ENGR. DR. SULEIMAN, IDAWU YAKUBU



1. Date & Place of Birth:

- 2. Nationality:
- 3. Marital Status:
- 4. Number of Children
- 5. Permanent Home address:
- 6. Current Contact Address:

30th August, 1968/Okunchi-Adavi, Kogi State Nigerian Married Five (5) No 13, Ihima St. G.R.A; Okene, Kogi-State Dept of Metallurgical & Materials Engineering, University of Nigeria, Nsukka onoruoizadanjumas@yahoo.co.uk

7. Present Employment, Rank & Salary: Dept of Metallurgical & Materials Engineering, University of Nigeria, Nsukka. Senior Lecturer/CONUASS 5/09

8. EDUCATIONAL INSTITUTIONS ATTENDED WITH DATES:

- a) ROMAN CATHOLIC SCHOOL SOUTH OKENE, KOGI STATE, 1973-1978
- b) E.CW.A. SECONDARY SCHOOL, MOPA-AMURO, KOGI STATE 1978-1983
- c) KWARA STATE COLLEGE OF TECHNOLOGY, ILORIN, KWARA STATE 1985-1987
- d) AHAMDU BELLO UNIVERSITY. ZARIA 1989-1993
- e) AHAMDU BELLO UNIVERSITY. ZARIA 2003-2006
- f) AHAMDU BELLO UNIVERSITY. ZARIA 2007-2013
- g) NARICT COMPUTER TRAINING, ZARIA. KADUNA STATE 2007

9. QUALIFICATIONS OBTAINED WITH DATES

- a) PRIMARY SCHOOL LEAVING CERTIFICATE 1978
- b) WEST AFRICAN SCHOOL CERTIFICATE 1983
- c) NATIONAL DIPLOMA (UPPER CREDIT) 1987
- d) GENERAL CERTIFICATE OF EDUCATION 1988
- d) B-ENG (METALLUGICAL) SECOND CLASS LOWER (2-2) 1993
- e) M.Sc,(METALLUGICAL ENGINEERING) 2006
- f) Ph.D,(METALLUGICAL ENGINEERING) 2014
- g) CERTIFICATE IN COMPUTER STUDIES 2007

10. PROFESSIONAL SERVICE /HONOR SOCIETY:

- a) Professional Society
 - i. Registered Engineer with Council for the Regulation Of Engineering in Nigeria (COREN).R. **18, 825**
 - ii. Member Nigeria Society of Nigeria (NSE) 19, 630
 - iii. Member Nigeria Metallurgical Society (NMS) C671
 - iv. Member Materials Society of Nigeria (MSN)

11. REVIEW OF ACADEMIC AND PROFESSIONAL JOURNALS

Journal of Applied Chemical Sciences

12. WORKING EXPERIENCE WITH DATE:

May 2016 to Date	Senior Lecturer, Met & Mat Engineering.
Jan. 2014-May 2016	Principal Lecturer, Metallurgical Engineering, Waziri
	Umaru Federal Polytechnic (W.U.F.P), Birnin Kebbi
Feb 2011- Jan 2014:	Senior Lecturer, W.U.F.P, Birnin Kebbi
Oct 2008-Feb, 2011:	Assistant Chief Research Officer, National Research
	Institute for Chemical Technology (NARICT), Zaria.
March 2006- Oct 2008:	Principal Research Officer, (NARICT), Zaria.
2003-2006:	Lecturer 1, Kogi State Polytechnic, Lokoja.
2000-2003:	Lecturer 11, Kogi State Polytechnic, Lokoja.
1996-2000:	Lecturer 111. Kogi State Polytechnic, Lokoja.
1994-1996:	Assistant Lecturer, Kogi State Polytechnic, Lokoja.

13. COURSES TAUGHT

a) National Diploma level Teaching

- i. MET 103 Introduction to Engineering Materials 100 Level
- ii. MET 205 Principles of Extractive Metallurgy 200 Level
- iii. MET 106 Metallurgical Thermodynamics 100 Level
- iv. MET 210 Production Metallurgy 200 Level

b) Higher National Diploma level Teaching:

- i. MET 306 Furnaces and Refractories 300 Level
- ii. MET 312 Physical Metallurgy 300 Level
- iii. MET 405 Steel Making Processes 400 Level
- iv. MET 402 Metallurgy of Metal Cutting 400 Level
- v. MEC 305 Engineers in Society 300 Level
- vi. MET 305 Non Ferrous Extractive Metallurgy 1 300 Level
- vii. MET 408 Powder Metallurgy 400 Level

14. HND PROJECTS SUPERVISED

- i. The Chemical Analysis of Obajana Limestone deposit (2006)
- Development of Eco-Friendly Particleboard Composites using Rice Husk Particles and Gum Arabic (2011)
- iii. The Corrosion Effects of Surface Finish in 0.5 M HCl Acid Medium (2012).
- iv. The Effect of Quenching Media on Mechanical Properties and Microstructures of Low Carbon Steel (2013)
- v. Mechanical Behaviour of Al-4.5%Cu Matrix Composites Reinforced with Groundnut Shell Ash (2013)
- vi. Investigation of Micostructures and mechanical properties of Al-12%Si/ melon shell ash (2016)
- vii. Corrosion investigation of Al-12%Si/ melon shell ash in 1.0 M HCl (2015)
- **viii.** Evaluation of Corrosion Inhibition of Mild Steel in 1.0M H₂SO₄ uusing Green Neem Extract (2016).

15. RESEARCH IN PROGRESS

a) On-going Research

i. Development of Environmental Friendly Inhibitors for Mild Steel Electroplating

b) Manuscripts submitted for publication

- i. I.Y. Suleiman, Sani A. Salihu, Ogheneme, O.C, Lasisi Shuabi (2016): Characterizations of Plant Extract by AAS And GCMS as Green Inhibitor for Mild Steel in 1.0M HCl. Journal of Anti-Corrosion Methods and Materials (Under-Review).
- I. Y. Suleiman, S. A. Yaro, M. Abdulwahab (2016): Phytochemical and Spectroanalytical Characterizations of Some Plants Extracts as Green Corrosion Inhibitor. Iranian Journal of Science and Technology, Transactions A: Science (Under- review)
- iii. I .Y. Suleiman, Sani A. Salihu, O. S. Emokpaire Lasisi Shuabi, ⁴Oghenem O.C. (2016): Characterizations of Plant Extract by GC-MS As Green Corrosion Inhibitor for Mild Steel in 1.0M HCL. Acta Chimica Slovenica (Under-review).
- iv. I. Y. Suleiman, Sani A. Salihu (2016): The Effect of Quenching Media on Mechanical Properties and Microstructures of Low Carbon Steel. Advances in Mechanical Engineering (Under-review).
- v. I. Y. Suleiman (2016): Investigation of Mechanical Properties and Microstructures of Al - 12%Si Alloy/Melon Shell Ash Composites by SEM Technique. Journal of Mechanical Science and Technology (Under-review).
- vi. I. Y. Suleiman, M. Abdulwahab (2016): Investigation of Mechanical Properties of Al + 4.5% Cu Alloy/Groundnut Shell Ash Matrix Composites, Journal of Chinese Advanced Materials Society (Under Review) ----Tailor and Frances. (Under – Review)

16. PUBLICATIONS

a) Thesis/Dissertations

- M.Sc: Sintering Characteristics of Itakpe and Agbaja Iron Ore Concentrates Blends
- **Ph.D:** Evaluation of Plant Extracts as Corrosion Inhibitors for Mild Steel in Acidic Environment

a) Journal Articles

1. I. Y. Suleiman, S. A. Yaro, M. Abdulwahab (2016): Inhibitive Behaviour of Acacia senegalensis on Corrosion Resistance of Mild Steel-Acidic Environment. Asian

Journal of Chemistry, Vol. 28, No. 2, Pp. 242-248,

- K. A. Bello, S.B. Hassan, M. Abdulwahab, U. Shehu, L.E. Umoru, A. Oyetunjian and I.Y. Suleiman (2007): The Effects of Ferrite-Martensitic Microstructure Evolution on Hardness and Impact Toughness Behaviour of High Martensitic Dual Phase Steel. Australia Journal of Basic and Applied Sciences, October - November, 2007. Volume 1(4), Pp. 407-414.
- Aigbodion, V. S, Mohammed O .Y, S. I. Yakubu and J. O. Agunsoye (2007): Corrosion Characteristics of Vanadium Alloyed Ductile Cast Iron in Nitric Acid. Journal of Applied Sciences Research, 4(10) 1267-1271, 2007.
- 4. I. Y. Suleiman, M. Abdulwahab, F. E. Awe (2016): A study of the green corrosion inhibition of Acacia tortilis extract on mild steel-sulphuric acid environment. Journal of Advanced Electrochemistry, Vol. 2, No. 1, Pp.50-55, www.aspbs.com/adel.htm
- Sani A. Salihu1, Suleiman I. Yakubu, Aliyu Isah (2015): Effect of Variation of Copper and Zinc Contents in Aluminium- Zinc-Copper Alloy, IJSRSET; Vol.1 (1) Pp. 2394-4099.
- I. Y. Suleiman, V. S. Aigbodion, L. Shuaibu and M. Shangalo. (2013): Development of Eco-Friendly Particleboard Composites Using Rice Husk Particles and Gum Arabic. Journal of Materials Science and Engineering with Advanced Technology, Vol.7, No 1, 2013, Pp. 75-91,
- S. A. Salihu, Y. I. Sulaiman, S. B. Hassan. (2013): Comparative Study of Neem Seed Oil and Watermelon Seed Oil as Quenching Media for Thermal Processing of Steel. IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS) Vol.7 (2), Pp 31-35.,
- 9. I. Y. Suleiman, O. B. Oloche, and S. A. Yaro. (2013): The Development of a Mathematical Model for the Prediction of Corrosion Rate Behaviour for Mild Steel in 0.5M Sulphuric Acid. International Scholarly Research Network ISRN Corrosion, www.isrn.com/
- I. Y. Suleiman, S. A. Yaro, M. Abdulwahab. (2013): Corrosion Inhibition by Grewa Venusta Extract of Mild Steel in Sulphuric Acid Environment. International Journal of Mechanical Engineering Research & Applications (IJMERA) Vol. 1 (1) Pp. 25-36.
- V.S. Aigbodion, A. AbdulRasheed, S.O. Olajide, J.O. Agunsoye, I. Y. Sulaiman. (2010): Potential of Tin Tailings an Industrial Waste for Refractory Materials. Journal of Minerals & Materials Characterization & Engineering, Vol. 9, No.2, Pp.123-131.
- O.B. Oloche, M. Z, Sirajo, I. Y. Suleiman, and E. Onche (2009): Characterization of KotonKarfe Iron Ore Pellets for Pig Iron Production in Nigeria. Nigerian Journal of Engineering. Vol. 15 No.2, March 2009. Faculty of Engineering. Ahmadu Bello University, Samaru, Zaria, Nigeria. Pp. 89-96
- 13. I. A. Madugu, S. A. Yaro and Suleiman I. Y. (2007): Chemical and Physical Characteristics of Agbaja and Itakpe Iron ore Sinter Blends. Journals of Engineering and Technology; Vol.2, No 2, Pp. 44-49, <u>www.onlinejet.net</u>

- 14. Abdulwahab, M. Ahmed, T. O, and Suleiman, I. Y. (2006): Effect of Chromium addition and Precipitation Hardening Temperatures on the Mechanical properties of cast AI-Si-Fe alloy. Nigerian Journal of Mechanical Engineering, Volume 4, No. 1, Pp. 15-27.
- 15. E. O. Atama and Suleiman I. Yakubu, (2006): The causes of Magnetism on Cassiterite (SnO₂) Mineral in Jos tin fields and the Demagnetization Methods. Journals of Management and Technology, Volume 7, Pp. 108 113.
- 16. I.Y. Suleiman, Sani A. Salihu, Ogheneme, O.C, Lasisi Shuabi (2016): Characterizations of Plant Extract by AAS And GCMS as Green Inhibitor for Mild Steel in 1.0M HCl. Journal of Anti-Corrosion Methods and Materials (Under-Review).
- 17. I. Y. Suleiman, S. A. Yaro, M. Abdulwahab (2016): Phytochemical and Spectroanalytical Characterizations of Some Plants Extracts as Green Corrosion Inhibitor. Iranian Journal of Science and Technology, Transactions A: Science (Under-review)
- 18. I.Y. Suleiman, Sani A. Salihu, O. S. Emokpaire Lasisi Shuabi, ⁴Ogheneme O.C. (2016): Characterizations of Plant Extract by GC-MS As Green Corrosion Inhibitor for Mild Steel in 1.0M HCL. Acta Chimica Slovenica (Under-review).
- 19. I. Y. Suleiman, Sani A. Salihu (2016): The Effect of Quenching Media on Mechanical Properties and Microstructures of Low Carbon Steel. Advances in Mechanical Engineering (Under-review).
- 20. I. Y. Suleiman (2016): Investigation of Mechanical Properties and Microstructures of Al 12%Si Alloy/Melon Shell Ash Composites by SEM Technique. Journal of Mechanical Science and Technology (Under-review).
- I. Y. Suleiman, M. Abdulwahab (2016): Investigation of Mechanical Properties of Al + 4.5% Cu Alloy/Groundnut Shell Ash Matrix Composites, Journal of Chinese Advanced Materials Society (Under Review) ----Tailor and Frances. (Under Review)
 - b) Major Conferences and Workshop attended with paper read (starting with the latest)
 - M. Abdulwahab, O. J. Gaminana, F. Kolawole, I. Y. Suleiman, O. B. Umaru, I. A. Sani (2014): Effect of Double Thermal Ageing Treatment on the Corrosion of Antimony-Modified Al-Si-Mg Alloy in NaCl-Gmelina arborea Solution. Proceedings of the Nigerian Metallurgical Society Conference /AGM, Abuja Oct. 2015.
 - I. Y. Suleiman, S. A. Yaro and M. Abdulwahab (2013): Ethanol Extract of Acacia Tortilis as Green Corrosion Inhibitor for Mild Steel in Acidic (HCl) Medium. The Nigerian Society of Engineers (Metallurgical, Mining and Materials Division), Book of Abstracts. Theme; Enhancing Value delivery through Materials Testing, Inspection and Post Production Service. 9th – 11th October, 2013. Annual National Conference & Technology Exhibition, Port Harcourt 2013.

- 3. Aliyu Isah, S. A. Salihu I. Y. Suleiman and Lasis Shaibu (26-27th June, 2012): Comparative Study on the effect of Silicon Addition on Mechanical Properties & Microstructures of Al- 4.5%Cu Alloy Castin permanent and Green Sand Mould: Presented at the College of Environmental Sudies, Waziri Umaru Federal Polytechnic, Birnin Kebbi.
- I. Y. Suleiman, O. B. Oloche and S. A. Yaro.(2011): The Potential of using Acacia Senegalensis Extract as Corrosion Inhibitor for Carbon Steel in 0.5 M H₂SO₄. Book of Abstracts. 27th Annual Conference/AGM, Abuja. Pp. 35.
- 5. AbdulRahman, A. S. and Suleiman, I. Y. (2007): The Potentials of Non-Ferrous Metals in Poverty Reduction. Theme: the Role of Metal Based Industries in National Economic Empowerment and Development Strategy (NEEDS). pp 42-47.
- Abdulwahab, M. Bello K. A. and Suleiman I. Y. (2007): Corrosion Resistance Behaviour of Multi-component Aluminium Based Alloys. Theme; Advances in Engineering Materials. Proceedings of the Nigerian Materials Congress (NIMACON-2007) and Meeting of the Nigerian Materials Research Society (Nigerian-MRS) held at Center for Energy Research and Development (CERD) OAU Ile-Ife Nigeria. November 14-17, 2007.pp. 223-227
- 7. Aigbodion, V. S., Suleiman, I. Y. Abdulwahab, M., Asuke F., Agunsoye, J. C. and Okafor, E. G. (2009): The role of Metal Based Industries in Oil and Gas Sector in Nigeria Economy; Corrosion Point of View. Theme: The Role of Metal Based Industries in National Economic Empowerment and Theme: FOUNDRY INDUSTRIES: Foundation for Technological and Industrial Development Strategy (NEEDS). Proceedings of the Nigerian Metallurgical Society Conference /AGM, Abuja, pp.70-75.

17. CONFERENCES/WORKSHOPS ATTENDED WITH DATES

- International "Workshop for Young Scientists and Researchers in Writing Research Proposals" Organized by ISESCO, (NOTAP – FMST) & (NARICT- FMST). December, 2009
- Entrepreneurship and Innovation Programme Training at Kaduna Business School Kaduna. (February - March, 2009).
- Improving Worker Effectiveness in the Public Sector for Senior Staff of National Research Institute for Chemical Technology, Zaria by Ralph Consult, Center for Management Development (CMD) Dec.2007
- In-House Training in: Proposal Writing, Assessment and Research Project Management for staff of National Research Institute for Chemical Technology, Zaria by KVL Industrial Consultancy Limited. April 2006

18. POSITIONS HELD WITH DATES

2016 to Date: Member, Faculty Consultancy Committee
2016 to Date: Chairman, Departmental 2017 Budget Committee
2016 to Date: Chairman, STEP B and International Collaboration
2013 to 2014: Member, Staff Welfare Committee
2011 to 2012, Member, Member, Committee on Strategy Planning

2012: Member, Committee on Election of HODs and Deans
2007 to 2011: Ag. H.O.D, Pilot Plants Division
2002 to 2004: Departmental Project Coordinator
1996 to 1998: Chief Examination Officer
1994 to 1996: Assistant Chief Examination

19. LABORATORY EXPERIENCE

- ✓ Corrosion testing/ Interpretation (Comparing the Results of the Tests with and without)
- ✓ Mineral Processing
- ✓ Electric Arc Steel Making with references to DSC, Aladja
- ✓ Limestone Production with references Ajaokuta Steel Company.

20. Community services

- Member, Accreditation/Resource Inspection: Federal Polytechnic Offa undertaken by National Board for Technical Education (NBTE) Kaduna, between 14 - 18th January, 2014.
- An electoral Chairman, "The Nigerian Society of Engineers (NSE)" Zaria branch. 2009 – 2010.
- 3. N. Y. S. C; Mechanical Dept, Sabiplast Company, Bompai, Kano. 1993-1994.
- 4. A member of Okehi Youth Council affiliated to Kwara State Youth Council, whose function was to create youth awareness and service to the community. Because of my performance in this council, I was given a scholarship by late Senator A. T. Ahmed in 1989 during my undergraduate programme.
- Student Working Experience Scheme (SWEP), Delta Steel Company, Aladja-Warri. September-December, 1986

21. Extra-Curricular Activities

a. With the University

Reading, Conducting research, Table Tennis

b. Outside the University

- i. Reviewing of Journal papers
- ii. Professional activities
- 22. E-mail address and G.S.M No: onoruoizadanjumas@yahoo.co.uk and 08036057915

23. Names and Addresses of References

 Prof. S. A. Yaro Department of Metallurgical & Materials Engineering, Faculty of Engineering. Ahmadu Bello University, Zaria. <u>+2348035892146/yaroaliyu@yahoo.com</u>

2. Professor Y. K. E. Ibrahim

Department of Pharmaceutics & Pharmaceutical Microbiology. Faculty of Pharmaceutical Science. Ahmadu Bello University, Zaria. +2348037001988 / <u>ykeibrahim1@yahoo.co.uk</u>

 Dr. Aigbodion V.S Department of Metallurgical and Materials Engineering, University of Nigeria. +2348064275011/ aigbodion@yahoo.com