



CURRICULUM VITAE

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EDUCATIONAL BACKGROUND

Doctor of Philosophy (PhD) Faculty of Science and Technology, School of Chemistry and Food Technology, Universiti Kebangsaan Malaysia 43600 UKM Bangi, Selangor, Malaysia	2009
Master of Science (MSc) Department of Food Technology, Faculty of Food Science and Technology University Putra Malaysia 43400 UPM Serdang Selangor, Malaysia	2002
BSc in Food Science (Honors) Faculty of Food Science, School of Biological Science, University of Nottingham, Sutton Bonnington, Nr Loughborough, Le12 5rd, United Kingdom.	1998
A'Level Mara Science College (MSM), Taman Shamelin Perkasa, Cheras, Kuala Lumpur, Malaysia.	1995

PUBLISHED PAPERS

2019

A Abdullah, SSA Gani, TYY Hin, **ZA Haiyee**, UH Zaidan, MA Kassim, Lipase-catalyzed synthesis of red pitaya (*Hylocereus polyrhizus*) seed oil esters for cosmeceutical applications: process optimization using response surface methodology. *RSC Advances* 9 (10), 5599-5609,

2018

Siti Raihan Zakaria, Norashikin Saim, Rozita Osman, **Zaibunnisa Abdul Haiyee**, Hafizan Juahir. Combination of Sensory, Chromatographic, and Chemometrics Analysis of Volatile Organic Compounds for the Discrimination of Authentic and Unauthentic Harumanis Mangoes. *Molecules*. Vol 23(9), 2365.

Asiah Abdullah, Siti Salwa Abd Gani, Nor Fadzillah Mohd Mokhtar, Taufiq Yap Yun Hin, **Zaibunnisa Abdul Haiyee**, Suhana Mustafa. Supercritical carbon dioxide extraction of red pitaya (*Hylocereus polyrhizus*) seeds: Response surface optimization, fatty acid composition and physicochemical properties. *Malaysian Applied Biology Journal*, Vol 47 (2), 39-46.

Zaibunnisa Abdul Haiyee, Nor Izzatul Adyani Yahya, Norizzah Abd Rashid, Norakma Mohd Nor, Dzulkifly Mat Hashim. Characterisation of Catfish (*Clarias batrachus*) Waste Oil: γ -cyclodextrin inclusion complex. *International Journal of Engineering and Technology (UAE)*, Vol 7(4), 161-165.

Hosam-Eddin M El-Garhi, Safaa AM El-Aidie, Norizzah A Rashid and **Zaibunnisa Abdul Haiyee**. Quality improvement of spreadable processed cheese made from ultrafiltered milk retentates using commercial starter cultures. *Food Science and Technology International*. Vol 24(6), 465-475.

Norakma, M.N., **Zaibunnisa, A.H.**, Wan Razarinah, W.A.R. The effects of microbial fermentation on antibacterial activity of seaweed (*Kappaphycus alvarezii*) extracts. *International Journal of Engineering & Technology (UAE)*, Vol 7 (4.18), 247-251.

Shazlin Kamaruddin, Wan Aida Wan Mustapha, and **Zaibunnisa Abdul Haiyee**. Comparison study of moisture content, colour properties and essential oil compounds extracted by hydrodistillation and supercritical fluid extraction between stem and leaves of lemongrass (*Cymbopogon citratus*). *AIP Conf. Proc.*, Vol 1940, 020101.

2017

YN Shariffa, U Uthumporn, AA Karim, **AH Zaibunnisa**. Hydrolysis of native and annealed tapioca and sweet potato starches at subgelatinization temperature using a mixture of amylolytic enzymes. *International Food Research Journal*. Vol 24(5): 1925-1933.

R Ibrahim, **Zaibunnisa Abdul Haiyee**, SNHM Latip. The antifeedant activity of essential oil from *Cymbopogon citratus* and *Piper bitle* for controlling

golden apple snail, *Pomacea canaliculata*. Journal Fundamental Applied Sciences, 9(6S), 39-49.

SHM Shah, **Zaibunnisa Abdul Haiyee**, KH Ismail, N Hashim and W Iryani. Quality of Turmeric Extracts Obtained from Supercritical Carbon Dioxide (SC-CO₂) Extraction and Ultrasonic Assisted Extraction (UAE). *Symposium on Innovation and Creativity (iMIT-SIC)*, Vol 2, 1-4.

2016

Fauziah Che In, **Zaibunnisa Abdul Haiyee**, Osman Hassan and Wan Aida Wan Mustapha. Malaysian Journal of Analytical Sciences 20 (4), 820-828 (2016)

Zaibunnisa Abdul Haiyee, Nor Izzatul Adyani Yahya, Norizzah Abd Rashid, Dzulkifly Mat Hashim. Malaysian Journal of Analytical Sciences. 20 (4), 838-843.(2016)

CI Fauziah, **AH Zaibunnisa**, H Osman, WM Wan Aida. International Food Research Journal. 23 (2).575-582. Physicochemical analysis of cholesterol-reduced egg yolk powder and its application in mayonnaise. (2016)

Zaibunnisa Abdul Haiyee, Siti Hafsah Mohd Shah, Khudzir Ismail, Nooraain Hashim, Wan Iryani Wan Ismail. Quality Parameters of Curcuma Longa L. Extracts By Supercritical Fluid Extraction (SFE) And Ultrasonic Assisted Extraction (UAE) Malaysian Journal of Analytical Sciences, Vol 20 No 3 (2016)

Siti Hafsah Mohd Shah, **Zaibunnisa Abdul Haiyee**, Khudzir Ismail, Nooraain Hashim, Wan Iryani Wan Ismail (2016). Jurnal Teknologi. Optimization of Curcuma Longa L. Rhizome Supercritical Carbon Dioxide Extraction (SC-CO₂) By Response Surface Methodology (RSM)

Nurul Adila M. Loai, Halimahton Zahrah Mohamed Som, **Zaibunnisa Abdul Haiyee**. Effect of edible lipid-chitosan film forming dispersion on postharvest life of guava stored at chilled temperature Malaysian Journal of Analytical Sciences, Vol 20 No 3 (2016)

2015

Siti Hafsah Mohd Shah, **Zaibunnisa Abdul Haiyee**, Khudzir Ismail, Nooraain Hashim and Wan Iryani Wan Ismail. Optimization of *Curcuma Longa* L. Rhizome Supercritical Carbon Dioxide Extraction (SC-CO₂) By Response Surface Methodology (RSM) 2015 International Symposium on Sciences and Mathematics (ISySM2015) 24 – 26 November 2015 in Bandung, Indonesia.

2014

Niramol Punbusayakul, Norashikin Saim, **Zaibunnisa Abdul Haiyee**, Siti Norbayu Mohd.Subari, Nor Izzatul Adyani, Warin Sarnkhuankaew, Rozita Osman¹ and Sirapat Patsanguan.(2014). Subcritical Water Extraction (SWE) of Anthocyanin from Arabica Coffee Pulp. Science Letters.Vol 8, No 1.

2013

Optimisation of Pressurised Liquid Extraction (PLE) of Fish Oil from Viscera of Walking Catfish (*Clarias batrachus*) **Zaibunnisa Abdul Haiyee**, Norizzah Abdul Rashid, Dzulkifly Mat Hashim, Ainun Atirah Mohd and Nor Izzatul Adyani Yahya.. Science Letters. 7(2) 48-56

2012

Nurul Hanani, M. Z., Halimahton Zahrah, M. S., **Zaibunnisa, A. H.** (2012). Effect of chitosan-palm stearin edible coating on the post harvest life of star fruits (*Averrhoa carambola*) stored at room temperature. International Food Research Journal. 19(4): 1433-1438.

Nur Ain A. H., **Zaibunnisa A. H.**, Halimahton Zahrah M. S. and Norashikin S. (2012). An experimental design approach for the extraction of lemongrass (*Cymbopogon citratus*) oleoresin using pressurised liquid extraction (PLE). International Food Research Journal. 20(1): 451-455

Farah, D.M.H., **Zaibunnisa, A.H.** and Misnawi, J. (2012) Optimisation of cocoa beans roasting process using Response Surface Methodology based on concentration of pyrazine and acrylamide. International Food Research Journal.19(2): 409-416

Nurul Adilla, M. L., Halimahton Zahrah, M. S. and **Zaibunnisa, A. H. (2012)**. Characterisation Of Edible Lipid-Chitosan Film. The International Journal Of Food, Nutrition And Public Health- IJFNPH. Volume 5, 1/2/3: 129-145.

Zaibunnisa, A.H.* And Chutima, W.(2012). EXTRACTION OF VOLATILE OIL FROM KAFFIR LIME LEAVES (*Citrus hystrix*) USING PRESSURISED LIQUID EXTRACTION. The International Journal Of Food, Nutrition And Public Health- IJFNPH. Volume 5, 1/2/3: 201-210.

Farah, D. M.H., **Zaibunnisa, A.H.**, Misnawi, J. And Zainal, S. (2012). Effect of roasting process on the concentration of acrylamide and pyrazines in roasted cocoa beans from different origins. ELSEVIER APCBEE Procedia.4: 2004-2008.

Ku Madihah K.Y., **Zaibunnisa A.H.**, Norashikin S., Rozita O., Misnawi J. (2012).Optimization of Roasting Conditions for High-Quality Robusta Coffee. ELSEVIER APCBEE Procedia.4: 2009-2014

Farah, D.M.H., **Zaibunnisa, A.H.** and Misnawi, J. (2012) Optimisation of cocoa beans roasting process using Response Surface Methodology based on concentration of sensory evaluation and colour. PELITA PERKEBUNAN. Article in Press.

2011

Zaibunnisa, A. H. Aini Marhanna, M. N. A. and Ainun Atirah, M. (2011). Characterisation and Solubility Study of γ -Cyclodextrin and β -Carotene Complex. *International Food Research Journal*, 18 (3): 1061-1065.

Zaibunnisa A.H., Siti Rashima R. and Nur Ain A.H. (2011) Stabilisation of curcumin with γ -cyclodextrin: phase solubility study and its characterisation. *IPCBEE IACSIT Press, Singapore*, 7: 9-13. *IEEE Indexed*.

Nur Ain A.H., Farah Diyana M.H. and **Zaibunnisa A.H.** Encapsulation of lemongrass (*Cymbopogon citratus*) oleoresin with β -cyclodextrin: phase solubility study and its characterisation *IPCBEE vol.7: 44-48, IACSIT Press, Singapore. IEEE Indexed*

2009

A.H. Zaibunnisa, S. Norashikin, S. Mamot and H. Osman. (2009). An experimental design approach for the extraction of volatile compounds from turmeric leaves (*Curcuma domestica*) using pressurised liquid extraction (PLE). *LWT-Food Science and Technology*. 42 (1): 233-238. ISSN 0023-6438. Imprint ELSEVIER. Impact factor 2.114(2009).

Zaibunnisa Abdul Haiyee, Norashikin Saim, Mamot Said, Rosli Md.Illias, Wan Aida Wan Mustapha and Osman Hassan (2009). Characterisation of cyclodextrin complexes with turmeric oleoresin. *Food Chemistry*. 114 (2): 459-465. ISSN 0308-8146. Imprint: ELSEVIER. Impact Factor 3.146.

Norashikin Saim, Rozita Osman, **Zaibunnisa Abdul Haiyee**, Syafawati Mohd Salleh. (2009). Simultaneous Extraction and Clean-Up of Chlorpyrifos From Spinach (*Spinacia oleracea*) Using Pressurised Liquid Extraction (PLE) *The Malaysian Journal of Analytical Sciences*, 13 (1): 8-11.

Zaibunnisa, A.H., Norashikin, S., Mamot, S. And Osman, H. (2009). Stability Of Curcumin In Turmeric Oleoresin- β -Cyclodextrin Inclusion Complex During Storage. *The Malaysian Journal of Analytical Sciences*, 13 (2): 1-5.

2005

Zaibunnisa, A.H., Siti Rohani K., Noor Adillah A., Shahiza M., Noorlaila A. (2005). Effect of Ascorbic Acid, A-Tocopherol, B-Carotene And Total Polyphenol On Antioxidant Activity In Selected Malaysian Edible Plants. *Malaysian Journal of Science* (24): 219-224. ISSN 13943065

Noorlaila, A., Faiza, I. And **Zaibunnisa, A.H.** (2005). Determination Of Ascorbic Acid, Total Phenolic Content And Antioxidant Activities In Turmeric Leaves Of Different Maturity Stages. *Malaysian Journal of Science* (24): 89-92. ISSN 13943065.

AWARDS

Excellant Service Award 2010. Universiti Teknologi MARA.

2nd Runner up ASEAN Best Graduate Research Paper 2009. Zaibunnisa Abdul Haiyee, Norashikin Saim, Mamot Said and Osman Hassan. Inclusion Complex of Turmeric Oleoresin with γ -Cyclodextrin. ASEAN Food Conference, Rizqun Hotel, Bandar Sri Begawan Brunei Darussalam 21-23 Oktober 2009

2nd Runner up National Best Graduate Research Paper 2009. Zaibunnisa Abdul Haiyee, Norashikin Saim, Mamot Said and Osman Hassan. Inclusion Complex of Turmeric Oleoresin With γ -Cyclodextrin. Food Science and Technology Seminar, Universiti Malaysia Sabah. 14-15 February 2009

Biographical Record of Zaibunnisa Abdul Haiyee in Who's Who in the World. 27th edition. 2010.

ITEX Bronze Medal. Cholesterol reduced egg yolk powder for mayonnaise production. 23rd International Investition, Innovation & Technology Exhibition. ITEX 2012 2012, Kuala Lumpur, Malaysia 17-19 May 2012.

IIDEX 2013 Silver Medal. Cholesterol reduced egg yolk powder. UiTM Shah Alam

IIDEX 2013 Bronze Medal. Odour-free catfish oil powder with extended shelf life. UiTM Shah Alam.

RESEARCH PROJECTS

Solid state fermentation of edible seaweed for the enhancement and bioavailability of bioactive compounds, Bestari UiTM, 01/09/2016 - 28/02/2019 RM35000

Porous polycaprolactone/hydroxyapatite (PCL/HA) biocomposite by solid state foaming using supercritical carbon dioxide 01/08/2016 - 31/03/2019 FRGS, RM96080

Synthesis of hybrid beta-cyclodextrin/alginate aerogels via chemical cross-linking for drug delivery system 01/07/2017 - 30/06/2019 Lestari UiTM RM20000

Green and eco-friendly extraction technique of high value herbs of *linacanthus nutans lindai* (c.nutans) via intensified solvent-free microwave extraction (SFME) 01/01/2018 - 31/12/2019 Lestari UiTM RM35000

Efficiency of selected zingiberacea species against golden apple snail blast and sheath blight of paddy 01/09/2018 - 31/08/2020 Bestari UiTM RM32000

Efficacy of essential oils from *curcuma longa* and *zingiber officinale* on controlling bagworm, *metisa plana* 01/01/2019 - 31/12/2020 FRGS RM83000

Solid State Fermentation of Edible Seaweed for the Enhancement and Bioavailability of Bioactive Compounds 600-IRMI/DANA 5/3 BESTARI (0005/2016) RM35,000.00

Toxicity of Curcuma Longa L. Supercritical Fluid Extraction 600-RMI/FRGS 5/3 (149/2013) FRGSRM87,000.00

Toxicity of Curcuma Longa L. Supercritical Fluid Extraction (Part 2)600-RMI/FRGS 5/3 (149/2013) Principal Investigator Support Initiative (PSI) RM60,000.00.

Impact of hydrocolloids on the absorption and acrylamide formation of banana fritters ERGS/1/2013/STWN03/UITM/02/02.**Co-Researcher.** RM78,000.00.

The Stability of Phytochemical Compounds In Matured Turmeric Leaves (*Curcuma domestica*) Greater Galingale (*Alpinia galanga*) And Torch Ginger (*Etlingera elation*) Subject To Different Drying Treatments (600-IRDC/ST 5/3/868).RM29,900.00

Characterisation of Novel Stearin-Chitosan Film Forming Dispersion (FFD). Fundamental Research Grant Scheme (FRGS) Project No: 600-RMI/ST/FRGS 5/3/FST (31/2010) RM41,600.00.

Characterisation and prediction of shelf life of Encapsulated Lemongrass (*Cymbopogon Citratus*) Volatile Extract based on Kinetic Accelerated Storage Study FRGS/2/2010/SG/UITM/02/1. **Principle Researcher** RM45,000.00.

Encapsulation of catfish oil (*Clarias bathracus*) extracted using a rapid pressurised liquid extraction (PLE) with *in-situ* purification. ERGS/1/2011/STG/UITM/01/10. **Principle Researcher.** ERGS RM104,000.00

Development of Coffee Beans Roasting Method by Optimising the Processing Parameters. Dana Kecemerlangan 600-RMI/ST/DANA 5/3/Dst (425/2011).RM10,000.00

Utilisation of asparaginase for acrylamide reduction in roasted cocoa beans. Dana Kecemerlangan 600-RMI/ST/DANA 5/3/DSt (225/2011).RM9,000.00.

Analysis of Benzo(a)pyrene in satay using Accelerated Solvent Extraction (ASE) and Gas Chromatography-Mass Spectrophotometry (GC-MS). Dana Kecemerlangan (RIF) 600-RMI/DANA 5/3/RIF (171/2012).RM32,000.00.

Application of caffeine molecular imprinted polymer in the extraction of caffeine in coffee beans, cocoa beans and tea leaves using pressurized liquid extraction.RM32,000.00. Dana Kecemerlangan (RIF) 600-RMI/DANA5/3/RIF (69/2012).