



CURRICULUM VITAE

DR ROSSURIATI BINTI DOL HAMID

FACULTY OF APPLIED SCIENCES
Universiti Teknologi MARA
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ACADEMIC QUALIFICATIONS

Doctor of Philosophy (Ph.D.) (Chemistry) (2014), The University of Auckland, New Zealand.

Postgraduate Diploma Science (2009), University of Auckland, New Zealand.

Bachelor (Hons) in Applied Chemistry (2007). Universiti Teknologi MARA, Malaysia.

Diploma in Industrial Chemistry (2004), Universiti Teknologi MARA, Malaysia.

PROFESSIONAL MEMBERSHIP

Member of Malaysian Institute of Chemistry (IKM) (2015-present).

Member of the Malaysian Analytical Sciences Society (ANALIS) (2015-present).

CURRENT POSITION

Senior lecturer
Chemistry and Environmental Centre
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam

TEACHING/SUPERVISION

CHM 580 Spectrochemical methods of analysis (2016-present)
FRS 651 Forensic Chemical Analysis (2014-present)
CHM 412 Organic Chemistry for technology-laboratory (2015-present)

Supervision of MSc Students

Almie Amira Munaras Khan (Student ID: 2015640364) Development of chromatographic fingerprints of bioactive compounds for discrimination of pineapple varieties (*Ananas comosus* L.) using online solid phase extraction-liquid chromatography. Co-supervisor (2015-present)

Supervision of Undergraduates Students

Hidayatul Muhtadein Binti Imam Sopingi (2018) Electrochemical behavior of acetaminophen on screen-printed carbon electrode.

Siti Norawatif Binti Zolkapali (2018) Electrochemical behavior of mefenamic acid on screen-printed carbon electrode.

Nur Ainina Binti Mohamed Aini (2018) Determination of essential minerals in various brand of milk powder by using wet digestion method.

Kamilah Binti MD Mokhtar (2018) Discrimination of volatile compounds in limonene-based perfume samples using headspace solid phase microextraction coupled with GCMS.

Nur Sakinah Binti Burhan (2018) Distribution of heavy metals in chicken egg white and yolk.

Fahim Bin Nazaini (2018) Determination of riboflavin in several brands of energy drinks by using spectrofluorometer.

Khairuddin Bin Muhammad Radzi (2018) Determination of caffeine in several brands of coffee.

Doris anak Ungan (2018) Membrane protected micro solid phase extraction coupled with HPLC-DAD as a potential method to determine PAHs concentration in water sample.

Nur Aimi Shahirah Binti Nurdin (2017) Optimization of solid phase microextraction parameters in extracting volatile organic compounds from car perfumes.

Norefeiza Azwin Binti Norazman (2017) Optimization of solid phase microextraction of aroma compounds in coriander seed using response surface methodology.

Fadhillah Binti Hilmi (2017) Determination of volatile organic compounds (VOCs) from leaves of pelargonium radula using HS-SPME and GCMS.

Nor Faizah Ismail (2017) Profiling of volatile organic compounds in coriander seed using HS-SPME coupled with GCMS.

Umi Maizatul Mohd Husin (2017) Profiling of aroma compounds in several Malaysian citrus species using HS-SPME coupled with GCMS.

Zakhairiah Binti Mat Saad (2016) Determination of paracetamol in panadol® regular tablets available in Malaysian market.

Norsahira Amid (2016) Determination of essential oil in coriander seed by SPME-GCMS.

Ku Mohd Amin bin Ku Yahya (2016) Determination of paracetamol in panadol® regular tablets available in Malaysian market using UV-VIS.

Nurul Artika Binti Mohd Samsuri (2016) Determination of β -carotene in carrot (*Daucus carota* L.) using UV-VIS.

Nurul Shahirah Binti Hasim (2016) Determination of lead and cadmium in chocolate bars using atomic absorption spectroscopy.

Farah Hanni Binti Shahril (2015) Determination of mercury in skin lightening creams using CV-AAS.

RESEARCH GRANTS

Project title	Source	Total funds	Year
Computational 2D/3D structural modelling and impedimetric interrogation of conformational changes for sequence specific binding of micro rna-21 towards p-19 protein	FRGS	RM111,300	2019-2021
Green synthesis of betulinic acid amide for anti cancer drug (completed)	LESTARI	RM 20,000	2016-2018
Research on the physico-chemical changes and the potential pathways for metal migration into ecosystem from sg jasik sediment deposit (completed)	TNB RESEARCH	RM 257,813.50	2017-2018
Trace analysis research group	REI	RM 32,000	2016-2019
Alginate/chitosan incorporated with multi-walled carbon nanotubes as new solid phase extraction sorbent for rapid and efficient separation of a wide polarity of drugs (on-going)	LESTARI	RM 20,000	2016-2018
Alginate incorporated multi-walled carbon nanotube as potential nanocomposite biosorbent for on-line	FRGS	RM 72,000	2016-2018

solid phase extraction to liquid chromatography analysis (on-going)			
Synthesis alginate encapsulated porous silica bio-composite sorbent for rapid microextraction of inorganic water contaminants	LESTARI	RM 20,000	2017-2019
Study on the occurrence of pharmaceuticals in selected Klang river tributaries	LESTARI	RM 20,000	2017-2019
Identification of cost-effective indicator for pharmaceuticals contamination in penchala river	REI	RM 32,000	2018-2020

RESEARCH COLABORATION

Conducted research colaboration with:

1. Dr. Peter J. Swedlund - School of Chemical Sciences, The University of Auckland.
2. Associate Professor Dr Gordon Miskelly - School of Chemical Sciences, The University of Auckland.
3. Associate Professor Dr Hafizan Juahir - Director of Environmental Research Institute of the East Coast (ESERI), Universiti Sultan Zainal Abidin (UniSZa).

PUBLICATIONS

Chapter in Book

Swedlund, P. J.; **Dol Hamid, R.**; Christenson, H.K. The strangely simple effect of silicic acid on arsenic sorption by ferrihydrite. In Understanding the geological and medical interface of arsenic- As 2012, 4th International Congress: Arsenic in the Environment; Ng, J. C.; Barry N. Noller, B. N.; Naidu, R.; Bundschuh, J.; Bhattacharya, P., Taylor & Francis Group, 2012, 275-277. (ISBN 978-0-415-63763-3).

Articles in Refereed Journals

Ungku Abdullah, U. A. A.; Mohamad Hanapi, N. S.; Wan Ibrahim, W. N.; Saiful Azhar, S.; Ishak, N. S.; **Dol Hamid, R.** (2019) Rapid magnetic solid-phase extraction based on graphene oxide/magnetite nanoparticles for the determination of non-steroidal anti-inflammatory drugs and bisphenol-A in tap water. Asian Journal of Chemistry, 31, 1294-1300.

Amin Yusof, N. A.; Mat Hadzir, N.; Ashari, S. A.; Mohamad Hanapi, N. S.; **Dol Hamid, R.** (in press) Optimization of enzymatic synthesis of betulinic acid amide in organic solvent by response surface methodology (RSM). Indonesian Journal of Chemistry.

Dol Hamid, R.; Miskelly, G. M.; Mat Hadzir, N.; Mohamad Hanapi, N. S.; Swedlund, P. J. (2018) From swollen gels to dried films: Relating the IR spectra of ferrihydrite dried as a film on an ATRIR crystal to aqueous suspensions. Applied Geochemistry, 91, 89-96. {SCOPUS/ISI}

Munaras Khan, A. A.; Saim, N.; **Dol Hamid, R.** (2017) Optimization of pressurized liquid extraction of bioactive compounds from *Ananas comosus* (pineapple) fruit. *Pertanika Journal Science and Technology*, 25, 175-182. {SCOPUS/ISI}

Dol Hamid, R.; Swedlund, P. J.; Song, Y. T.; Miskelly, G. M. (2011) Ionic strength effects on silicic acid (H_4SiO_4) sorption and oligomerization on an iron oxide surface: an interesting interplay between electrostatic and chemical forces. *Langmuir*, 27, 12930-12937. {SCOPUS/ISI}

Song, Y.; Swedlund, P. J.; Zou, C.; **Dol Hamid, R.** (2013) The influence of surface structure on H_4SiO_4 sorption and oligomerization on goethite surfaces: An XPS study using goethites differing in morphology. *Chemical Geology*, 347, 114-122. {SCOPUS/ISI}

Swedlund, P. J.; **Dol Hamid, R.**; Miskelly, G. M. (2010) Insights into H_4SiO_4 surface chemistry on ferrihydrite suspensions from ATR-IR, Diffuse Layer Modeling and the adsorption enhancing effects of carbonate. *Journal of Colloid and Interface Science*, 352, 149-157. {SCOPUS/ISI}

Saim, N.; Osman, R.; Mohamad, M.; **Dol Hamid, R.** (2008) Simultaneous Extraction, Derivatization and Clean-up of Sterols from Soil using Accelerated Solvent Extraction. *The Malaysian Journal of Analytical Sciences* 12(2): 500-504. {SCOPUS/ISI}

Saim, N.; Osman, R.; Yasin, W. A. M.; **Dol Hamid, R.** (2008) Subcritical water extraction of essential oil from coriander (*Coriandrum sativum* L.) seeds. *The Malaysian Journal of Analytical Sciences* 12 (1), 22-24. {SCOPUS/ISI}

Proceedings/papers of Conferences/Seminars/Workshops:

International:

Yantao, S.; Swedlund, P. J.; **Dol Hamid, R.**; Zou, C.; Metson, J. (2012) Silicate polymerization on goethite differing in morphology: An X-ray photoelectron spectroscopy investigation. In Abstracts of Papers of the American Chemical Society, Vol 244.

Dol Hamid, R.; Swedlund, P. J.; Miskelly, G. M. (2017) The effect of ferrihydrite surface area on the H_4SiO_4 chemistry at the ferrihydrite-water interface. Asia International Multidisciplinary Conference 2017.

Dol Hamid, R.; Swedlund, P. J.; Miskelly, G. M. (2011) Understanding silicate oligomerization at the ferrihydrite-water interface: An application of Diffuse Layer Model. The 5th Biennial Australian Colloid and Interface Symposium.

Dol Hamid, R.; Swedlund, P. J.; Miskelly, G. M. (2011) Silicic acid (H_4SiO_4) sorption and polymerization on ferrihydrite and goethite: Effect of iron oxide structures and morphology. Stable Isotope Network for New Zealand (SINNZ) and New Zealand Geochemical and Mineralogical Society (NZGeMS) Conference.

Dol Hamid, R.; Swedlund, P. J.; Miskelly, G. M. (2010) The Diffuse Layer Model: A tool to understand nucleation of silica scale on metal surfaces. GeonZ Conference.

National:

Dol Hamid, R.; Swedlund, P. J.; Miskelly, G. M. (2016) ATR-IR coupled with Multivariate Analysis to investigate the iron oxide surface area on interfacial H₄SiO₄ polymerization. The 29th Malaysian Analytical Chemistry Symposium (SKAM 29).

Reports

Dol Hamid, R.; Mat Hadzir, N.; Mohamad Hanapi, N.; Kantasamy, N. (2018) Application of response surface methodology and artificial neural network for betulinic acid amide synthesis using novozyme 435. Final LESTARI Project Report (600-IRMI/DANA 5/3/LESTARI (0090/2016) submitted to Pusat Pengurusan Penyelidikan (RMC), Universiti Teknologi MARA.

Saat, A.; Saim, N.; Osman, R.; **Dol Hamid, R.;** Md Yunus, S.; Arshad, N.; Abdullah, A.; Mohd Azmi, N. A. S.; Research on the physico-chemical changes and the potential pathways for metal migration into ecosystem from Sg Jasik and Jor sediment deposit area. Final TNB research Project Report (TNBR/C27/2017) or (100-RMI 37/7/20170713017) submitted to TNBR management and Pusat Pengurusan Penyelidikan (RMC), Universiti Teknologi MARA.

CO-CURRICULUM

Organization

Treasurer of Persatuan Alumni FSG UiTM Shah Alam (2017-present)

Member of PEWANI Universiti Teknologi MARA, (2016 – present)

Member of Badan Khairat Kematian Universiti Teknologi MARA, (2017 – present)

Society/Community

Advisor of Forensic Chemical Analysis (FORSIS) Club (2015-present)

Financially support to the Dana Pendidikan UiTM (2016-present)

Financially support to the World Wildlife Fund-Malaysia (2018)

Involve in raising funds for Rumah Amal Kasih Bestari and Teratak Nur Barakah (January-May 2018).

Involve in volunteering work in Zoo Negara, Kuala Lumpur (16th October 2016)

Involve in volunteering work in cleaning surau at Faculty of Applied Sciences (Sept –Dec 2016)

AWARDS

Gold Medal Award at International Engineering and Sciences Innovation Exhibition (I-ESIX 2018), A combination of GC-fingerprint, chemometrics and sensory analysis as a powerful tool for harumanis authentication. ParkRoyal Penang Resort, Malaysia.

Silver Medal Award at Invention, Innovation & Design Exposition 2017 (iidex2017), Quality control and authenticity of pineapple (anas comosus) using chromatographic fingerprints. Dewan Agong Tuanku Canselor (DATC), UiTM Shah Alam.

Silver Medal Award at Invention, Innovation & Design Exposition 2016 (iidex2016), Green synthesis of betulinic acid amide for anti-cancer applications. Dewan Agong Tuanku Canselor (DATC) UiTM Shah Alam.

Bronze Medal Award at Scientific Research Invention and Innovation Competition 2017 (SRIIC 2017). Quality control and authenticity of pineapple (ananas comosus) using chromatographic fingerprints. Faculty of Applied Sciences, UiTM Shah Alam.

REVIEWER/ EVALUATION PANEL

a) Journal's reviewer

NO	NAME OF JOURNAL	TITLE OF MANUSCRIPT	LEVEL
1.	International Journal of Engineering & Technology	Microwave assisted supercritical fluid extraction of bio-oils from chlorella vulgaris microalgae	International
2.	International Journal of Engineering & Technology	Heavy Metal Assessment in Rice Grain Sold in Malaysia	International
3.	International Journal of Engineering & Technology	Effect of swirl number on the combustion characteristic of syngas	International
PROCEEDING			
NO	NAME OF CONFERENCE	TITLE OF MANUSCRIPT	LEVEL
1.	2 nd International Sciences, Technology and Engineering Conference 2016	Preparation and Characterization of Spent Mushroom Farming Waste Activated Carbon by KOH Activation	International
2.	2 nd International Sciences, Technology and Engineering Conference 2016	"FeCl ₃ -Activated Carbon Developed From Coconut Leaves: Characterization and Application for Methylene Blue Removal"	International
3.	2 nd International Sciences, Technology and Engineering Conference 2016	Effect of Silane Coupling Agent on Properties of Palm Kernel Shell Reinforced Polyester Composites	International
4.	2 nd International Sciences, Technology and Engineering Conference 2016	Quantitative Ultrasound Analysis for Classification of Cyst and Solid Benign Breast Abnormalities" that was submitted to the conference	International
5.	2 nd International Sciences, Technology and Engineering Conference 2016	Kinetics of Free Carbonic Anhydrase in Conversion of P-Nitrophenyl Acetate into P-Nitrophenol	International
6.	2 nd International Sciences, Technology and Engineering Conference 2016	Synergism of Isopteropodine and Pteropodine with Antibiotics against Selected Streptococci	International

b) Internal Examiner

Name of Student(s)	Level (Diploma, Degree, Post-graduate)	Institution(s)	Year / Semester
Saiful Bahari Mohamad Zin	Post-graduate (Master)- internal for defense research proposal	UiTM	18 January 2016
Wan Siti Hafizah Wan Mohd Azmi	Post-graduate (Master)- internal for pre-viva	UiTM	26 May 2016
Mohammad Salim Tabish	Post-graduate (Master)- internal for defense research proposal/ pre- viva	UiTM	March 2017/ 9 July 2018
Nor Nasriah Zaini	Post-graduate (Master)- internal for pre-viva	UiTM	April 2017
Nurul Atikah Amin Yusof	Post-graduate (Master)- internal for pre-viva	UiTM	July 2017
Putri Nabihah Abdul Khofar	Post-graduate (Master)- internal for defense research proposal	UiTM	13 August 2018
Non Daina Masdar	Post-graduate (PhD)- internal for pre-viva	UiTM	19 October 2018
Nur Zaimah Zaini@Othman	Post-graduate (Master)- internal for pre-viva	UiTM	23 October 2018
Nur Awatif Rosli	Post-graduate (Master)- internal for pre-viva	UiTM	25 September 2018

c) Jury for innovation competition

NO	NAME OF EVENT	LEVEL
1.	International Invention & Innovative Competition (InIIC series 1/2019), Malacca	International
2.	UiTM-Materials Image Competition 2019	University