CURRICULUM VITAE



Dr. Ali H. Jawad Al-Taie

Senior Lecturer Editor-In-Chief, Science Letters (ISSN:1675-7785)

School of Chemistry and Environment

Faculty of Applied Sciences

Universiti Teknologi MARA (UiTM)

40450 Shah Alam, Selangor, Malaysia

Office Phone: +60-3-55211721

Fax: +60-3-55444562

Mobile:+60-164045785

e-mail:<u>ali288@salam.uitm.edu.my</u> <u>ahjm72@gmail.com</u>

A. Personal

Marital Status: Married

Nationality: IRAQI

Current Position: Senior Lecturer, School of Chemistry and Environment

Editor-In-Chief, Science Letters (ISSN:1675-7785)
Faculty of Applied Sciences, Universiti Teknologi MARA

(UiTM) Shah Alam.

Science Letters homepage: https://scilett-fsg.uitm.edu.my/index.php/editorial-board

Group homepage: https://fsg.uitm.edu.my/v1/research/194-center-of-coals-a-

biomass-energy-research.html

Google Scholar Citations: http://scholar.google.com.my/citations?user=_uMgRvcAA

AAJ&hl=en

Scopus Citation https://www-scopus-

com.ezaccess.library.uitm.edu.my/authid/detail.uri?author

Id=36011774300

ORCID ID http://orcid.org/0000-0002-4827-9093

Research gate: https://www.researchgate.net/profile/Ali H Jawad/citation

s?sorting=citationCount&page=1

Area of Specialization Photocatalysis & Adsorption Technology

Keywords: Environmental Photocatalysis; Biopolymer; Adsorption;

Wastewater treatment; Chitosan; Cross-linking; Activated

Carbon: Biomass

B. Education and Academic Qualifications

B.Sc. Chemistry Chemistry Department, 1995

College of Education for pure sciences, Ibn Al-

Haitham, University of Baghdad, IRAQ.

M.Sc. Physical Chemistry Chemistry Department, 2000

College of Sciences for Women, University of Baghdad, IRAQ.

Ph.D. Environmental School of Chemical Sciences, 2011

Chemistry University of Science Malaysia, Penang,

MALASIA

C. Academic Appointments

May 2012 to Present Senior Lecturer

School of Chemistry and Environment,

Faculty of applied Sciences

UNIVERSITI TEKNOLOGI MARA,

PERLIS AND SHAH ALAM CAMPUSES, SELANGOR,

MALAYSIA

Dec. 2001- Sep. 2006 Lecturer

Chemistry Department

AL-MERGHEB UNIVERSITY, LIBYA

Sep. 2001- Nov.2001 Assistant Lecturer

Chemistry Department, Collage of Sciences,

AL-MUSTANSIRIYAH UNIVERSITY,

BAGHDAD, IRAQ

Sep. 1996 – Oct. 1997 Lab Demonstrator

Chemistry Department,

College of Education for Pure Science, Ibn Al-Haitham

BAGHDAD UNIVERSITY, IRAQ

D. Funded Research Received

i. Ongoing Research Grants

1. Type: International Research Grant

Agency: Al-Muthanna University, IRAQ

Role: Principal Investigator

Title: Development of low-cost activated from biomass waste for removal of

water pollutants

Period: 2nd January 2018 – 31 December 2018 Amount: 3,000 USD

2. Type: Incentive Research Grant (Geran Insentif Penyeliaan, GIP)

Agency: Uninersiti Teknologi MARA

Role: Principal Investigator

Title: Fabrication of an immobilized cross-linked chitosan-glyoxal film for

adsorption of acid and reactive dyes

Period: 1st July 2017- 30 June 2018 **Amount: 20,000 RM**

3. Type Fundamental Research Grant Scheme (FRGS)

Agency: Ministry of Higher Education (MOHE) Malaysia

Role: Co-Investigator, PI: Asnida Yanti Ani

Title Threshold Level of Microwave Irradiation on Carbonization and

Activation of Rubber Seed Pericarp

Period: 1st August 2016- 31 July 2018 **Amount: 77,200. 00 RM**

4. Type: Consultancy Research Grant

Agency: Bellus Terra Sdn Bhd

Role: Co- Investigator, PI: Khairul Adzfa Radzun

Title: Effective Microbe for Biofertilizer

Period: 17 August 2017– 16 August 2022 **Amount: 500,000.00 RM**

5. Type: Research University/ Research Entity Initiative (REI)

Agency: Universiti Teknologi MARA

Role: Co- Investigator, PI: Dr. Wan Izhan Nawaawi Bin Wan Ismail

Group title Coal and Biomass Energy Research Group

Period: 1st March 2017 – 28 February 2018 **Amount: 32,000.00 RM**

ii. Completed Research Grants

1. Type: Research University /Research Acculturation Grant Scheme (RAGS)

Agency: Universiti Teknologi MARA

Title: Adsorption mechanism of the basic dye on the surface of chemically

modified fallen coconut leaves

Role: Co-Investigator, PI: Nur Nasulhah Kasim

Period: 1st December 2014 – 30 November 2016 **Amount: 80,000.00 RM**

2. Type Research University /Research Acculturation Grant Scheme (RAGS)

Agency: Universiti Teknologi MARA

Title: Microwave assisted carbon, nitrogen modified TiO₂ photocatalyst

using urea as precursor for enhanced photodegradation of organic

pollutants

Role: Co- Investigator, PI: Dr. Wan Izhan Nawaawi Bin Wan Ismail

Period: 1st December 2014 – 30 November 2016 **Amount: 80,000.00 RM**

E. Research Supervision

i. Supervision of Postgraduate Students

Student name and number	Thesis title	Programme Level & Study mode	Role	Status
Nur Shazwani Abdul Mubarak (2014411766)	Fabrication of Cross-Linked Chitosan/Nano TiO ₂ Hybrid Composite Beads for Reactive Red 120 Dye Removal from Aqueous Solution	AS757-M.Sc. by research	Supervisor	Completed
Ramlah Abd Rashid (2014553567)	Preparation of activated carbon from coconut leaves via pyrolysis process by using KOH and H ₃ PO4 activators for removal of methylene blue.	AS757-M.Sc. by research	Supervisor	Completed
Siti Nurlia Ali (2010477554)	Liquefaction of Mukah Coal using tetralin-glycerol Mixed solvent system	AS990-Ph.D. by research	Co-Supervisor	Completed
Nur Farah Hanani Mamat (2016837044)	Comparative adsorption studies on reactive red 120 and metyhl orange on different cross-linked chitosan film coated on glass plate	AS757-M.Sc. by research	Supervisor	Ongoing- Semester 3
Siti Solehah Ahmad Norrahma (2016949017)	Adsorption of acid and reactive dyes using glyoxal grafted crosslinked chitosan film.	AS757-M.Sc. by research	Supervisor	Ongoing- Semester 2
Wasan Abdulazzez Nasir	Preparation of phosphorylated cross-linked chitosan beads for the removal of textile dyes	M.Sc. by research	Co-Supervisor	Ongoing- Semester 4
Asrul Farrish O K R Udaiyappan (2016275854)	Application of Box Behnken Design for optimizing the COD reduction of real industrial water by using commercial activated carbon	EVT728- M.Sc. by coursework	Supervisor	Completed
Sirasit Meesiri	Development of porous activated carbon from lignite coal	Under program of international mobility student-from Phayao University, Thailand	Advisor for two months	Completed

ii. Supervision of Final Year Projects (FYP)

- **1.** Safirah Abdul Wahab **(2018)**. Simple approach for development of a porous Titanium dioxide immobilized film by photocatalysis.
- **2.** Nur Farzana Muhamad Ismail **(2018)**. Photocatalytic decolorization of reactive orange 16 dye by an immobilized layer-by-layer system TiO2/Chitosan-Glyoxal under fluorescent lamp: Optimization using response surface methodology (RSM).
- **3.** Norhidayu Tolaha **(2017)**. Decolourization of thionine dyes by crosslinked chitosan-activated charcoal beads with epichlorohydrin.

- **4.** Norhashimah Adnan **(2017)**. Adsorption of thioninedye by crosslinked chitosan/activated charcoal with glutaraldehyde beads.
- **5.** Nur Diyana Kamaruddin **(2017)**. Adsorption of thionine dye solution by chitosan- activated charcoal composite beads
- **6.** Nurul Nabilah Rohani **(2016)**. Adsorptive removal of methylene blue by crosslinked chitosan-zeolite beads.
- **7.** Khairun Faizzah Mahmood **(2016)**. Adsorption of malachite green dye from aqueous solution using crosslinked chitosan-TiO₂ composite beads.
- **8.** Siti Suhana Ibrahim **(2016)**. Removal of reactive orange 16 dyes by using nanocomposite chitosan-titanium dioxide beads.
- **9.** Nur Farzana Mohd Izani **(2016)**. Adsorption of malachite green (mg) dye from an aqueous solution using crosslinked chitosan-epichlorohydrin beads.
- **10.** Farhani Mohamad Ismail **(2016)**. Preparation and characterization of activated carbon from corn cob to remove methylene blue from aqueous solution.
- **11.** Fathiah Awanis Ibrahim **(2016)**. Adsorptive removal of reactive red 120 by cross-linked chitosan-zeolite beads.
- **12.** Haszieyatul Affidah Hasnan **(2016)**. Optimization of methylene blue colour removal by using h2so4 treated coal: application of Box-Behnken Design (BBD).
- **13.** Sherra Bellina Barrabas **(2015)**. Adsorption removal of reactive red dye using cross-linked chitosan and composite cross-linked nano TiO₂ beads: an optimized process.
- **14.** Nur Syafiqah Ali **(2015)**. Development of cross-linked chitosan / TiO₂ Kronos composite for reactive red 120 removal.
- **15.** Noor Asliza Ismail Adnen **(2015)**. Preparation and characterization of chemically activated pomegranate peels by optimization of adsorption parameters for removal of methylene blue from aqueous solution.
- **16.** Nurliyana Ismail **(2015)**. Methylene blue removal from commercial activated carbon.
- **17.** Nur Izzati Azmi **(2015)**. Decolorization of reactive red 120 (RR120) on composite cross-linked chitosan-titanium dioxide anatase: equilibrium, and thermodynamic function.
- **18.** Mohd Hariz Shafie **(2015)**. Preparation of activated carbon from merit kapit (merit-pila) coal using microwave-assisted potassium hydroxide (KOH) activation for methylene blue dye removal.
- **19.** Nur Farah Hanani Mamat (**2015**). Removal of methylene blue from aqueous solution by activated carbon prepared from mango peels.
- **20.** Nurul Amira Ghani **(2015)**. Adsorption of malachite green dye on the composite crosslink chitosan- TiO₂ (kronos) beads: isotherm, kinetic, and thermodynamic studies.
- **21.** Siti Solehah Ahmad Norrahma **(2014)**. Preparation of activated carbon from modified coconut leaves by microwave assisted phosphoric acid (H₃PO₄) activation for methylene blue removal.

- **22.** Nadia Syazana Abd Halim **(2014)**. Adsorptive removal of methylene blue using an activated carbon developed from coconut leaves via microwave assisted NaOH.
- **23.** Mohd Hasbullah Ramli **(2014)**. Removal of Methylene blue using chemically treated coconut leaves powder.
- **24.** Mohamad Asyran Anuar **(2014)**. Removal of Methylene blue using untreated coconut leaves powder.
- **25.** Nur Shazwani Abdul Mubarak **(2013)**. Kinetics of photocatalytic decolourization of cationic dye using porous TiO₂ film.
- **26.** Muhammad Syahidin Mohd Saiful **(2013)**. Adsorption of methylene blue from aqueous solution by using acid-treated coconut leaves powder.

F. Published research works

i. <u>Publication in National & International Peer-Reviewed and Indexed Journals with impact factor</u>

• Publication in 2018

- Ramlah A Rashid, *Ali H. Jawad*, Mohd Azlan Mohd Ishak, Nur Nasulhah Kasim . FeCl₃-activated carbon developed from coconut leaves: Characterization and application for Methylene blue removal. Sains Malaysiana, Volume 47, Number 3, March.(ISI; Q3 Journal with impact factor 0.350)
 .2018http://www.ukm.my/jsm/english_journals/vol47num3_2018/contentsVol47num3_2018.htm.
- Ali H. Jawad, Ramlah A Rashid (2018). Adsorptive removal of methylene blue by chemically treated cellulosic waste banana (Musa sapientum) peel. Desalination and Water Treatment, Manuscript ID: TDWT-2018-0001: Under Review. (DESWATER;ISI; Q2; IF 1.631).

• Publication in 2017

- Ali H. Jawad, Md Azharul Islam, B.H. Hameed (2017). Cross-linked chitosan thin film coated onto glass plate as an adsorbent for adsorption of reactive orange 16. International Journal of Biological Macromolecules, 95, 743–749. (Elsevier; ISI; Q1; IF: 3.671).
- 2. *Ali H. Jawad*, M.A. Nawi, Mohamed H. Mohamed, Lee D. Wilson (2017). Oxidation of chitosan in solution by photocatalysis and product characterization. *Journal of Polymers and the Environment*, *Journal of Polymers and the Environment* (2017) 25, 828–835. (Springer; ISI; Q2; IF: 1.877).
- 3. Ali H. Jawad, N. F. Hanani Mamat, Mohd Fauzi Abdullah, Khudzir Ismail (2017). Adsorption of methylene blue onto acid-treated Mango peels: Kinetic, equilibrium and thermodynamic study. Desalination and Water Treatment, 59, 210–219. (DESWATER;ISI; Q2; IF 1.631).

- 4. Ali H. Jawad, S. Sabar, Mohd Azlan Mohd Ishak, Lee D. Wilson, Siti Solehah Ahmad Norrahma, Talari M. K., Ahlam M. Farhan (2017). Microwave-assisted preparation of mesoporous activated carbon from coconut (Cocos nucifera) leaf by H₃PO₄-activation for methylene blue adsorption. Chemical engineering communications 204 (2017) 1143–1156. (Taylor & Francis; ISI; Q3; IF: 1.433).
- 5. Nur Shazwani Abdul Mubarak, *Ali H. Jawad*, W.I. Nawawi (2017). Equilibrium, kinetic and thermodynamic studies of Reactive Red 120 dye adsorption by chitosan beads from aqueous solution. *Energy, Ecology and Environment*, 2, 85–93. (Springer).
- 6. Ali H. Jawad, Mohd Azlan Mohd Ishak, Ahlam M. Farhan, Khudzir Ismail (2017). Response surface methodology approach for optimization of color removal and COD reduction of methylene blue using microwave-induced NaOH activated carbon from biomass waste. Desalination and Water Treatment, 62, 208–220. (DESWATER; ISI; Q2; IF 1.631)
- 7. *Ali H. Jawad*, Ramlah Abd Rashid, Khudzir Ismail, S. Sabar (2017). High surface area mesoporous activated carbon developed from coconut leaf by chemical activation with H₃PO₄ for adsorption of methylene blue. *Desalination and Water Treatment*, 74, 326–335. (DESWATER; ISI; Q2; IF 1.631).
- **8.** M.S. Azami, W.I. Nawawi, *Ali H. Jawad*, M.A.M. Ishak & K. Ismail (2017). N-doped TiO₂ synthesized via microwave induced photocatalytic on RR4 dye removal under led light irradiation. Sains Malaysiana 46(8), 1309–1316. (UKM; ISI; Q3 Journal with impact factor 0.350).
- 9. Ali H. Jawad, Ramlah Abd Rashid, Emad Yousif, Wan Izhan Nawawi (2017). Equilibrium isotherms, kinetics, and thermodynamics studies of methylene blue adsorption on Pomegranate (Punica Granatum) peels as a natural low-cost biosorbent. Desalination and Water Treatment: Manuscript ID: TDWT-2017-0744.R1: Conditional acceptance (Needs revisions). (DESWATER;ISI; Q2; IF 1.631).
- 10. Ali H. Jawad, Y. S. Ngoh, Dhafir T.A. Al-Heetimi (2017). Applicability of dragon fruit (Hylocereus polyrhizus) peels as low-cost biosorbent for adsorption of methylene blue from aqueous solution: kinetics, equilibrium and thermodynamics studies. *Desalination and Water Treatment*: Manuscript ID: TDWT-2017-0744.R1: Conditional acceptance (Needs revisions). (DESWATER;ISI; Q2; IF 1.631).
- 11. Ali H. Jawad, Mohd Azlan Mohd Ishak, K. Isamil (2017). Malaysian Merit Kapit low-rank coal as a promising precursor for a large surface area activated carbon via microwave-assisted KOH activation for methylene blue adsorption. Desalination and Water Treatment: Manuscript ID: TDWT-2017-1153.R1: Conditional acceptance (Needs revisions). (DESWATER;ISI; Q2; IF 1.631).
- **12.** *Ali H. Jawad* **(2017)**. Carbonization of rubber (Hevea brasiliensis) seed shell by one-step chemical activation with H₂SO₄ for methylene blue adsorption. Desalination and Water Treatment: Manuscript ID: TDWT-2017-1196.R1: Conditional acceptance (Needs revisions). **(DESWATER;ISI; Q2; IF 1.631)**.
- 13. Ali H. Jawad, Khairul Adzfa Radzun, M. S. Mastuli (2017). Pomegranate peels collected from fresh juice shop as a renewable precursor for high surface area activated carbon with potential application for methylene blue adsorption. Under Review (DESWATER;ISI; Q2; IF 1.631).

- 14. Ali H. Jawad, Mohd Fauzi Abdullah (2017). Carbonization of corn (zea mays) cob food residue by one-step chemical activation with sulphuric acid for methylene blue adsorption. Desalination and Water Treatment: Manuscript ID: TDWT-2017-1100: Under Review. (DESWATER;ISI; Q2; IF 1.631).
- **15.** *Ali H. Jawad*, Y. S. Ngoh, Khairul Adzfa Radzun (2017). Utilization of watermelon (Citrullus lanatus) rinds as a low-cost biosorbent for adsorption of methylene blue: kinetic, equilibrium and thermodynamic studies. *Journal of Taibah University for Science*: Manuscript ID: JTUSCI-D-17-00220R1: Conditional acceptance (Needs revisions). (Elsevier, Scopus indexed).
- 16. Ali H. Jawad, Ramlah Abd Rashid, M. S. Mastuli (2017). Adsorption behavior of methylene blue on chemically treated biochar derived from rubber (Hevea brasiliensis) leaf. Desalination and Water Treatment: Manuscript ID: TDWT-2017-1530: Under Review. (DESWATER;ISI; Q2; IF 1.631).
- 17. Ali H. Jawad, Ramlah Abd Rashid (2017). Development of renewable biochar from orange (citrus sinensis) peels by one-step acid activation for methylene blue adsorption. Iranian Journal of Chemistry and Chemical Engineering. Manuscript ID: IJCCE-2726: Under review (Iranian Institute of Research and Development in Chemical Industries; ISI; Q4; IF 0.606).
- **18.** *Ali H. Jawad*, Khudzir Ismail, Mohd Azlan Mohd Ishak (2017). Low rank coal-based mesoporous activated carbon by microwave-assisted KOH activation for removal of methylene blue. *Environmental Chemical Engineering*. Manuscript Number: JECE-D-17-02077, Under Review. (Elsevier, Scopus indexed).

Publications in 2016

- Ramlah Abd Rashid, *Ali H. Jawad*, Mohd Azlan Mohd Ishak, Nur Nasulhah Kasim (2016). KOH-activated carbon developed from biomass waste: Adsorption equilibrium, kinetic and thermodynamic studies for Methylene blue uptake. *Desalination and Water Treatment*, 57, 27226–27236. (Taylor & Francis; ISI; Q2; IF: 1.631).
- 2. *Ali H. Jawad*, Ramlah Abd Rashid, Mohd Azlan Mohd Ishak, Lee D. Wilson (2016). Adsorption of methylene blue onto activated carbon developed from biomass waste by H₂SO₄ activation: kinetic, equilibrium, and thermodynamic studies. *Desalination and Water Treatment*, 57, 25194–25206. (Taylor & Francis; ISI; Q2; IF: 1.631).
- 3. Emad Yousif, Jumat Salimon, Nadia Salih, *Ali H. Jawad*, Yip-Foo Win, (2016). New stabilizers for PVC based on some diorganotin (IV) complexes with benzamidoleucine. *Arabian Journal of Chemistry*, 9, S1394–S1401. (Elsevier; ISI; Q1; IF: 4.553).
- 4. Ali H. Jawad, Ramlah Abd Rashid, Roweda M. A. Mahmuod, Mohd Azlan Mohd Ishak, Nur Nasulhah Kasim, Khudzir Ismail (2016). Adsorption of methylene blue onto coconut (Cocos nucifera) leaf: Optimization,isotherm and kinetic studies. Desalination and Water Treatment, 57, 8839–8853. (Taylor & Francis; ISI; Q2; IF: 1.631).
- Ali H. Jawad, Nur Shazwani Abdul Mubarak, Mohd Azlan Mohd Ishak, Khudzir Ismail, W. I. Nawawi (2016). Kinetics of photocatalytic decolorization of cationic dye using porous TiO₂ film. Journal of Taibah University for Science, 10, 352–362. (Elsevier, Scopus indexed).

• Publications in 2015

- Ali H. Jawad, Abbas F.M. Alkarkhi, Nur Shazwani Abdul Mubarak (2015). Photocatalytic degradation of Methyelen blue by an immobilized TiO₂ film under visible light irradiation: Optimization using response surface methodology (RSM). Desalination and Water Treatment. 56, 161–172. (Taylor & Francis; ISI; Q2; IF: 1.631).
- 2. Wan Izhan Nawawi Wan Ismail, S. K. Ain, R. Zaharudin, *Ali H. Jawad*, M. A. M. Ishak, Khudzir Ismail, and Sudirman Sahid (2015). New TiO₂/DSAT Immobilization System for Photodegradation of Anionic and Cationic Dyes. *International Journal of Photoenergy*, doi:10.1155/2015/232741. (Hindawi; ISI; Q3; IF:1.277).

Publication in 2014

 Ogugbue, C. Jason, *Ali H. Jawad*, Omead I. Hussain, Abbas F. M. Alkarkhi, Mohd. Rafatullah (2014). Statistical Optimization of Simultaneous Saccharification and Fermentation of Food Waste for Production of Glucose and Lactic Acid using Response Surface Methodology. *Journal of Applied Statistical Research*. 2, 1-12. (Non-indexed Journal).

• Publication in 2013

 Ali H. Jawad, A.F.M. Alkarkhi, O.C. Jason, A.M. Easa, N.A.N. Norulaini (2013). Production of the lactic acid and glucose from Mango peel waste - Factorial experiment. Journal of King Saud University (Science). 25 (2013)39–45. (Scopus indexed).

Publications in 2012

- 1. *Ali H. Jawad*, and M.A. Nawi, M. A (2012). Characterizations of the photocatalytically-oxid cross-linked chitosan- glutaraldehyde and its application as a sub-layer in the TiO₂/CS-GLA bil photocatalyst system. *Journal of Polymers and the Environment*. 20, 817–829. (Springer; Q2; IF: 1.877).
- **2.** *Ali H. Jawad*, and M.A. Nawi (2012). Oxidation of crosslinked chitosan- epichlorohydrine film and its application with TiO₂ for phenol removal. *Carbohydrate Polymers*. 90, 87– 94. (Elsevier; ISI; Q1; IF: 4.811).

• Publications in 2011

- 1. M.A. Nawi, *Ali H. Jawad*, S. Sabar, and W. S. W. Ngah (2011). Photocatalytic-oxidation of solid state chitosan by immobilized bilayer assembly of TiO₂—chitosan under a compact household fluorescent lamp irradiation. *Carbohydrate Polymers*, 83 (2011) 1146–1152. (Elsevier; ISI; Q1; IF: 4.811).
- **2.** M.A. Nawi, *Ali H. Jawad*, S. Sabar, and W. S. W. Ngah **(2011)**. Immobilized bilayer TiO₂/chitosan system for the removal of phenol under irradiation by a 45 watt compact fluorescent lamp. *Desalination*, 280, 288-296. **(Elsevier; ISI; Q1; IF: 5.527).**

3. *Ali H. Jawad*, and M. A. Nawi (2011). Fabrication, optimization and application of an immobilized layer-by-layer TiO₂/Chitosan system for the removal of phenol and its intermediates under 45-W fluorescent lamp. *Reaction Kinetics, Mechanisms and Catalysis*, 106, 49–65. (Springer; ISI; Q4; IF:1.264).

• Publication in 2010

 M. A. Nawi, S. Sabar, *Ali H. Jawad*, Sheilatina and W. S. W. Ngah (2010). Adsorption of reactive Red 4 by immobilized chitosan on glass plate: Towards the design of immobilized TiO₂-chitosan synergistic photocatalyst-adsorption bilayer system. *Biochemical Engineering Journal*, 49,317-325. (Elsevier; ISI; Q1; IF: 2.368).

ii. Publications in National/International Conferences/Proceedings

- 1. S. A. M. Amran, K Ismail, A. B. Alias, S.S.A. Syed-Hassan, Ali H. Jawad (2017). Preparation and Characterization of Single and Mixed Activated Carbons Derived from Coconut Shell and Palm Kernel Shell through Chemical Activation Using Microwave Irradiation System. *Materials Science Forum*, 889, 215-220. (Scopus indexed).
- 2. M.A.M. Ishak, K. Ismail, W.I. Nawawi, Ali H. Jawad, A.Y. Ani, Z. Zakaria (2017). In-situ Transesterification of Jatropha curcas L. Seeds for Biodiesel Production using Supercritical Methanol. MATEC Web of Conferences, 97, 01082. (Scopus indexed).
- **3.** Ali H. Jawad, Nur Shazwani Abdul Mubarak,W. I. Nawawi (2016). Optimization of Sorption Parameters for Color Removal of Textile Dye by Cross-linked Chitosan Beads Using Box-Behnken Design, **MATEC Web of Conferences**, 47, 05009.
- **4.** M A M Ishak, K Ismail, W Nawawi, **Ali H. Jawad**, M F Abdullah, M N, Kasim, A Y Ani **(2016)**. Characteristics and Thermal Behaviour of Low Rank Malaysian Coals towards Liquefaction Performance via Thermogravimetric Analysis. **Soft Soil Engineering International Conference**, 136, 1-7. **(Scopus indexed)**.
- **5.** M.S. Azami, W.I. Nawawi, M. A. M Ishak, K Ismail, Z Ahmad, **Ali H. Jawad (2016)**. Carbon Nitrogen Co-Doped P25: Parameter Study on Photodegradation of Reactive Red 4. **MATEC Web of Conferences**, 47, 05018. **(Scopus indexed)**
- **6.** Wan Izhan Nawawi, HKN Mahrouqi, MA Nawi, MAM Ishak, **Ali H Jawad**, K Ismail **(2015)**. Carbon Coated TiO₂ and it Application on Photodegradation of 4-Chlorophenol under Solar Irradiation. **Applied Mechanics and Materials**, 754, 1202-1206. **(Scopus indexed)**.

iii. Chapter in book

 Mohd Azlan Mohd Ishak, Siti Nur Ain Mohd Hassan, Siti Nurlia Ali, Mohd Fauzi Abdullah, Asnida Yanti Ani, Nur Nasulhah Kasim, *Ali H. Jawad*, Wan Izhan Nawawi Wan Ismail, Khudzir Ismail (2015). Overview of Obtaining Alternative Fuels in The Co-liquefaction Processes with Biomass and Coal in Malaysia. *Biofuels - Status and Perspective,* InTech. http://dx.doi.org/10.5772/59362.

Citations Report				
Database	Total Articles in Publication List	Sum of the Times Cited	i10-index	Author h-index
ISI*	23	180	7	9
Scopus*	26	260	12	10
Google Scholar*	36	362	12	11

As of 14th May 2018 @ 10:00 am

G. Oral Presentations at National and International Conferences

- N. F. H. Mamat, *Ali. H. Jawad*, A. Y. Ani, W. I. W. Nawawi. Adsorption of thionine dye solution by chitosan- activated charcoal composite beads. "International Conference of Analytical Sciences 2017. 26-29th August 2017, Hatten Hotel, Bandar Hilir, Melaka, MALAYSIA.
- Nur Shazwani Abdul Mubarak and Ali H. Jawad. Adsorption of reactive dye onto crosslinked chitosan nano TiO₂ composite beads. THE 29th MALAYSIAN ANALYTICAL CHEMISTRY SYMPOSIUM (SKAM29), PENANG, MALAYSIA, 15-17TH AUGUST 2016.
- 3. Ali H. Jawad, N. S. A. Mubarak, W.I. Nawawi. Optimization of sorption parameters for color removal of textile dye by cross-linked chitosan beads using Box–Behnken design. The 3rd International Conference on Civil and Environmental Engineering for Sustainability 2015 (IConCEES2015), 1st and 2nd December 2015 at Equatorial Hotel, Melaka, Malaysia.
- **4.** *Ali H. Jawad* and Mohd Azlan Mohd Ishak. Adsorption of methylene blue using microwave-induced H₃PO₄ activated carbon from agricultural waste. 5th International Conference for Young Chemists (ICYC2015), School of Chemical Sciences, USM, 5th-7th August **2015** at Bayview Hotel, Penang.
- 5. Ramlah Abd Rashid, Ali H. Jawad. CLs low cost natural adsorbent for cationic dye removal. Invention, Innovation & Design Exposition 2015, iidex2015, 27-30 April 2015. Dewan Agung Tuanku Canselor (DATC), Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia.
- 6. Mohd Azlan Mohd Ishak, Nur Anis Deraman, Wan Izhan Nawawi Wan Ismail, Ali H. Jawad, Khudzir Ismail (2015). RuSPAC-Low cost good quality activated carbon. Invention, Innovation & Design Exposition 2015, iidex 2015, 27-30 April 2015. Dewan Agung Tuanku Canselor (DATC), Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia.
- 7. Mohd Azlan Mohd Ishak, Nur Syarini Binti Sahimi, Ali H. Jawad, Mohd Fauzi Abdullah, Khudzir Ismail (2014). SiCAC-High quality activated carbon from Malaysian coal.

- International Innovation, Design and Articulation (i-IDeA 2014), 16-19 September 2014. Universiti Teknologi MARA, Perlis, Malaysia.
- 8. Mohd Azlan Mohd Ishak, *Ali H. Jawad*, Nur Nasulhah Kasim, Asnida Yanti Ani, Khudzir Ismail. CoLAC-Low cost high quality activated carbon from coconut leaves. International Innovation, Design and Articulation (i-IDeA 2014), 16-19 September 2014. Universiti Teknologi MARA, Perlis, Malaysia.
- 9. Ali H. Jawad, Mohd Azlan Mohd Ishak, Khudzir Ismail, Nur Shazwani Abdul Mubarak (2014). Visible-Light-Induced Photocatalytic Degradation of Methylene Blue by Multilayer TiO₂ Coating onto Glass Plate. International Conference on Chemistry and environmental Sciences Research (ICCESR) 2014. 17-19 September 2014, Park royal resort, Penang, Malaysia.
- **10.** *Ali H. Jawad* and M. A. Nawi. Photocatalytic-Oxidation of Chitosan's Derivatives and Phenol by Immobilized TiO₂ via Bilayer Assemblage Systems under Visible Light. 2nd International Conference on Photocatalysis and Solar Energy Conversion: Development of Materials and Nanomaterials 08 12 July **2013**, Kyoto University, Japan.
- 11. Sumiyyah Sabar, Mohd Asri Nawi and Ali H. Jawad. Photocatalytic Decolourisation of Reactive Red 4 Dye By Immobilised Layer By Layer TiO₂/Cross- Linked Chitosan Derivatives System. 24th MALAYSIAN SYMPOSIUM OF ANALYTICAL SCIENCES (SKAMTM-24) 21–23 November 2011; One Hotel Helang, Langkawi, Kedah. Malaysia.
- **12.** S. Sabar, *Ali H. Jawad*, W. S. W. Ngah, M. A. Nawi. Immobilized chitosan and immobilized cross-linked chitosan for the removal of Reactive Red 4 via adsorption process. 10th Asian Conference on Analytical Sciences, 11-13 August, **2009** Putra World Trade Centre, Kuala Lumper, Malaysia.
- **13.** *Ali H. Jawad*, W. S. W. Ngah, M. A. Nawi. Photocatalytic activity of immobilized glass/crosslinked chitosan/TiO₂ for removal of phenol under low energy light source. 10th Asian Conference on Analytical Sciences, 11-13 August, **2009** Putra World Trade Centre, Kuala Lumpur, Malaysia.
- **14.** *Ali H. Jawad*, W. S. W. Ngah, M. A. Nawi. TiO₂/chitosan immobilized bilayer system for the degradation of phenol and its intermediate under low energy light source. 2nd International Conference for Yong Chemist (ICYC), 18-20 June (**2008**), USM, Penang, Malaysia.

H. Reviewing Activity

i. Reviewer for scientific journals

Member of the review panel of the following international scientific journals in Chemical Engineering, Catalysis and Environmental Science & Engineering.

No.	Journal Name	Times of Reviewing	Publisher/Indexed
1.	Journal of Cleaner Production	22	Elsevier/ ISI/Q1/IF:5.715
2.	Food Hydrocolloids	1	Elsevier/ ISI/Q1/IF:4.747
3.	Fuel Processing Technology	1	Elsevier/ ISI/Q1/IF:3.752
4.	Desalination and Water Treatment	1	DESWATER/ISI/Q2/1.631
5.	Chinese Journal of Chemical Engineering	1	Elsevier/ ISI/Q3/IF:1.174
6.	Journal of Water Process Engineering	1	Elsevier
7.	Research on Chemical Intermediates	1	Springer/ISI/Q3/IF:1.369
8.	Energy, Ecology and Environment	2	Springer
9.	Chemical and Biochemical Engineering Quarterly	1	Assoc. of Chemists and Chemical Engineers of Croatia/Q3/ISI/IF:0.923
10.	Journal of the Chemical Society of Pakistan	1	Chemical Society of Pakistan/Q4/ISI/IF:0.327
11.	International Journal of Environmental Research	1	University of Tehran/Q4/ISI/IF:0.927
12.	International Journal of Technology	2	Faculty of Engineering Universitas Indonesia
13.	e-Academia Journal	2	Universiti Teknologi MARA, Terengganu; Mycite
14.	Jurnal Intelek	5	Universiti Teknologi MARA, Perlis
15.	Journal of Agricultural Science and Food Technology	2	Tarbiat Modares University
16.	Journal of materials and Environmental Sciences	1	University of Mohammed Premier Oujda, Morocco
17.	Journal of Physical Sciences	1	Universiti Sains Malaysia, USM
18.	Rasayan journal of chemistry	1	Gujrat central University, Gandhinagar, Gujrat, India

ii. Reviewer for International Conferences

- **1.** 4th International Conference on Science and Social Research (CSSR) 2017, 6-7 December 2017 at The Pines Melaka, Malaysia.
- **2.** International Sciences, Technology and Engineering Conference (ISTEC 2016). Equatorial Hotel, Penang Malaysia, 20-23 April 2016.
- **3.** 4th International Conference on Environmental Research and Technology (4th ICERT2015), School of Industrial Technology, University Science Malaysia (USM), Penang, Malaysia.

iii. Poster Judge

- **1.** The 29th Malaysian Analytical Chemistry Symposium (SKAM29) held in Penang, Malaysia, August 15-17, 2016.
- **2.** The 30th Malaysian Analytical Chemistry Symposium (SKAM30) held in Melaka, Malaysia, August 26-29, 2017.

iv. Evaluator for working papers

- Evaluator of working paper of academic staff, Crystillinity, Tapping and Bulk Density of Microcrystalline Cellulose, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, October 2015.
- 2. Evaluator of working paper of academic staff, Bamboo leaf as a sustainable biosorbent for Cadmium (II) biosorption, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, September 2014.

v. Reviewer for a research proposal for national grant

1. Research Acculturation Grant Scheme (RAGS), Universiti Teknologi MARA.

I. Examiner for Postgraduate Theses/Proposals

No.	Role	Thesis/Proposal title, Degree, School, University, Date
1.	Internal	Reactive red 4 sensitized immobilized TiO ₂ photocatalyst for degradation of
	Examiner	Methylene blue dye. M.Sc. Thesis, Faculty of Applied Sciences, 8 th February 2018.
2.	Internal Examiner	Biosorption of Pb (II) and Methylene blue (MB) onto chemically modified spent grated coconut (Cocos Nucifera) Ph.D. (research proposal), Faculty of Applied
		Sciences, Universiti Teknologi MARA, 26th Sept. 2017.
2.	Internal Examiner	Comparative adsorption of Pb(II) ions by using sulphuric acid and urea treated petai belalang (Leucaena leuchocephala) leaf powder, M.Sc. (Thesis, Pre-Viva), Faculty of Applied Sciences, 6 th March 2017.
3.	Internal Examiner	Biodegradation of pharmaceuticals caffeine and carbazepine using bacteria, M.Sc. (research proposal), Faculty of Applied Sciences, Universiti Teknologi MARA, 22 nd February 2017.

- **4.** Internal Biodegradation of synthetic dye removal brilliant blue R and pharmaceutical paracetamol by using fungi, Faculty of Applied Sciences, Universiti Teknologi MARA, 22nd February 2017.
- Internal Treatment of dye wastewater using activated carbon from agricultural waste, Examiner M.Sc. (research proposal), Faculty of Applied Sciences, Universiti Teknologi MARA, 23rd November 2016.
- **6.** Internal A study on the synthesis of cerate-zirconate ceramic powder, M.Sc. (Thesis, Pre-Examiner Viva), Faculty of Applied Sciences, Universiti Teknologi MARA ,21st March 2016.
- 7. Internal Production of alternative Fuels in The Coliquefaction Processes with Biomass Examiner and Coal in Malaysia, Ph.D. (Thesis, Pre-Viva), Faculty of Applied Sciences, 25th June 2016.
- 8. Internal Adsorption of Methylene blue onto chemically activated Merit Kapit Malaysian Examiner Coal, M.Sc. (research proposal), Faculty of Applied Sciences, Universiti Teknologi MARA, 5th April 2016.
- 9. Internal New Technique TiO₂ immobilized PVP/DAST Towards degradation of Methyl Examiner Orange, M.Sc. (research proposal), Faculty of Applied Sciences, Universiti Teknologi MARA, 5th April 2016.
- **10.** Internal Effect of RR4 as sensitizer for enhances photocatalytic activity of immobilized Examiner TiO₂, M.Sc. (research proposal), Faculty of Applied Sciences, Universiti Teknologi MARA, 5th April 2016.
- 11. Internal Modification and characterization of immobilised water base tio2/peg using Examiner double sided adhesivetape (dsat) method and its application under photodegradation of methylene blue (MB) dye, M.Sc. (Research proposal), Faculty of Applied Sciences, Universiti Teknologi MARA, 27th October 2015.
- **12.** Internal Photocatalytic degradation of RR4 dye and its intermediates study under carbon and nitrogen modified TiO₂ photocatalyst, M.Sc. (Research proposal), Faculty of Applied Sciences, Universiti Teknologi MARA, 21st January 2015.
- 13. Internal Preparation of activated carbon from Silantek coals using microwave irradiation heating technique. M.Sc. (Defence research proposal), Faculty of Applied Sciences, 12th February 2014.
- **14.** Internal Obtaining Alternative Fuels in The Coliquefaction Processes with Biomass and Coal in Malaysia, M.Sc. (Thesis, Pre-Viva), Faculty of Applied Sciences, 25th June 2012.
- **15.** Internal Production of activated carbon from waste coconut shell via microwave irradiation carbonization system for supercapacitor electrode, M.Sc. (Thesis, Pre-Viva), Faculty of Applied Sciences, 9th June 2012.

J. Examiner/ Panel for final year proposal

Regular Examiner/ Panel for final year proposal, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, 2012-todate.

K. Teaching Experience

- i. Recourse person for a Research Methodology (FSG710), post-graduate level. Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, 1st August 2016- 31st July 2018.
- ii. Recourse person for a Special Topic (EVT734), post-graduate level. Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, 1st August 2016- 31st December 2017.
- iii. Courses Taught at Faculty of Applied Sciences, Universiti Teknologi MARA, (UiTM)
 Malaysia (2012-to-date): (RP: Resource Person) (PG: Post Graduate) (UG: Under Graduate).

Course Code	Course name	Level	Number of times Taught
FSG 710 (RP)	Research Methodology	PG	1
EVT 734 (RP)	Special Topic	PG	1
EVT 712	Water Pollution Control Technology	PG	1
EVT 714	Environmental Sampling and Analysis	PG	1
EVT 427	Environmental Science	UG	1
EVT 577	Wastewater Technology	UG	1
CHM 576	Environmental Chemistry	UG	8
CMT 555 (Class+Lab.)	Electrochem.and Corrosion	UG	6
CHM 520 (Class+Lab.)	Physical Chemistry	UG	3
CHM 556 (Lab.)	Organic Chemistry	UG	3
CHM 580	Instrumant. and spectroscopy Lab	UG	1
EVT525 (Lab)	Water Resource Technology	UG	1

iv. Courses Taught at School of Chemical Sciences, Universiti Sains Malaysia (USM), Malaysia, (2007-2011), as s Tutor and Laboratory Demonstrator

Course Code	Course name	Level	Number of times Taught
KFT 232	Physical Chemistry		
KFT331	Physical Chemistry	UG	3
KUT 205	Analytical Chemistry	UG	3
KAT340	Analytical Chemistry		

v. Courses Taught at Chemistry Department, Al-Mergheb University, Libya (2001-2006)

Course Code	Course name	Level	Number of times Taught
CHE 223	Physical Chemistry	UG	10
CHE 333	Analytical Chemistry	UG	10
CHE121	Industrial Chemistry	UG	4
CHE 112	General Chemistry	UG	4
PHY 111	General Physics	UG	2

vi. Course Taught at Chemistry Department; Al-Mustansiriyah University, IRAQ (2000-2001)

Course Code	Course name	Level	Number of times Taught
CHE 303	Physical Chemistry	UG	1

vi. Course Taught at Chemistry Department; Chemistry Department, College of Education for pure sciences, Ibn Al-Haitham, University of Baghdad, IRAQ (2000-2001)

Course Code	Course name	Level	Number of times Taught
CHE 222	Physical Chemistry	UG	2

L. University Service

- **1.** Member of Zero Wastage Group, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, 6 April 2016.
- **2.** Member of the committee for the professional lecturers of academic staff, Faculty of Applied Sciences, Universiti Teknologi MARA, 1st September 2016-31st August 2018.
- **3.** Member of the committee for the Mobility of International Students (Program Mobiliti Pelajar Antrabangsa, Universitas Negeri Yogyakarta, Indonesia, 13 December 2016-20 December 2016.
- 4. Member of the committee for the program Karnival FSG, UiTM Perlis, June 2014.
- **5**. Member of the promotion committee for the 2nd International Innovation, Design and Articulation (i-IDeA 2014), 16-19 September 2014, UiTM Perlis.
- **6**. Moderator for postgraduates symposium 2012 (PGS2012), Bangunan Al-Razi, Universiti Teknologi MARA (Perlis), 23 June 2012.

M. Awards & Recognition

- 1. Recipient of Rector's award for high impact factor publication (Anugerah Penulis Jurnal Berimpak Tinggi 2016). Hari Inovasi & Majlis Penghargaan Staf UiTM Perlis 2016, Universiti Teknologi MARA, Perlis, 22 December 2016.
- 2. Recipient of Rector's award for high impact factor publication (Anugerah Penulis Jurnal Berimpak Tinggi 2015). Hari Inovasi & Majlis Penghargaan Staf UiTM Perlis 2015, Universiti Teknologi MARA, Perlis, 26 January 2016.
- 3. Recipient of Gold Medal award (Co-investigator) for the invention: "RuSPAC-Low Cost Good Quality Activated Carbon" Awarded by: Invention, Innovation & Design Exposition 2015, iidex2015, 27-30 April 2015, Dewan Agung Tuanku Canselor (DATC), Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia.
- **4.** Recipient of Silver Medal award (Co-investigator) for the invention: "ARAU-CAT" A Novel Photocatalyst for Water Treatment. Awarded by: Invention, Innovation & Design Exposition 2015, iidex2015, 27-30 April 2015, Dewan Agung Tuanku Canselor (DATC), Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia
- **5.** Recipient of Chancellor's Sanggar Sanjung (Hall of Fame) Award 2013 for Excellence in Journal Publication, Universitii Sains Malaysia (USM).
- **6.** Recipient of USM Fellowship Scheme, IPS Universiti Sains Malaysia. September 2007-August 2010.

N. National & International Involvement / Recognition

i. Advisory and Editorial Board

- **1.** Editor-In-Chief, (ISSN: 1675-7785), Faculty of Applied Sciences, Universiti Teknologi MARA (UiTM). 1st November 2017 to 31 October 2019.
- **2.** Associate Editor of Jurnal Intelek (ISSN: 2231-7716), Universiti Teknologi MARA (UiTM) 02600 Arau campus, Perlis, Malaysia. 1st January 2014- 31 December 2016.
- **3.** Editor of International Sciences, Technology and Engineering Conference (ISTEC 2016). Equatorial Hotel, Penang Malaysia, 20-23 April 2016.
- **4.** Director of Scientific Division in the committee of the International Conference for Young Chemists (ICYC), Penang, Malaysia (2008).

ii. Professional membership

- **1.** Regular member, American Chemical Sociaty (ACS), Membership- number: 31383715, 15 August 2017.
- Regular member, Chemical Institute of Canada (CSC), Membership number: CIV_100697, 12 Oct. 2017.
- **3**. Regular member, Malaysian Analytical Sciences Society, Membership number: B015, 14 July 2017.

iii. Chairperson/Panel

- 1. Chairperson of Keynote speakers section and parallel session, Technology and Engineering Conference (ISTEC 2016). Equatorial Hotel, Penang Malaysia, 20-23 April 2016.
- **2.** Chairperson for parallel session, *5th* International Conference for Young Chemists (ICYC2015), School of Chemical Sciences, Universiti Sains Malaysia, *5th-7th* August 2015 at Bayview Hotel, Georgetown, Penang.
- **3.** Chairman, defense research proposal for M.Sc. level, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, 22nd February 2017.
- **4**. Panel for research progress monitoring, Adsorption of methylene blue onto chemicals activated of merit kapit malaysian coal, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia. February 2017.
- **5.** Panel for final year proposal, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, 2012-todate.
- **6**. Panel for final year thesis, Faculty of Applied Sciences, Uiniversiti Teknologi MARA, Malaysia, 2012-todate.

iv. Mentorship and Research collaboration

- **1.** Prof. Dr. Bassim H. Hameed, Department of Chemical Engineering, Universiti Sains Malaysia, January 2014 to present.
- **2**. Assoc. Prof. Dr. Lee D. Wilson, Department of Chemistry, University of Saskatchewan, Canada, August 2015 to present.

O. Invited Speaker/Professional talk

- **1.** Invited speaker: Research colloquium "Environmental Science and Issues: Research and Potential Study in Universiti Malaysia Perlis (UniMAP)". Organized by Centre of Excellence for Advanced Sensor Technology (CEASTech), 30 April **2014.**
- **2.** Invited speaker: Hands-on technical writing workshop organized by IRMI UiTM with LabAsia at PWTC, Kuala Lumpur. 10 October **2017**.

P. Attended Workshops

- Workshop "Characterization Porous Materials and Powder". Held at Interscince SDN BHD. 18th July 2017.
- 2. Workshop on Design of Experiment, 5-6th June 2015, USAINS, Universiti Sains Malaysia, Penang, Malaysia.\
- 3. Seminar on Making A Difference Seminar, 15th April 2014, Eastin Hotel, Penang, Perkin Elmer.
- **4.** Advance course on SPSS statistical analysis, 6th August 2014, Universiti Teknologi MARA, Perlis, Malaysia.
- **5.** QS world university rankings, 10th April 2014, Universiti Teknologi MARA, Perlis, Malaysia.
- **6.** Postgraduate Supervision And Thesis Evaluation/Innovation Expedition Series, 22nd April 2013, Universiti Teknologi MARA, Perlis, Malaysia.
- **7.** ILETS, Research / Innovation Expedition Series, 20-21 May 2013, Universiti Teknologi MARA, Perlis, Malaysia.
- 8. Impedance Spectroscopy, 2-3 Ocober 2012, Universiti Teknologi MARA, Perlis, Malaysia.
- **9.** Research interest group (RIG), 18-20 Sep. 2012, Universiti Teknologi MARA, HARVERD SUASANA HOTEL, SUNGAI PETANI, Kedah, Malaysia.
- **10.** Fundamental Concept and Application of Liquid Crystals, 6-7 Feb. 2007, Universiti Sains Malaysia, Penang, Malaysia.
- **11**. Chirality: Analysis and Emerging Issues, 23-24 Oct. 2007, Universiti Sains Malaysia, Penang, Malaysia.
- **12**. Course in Catalysis, 4-5th December 2007, Universiti Sains Malaysia, Penang, Malaysia.