

**DR NAZRIZAWATI BINTI
AHMAD TAJUDDIN**
SENIOR LECTURER



Date of initial appointment: 21st Jan 2008
Date of promotion (DM45): 17th April 2008
Study leave: Oct 2013-March 2017
Date of promotion (DM52): 30 Sept 2017

**EXPERTISE & RESEARCH
INTEREST**

Catalysis
Material
Surface chemistry
Nanotechnology
Biofuel
Supercapacitor

PROFESSIONAL AFFILIATION

Associate | American Chemistry
Society (ACS)
Associate | Royal Society Chemistry
(RSC)
Member | Institut Kimia Malaysia (IKM)

CONTACT

PHONE:
+603 55443878

EMAIL:
nazriza@uitm.edu.my

EDUCATION BACKGROUND

Doctor of Philosophy
Aston University, Birmingham, UNITED KINGDOM
Oct 2013- Mar 2017

MSc Chemistry
Universiti Kebangsaan Malaysia, Bangi, Selangor, MALAYSIA
July 2007- July 2008

BSc Analytical & Environmental Chemistry
Universiti Malaysia Terengganu, Kuala Terengganu, MALAYSIA
Jun 2003- May 2006
Dean List's award : July 2005 (GPA 3.607)
Dean List's award : December 2005 (GPA 3.930)

Matriculation Science
Kolej MARA Kulim, Kulim, Kedah, MALAYSIA
Jan 2002- Dec 2002

Secondary School
Sek. Men. Sains Raja Tun Azlan Shah, Taiping, Perak, MALAYSIA
Jan 1997- Dec 2001

Primary School
Sekolah Kebangsaan Air Hitam, Alor Setar, Kedah, MALAYSIA
Jan 1991- Dec 1996

EMPLOYMENT HISTORY

UiTM Shah Alam | Senior Lecturer
August 2019- Now

UiTM Tapah | Senior Lecturer
Sept 2014- July 2019

INTEC Education College (UiTM) | Lecturer
Mar 2011-Aug 2014

UiTM Jengka | Lecturer
Apr 2008 – Mar 2011

Shorubber (M) Sdn. Bhd | Technical Support Assistant Engineer
May 2006 -Dec 2006

Jabatan Alam Sekitar, Shah Alam. | **Intern**
2005

1.0 TEACHING & LEARNING

1.1 TAUGHT COURSES (2008 - now)

No	Course Name	Campus	No	Course Name	Campus
1	Physical Chemistry (CHM431)	UiTM Shah Alam	7	A-Level Chemistry (ALCH10, ALCH20, ALCH30 &ALCH40)	INTEC UiTM
2	General chemistry (CHM420)	UiTM Shah Alam	8	Physical Chemistry (CHM201)	UiTM Jengka
3	Analytical Chemistry (CHM421)	UiTM Shah Alam	9	Inorganic Chemistry (CHM360)	UiTM Jengka
4	Physical Chemistry (CHM271)	UiTM Tapah	10	General Chemistry (CHM110/138)	UiTM Jengka
5	Basic Analytical Chemistry (CHM256)	UiTM Tapah	11	General Chemistry (CHM105)	UiTM Jengka
6	Physical Chemistry (CHM270)	UiTM Tapah			

2.0 SUPERVISION

POST-GRADUATE STUDENTS

MSc Chemistry

Erma Hafiza Bt Ibrahim @ Abd Aziz (2017-on going)

Co-Supervisor

Synthesis of Mg-Al Layered Double Hydroxide by Hydrothermal Reconstructed Method for Biodiesel Production

Izzah Nur Zulaikha Binti Muharram Rachman Masjhur

Supervisor

Polymer composite containing Ni/Al layered nanomaterial as filler: An efficient polymer electrolyte for lithium ion batteries Application

Muhammad Syaffiq Muhamad Halim

Liquid polymer electrolyte using nanocomposite materials

UNDERGRADUATE STUDENTS

BSc in Chemistry (Final Year Project)

1. Siti Rahwani Binti Mukhtar (Jan 2020)
Supervisor
Study of NiAl Layered Double Hydroxide Properties on Supercapacitor Activity
2. Siti Nadiyah Mohd Tarmizi
Supervisor
Lithium Salt dissociation behavior of high molecular weight PEO/ENR liquid electrolyte system at 25°C and 20°C.
3. Rabiatal Adawiyah Mohd Agus (Sept 2019)
Supervisor
Fabricating Tertiary Nanosheet Hydrothermally NiCoAl LDH for Battery Application
4. Nur Batrisyia Hazirah binti Mohamad (Sep 2019)
Supervisor
Synthesis and Characterization of 2D NiMnLDH Nanocrystal Material via Hydrothermal Approach
5. Nurul Natasha Sharom (Jan 2019)
Supervisor
Comparison of waste Freshwater shell of mussel, clam and mentarang or biodiesel reaction using waste cooking oil
6. Siti Hajar Abd Halim (Jan 2019)

Supervisor
Synthesis of NiAl Alkali Free Layered Double Hydroxide

7. Syahirah Syazwani Binti Shahrudin (Jan 2019)
Supervisor
Synthesis of ZnAl Alkali-Free Layered Double Hydroxide for Biodiesel application from Waste Cooking Oil
8. Nor Fazira Edlina Binti Ismail (July 2018)
Supervisor
Synthesis of Calcined Mg/Al Mixed Oxides from Alkali-Free Hydrotalcite Catalyst for Transesterification of Waste Cooking Oil to Biodiesel
9. Nur Atiqah binti Abu Mansor (July 2013)
Supervisor
Esterification of Soybean Oil Based with 1,2-Propanediol for Biolubricant Properties
10. Nurul Jannah Alwi (July 2013)
Supervisor
Improvement of Biolubricant Properties Through Esterification of 2,3-Butanediol Jatropha Curcas Based Oil.
11. Nor Kartini Ibahim (Jan 2013)
Co-supervisor
Synthesis of Ester Trimethylpropane from Olive Oil by Transesterification Process
12. Nor Iman bin Mokhtar (Jan 2013)
Co-supervisor
Synthesis of Ganola Oil Based Trimethylpropane Ester
13. Junaidah Awang Jad (Jan 2013)
Co-supervisor
Synthesis of Ester TMP Based Sunflower Oil as Biolubricant Based Stock

Diploma in Science (DIS)

Nurul Wahida Zulkepli, Nor Syuhada Samsuddin, Nur Ain Abdul Ghafar & Nazwane Sudin (Feb 2010)
Co-Supervisor
A study of different characteristic of Arachis Hypogaea L.Oil and Prunus Amygdalus Oil

3.0 RESEARCH & PUBLICATIONS

INDEXED JOURNALS

Hamzah, N, Samad, WZ, N.A.Tajuddin & Yarmo A, 2019, Characterization And Catalytic Activity Of Os/bentonite Catalyst For Hydrogenolysis Of Glycerol, Malaysian Journal of Analytical Chemistry,2,23, 5,892

N.A.Tajuddin, R. Saleh, J.c.manayil, M.isaacs, C.M.A. Parlett, A.f.lee & K. Wilson,2019, Hydrothermal Reconstructing Routes Of Alkali-free ZnAl Layered Double Hydroxide: A Characterization Study.,Solid State Phenomenal,290,0,168-176.

N.A.Tajuddin, Jinesh C. Manayil, Mark A. Isaacs, Christopher M.A. Parlett, Adam F. Lee & Karen Wilson,2018, Alkali-free Zn-al Layered Double Hydroxide Catalysts For Triglyceride Transesterification,Catalysts,8,12,1-11.

N.A.Tajuddin , Nor Habibah Binti Mohd Rosli, Noraishah Binti Abdullah, Mohd Firdaus Yusof & Jumat Salimon,2014, Estolide Ester From Ricinus Communis L. Seed Oil For Biolubricant Purpose, Malaysian Journal of Analytical Chemistry, 2,18,1,85

NON-INDEXED JOURNALS

Hamzah, N & N.A. Tajuddin,2018, Potential Feedstock of Rubber Seed Oil for Biodiesel Production, International Journal of Engineering & Technology, 7 (4.14) (2018) 196-199 ,7,4,196-199.

Erma Hafiza, N.A.Tajuddin, Hamzah, N,2018, Synthesis And Characterization Of Alkali Free Mg-al Layered Double Hydroxide For Transesterification Of Waste Cooking Oil To Biodiesel: Effect Of Mg/al Ratio,International Journal Of Engineering & Technology, 7 (4.14) (2018) 154-157 ,7,4,154-157.

N.A.Tajuddin, Wan Zuraida Binti Wan Mohd Zain, Norizan Binti Ahmat @ Abdul Hamid,2010, The Antioxidant Studies Of Dipterocarpaceae Spesies From Uitm Forest Reserve, Jengka, Pahang. ,Csr On leee Conference 2010 International Conference On Science And Social Research,10,10.1109,473 – 478.

Nor Habibah Binti Mohd Rosli, Sharafatinnajha Shafie, N.A.Tajuddin,2013, Preliminary Study: Vitamin C In Paederia Foetida Leaves,The Open Conference Proceedings Journal,4,0,9-11.

N.A.Tajuddin,2009, Determination Of Minimum Inhibition Concentration (mic) Of Shorea Bracteolate For Antibacterial Study ,Determination Of Minimum Inhibition Concentration (mic) Of Shorea Bracteolate For Antibacterial Study ,2,2009,341-345.

PROCEEDING PAPERS

N.A.Tajuddin, Nor Habibah Binti Mohd Rosli, Noraishah Binti Abdullah , 2013,Transesterification of olive oil trimethylolpropane ester for renewable biolubricants purposes, 1st International Conference of Chemical,Nano and Sustainable Engineering (ICCNSE2013), Academic Society if Science, Engineering & Technology (ASSET).

Nor Habibah Binti Mohd Rosli, N.A.Tajuddin, Sarifah Fauziah Binti Syed Draman, Zarina Binti Omar , 2012,Determination of quercetin in local kalanchoe pinnata extract using high performance liquid chromatography', UMT 11th International Annual Symposium on Sustainability Science and Management (UMTAS 2012), Terengganu,MALAYSIA 978-967-5366-93-2.

N.A.Tajuddin, Nor Habibah Binti Mohd Rosli, Noraishah Binti Abdullah , 2012,Estolide ester from ricinus communis l. seed oil for biolubricant purpose, International Seminar of Analytical Sciences (SKAM 25),Tiara Convention Center, Medan, Indonesia, Universiti Sumatera Utara (USU) & Universiti Kebangsaan Malaysia (UKM).

Nor Habibah Binti Mohd Rosli, N.A.Tajuddin, Zarina Binti Omar, Sarifah Fauziah Binti Syed Draman , 2012,Extraction of quercetin from kalanchoe pinnata leaves, INTEC Academic Conference, Hotel UiTM,Malaysia. 978-983-42126-2-9

N.A.Tajuddin, Noraishah Binti Abdullah , 2012,Synthesis & characterization of estolide trimethylpropyl ester via oleic acid catalyzed, INTEC Academic Conference, Hotel UiTM,Malaysia, 978-983-42126-2-9.

Noraishah Binti Abdullah, N.A.Tajuddin, 2012,Synthesis and characterization castor oil-oleic based estolide ester, International Seminar of Analytical Sciences (SKAM 25), Tiara Convention Center, Medan, Indonesia, Universiti Sumatera Utara (USU) & Universiti Kebangsaan Malaysia (UKM).

N.A.Tajuddin, Noraishah Binti Abdullah, Nor Habibah Binti Mohd Rosli , 2012,Synthesis of estolide 2-ethylhexyl ester from ricinus communis, Oil & Fats Conference (SMILE 2012) Hotel Kuah Langkawi, MALAYSIA, Universiti Kebangsaan Malaysia (UKM).

N.A.Tajuddin, 2010,Chlorpyrifos residues in the chili grown in agriculture soils at universiti teknologi mara pahang
Studies On Different Minimal Inhibition Concentration (mic) Of Shorea Bracteolate Species Against Selected Bacteria, The Regional Seminar On Science Technology and Social Sciences STSS 2010, 978-983-2607-24-3

N.A.Tajuddin, 2009,Studies on different minimal inhibition concentration (mic) of shorea bracteolate species against selected bacteria, Malaysia Natural Products International Seminar Silver Jubilee "Natural Product R&D Leads from Nature", Universiti Malaysia Pahang.

CHAPTER(s) IN RESEARCH BOOK & CHAPTER(s) IN BOOK

N.A.Tajuddin, Adam F. Lee, Karen Wilson, 2016, Production of biodiesel via catalytic upgrading and refining of sustainable oleaginous feedstocks,Handbook of biofuels production : processes and technologies, 978-0-08-100455-5, Elsevier.

GENERAL PUBLICATIONS

Hamzah, Noraini, Ibrahim M. Lokman, Ibrahim M. Lokman, Ibrahim M. Lokman, M. S. Mastuli, N.A.Tajuddin, 2017, A new polycyclic carbon based solid acid catalyst for biodiesel production from pfad via supercritical technique,2-145.

Hamzah, Noraini, Hamzah, Noraini, Ibrahim M. Lokman, M. S. Mastuli, N.A.Tajuddin, Sabiha Hanim Binti Saleh, 2017, Green Catalyst For Glycerol Conversion To Fine Chemical ,2-145.

Noraishah Binti Abdullah, N.A.Tajuddin, Nor Suhaila Binti Mohamad Hanapi, Siti Kartina Binti Abdul Karim, Zitty Sarah Ismail, Siti Mariam Bt Sumari, 2013, Castor Oil-oleic Based Estolide Ester As Potential Biolubricant,65.

N.A.Tajuddin, Noraishah Binti Abdullah, Nor Habibah Binti Mohd Rosli, Siti Mariam Bt Sumari, 2013, Conversion Of Vegetable Oil Towards A Greener Biodiesel,158.

Nor Habibah Binti Mohd Rosli, N.A.Tajuddin, 2013, Low Cost Adsorbent From Jackfruit Peel For Chromium And Copper Removal,150.

Siti Mariam Bt Sumari, Zitty Sarah Ismail, Hm Rasid, Adibatul Husna Fadzil, N.A.Tajuddin, 2013, Uptake Of Cooper Using Modified Layered Double Hydroxide, 87.

N.A.Tajuddin, Wan Zuraida Binti Wan Mohd Zain, Norizan Binti Ahmat @ Abdul Hamid, 2010, Antioxidant And Antimicrobial Studies On Selected Species Of Dipterocarpaceae From Uitm Forest Reserve, Jengka, Pahang

RESEARCH GRANTS

FRGS -ON GOING

RM 90,000.00

FRGS/1/2019/STG07/UITM/02/23 (KPT) & 600-IRMI/FRGS 5/3 (403/2019) (IRMI)

Effect of Sodium Loading on Clay Based Heterogeneous Catalysts for Transesterification of Waste Cooking oil to Biodiesel

FRGS RACER – ON GOING

RM 51,200.00

600-IRMI/FRGS-RACER 5/3 (098/2019)

Liquid Polymer Electrolyte: Molar Conductivity Study on Polyethylene Oxide (PEO) Using Calcined MgO Hydrotalcite Nanocomposite Materials

FRGS RACER – ON GOING

RM 51,200.00

600-IRMI/FRGS-RACER 5/3 (123/2019)

Polymer Composite Containing NiAl Layered Double Hydroxide Nanomaterials as Filler: An Efficient Polymer Electrolyte for Lithium Ion Batteries Application

BESTARI – COMPLETED

RM 50,000.00

600-IRMI/DANA 5/3 BESTARI (050/2017)

Hydrothermal Reconstructed Solid Based MgAl Layered Double Hydroxide for Biodiesel Application from Jatropha Palm Oil

DANA KECEMERLANGAN– COMPLETED

RM 9820.00

600-RMI/ST/DANA 5/3/DST (121/2009)

Adsorption of Organochlorine Pesticides from Agricultual Soils in UiTM Pahang.

DANA KECEMERLANGAN– COMPLETED

RM 7560.00

600-RMI/ST/DANA 5/3/DST (117/2009)

Antioxidant & Antimicrobial Studies on Selected New Species *Dipterocarpaceae* from UiTM Forest Reserve Jengka Pahang.

TOTAL GRANT AMOUNT: RM 259,780.00

4.0 INNOVATION

AWARDS

GOLD

Synthesis of Low Cost MgAl Layered Double Hydroxide Catalyst for Biodiesel Production From Waste Cooking Oil
Penang International Invention, Innovation & Design (PIID) 2019

GOLD

A New Polycyclic Carbon Based Solid Acid Catalyst for Biodiesel Production From PFAD Via Supercritical Technique
Invention, Innovation & Design Exposition (IIDEX) 2017

SILVER

e-chem4flashcard
Innovation in Teaching & Learning Competition (InTeLec) 2020

SILVER

Green Catalyst for Glycerol Conversion to Fine Chemical
Invention, Innovation & Design Exposition (IIDEX) 2017

SILVER

Kelulut Manjakani for Eczema Fighter
Invention, Innovation & Design Exposition (IIDEX) 2017

SILVER

Sugar Bait for Housefly Catcher
Invention, Innovation & Design Exposition (IIDEX) 2017

SILVER

Green Biodiesel from Non-Edible Feedstock
Scientific Research Invention & Innovation Competition (SRIIC) 2017

SILVER

Biodiesel Production from Palm Oil Refinery by Product using biobased Solid Acid Catalyst
Scientific Research Invention & Innovation Competition (SRIIC) 2017

BRONZE

Green Layered Double Hydroxide (LDH)
Invention, Innovation & Design Exposition (IIDEX) 2018

BRONZE

Conversion of Waste Cooking Oil to Biodiesel
Invention, Innovation & Design Exposition (IIDEX) 2018

BRONZE

Green Catalyst for Glycerol Conversion to Value Added Chemicals
Scientific Research Invention & Innovation Competition (SRIIC) 2017

BRONZE

Conversion of Vegetable Oil Towards A Greener Biodiesel
International Innovation Design & Articulation (IIDEA) 2013

BRONZE

Castor Oil Based Estolide Ester as Potential Lubricant
International Innovation Design & Articulation (IIDEA) 2013

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Green Layered Double Hydroxides (LDH)
LY2018004024

Kelulut Manjakani for Eczema Fighter
LY2017003348

Sugar bait for Housefly Catcher

5.0 REFERENCES

Professor Karen Wilson
RMIT University
Applied Chem & Environmental Science
School Science
Victoria 3000
AUSTRALIA
Email: karen.wilson2@rmit.edu.au

Professor Adam Fraser Lee
RMIT University
Applied Chem & Environmental Science
School Science
Victoria 3000
AUSTRALIA
Email: adam.lee2@rmit.edu.au