



Assistant Professor Dr. Wasina Thakhiew

Workplace address Department of Nutrition, Faculty of Public Health,
Mahidol University 420/1 Ratchawithi RD.,
Ratchathewi District, Bangkok 10400. Thailand

Contact number (+66) 0-2354-8539, (+66) 0-2354-543-9 Ext. 1205

Fax. (+66) 0- 2354-8539

E-mail wasina.tha@mahidol.ac.th

Education

Degree	Field of study	University or institute (country)	Graduation year
Ph.D.	Energy Technology	King Mongkut's University of Technology Thonburi, Thailand	2014
M.Eng.	Food Engineering	King Mongkut's University of Technology Thonburi, Thailand	2004
B.Sc.	Food Process Engineering	Chiang Mai University, Thailand	1999

Research expertise

- Food Engineering and processing
- Drying of food and bio-materials

Research interests

1. Drying of food and bio-materials, e.g. fruits, vegetables, herb and edible films
2. Food processing development

Research projects

1. on-going

- Quality and fatty acid composition of vacuum rendered duck oil
- Development of low glycemic index cake mix product

- Development of protein enriched biscuit stick

2. completed

- Development of low-energy meringue and tuile
- Development and Clinical trial of efficacy of date palm beverage containing encapsulated herbal bead on breast milk quality and quantity

Publications

1. National

-

2. International

- 2019 • Prateepchanachai, S., **Thakhiew, W.**, Devahastin, S., Soponronnarit, S. (2019). Improvement of mechanical and heat-sealing properties of edible chitosan films via addition of gelatin and CO₂ treatment of film-forming solutions. *International Journal of Biological Macromolecules*, 131, p. 589-600.
- 2017 • Prateepchanachai, S., **Thakhiew, W.**, Devahastin, S., Soponronnarit, S., (2017). Mechanical Properties Improvement of Chitosan Films via the Use of Plasticizer, Charge Modifying Agent and Film Solution Homogenization. *Carbohydrate Polymers*, 174, p. 253-61.
- 2015 • **Thakhiew, W.**, Champahom, M., Devahastin, S., Soponronnarit, S. (2015). Improvement of mechanical properties of chitosan-based films via physical treatment of film-forming solution. *Journal of Food Engineering*, 158, 66-72.
- 2014 • **Thakhiew W.**, Devahastin S., Soponronnarit S. (2014). Combined effects of drying methods, extract concentration, and film thickness on efficacy of antimicrobial chitosan films. *Journal of Food Science*, 79, E1150-E1158.
- 2013 • **Thakhiew W.**, Devahastin S., Soponronnarit S. (2013). Physical and mechanical properties of chitosan films as affected by drying methods and addition of antimicrobial agent. *Journal of Food Engineering*, 119, 140-149.
- 2011 • **Thakhiew W.**, Waisayawan P., Devahastin S. (2011). Comparative evaluation of mathematical models for release of antioxidant from chitosan films prepared by different drying methods. *Drying Technology*, 29, 1396-1403.

- 2010 • **Thakhiew W.**, Devahastin S., Soponronnarit S. (2010). Effects of drying methods and plasticizer concentration on some physical and mechanical properties of edible chitosan films. *Journal of Food Engineering*, 99, 216-224.

Academic conferences

1. National

- 2019 • Buree N, **Thakhiew W.** Effect of substitution of sucrose with isomaltulose and addition of polydextrose on the predicted glycemic index and some quality properties of sponge cake. In: *Proceedings of The 11th Science Research Conference (SRC 2019 Smart science smart world)*; 23-24 May 2019, Srinakarinwirot University. Bangkok Thailand; 2019. p. 1135-45
- 2019 • **Thakhiew W.**, Jaroeninwong P, Glomkon S, Lilitchan S. Effect of ferulic acid and its derivatives on physical and chemical properties of encapsulated avocado oil using spray drying. In: *Proceedings of The 11th Science Research (SRC 2019 Smart science smart world)*; 23-24 May 2019, Srinakarinwirot University, Bangkok, Thailand; 2019. p. 1126-1134.
- 2002 • **Takhiew W.**, Pimsamarn J., Nopparat M., and Tongta A. (2002). Diffusion of Salt in Fish during Salting Process. In: *The 14th Annual Meeting of the Thai Society for Biotechnology, "Biotechnology for Better Living in the New Economy"*, November 12-15, Sophitel Raja Orchid Hotel, Konkan, pp.207.

2. International

- 2020 • Buree N, **Thakhiew W.**, Chaiyakul S, Niamnuy C. Development of low glycemic cake mix In: Poonlarp P, editor. *Proceedings of the 5th International Conference on Food and Applied Bioscience 2020: Insights for Research and Industry 4.0*; 6-7 Feb 2020; Chiang Mai, Thailand. Chiang Mai: Chiang Mai University; 2020. p. 53-64.
- 2017 • Prateepchanachai, S., **Thakhiew, W.**, Devahastin, S., Soponronnarit, S. (2017). Improvement of Mechanical and Heat Sealing Properties of Chitosan Films via the Use of Glycerol and Gelatin Blends in Film-Forming Solution. In: *Proceeding*

of the 10th TSAE International Conference (TSAE 2017), Sep 7-9; Bangkok, Thailand, p. 30-35.

- **Thakhiew W.**, Suwannaraj J., Natekaew N., Buree N. and Devahastin S., Soponronnarit S. (2017). Effects of egg white concentration and whipping time on quality of foam and dried foam-mat crisp yogurt. In: the 17th Congress, Asian Pacific Confederation of Chemical Engineering (APCCHE 2017); 2017 Aug 23-27; Hong Kong. (POSTER)
- 2016 ● Prateepchanachai S, Devahastin S, **Thakhiew W**, Soponronnarit S. (2016). Combined Use of Plasticizer, Charge Modifying Agent and Homogenization to Improve Mechanical Properties of Chitosan Films. In: Proceeding of the 9th TSAE International Conference (TSAE 2016); 2016 Sep 8-10; Bangkok, Thailand. p. 148-53.
- 2015 ● Devahastin S, **Thakhiew W**, Soponronnarit S. (2015). Selected physical modification techniques to improve mechanical properties biopolymer-based packaging: A brief review. In: Proceeding of the 8th TSAE International Conference (TSAE 2015); 2015 Mar 17-19; Bangkok, Thailand. p. 12-6.
- Prateepchanachai S, Devahastin S, **Thakhiew W**, Soponronnarit S. (2015). Improvement of mechanical properties of edible chitosan films by combined use of plasticizer and emulsifier. In: Proceeding of the 8th TSAE International Conference (TSAE 2015); 2015 Mar 17-19; Bangkok, Thailand. p. 205-8.
- 2009 ● **Thakhiew W.**, Devahastin S., Soponronnarit S. (2009). Effects of drying methods and plasticizer concentration on some physical and mechanical properties of edible chitosan films. In: Proceedings of the 6th Asia-Pacific Drying Conference (ADC 2009), Bangkok, Thailand, October 19-21.

