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Analytical and Environmental Chemistry Research Group

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Education

- University of Ibadan, Ibadan (Ph.D.) 1999-2007
- University of Ibadan, Ibadan (M.Sc.) 1995-1997
- University of Ibadan, Ibadan (B.Ed. Chem/Phy) 1990-1994

Academic qualifications

- Doctor of Philosophy (PhD) 2007
- Master of Science (M.Sc) in Analytical Chemistry with PhD grade 1997
- Bachelor of Education in Education and Chemistry/Physics with Second Class Honours (Upper Divisions) 1994

Appointments

- Professor, University of Ibadan. 2018-Date
- Associate Professor, University of Ibadan 2015-2018
- Visiting Lecturer, University of Sierra Leone 2019
- Senior Lecturer, University of Ibadan 2012-2015
- Lecturer I, University of Ibadan 2009-2012
- Lecturer II, University of Ibadan 2004-2009
- Assistant Lecturer, University of Ibadan 2001-2004
- Part-time Chemistry Lecturer, The Polytechnic, Ibadan 1998-2001

Award/Fellowship/Grant

- 6th Edition Women for Africa Foundation Fellowship at Material Physics center (Centro de Física de Materiales (CFM) CSIC-UPV/EHU), San Sebastian, Spain. October 4, 2021 to March 31, 2022.
Research: Electrical and dielectric properties of kaolin clay and biomass ashes-based geopolymers
- Royal Society of Chemistry Conference fund to attend Pan Africa Chemistry Network Congress on Riches of the natural world: Sustainable use of Africa's natural products and materials, 2019, Ethiopia.
- Tertiary Education Trust Fund to attend International Conference on Alkali Activated Materials and Geopolymers, 2018, Portugal.
- CV Raman International Fellowship for African Researchers at National Metallurgical Laboratory, (Council of Scientific and Industrial Research), Jamshedpur 831007, India. December 1, 2013 to February 28, 2014.
Research: Material characterization and synthesis of calcined clay, fly ash and fly ash clay-based geopolymers for sustainable construction material.
- TWAS-DFG Cooperating visits Fellowship for Scientists from Sub-Saharan Africa at Institute of Soil Science and Soil Conservation, Justus Liebig University Giessen, Germany. January 20 - April 17, 2013.
Research: Preliminary experiments on measurement of speciation of heavy metals in

contaminated Georgia soil dissolved organic matter using high performance liquid-size exclusion chromatography-inductively coupled plasma-optical emission spectrophotometry.

- University of Ibadan Conference grant to attend the 26th International conference on The Solid Waste Technology and Management, 2011, U.S.A.
- 2010 Senate Research Grant of University of Ibadan, Ibadan, Nigeria.
- Postdoctoral Fellowship at the Department of Chemical Engineering, Delft University of Technology, the Netherlands. November 16, 2009-May 15, 2010. Sponsored by Organization for Prohibition of Chemical Weapons (OPCW), The Hague, Netherlands.
Research: Geopolymer: A new cement with low CO₂ emission for immobilization of hazardous wastes and construction materials.
- Young researcher at the 59th meeting of Nobel Laureates dedicated to Chemistry, Lindau, Lake Constance, Germany from June 28 to July 3, 2009 and at the post conference programs sponsored by Deutsche Forschungsgemeinschaft German (DFG) Research Foundation from July 4 to July 10, 2009.
- University of Ibadan Conference grant to attend the 23rd International conference on The Solid Waste Technology and Management, 2008, U.S.A.
- ATES Prize-1990/91: Association of Teacher Education Students Executive (ATES) Prize in Teacher Education, University of Ibadan, for the Best Final Year Student.

Membership of Learned Societies/Activities

- Member, Organization for Women in Science for the Developing World (OWSD)
- Member, American Ceramics Society
- Member, Royal Society of Chemistry (RSC)
- Vice President, Biochar Initiatives of Nigeria
- Member, Chemical Society of Nigeria (CSN)
- Member, Institute of Chartered Chemists of Nigeria (ICCON)
- Ex-Member, Nigerian Young Academy

Courses Taught

Undergraduate

CHE 195 (2): Practical Chemistry

CHE 218 (3): Introductory Analytical Chemistry

CHE 281 (2): Research Methods and Presentation Techniques

CHE 318 (4): Instrumental Methods of Analysis

CHE 416 (3): Chemical Environmental Assessment and Management

CHE 417 (4): Advanced Analytical Chemistry and Application

CHE 496 (6): Research project

Graduate

CHE 705 (4): Separation Methods of Analysis

CHE 706 (3): Analytical Chemistry Practical

CHE 709 (3): Quantitative Spectroscopic Methods of Analysis

CHE 711 (3): Electroanalytical methods

CHE 712 (3): Food Analysis and Drugs Analysis

CHE 713 (3): Water Analysis

CHE 717 (3): Analysis of Miscellaneous Materials

ECH 784 (4): Chemical Environmental Pollution Studies

ECH 786 (4): Environmental Analysis
CHE 791 (3): Man, Environment and Sustainable Chemistry
CHE 796 (6): Research project

Research Project Supervision: 2001-Date

- B.Sc.: 50
- M.Sc.: 90
- Ph.D.: 4 (Supervised)
- M.Phil.: 1 (Supervised)
- Ph.D.: 4 (Currently supervising)

Research experience

Research experience in assessment and remediation of heavy metals contaminated soils, Solid waste management, recycling and utilization of solid wastes, Material Chemistry with current interest in production and characterization of geopolymer.

Community service

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|---|-----------|
| Vice President, Biochar Initiative of Nigeria | 2016-Date |
| Member, of Editorial Board of BIN Journal | 2019-date |
| Member, Local Organising Committee, Integrated Waste Management in West Africa (IWWA) workshop | 2011 |
| Steering Committee member, Nigerian Young Academy | 2010 |
| Secretary, Waste management Society of Nigeria (Oyo State Chapter) | 2007 |
| Session chair at the 23rd International Conference on Solid Waste. | 2008 |
| Member, Local Organizing Committee, Pilot testing workshop in Nigeria on the development of GHS of classification and labeling of chemicals | 2009 |
| Member, Local Organizing Committee, National workshop on the implementation of the Rotterdam Convention in Nigeria | 2008 |

External examiner to instructions within and outside Nigeria

Consultancy

Consultant to Novi-Agro Ltd, Km 12 Old Lagos Rd, New garage, Podo, Ibadan, Oyo state

Published Research Articles

1. Oladele O.L., Adesanya E.D., Arbe A., Iturrospe A., **Ogundiran M. B.** (2023). Mitigation of efflorescence, drying shrinkage, and water demand of calcined clay- based geopolymers with biological waste ashes as activator and hardener. Applied Clay Science 243: 107050.
2. Awe Y.T., Sangodoyin A.Y., **Ogundiran M.B.** (2022). Assessment of organophosphate pesticide residues in environmental media of Araromi farm settlement, Osun State, Nigeria. Environmental Analysis Health and Toxicology 37(4): e2022031, <https://doi.org/10.5620/eaht.2022031>.
3. Adelodun A. A., Sangodoyin A. Y., **Ogundiran M. B.** (2022). Optimisation of biochar yield from sorted wood wastes as sustainable alternatives to burning to ash. Ecological

- Chemistry and Engineering S 29(1): 15-26. DOI: 10.2478/eces-2022-0003.
4. Adeniyi F.I., **Ogundiran M.B.**, Hemalatha T., Bharatkumar B.H. (2020). Characterisation of raw and thermally treated Nigerian kaolinite-containing clays using instrumental techniques. *Springer Nature Applied Science* 2 (5): 1-14 <https://doi.org/10.1007/s42452-020-2610-x>.
 5. Adeniyi F.I., **Ogundiran M.B.** (2020). Synthesis of geopolymer binders and mortars from Ijero-Ekiti calcined clay, blast furnace slag and river sand. *Earthline Journal of Chemical Sciences* 4 (1):15-34.
 6. Ogundele D., **Ogundiran M.B.**, Babayemi J.O., Jha M.K. (2020). Material and Substance Flow Analysis of used lead acid batteries in Nigeria: Implications for Recovery and Environmental Quality. *Journal of Health and Pollution*: September 2020, Vol. 10, No. 27, 200913. <https://doi.org/10.5696/2156-9614-10.27.200913>
 7. Ouabo R.E., Sangodoyin A.Y., **Ogundiran M.B.** (2020). Assessment of ordinary kriging and inverse distance weighting methods for modeling chromium and cadmium soil pollution in E-Waste sites in Douala, Cameroon. *Health and Pollution: June 2020, Vol. 10, No. 26, 200605*.<https://doi.org/10.5696/2156-9614-10.26.200605>
 8. Adejumo S.A., Arowo D.O., **Ogundiran M.B.**, Srivastava P. (2020). Biochar in combination with compost reduced Pb uptake and enhanced the growth of maize in lead (Pb)-contaminated soil exposed to drought stress. *Journal of Crop Science and Biotechnology* 23(3): 273-288.
 9. Ouabo R.E., **Ogundiran M.B.**, Sangodoyin A.Y., Babalola B.A (2019). Ecological risk and human health implications of heavy metals contamination of surface soil in E- Waste recycling sites in Douala, Cameroun. *Journal of Health and Pollution* 9(21):190310 .<https://doi.org/10.5696/2156-9614-9.21.190310>.
 10. **Ogundiran M. B.**, Enakerakpo I. S (2018). Metakaolin clay-derived geopolymer for recycling of waste cathode ray tube glass. *African Journal of Pure and Applied Chemistry* 12(6): 42-49.
 11. Babayemi J. O., **Ogundiran M.B.**, Weber R., Osibanjo O (2018). Initial inventory of Plastics imports in Nigeria as a basis for more sustainable management policies. *Journal of Health Pollution* 8 (18): 1-15.
 12. Adejumo S.A., **Ogundiran M.B.**, Togun A.O (2018). Soil amendment with compost and crop growth stages influenced heavy metal uptake and distribution in maize crop grown on lead-acid battery waste contaminated soil. *Journal of Environmental Chemical Engineering* 6: 4809-4819.
 13. **Ogundiran M.B.**, Mekwunyei N.S., Adejumo S.A (2018). Compost and biochar assisted phytoremediation potentials of *Moringa oleifera* for remediation of lead contaminated soil. *Journal of Environmental Chemical Engineering* 6: 2206-2213.
 14. **Ogundiran M.B.**, Buluku T.G., Babayemi J.O., Osibanjo O (2017). Waste rechargeable electric lamps: characterisation and lead recovery from their lead-acid batteries. *Journal of Material Cycles and Waste Management* 19 (1): 163-171.
 15. Babayemi J.O., **Ogundiran M.B.**, Osibanjo O (2017). Overview of environmental hazards and health effects of pollution in developing countries: A Case Study of Nigeria. *Environmental Quality Management* 26 (1): 51-71.
 16. Babayemi J.O., **Ogundiran, M.B.**, Osibanjo O (2017). Current levels and management of solid wastes in Nigeria. *Environmental Quality Management* 26 (3): 29-53.
 17. **Ogundiran M.B.**, Sanjay K (2016). Synthesis of fly ash-calcined clay geopolymers: Reactivity, mechanical strength, structural and microstructural characteristics. *Construction and Building Materials* 125: 450-457.
 18. **Ogundiran M.B.**, Nugteren H.W., Witkamp G.J (2016). Geopolymerisation of fly ashes with waste aluminium anodising etching solutions. *Journal of Environmental Management*

181:118-123.

19. **Ogundiran M.B.**, Ademola E.F., Adejumo S.A (2015). Poultry litter management in Lagos and effects of its soil application on the growth of okra (*Abelmoschus esculentus*). *African Journal of Plant Science* 9(11): 427-438.
20. Jayeoye T.J, **Ogundiran M.B.**, Fadare D.A, Ogunjobi A.A (2015). Evaluation of physicochemical and biodegradability properties of selected Nigerian non-edible oilseeds as potential cutting fluids. *Pakistan Journal of Scientific and Industrial Research Series A: Physical sciences* 58 (3): 122-129.
21. **Ogundiran M.B.**, Winjobi F.A (2015). The potential of binary blended geopolymer binder containing Ijoro-Ekiti calcined kaolin clay and ground waste window glass. *African Journal of Pure and Applied Chemistry* 9(7): 159-166.
22. Ojo O.I., **Ogundiran M.B.**, Adebayo O.L (2015). Toxic and essential metals in staple foods commonly consumed by students in Ekiti State, South West, Nigeria. *International Journal of Chemistry* 7 (1): 155-150.
23. Olawale M.D., **Ogundiran M.B** (2015). Screening Nigerian Kaolin for use as potential sources of geopolymer materials. *American Journal of Applied Chemistry* 3(3): 134-138.
24. **Ogundiran M.B.**, Kumar S. (2015). Synthesis and characterisation of geopolymer from Nigerian Clay. *Applied Clay Science* 108: 173-181.
25. **Ogundiran M.B.**, Lawal O.O., Adejumo S.A (2015). Stabilisation of Pb in Pb smelting slag-contaminated soil by compost-modified biochars and their effects on maize plant growth. *Journal of Environmental Protection* 6: 771-780.
26. **Ogundiran M.B.**, Fasakin S.A (2015). Assessment of heavy metals and crude protein content of molluscs and crustaceans from two selected cities in Nigeria. *African Journal of Food Agriculture Nutrition and Development* 15 (3): 10099- 10117.
27. **Ogundiran M.B.**, Ikotun O.J (2014). Investigating the Suitability of Nigerian calcined kaolins as raw materials for geopolymer binders. *Transactions of Indian Ceramics Society* 73 (2): 138-142.
28. **Ogundiran M.B.**, Olujobi T., Oladele O (2014). Composition and management of rechargeable electric torch wastes in Ibadan, Nigeria. *Journal of Material Cycles and Waste Management* 16: 115-123.
29. **Ogundiran M.B.**, Oyetade O.A., Babayemi J.O., Oladele O (2014). Potential environmental hazards of non-rechargeable electric torch wastes in Nigeria. *International Journal of Environment and Waste Management* 13 (2):115-13
30. **Ogundiran M.B.**, Nugteren H.W., Witkamp G.J (2013). Immobilisation of lead smelting slag within spent aluminate-fly ash based geopolymers. *Journal of Hazardous Materials* 248-249: 29-36.
31. **Ogundiran, M.B.**, Ogundele, D.T., Afolayan P.G., Osibanjo, O (2012). Heavy metals levels in forage grasses, leachate and lactating cows reared around lead slag dumpsites in Nigeria. *International Journal of Environmental Research* 6 (3): 695-702.
32. **Ogundiran M.B.**, Osibanjo O (2012). Contamination and potential risk assessment of an abandoned auto battery waste contaminated site in Ibadan, Nigeria. *Journal of Science Research* 11(1):6-14.
33. **Ogundiran M.B.**, Adeniyi S.O (2012). Determination of fat contents, iodine values, trace and toxic metals in commonly consumed Frozen Fish in Nigeria. *American Journal of Food Technology* 7 (1): 34-42.
34. Adejumo S.A., Togun A.O., Adediran J.A., **Ogundiran M.B** (2011). Field Assessment of Progressive Remediation of Soil Contaminated with Lead-acid Battery Waste in Response to Compost Application. *Pedologist* 54 (3):182-193.
35. Adejumo S.A., Togun A.O., Adediran J.A., **Ogundiran M.B** (2011). In-Situ Remediation of

Heavy Metal Contaminated Soil Using Mexican Sunflower (*Tithonia diversifolia*) and Cassava Waste Composts. *World Journal of Agricultural Sciences* 7 (2): 224-233.

36. **Ogundiran M.B.**, Babayemi J.O., Nzeribe C.G (2011). Application of waste cashew nutshell ash showed significant reduction in mobility of Pb and Cd in waste battery contaminated soil. *The Pacific Journal of Science and Technology* 12(2): 472-478.
37. **Ogundiran M.B.**, Babayemi O.J., Nzeribe C.G (2011). Determination of metal content and an assessment of potential use of waste cashew nut ash (CNAS) as a source for potash production. *BioResources* 6 (1): 529-536.
38. **Ogundiran M.B.**, Osibanjo O (2009). Mobility and speciation of heavy metals in soils impacted by hazardous waste. *Chemical Speciation and Bioavailability* 21(2):59-69.
39. **Ogundiran M.B.**, Osibanjo O (2009). Effects of phosphate chemicals treatments on auto battery waste contaminated soil in Nigeria. *Journal of Solid Waste Technology and Management* 35 (3):181-190.
40. **Ogundiran M.B.**, Osibanjo O (2008). Heavy metal concentrations in soils and accumulation in plants growing in a deserted slag dumpsite in Nigeria. *African Journal of Biotechnology* 7 (17): 3053-3060.

Published Proceedings from Scientific Conferences

41. **Ogundiran M.B.**, Akinola O.P (2018). Performance evaluation of metakaolin clay geopolymers synthesised with bamboo wood ash as an activator. In J. Provis, C. Leonelli, W. Kriven, A. Boccaccini, A. Van Riessen, (Eds) Proceedings of the International Conference on Alkali Activated Materials and Geopolymers: Versatile Materials Offering High Performance and Low Emissions", ECI Symposium Series. Tomar. <http://dc.engconfintl.org/geopolymers/19>. Portugal.
42. Mekwunyei N.S., **Ogundiran M.B.**, Adejumo S.A (2017). Utilisation of agro-waste derived biochars and compost as amendments for phytoremediation of lead slag- contaminated soil using *moringa oleifera* plant presented at the 3rd Annual Conference of Biochar Initiative of Nigeria on Biochar for climate change mitigation, crop protection and soil remediation for sustainable agriculture held at First bank building, Faculty of Agriculture and Forestry, University of Ibadan, Nigeria. 11-15 September 2017.
43. Oladele O.L., **Ogundiran M.B** (2017). Feasibility of utilisation of mining waste, spent window glass and quarry sand for production of geopolymer mortars at the 3rd Faculty of Science International Conference on Diversification of Nigeria's economy through Science held at Lakeside Lecture Theatre, Faculty of Science, University of Ibadan, Nigeria. 16-19 May 2017.
44. **Ogundiran, M.B.**, Kemie, E.A., Adejumo, S.A (2015). Comparison of organic chelators and compost assisted phyoremediation of a lead slag-contaminated soil by *Sporobolus fertilis* and *Gomphrena serrate*. CRC CARE 2015, 6th International Contaminated Site Remediation Conference: Program and Proceedings, CleanUp 2015 Conference, Melbourne, Australia, 13-16 September 2015.
45. Adejumo, S.A., Morakinyo, O., **Ogundiran, M.B** (2015). Dissolved organic matter, chemical speciation and phytoavailability of lead in contaminated soil amended with composted and uncomposted organic manures. CRC CARE 2015, 6th International Contaminated Site Remediation Conference: Program and Proceedings, CleanUp 2015 Conference, Melbourne, Australia, 13-16 September 2015.
46. Nugteren, W.H, **Ogundiran, M.B**, Witkamp, G.J. and Kreutzer M.T. (2011). Coal Fly Ash Activated by Sodium Aluminate Solutions as an Immobiliser for Hazardous waste: Proceedings of the 2011 World Coal Ash (WOCA) conference. Denver: CO.

47. Oketola, A.A., **Ogundiran, M.B.**, Adefolu, O.R., Mojeed, O.A. and Itiveh, S.E. (2011). Medical Waste Management Practices in Nigeria, the Case of Lagos and Ibadan. In I. Zandi, R.L. Mersky, W.K. Shieh (Eds.) Proceedings of the 26th International Conference on Solid Waste Technology and Management. Philadelphia. 1311-1321pp.
48. Nugteren W.H., **Ogundiran M.B.**, Witkamp G.J, Kreutzer M.T (2011). Coal fly ash activated by sodium aluminate solutions as an immobiliser for hazardous waste. Presented at 2011 World coal ash (WOCA) conference, May 9-12, 2011, Denver, CO, USA.<http://www.flyash.info/>
49. Adejumo S.A., Togun A.O., Adediran J.A., **Ogundiran M.B** (2010). Effects of compost application on remediation and the growth of maize planted on lead contaminated soil. In the Proceedings of 19th World Congress of Soil Science, Soil Solutions for a Changing World, 1 - 6 August 2010, Brisbane, Australia.

Book Chapters

50. **Ogundiran M.B.**, Osibanjo O (2016). Assessment and remediation of heavy metals contaminated soils. In Onianwa P. C., Adie G. U. (Eds.), *Chemical Environmental Pollution: A selection of Reviews and Studies*. Depet Publishers, Nigeria. 57-72pp. ISBN 978-978-50705-2-1.
51. Osibanjo O., Nnorom I.C., Adie G.U., **Ogundiran M.B.**, Adeyi A.A (2016). Global management of electronic wastes: Challenges facing developing and economy-in-transition countries. In Reed M. Izatt. (Ed.), *Metal Sustainability: Global Challenges, Consequences, and Prospects*. John Wiley & Sons, Ltd, United Kingdom. 52-84pp. ISBN 9781119009146.
52. **Ogundiran M.B.**, Osibanjo O (2011). Evaluation of heavy metals bioaccumulation potentials of plants grown on waste contaminated soils. O. Akinloye. (Ed), *Biotechnology: Trends in Advanced of life science research and development in Nigeria* (pp. 172-176). Cuvillier Verlag Gottingen, Germany.

Patent

Ogundiran, M.B., Ogundele, T.D. and Jha, M.K. (2017). A process for production of nano- PbO from spent automobile lead-acid battery, Nigeria. OAI/PT/201710190722174-309306.

Academic Presentations/Public Lectures

- Theme: Ideas, Innovate, Demonstrate, Elevate, Advance & Sustain, public lecture delivered on behalf of OWSD to celebrate UNESCO International Day of Women & Girls in Science at Immanuel Grammar, Ibadan. 14 February 2023.
- Production and applications of geopolymers for inert waste management and hazardous waste materials encapsulation at the American Ceramic Society 46th International Conference and Exposition on Advanced Ceramics and Composites (ICACC2022) Virtual conference. January 23-28, 2022
- Geopolymers, Inorganic Polymers and Sustainable Materials at the American Ceramic Society 45th International Conference and Exposition on Advanced Ceramics and Composites (ICACC2021) Virtual conference. 8-11 February 2021.
- Nigerian calcined clay-based geopolymers: Early, current and future held at Pan Africa Chemistry Network Congress on Riches of the natural world: Sustainable use of Africa's natural products and materials at Addis Ababa, Ethiopia 5-7 November 2019.
- Performance evaluation of metakaolin clay geopolymers synthesised with bamboo wood ash as an activator held at the Engineering Conferences International on Alkali

Activated Materials and Geopolymers: Versatile Materials Offering High Performance and Low Emissions held at Hotel Dos Templarios, Largo Candido do Reis 1, Tomar, Portugal. May 27 - June 1, 2018.

- Feasibility of utilisation of mining waste, spent window glass and quarry sand for production of geopolymer mortars at the 3rd Faculty of Science International Conference on Diversification of Nigeria's economy through Science held at Lakeside Lecture Theatre, Faculty of Science, University of Ibadan, Nigeria. 16-19 May 2017.
- Investigating the suitability of Nigerian calcined kaolins as raw materials for geopolymer binders presented at the International Conference on Ceramics Science and 77th Annual session of Indian Ceramic Society, held at S.N.T.I., N Road, Bistupur, Jamshedpur, India. 19- 20 December 2013.
- Immobilisation of waste aluminum etching solution and lead smelting slag in fly ash geopolymers presented at the 27th International Conference on Solid Waste Technology and Management, Raddison-Warwick Hotel 1701 Locust Street Philadelphia, USA. 13 March 2012.
- Open air burnings of municipal solid wastes: Potential environmental sources of heavy metals, PCBs and PAHs presented at the 27th International Conference on Solid Waste Technology and Management, Raddison-Warwick Hotel 1701 Locust Street Philadelphia, USA. 12 March 2012.
- Results achieved in Nigeria under Integrated Waste Management in West Africa (IWWA) presented at participatory workshop on Integrated Waste Management in West Africa (IWWA), Conference center, University of Ibadan, 2 June 2011
- The basics and applications of Globally Harmonised System (GHS) of classification and labeling of chemicals presented at the sensitization seminar organized by the Institute of Chartered Chemists of Nigeria (ICCON) at Sharon Huse, Ozalla Road, G.
- R. A, Onitsha, Anambra state, Nigeria. 17August, 2010.
- Globally Harmonised System (GHS) of classification and labeling of chemicals presented at the sensitisation seminar organized by the Institute of Chartered Chemists of Nigeria (ICCON) at Mumbayya house, Gwammaja Quarters Kano, Kano state, Nigeria. 27 October 2010.
- Evaluation of lead and cadmium bioaccumulation potentials of plants grown on 4 auto battery waste contaminated sites. Humboldt-Kolleg International Conference on Biotechnology: Trends in Advancement of Life Science Research and Development in Nigeria. MicCom Golf Hotel and Resort, Obokun Road, Ada, via Osogbo, Nigeria. 9- 12 August 2009. Evaluation of lead and cadmium bioaccumulation potentials of plants grown on 4 auto battery waste contaminated sites.
- Assessment and remediation of lead contaminated soils in Ibadan, Nigeria presented at one-day symposium on Environmental lead exposure organised by Institute for advanced Medical Research and Training, College of Medicine, University of Ibadan, Ibadan, Nigeria. 30 October 2008.
- Phyto and chemical remediation of auto battery waste contaminated site presented at the 23rd International Conference on Solid Waste Technology and Management, Raddison-Warwick Hotel 1701 Locust Street Philadelphia, USA. 30 March to 2 April 2008.
- Impact of auto battery waste on the environment: a case study from a developing country presented at the 23rd International Conference on Solid Waste Technology and Management, Raddison-Warwick Hotel 1701 Locust Street Philadelphia, USA. 30 March to 2 April 2008.

Workshops/Conferences/Seminar Attended

1. International Workshop on Sustainable materials for energy storage solutions, held Centro de Física de Materiales (CFM) CSIC-UPV/EHU, Paseo Manuel de Lardizabal 5, San Sebastian, E-20018 Donostia, Spain. 22 - 25 February 2022.
2. The American Ceramic Society 46th International Conference and Exposition on Advanced Ceramics and Composites (ICACC2022) Virtual conference. 23-28 January 2022.
3. The American Ceramic Society 45th International Conference and Exposition on Advanced Ceramics and Composites (ICACC2021) Virtual conference. 8-11 February 2021.
4. Pan Africa Chemistry Network Congress on Riches of the natural world: Sustainable use of Africa's natural products and materials at Addis Ababa, Ethiopia 5-7 November 2019.
5. Engineering Conferences International on Alkali Activated Materials and Geopolymers: Versatile Materials Offering High Performance and Low Emissions held at Hotel Dos Templarios, Largo Candido do Reis 1, Tomar, Portugal. May 27 - June 1, 2018.
6. 3rd Annual Conference of Biochar Initiative of Nigeria on Biochar for climate change mitigation, crop protection and soil remediation for sustainable agriculture held at First bank building, Faculty of Agriculture and Forestry, University of Ibadan, Nigeria. 11- 15 September 2017.
7. 3rd Faculty of Science International Conference on Diversification of Nigeria's economy through Science held at Lakeside Lecture Theatre, Faculty of Science, University of Ibadan, Nigeria. 16-19 May 2017.
8. Geopolymer Web Workshop with Prof. Davidovits on 20 April 2016: 4-7 P.M
9. American Chemical Society 19th annual Green Chemistry and Engineering Conference held at Bethesda North Marriott Hotel - North Bethesda, MD, USA. 14-16 July 2015.
10. International Conference on Ceramics Science and 77th Annual session of Indian Ceramic Society, held at S.N.T.I., N Road, Bistupur, Jamshedpur, India, 19-20 December 2013.
11. Integrated Waste management in Western Africa (IWWA) Conference, held at Mensvic Hotel, Accra, Ghana, 14-15 May 2012.
12. The 27th International Conference on Solid Waste Technology and Management, Raddison-Warwick Hotel 1701 Locust Street Philadelphia, USA. 11-14 March 2012.
13. Integrated Waste management in Western Africa (IWWA) Mid-term meeting, held at Hotel Le Ndiambour Dakar, Senegal, 16- 18 June 2011.
14. Integrated Waste Management in Western Africa (IWWA), participatory workshop organized by Basel Convention Regional Coordinating Center for Africa, University of Ibadan held at Conference Center, University of Ibadan, Oyo State, Nigeria, 3-4 June 2011.
15. Workshop on the founding of Nigerian Young Academy organised by the Nigerian Academy of Science held at Redeemer's University Nigeria, 29-30 August 2010.
16. Humboldt-Kolleg International Conference on Biotechnology: Trends in Advancement of Life Science Research and Development in Nigeria. MicCom Golf Hotel and Resort, Obokun Road, Ada, via Osogbo, Nigeria. 9 -12 August 2009.
17. Pilot testing workshop in Nigeria on the development of Globally Harmonised System of classification and labeling of chemicals training modules in the context of Africa jointly organised by UNITAR, Basel Convention, KEMI, ILO and Basel Convention Regional Coordinating centre for Africa, University of Ibadan, held at the Conference centre, University of Ibadan, Ibadan, Nigeria. 28-29 July 2009.

18. One Day Seminar on Environmental Lead exposure in Nigeria organised by Institute for advanced Medical Research and Training, College of Medicine, University of Ibadan, Ibadan, Nigeria. 30 October 2008.
19. The 23rd International Conference on Solid Waste Technology and Management, Raddison-Warwick Hotel 1701 Locust Street Philadelphia, USA. 30 March to 2 April 2008.
20. National workshop on the implementation of the Rotterdam Convention in Nigeria organised by Basel Convention Regional Coordinating Centre for Africa held at the Conference Center University of Ibadan, Ibadan, Nigeria. 21 - 25 January 2008.
21. Training programme on compiling inventories of persistent organic pollutants (POPs) under the Stockholm Convention; organised by the United Nations Industrial Development Organization (UNIDO) held at the Federal Ministry of Environment Auditorium, Maitama Abuja, Nigeria. 12-14 November 2002.
22. Inventorisation of dioxin and furan release in Nigeria; organised by the Federal Ministry of Environment at the Federal Ministry of Environment conference room, Games Village, Surulere, Lagos, Nigeria. 25 October 2001.