CURRICULUM VITAE

Name Asst. Prof. Pimonpan Kaewprachu, Ph.D.

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Education

Doctor of Philosophy in Food Technology, 2018
Mae Fah Luang University, Chiang Rai, Thailand

Bachelor of Science in Food Technology, 2013
Mae Fah Luang University, Chiang Rai, Thailand

Experiences

Aug 2021 – Present	**Assistant Professor** College of Maritime Studies and Management, Chiang Mai University, Samut Sakhon, Thailand
Sep 2018 – Aug 2021	**Lecturer** College of Maritime Studies and Management, Chiang Mai University, Samut Sakhon, Thailand
August 2017 – August 2018	**Teaching Assistant (TA)** in School of Agro-Industry, Food Technology, Mae Fah Luang University, Chiang Rai, Thailand
June 2017 – July 2017	**Researcher** (Franco-Thai cooperation Hubert Curien Programme (PHC Siam) (ActiFoodCoat project)) at Univ Lyon, Université Claude Bernard Lyon 1, Bourg en Bresse, France
June 2015 – April 2016	**Exchange student** under Royal Gloden Jubilee PhD program at Department of Food Science and Technology, Tokyo University of Marine Science and Technology, Tokyo, Japan

Teaching Course

- Bioactive Compounds from Marine Resources
- Biopolymer Films for Extending the Shelf Life and Monitoring the Quality of Meat
- Functional Foods, Nutraceuticals, and Health
- Fundamental of Food Chemistry and Analysis
- Innovations in Food Packaging

Research Interests

- Biopolymers Films
- Edible Films and Coatings
- Active Packaging
- Intelligent Packaging
- Agricultural and Seafood Processing Industry By-products Utilization

Book Chapter

2022 **Kaewprachu, P.**, Sai-Ut, S., & Rawdkuen, S. (2022). Smart Freshness Indicator for Animal-Based Product Packaging: Current Status. In Food Packaging: The Smarter Way (pp. 107-125). Springer, Singapore.

2019 Rawdkuen, S. & **Kaewprachu, P.** (2019). Valorization of food processing by-products as smart food packaging materials and its application. In Socaci, S. A. (Ed.), Food Preservation and Waste Exploitation (chapter 6). IntechOpen, the world's leading publisher of open access books. ISBN: 978-1-78985-426-8.

2016 **Kaewprachu, P.** & Rawdkuen, S. (2016). Application of active edible film as food packaging for food preservation and extending shelf-life. In N. Gard, S. M., Abdel-Aziz & A. Aeron (Eds.), Microbes in Food and Health (chapter 11, pp. 185-205). New York: Springer International Publishing.

List of Publications

2026 Kumnerdsiri, P., Chinarak, K., Kitsanayanyong, L., Uchuwittayakul, A., Sirisarn, W., Lueangjaroenkit, P., **Kaewprachu, P.**, Pongsetkul, J., Saiut, S., Rawdkuen, S., & Kingwascharapong, P. (2026). Ultrasound-Assisted extraction of yellow peacock flower (*Caesalpinia pulcherrima*) and its application in gelatin capsule waste-based active packaging films for dried shrimp preservation. antioxidants, 15(5), 576.

2026 **Kaewprachu, P.**, Klunklin, W., Jaisan, C., Rawdkuen, S., Sangsawad, P., Tongdeesoontorn, W., Kingwascharapong, P., & Kraithong, S. (2026). Comparative Study of Cellulose Nanocrystals from Young and Mature Coconut Husks as Reinforcement Agents in Sustainable Gelatin-Based Films. Polymers, 18(6), 708.

2026 Pongsetkul, J., Watchasit, S., Petcharat, T., Arnold, M., Rajagukguk, Y.V., Kingwascharapong, P., Karnjanapratum, S., **Kaewprachu, P.**, Grossmann, L., Jung, Y.H., & Sai-Ut, S. (2026). Plant-Based Protein Bioinks with Transglutaminase Crosslinking: 3D Printability and Molecular Insights from NMR and Synchrotron-FTIR. Foods, 15(2), 322.

2025 Pawde, S. V., **Kaewprachu, P.**, Kingwascharapong, P., Sai-Ut, S., Zhang, W., Jung, Y. H., & Rawdkuen, S. (2025). Addressing postharvest losses in mango: Current challenges and role of packaging-based solutions. Future Foods, 100896.

2025 Kumnerdsiri, P., Wannawisan, N., Seubsai, A., Harnkarnsukarit, N., Sirisarn, W., Pongsetkul, J., Rawdkuen, S., Sai-ut, S., **Kaewprachu, P.**, Tangjaidee, P., & Kingwascharapong, P. (2025). Fabrication and characterization of bio-composite films from gelatin capsule waste reinforced with biosynthesized zinc oxide nanoparticles from cha-kram leaf extract. Future Foods, 100841.

2025 Punbusayakul, N., Panpranot, S., Srisopa, K., Phimolsiripol, Y., Wangtueai, S., Thuengtung, S., Yarnpakdee, S., **Kaewprachu, P.**, Chakrabandhu, Y., Kingwascharapong, P., & Jaisan, C. (2025). Valorization of mantis shrimp by-product through integrated extraction-encapsulation approach for astaxanthin production. LWT, 118428.

2025 Sai-Ut, S., Indriani, S., Srisakultiew, N., Kingwascharapong, P., Rawdkuen, S., **Kaewprachu, P.**, Jung, Y.H., Zhang, W., & Pongsetkul, J. (2025). Microbial dynamics and quality of goat meat under elevated CO_2 in high-O_2 modified atmosphere packaging during cold storage. Food Control, 111577.

2025 Sanprasert, S., Kumnerdsiri, P., Seubsai, A., Lueangjaroenkit, P., Pongsetkul, J., Petcharat, T., **Kaewprachu, P.**, Sai-ut, S., Rawdkuen, S., Teerapattarakan, N., Zhang, W., & Kingwascharapong, P. (2025). Techno-functional gelling mechanism and rheological properties of gelatin capsule-waste gel modified with kappa-carrageenan for future functional food applications. Future Foods, 100723.

2025 Khemqaew, P., Jaisan, C., Kingwascharapong, P., Rawdkuen, S., Karbowiak, T., Degraeve, P., Sai-Ut, S., Sangsawad, P., Kraithong, S., & **Kaewprachu, P**. (2025). Biobased antioxidant packaging from chitosan incorporating cashew leaf extract and TiO_2 nanoparticles for soybean oil preservation. LWT, 118053.

2025 **Kaewprachu, P.**, Jaisan, C., Rawdkuen, S., Tongdeesoontorn, W., Karbowiak, T., Degraeve, P., Kingwascharapong, P., Sai-Ut, S., & Sangsawad, P. (2025). Mechanical, physical, water vapor barrier, and functional properties of carboxymethyl cellulose/anthocyanin/TiO_2 films for real-time food quality monitoring. Carbohydrate Polymer Technologies and Applications, 100877.

2025 Pawde, S. V., **Kaewprachu, P**., Kingwascharapong, P., Sai-Ut, S., Karbowiak, T., Jung, Y. H., & Rawdkuen, S. (2025). A comprehensive review on plant protein-based food packaging: Beyond petroleum-based polymers. Current Research in Food Science, 101104.

2025 Punbusayakul, N., Jaisan, C., **Kaewprachu, P.**, Yarnpakdee, S., & Chakrabandhu, Y. (2025). Improvement of the physicochemical and mechanical properties of intelligent gelatin/butterfly pea films using coconut milk residue. Applied Food Research, 100814.

2024 Romruen, O., **Kaewprachu, P.**, Sai-Ut, S., Kingwascharapong, P., Karbowiak, T., Zhang, W., & Rawdkuen, S. (2024). Impact of environmental storage conditions on properties and stability of a smart bilayer film. Scientific Reports, 14(1), 23038.

2024 **Kaewprachu, P.**, Jaisan, C., Rawdkuen, S., & Osako, K. (2024). Colorimetric indicator films based on carboxymethyl cellulose and anthocyanins as a visual indicator for shrimp freshness tracking. Heliyon, 10(11), e31527.

2024 **Kaewprachu, P.**, Romruen, O., Jaisan, C., Rawdkuen, S., & Klunklin, W. (2024). Smart colorimetric sensing films based on carboxymethyl cellulose incorporated with a natural pH indicator. International Journal of Biological Macromolecules, 259, 129156.

2023 **Kaewprachu, P.**, & Jaisan, C. (2023). Physicochemical properties of chitosan from green mussel shells (*Perna viridis*): A comparative study. Polymers, 15(13), 2816.

2022 Romruen, O., **Kaewprachu, P.**, Karbowiak, T., & Rawdkuen, S. (2022). Development of smart bilayer alginate/agar film containing anthocyanin and catechin-lysozyme. Polymers, 14(22), 5042.

2022 Yarnpakdee, S., **Kaewprachu, P.**, Jaisan, C., Senphan, T., Nagarajan, M., & Wangtueai, S. (2022). Extraction and physico–chemical characterization of chitosan from mantis shrimp (*Oratosquilla nepa*) shell and the development of bio-composite film with agarose. Polymers, 14(19), 3983.

2022 Homthawornchoo, W., Han, J., **Kaewprachu, P.**, Romruen, O., & Rawdkuen, S. (2022). Green tea extract enrichment: Mechanical and physicochemical properties improvement of rice starch-pectin composite film. Polymers, 14(13), 2696.

2022 Romruen, O., **Kaewprachu, P.**, Karbowiak, T., & Rawdkuen, S. (2022). Isolation and characterization cellulose nanosphere from different agricultural by-products. Polymers, 14(13), 2534.

2022 Homthawornchoo, W., **Kaewprachu, P.**, Pinijsuwan, S., Romruen, O., & Rawdkuen, S. (2022). Enhancing the UV-light barrier, thermal stability, tensile strength, and antimicrobial properties of rice starch–gelatin composite films through the incorporation of zinc oxide nanoparticles. Polymers, 14(12), 2505.

2022 Romruen, O., **Kaewprachu, P.**, Karbowiak, T., & Rawdkuen, S. (2022). Development of intelligent gelatin films incorporated with Sappan (*Caesalpinia sappan* L.) heartwood extract. Polymers, 14(12), 2487.

2022 **Kaewprachu, P.**, Jaisan, C., Klunklin, W., Phongthai, S., Rawdkuen, S., & Tongdeesoontorn, W. (2022). Mechanical and physicochemical properties of

composite biopolymer films based on carboxymethyl cellulose from young palmyra palm fruit husk and rice flour. Polymers, 14(9), 1872.

2022 Janpet, C., Manakit, P., Klinmalai, P., **Kaewprachu, P.**, Jaisan, C., Surayot, U., ... & Wangtueai, S. (2022). Characteristics and functional properties of gelatin and gelatin hydrolysate from bigeye snapper (*Priacanthus tayenus*) bone.

2022 **Kaewprachu, P.**, Jaisan, C., Rawdkuen, S., Tongdeesoontorn, W., & Klunklin, W. (2022). Carboxymethyl cellulose from Young Palmyra palm fruit husk: Synthesis, characterization, and film properties. Food Hydrocolloids, 124, 107277.

2022 **Kaewprachu, P.**, Osako, K., Rungraeng, N., & Rawdkuen, S. (2022). Properties of fish myofibrillar protein film: effect of glycerol-sorbitol combinations. Journal of Food Science and Technology, 59(4), 1619-1628.

2021 Sai-Ut, S., Suthiluk, P., Tongdeesoontorn, W., Rawdkuen, S., **Kaewprachu, P.**, Karbowiak, T., ... & Degraeve, P. (2021). Using Anthocyanin Extracts from Butterfly Pea as pH Indicator for Intelligent Gelatin Film and Methylcellulose Film. Current Applied Science and Technology, 652-661.

2020 Rawdkuen, S., Faseha, A., Benjakul, S., & **Kaewprachu, P.** (2020). Application of anthocyanin as a color indicator in gelatin films. Food Bioscience, 100603.

2020 Pattarasiriroj, K., **Kaewprachu, P.**, & Rawdkuen, S. (2020). Properties of rice flour-gelatine-nanoclay film with catechin-lysozyme and its use for pork belly wrapping. Food Hydrocolloids, 105951.

2018 **Kaewprachu, P.**, Faseha, A., & Rawdkuen, S. (2018). Application of intelligent gelatin films for monitoring the degree of fermentation of Pla-Som, a Thai fermented fish product. Paper presented in The 30th Annual Meeting of the Thai Society for Biotechnology and International Conference. 22-23 November 2018, Bangkok, Thailand. 671-680.

2018 **Kaewprachu, P.**, Amara, C. B., Oulahal, N., Gharsallaoui, A., Joly, C., Tongdeesoontorn, W., Rawdkuen, S, & Degraeve, P. (2018). Gelatin films with nisin and catechin for minced pork preservation. Food Packaging and Shelf Life, 18, 173-183.

2018 **Kaewprachu, P.**, Osako, K., & Rawdkuen, S. (2018). Effect of plasticizers on properties of fish myofibrillar protein film. Journal of Food Science and Technology, 55, 3046-3055.

2018 **Kaewprachu, P.**, Osako, K., Rungraeng, N., & Rawdkuen, S. (2018). Characterization of fish myofibrillar protein film incorporated with catechin-Kradon extract. International Journal of Biological Macromolecules, 107, 1463-1473.

2017 **Kaewprachu, P.**, Rungraeng, N. Osako, K., & Rawdkuen, S. (2017). Properties of fish myofibrillar protein film incorporated with catechin-Kradon extract. Food Packaging and Shelf Life, 13, 56-65.

2017 **Kaewprachu, P.**, Osako, K., Benjakul, S., Suthiluk, P., & Rawdkuen, S. (2017). Shelf life extension for Bluefin tuna slices (*Thunnus thynnus*) wrapped with myofibrillar protein film incorporated with catechin-Kradon extract. Food Control, 79, 333-343.

2017 **Kaewprachu, P.**, Osako, K., Tongdeesoontorn, W., & Rawdkuen, S. (2017). The effects of microbial transglutaminase on the properties of fish myofibrillar protein film. Food Packaging and Shelf Life, 12, 91-99.

2016 **Kaewprachu, P.**, Osako, K., Benjakul, S., Benjakul, S., & Rawdkuen, S. (2016). Effect of protein concentrations on the properties of fish myofibrillar protein based film compared with PVC film. Journal of Food Science and Technology, 53, 2083-2091.

2016 **Kaewprachu, P.**, Osako, K., Benjakul, S., Tongdeesoontorn, W., & Rawdkuen, S. (2016). Biodegradable protein-based films and their properties: A comparative study. Packaging Technology and Science, 29, 77-90.

2015 **Kaewprachu, P.**, Osako, K., Benjakul, S., & Rawdkuen, S. (2015). Quality attributes of minced pork wrapped with catechin–lysozyme incorporated gelatin film. Food Packaging and Shelf Life, 3, 88-96.

Documents by author: 42
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