

CURRICULUM VITAE



A. BUTIR-BUTIR PERIBADI *(Personal Details)*

Nama Penuh <i>(Full Name)</i>	HIDAYAH ARIFFIN		Gelaran <i>(Title)</i> : ASSOC. PROF. DR.
No. MyKad / No. Pasport <i>(Mykad No. / Passport No.)</i>	Warganegara <i>(Citizenship)</i>	Bangsa <i>(Race)</i>	Jantina <i>(Gender)</i>
810227-10-5582	MALAYSIA	MALAY	FEMALE
Jawatan <i>(Designation)</i>	ASSOCIATE PROFESSOR	Tarikh Lahir <i>(Date of Birth)</i>	27 th FEBRUARY 1981

Alamat Semasa <i>(Current Address)</i>	Jabatan/Fakulti <i>(Department/Faculty)</i>	E-mel dan URL <i>(E-mail Address and URL)</i>
LABORATORY OF BIOPOLYMER AND DERIVATIVES INSTITUTE OF TROPICAL FORESTRY AND FOREST PRODUCTS UNIVERSITI PUTRA MALAYSIA Tel: 03-89471782 Fax: 03-89471896	DEPARTMENT OF BIOPROCESS TECHNOLOGY, FACULTY OF BIOTECHNOLOGY AND BIOMOLECULAR SCIENCES, UNIVERSITI PUTRA MALAYSIA, Tel: 03-89467515 Fax: 03-89467510	E-mail: hidayah@upm.edu.my URL: www.biotech.upm.edu.my www.introp.upm.edu.my

B. KELAYAKAN AKADEMIK *(Academic Qualification)*

Nama Sijil / Kelayakan <i>(Certificate / Qualification obtained)</i>	Nama Sekolah Institusi <i>(Name of School / Institution)</i>	Tahun <i>(Year obtained)</i>	Bidang pengkhususan <i>(Area of Specialization)</i>
PhD	Kyushu Institute of Technology, Japan	2009	Environmental Engineering
MSc	Universiti Putra Malaysia	2006	Bioprocess Engineering
Bachelor of Engineering	Universiti Putra Malaysia	2004	Process and Food Engineering

C. KEMAHIRAN BAHASA (<i>Language Proficiency</i>)					
Bahasa / <i>Language</i>	Lemah <i>Poor (1)</i>	Sederhana <i>Moderate (2)</i>	Baik <i>Good (3)</i>	Amat Baik <i>Very good (4)</i>	Cemerlang <i>Excellent (5)</i>
English				/	
Bahasa Melayu					/
Chinese					
Japanese	/				
Arabic	/				

D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN (<i>Scientific experience and Specialisation</i>)					
<i>Organization</i>	<i>Position</i>	<i>Start Date</i>	<i>End Date</i>	<i>Expertise</i>	
Local universities	Thesis examiner (internal and external)	2013	to date	Bioprocess Engineering, Biopolymer, Environmental Technology	
Royal Society of Chemistry (RSC)	Reviewer for RSC Advances	2015	to date	Biopolymer	
The Royal Australian Chemical Institute and Institution of Chemical Engineers (ICChemE)	Abstract Proceeding Reviewer, Asian Pacific Confederation of Chemical Engineering 2015 Congress (APCCChE2015)	2015		Biopolymer	
Wiley	Reviewer for Journal of Applied Polymer Science	2015	to date	Biopolymer	
ACS Publications	Reviewer for Journal of Agricultural and Food Chemistry	2013	to date	Bioprocess Engineering	
Elsevier	Reviewer for Separation Science and Technology	2014	to date	Bioprocess Engineering	
Elsevier	Reviewer for Journal of Cleaner Production	2012	to date	Bioprocess Engineering, Environmental Biotechnology	
Elsevier	Reviewer for International Journal of Biological Macromolecules	2014	to date	Biopolymer, Bioprocess Engineering	
Elsevier	Reviewer for Electronic Journal of Biotechnology	2015	to date	Bioprocess Engineering	
Universiti Teknologi Petronas	Reviewer for International Journal of Biomass and Renewables	2015		Bioprocess Engineering	
Malaysian Society for Microbiology	Reviewer for Malaysian Journal of Microbiology	2015		Bioprocess Engineering	
SAGE	Journal of Elastomers and Plastics	2014		Biopolymer	

Wiley	Reviewer for Biotechnology and Bioengineering	2007		Bioprocess Engineering
MARDI	Reviewer for Journal of Tropical Agriculture and Food Science	2011		Bioprocess Engineering
Academic Journal	Reviewer for African Journal of Biotechnology	2012		Bioprocess Engineering

E. PEKERJAAN (*Employment*)

Majikan / <i>Employer</i>	Jawatan / <i>Designation</i>	Jabatan / <i>Department</i>	Tarikh lantikan / <i>Start Date</i>	Tarikh tamat / <i>Date Ended</i>
Universiti Putra Malaysia	Assoc. Professor	Department of Bioprocess Technology	1 June 2016	To date
Universiti Putra Malaysia	Head of Laboratory	Laboratory of Biopolymer and Derivatives, INTROP	1 July 2015	To date
Universiti Putra Malaysia	Senior Lecturer	Department of Bioprocess Technology	2 October 2009	31 May 2016
Universiti Putra Malaysia	Tutor	Department of Bioprocess Technology	15 June 2006	1 October 2009

F. ANUGERAH DAN HADIAH (*Honours and Awards*)

<i>Name of awards</i>	<i>Title</i>	<i>Award Authority</i>	<i>Award Type</i>	<i>Year</i>
<i>Academic Awards</i>	1)JSPS travel grant award for Integrated Study Program on Alternative Energy Production and Management in Japan	Japan Society for the Promotion of Science (JSPS)	International	2010
	2)MOHE travel grant award to Australia	Ministry of Higher Education, Malaysia	National	2008
	3)Meisenkai travel grant award to USA	Kyushu Institute of Technology	International	2008
	4)Scholarship (SLAI) to Japan	Ministry of Higher Education, Malaysia	National	2006-2009
	5)National Science Fellowship	Ministry of Science, Technology and Innovation	National	2004-2006
<i>Awards of Merit</i>	1)Anugerah Perkhidmatan Cemerlang 2014	Universiti Putra Malaysia	University	2015
	2)Bronze Medal, MTE2015	Malaysian Association of Research Scientists (MARS)	International	2015
	3)Silver Medal, MTE2014	Malaysian Association of Research Scientists (MARS)	International	2014
	4)Silver Medals, PRPI2014	Universiti Putra Malaysia	University	2014
	5)2 Gold Medals, ITEX 2011	Malaysian Invention and Design Society (MINDS)	International	2011
	6)Best presenter, APBioChEC 2009	The Society of Chemical Engineers, Japan -Division of Biochemical Engineering	International	2009

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
(20 most
recent
journals)**

1. Nur Sharmila Sharip, **Hidayah Ariffin***, Mohd Ali Hassan, Haruo Nishida and Yoshihito Shirai. **2016**. Characterization and Application of Bioactive Compounds in Oil Palm Mesocarp Fiber Superheated Steam Condensate as an Antifungal Agent. *RSC Advances*. DOI: 10.1039/C6RA13292H
2. Muhammad Nazmir Mohd Warid, **Hidayah Ariffin***, Mohd Ali Hassan and Yoshihito Shirai. **2016**. Optimization of Superheated Steam Treatment to Improve Surface Modification of Oil Palm Biomass Fiber. *Bioresources*. 11(3), 5780-5796.
3. Dhurga Devi Rajaratanam, **Hidayah Ariffin***, Mohd Ali Hassan and Haruo Nishida. **2016**. Changes in diad sequence distribution by preferential chain scission during the thermal hydrolysis of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). *Polymer Journal*. 1-4.
4. Chern Chiet Eng, Nor Azowa Ibrahim*, Norhazlin Zainuddin, **Hidayah Ariffin**, Wan Md Zin Wan Yunus. **2016**. Chemical modification of oil palm mesocarp fiber by methacrylate silane: Effects on morphology, mechanical, and dynamic mechanical properties of biodegradable hybrid composites. *BioResources*. 11, 861-872.
5. Yoon Yee Then, Nor Azowa Ibrahim*, Norhazlin Zainuddin, Buong Woei Chieng, Chern Chiet Eng, **Hidayah Ariffin**, Wan Md Zin Wan Yunus. **2016**. Enhancement of tensile properties of surface treated oil palm mesocarp fiber/poly(Butylene succinate) biocomposite by (3-aminopropyl)trimethoxysilane. *Materials Science Forum*. 846, 665-672.
6. Nur Falia Shazana Manja Farid, **Hidayah Ariffin***, Mohd Rahimi Zakaria Mamat, Mior Ahmad Khushairi Mohd Zahari, Mohd Ali Hassan. **2015**. Non-solvent pretreatment of poly(3-hydroxybutyrate) for high purity biocrotonic acid production. *RSC Advances*. 5, 33546–33553.
7. Mior Ahmad Khushairi Mohd Zahari, **Hidayah Ariffin**, Mohd Noriznan Mokhtar, Jailani Salihon, Yoshihito Shirai and Mohd Ali Hassan*. **2015**. Case Study for a Biorefinery Utilizing Renewable Biosugars from Oil Palm Frond for the Production of Poly(3-hydroxybutyrate) Bioplastic. *Journal of Cleaner Production*. Vol 87, 284-290pp.
8. Yoon Yee Then, Nor Azowa Ibrahim*, Norhazlin Zainuddin, Buong Woei Chieng, **Hidayah Ariffin**, Wan Md Zin Wan Yunus. **2015**. Effect of 3-Aminopropyltrimethoxysilane on Chemically Modified Oil Palm Mesocarp Fiber/Poly (butylene succinate) Biocomposite. *BioResources*. 10 (2), 3577-3601.
9. Noor Ida Amalina Ahamad Nordin, **Hidayah Ariffin***, Mohd Ali Hassan, Nor Azowa Ibrahim, Yoshihito Shirai, and Yoshito Andou. **2015**. Effect of Milling Methods on Tensile Properties of Polypropylene / Oil Palm Mesocarp Fiber Biocomposite. *Pertanika Journal of Science and Technology (JST)*. 23 (2), 325-337.
10. Yoon Yee Then, Nor Azowa Ibrahim*, Norhazlin Zainuddin, **Hidayah Ariffin**, Buong Woei Chieng, Wan Md Zin Wan Yunus. **2015**. Influence of Fiber Content on Properties of Oil Palm Mesocarp Fiber/Poly (butylene succinate) Biocomposites. *BioResources*. 10 (2), 2949 – 2968.
11. Yoon Yee Then, Nor Azowa Ibrahim*, Norhazlin Zainuddin, Buong Woei Chieng, **Hidayah Ariffin**, Wan Md Zin Wan Yunus. **2015**. Influence of Alkaline-

	<p>Peroxide Treatment of Fiber on the Mechanical Properties of Oil Palm Mesocarp Fiber/Poly(butylene succinate) Biocomposite. <i>BioResources</i>. 10 (1), 1730-1746.</p> <p>12. Yoon Yee Then, Nor Azowa Ibrahim*, Norhazlin Zainuddin, Hidayah Ariffin, Wan Md Zin Wan Yunus, Buong Woei Chieng. 2015. Static mechanical, interfacial, and water absorption behaviors of alkali treated oil palm mesocarp fiber reinforced poly(butylene succinate) biocomposites. <i>BioResources</i>. 10 (1), 123-136.</p> <p>13. Subbian Karuppuchamy*, Yoshito Andou, Haruo Nishida, Noor Ida Amalina Ahamad Nordin, Hidayah Ariffin, Mohd Ali Hassan and Yoshihito Shirai. 2015. Superheated Steam Treated Oil Palm Frond Fibers and Their Application in Plastic Composites. <i>Advanced Science, Engineering and Medicine</i>. Vol. 7, 1–6pp.</p> <p>14. Mohd Rahimi Zakaria Mamat, Hidayah Ariffin*, Mohd Ali Hassan, Mior Ahmad Khushairi Mohd Zahari. 2014. Bio-based Production of Crotonic Acid by Pyrolysis of Poly(3-hydroxybutyrate) Inclusions. <i>Journal of Cleaner Production</i>. Vol 83, 463-472pp.</p> <p>15. Che Mohd Hakiman Che Maail, Hidayah Ariffin*, Mohd Ali Hassan, Umi Kalsom Md Shah, and Yoshihito Shirai. 2014. Oil Palm Frond Juice as Future Fermentation Substrate: A Feasibility Study. <i>BioMed Research International</i>. Volume 2014, Article ID 465270.</p> <p>16. Mior Ahmad Khushairi Mohd Zahari, Sharifah Sopliah Syed Abdullah, Ahmad Muhaimin Roslan, Hidayah Ariffin*, 2014. Yoshihito Shirai and Mohd Ali Hassan. Efficient utilization of oil palm frond for bio-based products and biorefinery. <i>Journal of Cleaner Production</i>. Vol 65, 252-260pp.</p> <p>17. Noor Farisha Abd. Rahim, Kohtaro Watanabe, Hidayah Ariffin, Yoshito Andou*, Mohd Ali Hassan, Yoshihito Shirai. 2014. Design of Bio-based Monomers from Oleic and Linoleic Acids for Greener Polyester. <i>Chemistry Letters</i>. Vol 43 (9), 1517 - 1519pp.</p> <p>18. Mohd Nor Faiz Norrrahim, Hidayah Ariffin*, Mohd Ali Hassan, Nor Azowa Ibrahim, Haruo Nishida. 2013. Performance Evaluation and Chemical Recyclability of Polyethylene/Poly-(3-hydroxybutyrate-co-3-hydroxyvalerate) blend for Sustainable Packaging. <i>RSC Advances</i>. Vol 3, 24378-24388.</p> <p>19. Noor Ida Amalina Ahamad Nordin, Subbian Karuppuchamy, Wan Md Zin Wan Yunus, Nor Azowa Ibrahim, Yoshihito Shirai, Haruo Nishida, Mohd Ali Hassan, Yoshito Andou and Hidayah Ariffin*. 2013. Modification of oil palm mesocarp fiber using green superheated steam treatment. <i>Molecules</i>. 18, 9132-9146.</p> <p>20. Mohd Ali Hassan, Lian-Ngit Yee, Phang Lai Yee, Hidayah Ariffin, Abdul Rahim Raha, Yoshihito Shirai, Kumar Sudesh. 2013. Sustainable Production of polyhydroxyalkanoates from renewable oil palm biomass. <i>Biomass & Bioenergy</i>. Vol. 50, 1-9pp.</p>
Books/ Monographs	
Chapter in book	Haruo Nishida, Hidayah Ariffin , Yoshihito Shirai and Mohd Ali Hassan. 2010. Precise Depolymerization of Poly(W-hydroxybutyrate) by Pyrolysis. In: <i>Biopolymers</i> . Ed. Magdy M. Elnashar. 369-386 pp. Sciyo: Rijeka.
Proceedings	1. Hidayah Ariffin *, Mohd Rahimi Zakaria Mamat, Nur Falia Shazana Manja Farid and Mohd Ali Hassan. 2015. Alternative Route to the Production of Industrially

	<p>Important Chemicals. AFOB Regional Symposium 2015 (ARS 2015), Universitas Indonesia, Depok, Indonesia. 27-30th May 2015.</p> <ol style="list-style-type: none"> 2. Mohd Rahimi Zakaria Mamat, Nur Falia Shazana Manja Farid, Hidayah Ariffin*, Mohd Ali Hassan. 2014. Bio-based crotonic acid production. The 27th International Symposium on Chemical Engineering (ISChE2014). PWTC, Kuala Lumpur, Malaysia. 6th December 2014. 3. Noor Farisha Abd. Rahim, Kohtaro Watanabe, Hidayah Ariffin, Yoshito Andou, Mohd Ali Hassan, Yoshihito Shirai. Bio-based Monomers from Oleic and Linoleic Acids for Greener Polyester. International Symposium on Advanced Polymeric Materials 2014 (ISAPM 2014). PWTC, Kuala Lumpur, Malaysia. 14 – 15th May 2014. 4. Mohd Rahimi Zakaria Mamat, Hidayah Ariffin*, Mohd Ali Hassan and Mior Ahmad Khushairi Mohd Zahari. 2014. Novel bio-based production of crotonic acid. AFOB Regional Symposium 2014 (ARS 2014), Seri Pacific Hotel, Kuala Lumpur, Malaysia. 9-11th February 2014. 5. Nur Falia Shazana Manja Farid, Hidayah Ariffin*, Mohd Ali Hassan and Mior Ahmad Khushairi Mohd Zahari. 2014. Improved bio-based crotonic acid recovery by mild alkaline treatment of poly(3-hydroxybutyrate) produced by <i>Cupriavidus necator</i> KCTC 2469. AFOB Regional Symposium 2014 (ARS 2014), Seri Pacific Hotel, Kuala Lumpur, Malaysia. 9-11th February 2014. 6. Mior Ahmad Khushairi Mohd Zahari, Hidayah Ariffin and Mohd Ali Hassan. 2014. Enhanced poly(3-hydroxybutyrate) production from oil palm frond juice by <i>Cupriavidus necator</i> NCIMB 11599. AFOB Regional Symposium 2014 (ARS 2014), Seri Pacific Hotel, Kuala Lumpur, Malaysia. 9-11th February 2014. 7. Nur Sharmila Sharip, Muhammad Nazmir Mohd Warid, Noor Ida Amalina Ahamad Nordin, Hidayah Ariffin*, Mohd Ali Hassan and Yoshihito Shirai. 2014. Effect of steam hydrolysis reaction temperature on the composition of oil palm mesocarp fiber condensate. Seri Pacific Hotel, Kuala Lumpur, Malaysia. 9-11th February 2014. 8. Hidayah Ariffin*, Elmy Nahida Othman, Haruo Nishida, Yoshito Ando, Yoshihito Shirai and Mohd Ali Hassan. 2013. Depolymerization of poly(3-hydroxybutyrate) by steam treatment. 62nd Symposium on Macromolecules. Kanazawa University, Kanazawa, Japan. 11-13th September 2013. (Abstract published in Japan Polymer Preprint). 9. Yoshito Andou, Kazutoshi Kunitomo, Haruo Nishida, Yoshihito Shirai, Noor Ida Amalina, Hidayah Ariffin, Mohd Ali Hassan. 2013. Development of polymer composite using oil palm fiber. 62nd Symposium on Macromolecules. Kanazawa University, Kanazawa, Japan. 11-13th September 2013. (Abstract published in Japan Polymer Preprint). 10. Che Mohd Hakiman Che Maail, Hidayah Ariffin*, Mohd Ali Hassan, Umi Kalsom Md Shah, Yoshihito Shirai. 2013. Fermentable sugars from oil palm frond petiole. International Congress of the Malaysian Society for Microbiology 2013 (ICMSM 2013). Langkawi Lagoon Resort, Langkawi, Malaysia. 12-15th December 2013.
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H. PROJEK PENYELIDIKAN TERDAHULU (Past Research Project)					
<i>Project No.</i>	<i>Project Title</i>	<i>Role</i>	<i>Year</i>	<i>Source of fund</i>	<i>Status</i>
03-01-14-1399FR	Improved use of superheated steam for controlled hydrolysis of polyhydroxyalkanoates towards oligoesters production	Project leader	2014-2017	FRGS, KPT	On-going
6300156	Overall title: Promotion of Green Economy with Palm Oil Industry for Biodiversity Conservation in Malaysia Sub-project: Chemical-free Pre-treatment of Oil Palm Biomass for Fermentable sugars, Nanofiber and Biocomposite	Sub-project leader	2014-2018	SATREPS project, KPT	On-going
9480900	Nanocellulose Fiber from Oil Palm Biomass	Project leader	2016-2017	Geran Putra IPS (GP-IPS), UPM	On-going
9433917	Optimization of superheated steam treatment conditions for oil palm mesocarp fiber to be used in biocomposite	Project leader	2014-2016	Geran Putra IPS (GP-IPS), UPM	Completed
05-02-12-2321RU	Alternative route to crotonic acid production by pyrolysis of polyhydroxybutyrate-containing bacterium	Project leader	2013 - 2015	RUGS, UPM	Completed
	Elucidation of the effects of amino acids and proteinaceous bioactive compounds produced from agro-wastes as poultry feed	Member	2012 - 2017	Top-Down LRGS, MOHE	On-going
	Biosynthesis and metabolomics of antimicrobial compounds from endophytic fungi for controlling anthracnose disease in dragon fruit	Member	2012 - 2013	Science Fund, MOSTI	Completed
05-05-10-1071RU	Chemical Recycling of Polyhydroxyalkanoates by Steam Hydrolysis	Project leader	2010 – 2012	RUGS, UPM	Completed
02-10-10-966FR	Controlled Degradation Mechanisms of Bioplastics (Polyhydroxyalkanoates, PHA) during Steam Hydrolysis for Chemical Recycling	Project leader	2010-2012	FRGS, MOHE	Completed
	Scaled Up Pilot Process for The Production of Bacterial Polyhydroxyalkanoates (PHA), a Biodegradable Plastic Material Using Palm Oil and its Derivatives	Member	2008 - 2012	Technofund, MOSTI	Completed