

## CURRICULUM VITAE



**MOHD FAZLI B MOHAMMAT @ M YAHYA**

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### A. Personal Data

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|-----------------------------|---|---|
| 1. IC No                    | : | 720813-08-5749  |
| 2. Date and Place of Birth  | : | 13/8/1972, Tg Malim, Perak  |
| 3. Sex                      | : | Male  |
| 4. Nationality              | : | Malaysian   |
| 5. Name of Current Employer | : | Universiti Teknologi MARA   |
| 6. Address                  | : | Institute of Science (IOS)<br>Universiti Teknologi MARA<br>40450 Shah Alam, Selangor.<br>(IOS Homepage: <a href="http://ios.uitm.edu.my">http://ios.uitm.edu.my</a> ) |
| 7. Telephone No             | : | 03-55211354 (Office)<br>013-3495749 (Mobile)  |
| 8. Fax No                   | : | 03-55443870   |
| 9. Email Address            | : | mohdfazli@salam.uitm.edu.my   |
| 10. Position                | : | Assoc. Professor  |

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### B. Research Background

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| Fields of specialization    | : | Organic synthesis and polymer electrolyte synthesis |
| Instrumentations experience | : | FTIR , NMR , High Resolution Mass Spec, Polarimeter |

#### Research Interests

Organic Synthesis: Studies on the Syntheses of Nitrogen Heterocycles with a Pyrrolidine Ring System.

#### Research programmes or projects that have been completed and ongoing:

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|-------------------|---|---|
| (1) Title         | : | Ionic conductivity studies on PVA and PVP as solid polymer electrolytes for secondary battery |
| Duration          | : | 2003-2004   |
| Amount            | : | RM25,800.00   |
| Position held     | : | Head  |
| Source of Funding | : | BRC/UiTM  |
| Status            | : | COMPLETED   |

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- (2) Title : Investigation on the electrical transport properties of chitosan-lithium carbonate as humidity sensors  
Duration : 2003-2004  
Amount : RM20,000.00  
Position held : Researcher  
Source of Funding : BRC/UiTM  
Status : **COMPLETED**
- (3) Title : Bio based polymer electrolytes for proton conductor battery  
Duration : 2000-2003  
Amount : RM23,000.00  
Position held : Researcher  
Source of Funding : MOSTI  
Status : **COMPLETED**
- (4) Title : Synthesis and Cytotoxic Effect of 3-Alkyl-2-Pyrrolidine-3-Carboxylic Acid Methyl Ester-Betulinic Acid Derivatives Towards Ant-Leukemia Cell Lines  
Duration : 2005-2007  
Amount : RM30,000.00  
Position held : Researcher  
Source of Funding : IRDC/UiTM  
Status : **COMPLETED**
- (5) Title : Synthetic Studies towards the Total Synthesis of Codonopsinine, an anti-hypertensive compound from *Codonopsis clematidea*  
Duration : 2006-2009  
Amount : RM208,496.00  
Position held : Researcher  
Source of Funding : eScience Fund, MOSTI  
Status : **COMPLETED**
- (6) Title : Novel Advanced Organic Materials: Polyimides (PI) and Polyphenylenevinylene (PPV)  
Duration : 2008-2011  
Amount : RM1,211,550.00  
(Group amount RM230,000.00)  
Position held : Researcher  
Source of Funding : FRGS Top-Down Grant, MOHE  
Status : **COMPLETED**
- (7) Title : Neurotoxicity and Neuroprotective effects of Synthetic Derivatives of Codonopsinine Intermediates against Hydrogen Peroxide-Induced Oxidative Stress

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- Duration : 2008-2011  
Amount : RM122,000.00  
Position held : Researcher  
Source of Funding : eScience Fund, MOSTI  
Status : **COMPLETED**
- (8) Title : A Flexible and Efficient Synthesis of Hydroxybenzylated N-Methyl-3-Acetyltetramic acid  
Duration : 2010-2012  
Amount : RM59,200.00  
Position held : Researcher  
Source of Funding : FRGS MOHE  
Status : **COMPLETED**
- (9) Title : An efficient synthesis of codonopsine *via* multi component reaction (MCRs) (600-RMI/ST/FRGS 5/3/Fst (15/2010)  
Duration : 2010-2013  
Amount : RM 51,000.00  
Position held : Head  
Source of Funding : FRGS MOHE  
Status : **COMPLETED**
- (10) Title : Synthetic Design and Chemical Exploration of 3-Pyrrolin-2-ones: Micheal Addition and Epoxidation Reactions  
Duration : 2011-2013  
Amount : RM 94,000.00  
Position held : Researcher  
Source of Funding : ERGS MOHE  
Status : **COMPLETED**
- (11) Title : Enantioselective Synthesis of cis- $\beta$ -proline analogs  
Duration : 2012-2013  
Amount : RM 10,000.00  
Position held : Researcher  
Source of Funding : Dana Kecemerlangan  
Status : **COMPLETED**
- (12) Title : Novel Pyrrolidine Based Organocatalysts For Asymmetric Aldol Condensation and Micheal Addition Reactions  
Duration : 2013-2015  
Amount : RM 97,000.00  
Position held : Researcher  
Source of Funding : ERGS  
Status : **COMPLETED**

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- (13) Title : First Total Synthesis of Regidiusculamide D: Pyrrolidinones From Ascomycete Fungus  
Duration : 2013-2016  
Amount : RM 135,000.00  
Position held : Head  
Source of Funding : FRGS  
Status : **COMPLETED**
- (14) Title : An Efficient Synthetic Strategy of Hydroxybenzylated 3-Substituted Tetramic Acid For The Synthesis of Lactam-Lactone Bicyclic System  
Duration : 2014-2017  
Amount : RM 146,000.00  
Position held : Researcher  
Source of Funding : FRGS  
Status : **ON-GOING**
- (15) Title : Electrical Studies on Polymeric Nanofiber Network Composite Membrane Fuel Cell – A New Class of Proton Exchange Membrane  
Duration : 2013-2016  
Amount : RM 119,000.00  
Position held : Researcher  
Source of Funding : FRGS  
Status : **ON-GOING**
- (16) Title : Hit to lead: Synthesis and molecular modeling of chalcones and flavones as lead drugs for inflammatory disorders  
Duration : 2014-2017  
Amount : RM 1,074,000.00  
Position held : Researcher  
Source of Funding : TRGS  
Status : **ON-GOING**
- (17) Title : CHARACTERIZATION OF GLASS FIBER REINFORCED UNSATURATED POLYESTER FILLED P84 POLYIMIDE/MULTI-WALL CARBON NANOTUBE (MWCNT)COMPOSITES (600-RMI/RAGS 5/3 (69/2015)  
Duration : 2015-2017  
Amount : RM 53,000.00  
Position held : Members  
Source of Funding : RAGS  
Status : **ON-GOING**
- (18) Title : ENANTIOSELECTIVE SYNTHESIS OF NOVEL AND BIOLOGICALLY ACTIVE ALKALOIDS OF 3-HYDROXY-4-QUINONE-5-HYDROXYMETHYL-PYRROLIDINONES FROM ALGICOLOUS ZEA 600-RMI/FRGS 5/3 (0071/2016)

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<b>Duration</b>	:	2016-2018
<b>Amount</b>	:	RM 62,000.00
<b>Position held</b>	:	Head
<b>Source of Funding</b>	:	FRGS
<b>Status</b>	:	<b>ON-GOING</b>
<b>(19) Title</b>	:	SYNTHESIS AND CHEMICAL EXPLORATION TOWARDS NOVEL FUSED [5,5] PYRAZOLIDINONE AND [5,7] OXAZEPANONE , LACTAM RING SYSTEM (600-IRMI/MyRA 5/3/GIP (021/2017)
<b>Duration</b>	:	2017-2018
<b>Amount</b>	:	RM 25,000.00
<b>Position held</b>	:	Head
<b>Source of Funding</b>	:	GIP
<b>Status</b>	:	<b>ON-GOING</b>

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### D. Research Achievements

#### Major publications (international refereed journal):

19. **Mohd Fazli Mohammat**, Muhammad Siddiq Maarop, Zurina Shaameri, Agustono Wibowo, Saiful Azmi Johari and Ahmad Sazali Hamzah, Org. Commun. (2018) 11:3 ; 149 - 162
18. NH PUNGOT, Z SHAAMERI, AS HAMZAH, **MF MOHAMMAT**, N HUSSAIN, SYNTHESIS OF 3-METHYL-5-NITROBENZYL  $\beta$ ,  $\beta$ -DIKETOESTER AS A DERIVATIVE OF PACHYDERMIN, A TETRAMIC ACID FROM *Chamonixia pachydermis*, Journal of Sustainability Science and Management 12 (2), 1-7, 2018.
17. Agustono Wibowo Zurina Shaameri, **Mohd Fazli Mohammat**, Ahmad Sazali Hamzah, Asymmetric Reduction of 3-Ketoproline Ethyl Ester by Modified Borohydrides and Various Vegetables Journal of the Korean Chemical Society, 2017, 5,
16. Saiful Azmi Johari, Mastura Mohtar, Sharifah Aminah Syed Mohamad, **Mohd Fazli Mohammat**, Rohana Sahdan, Azman Mohamed, and Mohamad Jemain Mohamad Ridhwan, In Vitro Evaluations and In Vivo Toxicity and Efficacy Studies of MFM501 against MRSA, BioMed Research International 2017, Article ID 8032865,
15. **Mohd Fazli Mohammat** , Nur Shazwani Osman , Zurina Shaameri and Ahmad Sazali Hamzah, First consecutive linear synthesis of hostmaniene, 5-formyl-2- (isopropyl-1'-ol)benzofuran and anadendroic acid using prenylated phenol, Org. Commun. 10:2 (2017) 130-134
14. Zurina Shaameri, Nur Aini Azib, **Mohd Fazli Mohamat**, Ahmad Sazali Hamzah, Synthesis of 3,4-Fused  $\gamma$ -Lactone- $\gamma$ -Lactam Bicyclic Moieties as Multifunctional Synthons for Bioactive Molecules Journal of Heterocyclic Chemistry, 2015,
13. Saiful Azmi Johari, Mastura Mohtar, Sharifah Aminah SyedMohammad, Rohana Sahdan, Zurina Shaameri, Ahmad Sazali Hamzah, **Mohd Fazli Mohammat**, In Vitro Inhibitory and Cytotoxic Activity of MFM 501, a Novel Codonopsinine Derivative, against Methicillin-Resistant *Staphylococcus aureus* Clinical Isolates, BioMed Research International 2015, Article ID 823829
12. **Mohd Fazli Mohammat**, Nurul Shulehaf Mansor, Zurina Shaameri, Ahmad Sazali Hamzah, Diastereoselective Reduction of 2,3-Dioxo-4-carboxy-5-substituted Pyrrolidines Using  $\text{NaBH}_4/\text{AcOH}$  and Heterogenous Hydrogenation Reactions, Journal of the Korean Chemical Society, 2015, 59, 31-34
11. Zainul Amiruddin Zakaria, Mohammed Hijaz Sani, **Mohammed Fazli Mohammat**, Nurul Shulehaf Mansor, Zurina Shaameri, Teh Lay Kek, Mohd. Zaki Salleh, Ahmad Sazali Hamzah, Antinociceptive activity of a synthetic oxopyrrolidine-based compound,

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- ASH21374, and determination of its possible mechanisms Canadian Journal of Physiology and Pharmacology, **2013**, 91(12), 1143-1153
- Zurina Shaameri, Sharifah Hidayah Sharif Ali, **Mohd Fazli Mohammad**, Bohari M Yamin, Ahmad Sazali Hamzah, , A Short and Elegant Synthesis of ( $\pm$ )-Steptopyrrolidine J. Heterocyclic Chem , **2013**, 50, 320-325.
  - Ethyl 4-hydroxy-1-methyl-5-oxo-2-phenylpyrrolidine-3-carboxylate 1.25-hydrate NS Mansor, **MF Mohammad**, Z Shaameri, H Khaledi Acta Crystallographica Section E: Structure Reports Online 69 (2), o293-o294
  - Mohd Fazli Mohammad**, Nigar Najim, Nurul Shulehaf Mansor, Sharil Sarman, Zurina Shaameri, Mazatulikhma Mat Zain, Ahmad Sazali Hamzah, Synthesis and bioactivity of some 2-oxo-5-aryl-3-hydrazone and 2-oxo-5-aryl-4-hydrazone pyrrolidine derivatives, ARKIVOC **2011** (ix) 429-438
  - Yaser Bathich, **Mohd Fazli Mohammad**, Ahmad Sazali Hamzah, Jia Hao Gohb and Hoong-Kun Fun **2009** "(5R)-Ethyl 6-benzyl-8,8-dimethyl-7,9-dioxo-1-oxa-2,6-diazaspiro[4.4]non-2-ene-3-carboxylate", *Acta Cryst E*. E65, o2888–o2889
  - M.F. Mohammad**, Z. Shaameri, A.S. Hamzah, **2009** "Synthesis of 2,3-Dioxo-5-(substituted)arylpyrroles and Their 2-Oxo-5-aryl-3-hydrazone Pyrrolidine Derivatives", *Molecules*, 14, 250-256
  - M. Fazli Mohammad**, Zurina Shaameri, Ahmad Sazali Hamzah, Hoong-Kun Fun and Suchada Chantrapomma, **2008** "4-hydroxy-5-(4-methoxyphenyl)-pyrrolidin-2-one", *Acta Cryst E*, E64, o578-o579
  - M. Fazli Mohammad**, Zurina Shaameri, Ahmad Sazali Hamzah, Hoong-Kun Fun and Suchada Chantrapomma, **2008** "Tert-butyl 5-(4-methoxyphenyl)-1-methyl-2-oxopyrrolidin-3-yl carbonate", *Acta Cryst E*, E64. o661-o662
  - M.Fazli Mohammad**, Zurina Shaameri, Ahmad Sazali Hamzah, Hong-Kun Fun, Norlida Kamaruzamman and Suchida Chantrapomma, **2008** "Methyl 3-{{1-(4-hydroxyphenyl)-2-methoxy-2-oxoethyl}amino}-3-oxopropanoate hemihydrate", *Acta Cryst E*, E64, o663-0664
  - M.Z.A. Yahya , A.M.M. Ali , **M.F. Mohammad** , M.A.K.M. Hanafiah , M. Mustafa , S.C. Ibrahim , Z.M. Darus and M.K. Harun.; *Journal of Applied Sciences*, **2006**, 6, 1287-1291
  - M.Z.A. Yahya, M.K. Harun, A.M.M. Ali, **M.F. Mohammad**, M.A.K.M. Hanafiah, S.C. Ibrahim, M. Mustafa, Z.M. Darus and F. Latif.; *Journal of Applied Sciences*, **2006**, 6, 3150-3154

### Books:

- Hadariah Bahron, Sim Lai Har, Badariah Abu Bakar and **Mohd Fazli Mohammad**, (2006) "Basic Chemistry for Engineer", McGraw Hill, ISBN 983-3219-38-1.
- Nesamalar Kantasamy, Chin Yit Meng and **Mohd Fazli Mohammad** (2006) "Basic Chemistry for Engineer : Laboratory Manual", McGraw Hill, ISBN 983-3219-47-0

### E. PATENT FILING

- Gamma ( $\gamma$ )-lactam as for methicillin-resistant *Staphylococcus aureus* (MRSA) inhibitors : MyIPO PI 2017704143

### F. Awards

- Gold awards for IIDEX 2017 (UiTM Shah Alam)
- Diamond awards for IIDEX 2017 (UiTM Shah Alam)