ASSOCIATE PROFESSOR DR MANAT CHAIJAN
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SUMMARY
Dr Chaijan is currently research director of School of Agricultural Technology and Food Industry, Walailak University. He obtained a Ph.D. degree in Food Technology specializing in Food Chemistry from Prince of Songkla University, Thailand. He is a principal investigator for many research projects. His current researches emphasize on functional properties of food components, functional food ingredients, food lipids, and food proteins.

EDUCATION

2002-2006	PhD, Food Technology, Prince of Songkla University, Thailand (RGJ-PhD scholarship)
1998-2002	BSc, Food Technology, Walailak University, Thailand

WORK EXPERIENCE

2006-2008	Lecturer, Department of Agro-Industry, School of Agricultural Technology, Walailak University
2008-2012	Assistant Professor, Department of Agro-Industry, School of Agricultural Technology, Walailak University
2012-Present	Associate Professor, Department of Agro-Industry, School of Agricultural Technology, Walailak University
2012-2013	Visiting Researcher, Department of Food and Nutrition Science, Chalmers University of Technology, Sweden
2013-2016	Head of Department of Agro-Industry, School of Agricultural Technology, Walailak University
2013-2016	Head of Functional Food Research Unit, Walailak University
2016-2019	Head of Food Technology and Innovation Research Center of Excellence, Walailak University
2019-Present	Research Director of School of Agricultural Technology and Food Industry, Walailak University
2017-Present	Associate Editor of Songklanakarin Journal of Science and Technology (SJST)
2019-Present	Review Editor in Applied Sciences of Trends in Sciences (TiS)

ON-GOING RESEARCH PROJECTS

-Protein isolation and removal of off-odor causing compounds from farm-raised catfish using pH-shift process (NRCT/RGJ-PhD scholarship)
-Novel strategies in preventing myoglobin-mediated lipid oxidation during production of mackerel (*Rastrelliger kanagurta*) surimi (NRCT/RGJ-PhD scholarship)
-Extraction and characterization of protein and lipid from pig brain for application in food and cosmetic products (NRCT/RRI-PhD scholarship)
-Mackerel (*Auxis thazard*) surimi: Tuning the washing process for maximum myoglobin and lipid removal and the impact of dual-functional stabilizers on gel-forming ability and oxidative stability (NRCT/mid-career research grant)
-Functional foods and ingredients from local bioresources (NRCT/Basic Research Fund)

PROFESSIONAL AWARDS

-Walailak University Outstanding Researcher Award, 2019
-Silver medal from the Thailand Inventors' Day 2019
-Outstanding researcher award, Walailak University 2016
-Honorable mention in Poster Competition in Food Innovation Asia Conference 2016 BITEC, Bangkok, Thailand
-Honorable mention in Poster Competition in Food Innovation Asia Conference 2015 BITEC, Bangkok, Thailand
-Outstanding research award, Thailand Research Fund 2011
-1st Place Award in Poster Competition in Food Innovation Asia Conference 2010, BITEC, Bangkok, Thailand
-2nd Place Award in Poster Competition in Food Innovation Asia Conference 2010, BITEC, Bangkok, Thailand
-Outstanding research award, Thailand Research Fund 2007

BOOKS

1. **Chaijan, M.** & Panpipat, W. 2017. Mechanism of oxidation in foods of animal origin. In Banerjee, R., Verma, A.K., and Siddigqui, M.W. (Eds.). Natural Antioxidants: Applications in Foods of Animal Origin. Apple Academic Press: Waretown, NJ. pp. 1-37.
2. Panpipat, W., & **Chaijan, M. 2016.** Ionic liquids in the synthesis of sugar/carbohydrate and lipid conjugates. In Xu, X., Guo, Z. and Cheong, L-Z. (Eds.). Ionic liquids in lipid processing and analysis. AOCS Press: Urbana, IL. pp. 347-372.
3. Panpipat, W., & **Chaijan. M.** 2015. Palm phospholipids. In Ahmad, M.U. & Xu, X. (Eds.), Polar Lipids. AOCS Press: Urbana, IL. pp. 78-91.
4. **Chaijan, M.** 2011. Meat, Poultry, and Egg Products Technology. Walailak University. 339 p. (in Thai).

PUBLICATIONS

1. **Chaijan, M.**, Benjakul, S., Visessanguan, W., & Faustman, C. (2004). Characteristics and gel properties of muscles from sardine (Sardinella gibbosa) and mackerel (*Rastrelliger kanagurta*) caught in Thailand. Food Research International, 37, 1021-1030.
2. **Chaijan, M.**, Benjakul, S., Visessanguan, W., & Faustman, C. (2005). Changes of pigments and colour in sardine (*Sardinella gibbosa*) and mackerel (*Rastrelliger kanagurta*) muscle during iced storage. Food Chemistry, 93, 607-617.
3. **Chaijan, M.**, Benjakul, S., Visessanguan, W., & Faustman, C. (2006). Physicochemical properties, gel-forming ability and myoglobin content of sardine (*Sardinella gibbosa*) and mackerel (*Rastrelliger kanagurta*) surimi produced by conventional method and alkaline solubilisation process. European Food Research and Technology, 222, 58-63.
4. **Chaijan, M.**, Benjakul, S., Visessanguan, W., & Faustman, C. (2006). Changes of lipids in sardine (*Sardinella gibbosa*) muscle during iced storage. Food Chemistry, 99, 83-91.
5. **Chaijan, M.**, Benjakul, S., Visessanguan, W., & Faustman, C. (2007). Characterization of myoglobin from sardine (*Sardinella gibbosa*) dark muscle. Food Chemistry, 100, 156-164.
6. **Chaijan, M.**, Benjakul, S., Visessanguan, W., Lee, S., & Faustman, C. (2007). Effect of ionic strength and temperature on interaction between fish myoglobin and myofibrillar proteins. Journal of Food Science, 72, C89-C95.
7. **Chaijan, M.**, Benjakul, S., Visessanguan, W., & Faustman, C. (2007). Interaction between fish myoglobin and myosin in vitro. Food Chemistry, 103, 1168-1175.
8. **Chaijan, M.**, Benjakul, S., Visessanguan, W., Lee, S., & Faustman, C. (2007). The effect of freezing and aldehydes on the interaction between fish myoglobin and myofibrillar proteins. Journal of Agricultural and Food Chemistry, 55, 4562-4568.

9. **Chaijan, M.**, Benjakul, S., Visessanguan, W., Lee, S., & Faustman, C. (2008). Interaction of fish myoglobin and myofibrillar proteins.Journal of Food Science, 73, C292-C298.
10. Rawdkuen, S., Jongjareonrak, A., Benjakul, S., & **Chaijan, M.** (2008). Discoloration and lipid deteriorations of farmed giant catfish (*Pangasianodon gigas*) muscle during refrigerated storage. Journal of Food Science, 73, C179-C184.
11. Rawdkuen, S., Sai-Ut, S., Khamsorn, S., **Chaijan, M.**, & Benjakul, S. (2009). Biochemical and gelling properties of tilapia surimi and protein recovered using an acid-alkaline process. Food Chemistry, 112, 112-119.
12. **Chaijan, M.** (2009). Effect of different saturated aldehydes on the changes in sardine (*Sardinella gibbosa*) myoglobin stability. Asian Journal of Food and Agro-Industry, 2, 28-38.
13. **Chaijan, M.**, Kewmanee, D., Hirunkan, F., Aryamuang, S., & Panpipat, W. (2009). Oxidative stability of refrigerated mackerel fillet as influenced by Maillard reaction products. Asian Journal of Food and Agro-Industry, 2, 917-931.
14. Jongjareonrak, A., Rawdkuen, S., **Chaijan, M.**, Benjakul, S., Osako, K., & Tanaka, M. (2010). Chemical composition and characterization of skin gelatin from farmed giant catfish (*Pangasianodon gigas*). LWT-Food Science and Technology, 43, 161-165.
15. **Chaijan, M.**, Jongjareonrak, A., Benjakul, S., & Rawdkuen, S. (2010). Chemical compositions and fresh quality attributes of farmed giant catfish (*Pangasiannodon gigas*) muscle. LWT-Food Science and Technology, 43, 452-457.
16. **Chaijan, M.**, Panpipat, W., & Benjakul, S. (2010). Physicochemical properties and gel-forming ability of surimi from three species of mackerel caught in Southern Thailand. Food Chemistry, 121, 85-92.
17. Panpipat, W., **Chaijan, M.**, & Benjakul, S. (2010). Gel properties of mackerel-croaker surimi blend. Food Chemistry, 122, 1122-1128.
18. **Chaijan, M.**, Panpipat, W., & Benjakul, S. (2010). Physicochemical and gelling properties of short-bodied mackerel (*Rastrelliger brachysoma*) surimi and protein recovered using alkaline-aided process. Food Bioproduct Processing, 88, 174-180.
19. **Chaijan, M.**, & Panpipat, W. (2010). Gel-forming ability of mackerel (Rastrelliger branchysoma) protein isolate as affected by microbial transglutaminase. Walailak Journal of Science and Technology, 7(1), 41-49.
20. Panpipat, W., Sutthirak, W., & **Chaijan, M.** (2010). Free radical scavenging activity and reducing capacity of five southern Thai indigenous vegetable extracts. Walailak Journal of Science and Technology, 7(1), 51-60.
21. **Chaijan, M.**, Ketmuna, S., Kamonmarn, T., & Panpipat, W. (2010). Effect of setting on gel characteristics of pork ball. King Mongkut's Agricultural Journal, 28(2), 61-67. (in Thai).
22. **Chaijan, M.** (2011). Physicochemical changes of tilapia (*Oreochromis niloticus*) muscle during salting. Food Chemistry, 129, 1201-1210.
23. Klomklao, S., Benjakul, S., Kishimura, H., & **Chaijan, M.** (2011). 24 kDa Trypsin: A predominant protease purified from the viscera of hybrid catfish (*Clarias macrocephlus* x *Clarias gariepinus*). Food Chemistry, 129, 739-746.
24. Klomklao, S., Benjakul, S., Kishimura, H., & **Chaijan, M.** (2011). Extraction, purification and properties of trypsin inhibitor from Thai mung bean (*Vigna radiate* (L.) R. Wilczek). Food Chemistry, 129, 1348–1354.
25. Panpipat, W., & **Chaijan, M.** (2011). Extraction and free radical scavenging activity of crude carotenoids from palm oil meal. Asian Journal of Food and Agro-Industry, 4, 382-387.

26. Panpipat, W., & **Chaijan, M.** (2012). Changes in physicochemical and textural properties of stuffed fish stick during storage. Asian Journal of Food and Agro-Industry, 5, 29-38.
27. **Chaijan, M.**, & Panpipat, W. (2012). Darkening prevention of fermented shrimp paste by pre-soaking whole shrimp with pyrophosphate. Asian Journal of Food and Agro-Industry, 5, 163-171.
28. **Chaijan, M.**, Sujjanan, A., Padprapa, S., & Panpipat, W. (2012). Preparation and characteristics of fish seasoning powder. Asian Journal of Food and Agro-Industry, 5, 521-530.
29. **Chaijan, M.**, Klomklao, S., & Benjakul, S. (2013). Characterisation of muscles from Frigate mackerel (*Auxis thazard*) and catfish (*Clarias macrocephalus*). Food Chemistry, 139, 414-419.
30. Wongwichian, C., **Chaijan, M.**, & Klomklao, S. (2013). Physicochemical instability of muscles from two species of scad during iced storage. Chiang Mai Journal of Science, 40, 681-688.
31. Limsuwanmanee, J., **Chaijan, M.**, Manurakchinakorn, S., Panpipat, W., Klomklao, S., & Benjakul, S. (2014). Antioxidant activity of Maillard reaction products derived from stingray (*Himantura signifier*) non-protein nitrogenous fraction and sugar model systems. LWT-Food Science and Technology, 57, 718-724.
32. **Chaijan, M.**, & Undeland, I. (2015). Development of a new method for determination of total haem protein in fish muscle. Food Chemistry, 173, 1133-1141.
33. Wongwichian, C., Klomklao, S., Panpipat, W., Benjakul, S., & **Chaijan, M.** (2015). Interrelationship between myoglobin and lipid oxidations in oxeye scad (*Selar boops*) muscle during iced storage. Food Chemistry, 174, 279-285.
34. Panpipat, W., & **Chaijan, M.** (2015). Biochemical and physicochemical characteristics of protein isolates from bigeye snapper (*Priacanthus tayenus*) head by-product using pH shift method. Turkish Journal of Fisheries and Aquatic Sciences, 16, 41-50.
35. Kongkeaw, S., Riebroy, S., & **Chaijan, M.** (2015). Comparative studies on chemical composition, phenolic compounds and antioxidant activities of brown and white perilla (*Perilla frutescens*) seeds. Chiang Mai Journal of Science, 42, 896-906.
36. Sripokar, P., Poonsin, T., **Chaijan, M.**, Benjakul, S., & Klomklao, S. (2016). Proteinases from the liver of albacore tuna (*Thunnus alalunga*): Optimum extractant and biochemical characteristics. Journal of Food Biochemistry, 40, 10-19.
37. Sripokar, P., **Chaijan, M.**, Benjakul, S., Kishimura, H., & Klomklao, S. (2016) Enzymatic hydrolysis of starry triggerfish (*Abalistes stellaris*) muscle using liver proteinase from albacore tuna (*Thunnus alalunga*). Journal of Food Science and Technology, 53, 1047-1054.
38. Abdollahi, M., Marmon, S., **Chaijan, M.**, & Undeland, I. (2016). Tuning the pH-shift protein-isolation method for maximum hemoglobin-removal from blood rich fish muscle. Food Chemistry, 212, 213-224.
39. Techasirinukun, P., **Chaijan, M.**, & Riebroy, S. (2016). Effect of setting conditions on proteolysis and gelling properties of spotted featherback (*Chitala ornata*) muscle. LWT-Food Science and Technology, 66, 318-323.
40. Wongwichian, C., **Chaijan, M.**, Panpipat, W., Klomklao, S., & Benjakul, S. (2016). Autolysis and characterisation of sarcoplasmic and myofibril associated proteinases of oxeye scad (*Selar boops*) muscle. Journal of Aquatic Food Product Technology, 25, 1132-1143.
41. Panpipat, W., & **Chaijan, M.** (2016). Potential production of healthier protein isolate from broiler meat using modified acid-aided pH shift process. Food and Bioprocess Technology, 9, 1259-1267.

42. Panpipat, W., & **Chaijan, M.** (2017). Functional properties of pH shifted protein isolates from bigeye snapper (*Priacanthus tayenus*) head by-product. International Journal of Food Properties, 20, 596-610.
43. **Chaijan, M.**, Panpipat, W., & Nisoa, M. (2017). Chemical deterioration and discoloration of semi-dried tilapia processed by sun drying and microwave drying. Drying Technology, 35, 642-649.
44. Panpipat, W., & **Chaijan, M.** (2017). Palm stearin as a pork back fat replacer for semi-dried tilapia sausage. Turkish Journal of Fisheries and Aquatic Sciences, 17, 417-425.
45. **Chaijan, M.**, & Panpipat, W. (2017). Removal of lipids, cholesterol, nucleic acids and haem pigments during production of protein isolates from broiler meat using pH-shift processes. International Journal of Food Engineering, 13(4), 20160187.
46. Somjid, P., Panpipat, W., & **Chaijan, M.** (2017). Carbonated water as a novel washing medium for mackerel (*Auxis thazard*) surimi production. Journal of Food Science and Technology, 54, 3979-3988.
47. Meannui, N., Riebroy, S., Tangwatcharin, P., Hong, J. H., Sumpavapol, P., & **Chaijan, M.** (2017). β-glucosidase producing Bacillus isolated from Thua-nao, an indigenous fermented soybean food in Thailand. Chiang Mai Journal of Science, 44, 1257-1269.
48. Panpipat, W., **Chaijan, M.**, & Guo, Z. (2018). Oxidative stability of margarine enriched with different structures of β-sitosteryl esters during storage. Food Bioscience, 22, 78-84.
49. Wibowo, A., Panpipat, W., Kim, S. R., & **Chaijan, M.** (2019). Characteristics of Thai native beef slaughtered by traditional Halal method. Walailak Journal of Science and Technology, 16, 443-453.
50. **Chaijan, M.**, & Panpipat, W. (2019). Basic composition, antioxidant activity and nanoemulsion behavior of oil from mantis shrimp (*Oratosquilla nepa*). Food Bioscience, 31, 100448.
51. Sungpud, C., Panpipat, W., Sae Yoon, A., & **Chaijan, M.** (2019). Tuning of virgin coconut oil and propylene glycol ratios for maximizing the polyphenol recovery and in vitro bioactivities of mangosteen (*Garcinia mangostana* L.) pericarp. Process Biochemistry, 87, 179-186.
52. Phetrit, R., **Chaijan, M.**, Sorapukdee, S., & Panpipat, W. (2020). Characterization of nipa palm's (*Nypa fruticans* Wurmb.) sap and syrup as functional food ingredients. Sugar Tech, 22, 191-201.
53. Sungpud, C., Panpipat, W., **Chaijan, M.**, & Sae Yoon, A. (2020). Techno-biofunctionality of mangostin extract-loaded virgin coconut oil nanoemulsion and nanoemulgel. Plos One, 5(1), e0227979.
54. Panpipat, W., & **Chaijan, M.** (2020). Effect of atmospheric pressure cold plasma on biophysical properties and aggregation of natural actomyosin from threadfin bream (*Nemipterus bleekeri*). Food and Bioprocess Technology, 13, 851-859.
55. Cheenkaew, Y., Panpipat, W., & **Chaijan, M.** (2020). Southern-style Pad Thai sauce: from traditional culinary treat to convenience food in retortable pouches. Plos One, 15(5), e0233391.
56. Sungpud, C., Panpipat, W., Sae Yoon, A., & **Chaijan, M.** (2020). Polyphenol extraction from mangosteen (*Garcinia mangostana* Lnn) pericarp by bio-based solvents. International Food Research Journal, 27, 111-120.
57. Panpipat, W., & **Chaijan, M.** (2020). Physicochemical and techno-functional properties of acid-aided pH shifted protein isolate from over-salted duck eggs (*Anas platyrhuc*us) albumen. International Journal of Food Science and Technology, 55, 2619-2629.

58. Chinarak, K., **Chaijan, M.**, & Panpipat, W. (2020). Farm-raised sago palm weevil (*Rhynchophorus ferrugineus*) larvae: Potential and challenges for promising source of nutrients. Journal of Food Composition and Analysis, 92, 103542.
59. Chaijan, S., Panpipat, W., Panya, A., Cheong, L., & **Chaijan, M.** (2020). Preservation of chilled Asian sea bass (*Lates calcarifer*) steak by whey protein isolate coating containing polyphenol extract from ginger, lemongrass, or green tea. Food Control, 118, 107400.
60. Sungpud, C., Panpipat, W., Sae Yoon, A., & **Chaijan, M.** (2020). Ultrasonic-assisted virgin coconut oil based extraction for maximizing polyphenol recovery and bioactivities of mangosteen peels. Journal of Food Science and Technology, 57, 4032-4043.
61. Tamprasit, P., Panpipat, W., & **Chaijan, M.** (2020). Improved radical scavenging activity and stabilised colour of nipa palm syrup after ultrasound-assisted glycation with glycine. International Journal of Food Science and Technology, 55, 3424-3431.
62. **Chaijan, M.**, & Panpipat, W. (2020). Instability of β-sitosteryl oleate and β-sitosterol loaded in oil-in-water emulsion. NFS Journal, 21, 22-27.
63. **Chaijan, M.**, Srirattanachot, K., & Panpipat, W. (2021). Biochemical property and gel-forming ability of surimi-like material from goat meat. International Journal of Food Science and Technology, 56, 988-998.
64. **Chaijan, M.** & Panpipat, W. (2021). Techno-biofunctional aspect of seasoning powder from farm-raised sago palm weevil (*Rhynchophorus ferrugineus*) larvae. Journal of Insects as Food and Feed, 7, 187-195.
65. Panpipat, W., Cheong, L., & **Chaijan, M.** (2021). Impact of lecithin incorporation on gel properties of bigeye snapper. International Journal of Food Science and Technology, 56, 2481-2491.
66. **Chaijan, M.**, Srirattanachot, K., Nisoa, M., Cheong, L. Z., & Panpipat, W. (2021). Role of antioxidants on physicochemical properties and in vitro bioaccessibility of β-carotene loaded nanoemulsion under thermal and cold plasma discharge accelerated tests. Food Chemistry, 128157.
67. **Chaijan, M.**, & Panpipat, W. (2021). Pre-neutralized crude palm oil as natural colorant and bioactive ingredient in tilapia sausage. LWT-Food Science and Technology. 135, 110289.
68. Phetsang, H., Panpipat, W., Undeland, I., Panya, A., Phonsatta, N., & **Chaijan, M.** (2021). Comparative quality and volatilomic characterisation of unwashed mince, surimi, and pH-shift-processed protein isolates from farm-raised hybrid catfish (*Clarias macrocephalus* × *Clarias gariepinus*). Food Chemistry, 364, 130365.
69. **Chaijan, M.**, Cheong, L., & Panpipat, W. (2021). Rice bran oil emulgel as a pork back fat alternate for semi-dried fish sausage. PloS One, 16(4), e0250512.
70. Saengkrajang, W., **Chaijan, M.**, & Panpipat, W. (2021). Physicochemical properties and nutritional compositions of nipa palm (*Nypa fruticans* Wurmb) syrup. NFS Journal, 23, 58-65.
71. Chinarak, K., Panpipat, W., Summpunn, P., Panya, A., Phonsatta, N., Cheong, L., & **Chaijan, M.** (2021). Insights into the effects of dietary supplements on the nutritional composition and growth performance of sago palm weevil (*Rhynchophorus ferrugineus*) larvae. Food Chemistry, 363, 130279.
72. Choopan, W., Panpipat, W., Nisoa, M., Cheong, L., & **Chaijan, M.** (2021). Physico-chemical aspects of Thai fermented fish viscera, Tai-Pla, curry powder processed by hot air drying and hybrid microwave-infrared drying. PloS One, 16(6), e0253834.
73. **Chaijan, M.**, Chumthong, K., Kongchoosi, N., Chinarak, K., Panya, A., Phonsatta, N., Cheong, L-Z., & Panpipat, W. (2021). Characterisation of pH-shift-produced

protein isolates from sago palm weevil (*Rhynchophorus ferrugineus*) larvae. Journal of Insects as Food and Feed. Accepted.

74. **Chaijan, M.**, Srirattanachot, K., Nisoa, M., Cheong, L., & Panpipat, W. (2021). Practical use of β-carotene loaded nanoemulsion as a functional colourant in sausages made from goat meat surimi-like material. International Journal of Food Science and Technology, 56, 4000-4008.
75. Oppong, D., Panpipat, W., & **Chaijan, M.** (2021). Chemical, physical, and functional properties of Thai indigenous brown rice flours. PloS One, 16(8), e0255694.
76. Petcharat, T., **Chaijan, M.**, & Karnjanapratum, S. (2021). Effect of furcellaran incorporation on gel properties of sardine surimi. International Journal of Food Science & Technology, 56(11), 5957-5967.
77. Kingwascharapong, P., **Chaijan, M.**, & Karnjanapratum, S. (2021). Ultrasound-assisted extraction of protein from Bombay locusts and its impact on functional and antioxidative properties. Scientific Reports, 11(1), 1-14.
78. **Chaijan, M.**, Chaijan, S., Panya, A., Nisoa, M., Cheong, L. Z., & Panpipat, W. (2021). High hydrogen peroxide concentration-low exposure time of plasma-activated water (PAW): A novel approach for shelf-life extension of Asian sea bass (*Lates calcarifer*) steak. Innovative Food Science & Emerging Technologies, 74, 102861.
79. Laosam, P., Panpipat, W., Yusakul, G., Cheong, L. Z., & **Chaijan, M.** (2021). Porcine placenta hydrolysate as an alternate functional food ingredient: In vitro antioxidant and antibacterial assessments. PloS One, 16(10), e0258445.
80. Chumsri, P., **Chaijan, M.**, & Panpipat, W. (2021). A comparison of nutritional values, physicochemical features, and in vitro bioactivities of Southern Thai short grain brown rice with commercial long grain varieties. International Journal of Food Science & Technology, 65, 6515-6526.
81. **Chaijan, M.**, Rodsamai, T., Charoenlappanit, S., Roytrakul, S., Panya, A., Phonsatta, N., Cheong, L.-Z., & Panpipat, W. (2021). Characterization of antioxidant peptides from Thai traditional semi-dried fermented catfish. Fermentation, 7, 262.
82. **Chaijan, M.**, Rodsamai, T., Charoenlappanit, S., Roytrakul, S., Panya, A., Phonsatta, N., Cheong, L.-Z., & Panpipat, W. (2021). Antioxidant activity and stability of endogenous peptides from farmed hybrid catfish (*Clarias macrocephalus* × *Clarias gariepinus*) muscle. International Journal of Food Science & Technology. Accepted.
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84. Somjid, P., Panpipat, W., Petcharat, T., & **Chaijan, M.** (2021).Biochemical property and gel-forming ability of mackerel (*Auxis thazard*) surimi prepared by ultrasonic assisted washing. RSC Advances, 11, 36199-36207.
85. Somjid, P., Panpipat, W., Cheong, L. Z., & **Chaijan, M.** (2021). Reduced washing cycle for sustainable mackerel (*Rastrelliger kanagurta*) surimi production: Evaluation of bio-physico-chemical, rheological, and gel-forming properties. Foods, 10(11), 2717.
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87. Oppong, D., Panpipat, W., Cheong, L. Z., & **Chaijan, M.** (2021). Comparative effect of frying and baking on chemical, physical, and microbiological characteristics of frozen fish nuggets. Foods, 10(12), 3158.
88. **Chaijan, M**., Chaijan, S., Panya, A., Nisoa, M., Cheong, L. Z., & Panpipat, W. (2021). Combined effects of prior plasma-activated water soaking and whey protein isolate-ginger extract coating on the cold storage stability of Asian sea bass (*Lates calcarifer*) steak. Food Control, 108787.
89. Wibowo, A., Suhardi, S., Indana, K., Candra, K. P**., Chaijan, M.**, & Hanum, Z. (2021). Critical factors affecting the quality of the longissimus lumborum from native Thai cattle (*Bos indicus*). Advances in Animal and Veterinary Sciences, 10(1), 107-113.
90. Phetsang, H., Panpipat, W., Panya, A., Phonsatta, N., Cheong, L. Z., & **Chaijan, M.** (2022). Chemical characteristics and volatile compounds profiles in different muscle part of the farmed hybrid catfish (*Clarias macrocephalus* × *Clarias gariepinus*). International Journal of Food Science & Technology, 57, 310-322.
