

## บรรณานุกรม

กองการจัดการสารอันตรายและกากของเสีย กรมควบคุมมลพิษ กระทรวงวิทยาศาสตร์ เทคโนโลยี และสิ่งแวดล้อม. (2541). *สารประกอบดีบุกและดีบุกอินทรีย์*. กรุงเทพฯ: บริษัท อินทิเกรเต็ด โปรโมชัน เทคโนโลยี จำกัด.

จรีพร ล้อมเมตตา. (2544). *การปนเปื้อนของสารประกอบบิวทิลทินบริเวณชายฝั่งตะวันออกของ อ่าวไทย*. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต, สาขาวาริชศาสตร์, บัณฑิต วิทยาลัย, มหาวิทยาลัยบูรพา.

ทรงกฤษณ์ ประภักดี. (2538). *พิษเฉียบพลันของสารประกอบบิส-ไตรบิวทิลทินออกไซด์ต่อกุ้ง กุลาค่า *Penaeus monodom* ระยะวัยอ่อน*. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต, สาขาวิทยาศาสตร์สิ่งแวดล้อม, บัณฑิตวิทยาลัย, จุฬาลงกรณ์มหาวิทยาลัย.

ฐิติลาวัลย์ กลิ่นคล้ายกัน. (2539). *ระดับของไซโตรโครมพี 450 และไซโตโครมบี 5 ในปลาอุกพันธุ์ ผสม ภายหลังสัมผัสสมททิลพาราไรออนและไตรบิวทิลทิน*. วิทยานิพนธ์ปริญญา วิทยาศาสตรมหาบัณฑิต, สาขาวิชาเภสัชวิทยา, บัณฑิตวิทยาลัย, จุฬาลงกรณ์มหาวิทยาลัย.

นัทธีรา สรรวมณี. (2541). *เคมีสิ่งแวดล้อม (พิมพ์ครั้งที่ 2)*. ภาควิชาวิทยาศาสตร์สิ่งแวดล้อม คณะวิทยาศาสตร์ มหาวิทยาลัยศิลปากร.

นิพนธ์ ศิริพันธ์ และลือชัย ธรรมชู. (2543). *การทดลองเลี้ยงหอยหวาน (*Babylonia areolata* Link 1807)*. *วารสารกรมประมง*, 53(6), 541-557.

นิลนาจ ชัยชนาวิสุทธิ์ และ ศิรษา กฤษณะพันธุ์. (2545). *คู่มือการเพาะเลี้ยงหอยหวาน: หลักการและ แนวปฏิบัติ*. กรุงเทพฯ: สำนักพิมพ์แห่งจุฬาลงกรณ์มหาวิทยาลัย.

ประภัสสร ดันติพงษ์วิวัฒน์. (2538). *ผลของไตรเมททิลพาราไรออนและไตรบิวทิลทินต่อระดับของ ไซโตรโครมพี 450 ในปลาอุกพันธุ์ผสม*. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต, สาขาวิชาเภสัชวิทยา, บัณฑิตวิทยาลัย, จุฬาลงกรณ์มหาวิทยาลัย.

มนทกานต์ วิสุทธิแพทย์. (2548). *การเปลี่ยนแปลงสภาพของสารไตรบิวทิลทิน ไคบิวทิลทิน โมโนบิวทิลทินในน้ำและดินตะกอน*. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต, สาขาวิชาวิทยาศาสตร์สิ่งแวดล้อม, บัณฑิตวิทยาลัย, มหาวิทยาลัยบูรพา.

มันสิน ดันทุลเวสม์. (2538). *คู่มือวิเคราะห์คุณภาพน้ำ*. ภาควิชาวิศวกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย.

- พูนสิน พานิชสุข. (2543). หอยหวาน (*Babylonia areolata* Link 1807). วารสารกรมประมง, 53(6), 107-117.
- วันทนา อยู่สุข. (2528). หอยทะเล. ภาควิชาวิทยาศาสตร์ทางทะเล คณะประมง มหาวิทยาลัยเกษตรศาสตร์. 27 หน้า
- รัตนา มั่นประสิทธิ์ และประวิม วุฒิสินธุ์. (2531). การศึกษาเบื้องต้นในการเพาะเลี้ยงหอยหวาน (*Babylonia areolata*). เอกสารวิชาการฉบับที่ 8 ศูนย์พัฒนาประมงทะเลชายฝั่งตะวันออก กองประมงทะเล กรมประมง. 14 หน้า.
- Abd-Allah, A. M. A. (1995). Occurrence of organotin compounds in water and biota from Alexandria harbours. *Chemosphere*, 30(4), 707-715.
- Akihiko, H., Atsuya, T., Tetsuji, N., Jun, K., & Makoto, E. (2004). Review of reproductive and developmental toxicity induced by organotins in aquatic organisms and experimental animals. *Organohalogen Compounds*, 6, 3042-3047.
- Ali Hasan, M., & Ahmed Juma, H. (1992). Assessment of tributyltin in the marine environment of Bahrain. *Marine Pollution Bulletin*, 24(8), 408-410.
- Almeida, M. J., Machado, J., Moura, G., Azevedo, M., & Coimbra, J. (1998). Temporal and local variations in biochemical composition of *Crassostrea gigas* shells. *Journal Sea Research*, 40, 233-249.
- Alzieu, C., Sanjuan, J., Michel, P., Borel, M., & Dreno, J. P. (1989) Monitoring and assessment of butyltin in Atlantic coastal water. *Marine Pollution Bulletin*, 20, 22-26.
- Axiak, V., Vella, A.J., Micallef, D., & Chireop, P. (1995). Imposex in *Hexaplex truncus* (Gastropoda: Muricidae): first results from biomonitoring of tributyltin contamination in the Mediterranean. *Marine Biology*, 121, 685-691.
- Axisak, V., Sammut, M., Chircop, P., Vella, A., & Mintoff, B. (1995). Laboratory and field investigations on the effects of organotin (tributyltin) on the oyster, *Ostrea edulis*. *The Science of The Total Environment*, 171, 117-120
- Beishir, L. (1991). *Microbiology in practice*. New York: Harper Colins Publishers.
- Bech, M. (2002). A survey of imposex in muricids from 1996 to 2000 and identification of optimal indicators of tributyltin contamination along the east coast of Phuket island, Thailand. *Marine Pollution Bulletin*, 44, 887-896.

- Behra, P., Lecarme-Theobald, E., Bueno, M., & Ehrhardt, J. J. (2003). Sorption of tributyltin onto a natural quartz sand. *Journal of Colloid and Interface Science*, 263, 4-12.
- Bettin, C., Oehlmann, J., & Stroben, E. (1996). TBT-induced imposex in marine neogastropods is mediated by an increasing androgen level. *Helgolander Meeresunters*, 50, 299-317.
- Bryan, G. W., Gibbs, P. E., Hummerstone, L. G., & Burt, G. W. (1986). The decline of the gastropod *Nucella lapillus* around south-west England: evidence for the effect of tributyltin from antifouling paint. *Journal of the Marine Biological Association of the United Kingdom*, 66, 611-640.
- Bryan, G. W., Gibbs, P. E., & Burt, G. R. (1988). A comparison of effectiveness of tri-*n*-butyltin chloride and five other organotin compounds in promoting the development of imposex in the dogwhelks, *Nucella lapillus*. *Journal of the Marine Biological Association of the United Kingdom*, 68, 733-744.
- Connell, D. W. (1988). Bioaccumulation behaviour of persistent organic chemicals with aquatic organisms. *Review Environment Contamination Toxicology*, 101, 117-154.
- de Mora, S. J., Stewart, C., & Phillips, D. (1995). Sources and rate of degradation of tri (*n*-butyl) tin in marine sediments near Auckland, New Zealand. *Marine Pollution Bulletin*, 30(1), 50-57.
- de Mora, S. J. (1996). The tributyltin in debate: ocean transportation versus seafood harvesting. *in tributyltin: case study of and environmental contaminant*. de Mora, S.J. (editor). Great Britain: Cambridge University Press.
- Dobson, S., & Cabbridence, R. (1990). *Tributyltin compounds*. Environmental Health Criteria 116. World Health Organization. Geneva
- Dowson, P. H., Bubb, J. M., & Laster, J. N. (1992). Organotin distribution in sediments and waters of selected east coast estuaries in the UK. *Marine Pollution Bulletin*, 24(10), 492-498.
- Dowson, P. H., Bubb, J. M., Williams, T. P., & Laster, J. N. (1993). Degradation of tributyltin in freshwater and estuarine marine sediments. *Water Science Technology*, 28(8-9), 133-137.

- Ebdon, L., Evans, K., & Hill, S. (1989). The accumulation of organotin in adult and seed oysters from selected estuaries prior to the introduction of U.K. regulation governing the use of tributyltin-base antifouling paints. *Science Total Environment*, 83, 63-84.
- Eva, O., & Patricia, Mc. (2002). Mechanisms of imposex induction in the mud snail, *Ilyanassa obsoleta* : TBT as a neurotoxin and aromatase inhibitor. *Marine Environmental Research*, 54, 715-718.
- Evan, S. M., Dowson, M., Day, J., Frid, C. J., Gil, M. E., Pattisina, L. A., & Porter, J. (1995). Domestic waste and TBT pollution in coastal areas of ambon island (eastern indonesia). *Marine Pollution Bulletin*, 30(2), 109-115.
- Evan, S. M., Leksono, T., & Mckinne, P. D. (1995). Tributyltin pollution: a diminishing problem following legislation limiting the use of TBT-based anti-fouling paints . *Marine Pollution Bulletin*, 30(1), 14-21.
- Fargasova, A., & Kizeink, J. (1996). Effect of organotin compounds on the growth of the freshwater alga *Scenedesmus quadricauda*. *Ecotoxicology and Environmental Safety*, 34(2), 156-159.
- Fent, K., & Looser P. W. (1995). Bioaccumulation and bioavailability of tributyltin chloride: Influence of pH and humic acids. *Water Research*, 29(7), 1631-1637.
- Foale, S. (1993). An evaluation of the potential of gastropod imposex as a bioindicator of tributyltin pollution in port phillip bay, victoria. *Marine Pollution Bulletin*, 26(10), 546-552.
- Gabrieides, G. P., Alzieu, C., Readman, J. W., Bacci, E., Abouldahab, O., & Salihoglu, I. (1990). MED POL Survey of organotins in the mediterranean. *Marine Pollution Bulletin*, 21 (5), 233-237.
- Gerhard, P., & others. (1981). *Manual of method for general bacteriology*. American Society for Microbiology. Washington D.C.
- Gibbs, P. E., Bryan, G. W., Pascoe, P. L., & Burt, G. R. (1987). The use of the dog - whelks, *Necella lapillus*, as an indicator of tributyltin (TBT) contamination. *Journal of the Marine Biological Association of the United Kingdom*, 68, 715-731.

- Gibbs, P. E., Pascoe, P. L., & Burt, G. R. (1988). Sex change in the female dogwhelks, *Necella lapillus*, induced by tributyltin from antifouling paints. *Journal of the Marine Biological Association of the United Kingdom*, 68, 715-731.
- Gibbs, P. E., & Bryan, G. W. (1996). TBT-induced imposex in gastropod snails: masculinization to mass extinction. In *Tributyltin: case study of an environmental contaminant*. De Mora, (editor). Great Britain: Cambridge University Press.
- Harino, H., O' Hara, S. C. M., Burt, G. R., Chesman, B. s., & Langston, W. J. (2005). Distribution of organotin compounds in tissues of mussels *Mytilus edulis* and clams *Mya arenaria*. *Chemosphere*, 58, 877-881.
- Hattori, Y., Kobayashi, A., Nonaka, K., Sugimae, A., & Nakamoto, M. (1988). Degradation of tributyltin and dibutyltin compounds in environmental waters. *Water Science Technology*, 20(6-7), 71-76.
- Health and Welfare Canada. (1989). "Guidelines for Canadian drinking water quality", supporting documentation, part I. derivation of maximum acceptable concentrations and aesthetic objectives for chemicals in drinking water", *Health Protection Branch*, Ottawa: Ont.
- Hoch, M. (2001). Organotin compounds in the environment – an overview, *Applied Geochemistry*, 16, 719 - 743.
- Hoch, M., Alonso-Azcarate, J., & Lischick, M. (2003). Assessment of adsorption behavior of dibutyltin (DBT) to clay-rich sediments in comparison to the highly toxic tributyltin (TBT). *Environmental Pollution*, 123, 217-227.
- Hoch, M., & Bandara, A. (2005). Determination of the adsorption process of tributyltin (TBT) and monobutyltin (MBT) onto kaolinite surface using Fourier transform infrared (FTIR) spectroscopy. *Colloids and Surfaces A: Physicochem. Eng. Aspects*, 253, 117-124.
- Horiguchi, T., Shiraishi, H., Shimizu, M., & Morita, M. (1994). Imposex and organotin compounds in *Thais clavigera* and *T. bronni* in Japan. *Journal of the Marine Biological Association of the United Kingdom*, 741, 651-669.
- Huang, G., & Wang, Y. (1995). Effects of tributyltin chloride on marine bivalve mussels, *Water Research*, 29(8), 1877-1884.

- Ide, I., Witten, E. P., Fischer, J., Kalbfus, W., Zellner, A., Stroben, E., & Watermann, B. (1997). Accumulation of organotin compounds in the common whelk *Buccinum undatum* and the red whelk *Neptunea antiqua* in association with imposex. *Marine Ecology Progress Series*, 152, 197-203.
- Iwata, H., Tanabe, S., Miyazaki, N., & Tatsukawa, R. (1994). Detection of butyltin compound residues in the blubber of marine mammals. *Marine Pollution Bulletin*, 28(10), 607-612.
- Jenkins, M. S., Ehman, K., & Barone, Jr. S. (2004). Structure-activity comparison of organotin species: dibutyltin is a development neurotoxicant in vitrol and in vivo. *Developmental Brain Research*, 151, 1-12.
- Kan-attireklap, S., Tanabe, S., & Sanguansin, J. (1997). Contamination by butyltin compounds in sediments from thailand. *Marine Pollution Bulletin*, 34(11), 894-899.
- Kannan, K., & Falandysz, J. (1997). Butyltin residues in sediments, fish, fish-eating birds, harbour porpoise and human tissues from the polish coast of the baltic sea. *Marine Pollution Bulletin*, 34(3), 203-207.
- Kawai, S., Kurokawa, Y., Harino, H., & Fukushima, M. (1998). Degradation of tributyltin by a bacteria strain isolated from polluted river water. *Envirnmental Polution*, 102(2-3), 259-263.
- Ko, M. M. C., Bradley, G. C., Neer, A. H., & Broom, M. J. (1995). Tributyltin contamination of marine sediments of Hong Kong. *Marine Pollution Bulletin*, 31(4-12), 249-253.
- Koneman, E. W., Alen, S. D., Dowe, Jr. V. R., & Sommers, H. M. (1983). *Colour Atlas and Textbook Diagnostic Microbiology*. Philadelphia: J.B. Lippincott Company
- Langston, W. J., & Pope, N. D. (1996). Determinants of TBT adsorption and desorption in estuarine sediments. *Marine Pollution Bulletin*, 31(1-3), 32-43.
- Laughlin, R. B. Jr., & Linden, O. (1985). Fate and effects of organotin compounds. *AMBIO*, 14 (2), 88-94.
- Lee, R. F., Valkirs, A. O., & Seigman, P.F.(1989). Importance of microalgae in the biodegradation of tributyltin in estuarine waters. *Environmental Science Technology*, 23(12), 1515-1518.

- Lewis, Sr, R. J. (1993). *Hawley's condensed chemical dictionary*. (21<sup>th</sup> ed.). Van Nostrand Reinhold company. USA.
- Li-Lian, L., & Iu-Juan, S. (1996). Organotin promoting the development of imposex in the oyster drill *Thais clavigera*. *J. Fish. Soc. Taiwan*, 23(2), 149-154.
- Madoka, O., Takaomi, A., & Nobuyuki, M. (2003). Chronic effects of tributyltin on the caprellid amphipod *Caprella danilevskii*. *Marine Pollution Bulletin*, 46, 1263-1272.
- Maguire, R. J. (1987). Review of environmental aspects of tributyltin. *Appl. Organometal. Chem.*, 1, 475-498.
- Maguire, R. J., & Tkacz, R. J. (1985). Degradation of the tri-n-butyltin species in water and sediment from Toronto harbour. *J. Agric. Food Chem.*, 33, 947-953.
- Ma, H., Dai, S., & H. G. (2000). Distribution of tributyltin chloride in laboratory simulated estuarine microcosms. *Water Research*, 34(10), 2829-2841.
- Martin, R. C., Dixon, D. G., Maguire, R. J., Hodson, P. V., & Tkacz, R. J. (1989). Acute toxicity, uptake, depuration and tissue distribution of tri-n-butyltin in rainbow trout, *Salmo Gairdneri*. *Aquat. Toxicol.*, 15, 37-52.
- Meador, J. P. (1997). Comparative toxicokinetics of tributyltin in five marine species and its utility in predicting bioaccumulation and acute toxicity. *Aquatic toxicology*, 37, 307-326.
- Mensink, P. B., Kralt, H., Vethaak, D. A., Ten Hallers-Tjabbes, C. C., Koeman, H. Jan., Hattum, V. B., & Boon, P. J. (2002). Imposex induction in laboratory reared juvenile *Buccinum undatum* by tributyltin (TBT). *Environmental Toxicology and Pharmacology*, 11(1), 49-65.
- Minchin, D., Oehlmann, J., Duggan, C. B., Stroben, E., & Keatinge, M. (1995). Marine TBT antifouling contamination in Ireland, following legislation in 1987. *Marine Pollution Bulletin*, 30(10), 633-639.
- Nias, J. D., McKillup, S. C., & Edyvane, K. S. (1993). Imposex in *Lepidodermis vinosa* from southern Australia. *Marine Pollution Bulletin*, 26(7), 380-384.
- Nilson, B. R., & Gillett, K. (1972). *Australian snells*. Charles E. Tuttle Company, Tokyo. 168.

- Pereira, W. E., Wade, T. L., Hostettler, F. D., & Parchaso, F. (1999). Accumulation of butyltins in sediment and lipid tissues of the asian clam, *potamocorbula amurensis*, near mare islans naval shipyard, san francisco bay, *Marine Pollution Bulletin*, 38, 1005-1010.
- Petterson, J. K., Shanmugaraj, J. T., & Ayyakkannu, K. (1994). Salinity tolerance of *Babylonia spirata* (neogastropod: buccinidae). *Phuket mar. bio. Cen. Spec. Publ.*, 13, 185-187.
- Rudel, H. (2003). Case study: bioavailability of tin and tin compounds. *Ecotoxicology and Environmental Safety*, 56, 180-189.
- Sarradin, P. M., Lapaquellerie, Y., Astruc, A., Latouche, C., & Astruc, M. (1995). Long term behaviour and degradation kinetics of tributyltin in a marina sediment. *The Science of the Total Environment*, 170, 59-70.
- Santos, M. M., Ten Hallers-Tjabbes, C. C., Santos, A. M., & Vieira, N. (2002). Imposex in *Nucella lapillus*, a bioindicator for TBT contamination: re-survey along the portuguese coast to monitor the effectiveness of EU regulation. *Journal of Sea Research*, 48, 217-223.
- Schute-Oehlmann, U., Oehlmann, J., Fioroni, P., & Bauer, B. (1997). Imposex and reproductive failure in hydrobia ulvae (Gastropoda: Prosobranchia). *Marine Pollution Bulletin*, 128(2), 257-266.
- Sheldon, A. W. (1975). Effects of organotin anti-fouling coatings on man and his environment. *Journal Paint Technoogy.*, 47, 54-58.
- Spooner, N., Gibbs, P. E., Bryan, G. W., & Goad, L. (1991). The effect of tributyltin upon steroid titres in the female dogwhelk, *Nucella lapillus*, and the development of imposex. *Marine Environmental Research*, 32, 37-42.
- Stebbing, A. R. D. (1985). Organotins and water quality-some lessons to be learned. *Marine Pollution Bulletin*, 16(10), 363-389.
- Stewart, C., & de Mora, S. J. (1990). A review of the degradation of tri (*n*-butyl) tin in the marine environmental. *Environmental Technology*, 11(6), 565-570.
- Strickland, J. D. H., & Parsons, T. R. (1972). *A practical handbook of seawater analysis*. (2<sup>nd</sup> ed.). Printing and Publishing Supply and Services. Canada.



- Stronkhorst, J., Van-Hattum, B., & Bowner, T. (1999). Bioaccumulation and toxicity of tributyltin to a burrowing heart urchin and an amphipod in spiked, silty marine sediment. *Environ. Toxicol. Chem.*, 18, 2343-2351.
- Sun, H., Huang, G., & Dai, S. (1996). Adsorption behavior and qspr of organotin compounds on estuarine sediment. *Chemosphere*, 33(5), 813-838.
- Svavarsson, J., Granmo, A., Ekeund, R., & Szpunar, J. (2001). Occurrence and effects of organotins on adult common whelk (*Buccinum undatum*) (mollusca, gastropoda) in harbours and in a simulated dredging situation. *Marine Pollution Bulletin*, 42, 370-376.
- Swennen, C., Ruttanadaki, N., Ardseungnern, S., Singh, H. R., Mensin, B. P., & Ten Hallers-Tjabbes, C. C. (1997). Imposex in sublittoral and littoral gastropods from the gulf of Thailand and strait of Malacca in reaction to shipping. *Environmental Technology*, 18, 1245-1254.
- Takahashi, S., Lee, L. T. H., Saeki, H., Nakatai, N., Tanabe, S., Miyazaki, N., & Fujise, Y. (2000). Accumulation of butyltin compounds and total tin in marine mammals. *Water Science and Technology*, 42(7-8), 97-108.
- Tan, K. S. (1997). Imposex in three species of *Thais* from singapore, with additional observation on *T. clavigera* (kuster) from Japan. *Marine Pollution Bulletin*, 34(7), 577-581.
- Ten Hallers-tjabbes, C. C., Kemp, J. F., & Boon, J. P. (1994). Imposex in whelks (*Buccinum undatum*) from the open orth sea: reation to shipping traffic intensities. *Marine Pollution Bulletin*, 258(5), 311-313.
- Ten Hallers-Tjabbes, C. C., Wegener, J. W., Hattum, V. B., Kemp, F. J., Hallers, T. E., Reitsema, J. T., & Boon, P. J. (2003). Imposex and organotin concentrations in *Buccinum undatum* and *Neptunea antiqua* from the north sea: relationship to shipping density and hydrographical conditions. *Marine Environmental Research*, 55, 203-233.
- Thain, J. E. (1983). *The acute toxicity of bis(tributyltin) oxide to the adults and larvae of some marine organisms*. Int. Counc. Explor. Sea, Mariculture Committee E: 13. 5 pp.
- Thirumaralawan, R. (1987). *Studies on Babylonion spirata (Linnaevs) (Molusca: Neogastropoda: Buccinidae) from Portoous Water*. Master thesis, Center of advance study in marine biology, Annamalai University, India 31.

- Tsang, C. K., Lau, P. S., Tam, N. F. Y., & Wong, Y. S. (1999). Biodegradation capacity of tributyltin by two *Chlorella* species. *Environmental Pollution*, 105(2), 289-297.
- Tsuda, T., Nakanishi, H., Aoki, S., & Takebayashi, J. (1988). "Bioconcentration and metabolism of butyltin compounds in carp", *Water Research*, 22, 647-651.
- Vercshueren, K. (1996). *Handbook of environmental data on organic chemicals*. (3<sup>rd</sup> ed.). USA: Van Nostrand Reinhold an International Thomson Publishing Company.
- Waldock, M. J., & Thain, J. E. (1983). Shell thickening in *Crassostrea gigas*, organotin antifouling or sediment induced. *Marine Pollution Bulletin*, 14, 411-415.
- Watanabe, I. (1980). Organotin. In: *Spencer, P.S., Schaumburg, H.H. (Eds.), experimental and chemical neurotoxicity*. Williams and Wilkins, Baltimore, Maryland, pp. 545-557.
- Wilson, S. P., Ahsanullah, M., & Thompson, G. B. (1993). Imposex in neogastropods: an indicator of tributyltin contamination in eastern austria. *Marine Pollution Bulletin*, 26(1), 44-48.