

# Tanathep Leungtongkum

254 Phayathai Road, Patumwan, Wang Mai, Bangkok 10330 Thailand

Mobile: +(66) 2 218 5319

E-mail: Tanathep.l@chula.ac.th

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## Education

- Ph.D. in Process Engineering, Université Paris-Saclay, Paris, France 2020 – 2023
- M.Sc. in Food Technology, Chulalongkorn University, Bangkok, Thailand, 2016 – 2019
- B.Sc. (1<sup>st</sup> honor) in Food Technology, Chulalongkorn University, Bangkok, Thailand 2011 – 2015

## Skills/Abilities

### Computer Proficiency

- Microsoft Office (Word, Excel and PowerPoint)
- IBM SPSS Statistics
- MATLAB
- Python
- COMSOL® Multiphysics
- ANSYS FLUENT

### Language Skill

- Fluent written and spoken English
- Intermediate written and spoken French (B2)

## Research experience and interests

- Fluid flow and heat transfer
- Food cold chain
- Numerical simulation techniques

## Work experience

- 2024 – Present Lecturer, Department of Food Technology, Chulalongkorn University, Bangkok, Thailand
- May – June 2023 Visiting researcher, University of Iceland, Reykjavík, Iceland
- 2019 –2020 R&D Officer (Process development), Thai Wah Public Co., Ltd., Bangkok, Thailand
- February – August 2019 Visiting researcher, Institut Polytechnique UniLasalle, Beauvais, France

## Publications

*In peer-reviewed journals*

- **Leungtongkum, T.**, Laguerre, O., Duret, S., & Flick, D. (2024). How to choose a model to address practical issues encountered during food transport in an insulated box equipped with phase change material. *Applied Thermal Engineering*, 239, 122085. <https://doi.org/10.1016/j.applthermaleng.2023.122085>
- **Leungtongkum T.**, Flick D., Chaomuang N., Denis A., & Laguerre O. (2024). Dataset of air velocity and temperature fields inside an insulated box equipped with phase change material under several operating conditions. *Data in Brief*, 52, 109934. <https://doi.org/10.1016/j.dib.2023.109934>.
- **Leungtongkum, T.**, Flick, D., Chaomuang, N., Denis, A., & Laguerre, O., (2023). Influence of Use Conditions on Heat Transfer in an Insulated Box Equipped with a Phase Change Material. *Journal of Food Engineering*, 357, 111644. <https://doi.org/10.1016/j.jfoodeng.2023.111644>
- **Leungtongkum, T.**, Laguerre, O., & Flick, D. (2023). Simplified heat transfer model for real- time temperature prediction in insulated boxes equipped with a phase change material. *International Journal of Refrigeration*. 149, 286-298. <https://doi.org/10.1016/j.ijrefrig.2023.02.009>
- **Leungtongkum, T.**, Laguerre, O., & Flick, D. (2023). The code of simplified heat transfer model for temperature prediction in an insulated box equipped with phase change material. *Software Impact*, 17, 100538. <https://doi.org/10.1016/j.simpa.2023.100538>

- **Leungtongkum, T.,** Laguerre, O., Flick, D., Denis, A., Duret, S., & Chaomuang, N. (2023). Experimental investigation of airflow and heat transfer by natural convection in an insulated box with a Phase Change Material using a Particle Image Velocimetry technique. *Journal of Food Engineering*, 336, 111207.  
<https://doi.org/10.1016/j.jfoodeng.2022.111207>
- **Leungtongkum, T.,** Flick, D., Hoang, H. M., Steven, D., Delahaye, A., & Laguerre, O. (2022). Insulated box and refrigerated equipment with PCM for food preservation: State of the art. *Journal of Food Engineering*, 317, 110874.  
<https://doi.org/10.1016/j.jfoodeng.2021.110874>
- **Leungtongkum, T.,** Laguerre, O., Flick, D., Denis, A., Duret, S., & Chaomuang, N. (2022). Dataset of experimental study investigation of airflow and heat transfer in an insulated box equipped with a phase change material. *Data in Brief*, 45, 108696.  
<https://doi.org/10.1016/j.dib.2022.108696>
- **Leungtongkum, T.,** Anuntagool, J., Niquet-Léridon, C., Hamoud-Agha, M. M., & Laguerre, J.-C. (2020). Iconographic correlation analysis for optimization of high caloric density enteral nutrition formulation. *Songklanakarinn Journal of Science and Technology*, 1286–1293.

*Communication in international conferences*

- **Leungtongkum, T.,** Flick, D., Chaomuang, N., Denis, A., & Laguerre, O. (2023, August 22). *CFD modelling of heat transfer and airflow in an insulated box equipped with Phase Change Material* [Oral presentation]. 26th International Congress of Refrigeration, Paris, France. <https://doi.org/10.18462/iir.icr.2023.0556>
- **Leungtongkum, T.,** Laguerre, O., & Flick, D. (2022, November 6). *Simplified heat transfer modelling for temperature prediction in an insulated box equipped with PCM* [Poster presentation]. 36th EFFoST 2022 International conference, Dublin, Ireland.
- **Leungtongkum, T.,** Flick, D., Hoang, H., Duret, S., Delahaye, A., & Laguerre, O. (2022, April 13). *Optimization of Food Transportation and Storage in an Insulated Box: Effect of Phase Change Material Position and Spacing Underneath the Load* [Oral presentation]. 7th IIR conference on Sustainability and the Cold Chain, Newcastle, UK [Online]. <https://doi.org/10.18462/iir.iccc2022.1117>
- **Leungtongkum, T.,** Anuntagool, J., Leridon, C., Hamoud-Agha, M., & Laguerre, J. (2019). Optimization of Microwave Heating of Liquid Enteral Nutrition Product Using Response Surface Methodology. In *The 21st Food Innovation Asia Conference 2019 (FIAC 2019)* (pp. 139-148). Bangkok