Company. Tokyo
- Goodsite, M.E. 2003. Fate of Mercury in the Arctic. Ph.D. Thesis. Department of Chemistry University of Copenhagen
- Gunradi, R. 2001. Pemantauan Unsur Merkuri Akibat Penambangan Emas Tanpa Ijin (PETI) di Daerah Pongkor Jawa Barat, *Jurnal Toksikologi Indonesia*, 2, 1-13



- Han, Y., H.M. Kingstone, H.M. Boylan, G.M.M. Rahman, S. Shah, R.C. Richter, D.D. Link, S. Bhandari. 2003. Speciation of mercury in soil and sediment by selective and acid extraction. *Anal. Bioanal. Chem.* 375: 428-436
- Hauer, F.R. and G.A. Lamberti. 1996. *Methods in Stream Ecology*. Academic Press. Toronto: 123-143
- Henke, K., V Kuhnel, D.J. Stepen. R.H. Froyley, C.H. Robinson, D.S. Charlton and H.H. Gust. 1993. Critical Review of Mercury Contamination Issue relevant to Manometers at Natural Gas Industry Sites. Energy & Research Center Grand Forks. Univ. of North Dakota
- Hoban, C.A. 2005. Mechanism for methylmercury cell to bath transport by the basolateral membrane of the rabbit proximal tubule.
- Holt, J.G., N.R. Krieg, P.H.A. Sneath, J.T. Staley, S.T. Williams. 1994. *Bergey's Manual of Determinative Bacteriology* 9<sup>th</sup>. Edition. The Williams & Wilkins Company. Baltimore
- Hughes, M.N. and R.K. Poole. 1989. *Metals and Microorganism*. Chapman and Hall Ltd. 11 New fetter Lane. London EC4P 4EE: 252-352
- Jay, J.A., K.J. Murray, C.C. Gilmour, R.P. Mason. 2002. Mercury Methylation by *Desulfovibrio desulfuricans* ND132 in the Presence of Polysulfates. *Appl. Environ. Microbiol.* 68(11): 5741-6745
- Johansson, K., M Aastrup, A Andersson, L Bringmark, A Iverfeldt. 1991. Mercury in Swedish forest soils and water- assesment of critical load. *Waer Air Soil Pollut.* 56: 267-281.
- Keith, L.H. 1991. *Environmental Sampling and Analysis : A Practical Guide*. Lewis Publisher. Florida
- Kerry, A., P.M., WeLuria Bertanioum, B. Prucha and G. Mierle. 1991. Mercury Methylation by Sulphate Reducing Bacteria from Sediments of an acid stressed Lake. *Wat. Air Soil Pollut.* 56: 565-575.
- King, J.K., J.E. Kostka, M.F. and F.M. Saunders. 2000. Sulfate-Reducing Bacteria Methylate Mercury at Variable Rates in Pure Culture and in Marine Sediments. *Appl. Environ. Microbiol.* 66(6):2430-2437
- Laemmli, U.K. 1970. Cleavage of Structural Proteins During The Assembly of The Head of Bacteriophage T4. *Nature* 227 : 680-685



- Lello, P.D., G.C. Benison, H. Volafar, K.E. Piffs, A.O. Summers, P. Legault and J.G.Omichimski. 2004. NMR Structural Studies Reveal a Novel Protein Fold for MerB, the Organomercurial Lyase Involved in the Bacterial Mercury Resistance System. *Biochem.* 43(26) : 8322-8332
- Macalady, J.L., E.E. Mack, D.C., Nelson and K.M. Scow. 2000. Sediment Microbial Community Structure and Mercury Methylation in Mercury-Polluted Clear lake. California. *Appl. Environ. Microbiol.* 66(4):1479-1488
- Madigan, M.T., J.M. Martindo and J. Parker. 2001. *Brock Biology of Microorganisms* 8th. Edition. Prentice-Hall. Inc. New Jersey: 694-698
- Martinez, R., R., Pereiro, A.S. Medel., N. Bordel. 2001. Mercury speciation by HPLC-Cold Vapour Radiofrequency glow discharge optical emission spectrometry with on-line microwave oxidation. *Frensius J. Anal.Chem.* 371 : 746-752
- Martinez, G.M.L., A Carlosena, P.L Mahia., S., Muniategui and D. Prada.1999. Determination of mercury in estuarine sediments by flow injection-cold vapour atomic absorption spectrometry after microwave extraction. *Analisis.* 27. 61-65
- Misra,T.K. 1992. Bacterial resistance to inorganic mercury salts and organomercurials. *Plasmid.* 27: 4-16
- Misra,T.K. 2000. Heavy Metals, Bacterial Resistance. *Encyclopedia of Mycrobiology* 2<sup>nd</sup> Ed. Academic Press :618-626
- Mitchell, R. 1992. *Environmental Microbiology.* John Wiley & Sons. New York
- Morel, F.M.M., A.M.L., Kraepiel, M Amyot. 1998. The Chemical Cycle and Bioaccumulation of Mercury. *Annu. Rev. Ecol. Syst.* 29:543-566
- Nakamura, K., N., Sakamoto, H. Uchiyama and O. Hagi. 1990. Organomercurial-Volatilizing Bacteria in The Mercury Polluted Sediment of Minamata Bay Japan. *Appl. Environ. Microbiol.* 56(4): 304-305
- Noviani, R., and Gusrizal. 2004. Bakteri resisten merkuri spectrum sempit dari daerah bekas penambangan emas tanpa izin (PETI), Mandor Kalimantan Barat. *Jurnal Natur Indonesia.* 6(2): 67-74
- Octavia, B.1995. Isolasi dan karakterisasi bakteri pengikat merkuri. Tesis S2. Program Pascasarjana Universitas Gadjah Mada Yogyakarta.



- Ogunseitán, O.A. 1998. Protein Methode for Investigating Mercuric Reductase Gene Expression in Aquatic Environments. *Appl. Environ. Microbiol.* 64(2): 695-702
- Pak, K.R. and R. Bartha. 1998. Mercury Methylation dan Demethylation in Anoxic Lake Sediments and by Stricly Anaerobic Bacteria. *Appl. Environ. Microbiol.* 64: 1013-1017
- Petänen, T. 2001. Assesment of bioavaibility concentration and toxicity of arsenite and mercury in contaminated soils and sediments by bacterial biosensors. PhD thesis. Faculty of Science University of Helsinki
- Rahmana, Kamal, S. dan Suhandi. 2007. Pendataan penyebaran unsur merkuri pada wilayah pertambangan emas daerah Gunug Gede, Kabupaten Bogor Provinsi Jawa Barat. Prosiding pemaparan hasil-hasil kegiatan lapangan dan non lapangan tahun 2006, Pusat Sumber Daya Geologi
- Reddy, M.M., G.R. Aiken. 2001. Fluvic acidsulfide ion competition for mercury ion binding in the Florida Everglades. *Water Air Soil Pollut.* 132 : 89-104
- Reniero, D., E. Mozzon, E. Galli and P. Barbieri. 1998. Two aberrant mercury transposons in the *Pseudomonas stutzeri* plasmid pPB. *Gene.* 208(1): 37-42
- Rinderle, S.J., J.E.Bpoth and J.W. Williams.1983. Mercuric Reductase from R-Plasmid NRI : Characterization and Mechanistic Study. *Biochemistry* 22, 869-876
- Robinson, J.B., and O.H. Tuovinen. 1984. Mechanisms of microbial resistance and detoxification of mercury and organomercury compounds : physiological, biochemical, and genetic analysis. *Microbiol Rev.* 48: 95-124
- Schuster, P.F., J.B. Shanley, M Marvin-Dipasquale, M.M. Reddy, G.R. Aiken, D.A. Roth, H.E. Taylor, D.P. Krabbenhoft, J.F. DeWild. 2008. Mercury and Organic Carbon Dynamic During Runoff Episodes from a Noreastern USA Watershed. *Water Air Soil Pollut.* 187 : 89-108
- Schottel, J.L. 1978. The mercuric and organomercurial detoxifying enzymes from a plasmide-bearing strain of *Escherichia coli*. *J.Biol.Chem.* 253(12): 4341-4349
- Sellers, P., C.A Kelly, J.W.M Rudd, A.R Mac-Hutchon. 1996. Photodegradation of methylmercury in lakes. *Nature.* 380 : 694-697



- Shastri, Y., U. Diwekar. 2008. Optimal control of lake pH for mercury bioaccumulation control. [www.elsevier.com/locate/ecolmodel](http://www.elsevier.com/locate/ecolmodel)
- Shi, J., L. Liang, G. Jiang, X. Jin. 2005. The Speciation and bioavaibility of mercury in sediments of Haihe River, China. *Environment International*. 31: 357-365
- SkylLuria Bertanierg U., A. Drott, L. Lambertsson, E. Björn, T. Karlsson, T. Johnson, S.A. Heinemo and H.Holmstron. 2007. Net Methylmercury Production as a Basis for Improved Risk Assessment of Mercury contaminated Sediments. *Ambio*. 36(6): 437-442
- Setiabudi, B.T. 2005. Penyebaran merkuri akibat Pertambangan emas di daerah Sangon, Kabupaten Kulonprogo, Daerah Istimewa Yogyakarta. Kolokium Hasil Lapangan Sub Direktorat Konservasi Direktorat Sumber Daya Mineral Bandung
- Soetarto, E.S. 1995. Dehalogenating Bacteria from Indonesian Volcanic Sources. PhD Thesis. School of Pure and Applied Biology University of Wales College of Cardiff
- Suda, I., M Suda, K Hirayama. 1993. Degradation of methylmercury and ethylmercury by singlet oxygen generated from seawater exposed to sunlight or ultraviolet light. *Arch. Toxicol*. 67:365-368
- Suheryanto. 1994. Penggabungan Metode Kromatografi Gas dan Spektrometri Serapan Atom (GC-AAS) untuk Spesiasi Organomerkuri. Tesis. Program Pascasarjana Universitas Gadjah Mada Yogyakarta.
- Suheryanto. 2001. Spesiasi metilmerkuri dan merkuri anorganik di perairan Sungai Musi dengan metode Ekstraksi dan CV-AAS. *Jurnal Kimia Lingkungan*. 2(2): 107-114
- Suheryanto, E.S. Soetarto, E. Sugiharto dan T.S. Djohan. 2006. Biodegradasi metilmekuri oleh bakteri tanah yang diisolasi dari Sungai Sangon. *Jurnal Pengelolaan Lingkungan dan Sumberdaya Alam*. 5(3): 1-9
- Suheryanto, E.S Soetarto, E. Sugiharto, T.S Djohan. 2008. Bakteri Resisten Metilmerkuri dari Sedimen Sungai Sangon Kulonprogo, Daerah Istimewa Yogyakarta. *Berkala Ilmiah Biologi*. 7(2):43-51
- Suseno, H., S.M. Panggabean. 2007. Merkuri : spesiasi dan bioakumulasi pada biota laut. *Jurnal Teknologi Pengelolaan Limbah*. 10(1): 66-80