CURRICULUM VITAE

A. BUTIR-BUTIR PERIBADI ***(Personal Details)***			
Nama Penuh *(Full Name)*	**TAN TAI BOON**		Gelaran *(Title):* **DR.**
No. MyKad / No. Pasport *(Mykad No. / Passport No.)*	Warganegara *(Citizenship)* **Malaysia**	Bangsa *(Race)* **Chinese**	Jantina *(Gender)* **Male**
Jawatan *(Designation)*	**Pensyarah Kanan**	Tarikh Lahir *(Date of Birth)*	**December 1987**

Alamat Semasa *(Current Address)*	Jabatan/Fakulti *(Department/Faculty)*	E-mel dan URL *(E-mail Address and URL)*
Jabatan Teknologi Makanan, Fakulti Sains dan Teknologi Makanan, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor. Tel: -	Jabatan Teknologi Makanan, Fakulti Sains dan Teknologi Makanan, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor. Tel: - Fax: -	E-mel: taiboon_tan@upm.edu.my URL:

B. KELAYAKAN AKADEMIK ***(Academic Qualification)***			
Nama Sijil / Kelayakan *(Certificate / Qualification obtained)*	Nama Sekolah Institusi *(Name of School / Institution)*	Tahun *(Year obtained)*	Bidang pengkhususan *(Area of Specialization)*
Sijil Tinggi Persekolahan Malaysia (STPM)	SMK Permatang Rawa	2006	-
Bachelor's Degree	Universiti Putra Malaysia	2011	Food Science and Technology
Doctor of Philosophy	Universiti Putra Malaysia	2015	Food Technology

C. KEMAHIRAN BAHASA *(Language Proficiency)*					
Bahasa / *Language*	Lemah *Poor (1)*	Sederhana *Moderate (2)*	Baik *Good (3)*	Amat Baik *Very good (4)*	Cemerlang *Excellent (5)*
English					✓
Bahasa Melayu					✓
Chinese				✓	
Lain-lain *(other):*					

D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN

(Scientific experience and Specialisation)				
Organization	*Position*	*Start Date*	*End Date*	*Expertise*
-				

E. PEKERJAAN ***(Employment)***				
Majikan */ Employer*	Jawatan */ Designation*	Jabatan / *Department*	Tarikh lantikan / *Start Date*	Tarikh tamat / *Date Ended*
Universiti Putra Malaysia	Research Officer	Department of Food Technology	1 September 2015	22 Mei 2016
Universiti Putra Malaysia	Post-Doctoral Fellow	Department of Food Technology	23 May 2016	23 May 2019
Universiti Putra Malaysia	Senior Lecturer	Department of Food Service and Management	3 June 2019	31 March 2022
Universiti Putra Malaysia	Senior Lecturer	Department of Food Technology	1 April 2022	Present

F. ANUGERAH DAN HADIAH *(Honours and Awards)*				
Name of awards	*Title*	*Award Authority*	*Award Type*	*Year*
Academic Awards	Japan Student Services Organization (JASSO) Scholarship Recipient	Japan Student Services Organization	International	2015
Non-Academic Awards	-			
Awards of Merit	Tetra-Pak Achievement Award (Gold Medal)	Faculty of Food Science and Technology, UPM	University	2011
	Young Scientist Award	Malaysian Oil Scientists' and Technologists' Association (MOSTA)	National	2018

G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) *(List of publications – author (s), title, journal, volume, page and year published)*	
Journal	1. Taghavi, E., Mirhosseini, H., Tan, C. P., **Tan, T. B.**, Ngadin, A. A., Lani, M. N., . . . Anarjan, N. (2021). Formulation and functionalization of linalool nanoemulsion to boost its antibacterial properties against major foodborne pathogens. *Food Bioscience, 44.* 2. Toopkanloo, S. P., **Tan, T. B.**, Cheong, L.-Z., Liu, Y., & Tan, C. P. (2021). In vitro applicability of mixed soy lecithin-based liposomes with added several lipophilic agents as novel delivery systems for delivery of quercetin. *Journal of Dispersion Science and Technology.* 3. Niaz, A.; Adnan, A.; Bashir, R.; Mumtaz, M.W.; Raza, S.A.; Rashid, U.; Tan, C.P.; **Tan, T.B.** (2021). The In Vitro α-Glucosidase Inhibition Activity of Various Solvent Fractions of Tamarix dioica and 1H-NMR Based Metabolite Identification and Molecular Docking Analysis. *Plants, 10,* 1128 4. Tan, P.Y., **Tan, T.B.**, Chang, H.W., Mwangi, W.W., Tey, B.T., Chan, E.S., Lai, O.M., Liu, Y., Wang, Y. and Tan, C.P. (2021), Pickering emulsion-templated ionotropic gelation of tocotrienol microcapsules: effects of alginate and chitosan concentrations and gelation process parameters. *Journal of the Science of Food and Agriculture, 101,* 5963-5971. 5. Abd Hadi, H.M.; Tan, C.P.; Mohamad Shah, N.K.; **Tan, T.B.**; Niranjan, K.; Mat Yusoff, M. (2021). Establishment of an Effective Refining Process for Moringa oleifera Kernel Oil. *Processes, 9*, 579. 6. Soo, Y.N., Tan, C.P., Tan, P.Y., Khalid, N. and **Tan, T.B.** (2021), Fabrication of oil-in-water emulsions as shelf-stable liquid non-dairy creamers: effects of homogenization pressure, oil type, and emulsifier concentration. *Journal of the Science of Food and Agriculture, 101*, 2455-2462. 7. Hew, K. S., Khor, Y.P., **Tan, T. B.**, Yusoff, M. M., Lai, O. M., Asis, A. J., Alharthi, F. A., Nehdi, I. A., & Tan, C. P. (2021). Mitigation of 3-monochloropropane-1,2-diol esters and glycidyl esters in refined palm oil: A new and optimized approach. *LWT, 139,* 110612. 8. Tan, P.Y.; Tey, B.T.; Chan, E.S.; Lai, O.M.; Chang, H.W.; **Tan, T.B.**; Liu, Y.; Wang, Y.; Tan, C.P. (2021). Stabilization and Release of Palm Tocotrienol Emulsion Fabricated Using pH-Sensitive Calcium Carbonate. *Foods, 10,* 358. 9. Toopkanloo, S.P.; **Tan, T.B.**; Abas, F.; Alharthi, F.A.; Nehdi, I.A.; Tan, C.P. (2020). Impact of Quercetin Encapsulation with Added Phytosterols on Bilayer Membrane and Photothermal-Alteration of Novel Mixed Soy Lecithin-Based Liposome. *Nanomaterials, 10*, 2432 10. Ng, S. K., **Tan, T. B.**, Tan, P. F., Chong, G. H. & Tan, C. P. (2020). Effect of selected high pressure processing parameters on the sensory attributes and shelf life of jackfruit (*Artocarpus heterophyllus* L.) bulb packed using different packaging materials. *International Food Research Journal, 27,* 675-682. 11. Goh, K. M., Wong, Y. H., Abas, F., Lai, O. M., Mat Yusoff, M., Tan, T. B., Wang, Y., Nehdi, I. A., Tan, C. P. (2020). Changes in 3-, 2-monochloropropandiol and glycidyl esters during a conventional baking system with addition of antioxidants. *Foods, 9,* 739. 12. Liew, S. N., Utra, U., Alias, A. K., **Tan, T. B.**, Tan, C. P., & Yussof, N. S. (2020).

Physical, morphological and antibacterial properties of lime essential oil nanoemulsions prepared via spontaneous emulsification method. *LWT*, *128,* 109388.

13. Hew, K. S., Asis, A. J., **Tan, T. B.**, Yusoff, M. M., Lai, O. M., Nehdi, I. A., & Tan, C. P. (2020). Revising degumming and bleaching processes of palm oil refining for the mitigation of 3-monochloropropane-1,2-diol esters (3-MCPDE) and glycidyl esters (GE) contents in refined palm oil. *Food Chemistry, 307*, 125545

14. Chang, H. W., **Tan, T. B.**, Tan, P. Y., Nehdi, I. A., Sbihi, H. M., & Tan, C. P. (2020). Microencapsulation of fish oil-in-water emulsion using thiol-modified β-lactoglobulin fibrils-chitosan complex. *Journal of Food Engineering, 264*, 109680.

15. Hedayatnia, S., Tan, C. P., Joanne Kam, W.-L., **Tan, T. B.**, & Mirhosseini, H. (2019). Modification of physicochemical and mechanical properties of a new bio-based gelatin composite films through composition adjustment and instantizing process. *LWT, 116*, 108575

16. Ng, S. K., **Tan, T. B.**, Tan, P. F., Chong, G. H. & Tan, C. P. (2019). Effect of high pressure processing on the microbiological, physicochemical and enzymatic properties of jackfruit (*Artocarpus heterophyllus* L.) bulb. *Food Research, 3*, 213-220.

17. Tan, P. F., Ng, S. K., **Tan, T. B.**, Chong, G. H. & Tan, C. P. (2019). Shelf life determination of durian (Durio zibethinus) paste and pulp upon high-pressure processing. *Food Research, 3*, 221-230.

18. **Tan, T. B.**, Nakajima, M., & Tan, C. P., (2018). Effect of polysaccharide emulsifiers on the fabrication of monodisperse oil-in-water emulsions using the microchannel emulsification method. *Journal of Food Engineering, 238*, 188-194.

19. Chang, H. W., **Tan, T. B.**, Tan, P. Y., Abas, F., Lai, O. M., Wang, Y., Wang, Y., Nehdi, I. A., & Tan, C. P. (2018). Microencapsulation of fish oil using thiol-modified β-lactoglobulin fibrils/chitosan complex: A study on the storage stability and in vitro release. *Food Hydrocolloids, 80*, 186-194.

20. Chang, H. W., **Tan, T. B.**, Tan, P. Y., Abas, F., Lai, O. M., Wang, Y., Wang, Y., Nehdi, I. A., & Tan, C. P. (2018). Physical properties and stability evaluation of fish oil-in-water emulsions stabilized using thiol-modified β-lactoglobulin fibrils-chitosan complex. *Food Research International, 105*, 482-491.

21. Shu, G., Khalid, N., **Tan, T. B.**, Zhao, Y., Neves, M. A., Kobayashi, I., & Nakajima, M. (2018). In vitro bioaccessibility of ergocalciferol in nanoemulsion-based delivery system: The influence of food-grade emulsifiers with different stabilising mechanisms. *International Journal of Food Science & Technology, 53*, 430-440.

22. Tan, P. Y., **Tan, T. B.**, Chang, H. W., Tey, B. T., Chan, E. S., Lai, O. M., . . . Tan, C. P. (2018). Effects of storage and yogurt matrix on the stability of tocotrienols encapsulated in chitosan-alginate microcapsules. *Food Chemistry, 241*, 79-85.

23. Tan, P. Y., **Tan, T. B.**, Chang, H. W., Tey, B. T., Chan, E. S., Lai, O. M., Sham Baharin, B., Nehdi, I. A., & Tan, C. P. (2017). Effects of environmental stresses and in vitro digestion on the release of tocotrienols encapsulated within chitosan-alginate microcapsules. *Journal of Agricultural and Food Chemistry, 65*, 10651-10657.

	24. Shariffa, Y. N., **Tan, T. B.**, Uthumporn, U., Abas, F., Mirhosseini, H., Nehdi, I. A., Wang, Y. H., & Tan, C. P. (2017). Producing a lycopene nanodispersion: Formulation development and the effects of high pressure homogenization. *Food Research International, 101*, 165-172. 25. Shu, G., Khalid, N., **Tan, T. B.**, Zhao, Y., Neves, M. A., Kobayashi, I., & Nakajima, M. (2017). Comparison of ergocalciferol nanodispersions prepared using modified lecithin and sodium caseinate: Insights of formulation, stability and bioaccessibility. *Journal of Functional Foods, 38*, 28-35. 26. Chang, H. W., **Tan, T. B.**, Tan, P. Y., Abas, F., Lai, O. M., Nehdi, I. A., & Tan, C. P. (2017). Formation and characterization of thiol-modified fibrillated whey protein isolate solution with enhanced functionalities. *Journal of Food Engineering, 214*, 277-286. 27. **Tan, T. B.**, Yussof, N. S., Abas, F., Mirhosseini, H., Nehdi, I. A., & Tan, C. P. (2016). Forming a lutein nanodispersion via solvent displacement method: The effects of processing parameters and emulsifiers with different stabilizing mechanisms. *Food Chemistry, 194*, 416-423. 28. **Tan, T. B.**, Yussof, N. S., Abas, F., Mirhosseini, H., Nehdi, I. A., & Tan, C. P. (2016). Comparing the formation of lutein nanodispersion prepared by using solvent displacement method and high-pressure valve homogenization: Effects of formulation parameters. *Journal of Food Engineering, 177*, 65-71. 29. Shariffa, Y. N., **Tan, T. B.**, Abas, F., Mirhosseini, H., Nehdi, I. A., & Tan, C. P. (2016). Producing a lycopene nanodispersion: The effects of emulsifiers. *Food and Bioproducts Processing, 98*, 210-216. 30. **Tan, T. B.**, Yussof, N. S., Abas, F., Mirhosseini, H., Nehdi, I. A., & Tan, C. P. (2016). Stability evaluation of lutein nanodispersions prepared via solvent displacement method: The effect of emulsifiers with different stabilizing mechanisms. *Food Chemistry, 205*, 155-162. 31. **Tan, T. B.**, Chu, W. C., Yussof, N. S., Abas, F., Mirhosseini, H., Cheah, Y. K., . . . Tan, C. P. (2016). Physicochemical, morphological and cellular uptake properties of lutein nanodispersions prepared by using surfactants with different stabilizing mechanisms. *Food & Function, 7*, 2043-2051. 32. Fu, C. W. F., Ho, C. W., Yong, W. T. L., Abas, F., **Tan, T. B.**, & Tan, C. P. (2016). Extraction of phenolic antioxidants from four selected seaweeds obtained from Sabah. *International Food Research Journal, 23*, 2363-2369.
Books/Monographs	-
Chapter in book	1. **Tan, T. B.** & Tan, C. P. (2018). Nanoemulsions and nanodispersions: A fundamental view of their preparation, characterization, stability evaluation, and application. In Rai, V. & Bai, J. (Eds.), *Nanotechnology applications in the food industry* (pp. 333-355). Boca Raton, FL: CRC Press. 2. **Tan, T. B.** & Tan, P. Y. (2020). Food emulsions: A comprehensive overview of their preparation, stability and application. In Lasekan O. (Ed.), *A comprehensive guide to processed foods* (pp. 129-156). Hauppauge, NY: Nova Science Publishers. 3. **Tan, T. B.**, Tan, P. Y. & Gan, Y. L. (2022). Characterization of Nanoemulsions: The Way Forward. In Lee, Y. Y., Tang, T. K., Phuah, E. T. & Lai, O. M. (Eds.)

	Recent Advances in Edible Fats and Oils Technology: Processing, Health Implications, Economic and Environmental Impact (pp. 347-377). Springer.
Proceedings	-
Other publications	-

H. PROJEK PENYELIDIKAN TERDAHULU *(Past Research Project)*

Project No.	*Project Title*	*Role*	*Year*	*Source of fund*	*Status*
	Discerning the synergism of mixed-type plant-based emulsifiers in stabilizing lutein-enriched red palm olein nanoemulsions and microcapsules	Project Leader	2020	MOHE	Ongoing
	Development of palm-based carotene nanoemulsions and microcapsules and their application in a model food system	Project Leader	2020	UPM	Ongoing
	Formulation, Processing and Product Characterization for Non-Dairy Creamer (Part 1)	Project member	2016	Oleon Sdn. Bhd.	Completed
	A new refining approach for production of refined palm oil with simultaneous reduction of glycidol and 3-monochloropropane-1,2-diol fatty acid esters in refined palm oil	Project member	2017 - 2019	UPM	Ongoing
	Moringa oleifera seeds de-hulling and application of the seed oil and protein in food products in Malaysia	Project member	2017 - 2019	UPM	Ongoing
	Development and Optimization of a Triple Quadrupole Gas Chromatograph-Mass Spectrometer Instrumental Method for the Detection of 3-, 2- Monochloropropane-1,2- diol and Glycidyl Esters in Palm Oil Subjected to Different High-Temperature Cooking Methods and Food Systems, and Development of a Mitigation Strategy Based on Antioxidants.	Project member	2018 - 2020	UPM	Ongoing
	Evaluation of the in vitro stability and antioxidant activity of nanoencapsulated anthocyanins extracted from ripened fruits of *Carissa carandas* Linn.	Project member	2018 - 2020	UPM	Ongoing
	Preparation, Characterization and Stability Evaluation of Nanoemulsions Loaded with Different Oils and Bioactive Compounds	Project Member	2018	Compass Foods Pte. Ltd.	Completed
	Formulation, Processing and Product Characterization for Non-Dairy Creamer (Part 2)	Project Member	2019	Oleon Sdn. Bhd.	Completed

Area of Expertise	Food nanotechnology Lipid technology Food colloids and emulsions Food technology Food supply chain management