



Name: Asst.Prof.Dr. Apichat Upaichit

Education

Degree: Dr.techn. (Technical Chemistry), Graz University of Technology, Austria
M.Sc. (Biotechnology), Mahidol University, Thailand
B.Sc. (Agriculture, First Class Honors), Kasetsart University, Thailand

Present employment:

Program in Biotechnology
Faculty of Agro-Industry Prince of Songkla University
Hat Yai, Songkhla 90110 Thailand
Tel: (66-74) 286375
Email: apichat.u@psu.ac.th

Field of interest: Molecular Biotechnology, Enzyme Technology, Food Biotechnology

Current researches:

1. Screening and improvement of microbial enzyme
2. Antimicrobial substance and its application
3. Probiotic lactic acid bacteria: monitoring, screening, characterization and their application
4. Production, purification, characterization of microbial enzyme and its application
5. Enzyme catalytic biodiesel production

Publication:

Fibriana, F., **Upaichit, A.** and Cheirsilp, B. 2023. Promoting *Magnusiomyces spicifer* AW2 Cell-Bound Lipase Production by Co-culturing with *Staphylococcus hominis* AUP19 and Its Application in Solvent-Free Biodiesel Synthesis. *Curr. Microbiol.* 80 (9): 307. <https://doi.org/10.1007/s00284-023-03394-x> (Q4) IF (2022) = 2.6

- Fibriana, F., **Upaichit, A.** and Cheirsilp, B. 2023. Low-cost production of cell-bound lipases by pure and co-culture of yeast and bacteria in palm oil mill effluent and the applications in bioremediation and biodiesel synthesis. *Biomass Convers. Biorefin.* 13(12): 10823-10844. <https://doi.org/10.1007/s13399-021-02070-z> (Q3) IF (2022) = 4.0
- Nagime, P.V., Upaichit, A., Cheirsilp, B. and Boonsawang, P. 2023. Bio-Succinic Acid Production from Palm Oil Mill Effluent Using *Enterococcus gallinarum* with Sequential Purification of Biogas. *Fermentation.* 9(4): 369; <https://doi.org/10.3390/fermentation9040369> (Q2) IF (2021) = 5.123
- Cheirsilp, B., Billateh, A., Intasit, R., **Upaichit, A.**, Boonsawang, P. and Louhasakul, Y. 2023. Fungal pretreatment and acid post-treatment for fractionation and biovalorization of palm biomass wastes into fungal oil, bioethanol, and lactic acid. *Ind. Crop. Prod.* 196: 116503. (Q1) IF (2021) = 6.449
- Nagime, P.V., **Upaichit, A.**, Cheirsilp, B. and Boonsawang, P. 2022. Isolation and screening of microorganisms for high yield of succinic acid production. *Biotechnol. Appl. Biochem.* <https://doi.org/10.1002/bab.2428> (Q3) IF (2021) = 2.714
- Fibriana, F., **Upaichit, A.** and Cheirsilp, B. 2022. Statistical Optimization for Cost-Effective Production of Yeast-Bacterium Cell-Bound Lipases Using Blended Oily Wastes and Their Potential Applications in Biodiesel Synthesis and Wastewater Bioremediation. *Fermentation.* 8(8):411. <https://doi.org/10.3390/fermentation8080411> (Q2) IF (2021) = 5.123
- Baloch, K.A., **Upaichit, A.** and Cheirsilp, B. 2021. The Occurrence of Triple Catalytic Characteristics of Yeast Lipases and Their Application Prospects in Biodiesel Production from Non-Edible *Jatropha curcas* Oil in a Solvent-Free System. *Curr. Microbiol.* 78: 1914-1925. (Q4) IF (2021) = 2.343
- Baloch, K.A., **Upaichit, A.** and Cheirsilp, B. 2021. Multilayered Nano-Entrapment of Lipase through Organic-Inorganic Hybrid Formation and the Application in Cost-Effective Biodiesel Production. *Appl. Biochem. Biotechnol.* 193: 165-187. (Q3) IF (2021) = 3.094
- Fibriana, F., **Upaichit, A.** and Cheirsilp, B. 2021. Turning waste into valuable products: utilization of agro-industrial oily wastes as the low-cost media for microbial lipase production. *J. Phys. Conf. Ser.* 1918: 052028. (Scopus)
- Baloch, K.A., **Upaichit, A.** and Cheirsilp, B. 2019. Use of low-cost substrates for cost-effective production of extracellular and cell-bound lipases by a newly isolated yeast *Dipodascus capitatus* A4C. *Biocatal. Agric. Biotechnol.* 19: 101102. (JCI Quartile; Q3)

- Botthoulath, V., **Upaichit, A.** and Thumarat, U. 2018. Identification and *in vitro* assessment of potential probiotic characteristics and antibacterial effects of *Lactobacillus plantarum* subsp. *plantarum* SKI19, a bacteriocinogenic strain isolated from Thai fermented pork sausage. J. Food Sci. Technol.-Mysore. 55 (7): 2774-2785. (Q2) IF (2018) = 1.850
- Botthoulath, V., **Upaichit, A.** and Thumarat, U. 2018. Characterization of *Listeria*-active bacteriocin produced by a new strain *Lactobacillus plantarum* subsp. *plantarum* SKI19 isolated from "sai krok e-san mu". Int. Food Res. J. 25(6): 2362-2371. (Q4) IF (2018) = 0.662
- Choojit, S., Bornscheuer, U. T., **Upaichit, A.** and H-Kittikun, A. 2016. Efficient phosphatidylserine synthesis by a phospholipase D from *Streptomyces* sp. SC734 isolated from soil-contaminated palm oil. Eur. J. Lipid Sci. Technol. 118: 803-813. (Q2) IF (2016) = 2.145
- Fibriana, F. and **Upaichit, A.** 2015. Proteases from latex of *Euphorbia* spp. and its application on milk clot formation. Biosaintifika. 7(2): 92-99.
- Upaichit, A.** 2011. Screening and identification of lactic acid bacteria isolated from southern Thai fermented foods for their inhibition efficacy against food-borne bacteria. Hatyai J. 9(1): 1-16.
- Kemavongse, K., Prasertsan, P., **Upaichit, A.** and Methacanon, P. 2008. Poly- β -hydroxybutyrate production by halotolerant *Rhodobacter sphaeroides* U7. World J. Microbiol. Biotechnol. 24: 2073-2085.
- Kemavongse, K., Prasertsan, P., **Upaichit, A.** and Methacanon, P. 2007. Effect of co-substrate on production of poly- β -hydroxybutyrate (PHB) and copolymer PHBV from newly identified mutant *Rhodobacter sphaeroides* U7 cultivated under aerobic-dark condition. Songklanakarin J. Sci. Technol. 29: 1101-1113.
- Mongkolsuk, S., Sukchawalit, R., Loprasert, S., Praituan, W. and **Upaichit, A.** 1998. Construction and physiological analysis of a *Xanthomonas* mutant to examine the role of the *oxyR* gene in oxidant-induced protection against peroxide killing. J. Bacteriol. 180: 3988-3991.

Conference/Meeting and Proceeding:

- Upaichit, A.**, Ninpetch, S. and Chor- Kularb, A. 2016. Encapsulation of probiotic *Lactobacillus plantarum* SKI19 and evaluation of the gastrointestinal transit tolerance. The 54th Kasetsart University Annual Conference, 2- 5 February 2016, Bangkok province, Thailand. (Poster presentation)
- Fibriana, F., **Upaichit, A.** and Hongpattarakere, T. 2013. Optimization of bioprocess variables for fungal lipase production using statistical experimental design: a

mini review. The 2nd ASEAN Academic Society International Conference (AASIC 2013) , 4- 5 November 2013, Bangkok province, Thailand. (Oral presentation)

Suwansri, J., **Upaichit, A.** and H-Kittikun, A. 2012. Expression purification and partial characterization of lipase cloned from *Bacillus thermoamylovorans* BHK52. The 23rd Annual Meeting of the Thai Society of Biotechnology “TSB 2011: Systems Biotechnology: Quality & Success”, 1-2 Febuary 2012, Mahidol University, Bangkok province, Thailand. (Poster presentation)

Pakeeya, N. and **Upaichit, A.** 2011. Optimization of Lipase production from *Burkholderia* sp. PSU-KTK2 isolated from palm oil contaminated wastes. The National Conference of Higher Education Research Network, 25-28 May 2011, J.B. Hotel, Hat Yai, Songkhla province, Thailand. (Poster presentation)

Ruampan, J. , Hongpattarakere, T. and **Upaichit, A.** 2010. Screening and characterization of lactic acid bacteria isolated from traditional fermented foods that inhibit pathogenic bacteria. The proceedings of 22nd Annual Meeting and International Conference of the Thai Society for Biotechnology “TSB 2010: Biotechnology for Healthy Living”, 20-22 October 2010, Trang province, Thailand. (Oral presentation)

Zamroni, A., Cheirsilp, B. and **Upaichit, A.** 2008. Isolation, screening, and optimization of lipase- producing bacteria from palm oil contaminated wastes. The proceedings of 2nd International Conference on Mathematics and Natural Sciences (ICMNS), 28-30 October 2008, Indonesia. (Oral presentation)

Zamroni, A., Cheirsilp, B. and **Upaichit, A.** 2008. Isolation and screening of lipase-producing bacteria from palm oil contaminated wastes. The 20th Annual Meeting of the Thai Society for Biotechnology “Biotechnology for Global Care” , 14- 17 October 2008, Mahasarakham province, Thailand. (Oral presentation)

Thumarat, U. , Kawai, F. , Harnpicharnchai, P. and **Upaichit A.** 2008. Screening of lipases and cloning a lipase- coding gene from thermotolerant *Bacillus thermoamylovorans* strain BHK52 isolated from compost. The 9th National Grad Research Conference, 14-15 March 2008, Chonburi province, Thailand. (Poster presentation)

Ruampan, J. , Hongpattarakere, T. and **Upaichit, A.** 2007. Screening and characterization of lactic acid bacteria with antibacterial activity against pathogenic bacteria. The 7th National Graduate Research Conference, 4-5 April

2007, Prince of Songkla University, Surat Thani province, Thailand. (Poster presentation)