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### สาขาที่เชี่ยวชาญ

Bioprocess engineering Fermentation technology

### ผลงาน

1. Wannawilai, S., Y. Chisti and S. Sirisansaneeyakul. 2017. A model of furfural-inhibited growth and xylitol production by *Candida magnoliae* TISTR 5663. *Food Bioprod. Process.* 105, 129-140.
2. Wannawilai, S., W.C. Lee, Y. Chisti and S. Sirisansaneeyakul. 2017. Furfural and glucose can enhance conversion of xylose to xylitol by *Candida magnoliae* TISTR 5663. *J. Biotechnol.* 241, 147-157.
3. Prado-Rubio, O.A., H. Hernández-Escoto, D. Rodríguez-Gomez, S. Sirisansaneeyakul and R. Morales-Rodríguez. 2015. Enhancing xylitol bio-production by an optimal feeding policy during fed-batch operation. *Computer Aided Chemical Engineering* 37, 1757-1762
4. Wannawilai, S. and S. Sirisansaneeyakul. 2015. Economical production of xylitol from *Candida magnoliae* TISTR 5663 using sugarcane bagasse hydrolysate. *Kasetsart J. (Nat.Sci.)* 49(4), 583-596.
5. Tochampa, W., S. Sirisansaneeyakul, W. Vanichsiratana, P. Srinophakun, H.H.C. Bakker, S. Wannawilai and Y. Chisti. 2015. Optimal control of feeding in fed-batch production of xylitol. *Ind. Eng. Chem. Res.* 54(7), 1992-2000.
6. Wannawilai, S., S. Sirisansaneeyakul and Y. Chisti. 2015. Benzoate-induced stress enhances xylitol yield in aerobic fed-batch culture of *Candida mogii* TISTR 5892. *J. Biotechnol.* 194, 58-66.
7. Sirisansaneeyakul, S., B. Kop, W. Tochampa, S. Wannawilai, R. Chaveesuk and W.C. Lee. 2014. Sodium benzoate stimulates xylitol production by *Candida mogii*. *Journal of the Taiwan Institute of Chemical Engineers* 45(3), 734-743.

8. Sirisansaneeyakul, S., S. Wannawilai and Y. Chisti. 2013. Repeated fed-batch production of xylitol by *Candida magnoliae* TISTR 5663. *J. Chem. Technol. Biotechnol.* 88, 1121-1129.
9. Sirisansaneeyakul, S., R. Chainoy, W. Vanichsriratana, T. Srinophakun and Y. Chisti. 2009. Xylitol production by liquid emulsion membrane encapsulated yeast cells. *J. Chem. Technol. Biotechnol.* 84, 1218-1228.
10. Tochampa, W., S. Sirisansaneeyakul, W. Vanichsriratana, P. Srinophakun, H. H. C. Bakker and Y. Chisti. 2005. A model of xylitol production by the yeast *Candida mogii*. *Bioprocess Biosyst. Eng.* 28, 175-183.
11. Sirisansaneeyakul, S., W. Tochampa, I. Bashir, M. Rizzi and S. Bhuwapathanapun. 2000. Continuous production of xylitol by cell recycling system. *Thai J. Agric. Sci.* 33(3-4), 99-106.
12. Sirisansaneeyakul, S., W. Tochampa, I. Bashir, M. Rizzi and S. Bhuwapathanapun. 2000. Kinetic modeling of pH affecting xylitol production by *Candida mogii*. *Thai J. Agric. Sci.* 33(3-4), 159-166
13. Sirisansaneeyakul, S. and M. Rizzi. 1998. Hydrolysis of wheat straw hemicellulose. *Kasetsart J. (Nat. Sci.)* 32, 224-233.
14. Sirisansaneeyakul, S. and M. Rizzi. 1997. UV-mutation of *Candida mogii* for xylitol production. *Thai J. Agric. Sci.* 30, 511-520.
15. Sirisansaneeyakul S., K. Nakano and M. Matsumura. 1995. Diffusivity of xylitol in granular activated charcoal. *Kasetsart J. (Nat. Sci.)* 29, 115-126.
16. Sirisansaneeyakul S., M. Staniszewski and M. Rizzi. 1995. Screening of yeasts for production of xylitol from D-xylose. *J. Ferment Bioeng.* 80, 565-570.
17. Prangviset, K., M. Songpim, N. Yodsuwan, S. Wannawilai, M. Dejsungkranont, P. Changlek and S. Sirisansaneeyakul. 2018. Fructose production from Jerusalem artichoke inulin using mixed inulinases. *Agr. Nat. Resour.* 52(2), 132-139.
18. Suethao, S., B. Innawong, S. Sirisansaneeyakul, W. Vanichsriratana and P. Parakulsuksatid. 2015. Optimization and the effect of pH adjustment for trehalose production by *Propionibacterium acidipropionici* DSM 20273. *Kasetsart J. (Nat. Sci.)* 49, 726-737.
19. Sirisansaneeyakul, S., N. Worawuthiyanan, W. Vanichsriratana, P. Srinophakun and Y. Chisti. 2007. Production of fructose from inulin using mixed inulinases from *Aspergillus niger* and *Candida guilliermondii*. *World J. Microbiol. Biotechnol.* 23, 543-552.
20. Charoenlap, N., S. Dharmsthiti, S. Sirisansaneeyakul and S. Lertsiri. 2004. Optimization of cyclodextrin production from sago starch. *Bioresour. Technol.* 92, 49-54.
21. Sirisansaneeyakul, S., S. Lertsiri, P. Tonsagunrathanachai and P. Luangpituksa. 2000. Enzymatic production of fructo-oligosaccharides from sucrose. *Kasetsart J. (Nat. Sci.)* 34, 262-269.

22. Sirisansaneeyakul, S., T. Pornpakdeetewakul, P. Luangpituksa and S. Varavinit. 1996. Production of cyclodextrin glycosyltransferase from *Bacillus* sp. The Annual Reports of ICBiotech vol. 19, 377-383.
23. Romsomsa, N., P. Chim-anage and S. Sirisansaneeyakul. 2015. Improvement of production and stability of silk degumming protease by *Bacillus* sp. C4 SS-2013. Chiang Mai J. Sci. 2015; 42(3): 599-613.
24. Sirisansaneeyakul, S., M. Songpim and P. Vaithanomsat. 2012. Optimization of inulinase, invertase and -fructofuranosidase production from *Aspergillus niger* TISTR 3570 by the Taguchi Method. Kasetsart J. (Nat. Sci.) 46(2), 238-255.
25. Vaithanomsat, P., M. Songpim and S. Sirisansaneeyakul. 2011. A statistical approach for culture condition improvement of invertase and inulinase from *Candida guilliermondii* TISTR 5844. Kasetsart J. (Nat. Sci.) 45, 1083-1093.
26. Songpim, M., P. Vaithanomsat, W. Vanichsritatana and S. Sirisansaneeyakul. 2011. Enhancement of inulinases and invertase production from a newly isolated *Candida guilliermondii* TISTR 5844. Kasetsart J. (Nat. Sci.) 45, 675-685.
27. Wangtueai, S., W. Worawattanamateekul, M. Sangjindavong, N. Naranong and S. Sirisansaneeyakul. 2007. Production and partial characterization of chitosanases from a newly isolated *Bacillus cereus*. Kasetsart J. (Nat. Sci.) 41(2), 346-355.
28. Wangtueai, S., W. Worawattanamateekul, M. Sangjindavong, N. Naranong and S. Sirisansaneeyakul. 2007. Production and partial characterization of chitosanases from a newly isolated *Bacillus cereus*. Kasetsart J. (Nat. Sci.) 41(2), 346-355.
29. Kanlayakrit, W., T. Ikeda, S. Tojai, M. Rodprapakorn, and S. Sirisansaneeyakul. 2001. Isolation and characterization of extracellular halophilic ribonuclease from halotolerant *Pseudomonas* species. Kasetsart J. (Nat. Sci.) 35, 179-187.
30. Sirisansaneeyakul, S., S. Jitbanjongkit, N. Prasomsart and P. Luangpituksa. 2000. Production of  $\alpha$ -Fructofuranosidase from *Aspergillus niger* ATCC 20611. Kasetsart J. (Nat. Sci.) 34, 378-386.
31. Sirisansaneeyakul, S., P. Daechophan and S. Chaiseri. 1997. A preliminary study on enzymatic properties of rice bran lipase. Kasetsart J. (Nat. Sci.) 31, 56-71.
32. Sirisansaneeyakul, S., T. Luangpipat, W. Vanichsritatana, T. Srinophakun, H. H-H. Chen and Y. Chisti. 2007. Optimization of lactic acid fermentation by immobilized *Lactococcus lactis* IO-1 using Taguchi method. J. Ind. Microbiol. Biotechnol. 34, 381-391.
33. Sirisansaneeyakul, S., P. Mekvichitsaeng, K. Kittikusolthum, S. Pattaragulwanit, M. Luddee S. Bhuwathanapun and A. Ishizaki. 2000. Lactic acid production from starch hydrolysates using *Lactococcus lactis* IO-1. Thai J. Agric. Sci. 33 (1-2), 53-64.

34. Sirisansaneeyakul, S., C.N. Hipolito, G. Kobayashi, K. Sonomoto, S. Lertsiri, P. Luangpitaksa, S. Varavinit and A. Ishizaki. 1998. Kinetic modeling of lactic acid fermentation from sago starch using *Lactococcus lactis* IO-1. The Annual Reports of ICBiotech vol. 21, 504-524.
35. Wang, Q.P., B. Šarkanj, J. Jurasovic, Y. Chisti, M. Sulyok, J.sh. Gong, S. Sirisansaneeyakul and D. Komes. 2019. Evaluation of microbial toxins, trace elements and sensory 9 properties of a high-theabrownins instant Pu-erh tea produced using *Aspergillus tubingensis* via submerged fermentation. *Int. J. Food Sci. Technol.* 54, 1541–1549.
36. Wang, Q.P., A. Belščak-Cvitanović, K. Durgo, Y. Chisti, J.Sh. Gong, S. Sirisansaneeyakul, D. Komes. 2018. Physicochemical properties and biological activities of a high-theabrownins instant Pu-erh tea produced by *Aspergillus tubingensis*. *LWT-Food Science and Technology* 90, 598–605.
37. Wang, Q.P., J.S. Gong, Y. Chisti and S. Sirisansaneeyakul. 2016. Production of theabrownins using a crude fungal enzyme concentrate. *J. Biotechnol.* 231, 250–259.
38. Wang, Q.P., J.S. Gong, Y. Chisti and S. Sirisansaneeyakul. 2015. Fungal isolates from a Puerh type tea fermentation and their ability to convert tea polyphenols to theabrownins. *J. Food Sci.* 80(4), M809-M817.
39. Wang, Q.P., J.S. Gong, Y. Chisti and S. Sirisansaneeyakul. 2014. Bioconversion of tea polyphenols to bioactive theabrownins by *Aspergillus fumigatus*. *Biotechnol. Lett.* 36(12), 2515-2522.
40. Wang, Q.P., C.X. Peng, J.S. Gong and S. Sirisansaneeyakul. 2013. Antioxidative effect of large molecular polymeric pigments extracted from Zijuan Pu-erh tea in vitro and in vivo. *Kasetsart J. (Nat. Sci.)* 47(5), 739–747.
41. Sirisansaneeyakul, S., P. Suecharoenchai, W. Vanichsiratana and J.Sh. Gong. 2007. Preliminary study for Yunnan tea fermentation. *KMUTT Res. Dev. J.* 31(2), 275-289.
42. Yodsuwan, N., P. Kamonpatana, Y. Chisti and S. Sirisansaneeyakul. 2018. Ohmic heating pretreatment of algal slurry for production of biodiesel. *J. Biotechnol.* 267, 71–78.  
(<https://doi.org/10.1016/j.jbiotec.2017.12.022>).
43. Bouyam, S., W. Choorit, S. Sirisansaneeyakul and Y. Chisti. 2017. Heterotrophic production of *Chlorella* sp. TISTR 8990—biomass growth and composition under various production conditions. *Biotechnol. Progr.* 33(6), 1589–1600. (doi:10.1002/btpr.2518).
44. Yodsuwan N., S. Sawayama, S. Sirisansaneeyakul. 2017. Effect of nitrogen concentration on growth, lipid production and fatty acid profiles of marine diatom *Phaeodactylum tricornutum*. *Agr. Nat. Resour.* 51(3), 190–197

45. Singhasuwan, S., W. Choorit, S. Sirisansaneeyakul, N. Kokkaew and Y. Chisti. 2015. Carbonto-nitrogen ratio affects the biomass composition and the fatty acid profile of heterotrophically grown *Chlorella* sp. TISTR 8990 for biodiesel production. *J. Biotechnol.* 216, 169–177.
46. Yodsuwan, N., N. Chamchuang, Y. Puchcha and S. Sirisansaneeyakul. 2015. Outdoor photoautotrophic cultivation of *Chlorella* sp. TISTR 8990 in nitrogen- and phosphorusminimal media for lipid accumulation. *Kasetsart J. (Nat. Sci.)* 49(1), 80-91.
47. Haque, M.A., P. Bangrak, S. Sirisansaneeyakul and W. Choorit. 2012. Factors affecting the biomass and lipid production from *Chlorella* sp. TISTR 8990 under mixotrophic culture. *Walailak J. Sci. Tech.* 9(4), 347-359.
48. Sirisansaneeyakul, S., S. Singhasuwan, W. Choorit, N. Phoopat, J.L. Garcia and Y. Chisti. 2011. Photoautotrophic production of lipids by some *Chlorella* strains. *Mar. Biotechnol.* 13(5), 928–941.
49. Chuensangjun, C., T. Kitaoka, Y. Chisti and S. Sirisansaneeyakul. 2019. Chemo-enzymatic preparation and characterization of cellulose nanofibers-graft-poly(lactic acid)s. *Eur. Polym. J.* 114, 308–318.
50. Chuensangjun, C., T. Kitaoka, Y. Chisti and S. Sirisansaneeyakul. 2019. Chemo-enzymatic preparation and characterization of cellulose nanofibers-graft-poly(lactic acid)s. *Eur. Polym. J.* 114, 308–318.