

## Curriculum Vitae

**Name:** Mr. Suppasil Maneerat

**Date of Birth:** November 7, 1970

**Place of Birth:** Songkhla, Thailand

**Education:**

1993 B.Sc. (Biotechnology)

Kasetsart University, Thailand

1998 M.Sc. (Biotechnology)

Prince of Songkla University, Thailand

2005 Ph.D. (Agriculture)

Okayama University, Japan

**Languages:** Thai, English

**Present employment:**

Department of Industrial Biotechnology

Faculty of Agro-Industry

Prince of Songkla University

Hat Yai, Songkhla 90112 Thailand

Tel: +66 74286379

Fax: +66 74558866

E-mail: suppasil.m@psu.ac.th

**Position:** Associate Professor

**Field of interest:**

Food Biotechnology

Environmental Biotechnology

**Supportive experience:**

Conducted the collaborative research on “Isolation of biosurfactant-producing marine bacteria” at Research Institute for Bioresources, Okayama University, Japan under the Core university program supported by JSPS-NRCT (August 17-September 30, 1999).

Visited South China Agricultural University, Republic of China, to conducted research on “Isolation and characteristic of probiotic lactic acid bacteria from fermented foods” (November 30-December 21, 1999).

Conducted the collaborative research on “Biosurfactants from marine bacteria” at Research Institute for Bioresources, Okayama University, Japan under the Core university program supported by JSPS-NRCT (November 1-30, 2004).

Conducted the collaborative research on “Biosurfactants production from marine bacterium, *Myroides* sp. SM1” at Research Institute for Bioresources, Okayama University, Japan under the Core university program supported by JSPS-NRCT (September 14-October 29, 2005).

Conducted the collaborative research on "Insertion of the *gfp* gene into lactic acid bacterial strains for monitoring starter cultures during food fermentations" at Department of Food Sciences and Technology, Food Biotechnology Laboratory, BOKU University of Natural Resources and Life Sciences, Vienna, Austria supported by ASEA-UNINET (March 5-April 6, 2017).

**Award:**

Outstanding thesis in the year 1999 from Faculty of Agro-Industry, Prince of Songkla University, Thailand.

**Publication:**

**Review article**

1. **Maneerat, S.** 2000. Exopolysaccharide from Lactic Acid Bacteria. Songklanakarin J.Sci.Technol. 22: 397-402. (in Thai).
2. **Maneerat, S.** 2005. Production of biosurfactants using substrates from renewable-resources. Songklanakarin J. Sci. Technol. 27: 675-683.
3. **Maneerat, S.** 2005. Biosurfactants from marine microorganisms. Songklanakarin J. Sci. Technol. 27: 1263-1272.
4. Saimmai, A., Riansa-ngawongc, W., **Maneerat, S.** and Dikit, P. 2020. Application of biosurfactants in the medical field. Walailak J. Sci. Technol. 17(2): 154-166.
5. Yogeswara, I.B.A., **Maneerat, S.** and Haltrich, D. 2020. Glutamate decarboxylase from lactic acid bacteria- key enzyme in GABA synthesis. Microorganisms. 8(12), 1923; <https://doi.org/10.3390/microorganisms8121923>

**Original Article**

1. **Maneerat, S.**, Nitoda, T., Kanzaki, H. and Kawai, F. 2005. Bile acids are new products of a marine bacterium, *Myroides* sp. strain SM1. *Appl. Microbiol. Biotechnol.* 67(5): 679-683.
2. **Maneerat, S.**, Bamba, T., Harada, K., Kobayashi, A., Yamada, H. and Kawai, F. 2006. A novel crude oil emulsifier excreted in the culture supernatant of a marine bacterium, *Myroides* sp. strain SM1. *Appl. Microbiol. Biotechnol.* 70(2): 254-259.
3. Yoon, J., **Maneerat, S.**, Kawai, F. and Yokota, A. 2006. *Myroides pelagicus* sp. nov., isolated from seawater in Thailand. *Int. J. Syst. Evol. Microbiol.* 56: 1917-1920.
4. **Maneerat, S.** and Phetrong, K. 2007. Isolation of biosurfactant-producing marine bacteria and characteristics of selected biosurfactant. *Songklanakarin J. Sci. Technol.* 29(3): 781-791.
5. **Maneerat, S.** and Dikit, P. 2007. Characterization of cell-associated bioemulsifier from *Myroides* sp. SM1, a marine bacterium. *Songklanakarin J. Sci. Technol.* 29(3): 769-779.
6. Katemai, W., **Maneerat, S.**, Kawai, F., Kanzaki, H., Nitoda, T. and H-Kittikun, A. 2008. Purification and characterization of a biosurfactant produced by *Issatchenkia orientalis* SR4. *J. Gen. Appl. Microbiol.* 54(1): 79-82.
7. Kitcha, S., Cheirsilp, B. and **Maneerat, S.** 2008. Cyclodextrin glycosyltransferase from a newly isolated alkalophilic *Bacillus* sp. C26. *Songklanakarin J. Sci. Technol.* 30(6): 723-728.
8. Phetrong, K., H-Kittikun, A. and **Maneerat, S.** 2008. Production and characterization of bioemulsifier from a marine bacterium, *Acinetobacter calcoaceticus* subsp. *anitratus* SM7. *Songklanakarin J. Sci. Technol.* 30(3): 297-305.
9. Musikasang, H., Tani, A., H-kittikun, A. and **Maneerat, S.** 2009. Probiotic potential of lactic acid bacteria isolated from chicken gastrointestinal digestive tract. *World J. Microbiol. Biotechnol.* 25(8): 1337-1345.
10. Cheirsilp, B., Kitcha, S. and **Maneerat, S.** 2010. Kinetic characteristics of  $\beta$ -cyclodextrin production by cyclodextrin glycosyltransferase from newly isolated

- Bacillus* sp. C26. Electronic J. Biotechnol. 13(4).  
<http://www.ejbiotechnology.info/content/vol13/issue4/full/6/> Impact factor 0.92
11. Dikit, P., **Maneerat, S.**, Musikasang, H. and H-Kittikun, A. 2010. Emulsifier properties of the mannoprotein extract from yeast isolated from sugar palm wine. *ScienceAsia*. 36(4): 312-318.
  12. Dikit, P., Methacanon, P., Visessanguan, W., H-kittikun, A. and **Maneerat, S.** 2010. Characterization of an unexpected bioemulsifier from spent yeast obtained from Thai traditional liquor distillation. *Int. J. Biol. Macromol.* 47(4): 465-470.
  13. Hwanhlem, N., Watthanasakphuban, N., Riebroy, S., Benjakul, S., H-Kittikun, A. and **Maneerat, S.** 2010. Probiotic lactic acid bacteria from *Kung-Som*: isolation, screening, inhibition of pathogenic bacteria. *Int. J. Food Sci. Technol.* 45(3): 594-601.
  14. Wongsuphachat, W., H-Kittikun, A. and **Maneerat, S.** 2010. Optimization of exopolysaccharides production by *Weissella confusa* NH 02 isolated from Thai fermented sausages. *Songklanakarin J. Sci. Technol.* 32(1): 27-35.
  15. Hwanhlem, N., Buradaleng, S., Wattanachant, S., Benjakul, S., Tani, A. and **Maneerat, S.** 2011. Isolation and screening of lactic acid bacteria from Thai traditional fermented fish (*Plasom*) and production of *Plasom* from selected strains. *Food Control*. 22(3-4): 401-407.
  16. Saimmai, A., Sobhon, V. and **Maneerat, S.** 2011. Molasses as a whole medium for biosurfactants production by *Bacillus* strains and their application. *Appl. Biochem. Biotechnol.* 165(1):315-335.
  17. Saimmai, A., Sobhon, V. and **Maneerat, S.** 2012. Production of biosurfactant from a new and promising strain of *Leucobacter komagatae* 183. *Ann. Microbiol.* 62(1): 391-402.
  18. Dikit, P., **Maneerat, S.** and H-kittikun, A. 2012. Mannoprotein from spent yeast obtained from Thai traditional liquor distillation: extraction and characterization. *J. Food Process Eng.* 35(1): 166-177.
  19. Saimmai, A., Kaewrueng, J. and **Maneerat, S.** 2012. Used lubricating oil degradation and biosurfactant production by SC-9 consortia obtained from oil contaminated soil. *Ann. Microbiol.* 62(4): 1757-1767.

20. Musikasang, H., Sohsomboon, N., Tani, A. and **Maneerat, S.** 2012. Bacteriocin producing lactic acid bacteria as probiotic potential from Thai indigenous chicken. *Czech J. Anim. Sci.* 57(3): 137-149.
21. Saimmai, A., Sobhon, V. and **Maneerat, S.** 2012. Mangrove sediment, a new source of potential biosurfactant producing bacteria. *Ann. Microbiol.* 62(4): 1669-1679.
22. Saelim, K., Sohsomboon, N., Kaewsuwan, S. and **Maneerat, S.** 2012. Probiotic properties of *Enterococcus faecium* CE5-1 producing a bacteriocin-like substance and antagonistic effect against antibiotic-resistant enterococci *in vitro*. *Czech J. Anim. Sci.* 57(11): 529-539.
23. Saimmai, A., Rukadee, O., Sobhon, V. and **Maneerat, S.** 2012. Biosurfactant production by *Bacillus subtilis* TD4 and *Pseudomonas aeruginosa* SU7 grown on crude glycerol obtained from biodiesel production plant as sole carbon source. *J. Sci. Ind. Res.* 71(6): 396-406.
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26. Saimmai, A., Onlamool, T., Sobhon, V. and **Maneerat, S.** 2013. An efficient biosurfactant-producing bacterium *Selenomonas ruminantium* CT2, isolated from mangrove sediment in south of Thailand. *World J. Microbiol. Biotechnol.* 29(1): 87-102.
27. Saimmai, A., Udomsilp, S. and **Maneerat, S.** 2013. Production and characterization of biosurfactant from marine bacterium *Inquilinus limosus* KB3 grown on low-cost raw materials. *Ann. Microbiol.* 63(4): 1327-1339.
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29. Saisa-Ard, K., **Maneerat, S.** and Saimmai, A. 2013. Isolation and characterization of biosurfactants-producing bacteria isolated from palm oil industry and evaluation for biosurfactants production using low-cost substrates. *BioTechnologia* 94(3): 275-284.
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35. Saelim, K., Kaewsuwan, S., Tani, A. and **Maneerat, S.** 2015. Physical, biochemical and genetic characterization of enterocin CE5-1 produced by *Enterococcus faecium* CE5-1 isolated from Thai indigenous chicken intestinal tract. *Songklanakarin J. Sci. Technol.* 37(3): 299-307.
36. Sanchart, C., Benjakul, S., Rattanaporn, O., Haltrich, D. and **Maneerat, S.** 2015. Efficiency of V3 region of 16S rDNA and *rpoB* gene for bacterial community detection in Thai traditional fermented shrimp (*Kung-Som*) using PCR-DGGE techniques. *Songklanakarin J. Sci. Technol.* 37(3): 291-297.
37. Dikit, P., H-kittikun, A. and **Maneerat, S.** 2015. Survival of encapsulated potentially probiotic *Lactobacillus plantarum* D6SM3 with bioemulsifier derived from spent

- yeast in simulated gastrointestinal conditions. *Songklanakarin J. Sci. Technol.* 37(4): 425-432.
38. Watthanasakphuban, N., Tani, T., Benjakul, S. and **Maneerat, S.** 2016. Detection and preliminary characterization of a narrow spectrum bacteriocin produced by *Lactobacillus pentosus* K2N7 from Thai traditional fermented shrimp (*Kung-Som*). *Songklanakarin J. Sci. Technol.* 38(1): 47-55.
  39. Sanchart, C., Rattanaporn, O., Haltrich, D., Phukpattaranont, P. and **Maneerat, S.** 2016. Technological and safety properties of newly isolated GABA-producing *Lactobacillus futsaii* strains. *J. Appl. Microbiol.* 121(3): 734-745.
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  42. Kongkum, R., **Maneerat, S.** and H-Kittikun, A. 2017. Bacteriocin production by *Enterococcus faecalis* TS9S17 in MRS medium with tuna condensate as a nitrogen source and its characteristics. *Walailak J. Sci. Technol.* 14(12): 941-952.
  43. Jampaphaeng, K., Cocolin, L. and **Maneerat, S.** 2017. Selection and evaluation of functional characteristics of autochthonous lactic acid bacteria isolated from traditional fermented stinky bean (*Sataw-Dong*). *Ann. Microbiol.* 67(1): 25-36.
  44. Thongruek, K., Saelao, S., Sumpavapol, P., Benjakul, S. and **Maneerat, S.** 2017. Monitoring of changes in lactic acid bacteria during production of Thai traditional fermented shrimp (*Kung-Som*) by culturing method and PCR-DGGE technique. *Songklanakarin J. Sci. Technol.* 39(1): 41-47.
  45. Sanchart, C., Rattanaporn, O., Haltrich, D., Phukpattaranont, P. and **Maneerat, S.** 2017. *Lactobacillus futsaii* CS3, a newly GABA-producing strain isolated from Thai fermented shrimp (*Kung-Som*). *Indian J. Microbiol.* 57(2): 211-217.
  46. Saelao, S., **Maneerat, S.**, Kaewsuwan, S., Rabesona, H., Choiset, Y., Haertlé, T. and Chobert, J.M. 2017. Inhibition of *Staphylococcus aureus* *in vitro* by

- bacteriocinogenic *Lactococcus lactis* KTH0-1S isolated from Thai fermented shrimp (*Kung-som*) and safety evaluation. Arch. Microbiol. 199(4): 551-562.
47. Sanchart, C., Rattanaporn, O., Haltrich, D., Phukpattaranont, P. and **Maneerat, S.** 2017. Enhancement of gamma-aminobutyric acid (GABA) levels using an autochthonous *Lactobacillus futsaii* CS3 as starter culture in Thai fermented shrimp (*Kung-Som*). World J. Microbiol. Biotechnol. 33(8): 152.
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  49. Saelim, K., Jampaphaeng, K. and **Maneerat, S.** 2017. Functional properties of *Lactobacillus plantarum* S0/7 isolated fermented stinky bean (Sa Taw Dong) and its use as a starter culture. J. Funct. Foods. 38: 370-377.
  50. Saimmai, A., Riansa-ngawong, W., **Maneerat, S.** and Dikit, P. 2017. Microbial diversity analysis of thermophilic hydrogen-producing consortia from hot spring in the south of Thailand and evaluate cashew apple juice as a substrate. Songklanakarin J. Sci. Technol. 39 (6): 803-812.
  51. Saelao, S., **Maneerat, S.**, Thongruek, K., Watthanasakphuban, N., Wiriyaagulopas, S., Chobert, C.M. and Haertlé, T. 2018. Reduction of tyramine accumulation in Thai fermented shrimp (*kung-som*) by nisin Z-producing *Lactococcus lactis* KTH0-1S as starter culture. Food Control. 90: 249-258.
  52. Jantanaprasartporn, A; **Maneerat, S.** and Rongsayamanont, C. 2018. Importance of culture history on 17 alpha-ethinylestradiol cometabolism by nitrifying sludge. Environ. Eng. Res. 23: 28-35.
  53. Jampaphaeng, K., Ferrocino, I., Giordano, M., Rantsiou, K., **Maneerat, S.** and Cocolin, L. 2018. Microbiota dynamics and volatile profile during stink bean fermentation (Sataw-Dong) with *Lactobacillus plantarum* KJ03 as a starter culture. Food Microbiol. 76: 91-102.
  54. Sanchart, C., Watthanasakphuban, N., Boonseng, O., Nguyen, T.H., Haltrich, D. and **Maneerat, S.** 2018. Tuna condensate as a promising low-cost substrate for glutamic acid and GABA formation using *Candida rugosa* and *Lactobacillus futsaii*. Process Biochem. 70: 29-35.



55. Saimmai, A., **Maneerat, S.** and Chooklin, C.S. 2018. Using corn husk powder as a novel substrate to produce a surface active compound from *Labrenzia aggregate* KP-5. *J. Surfact. Deterg.* 21: 523-539.
56. Dikit, P., **Maneerat, S.** and Saimmai, A. 2019. Production and application of biosurfactant produced by *Agrobacterium rubi* L5 isolated from mangrove sediments. *Appl. Mech. Mat.* 886: 98-104.
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62. Meeboon, N. and **Maneerat, S.** 2020. Evaluation of enhanced bioremediation for soils contaminated with used lubricating oil in soil slurry system. *Songklanakarin J. Sci. Technol.* 42(2): 406-414.
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67. Rakchai, N. and **Maneerat, S.** 2022. Improved survival of freeze-dried *Lactobacillus pentosus* SY130 and applied as a co-culture starter with *Lactobacillus plantarum* KJ03 for fermenting stink bean (Sataw-Dong). *Indian J. Microbiol.* 62(2): 215-224. DOI: 10.1007/s12088-021-00997-5
68. Hwanhlem, N., Salaipeth, L., Charoensook, R., Kanjan, P. and Maneerat, S. 2022. Lactic acid bacteria from gamecock and goat originating from Phitsanulok, Thailand: isolation, identification, technological properties and probiotic potential. *J. Microbiol. Biotechnol.* 32(3): 355-364.
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74. Taowkrue, E., Songdech, P., **Maneerat, S.**, and Soontorngun, N. 2024. Enhanced production of yeast biosurfactant sophorolipids using yeast extract or the alternative nitrogen source soybean meal. Ind. Crop. Prod. Accepted.

#### **BOOK CHAPTER**

1. Saimmai, A. and **Maneerat, S.** 2013. Biosurfactant production from agro-industrial by-products and wastes. *In: Industrial Microbiology: Microbes in Process.* (Eds. G. Neelam and A. Abhinav). Nova Science Publishers, INC. NEW YORK, USA. pp. 317-336.