O.S. OLANRELE

CURRICULUM VITAE

PERSONAL DATA

Full Name:	OLANRELE, Olajire Samson **(Ph.D.)**
State of origin:	Oyo
Local Government:	Ibarapa East
Nationality:	Nigerian
Permanent Address:	No.43 Island Estate, Balegi Avenue, Off Igodo Road Magboro, Ogun State
Email Address:	osolanrele@mtu.edu.ng; jyrate203@yahoo.com
Telephone:	0806-218-3822 (Mobile)
Marital Status:	Married (with a child)

EDUCATION

- University of Science and Technology of China, Hefei, China 2016-2020
- National Open University of Nigeria 2014-2015
- University of Calabar, Calabar 2011-2013
- Olabisi Onabanjo University, Ago Iwoye 2005-2009
- Loyola College, Ibadan 1997-2003
- St. Mary's Catholic Primary School Oluyoro, Ibadan 1992-1997

QUALIFICATIONS

- **Ph.D.** Material Science and Engineering 2020
- **PGD** Education 2015
- **M.Sc.** Inorganic Chemistry 2013
- **B.Sc. (Hons)** Pure Chemistry (Second Class Upper Division) 2009
- **WASSCE/O'Level** Senior Secondary School Certificate 2003
- **NECO/O'Level** National Examination Council Certificate 2003
- **FSC** First School Leaving Certificate 1997

PROFESSIONAL CERTIFICATIONS

- Data Analytics Certification, New-Horizon, Lagos, Nigeria March, 2022
- Member: Teachers Registration Council of Nigeria (TCRN) 2015 – date
- Member: Chemical Society of Nigeria (CSN) 2012 – date

- Health Safety Security and Environment (HSSE) Personnel 2010
- Interconnecting Cisco Networking Device (CCNA 640-802) Certified 2009
- Member: Royal Society of Chemistry (RSC) In Process
- Member: American Chemical Society, USA (ACS) In Process

HONOURS, AWARDS AND DISTINCTIONS

- Secretary: The Nigerian Alumni Association of the Institute of Metal Research, Chinese Academy of Science (NAAIMCAS) September, 2020 – date
- TWAS Ph.D. Graduates Alumni January, 2021 – date
- IMR-USTC Ph.D. Excellent Student Award 2019 – 2020
- CAS* – TWAS President's Fellowship 2016 – 2020
- Institute of Metal Research Scholarship 2016 – 2020
- Best Graduating Student (Pure Chemistry Option), Department of Chemical Sciences, Olabisi Onabanjo University, Ago-Iwoye, Nigeria 2008 – 2009
- Meritorious Service Award: Student's Chemical Social of Nigeria, Olabisi Onabanjo University, Chapter 2007 – 2008

PROFESSIONAL EXPERIENCE

1. Department of Chemical Sciences, Mountain Top University, Ogun State, Nigeria
   i. **Lecturer II,** October 2019 – till date
   ii. **Assistant Lecturer,** February 2016 – August 2019

   Duties: Undergraduate and Postgraduate Teaching, Research and Research Supervision, Administration, and Community Service.

2. Shenyang National Laboratory for Materials Science, Institute of Metal Research, University of Science and Technology of China, Shenyang 110016, Liaoning Province, China
   i. **Research Associate Fellow,** June 2020 – August 2020
   ii. **Ph.D. (CAS –TWAS) Research Fellow,** September 2016– May 2020
   iii. **Practical Research Demonstrator,** March 2017 – January 2018

   Duties: Researched on, The modelling and computational simulations of halogenated carbon based nanomaterials as multifunctional catalysts for CO2-electroreduction, ORR/OER in fuel cells and remediation of polysulfide shuttling in Li-S batteries.

3. Department of Pure & Applied Chemistry, University of Calabar, Calabar, Nigeria
   i. **Student Research Assistant,** May 2011 – May 2012

   Duties: Assisted in experimental research, publication activities, data collection, data management and data analysis.

LECTURING ACTIVITIES

Lecturing focuses primarily in the areas of Inorganic, Physical and Materials Chemistry

Undergraduate courses

Applied Colloids and Surface Chemistry

Chemical Thermodynamics

Chemical Reaction Kinetics

Electrochemistry

Organometallic Chemistry

Engineering Materials

Structure and Bonding

Group Theory and Symmetry

Postgraduate courses

Advanced Corrosion Science

Advanced Electrochemistry

Reaction Kinetics and Catalysis

Solid State & Nuclear Chemistry

ADMINISTRATIVE AND MANAGERIAL EXPERIENCE

I Mountain Top University (MTU)

1. **Assistant Director, Directorate of Quality Assurance (DQA)** to monitor and improve the educational quality of the University, June, 2021-tiil date.

2. **Member:** MTU Central Research Laboratory Committee to monitor the day to day activities the research laboratory, 01 June, 2021 till date.

3. **Member:** MTU Sport Committee to oversee the sporting activities of the University, 01 April, 2021 till date.

4. **Facilitator**, Seminar on innovations in Energy Conversion/Storage and Environmental Protection using Carbon Based Materials, by The College of Basic and Applied Science, Mountain Top University, March 11, 2021.

5. **Member:** MTU Library and Publication Committee to advise the Senate on the development of the Library as the centre of learning and research and to select and approve manuscripts for publication, 01 November, 2020 till date.

6. **Member:** MTU Publicity Committee to give wide publicity to the approved programmes in the University and to organize jingles on radio and television, 01 November, 2020 till date.

II College of Basic and Applied Sciences (CBAS)

1.	College Examination Officer	October, 2021 – till date
2.	Member, College Board	October, 2020 – till date
3.	Member, CBAS Board Examiners	October, 2020 – till date
4.	Member, CBAS Research Grant Committee	October, 2020 – till date
5.	Member, NUC Accreditation and Curriculum Committee	October, 2020 – till date

III Department of Chemical Sciences

1.	Academic Adviser (Year 2)	October 2021 – till date
2.	Staff Adviser, Student Chemical Society of Nigeria, MTU-Chapter	June, 2021-till date
3.	Academic Adviser (Year 3)	January 2021 – October 2021
4.	Examination Officer	November 2020 – till date

RESEARCH FOCUS AND SPECIALIZATION

- Modeling and designing of highly rationalized heterogeneous catalysts using DFT calculation, microkinetic simulation and kinetic Monte Carlo simulation

- Synthesis, characterization and structural elucidation of some functional materials using FT-IR, NMR, UV-VIS Spectroscopy and Mass Spectroscopy

EMPLOYMENT HISTORY

i. Mountain Top University, Ogun State, **Lecturer** (2015 – Till Date)

ii. Institute of Metal Research, University of Science and Technology of China, Shenyang, **Research Associate/Ph.D. Research Fellow** (2016-2020)

iii. University of Calabar, Cross River State, **Student Research Assistant** (2011-2012)

iv. Dayford Academy, Magboro, Nigeria**, Deputy Head teacher (Academics)** (2012 –2015)

v. Estate Secondary School, Calabar, Nigeria, **National Youth Service Corps** (2010-2011)

vi. Dana Pharmaceutical Limited, Ibadan, Nigeria, **Industrial Attaché** (Feb. – June 2008)

vii. Independent National Electoral Commission (INEC), **Election Collation/Registration officer** (2011 – 2015)

THESES ANDPUBLICATIONS

A. Theses/Doctoral Report

1. **O. S. Olanrele** (2020). Computational studies of halogenated carbon-based nanomaterials as multifunctional catalysts. University of Science and Technology of China, Institute of metal research, Shenyang

2. **O. S. Olanrele** (2015). The Influence of Motivation on Academic Performance of Students in Chemistry in Lagos Metropolis. PGDE Thesis. National Open University of Nigeria, Lagos, Nigeria

3. **O. S. Olanrele** (2013). Synthesis and characterization of Mn (II), Ni (II) and Cu (II) mixed-ligand complexes derived from Isatinphenylhydrazone and Salicaldehydephenylhydrazone with nitrogen monodentate ligand. M.Sc. Thesis. Department of Pure and Applied Chemistry, University of Calabar, Calabar, Nigeria

4. **O. S. Olanrele** (2009). Inhibitive effect of *Delonix regia* seed extract on the corrosion of Aluminium in 2M Sodium hydroxide Alkaline solution using weight loss method. B.Sc. Project. Chemical Sciences Department, Olabisi Onabanjo University Ogun state, Nigeria

B Scientific Publications (in Refereed Journals)

Computational materials sciences

1. **O. S. Olanrele**, Z. Lian, C. Si, S. Chen, B. Li (2020). Tuning of interactions between cathode and lithium polysulfide in Li-S battery by rational halogenations. *Journal of Energy Chemistry*, 49:147-155.

2. Z. Lian**, O. S. Olanrele,** C. Si, M. Yang & B. Li (2020). The Critical Role of Interfacial Sites Between Ni and CeO_2 Support in Dry Reforming of Methane: Revisit of Reaction Mechanism and Origin of Stability. *Journal of Physical Chemistry C*, 124:5118-5124.

3. S. Chen, T. Liu, **O. S. Olanrele**, Z. Lian, C. Si, Z. Chen, B. Li Boosting electrocatalytic activity for CO_2 reduction on nitrogen-doped carbon catalysts by co-doping with phosphorus. *Journal of Energy Chemistry*, 54:143-150.

4. C. Si; Z. Lian, **O. S. Olanrele**; X.Y. Sun &B. Li (2020). Revealing the origin of the reactivity of metal-free boron nitride catalysts in oxidative dehydrogenation of propane. *Applied Surface Science*, 519:14624.

5. **O. S. Olanrele,** Z. Lian, C. Si, B. Li **(**2019**)**. Halogenation of graphene triggered by heteroatom doping. *RSC Advances*, 9, 37507-37511.

6. S. Ali, **O. S. Olanrele**, Z. Lian, T. Liu, C. Si, M. Yang, B. Li (2019). Single Au Anion Can Catalyze Acetylene Hydrochlorination: Tunable Catalytic Performance from Rational Doping. *Journal of Physical Chemistry C*, 123, 29203−29208.

7. S. Ali, Q. YiYang, Z. Lian, **O. S. Olanrele**, L. Guo Jun, L. Ying, D. S. Su, B. Li (2019). Screening of active center and reactivity descriptor in acetylene hydrochlorination on

metal-free doped carbon catalysts from first principle calculations. *Applied Surface Science*, 476:574-580.

Others

8. J. M. Yang, **O. S. Olanrele**, X. Zhang, C. C. Hsu (2018). Fabrication of Hydrogel Materials for Biomedical Applications in H. J. Chun et al. (eds.), Novel Biomaterials for Regenerative Medicine. *Advances in Experimental Medicine and Biology*, 1077: 197-224**. {Equal Contribution}.**

9. G. E. Iniama, **O. S. Olanrele,** A. Johnson **(2015)**. Synthesis, Spectral Characterization and Antimicrobial activity of Manganese(II) and Copper(II) complexes derived from Salicylaldehydephenylhydrazone. *International Journal of Chemistry and Applications*. 7(1):15-23.

10. G. E. Iniama, **O. S. Olanrele,** T. I. Iorkpiligh **(2015)**. Synthesis, Structure Characterization and Antimicrobial activity of Manganese(II) and Copper(II) complexes derived from Isatinphenylhydrazone. *The International Journal of Science &Technoledge.*3(8):229-233

11. G. E. Iniama, **O. S. Olanrele** & T. I. Iorkpiligh **(2015)**. Synthesis, Characterization and Antimicrobial activity of Mn(II), Ni(II) and Cu(II) mixed ligand complexes derived from Isatinphenylhydrazone and Nitrogen/Sulphur Monodentate ligands. *International Journal of Science & Research,*4(9):2084-2088.

12. G .E. Iniama,T. I. Iorkpiligh,, **O. S. Olanrele** (2015). Antimicrobial studies Of Synthesized Zn(II) Schiff Base complexes derived from Amino Acid and 2-Hydroxy-1-Naphthaldehyde.*International Journal of Scientific and Technology Research.*4(8):24-27.

13. G. E. Iniama, T. I. Iorkpiligh,**O. S. Olanrele**, D. Shiriki & M. I. Kondom **(2015)**.Synthesis, Characterization and Antimicrobial studies on Mn(II), Co(II) and Zn(II) Schiff Base complexes derived from Glycine and 2-Hydroxy-1- Naphthaldehyde. *International Journal of Innovation and Scientific Research,* 18(1):117-121.

C. Conference Papers, Reports and Technical Papers

1. **O. S. Olanrele** (2020) *The first symposium of Green Energy and Technology 2020*. Beijing, China. 25-27th March, 2020**.**

2. **O. S. Olanrele**, Z. Lian, C. Si, B. Li (2019). Halogenation of graphene triggered by heteroatom doping. *The World Corrosion Organization Conference 2019*, April 22-24, 2019. IMR, Shenyang, China.

3. G. E. Iniama, T. I. Iorkpiligh, **O. S. Olanrele**, D. Shiriki (2014). Synthesis, Characterization and Antimicrobial studies on Mn(II), Co(II) and Zn(II) Schiff Base complexes derived from Amino Acid and 2-Hydroxy-1- Naphthaldehyde. *Proceedings of 37th Annual International Conference of Chemical society of Nigeria (CSN).Uyo*: Chemical Society of Nigeria, 1: 112-115.7th - 12th Sept., 2014

D Papers submitted for publication

1. **O. S. Olanrele**, Z. Lian, S. Chen, C. Si, B. Li, The halogen-doped Fe embedded carbon nanotube bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. *ACS Catalysis*

2. **O. S. Olanrele**, Z. Lian, S. Chen, C. Si, B. Li, Design principles of the Single-Atom Cathode Catalyst for the Lithium−Sulfur Battery through the Machine Learning Approach. *Journal of Physical Chemistry C*

3. **O. S. Olanrele,** B. Li, Catalytic performance of transition metals on halogen supported carbon nanotube single-atom catalysts for small molecules adsorption. *Applied Surface Science*

4. **O. S. Olanrele ,** S. O. Mark-Shanu, Synthesis, spectral characterization and DFT studies of Co (II), Ni (II) and Cu (II) complexes of Amoxicillin. *Journal of Molecular Structure*

ACADEMIC LINKAGES

1. Prof. Bo Li, Catalysis and Materials Division, Institute of Metal Research, Chinese Academy of Science, Republic of China.

2. Prof. J. M. Yang, Department of Chemical and Materials Engineering, Chang Gung University, TaoYuan, Taiwan, Republic of China.

3. Prof. P. C. Okafor, Director, Centre for Research, Innovation and Linkages, University of Calabar, Calabar, Nigeria.

4. Oguzie, the Director/Centre Leader of the Africa Centre of Excellence in Future Energies and Electrochemical Systems (ACE-FUELS), Federal University of Technology, Owerri, Nigeria.

REFEREES

1. **Prof. Bo Li**

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   Shenyang National Laboratory for Materials Science,
   Institute of Metal Research, Chinese Academy of Sciences,
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   +8613644027635

2. **Prof. Grace C. Iniama**

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   University of Calabar, Calabar, Nigeria.
   geiniama@yahoo.com

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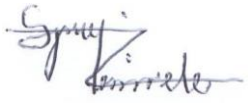

20th June, 2022