

## **Assoc. Prof. Prakrit Sukyai**

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### **Education**

Dr.nat.techn. (Food Biotechnology), University of Natural Resources and Life Sciences

M.Sc. (Biotechnology), Kasetsart University

B.Sc. (Biotechnology), Kasetsart University

### **Expertise**

Cellulose for future materials and technologies

### **Selected Works**

1. Asanarong, O., Quan, V. M., Boonrungsiman, S., & Sukyai, P. (2021). Bioactive wound dressing using bacterial cellulose loaded with papain composite: Morphology, loading/release and antibacterial properties. *European Polymer Journal*, 143, 110224.
2. Qureshi, D., Behera, K. P., Mohanty, D., Mahapatra, S. K., Verma, S., Sukyai, P., ... & Pal, K. (2021). Synthesis of novel poly (vinyl alcohol)/tamarind gum/bentonite-based composite films for drug delivery applications. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 613, 126043.
3. Meesupthong, R., Yingkamhaeng, N., Nimchua, T., Pinmanee, P., Mussatto, S. I., Li, B., & Sukyai, P. (2021). Xylanase pretreatment of energy cane enables facile cellulose nanocrystal isolation. *Cellulose*, 28(2), 799-812.
4. Torgbo. S. and P. Sukyai. 2020. Biodegradation and thermal stability of bacterial cellulose as biomaterial: The relevance in biomedical applications. *Polymer Degradation and Stability*. 179.

5. Panee Panyasiri, Nga Tien Lam, Prakrit Sukyai. 2020. The Effect of Hydroxyapatite Prepared by In Situ Synthesis on the Properties of Poly(Vinyl Alcohol)/Cellulose Nanocrystals Biomaterial. *Journal of Polymers and the Environment*. 28: 141-151.
6. Chollakup, R., Pongburoos, S., Boonsong, W., Khanoonkon, N., Kongsin, K., Sothornvit, R., P. Sukyai., Harnkarnsujarit, N. 2020. Antioxidant and antibacterial activities of cassava starch and whey protein blend films containing rambutan peel extract and cinnamon oil for active packaging. *LWT*, 109573.
7. Vo Minh quan, Bin Li, Prakrit Sukyai. 2020. Bacterial cellulose modification using static magnetic field. *Cellulose*. 27: 5581 - 5596
8. Vachanont Tangsatianpan, Selorm Torgbo, Prakrit Sukyai. 2020. Release Kinetic Model and Antimicrobial Activity of Freeze-Dried Curcumin-loaded Bacterial Nanocellulose Composite. *Polymer Science, Series A*. 62: 218 – 227
9. Thamonwan Sucharitpong, Nga Tien Lam, Prakrit Sukyai. 2020. Production of Nylon-6/Cellulose Nanocrystal Composite Films Using Solvent Dissolution. *Sugar Tech*. 22(2); 328-339
10. Wu, M., Sukyai, P., Lv, D., Zhang, F., Wang, P., Liu, C., Li, B. 2020. Water and humidity-induced shape memory cellulose nanopaper with quick response, excellent wet strength and folding resistance. *Chemical Engineering Journal*. 392
11. Senapitakkul, V., Vanitjinda, G., Torgbo, S., Pinmanee, P., Nimchua, T., Rungthaworn, P., ... & Sukyai, P. (2020). Pretreatment of Cellulose from Sugarcane Bagasse with Xylanase for Improving Dyeability with Natural Dyes. *ACS omega*, 5(43), 28168-28177.
12. Sucharitpong, T., Lam, N. T., & Sukyai, P. (2020). Production of Nylon-6/Cellulose Nanocrystal Composite Films Using Solvent Dissolution. *Sugar Tech*, 22(2), 328-339.
13. Mueangmontri, R., Chapanya, P., Pattamasuwan, A., Sriroth, K., & Sukyai, P. (2020). Post-harvest deterioration of green billeted and green

whole stalk sugarcane in Northeast Thailand. *International Journal of Postharvest Technology and Innovation*, 7(1), 29-41.

14. Kim, D.H., H.M. Park, Y.H. Jung, P. Sukyai and K.H. Kim. 2019. Pretreatment and Enzymatic Saccharification of Oak at High Solids Loadings to Obtain High Titrers and High Yields of Sugars. *Bioresource Technology*. 284: 391-397
15. Vanitjinda, G., T. Nimchua and P. Sukyai. 2019. Effect of Xylanase-Assisted Pretreatment on the Properties of Cellulose and Regenerated Cellulose Films from Sugarcane Bagasse. *International Journal of Biological Macromolecules*. 122: 503-516
16. Torgbo, S. and P. Sukyai. 2019. Fabrication of Microporous Bacterial Cellulose Embedded with Magnetite and Hydroxyapatite Nanocomposite Scaffold for Bone Tissue Engineering. *Materials Chemistry and Physics*. 237
17. Niamsap, T., N.T. Lam and P. Sukyai. 2019. Production of Hydroxyapatite-Bacterial Nanocellulose Scaffold with Assist of Cellulose Nanocrystals. *Carbohydrate Polymers*. 205: 159-166
18. Yingkamhaeng, N., I. Intapan P. Sukyai. 2018. Fabrication and Characterization of Functionalized Superparamagnetic Bacterial Nanocellulose Using Ultrasonic-Assisted In Situ Synthesis. *Fibers and Polymers*. 19(3): 489-497
19. Sukyai, P., Anongjanya, P., Bunyahwuthakul, N., Kongsin, K., Harnkarnsujarit, N., Sukatta, U., Sothornvit, R., Chollakup, R. 2018. Effect of cellulose nanocrystals from sugarcane bagasse on whey protein isolate-based films. *Food Research International*. 107: 528-535
20. Panyasiri, P., N. Yingkamhaeng, N.T. Lam and P. Sukyai. 2018. Extraction of Cellulose Nanofibrils from Amylase-Treated Cassava Bagasse Using High-Pressure Homogenization. *Cellulose*. 25(3): 1757–1768
21. Kawee, N., N.T. Lam and P. Sukyai. 2018. Homogenous Isolation of Individualized Bacterial Nanofibrillated Cellulose by High Pressure Homogenization. *Carbohydrate Polymers*. 179: 394-401

22. Torgbo, S., P. Sukyai. 2018. Bacterial cellulose-based scaffold materials for bone tissue engineering. *Applied Materials Today*. 11: 34-39