

PERSONAL DETAILS



Associate Professor Dr. Abdul Halim Abdullah
Department of Chemistry,
Faculty of Science,
Universiti Putra Malaysia,
43400 UPM Serdang,
Selangor Darul Ehsan, Malaysia

Name	Abdul Halim Abdullah
Staff No.	A01956
I.C No.	680819-05-5619
Date of Birth	19 August 1968
Age	52
Department	Chemistry
Faculty	Science
Field of Specialization	Material and Catalysis Chemistry
Tel. No. (office)	603 8946 6777
Mobile No.	6012 270 3483
Fax No.	603 8943 5380
E-mail	halim@upm.edu.my

A. Education and Academic Qualifications

1. Ph.D. in Catalysis, University of Dundee, Scotland, UK, 1999.
(Modification of Cu/Al₂O₃ Catalysts by Carboxylic Acid and Heterocyclic Compounds)
2. B.Sc. in Chemistry (Second Class Upper Division). University of New Brunswick, Fredericton, New Brunswick, Canada, 1992.
3. Certificate of South Australia Matriculation, Kolej Pengajian Persediaan, Institut Teknologi MARA, 1988.
4. Sijil Pelajaran Malaysia, Sek. Men. King George V, Seremban, Negeri Sembilan, 1985.
5. Sijil Rendah Pelajaran, Sek. Men. King George V, Seremban, Negeri Sembilan, 1983 .

B. Previous Academic and other Relevant Appointments

1. Deputy Director, Institute of Advanced Technology, UPM (Sept 2017-Sept 2020)
2. Head of Materials Synthesis and Characterization Laboratory, Institute of Advanced Technology, UPM (Oct 2016- Sept 2017)
3. Deputy Dean of Research and Graduate Studies, Faculty of Science, UPM (Dec. 2011-Dec 2014)
4. Head of Department, Chemistry Department, Faculty of Science, UPM (Oct 2008-2011)
5. Head of Advanced Materials and Nanotechnology Laboratory, Institute of Advanced Technology, UPM (Oct 2007- Sept 2008)
6. Associate Professor: Chemistry Department, Faculty of Science, UPM (Oct. 2003- now).
7. Lecturer: Chemistry Department, Faculty of Science, UPM (Aug. 1999 – Oct. 2003).
8. Tutor: Chemistry Department, Faculty of Science, UPM (Mar. 1995 – Aug. 1999).
9. Research Assistant: Chemistry Department, Faculty of Science, UPM (Apr. 1994–Mar. 1995).
10. Chemist: Champion Photochemistry (M) Sdn. Bhd. (Dec. 1992 - April 1994).
11. Lab Technician: Redring Solder (M) Sdn Bhd. (July 1992 – Nov. 1992).

C. Academic Award / Research Award/Honour

1. Excellence Service Award, UPM (2018- Category Deputy Director).
2. Malaysia Rising Star Award 2015
3. Excellence Service Award, UPM (2014- Category: Deputy Dean)
4. 1 Silver and 1 Bronze Medals at Invention & Research Exhibition 2012, RMC, UPM.
5. 1Gold and 2 Silver Medals, Invention & Research Exhibition 2010, RMC, UPM.
6. Excellence Service Award, UPM (2010-Category: Head of Department).
7. Gold Medal, Water Inno Awards, 2009.
8. 1Silver and 3 Bronze Medals, Invention & Research Exhibition 2009, RMC, UPM.
9. Silver Medal, Invention & Research Exhibition 2008, RMC, UPM.
10. Silver Medal, Invention & Research Exhibition 2007, RMC, UPM.
11. Silver Medal, International Invention, Geneva, 2005.
12. Bronze Medal, Invention & Research Exhibition 2005, RMC, UPM.
13. 2 Silver Medals, Invention & Research Exhibition 2005, RMC, UPM.
14. Bronze Medal, Expo Science, Technology and Innovation 2004.
15. 1 Silver Medal, Invention & Research Exhibition 2003, RMC, UPM.
16. 1 Silver Medal and 2 Bronze Medals, Invention & Research Exhibition 2003, RMC, UPM.

17. 1 Gold Medal and 2 Silver Medals, Invention & Research Exhibition 2002, RMC, UPM.
18. Excellence Service Award, UPM (2004).
19. Excellence Service Certificate, UPM (2003, 2005, 2007- 2009, 2011-2013, 2015-2017)
20. Skim Latihan Akademik Bumiputera (SLAB-UPM) scholarship for PhD study at University of Dundee (1996 - 1999).
21. JPA scholarship for undergraduate study at University of New Brunswick Canada.

D. Research Projects

Research interest involves material chemistry, catalysis and environmental sciences. Deep interest is in the synthesizing nanosize photocatalysts for removal of organic pollutants under UV and visible light irradiation. Other interest includes removal of organic compounds by adsorption processes using carbon materials, molecularly imprinted polymers and low cost adsorbent from agricultural waste.

Main Researcher

1. Preparation of Hydrophilic Carbon Nanotube Cotton as Adsorbent for Wastewater Treatment Processes. Ministry of Higher Education (FRGS), 2019-2021, RM98200.
2. Synthesis of Visible-light driven $\text{Ag}_3\text{PO}_4/\text{Nb}_2\text{O}_5$ Heterojunction Photocatalyst for the Degradation of Dyes. Research University Grant Scheme, 2018-2021, RM 149000.
3. Synthesis and application of UV and Visible- light active polymeric thin film photocatalysts for industrial wastewater treatment, Ministry of Higher Education, (FRGS-Malaysia Rising Star Award), 2016-2018, RM 303800.
4. Synthesis of Visible light active carbon/zinc oxide nanohybrids photocatalysts for wastewater treatment, Ministry of Higher Education (ERGS), 2013-2016, RM 140000.
5. Synthesis of Metal Oxide Doped Zinc Oxide Photocatalysts for Removal of Phenolic Compound from Aqueous Solution. Ministry of Higher Education (Fundamental Research Grant Scheme), 2011-2013, RM163000.
6. Development of Magnetic Photocatalyst for Removal of Organic Pollutant through Photocatalysis, Research University Grant Scheme, 2009-2011, RM 185000.
7. Solvothermal and Surfactant Assisted Synthesis of Zinc Oxide. Ministry of Higher Education (Fundamental Research Grant Scheme), 2009-2010, RM 85000.
8. Synthesis of Bismuth Vanadate Catalysts. Ministry of Higher Education (Fundamental Research Grant Scheme), 2006-2008, RM 79500.
9. Preparation and Characterization of Nanoparticle ZnO as Photocatalysts. Ministry of Science, Technology and Innovation (Science Fund), 2006-2008, RM 84296.
10. Metal Oxide Supported on Modified Activated Carbon as Catalyst for the Oxidation of Organic Compounds. Ministry of Science, Technology and Environment (IRPA RMK 8), 2003-2006, RM 189,500.
11. Preparation, Characterization and Reaction Studies on Supported Trimetallic Pt-Re-Sn Catalysts. Ministry of Science, Technology and Environment (IRPA RMK 8), 2002-2005, RM 101,000.
12. Photoassisted Regeneration of Activated Carbon Using Semiconductor Photocatalysts. Ministry of Science, Technology and Environment (IRPA RMK 8), 2002-2005, RM 231,000.
13. Preparation and Characterization of Activated Carbon from Malaysian Wood. Geran Penyelidikan Pensyarah Lantikan Baru, UPM, 2000, RM 10,000

E. Supervision of Student**Main Supervisor**

1.	Yusuf Ibrahim	PhD	2020		On Going
2.	Kadili Julius Attah	PhD	2020		On Going
3.	Hazlini Mohamad Ameran	PhD	2019		On Going
4.	Alatawi Lila Saleem E	PhD	2018		On Going
5.	Hayati Mohamad Mukhair	PhD	2016	Immobilization Of Carbon Supported Silver Phosphate Photocatalyst Onto Polymer Membrane In Degradation Of Organic Pollutant In Waste Water	On Going
6.	Pam Aloysius Akaangee	PhD	2015	Single and Competitive mode of Pb, Cd and Cu Adsorption on Citric Acid and Ethylenediaminetetraacetic Acid Modified Activated Carbon Produced from Palm Kernel Shells.	Graduated
7.	Zul Adlan Mohd Hir	PhD	2015	Graphene-based Semiconductor Photocatalyst for the Degradation of Organic Pollutant in Industrial Wastewater.	Graduated
8.	Liman Muhammad Gidado	PhD	2010-2016	Photodegradation of Nitrobenzene using Co-doped ZnO.	Graduated
9.	Eshraq Ahmed Ahmed Abdullah	PhD	2008-2012	Adsorptive Performance of Calcined and Uncalcined Bismuth Basic Nitrate and Its TiO ₂ -Ag Modified Systems for Azo Dye Removal.	Graduated
10.	Lee Kian Mun	PhD	2008-2013	Synthesis of ZnO and ZnO/Nanomagnet Catalysts and Their Photoactivity in Degrading Herbicides.	Graduated
11.	Yadollah Abdollahi	PhD	2007-2011	Photocatalytic Degradation of Cresols by ZnO and Mn-doped ZnO Photocatalysts.	Graduated
12.	Umar Ibrahim Gaya	PhD	2006-2009	Photomineralization of Chlorophenols by ZnO Photocatalyst.	Graduated
13.	Muhammad Aliyu	MSc	2019		On going
14.	Alya Hananin	MSc	2019		On going
15.	Lewina Rajun	MSc	2018		On going

16.	Ekemini Monday Isokise	MSc	2017	Removal of Pb(II) by Palm Kenel Shell Activated Carbon	Graduated
17.	Marilyn Yuen Sok Wen.	MSc	2015	Synthesis Of Visible Light Zinc Oxide/ Reduced Graphene Oxide Nanohybrid Photocatalysts For Waste Water Treatment.	Graduated
18.	Nayma Mohamed Asalmi Alamin	MSc	2014	Removal of Ni(II) And Pb(II) from Wastewater using Amberlyst-15 Ion Exchange Resin as Adsorbent	Graduated
19.	Ali Bdreldin Abd El Malk	MSc	2014	Synthesis and Characterization of Polyethersulfone/Montmorillonite Nanocomposites Membrane for Potential Usage in Water Treatment	Graduated
20.	Ainisah Md Yunos	MSc	2014	Synthesis of Visible Light Active Carbon/Zinc Oxide Nanohybrid Photocatalyst for Wastewater Treatment	Completed
21.	Noranalyza Puteh@Yahaya	MSc	2014	Adsorption Of Phosphate By Polyvinyl Alcohol-Iron Hydrogel Beads	Graduated
22.	Siti Nur Surhayani Mohd Jefri	MSc	2012	Photodegradation of Methyl Orange by CuO-Doped ZnO Under UV Light Irradiation	Graduated
23.	Jaafar Yusuf	MSc	2013-2015	Amidoxime-Modified Poly(Acrylonitrile)-Grafted Cassava Starch and Its Adsorption Behaviour Towards Copper(II) Ion	Graduated
24.	Hauwa Aliyu Sidi	MSc	2013-2015	Visible-Light Photodegradation of Nitrobenzene by Microwave-Synthesized ZnO and Its Nanocomposites of Ag/ZnO And Cu/ZnO.	Graduated
25.	Elisa Rasouli	MSc	2012-2015	Preparation, Characterization and Photocatalytic Activity of Silver-Doped Zinc Oxide Photocatalysts.	Graduated
26.	Afini Razani	MSc	2011-2015	Synthesis of TiO ₂ and Fe ₂ O ₃ -Doped TiO ₂ for Photocatalytic Degradation of 2,4-Dichlorophenoxyacetic Acid.	Graduated
27.	Siti Farhana Abu Osman	MSc	2010-2015	The Effect of Solvent on the Preparation of Zinc Oxide Doped Nickel for Removal of Formaldehyde.	Graduated
28.	Wan Tze Peng	MSc	2010-2016	Effect of Si-loaded Bismuth Vanadates as Visible Light Driven Photocatalyst.	Graduated
29.	Siti Nooraishah Mohd Nordin.	MSc	2008-2014	Synthesis of ZnO by Matrix-Assisted Method.	Graduated
30.	Melanie Moey Hui Jia	MSc	2008-2013	Synthesis of Bismuth based Photocatalyst via Polyol Method and its Photocatalytic Activity.	Graduated

31.	Jong Chin Yun	MSc	2008-2013	Preparation, Characterization and Photocatalytic Activity of Transition Metal loaded BiVO ₄ .	Graduated
32.	Norzafirah Razali	MSc	2008-2012	Synthesis of CuO-doped ZnO Nano photocatalysts and its Photocatalytic Ability in Methyl Orange Dye Degradation.	Graduated
33.	Nurulhuda Abdullah	MSc	2007-2011	Synthesis and Photocatalytic Activity of TiO ₂ , Nb ₂ O ₅ and Nb ₂ O ₅ -Doped TiO ₂ in Degradation of Methyl Orange.	Graduated
34.	Norsalinda Mohd Ali	MSc	2007-2010	Synthesis of Bismuth Vanadate and Copper-Doped Bismuth Vanadate as Visible Light Photocatalysts.	Graduated
35.	Lee Kian Mun.	MSc	2006-2008	Degradation of Dye by ZnO photocatalyst.	Graduated
36.	Ashkan Keshavarzi	MSc	2006-2009	Effect of Chemical Synthesis on Fabrication of Micro and Nanosize Zinc Oxide.	Graduated
37.	Loo Li Yin	MSc	2004-2007	Removal of Lead (II) by HNO ₃ -Modified Activated Carbons.	Graduated
38.	Salina Zakaria	MSc	2003-2007	Removal of 4-Chlorophenol by K ₂ S ₂ O ₈ -Modified Activated Carbon.	Graduated
39.	Wong Wan Yuan	MSc	2003-2006	Preparation and Characterization of CuO Catalyst Supported on Activated Carbon	Graduated
40.	Norhayati Mohd Noor	MSc	2002-2007	Preparation and Characterization of Antimony Oxide and Antimony Oxide based Catalysts.	Graduated
41.					
42.					

No. of PhD student (as main supervisor) : 12 (7 graduated)

No. of MSc student (as main supervisor) : 28 (25 graduated)

No. of PhD student (as co-supervisor) : 22 (13 graduated)

No. of MSc student (as co-supervisor) : 31 (28 graduated)

F. Publication (Books Authored, Chapters in Books, Books Edited, Journals, Conference and others)

Journals:

1. Nor Zida Rosly, Abdul Halim Abdullah, Mazliana Ahmad Kamarudin, Siti Efliza Ashari and Shahrul Ainliah Alang Ahmad. Adsorption of Methylene Blue Dye by Calix[6]Arene-Modified Lead Sulphide (Pbs): Optimisation Using Response Surface Methodology. Int. J. Environ. Res. Public Health, 2021, 18, 397
2. Fatin Ahza Rosli, Haslina Ahmad, Khairulazhar Jumbri, Abdul Halim Abdullah, Sazlinda Kamaruzaman and Nor Ain Fathihah Abdullah. Efficient removal of pharmaceuticals from water using graphene nanoplatelets as adsorbent. R. Soc. Open Sci., 2021, 8: 201076.

3. Abubakar Hamisu, Umar Ibrahim Gaya and Abdul Halim Abdullah. A Novel Poly(vinyl alcohol) Post-precipitation Template Synthesis and Property Tuning of Photoactive Mesoporous Nano-TiO₂. *Phys. Chem. Res.*, 2020, 8, 281-295.
4. Abubakar Hamisu, Umar Ibrahim Gaya, Abdul Halim Abdullah. Effect of Alkali Strength on the Hydrothermal Growth of Photoactive TiO₂ Nanowires. *J Nanostruct.*, 2020, 10(3): 639-651.
5. Nurul Aida Nordin, Norizah Abdul Rahman and Abdul Halim Abdullah. Effective Removal of Pb(II) Ions by Electrospun PAN/Sago Lignin-based Activated Carbon Nanofibers. *Molecules*, 2020, 25, 3081.
6. Nur Haninah Harun, Zurina Zainal Abidin, Abdul Halim Abdullah and Rizafizah Othaman. Sustainable Jatropa Oil-Based Membrane with Graphene Oxide for Potential Application in Cu(II) Ion Removal from Aqueous Solution. *Processes*, 2020, 8, 230.
7. Nur Syafiqah Shaipulizan, Siti Nurul Ain Md Jamil, Sazlinda Kamaruzaman, Nur Nida Syamimi Subri, Abel Adekanmi Adeyi, Abdul Halim Abdullah and Luqman Chuah Abdullah. Preparation of Ethylene Glycol Dimethacrylate (EGDMA)-Based Terpolymer as Potential Sorbents for Pharmaceuticals Adsorption. *Polymers*, 2020, 12, 423.
8. Salma Izati Sinar Mashuri, Mohd Lokman Ibrahim, Muhd Firdaus Kasim, Mohd Sufri Mastuli, Umer Rashid, Abdul Halim Abdullah, Aminul Islam, N. Asikin-Mijan, Yie Hua Tan, Nasar Mansir, Noor Haida Mohd Kaus, and Taufiq-Yap Yun Hin. Photocatalysis for Organic Wastewater Treatment: From the Basis to Current Challenges for Society. *Catalysts*, 2020, 10, 1260.
9. Ismayadi Ismail, Abdul Halim Abdullah, Azdiya Suhada Abdul Arifin, Idza Riati Ibrahim, Farah Nabilah Shafiee, Raba'ah Syahidah Azis. Phase, morphological, and magnetic properties of iron oxide nanoparticles extracted from mill scale waste and its surface modification with CTAB surfactant. *Journal of the Australian Ceramic Society*, 2020, 56, 729–743.
10. Muhammad Muhammad Muzakir, Zulkarnain Zainal, Hong Ngee Lim, Abdul Halim Abdullah, Noor Nazihah Bahrudin and Mahanim Sarif @ Mohd Ali, Electrochemically Reduced Titania Nanotube Synthesized from Glycerol-Based Electrolyte as Supercapacitor Electrode. *Energies*, 2020, 13, 2767.
11. Afiqah Ahmad, Siti Nurul Ain Md. Jamil, Thomas Shean Yaw Choong, Abdul Halim Abdullah, Mohd Sufri Mastuli, Nurhanisah Othman and NurNazurah Jiman. Green Flexible Polyurethane Foam as a Potent Support for Fe-Si Adsorbent. *Polymers*, 2019, 11, 2011.
12. Aloysius Akaangee Pam, Abdul Halim Abdullah, Yen Ping Tan, Zulkarnain Zainal. Pb(II) removal from wastewater by modified activated carbon in batch and fixed-bed column studies: synthetic and real wastewater application. *Desalination and Water Treatment*, 2019, 140 290–301.
13. Pourya Moradihamedani and Abdul Halim Abdullah. Ammonia removal from aquaculture wastewater by high flux and high rejection polysulfone/cellulose acetate blend membrane. *Polymer Bulletin*, 2019, 76:2481–2497.
14. Siti Nur Surhayani Jefri, Abdul Halim Abdullah, Ernee Noryana Mohammad. Response surface methodology: photodegradation of methyl orange by CuO/ZnO under UV light irradiation, *Asian Journal of Green Chemistry* 2019, 3, 271-287.
15. O. N. Syazwani, Zul Adlan Mohd Hir, Hayati Mukhair, Mohd Sufri Mastuli, Abdul Halim Abdullah. Designing visible-light-driven photocatalyst of Ag₃PO₄/CeO₂ for enhanced photocatalytic activity under low light irradiation. *Journal of Materials Science: Materials in Electronics*, 2019, 30:415–423.
16. Muhammad Amirul Aizat Mohd Abdah, Nur Hawa Nabilah Azman, Shalini Kulandaivalu, Norizah Abdul Rahman, Abdul Halim Abdullah, Yusran Sulaiman. Potentiostatic deposition of poly(3, 4-ethylenedioxythiophene) and manganese oxide on porous functionalised carbon fibers as an advanced electrode for asymmetric supercapacitor *Journal of Power Sources*, Volume 444, 2019, 227324.

17. Pourya Moradihamedani and Abdul Halim Abdullah, Preparation and characterization of polysulfone/zeolite mixed matrix membranes for removal of low concentration ammonia from aquaculture wastewater, *Water Science & Technology*, 77, 2018, 346-354.
18. Zul Adlan Mohd Hir, Abdul Halim Abdullah, Zulkarnain Zainal, and Hong Ngee Lim, Visible light-active hybrid film photocatalyst of polyethersulfone–reduced TiO₂: photocatalytic response and radical trapping investigation, *J of Materials Science* 53, 2018, 13264–13279
19. Aloysius Akaangee Pam, Abdul Halim Abdullah, Tan Yen Ping, Zulkarnain Zainal, Batch and Fixed Bed Adsorption of Pb(II) from Aqueous Solution using EDTA Modified Activated Carbon Derived from Palm Kernel Shell, *Bioresource*, 13, 2018, 1235-1250
20. Katayoon Kalantari, Pourya Moradihamedani, Nor Azowa Ibrahim, Abdul Halim Abdullah, Amalina Muhammad Afifi, Polysulfone mixed-matrix membrane incorporating talc clay particles for gas separation, *Polymer Bulletin*. 75, 2018, 3723–3738.
21. Sarhan Sanaa Tareq, Mohd. Izham Saiman, Taufiq-Yap Yun Hin, Abdul Halim Abdullah, Umer Rashid, The Impact of Hydrogen Peroxide as An Oxidant for Solvent-free Liquid Phase Oxidation of Benzyl Alcohol using Au-Pd Supported Carbon and Titanium Catalysts, *Bulletin of Chemical Reaction Engineering & Catalysis*, 13, 2018, 373-385
22. Zul Adlan Mohd Hir, Abdul Halim Abdullah, Zulkarnain Zainal, Hong Ngee Lim, Photoactive Hybrid Film Photocatalyst of Polyethersulfone-ZnO for the Degradation of Methyl Orange Dye: Kinetic Study and Operational Parameters, *Catalysts*, 7, 2017, 313; doi:10.3390/catal7110313.
23. Afini Razani Abdul Halim Abdullah, Anwar Fitrianto, Nor Azah Yusof, Umar Ibrahim Gaya, Sol-Gel Synthesis of Fe₂O₃-Doped TiO₂ for Optimized Photocatalytic Degradation of 2,4- Dichlorophenoxyacetic Acid, *Oriental Journal of Chemistry*, 33(4), 2017, 1959-1968
24. Marilyn Yuen Sok Wen, Abdul Halim Abdullah, Lim Hong Ngee, Synthesis of ZnO/rGO nanohybrid for improved photocatalytic activity, *Malaysian Journal of Analytical Sciences*, 21(4), 2017, 889-900
25. Pourya Moradihamedani, Abdul Halim Abdullah, High performance cellulose acetate/polysulfone blend ultrafiltration membranes for removal of heavy metals from water, *Water Science and Technology*, 75(10) 2017, 2422-2433.
26. Hir, Z.A.M., Moradihamedani, P., Abdullah, A.H., Mohamed, M.A. Immobilization of TiO₂ into polyethersulfone matrix as hybrid photocatalyst for effective degradation of methyl orange dye, *Materials Science in Semiconducting Processing*, 57, 2017, 157-165.
27. Hauwa Sidi Aliyu, Abdul Halim Abdullah and Zulkifly Abbas, Improved Photocatalytic Performance of ZnO through AgCu Bimetal Coupling for the Photodegradation of Nitrobenzene *Malaysian Journal of Chemistry*, 19(1), 2017, 24–32.
28. Rasheida E. Elhadi, Ahmad Makmom Abdullah, Abdul Halim Abdullah, Zulfa Hanan Ash'aari, Azadeh Ghadimzadeh, Mohd Asrul Jamalani, Tahoor Sheikhy Narany, Fedel M. Binyehmed, D.Y. Gumel and Mahmud Bose Heavy Metals Composition in Airborne Particulate Matter and Their Source Apportionment at Shah Alam, *Malaysia World Applied Sciences Journal* 35, 2017, 223-229.
29. Siti Khadijah Ab. Rahman, Nor Azah Yusof, Faruq Mohammad, Abdul Halim Abdullah and Azni Idris Ion imprinted polymer monoliths as adsorbent materials for the removal of Hg(II) from real-time aqueous samples *Current Science*, 113, 2017, 2282 25
30. Azdiya Suhada Abdul Rahim Arifin, Ismayadi Ismail, Abdul Halim Abdullah, Farah Nabilah Shafiee, Rodziah Nazlan, and Idza Riati Ibrahim, Iron Oxide Nanoparticles Derived from Mill Scale Waste as Potential Scavenging Agent in Dye Wastewater Treatment for Batik Industry *Solid State Phenomena* 268, 2017, 393-398
31. Rasheida E. Elhadi, Ahmad Makmom Abdullah, Abdul Halim Abdullah, Zulfa Hanan Ash'aari, Nura Umar Kura, Gumel D.Y., Abdullahi Adamu Source Identification of Heavy Metals in Particulate Matter (PM₁₀) in

a Malaysian Traffic Area Using Multivariate Techniques Polish. Journal of Environmental. Studies. 26, 2017, 2523-2532

32. Ismail, A.H., Abdullah, A.H., Sulaiman, Y., Physical and electrochemical properties of ZnO films fabricated from highly cathodic electrodeposition potentials, Superlattices and Microstructures, 103, 2017, 171-179.
33. Abdul Halim Abdullah, Wan Tze Peng, Mohd Zobir Hussein, Degradation of Methylene Blue dye by CuO-BiVO₄ photocatalysts under visible light irradiation, Malaysian Journal of Analytical Sciences, 20(6) (2016), 1338 - 1345
34. Abdul Hadi Ismail, Muhammad Norhaffis Mustafa, Abdul Halim Abdullah, Ruzniza Zawawi, Yusran Sulaiman. Effect of Electropolymerization Potential on the properties of PEDOT/ZnO Thin Film Composite. Journal of Electrochemical Society, 163, 2016, G7-G14.
35. Siew Ling, Chan, Yen Ping, Tan, Abdul Halim Abdullah, Siew Teng, Ong, Equilibrium, Kinetic and Thermodynamic studies of a new potential biosorbent for the removal of Basic Blue 3 and Congo Red dyes: Pineapple (Ananas Comosus) plant stem, Journal of Taiwan Institute of Chemical Engineers, 61, 2016, 306-315.
36. Pourya Moradihemdani, Abdul Halim Abdullah, Phosphate removal from water by polysulfone ultrafiltration membrane using PVP as a hydrophilic modifier, Desalination and Water Treatment, 57, 2016, 25542-25550.
37. Pourya Moradihemdani, Katayoon Kalantari, Abdul Halim Abdullah, Noor Azian Morad. High Efficient Removal of Lead(II) and Nickel(II) from Aqueous Solution by Novel Polysulfone/Fe₂O₃-Talc Nanocomposite Mixed Matrix Membrane, Desalination and Water Treatment, 57, 2016, 28900-28909.
38. Lee, K.M, A.H. Abdullah. Synthesis and characterization of zinc oxide/maghemite nanocomposites: Influence of heat treatment on photocatalytic degradation of 2,4-dichlorophenoxyacetic acid, Materials Science in Semiconductor Processing, 30, 2015, 298-306.
39. Hauwa Aliyu Sidi, Abdul Halim Abdullah, Zulkifly Abbas. Enhanced Photocatalytic Efficiency of Microwave Synthesized Cu/ZnO Nanocomposite, International Journal of Multidisciplinary Research and Development, 2, 2015, 612-615.
40. Umar Ibrahim Gaya, Emmanuel Otene, Abdul Halim Abdullah, Adsorption of aqueous Cd(II) and Pb(II) on activated carbon nanopores prepared by chemical activation of doum palm shell, Springer Plus, 4 (458), 2015, 1-18.
41. Jaafar Yusuf, Siti Nurul Ain Mohd Jamil, Abdul Halim Abdullah, M., Nourouzi, B.Y. Jamoh, Mastura Khairuddin. Polyacrylonitrile grafted cassava starch and its chemical modification with hydroxylamine hydrochloride. Malaysian Journal of Chemistry, 17(2), 2015, 1-10.
42. Nor Ain Shahera Khairi, Nor Azah Yusof, Abdul Halim Abdullah, Faruq Mohammad, Removal of toxic mercury from petroleum oil by newly synthesized molecularly- imprinted polymer, International Journal of Molecular Science, 16 (1), 2015, 10562-10577.
43. Roozbeh, Hushiarian, Nor Azah Yusof, Abdul Halim Abdullah, Shahrul Ainiliah Alang Ahmad, Sabo Wada Dutse, Facilitating the indirect detection of genomic DNA in an electrochemical DNA biosensor using magnetic nanoparticles and DNA ligase, Analytical Chemistry Research, 6, 2015, 17-25.
44. Roozbeh, Hushiarian, Nor Azah Yusof, Negin Hushiarian, Abdul Halim Abdullah, Shahrul Ainiliah Alang Ahmad, Computer Modelling to optimize the sensitivity of an optical DNA nanosensor, Sensor and Actuators B: Chemical, 207, 2015, 716-723
45. Hauwa Sidi Aliyu, Abdul Halim Abdullah, Zulkifly Abbas, Solid State Characterization of Cu/ZnO Nanocomposite Synthesized via microwave irradiation, International Journal of Engineering and Science, 3, 2014, 47-53.

46. S.N. Ariffin, H.N. Lim, F.A. Jumeri, M. Zobir, A.H. Abdullah, M. Ahmad, N.A Ibrahim, N.M. Huang, P.S. Teo, K. Muthoosamay, I. Harrison. Modification of polypropylene filter with metal oxide and reduced grapheme oxide for water treatment, *Ceramic International*, 40(5), 2014, 6927-6936.
47. Lee Kian Mun, Abdul Halim Abdullah, Mohd Zobir Hussein, Zulkarnain Zainal, Synthesis and photocatalysis of ZnO/Fe₂O₃ nanocomposite in degrading 2,4-dichlorophenoxyacetic acid, *Sains Malaysiana*, 43(3), 2014, 437-441.
48. M.G. Liman, A.H. Abdullah, M.Z. Hussein, Z. Zainal, Photodegradation of Nitrobenzene using Cobalt Modified Zinc Oxide Particles. *Asian Journal of Chemistry*, 26, S287-S290.
49. Roozbeh Hushiarian, Nor Azah Yusof, Abdul Halim Abdullah, Shahrul Ainliah Alang Ahmad, Sabo Wade Dutse, A novel DNA nanosensor based on CdSe/ZnS quantum dot and synthesized Fe₃O₄ magnetic nanoparticles, *Molecules*, 19 (4), 2014, 4355- 4368.
50. S.N. M.Nordin, A.H. Abdullah, Z. Zainal, Morphologies of nanostructured ZnO prepared by matrix-assisted method and its effects on photocatalytic activity, *Asian Journal of Chemistry*, 25, 2013, 10230-10232.
51. Lee Kian Mun, Abdul Halim Abdullah, Mohd Zobir Hussein, Zulkarnain Zainal, Photodegradation of Chlorophenoxyacetic Acids by ZnO/Fe₂O₃ Nanocatalysts: A Comparative Study, *International Journal of Chemistry*, 5, 2013, 56-65.
52. Nor Azah Yusof, Nor Dyana Zakaria, Nor Amirah Mohd Maamor, Abdul Halim Abdullah, Md Jelas Haron, Synthesis and Characterization of Molecularly Imprinted Polymer Membrane for the Removal of 2,4-Dinitrophenol, *International Journal of Molecular Sciences*, 14, 2013, 3993-4004.
53. N.M. Bokhari, N.A. Yusof, A.H. Abdullah, M.Z. Hussein, Development of a Fluorescence response energy transfer-based DNA biosensor for detection of synthetic oligonucleotide of ganoderma boninense, *Biosensor*, 3, 2013, 419-428
54. NAM Fadzil, Z Zainal, A.H. Abdullah. COD removal for Palm Oil Mill Secondary Effluent by UV/Ferrioxalate/TiO₂/O₃ system. *Int. J. Emerging Tech. Adv. Engineering*, 3, 2013, 237-243.
55. I. Ramli, C.K.N.L Che Ku Hitam, H.A. Ahangar, A.H. Abdullah, Effect of drying on the synthesis and characterization of MoVTenbOx mixed metal oxide catalysts prepared by reflux, *Oriental Journal of Chemistry*, 29, 2013, 9-16.
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G Collaborator

1. Prof. Dr Emeka Oguzie - Federal University of Technology Owerri, Nigeria
Maureen Chijioke-Okere – OSWD Fellowship- Attachment for 1 year
2. Prof. Yacine BOUHEDJA- Annaba University of Algeria
Abdelkrim Djebli – Research attachment for 6 months
3. Professor Merabet Smail- University of A-MIRA in Bejaia
Zabar Zakaria – Research attachment 3 months
4. Prof Umar Gaya, Bayero Kano University, Nigeria
Abubakar Hamisu – Research attachment for 6 months
5. Prof. Chong Rae Park -Seoul National University, South Korea
Putra Grant Research - 2020-2022

H. Extracurricular Activity

1. Fellow of Royal Society of Chemistry (UK)
2. Exco-member of Malaysia Nanotechnology Association (2011)
3. Member of American Chemical Society (2010 -)
4. Member of Malaysia Nanotechnology Association (2007 -)
5. Auditor of ANALIS (2009)
6. Member of ANALIS (2005 -)
7. Ahli Persatuan Pegawai Akademik UPM