



CURRICULUM VITAE

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1. PERSONAL DATA

Name (Surname First):	ENEJI, Ishaq Shaibu
Date and Place of Birth:	March 27, 1967; Ogaminana.
State of Origin:	Kogi
Nationality:	Nigerian
Marital Status:	Married
Permanent Home Address:	PRD/OGID/61, Idaunuhua Quarter's, Ogaminana, Adavi L. G. A.
Current Postal Address:	Department of Chemistry University of Agriculture Makurdi, Private Mail Bag 2373, Benue State, Nigeria
Date of First Appointment:	August 19 th , 1997.
Date Appointment Confirmed:	August 8 th , 2002.
Present Rank and Salary:	Associate Professor, 6/7

2. EDUCATIONAL INSTITUTIONS ATTENDED WITH DATES:

- i.) Federal University of Agriculture Makurdi; **2005 – 2011**
- ii.) Queen's University Kingston, Ontario, Canada; **1998 – 2001**
- iii.) Bayero University, Kano; **1989 – 1992**
- iv.) Okehi Community Secondary School Uboro, Kogi State; **1980 – 1985**

3. ACADEMIC QUALIFICATIONS OBTAINED WITH DATES:

- i.) **Ph.D. (Environmental Chemistry) 2011**
- ii.) **M. Sc. (Analytical Chemistry) 2001**
- iii.) **B.Sc. (Hons) Chemistry (Second Class Upper Division) 1992**
- iv.) **WASC 1985**

4. TEACHING / COGNATE EXPERIENCE WITH DATES

- i) **Associate Professor (UASS 06)**, Department of Chemistry, Plateau State University Bokokos (Leave, **March 2018 to Date**)
- ii) **Associate Professor (UASS 06)**, Department of Chemistry, Plateau State University Bokokos (Sabbatical Leave, **March 2017 to February 2018**)
- iii) **Associate Professor (UASS 06)**, Department of Chemistry, University of Agriculture Makurdi (**October 2014 to September 2017**)
- iv) **Senior Lecturer (UASS 05)**, Department of Chemistry, University of Agriculture Makurdi (**October 2011 to September 2014**)
- v) **Lecturer 1(UASS 04)**, Department of Chemistry, University of Agriculture, Makurdi (**October 2006 to September 2011**)
- vi) **Part-time Lecturer I**, Department of Remedial Science, University of Agriculture, Makurdi (**March 2009 to February 2012**)
- vi) **Lecturer II (UASS 03)**, Department of Chemistry, University of Agriculture, Makurdi (**October 2003 to September 2006**).
- vii) **Assistant Lecturer (UASS 02)**, Department of Chemistry, University of Agriculture, Makurdi (**October 2001 to September 2003**).
- viii) **Laboratory Instructor**, Department of Chemistry, Queen's University Kingston, Ontario, Canada (**1999 – 2000**).
- ix) **Graduate Assistant (UASS 01)**, Department of Chemistry, University of Agriculture, Makurdi (**August 1997 to September 2001**).
- x) **Lecturer**, Department of Science Technology, Federal Polytechnic, Idah (**1994 to 1997**).
- xi) **Teacher**, Federal Government Girls College Potiskum, Yobe State (NYSC) (**1993–1994**).
- xii) **Auxillary Teacher**, Okehi Community Secondary School Uboro, Kogi State (**1987 – 1989**).

5. NON – TEACHING SERVICE TO UNIVERSITY/COMMUNITY:

- i) **Ag. Director**, Centre for Agrochemical Technology and Environmental Research (CATER), FUAM (**April, 2018 to Date**)
- ii) **Head of Department**, Department of Chemistry, PLASU (**April, 2018 to Date**)
- iii) **Postgraduate External Examiner**, Department of Chemistry, Benue State University, **2018 to Date**.
- iv) **Head of Department**, Department of Chemistry, FUAM (**August, 2012 to July, 2016**)
- v) Departmental Postgraduate Co-ordinator (**January, 2011 – August, 2012**).
- vi) **Ag. Head of Department**, Remedial Science (**January 27th – February 14th, 2011**)
- vii) **College Representative** to College of Food Technology (**July, 2010 to Jan., 2016**).
- viii) **Financial Secretary**, College of Science Welfare Committee (**Feb., 2010 to 2014**).
- ix) College of Science Welfare Committee (**Chairman Constitution drafting**) **Nov., 2009**.
- x) **Ag. College Examination Officer**, **October, 2009 to January, 2010**.

- xi) **Departmental Examination Officer** (Remedial Sciences) **March, 2008 - 2011.**
- xii) Postgraduate students, **Practical Co-ordinator** in Chemistry **2008 to date.**
- xiii) Departmental **SIWES** Co-ordinator; **2007 to 2012.**
- xiv) Departmental Undergraduate **Project Co-ordinator 2006 - 2012.**
- xv) Compilation of Practical manual (CHM 151 and CHM 152) **2006.**
- xvi) Post UTME Screening, UAM examiner **2005 to 2013.**
- xvii) **Member**, Committee on Splitting of the College of Science, Agricultural and Science Education **Feb. 4th – July 19th, 2005.**
- xviii) **College Representative** to Centre for Agrochemical Technology, **2005 to 2008.**
- xix) **Sorter**, Solid Waste Survey Project in Makurdi, **July 28 – August 6th, 2003.**
- xx) **Departmental Academic Adviser** to undergraduate students, **June, 2003 to 2012.**
- xxi) **Departmental Examination Officer**, November 2002 to December **2006.**
- xxii) **Departmental Registration Officer** for Undergraduate, January **2001- 2012.**
- xxiii) **Chairman**, Departmental Stock taking, January **1998.**
- xxiv) **Collation Officer**, Egba registration area of Agatu, **2007** INEC Election.
- xxv) **Collation Officer**, Kaambe registration area of Guma, **2011** INEC Election
- xxvi) **Returning Officer**, Logo, Katsina-ala and Ukum Federal Constituency, **2011** INEC Election
- xxvii) **External Examiner**, Department of Science Laboratory Technology, Benue State Polytechnic Ugbokolo, **2012 to 2016.**
- xxviii) **Member**, Committee on establishment of Senior Staff Club for University of Agricultural Makurdi, April **2014.**
- xxix) **Returning Officer**, **Zone C** Senatorial Re-run Benue State, **2016** INEC Election.
- xxx) **Postgraduate External Examiner**, Department of Chemistry, Benue State University Polytechnic Ugbokolo, December **2017 to Date.**

6. ACADEMIC SCHOLARLY PUBLICATIONS

(a) PUBLICATIONS:

1. **Ph.D. Thesis:** Spatial and temporal variation in water quality and heavy metals loading of River Benue in Makurdi Metropolitan Area. University of Agriculture Makurdi, Benue State (**2011**).

Supervisors: Prof. R. Sha'Ato; Prof. P. A. Annune; Prof. I. Onyido

2. **M. Sc. Thesis:** The Behaviour of the Organophosphorus Pesticide Pirimiphos-methyl in Soil – Water Systems. Queen's University Kingston, Ontario, Canada (2001).

Supervisors: Prof. Gary. W. VanLoon and Prof. Erwin Buncel

3. **B. Sc. Dissertation:** Extraction and Formulation of Shoe Polish from Sugar cane Wax. Bayero University, Kano (1992).

Supervisor: Prof. J. T. Ayodele (Late)

(b) Articles in Learned Journals:

1. A. U. Itodo, **I. S. Eneji**, A. J. Anangabor and N. Surma (2019). Potentials of Turmeric Plant Rhizomes for the Sorptive Removal of Divalent Metal Ions. *FUW Trends in Science and Technology Journal*, **4** (1): 101 – 105.
2. A. U. Itodo, **I. S. Eneji** and T. T. Weor (2018). Chitosan-Starch Polymeric Blend Hydrogels as Scavengers of Antibiotics from Simulated Effluent: Sorbent Characterization and Sorption Kinetics Studies. *Journal of Chemical Society of Nigeria*, **43**(4): 667 – 677.
3. Dallatu E. Musa, Rufus Sha'Ato, **Ishaq S. Eneji** and Adams U. Itodo (2018). Electrogravimetric Determination of Copper Using a Constructed Compact Electrolytic cell. *Open Access Library Journal*, 5: e4446. <https://doi.org/10.4236/oalib.1104446>
4. Aka J. Egwumah, **Ishaq S. Eneji** and Raymond A. Wuana (2018). Assessment of Heavy Metals and Selenium Levels in Leachates and Soils of Central Bank of Nigeria Dumpsite Makurdi. *Asian Journal of Applied Chemistry Research*, **1**(2): 1 – 12.
5. Tongu S. M., Sha'Ato R., Okonkwo O. J., **Eneji I. S.**, Chokwe T. B., Tor-Anyiin T. A (2018). Determination of alkylphenol ethoxylates (APEs) and alkylphenols (APs) in water and sediment from River Benue, North Central Nigeria. *Journal of chemical Society of Nigeria*, **43**(2): 19 – 38.
6. Dallatu E. Musa, Rufus Sha'Ato, **Ishaq S. Eneji** and Adams U. Itodo (2018). Design and Construction of compact Voltaic Cell to perform Electrochemical Analysis. *Chemical Science International Journal*, **22**(2): 1 – 16.
7. A. A. Adegbe, **I. S. Eneji**, T. Aboiyar and R. A. Wuana (2018). Modelling of Heavy Metals Concentration in Maize (*Zea may L.*) Grown in Artificially Contaminated Soil, *Asian Journal of Physical and Chemical Sciences*, **5**(3): 1 – 13.
8. **Ishaq S. Eneji**, Peter O. Onuwa and Sola O. Oloruntoba (2017). Post Flood Analysis of Heavy Metals Level in River Benue along Makurdi Metropolis, Nigeria, *Academic Journal of Chemistry*, **2**(8): 74 – 79.

9. Raymond A. Wuana, **Ishaq S. Eneji** and Ezekiel C. Ugwu (2017). Heavy metals leaching behavior and ecological risk in wastewater treatment sludges, *Advances in Environmental Research*, **6** (4): 281 – 299.
10. Peter O. Onuwa, **Ishaq S. Eneji**, Adams U. Itodo and Rufus Sha'Ato (2017). Determination of Pesticide residues in edible crops and soil from University of Agriculture Makurdi Farm, Nigeria. *Asian Journal of Physical and Chemical Sciences*, **3**(3): 1 – 17.
11. **Ishaq S. Eneji**, Rebecca Veswue and Sola O. Oloruntoba (2017). Analysis of Polyaromatic Hydrocarbons in Soil Around Auto-Mechanic Workshops in Major Towns in Benue State, Nigeria. *FUW Trends in Science and Technology Journal*, **2**(1A): 79 – 84.
12. A. U. Itodo, **I. S. Eneji** and L. A. Egbegbedia (2017). Relationship between Metal Concentrations in Galena ore and Soil Samples from Galena-rich Farmlands. *Chemical Science International Journal*, **19**(2): 1 – 13.
13. Kadili A. Julius, Itodo U. Adams and **Ishaq S. Eneji**, (2017). Toxic metals in Office Dust as Geochemical Indicators of Indoor Contamination, *FUW Trends in Science and Technology Journal*, **2**(1A): 101 – 105.
14. Ahola D. Oklo, Rufus Sha'Ato, **Ishaq S. Eneji** and Michael A. Igyor (2017). Level of Selenium in Vegetables, Medicinal Plants and Soils from selected sites within the Lower Benue River Basin Development Authority, *Journal of Environmental Science, Toxicology and Food Technology*, **11**(5): 21 – 30.
15. A. U. Itodo, **I. S. Eneji**, L. A. Egbegbedia and A. A. Asan (2017). Iron Ore Deposite and Its tailing Impact on the Toxic Metal Level of Neighbouring Agricultural Soils. *Asian Journal of Environmental & Ecology*, **2**(4): 1 – 16.
16. **Ishaq S. Eneji**, Nnebedum Julian and Rufus Sha'Ato (2016). Kinetic and Thermodynamic Study of Aqueous Adsorption of Cd²⁺ and Pb²⁺ ions on *Nymphaea ampla* (Water Lily) Roots Carbon. *FUW Trends in Science and Technology Journal*, **1**(2): 456 – 465.
17. Zarmai Saidu, **Ishaq S. Eneji**, Terrumun A. Tor-Anyiin and Rufus Sha'Ato (2016). Selenium Contents of Selected nuts and seeds, spices and soil in Central Nigeria. *Journal of Chemical, Biological and Physical Sciences*, **6** (4): 1157 – 1165.
18. G. A. Ijuo, H. F. Chahul and **I. S. Eneji** (2016). Kinetic and Thermodynamic Studies of Corrosion Inhibition of Mild Steel Using *Bridelia ferruginea* Extract in Acidic Environment, *Journal of Advanced Electrochemistry*, **2**(3): 107 – 112.
19. Raymond C. Nwankwo, **Ishaq S. Eneji**, Lami A. Nnamonu and Rufus Sha'Ato (2016). Heavy Metals Contamination and Physicochemical Characteristics of Soils from Waste Dumpsites in a Military Formation in Makurdi, Benue State, Nigeria. *Journal of Chemical, Biological and Physical Sciences*, **6** (4): 1166 – 1179.
20. Ijuo G. A, Chahul, H. F and **Eneji, I. S.** (2016). Corrosion inhibition and Absorption Behavior of *lonchocarpus laxiflorus* extract on mild steel in hydrochloric acid. *Ewemen Journal of Chemical kinetics*, **1** (1): 21 – 30.
21. **Ishaq S. Eneji**, Raymond A. Wuana and Utibe J. Akpan (2016). Trace Metals Levels in African Giant Land Snails (*Achatina achatina*) from Selected Local Government Areas in Akwa Ibom State, Nigeria. *Open Access library Journal*, **3**: 1 – 9.

22. Akaahan, T. J. A., **Eneji, I. S.** and Azua, E. T. (2016). The relationship between surface water temperature and dissolved oxygen in River Benue at Makurdi. *European Journal of Basic and Applied Sciences*, **3**(1): 52 – 60.
23. Raymond A. Wuana, **Ishaq S. Eneji** and Julius U. Nak (2016). Single and mixed chelants – assisted phytoextraction of heavy metals in municipal waste dump soil by castor. *Advances in Environmental Research*, **5**(1): 19 – 35.
24. Musa W. Ombugus, **Ishaq S. Eneji** and Raymond A. Wuana (2016). Determination of heavy metals concentration in soil and ground water around Central Bank of Nigeria (CBN) waste dumpsite in Makurdi, Benue State, Nigeria. *Canadian Journal of Science and Technology*, **4**: 54 – 67.
25. **Ishaq S. Eneji**, Ahmed A. Nurain and Olanekan W. Salawu (2015). Heavy metal Content of Some Packaged Fruit Juices in Nigeria. *ChemSearch Journal*, **6**(2): 42 – 49.
26. Akaahan, T. J. A., Leke, L. and **Eneji, I. S.** (2015). Seasonal Variation in Hydro Chemistry of River Benue at Makurdi, Benue State Nigeria. *International Journal of Environmental and Pollution Research*, **3**(3):67 – 78.
27. Ogah E, **Eneji, I. S.**, Abiazim, C. V., Ushie, A. O. and Longbap, B. D (2015). Analysis of Organochlorine Residues in River Benue at Makurdi Using Gas Chromatography Equipped with Electron Capture detector (**GC-FPD**). *ChemSearch Journal*, **6**(2): 77 – 85.
28. **Ishaq S. Eneji**, Onuwa O. Peter and Rufus Sha'Ato (2015). Comparative Assessment of Chromium level in human scalp hair using Atomic Absorption Spectrophotometry (AAS) and X-ray Fluorescence Techniques (XRF). *World Journal of Engineering and Physical Sciences*, **3**(4): 43 – 50.
29. Ogah E, **Eneji, I. S.**, Tabe, N. T., Ushie, O. A and Longbap, B. D (2015). Analysis of Diazinon, Chlorpyrifos, Mevinfos in River Benue Using Gas Chromatography Equipped with Electron Capture detector (**GC-FPD**). *International Journal of Modern Analytical and Separation Sciences*, **4**(1): 9 –17.
30. **Ishaq S. Eneji**, Itodo U. Adams and Kadili A. Julius (2015): Assessment of Heavy Metals in Indoor Settled Harmattan Dust within the University of Agriculture Makurdi, Nigeria. *Open Journal of Air Pollution*, **4**: 198 – 207.
31. **Eneji, I. S.**, Sha'Ato, R. and Ejembi, S. E. (2015). Comparative Analysis of Termitera and Surrounding Soil Properties in the University of Agriculture Makurdi, Nigeria. *ChemSearch Journal*, **6**(1): 57 – 61.
32. Joseph A. Ameh, Terrumun A. Tor-Anyiin and **Ishaq S. Eneji** (2015). Assessment of Some Gaseous Emissions in Traffic Areas in Makurdi Metropolis, Benue State, Nigeria. *Open Journal of Air Pollution*, **4**: 175 – 183.
33. Ekirigwe Ogah, **Ishaq S. Eneji**, Lami A. Nnamonu and Rufus Sha'Ato (2015). Determination of Organochlorine Pesticides in River Benue at Katsina-Ala and Buruku Using Gas-Chromatography Equipped with Electron Capture detector. *International Journal of Modern Analytical and Separation Sciences*, **4**(1): 1 – 8.
34. T. J. Akaahan, **I. S. Eneji** and E. T. Azua (2015). Evaluation of Water Quality Suitability in River Benue at Makurdi for Aquaculture Production in Benue State, Nigeria. *International Scientific Research Journal*, **1**(6): 66 – 73.

35. Lami A. Nnamonu, Ogidi A. Ogidi and **Ishaq S. Eneji (2015)**. Analysis of Heavy metals Content of Fluted Pumpkin (*Telfairia occidentalis*) Leaves Cultivated on the South Bank of River Benue, Nigeria. *Food Science and Quality Management*, **39**: 1 - 8.
36. O. W. Salawu, **I. S. Eneji** and H.A. Salami (2015). Preparation and Spectroscopic Characterization of 2 – Ethoxy isobutryl acid hydrazine and 2 – ethoxy isobutryl aceto hydrazone and its metal complexes with Co(II), Ni(II) and Cu(II). *International Journal of Inorganic and Bioinorganic Chemistry*, **5** (2): 23 – 27.
37. Lami A. Nnamonu, Ogidi A. Ogidi and **Ishaq S. Eneji (2015)**. Assay of Heavy metals in water Hyacinth (*Eichorina crassipes*) Growing in River Benue, Nigeria and Its Safety as Food, *International Research Journal of Pure and Applied Chemistry*, **9** (1): 1– 9.
38. **Ishaq S. Eneji**, Ameh Y. Ahmed and Peter O. Onuwa (2014). Physico-chemical Properties of River Mada, Nasarawa State, Nigeria. *Journal of Chemical Society of Nigeria (JCSN)*, **39**(2): 67 – 71.
39. **Ishaq S. Eneji**, Ekirigwe Ogah, Rebecca Vesuwe, Lami A. Nnamonu and Rufus Sha'Ato (2014). Bioaccumulation of Heavy Metals in *Albula vulpe* and *Tilapia Zilli* in North Central Nigeria. *ChemSearch Journal*, **5**(2): 71 – 78.
40. **Ishaq S. Eneji**, Ofoegbu Obinna and Emmanuel T. Azua (2014). Sequestration and Carbon Storage Potential of Tropical Forest Reserve and Tree Species Located within Benue State of Nigeria. *Journal of geosciences and environmental Protection*, **2**(2): 157 - 166.
41. Godwin M. Mafuyai, **Ishaq S. Eneji** and Rufus Sha'Ato (2014). Concentration of Heavy Metals in Respirable Dust in Jos Metropolitan Area, Nigeria. *Open Journal of Air Pollution (OJAP)*, **3**: 10 – 19.
42. Saidu Zarmai, **Ishaq S. Eneji** and Rufus Sha'Ato (2013). Analysis of Selenium Content in Root and Tuber Plants in Central Nigeria. *American Journal of Analytical Chemistry (AJAC)*, **4** (12): 739 – 743.
43. Ugbide Shaapera, **Ishaq S. Eneji** and Rufus Sha'Ato (2013). Determination of Mercury Level in *Rana esculenta* (Frog), Sediment and Water from River Guma, Benue State, Nigeria. *Journal of Environment and Earth Science*, **3**(12): 201 – 206.
44. Ofoegbu Obinna, **Ishaq Shaibu Eneji** and Henrietta Kelle Ijeoma (2013). Utility Value of Solubilized Animal Hair in commutative Recycling of Damaged Hides and Skins. *Chemistry and Material Research*, **3**(10): 64 – 71.
45. Ugbidye Shaapera, Lami A. Nnamonu and **Ishaq S. Eneji (2013)**. Assessment of Heavy metals in *Rana esculenta* Organs from River Guma, Benue State Nigeria. *American Journal of Analytical Chemistry (AJAC)*, **4**(9): 496 – 500.
46. **Ishaq S. Eneji** , Olalekan. W. Salawu and Rufus Sha'Ato (2013). Analysis of heavy metals in selected cigarettes and tobacco leaves in Benue State, Nigeria. *Journal of Science (JOS)*, **3**(1): 244 – 247.
47. E. Ogah, **I. S. Eneji** and E. E. Etim (2013). Seasonal variation of Physicochemical Properties of Selected Rivers in North Central States of Nigeria. *International Journal Modern Analytical Separation Science* **2** (1): 31 – 38.
48. Ande Sesugh, Leke Luter, **Eneji Ishaq** and Yakubu Sunday (2012). Proximate analysis of smoked and unsmoked fish (cat and tilapia) in Ombi River Lafia, Nasarawa State, Nigeria. *Elixir Food Science* **53**: 11801 – 11803.

49. Onuwa O. Peter, Lami A. Nnamonu, **Ishaq S. Eneji** and Rufus Sha'Ato (2012). Analysis of heavy metals in human hair using Energy Dispersive X-ray Fluorescence Technique. *Journal of Analytical Sciences, Methods and Instrumentation (JASMI)* **2**: 187 – 193.
50. Onuwa O. Peter, **Ishaq S. Eneji** and Rufus Sha'Ato (2012). Analysis of heavy metals in human hair using Atomic Absorption Spectrometry (AAS). *American Journal of Analytical Chemistry* **3**: 770 – 773.
51. **Ishaq S. Eneji** and Rufus Sha'Ato (2012). One – Cycle Seasonal Variation of heavy metals concentration in River Benue. *Journal of Chemical Society of Nigeria* **37(2)**: 102 – 107.
52. **Ishaq S. Eneji**, Agada P. Onuche and Rufus Sha'Ato (2012): Spatial and temporal variation in water quality of River Benue, Nigeria. *Journal of Environmental Protection* **3**: 915 – 921.
53. **I. S. Eneji**, F.O. Oketunde and R. Sha'Ato (2012): Sequential extraction of heavy metals from sediments in River Benue, Nigeria. *Journal of Chemical Society of Nigeria*, **37(1)**: 76 – 80.
54. **Ishaq S. Eneji**, Rufus Sha'Ato and P. A. Annune (2012): An assessment of heavy metals loading in River Benue in the Makurdi Metropolitan Area in Central Nigeria, *Environmental Monitoring and Assessment* **184**: 201 – 207.
55. **Ishaq S. Eneji**, Rufus Sha'Ato and P. A. Annune (2011): Bioaccumulation of heavy metals in fish (*Tilapia zilli* and *Clarias gariepinus*) organs from river Benue, North – Central Nigeria. *Pakistan Journal of Environmental and Analytical Chemistry*, **12 (1&2)**: 25 – 31.
56. P. O. Edimeh, **I. S. Eneji**, O. F. Oketunde and R. Sha'Ato (2011): Physico-chemical parameters and some heavy metals content of Rivers Inachalo and Niger in Idah, Kogi State. *Journal of Chemical Society of Nigeria*, **36 (1)**: 95 – 99.
57. D. J. Nanev, **I. S. Eneji** and R. Sha'Ato (2009): Kinetics of 0,0-diethyl-0-2-isopropyl-6-methyl-4-pyrimidinyl phosphorothioate adsorption in a mineral soil. *Journal of Chemical Society of Nigeria*, **34 (2)**: 87 – 93.
58. A. I. Tar, **I. S. Eneji**, S. Ande, F. O. Oketunde and R. Sha'Ato (2009): Assessment of Arsenic in Drinking Water in Makurdi metropolis of Benue State. *Journal of Chemical Society of Nigeria*, **34 (2)**: 50 – 54.
59. Momoh-Yahaya Habibat, **I. S. Eneji**, and R. Sha'Ato (2009): The Kinetic of Hydrolysis and Photodegradation of Chlorpyrifos in Aqueous and Ethanol Media. *Journal of Chemical Society of Nigeria*, **34 (2)**: 109 – 114.
60. **Ishaq S. Eneji**, Felix O. Oketunde and Rufus Sha'Ato (2007): Kinetics and Energetic of Hydrolysis of 0-[2-(diethylamino)-6-methyl-4-pyrimidinyl] 0, 0-dimethylphosphorothioate (Pirimiphos-methyl). *Journal of Chemical Society of Nigeria*, **32**: 99 – 106.
61. R. Sha'Ato, S. Y. Aboho, F. O. Oketunde, **I. S. Eneji**, G. Unazi and S. Agwa (2007): Survey of Solid waste generation and composition in a rapidly growing urban area in Central Nigeria. *Waste Management* **27**: 352 – 358.

62. **Ishaq S. Eneji**, Erwin Buncel and Gary W. VanLoon (2002): Degradation and Sorption of Pirimiphos-methyl in Two Nigerian Soils. *Journal of Agricultural and Food Chemistry*, **50**: 5634 – 5639.

(c) **Articles Under Review in Learned Journals:**

- (i) Julius O. Ochogwu, **Ishaq S. Eneji** and Rufus Sha'Ato (2018). Sorption and Aqueous Dissipation of Dichlorvos in Soil and Aqueous Medium. *Journal of Chemical Society of Nigeria*.
- (ii) **Ishaq S. Eneji**, Lydia M. Okorafor and Rufus Sha'Ato (2018). Proximate and Elemental Analysis of Local Spices Used in Nigeria. *FULafia Journal of Science and Technology*.
- (iii) Zarmai Saidu, **Ishaq S. Eneji** and Rufus Sha'Ato (2018). Selenium Contents of common cereal and legume staples in Central Nigeria. *Journal of Chemical, Biological and Physical Sciences*.

7. **CONFERENCE PAPERS:**

(a) **International Conferences**

- (i) International Conference on Environmental Protection and Public Health, Shanghai, China (2014).
- (ii) Water Pollution and Treatment, Sanya, China (2013)
- (iii) **Agro – food 2000** Winnipeg, Manitoba, Canada (2000).
- (iv) Canadian Chemical Society Conference, Toronto, Canada (1999).

(b) **National Conferences**

- (i) Onuwa O. Peter, **Ishaq S. Eneji** and Rufus Sha'Ato (2018). Analysis of pesticide Residues in Vegetables and Crops from University of Agriculture Farm Site Using GC-MS. 37th Annual International Conference of the Chemical Society of Nigeria, September 21st – 24th, Kaduna, Kaduna State, Nigeria.
- (ii) Onuwa O. Peter, **Ishaq S. Eneji** and Rufus Sha'Ato (2016). Analysis of pesticide Residues in University of Agriculture Farm Site Using GC-MS. 36th Annual International Conference of the Chemical Society of Nigeria, September 19th – 23rd, Uyo, Akwa- Ibom State, Nigeria.
- (iii) Ekirigwe Ogah, **Ishaq S. Eneji**, Lami A. Nnamonu and Rufus Sha'Ato (2015). Determination of Organochlorine Pesticides in River Benue at Katsina-Ala and Buruku Using Gas-Chromatography Equipped with Electron Capture detector. 38th Annual International Conference of the Chemical Society of Nigeria, September 23rd – 27th, Abuja, Nigeria.
- (iv) Ogah E, **Eneji, I. S.**, Tabe, N. T., Ushie, O. A and Longbap, B. D (2014). Analysis of Diazinon, Chlorpyrifos, Mevinfos in River Benue Using Gas Chromatography Equipped with Electron Capture detector (GC-FPD). 37th Annual International Conference of the Chemical Society of Nigeria, September 23rd – 27th, Uyo, Akwa Ibom State, Nigeria.

- (v) Ugbidye Shaapera, **Ishaq S. Eneji** and Lami A. Nnamonu (2013). Assessment of Heavy metals in *Rana esculenta* Organs from River Guma, Benue State Nigeria. 36th Annual International Conference of the Chemical Society of Nigeria, September 23rd – 27th, Minna, Niger State, Nigeria.
- (vi) Onuwa O. Peter, **Ishaq S. Eneji** and Rufus Sha'Ato (2013). Comparative Assessment of Chromium in human scalp hair using Atomic Absorption Spectrophotometry (AAS) and Energy Dispersive X-ray Fluorescence Technique (EDXRF). 36th Annual International Conference of the Chemical Society of Nigeria, September 23rd – 27th, Minna, Niger State, Nigeria.
- (vii) Onuwa O. Peter, **Ishaq S. Eneji** and Rufus Sha'Ato (2012). Analysis of heavy metals in human hair using Atomic Absorption Spectrophotometry (AAS). 35th Annual International Conference of the Chemical Society of Nigeria, September 17 – 21st, Owerri, Imo State, Nigeria.
- (viii) Abubakar S. Mohd, **Ishaq S. Eneji** and Felix O. Oketunde (2011). Determination of Heavy Metals in Rain from University of Agriculture Makurdi Students Hostel. 34th Annual International Conference of the Chemical Society of Nigeria, September 19 – 23rd, Ilorin, Kwara State, Nigeria.
- (ix) **Ishaq S. Eneji**, Rufus Sha'Ato and P. A. Annune (2010): Bioaccumulation of heavy metals in fish (*tilapia zilli* and *clarias gariepinus*) organs from River Benue, North – Central Nigeria. 33rd Annual International Conference of the Chemical Society of Nigeria, September 20 – 24th, Abeokuta, Ogun State, Nigeria. p 22.
- (x) Rufus Sha'Ato, Felix O. Oketunde, and **Ishaq S. Eneji** (2009). Atrazine and Metribuzin Sorption in Mineral Soils: Formation of Bound (Non-Extractable) Residues. (Representation) 4th SETAC Meeting: Status and Strategies for Sustainable Environmental Quality, Speke Resort and Conference Centre, Munyonyo, Kampala, Uganda, November, 2 – 6th, 2009.
- (xi) Julius O. Ochogwu, **Ishaq S. Eneji**, Paul A. Annune and Rufus Sha'Ato (2008): Toxicity and Residual diazinon in exposed *Clarias gariepinus*. "A preliminary investigation". ANCAP/University of Gezira, 1st African Congress on Pesticide Toxicology Sciences. 8–12th November, 2008. Wad Medani – Sudan.
- (xii) **Ishaq S. Eneji**, Erwin Buncel and Gary W. vanLoon (2000): Behaviour organophosphorus pesticide in soil and water environment. Agro-food 2000 Winnipeg, Manitoba, Canada.

8. SCHOLARSHIP / FELLOWSHIP AWARD

- (i) Academic Staff Union of Universities (ASUU) Research Award; 2009.
- (ii) Canadian International development Agency (CIDA) training Award; 1998-2000.
- (iii) University Scholarship for best 200 Level Student in Chemistry; 1990–1991.

9. HONOURS AND DISTINCTIONS:

- (i) Michael Collin's prize for the best Graduating Student in Chemistry; 1992.
- (ii) Certificate of Merit, Ebira Students' Association (ESA) Bayero University, Kano Chapter, 1991/1992.
- (iii) Michael Collin's prize for the best 200 level Physical Chemistry Student; 1990.

10. MEMBERSHIP OF PROFESSIONAL BODIES

- (i) Member Chemical Society of Nigeria (MCSN).
(ii) Member, Institute of Chartered Chemists of Nigeria (MICCON).

11. POSTGRADUATE RESEARCH SUPERVISION/ROLE

S/N	Name	Registration Number	Title of Thesis	Role
DOCTOR OF PHILOSOPHY (Ph.D) GRADUATED				
1	Ogah, E.	Ph.D/3631/10	Analysis of Pesticides/Residues in River Benue Using Gas Chromatography Equipped With Flame Photometric and Electron Captured Detector.	Major Supervisor
2	Zarmai, S.	Ph.D/3614/10	Selenium Contents of Some Agricultural Soils and Common Staple Foods in Central Nigeria	Co-supervisor
3	Nwankwo, R. C.	Ph.D/6458/13	Heavy metals Distribution and Speciation in Waste Dumps in Selected Military Bases within Makurdi Metropolis	Major Supervisor
4	Ahola D. Oklo	Ph.D/3292/09	Formulation of Chlorpyrifos and Dichlorvos using starch-silver nanoparticles as matrix	Co-supervisor
5	Tongu, S. M.	Ph.D/6459/13	Simultaneous determination of alkylphenol ethoxylates and brominated flame retardants in city drains and River Benue catchment in Makurdi metropolitan Area.	Co-Supervisor
6	Ephraim Musa Dallatu	Ph.D/6665/14	Design and Construction of Compact Electrochemical Cells for Selected Analysis	Co-Supervisor
7	Onuwa, O. P.	Ph.D/6669/14	Analysis of Pesticide Residues in Selected Edible Crops and Soil within University of Agriculture Makurdi Farm site, Benue State.	Major Supervisor
8	Abdul, A. A.	Ph. D/8999/15	Modelling of heavy metal uptake by Maize from Artificially contaminated soil	Major Supervisor
MASTER OF SCIENCE (M. Sc.) GRADUATED				
1	Igbabo, S. O.	M.Sc/2372/07	Survey of Solid Waste Generated and The Chemical Characteristics of Its Compost at The Federal University of Agriculture, Makurdi Nigeria	Co-Supervisor
2	Ochogwu, O. J.	M.Sc/2374/07	Soil Sorption and Aqueous Dissipation of Diclorvos (2,2-dichlorovinyl dimethylphosphate) in Soil and Aqueous Medium	Co-Supervisor
3	Dimgba, C.	M.Sc/2786/08	Heavy Metals Accumulation in Mussel from River Benue, Nigeria	Co-Supervisor
4	Wase, G. A	M.Sc/3611/10	Determination of Polybrominated diphenyl esters in Indoor Dust from Cars in Makurdi, Gboko and Otukpo, Homes and Offices in Makurdi	Co-Supervisor
5	Ejembi, S.	M.Sc /3614/10	Physicochemical Properties of Termitaria and Surrounding Soil in University of Agriculture, Makurdi	Major Supervisor
6	Matthew, M. O.	M.Sc /3619/10	Determination of Pesticide Residues in River Mada Using Solid phase Extraction Techniques	Major Supervisor
7	Ogidi, A. O.	M.Sc /3623/10	Comparative Assessment of Metals in Fluted Pumpkin (<i>T. accidentalis</i>), Water Hyacinth (<i>E. arassipes</i>),	Co-Supervisor

			Water and Soil from River Benue.	
8	Onuwa O. P.	M.Sc /3627/10	Determination of Heavy Metals in Human Scalp Hair in Makurdi Town by Atomic Absorption Spectrophotometry and X-Ray Fluorescence Techniques.	Major Supervisor
9	Ugbide, S.	M.Sc /3629/10	Assessment of some Toxic Metals in Frog (<i>Rana esculenta</i>) Organs, Sediments and Water from River Guma, Benue State, Nigeria.	Major Supervisor
10	Ahmed, A. N	M.Sc /4753/11	Determination of Some Heavy Metals in Five Fruit Juice in Nigeria	Major Supervisor
11	Ibeh, M.	M.Sc/4763/11	Influence of organic Amendments and heavy metals on Petroleum Hydrocarbon Degradation in Diesel Contaminated Soil.	Co-Supervisor
12	Williams, M. O.	M.Sc /4767/11	Determination of heavy metals in soil and ground water in Central Bank of Nigeria dump site along University of Agriculture Makurdi road, Benue State.	Major Supervisor
13	Edimeh, P. O.	M.Sc /6412/13	Variation of Heavy Metals Concentration in River Niger	Major Supervisor
14	Ameh, J. A.	M.Sc /4878/11	Assessment of Some Gaseous Emissions in High traffic Areas in Makurdi Metropolis, Benue State, Nigeria	Co-Supervisor
15	Abraham, S. A.	M.Sc/4751/11	Comparative Solid Phase extraction Pesticides in Water, Using Activated Charcoal and Local Adsorbents (Rice Husk, Maize corn and Groundnut Shell).	Major Supervisor
16	Akpan, U. J.	M.Sc/6410/13	Proximate and Heavy Metals Analysis of African Land Giant Snail (<i>Achatina achatina</i>) from Selected Local Government Areas in Akwa Ibom State, Nigeria	Major Supervisor
17	Kadili, A. J.	M.Sc/7159/14	Determination of Heavy metals in Indoor Settled Hamattan Dust within the University of Agriculture, Makurdi	Major Supervisor
18	Nnebedum, J.	M.Sc/7162/ 14	Kinetic and Thermodynamic Study of The Adsorption of Cd (II) and Pb (II) Using Water Lily (<i>Nymphaea Ampla</i>) Roots	Major Supervisor
19	Eweh, A. B	M.Sc/6425/ 13	Heavy Metals Accumulation and Distribution in Vegetable Crops Sold in Wadata Market Makurdi	Co-Supervisor
20	Ugwu, E. C	M.Sc/7183/14	Assessment of Heavy metals Mobilization in Sludges from Water and Wastewater Treatment Plants	Co-Supervisor
21	Asan, A. A.	M.Sc/7142/14	Determination of Toxic Substance in Locally Brew Drinks (Burukutu and Pito) from Cereal in North Central Nigeria.	Major Supervisor
22	Okorafor, L. M.	M.Sc/7168/14	Elemental and Proximate Analysis of Common Spices Used in Nigeria.	Major Supervisor

23	Ameh B. A.	M.Sc/6411/13	Determination of trace metals in water: A comparison of solvent and solid phase extraction	Co-Supervisor
24	Awodi, G. O.	M.Sc/7145/14	Comparative analysis of Briquettes produced from Rice Husk, Saw Dust and charcoal.	Co-Supervisor
25	Tivkaa, T. J.	M.Sc/7179/14	Quantitative and Qualitative determination of $KBrO_3$ in bread sample consumed in Benue State, North central Nigeria	Major Supervisor
26	Ameh, Y. A.	M.Sc/7140/14	Comparative Analysis of Nutritional Content of locally Fermented Drinks (Burukutu and Pito) in Three Selected States in Middle Belt of Nigeria.	Major Supervisor
27	Ijuo, A. G.	M.Sc/7153/ 14	Kinetic and thermodynamic Studies of The Corrosion of mild Steel in Acidic media Using Some Plant Extracts.	Co-Supervisor
28	Pereasuode, A.	M.Sc/7176/ 14	Determination of heavy metals in Urine Samples of Pregnant Women From Federal Medical Centre, Makurdi Benue State	Major Supervisor
29	Lawal U.	M. Sc/8243/15	Synthesis, Characterization ant antimicrobial activities of Cu (II), Co(II) and Ni(II) Histidine complexes	Co-supervisor

12. CURRENT RESEARCH / EXTENSION

The global attention to sustain environmental friendly ecosystem calls for an in-depth knowledge about **chemicals** that pose threat to both human life and non-target organisms in the environment (air, water and soil). These chemicals were grouped into **Organic Chemicals** (precisely fertilizers and pesticides) and **Inorganic Chemicals** (mainly heavy metals).

- (a) **Fertilizers/Pesticides:** These agrochemicals were applied annually for agricultural purposes. However, on their way to decomposition or mineralization quite a number of them turn to be more toxic substances compared to parent compound and stays longer in the environment and foodstuffs. It is important to obtain information that describes the environmental behaviour of pesticides and its residues.
- (b) **Inorganic Chemicals (Heavy Metals):** They are generally toxic at very low concentration, to aquatic organisms and human beings. It is thus desirable to know how much of these non degradable metals may be contaminating foodstuffs and environment.
- (c) **Sensor for Chemical Explosives:** We are also in the process of developing sensors for some chemical used for explosives. This is important due to recent security challenges in

the country as some these explosive can be sensed about hundred metres away before the harvoc.

13. SPECIAL CONTRIBUTIONS TO KNOWLEDGE

- i) Establishment of baseline data on **water quality** and **heavy metals levels** in River Benue in the Makurdi Metropolitan area, including their spatial and temporal variation pattern (*Environmental Monitoring and Assessment*, **184**, **2011**). *Abstracted as Standard Method for Water and River analysis, Analytical Chemistry Division, IUPAC* < <http://dx.doi.org/10.1007/s10661-011-1959-0>>
- ii) Identification of two fish species, *Tilapia zilli* and *Clarias gariepinus*, as Bio-indicators of heavy metals pollution of the River (*Pakistan Journal of Environmental and Analytical chemistry*, **12** (1) **2011**).
- iii) Establishment of Organophosphorus pesticides transformations in soil and water environment (*Journal of Agricultural and Food Chemistry*, **50**, **2002**).
- iv) Development of spot test for quantitative and qualitative determinations of KBrO_3 in bread sample (*Undergoing Patent processes with NAFDAC*, **2017**).

14. EXTRA-CURRICULA ACTIVITIES AND MEMBERSHIP OF SERVICE CLUBS

- (i) Football and Reading
- (ii) **President**, Committee of Unity and Understanding, **Okene** 2004 to 2009.
- (iii) **Chairman**, Friends Forum Nigeria (**UAM – BSU, Makurdi**) 2006 to 2009.

15. REFEREES

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