CURRICULUM VITAE

A. Personal Details		
Full Name: IRMAWATI BINTI RAMLI		*Title:* Assoc. Prof. Dr.
Designation: Associate Professor		*Date of Birth:* 25th February 1970
Current Address: Catalysis Science and Technology Research Centre (PutraCat) Department of Chemistry Faculty of Science Universiti Putra Malaysia 43400 UPM Serdang Selangor Darul Ehsan	*Department/Faculty:* Department of Chemistry Faculty of Science Universiti Putra Malaysia 43400 UPM Serdang Selangor Darul Ehsan Tel: 03 97696786 Fax: 0397693237	*E-mail Address and tel.:* E-mail: irmawati@upm.edu.my Tel.: 012 6612502

B. Academic Qualification			
Certificate / Qualification obtained	*Name of School / Institution*	*Year obtained*	*Area of Specialization*
PhD	University of Manchester Institute of Science and Technology (UMIST), Manchester, England	2000	Heterogeneous Catalysis
BSc (Honours)	Universiti Pertanian Malaysia, UPM Serdang, Selangor Darul Ehsan	1994	Chemistry

C. Scientific experience and Specialisation				
Organization	*Position*	*Start Date*	*End Date*	*Expertise*
Catalysis Science and Technology Research Centre (PutraCat), Faculty of Science, UPM	Principle Researcher	2008	present	Metal oxide, Catalysis, Advanced materials
Institute of Advanced Technology (ITMA), UPM	Research Associate	1 April 2007	31 Mac 2009	Advanced materials
Institute of Advanced Technology (ITMA), UPM	Fellow	1 Jan 2006	31 Dec 2006	Advanced materials
Institute of Plantation Studies (IKP), UPM	Research Associate	22 June 2020	21 June 2022	Biochemicals

D. Working experience				
Employer	*Designation*	*Department*	*Start Date*	*Date Ended*
Department of Chemistry, Faculty of Science, UPM Serdang	Head of Department	Chemistry	3 Oct 2014	2 Oct 2017
Universiti Putra Malaysia, Serdang	Associate Professor	Chemistry	13 June 2005	present
Ministry of Science, Technology and Innovation (MOSTI), Malaysia	Director	National Science Centre	5 Oct 2009	4 Oct 2014
Universiti Putra Malaysia, Serdang	Deputy Director	Research Management Centre	I Jan 2004	4 Oct 2009
Universiti Putra Malaysia, Serdang	Lecturer	Chemistry	24 Feb 2000	12 June 2005
Universiti Pertanian Malaysia	Tutor	Chemistry	1 March 1995	23 February 2000

E. Honours and Awards			
Name of awards/ Title	*Award Authority*	*Award Type*	*Year*
Excellence Scientist Award	Faculty of Science, Universiti Putra Malaysia	Faculty Community	2008
Excellence Leadership (Management) Award	Faculty of Science, Universiti Putra Malaysia	Faculty Community	2008
Fellowship Award for Oversea Advanced Research Malaysia, 2007	Ministry of Science, Technology and Innovation, (MOSTI) Malaysia	National	2007
Silver Medal	33rd International Exhibition of Inventions New Techniques and Products, Geneva, Switzerland	International	2005
Visiting Fellowship Award	General Exchange Program under JSPS-VCC at Catalysis Research Centre, University of Hokkaido	International	2004

F. List of publications

1. Muhammad Yahaya, Irmawati Ramli, Ernee Noryana Muhamad, Nor Shafizah Ishak, Usman Idris Nda-Umar, Yun Hin Taufiq-Yap, K_2O doped dolomite as heterogeneous catalyst for fatty acid methyl ester production from palm oil, Catalysts, 10(7), 791 (2020).

2. Usman Idris Nda-Umar, Irmawati Ramli, Ernee Noryana Muhamad, Yun Hin Taufiq-Yap, Norsahida Azri, Synthesis and characterization of sulfonated carbon catalysts derived from biomass waste and its evaluation in glycerol acetylation, Biomass Conversion and Biorefinery, 1-16 (2020).

3. Hayder Baqer Abdullah, Ramli Irmawati, Ismayadi Ismail, Nor Azah Yusof, Utilization of waste engine oil for carbon nanotube aerogel production using floating catalyst chemical vapor deposition, Journal of Cleaner Production, 261, 121188 (2020).

4. Hayder Baqer Abdullah, Ramli Irmawati, Ismayadi Ismail, Nor Azah Yusof, Direct synthesis of carbon nanotube aerogel using floating catalyst chemical vapor deposition: efect of gas flow rate, Chemical Papers, 1-7 (2020).

5. Usman Idris Nda-Umar, Irmawati Ramli, Yun Hin Taufiq-Yap, Ernee Noryana Muhamad, An overview of Recent Research in the Conversion of Glycerol into Biofuels, Fuel Additives and other Bio-Based Chemicals, Catalysts, 9(1), 15-42 (2019).

6. Hayder Baqer Abdullah, Irmawati Ramli, Ismayadi Ismail and Nor Azah Yusof, Synthesis and mechanism perspectives of a carbon nanotube aerogel via a floating catalyst chemical vapour deposition method*, Bulletin of Materials Science*, 42(241) 1-15 (2019).

7. Hayder Baqer Abdullah, Irmawati Ramli, Ismayadi Ismail, Nor Azah Yusof, Hydrocarbon Sources as a Carbon Precursor for Carbon Nanotubes Synthesised by Chemical Vapour Deposition: A Review, *Pertanika Journal of Science and Technology*, 25(2), 379-396 (2017).

8. Md. Saiful Islam, S. N. Kamilah, Irmawati binti Ramli, Azman Hassan, Abu Saleh Ahmed, Natural polymer based biomaterials and its properties, Handbook of composites from renewable materials, Physico-chemical and mechanical characterization, ISBN: 978-1-119-22366-5, Volume 3, (2017).

9. Md. Saiful Islam, Zainal Abidin Talib, M. Hasan, Irmawati Ramli, M.K.M. Haafiz, M. Jawaid, A. Islam, I.M. Inuwa, Evaluation of mechanical, morphological, and biodegradable properties of hybrid natural fiber polymer nanocomposites, *Polymer Composites*, 38(3), 583-587 (2017).

10. Md. Saiful Islam, Irmawati Ramli, M.R. Hasan, Md. Moynul Islam, Kh. Nurul Islam, Mahbub Hasan, Ahmad Saffian Harmaen, Effect of Kenaf and EFB Fiber Hybridization on Physical and Thermo-Mechanical Properties of PLA Biocomposite, *Fibers and Polymers*, 18(1), 116-121 (2017).

11. Wong Hong Ren, Irmawati Ramli, Taufiq-Yap Yun Hin, Enhanced Reducibility of Mg-Promoted MoVTeNbOx Mixed Oxide Catalysts for Propane Oxidation Reaction, *Malaysian Journal of Analytical Sciences*, 20(6), 1299-1310 (2016).

12. Syazwani M.N., Irmawati R., Taufiq-Yap Y.H., Zainuddin, N., Effect of p Hon the Physicochemical Properties of MoVTeNbOx Catalysts for Oxidation of Propane to Acrylic Acid, International Journal of Scientific & Technology Research, 5(1), 40-45 (2016).

13. Liew Seng Choy, Irmawati Ramli, Noorhana Yahya and Abdul Halim Shaari, Encapsulation of iron(III) oxide in carbon nanotube bundles using pulsed laser ablation. Advances in Natural and Apllied Sciences, 8(2), 69-74 (2014).

14. Taufiq Yap Yun Hin, Yuen Choon Seon, Nurul Suziana Nawi @ Mohamed, Irmawati Ramli, Effects of Bi and Ni on the properties of a vanadium phosphorus oxide catalyst. *Chinese Journal of Catalysis*, 35, 1-7 (2014).

15. Irmawati Ramli, Che Ku Nor Liana Che Ku Hitam, Hossein Abbastabar Ahangar and Abdul Halim Abdullah, Effect of drying on the synthesis and characterization of $MoVTeNbO_x$ mixed metal oxide catalysts prepared by reflux. *Oriental Journal of Chemistry*, 29(1), 9-16 (2013).

16. Seng Choy Liew, *Irmawati Ramli, Noorhana Yahya, Abdul Halim Shaari, Thermal decomposition of iron citrate into nano-sized iron(III) oxide deposited on Si wafer by using pulsed laser ablation. *Journal of Applied Science Research*, 9(9), 5497-5501 (2013).

17. Wong Mei Sam, *Irmawati Ramli, Hossein Abbastabar Ahangar, Ernee Noryana Muhamad, Tan Yen Ping and Taufiq Yap Yun Hin, Physicochemical Studies of Ni-, Co-, and Pt- Promoted MoVNbOx Catalysts Synthesised by Impregnation, Oriental Journal of Chemistry Vol. 28, No. (1), 59-65 (2012).

18. R. Irmawati, P. Botella, F. Ivars, P.M. Woi, M.Z. Siti Murni, H.A. Ahangar, S. Hernández, J.M. López Nieto, Reflux method as a novel route for the synthesis of MoVTeNbOx catalysts for selective oxidation of propane to acrylic acid, *Journal of Molecular Catalysis A : Chemical*, 342 (2011).

19. Ferra Naidir, Robiah Yunus, Irmawati Ramli and Tinia I. Mohd. Ghazi, Response Surface Methodology for Optimization of Epoxidized Trimetylolpropane Ester Synthesis From Palm Oil, International Journal of Chemical Reactor Engineering, 9, A56, 1-17 (2011).

20. Beh Hoe Guan, *Irmawati Ramli, Noorhana Yahya and Lim Kean Pah, Purification of Carbon Nanotubes Synthesised by Catalytic Decomposition of Methane using Bimetallic Fe-Co Catalysts Supported on MgO, Materials Science and Engineering 17, 1-5 (2011).

21. Safura Taufik, Nor Azah Yusof, Tan Wee Tee and Irmawati Ramli (2011) Bismuth Oxide Nanoparticles/Chitosan/Modified Electrode as Biosensor for DNA Hybridization, International Journal of Electrochemical Science, 6, 1880-1891, (2011).

22. Azyan Hazwani Jabar, Kaida Khalid, Jumiah Hassan and Irmawati Ramli, Monitoring Microwave Dielectric Properties During Transesterification Reaction For Palm Biodiesel Production, Solid State Science and Technology, 18 (1) 217-223 (2010).

G. Research Project

Project No.	*Project Title*	*Role*	*Year*	*Source of fund*	*Status*
GPPI	Scale up Production of Propane Selective Oxidation by Mixed Metal Oxide Catalysts	Project Leader	2019 – on-going	Geran UPM	On-going
FRGS	Eutectic Ionic Liquid Mediated Electrochemical Process for Optimized Ceria-Titania Photocatalyst Properties	Team member	2016-On-going	FRGS	Completed

Geran Penyelidikan Pembangunan Inovasi Geran GP-PI GP-PI/2016/9476700	Application of Metal Oxides with Orthorhombic Structure for Value-Added Natural Gas Utilisation	Project Leader	2016-On-going	Geran UPM	Completed
Fundamental Research Grant Scheme (FRGS) 1/2015 FRGS/1/2015/SG 01/UPM/02/8	Effect of Dopants on the Oxygen Mobiity of Molybdenum Vanadium-Based Oxide Catalysts Project code: 02-01-15-1706FR (5524811) 2 Nov 2015 – 1 Nov 2017 (24 mnths)	Project Leader	2015-2018	FRGS	Completed
Fundamental Research Grant Scheme (FRGS) 1/2015 FRGS/1/2015/TK 05/UPM/02/2	Effect of Silver Nanoparticles (AgNPs) Grafting on the Properties of AgNPs-graft-Cellulose Nanomaterials Project code: 02-01-15-1706FR (5524805) 2 Nov 2015 – 1 Nov 2018 (36 mnths)	Team member	2015-2018	FRGS	Completed
GP-IPS GP-IPS/2015/9465500	Synthesis, Characterisation and Functionalisation Study of Carbon Nanotubes from Waste Engine Oil by Catalytic CVD Method	Project Leader	1 Dec 2015 – 1 Dec 2017	Geran UPM	Completed
GP-IPS/2015/9460400	Enhancement of Acrylic Acid Production over MoVTeNbOx Catalysts	Project Leader	1 Dec 2015 – 1 Dec 2017	Geran UPM	Completed
Skim Geran Kajian Validasi Pasaran Inovasi (Innohub) (9003224)	Production of Acrylic Acid by Oxidation of Propane over MoVTeNbOx Catalyst	Project Leader	1 Mac 2015 – 29 Feb 2016	Innohub PSP-UPM	Completed
Research University Grant Scheme (RUGS)	Transesterification of Microalgae oil over Metal Oxide Catalysts for Biodiesel Fuel Production	Researcher	Dec 2010-Nov 2012	UPM	Completed
Fundamental Research Grant Scheme (FRGS)	Correlation Between V_2O_5 and the Formation of M1 and M2 of MoVTeNbOx Catalysts Synthesised by Slurry Method Phases	Researcher	Apr 2010 – Mac 2012	UPM	Completed
Research University Grant Scheme (RUGS)	Transesterification of Fatty Acid Esters over Molybdenum Oxide Catalysts	Project Leader	Jul 2007-Jun 2010	UPM	Completed
Fundamental Research Grant	Correlation Between Catalyst Particle Size and the Diameter of	Project Leader	Dec 2006-Oct	MOHE	Completed

Scheme (FRGS) 05/01/07/0167RU	As-Grown Carbon Nanotubes via Pulsed Laser Ablation Deposition (PLAD) System		2009		
ScienceFund 03-01-04-SF0642	Studies on Mo-V-based Oxide Catalysts for Selective Oxidation of Propane Prepared by Reflux Method	Project Leader	Dec 2006-Sep 2009	MOSTI	Completed
Sciencefund 03-01-04-SF0130	Anisotropic Catalysts As The Driving Force For The Growth Of Vertically Aligned Carbon Nanotubes	Researcher	Dec 2006-Sep 2009	MOSTI	Completed
IRPA RM 8 Strategic Research	Program Title: Upgrading of Natural Gas and Palm Oil to Higher Added Value Specialty Chemicals Using Combinatorial Technologies and Catalysis Project Title: Synthesis, Characterisation and Application of Multicomponent $BiMo_x$ Catalysts for Propane Activation and Functionalisation to Acrylic Acids	Assistant Project Leader	Dec 2003-Aug2005	MOSTE	Completed
IRPA RM 8 Experimental & Applied	Preparation and Characterisation of Molybdenum-Based Catalysts for Selective Oxidation and Ammoxidation of Propene to Acrolein and Acrylonitrile	Project Leader	2001-2003	MOSTE	Completed
Short Term Research Project Year 2001-1 UPM	Synthesis and Characterisation of Supported Vanadyl Pyrophosphate Catalysts	Project Leader	20001	UPM	Completed
Short Term Research Project Year 2000 UPM	Preparation and Characterisation of Molybdenum-Based Catalysts for Selective Oxidation and Ammoxidation of Propene to Acrolein and Acrylonitrile	Project Leader	2000	UPM	Completed

H. PATENT / PATENT-PENDING / COPYRIGHT / TRADE MARK / INDUSTRIAL DESIGN / COMMERCIALIZATION / TECHNOLOGY LICENSING	
Title	A Method to Produce Carbon Catalyst from Oil Palm Mill Wastes with Improved Characteristics
IP Type	Patent
IP Status	Pending
Filing Date	21 May 2020
Application Number	PI2020002505
Country Filing	Malaysia
Applicant	Universiti Putra Malaysia

Inventor	Irmawati Ramli (Lead Inventor), Ernee Noryana Muhammad, Usman Idris Nda-Umar
Title	Synthesis of Carbon Nanotube from Waste Engine Oil
IP Type	Patent
IP Status	Pending
Filing Date	3 August 2017
Application Number	PI2017001147
Country Filing	Malaysia
Applicant	Universiti Putra Malaysia
Inventor	Irmawati Ramli (Lead Inventor), Ismayadi Ismail, Hayder Baqer Abdullah
Title	A Method For Synthesizing Multi-Metal Oxide Catalyst
IP Type	Malaysian Patent MY 156457
IP Status	Granted
Filing Date	17 August 2011
Application Number	PI2011003855
Country Filing	Malaysia
Applicant	Universiti Putra Malaysia
Inventor	Irmawati Ramli (Lead Inventor), Ahmad Afandi Muda, Ahmad Zaidi Ismail, Hossein Abbastabar Ahangar
Title	BiOx™
IP Type	Trademark
IP Status	Granted
Application Number	05-03012 TM “BiOX” in Class 01
Country Filing	Malaysia
Applicant	Universiti Putra Malaysia
Inventor	Irmawati Ramli (Lead Inventor)
Title	Processes for producing virgin coconut oil, coconut cooking oil and raw material for coconut biodiesel
IP Type	Patent
Application Number	PI 2010005434
International Application Number	PCT/MY2008/000089
Filed Date	18 November 2010
Country Filing	Malaysia
Applicant	Universiti Putra Malaysia
Inventor	Kaida Khalid, Rudy Nurdin, Izzatul Hidayah Basri, Yaakob Che Man, Irmawati Ramli (Co-Inventor)
Title	Processes for producing virgin coconut oil, coconut cooking oil and raw material for coconut biodiesel
IP Type	Patent
IP Status	Granted 22 September 2011
Filed Date	19 May 2010
Application Number	2008361044.0
Country Filing	Australia
Applicant	Universiti Putra Malaysia
Inventor	Kaida Khalid, Rudy Nurdin, Izzatul Hidayah Basri, Yaakob Che Man, Irmawati Ramli (Co-Inventor)
Title	Processes for producing virgin coconut oil, coconut cooking oil and raw material

	for coconut biodiesel (Proses untuk memproduksi minyak kelapa murni, minyak goreng kelapa dan bahan baku untuk biodiesel kelapa)
IP Type	Patent
IP Status	Granted 20 February 2014
Filed Date	9 June 2010
Application Number	1000201001901.0
Country Filing	Indonesia
Applicant	Universiti Putra Malaysia
Inventor	Kaida Khalid, Rudy Nurdin, Izzatul Hidayah Basri, Yaakob Che Man, Irmawati Ramli (Co-Inventor)
Title	Processes for producing virgin coconut oil, coconut cooking oil and raw material for coconut biodiesel
IP Type	Patent
IP Status	Pending
Filed Date	25 May 2010
Application Number	1097/MUMNP/2010A
Country Filing	Sri Lanka
Applicant	Universiti Putra Malaysia
Inventor	Kaida Khalid, Rudy Nurdin, Izzatul Hidayah Basri, Yaakob Che Man, Irmawati Ramli (Co-Inventor)
Title	Processes for producing virgin coconut oil, coconut cooking oil and raw material for coconut biodiesel
IP Type	Patent
IP Status	Pending
Filed Date	25 May 2010
Application Number	1097/MUMNP/2010
Country Filing	India
Applicant	Universiti Putra Malaysia
Inventor	Kaida Khalid, Rudy Nurdin, Izzatul Hidayah Basri, Yaakob Che Man, Irmawati Ramli (Co-Inventor)
Title	Processes for producing virgin coconut oil, coconut cooking oil and raw material for coconut biodiesel
IP Type	PCT/MY2008/000089
IP Status	Pending
Filed Date	13 July 2010
Application Number	1-2010-501588
Country Filing	Philippines
Applicant	Universiti Putra Malaysia
Inventor	Kaida Khalid, Rudy Nurdin, Izzatul Hidayah Basri, Yaakob Che Man, Irmawati Ramli (Co-Inventor)