

Date of Birth: 15th November, 1974Marital Status: MarriedNationality: NigerianPostal Address: Dept. of Chemistry, Federal University of Agriculture, Abeokuta, Nigeria.Telephone: (+234)07066489038

# **Brief Research Profile**

My research focuses on Petroleum and Environmental Geochemistry of various basins in Nigeria. The findings in my previous studies revealed the organic pollution status of the heavily exploited Niger Delta of Nigeria and I set the record straight amidst conflicting unscientific assertions through conferences and research publications. I have also established through my research work the bioaccumulation and biomonitoring potentials of higher plants with regards to organic pollutants. I have been able to identify some higher plants that could serve as phytoremediators to clean up polluted sites at minimal cost. Secondly, cost effective onsite bio-monitors for organic pollutants have also been identified. Through my previous studies, I have been able to identify some key biomarkers which are useful in environmental monitoring and assessment. My research group is currently looking at the occurrence and mitigations of PAHs derivatives (Oxy-PAHs, Nitrated PAHs, Halogenated PAHs etc) in aerosols and particulates in Lagos and Ogun States of Nigeria.

### **EDUCATION**

### Higher Educational Institution attended with dates:

University of Ibadan, Oyo State, Nigeria	2006 - 2011
University of Ibadan, Oyo State, Nigeria	2003 - 2004
University of Agriculture, Abeokuta, Nigeria	1999 – 2002
University of Ibadan, Oyo State, Nigeria	1999 – 2001
University of Ibadan, Oyo State, Nigeria	1995 - 1999

### **Academic and Professional Qualifications**

Doctor of Philosophy (Ph.D) (Organic Geochemistry)	2011
Master's of Science, Chemistry (M.Sc) (Organic Geochemistry Option)	
Bachelor of Science (B.Sc), Chemistry $(2^1)$	2002
Final Diploma (HND) Geology and Mining	2001
Intermediate Diploma (ND) Distinction	1999
Intermediate Diploma (ND) Upper Credit	1999

### In Service Training

2006

Strategic planning and Project Management, by Pelcas planning and Project management 2007

Digital Bridge Institute, Abuja Advanced Digital Appreciation Program-Tertiary (ADAPT)

# **Selected Special Short Courses**

- Deciphering problems in Chromatography held at 43<sup>rd</sup> IUPAC Congress, Peurto Rico August 2011
- Practical Principles of Infrared Spectroscopy Techniques, held at 43<sup>rd</sup> IUPAC Congress, Peurto Rico August 2011
- Green Chemistry and the Pharmaceutical Industry held at 43<sup>rd</sup> IUPAC Congress, Peurto Rico August 2011
- Supercritical Extraction: A fast, Green alternative to sample preparation held at 43<sup>rd</sup> IUPAC Congress, Peurto Rico August 2011

# **Distinctions and Awards**

2012 University of Pretoria Vice-Chancellor's Postdoctoral Fellowship Grant Award at the

University's Centre for Environmental Studies, Pretoria, South Africa

2012 CV-RAMAN Postdoctoral Fellowship tenable at the Geological Oceanography division at

the National Institute of Oceanography, India

2012 CAS-TWAS Postdoctoral Fellowship Award at the State Key Laboratory of Organic

Geochemistry, Guangzhou Institute of Geochemistry, China.

GRIFA Award to Attend 4<sup>th</sup> International Conference on Medical Geology, Bari, Italy, Sept. 2011

43rd IUPAC World Chemistry Congress, Colegio de Quimicos de Puerto Rico (CQPR) and International Union of Chemistry of Pure and Applied Chemistry (IUPAC)- Young Scientist Award Aug. 2011

CAS-TWAS Postgraduate Fellowship Award at the State Key Laborator	ry of Organic
Geochemistry, Guangzhou Institute of Geochemistry, China.	2008-2009
Federal Government of Nigeria Undergraduate Scholarship award	2002
Best NIST Intermediate result, UI	1999
Lagos State Government Scholarship Award	1995-1999
Badagry Local Govt. Scholarship Award	1995-1998

# PROFESSIONAL EXPERIENCE

# Previous Working Experience outside the University System

Brightest Hope Company Limited; 86, Bode Thomas, Surulere, Lagos.

- Associate Environmental consultant- Analyst
  - Environmental Management
  - Development and appraisal of Technical Paper on Environmental matters
  - Laboratory Services

2005

- \* Preparation of Environmental Impact Assessment (EIA) and Environmental Audit Report (EAR)
- Health and Safety Assessment

School of Basic Studies, Badagry, Lagos (an 'A' level School)

• Chemistry Lecturer (Part Time)

2003 - 2004

- ✤ Responsible for the teaching of Inorganic and Organic Chemistry for Cambridge 'A' level and IJMB 'A' level students
- Coordination and Grading of students

National Youth Service at Isoko South Local Government, Oleh, Delta State

• Youth Corp Member January 2002 – December 2002 Appraisal of the Environmental Problems of the Oil rich Local Government

### **Previous Working Experience in Other Universities**

Chemistry Department, University of Ibadan

- Graduate Assistant 2003 - 2004
  - Demonstration and Grading of Undergraduate Practical Classes

Biophysical Research Laboratory, Chemistry Dept, University of Ibadan, Jan. 2001 – March 2001

- Preparation and Standardization of Research Reagents
- \* Preparation of Columns and de-ionization of water and Haemoglobin using prepared columns

### Redeemer's University, Nigeria.

• Lecturer II

- Assistant Lecturer
- ★ Taught general, organic and Applied chemistry courses, including laboratory sections
- **\*** *Responsible for registration, mentoring, grading and coordinating students* activities.
- *Responsible for departmental seminars, instrumentation and research* coordination.

# Working Experience at the Federal University of Agriculture, Abeokuta, Nigeria (Current **Employment**)

Lecturer Grade 1

June 2012 – Till Date

### **Courses Taught at University Undergraduate and Postgraduate levels**

Organic Chemistry I, Experimental Chemistry I, Experimental Chemistry II, History and Philosophy of Science, Industrial Drawing, Organic Chemistry II, Organic Chemistry III, Petroleum Chemistry, Organic Reaction Mechanisms, Heterocyclic Chemistry, Organic Synthesis, Natural Product Chemistry, Medicinal Chemistry, Polymer Technology, Experimental Organic Chemistry, Colour Chemistry and Technology, Industrial Chemical Processes, Practical Physical Chemistry II, Practical Inorganic Chemistry II, Environmental Chemistry, Polymer Chemistry, Physical-Organic Chemistry, Advanced Applied Spectroscopy, Petroleum Geochemistry

2008 - 2012

Sept.2005-Aug.2008

# **MEMBERSHIP OF PROFESSIONAL BODIES**

- American Chemical Society(ACS)
- Chemical Society of Nigeria (CSN)(Financial Secretary, Ogun State Chapter; 2007-2009)
- Institute of Chartered Chemists of Nigeria (ICCON)
- Nigerian Association of Petroleum Explorationist(NAPE)
- Nigerian Institute of Science Technology(NIST)
- Nigerian Young Academy(NYA)- (First General Secretary: 2011- Till Date)

# **CURRENT RESEARCH FOCUS**

- Organic Geochemical studies of oil basins
- Biogeochemistry and climate change study
- > Occurrence and fate of organic pollutants in environmental matrices
- Metal speciation studies
- Phytoremediation studies

# **ON GOING RESEARCH ACTIVITIES**

- The occurrence of Metal and organic pollutants in selected food samples from Mowe Market, Ogun State, Nigeria.
- The Occurrence and distribution of metal and Organic pollutants in water and sediments of Ogun River, Ogun State, Nigeria.
- Some Aspects of Organic Geochemistry of Nigeria Tar Sand and Bitumen.
- > The biosorption of Organic pollutants using novel materials.

# PUBLICATIONS

### **Theses and Dissertations**

2011	Organic Pollutants in Sediments, Soils and Plants from Oil Exploration Areas of the Niger Delta, Nigeria (PhD) Thesis.
2008	Catalytic hydropyrolysis of higher plants: Origin of land-plant biomarkers
2004	Some Aspects of Petroleum Geochemistry of Coals from Benue Trough,
	Nigeria (MSc dissertation, University of Ibadan)
2002	The Production of Ethanol from Sugarcane (Saccharum officinales) (BSc
	report, University of Agriculture, Abk, Nig.)
2001	Geographical Evaluation of Clay Deposits at Omi-Adio Area, South
	Western, Nigeria (University of Ibadan).

### **Book Chapters**

 Zeng, E. Y., J. Z. Wang, O. S. Sojinu (2011). Principles and Guidelines of Sampling, Extraction and Instrumental Analysis Techniques for Measurements of Organic Pollutants in Environmental Matrices. *Biophysico-Chemical Processes of Anthropogenic Organic Compounds in Environmental Systems*. B. Xing, N. Senesi and P. M. Huang ed. New Jersey, Wiley-IUPAC p. 488

### **Published Articles**

2. **O. S. Sojinu\***, O.O. Sonibare, E. Gayawan (2013) "Investigating polycyclic aromatic hydrocarbons profiles in Higher plants using statistical models" **International Journal of Phytoremediation** 15:439–451

- 3. **O. Samuel Sojinu**\*, Oluwadayo O. Sonibare, and Eddy Y. Zeng (2012) "Assessing anthropogenic contamination in surface sediments of Niger Delta, Nigeria with fecal sterols and *n*-alkanes as indicators" Science of the Total Environment 441: 89–96
- Hong-Gang Ni, Chao Ding, Shao-You Lu, Xiao-Ling Yin and Sojinu Olatunbosun Samuel (2012) "Food as a main route of adult exposure to PBDEs in Shenzhen, China" Science of the Total Environment 437 (2012) 10–14
- T.A. Adedosu, H.O. Adedosu, O.S. Sojinu, A.A. Olajire (2012) "n-alkanes and polycyclic aromatic hydrocarbons (PAHs) profiles of soil from some polluted sites in Niger Delta, Nigeria". Environmental Earth Sciences DOI 10.1007/s12665-012-1897-3
- O. S. Sojinu\*, O. O. Sonibare, O. Ekundayo, E. Zeng. Y (2012) "Organochlorine pesticides residues in higher plants from oil exploration areas of Niger Delta, Nigeria." Science of the Total Environment 433: 169-177
- C. Tang and O. S. Sojinu (2012) "Simultaneous determination of chloroquine and its metabolite desethyl chloroquine in human plasma using liquid chromatography tandem mass spectrometry" Analytical Letters. *In press* available online at http://tandfonline.com/doi/abs/10.1080/00032719.2012.691588
- 8. C. Tang and **O. S. Sojinu\*** (2012) "Simultaneous determination of caffeic acid phenethy ester and its metabolite caffeic acid in dog plasma using liquid chromatography tandem mass spectrometry" **Talanta** 94: 232–239 http://dx.doi.org/10.1016/j.talanta.2012.03.029
- 9. O. S. Sojinu\*;O. O. Sonibare;E. Y. Zeng (2012). "Polycyclic aromatic hydrocarbons (PAHs) in the surface sediments from Ologe lagoon, Nigeria." Energy sources part A: Recovery, Utilization and Environmental Effects. (Manuscript ID: UESO-2010-0494) In Press
- 10. Adeosun, C.O and **Sojinu, O.S.S (2012)** "Chemical composition of leaf lipids of *Cordia sebestena*" Advances in Environmental Biology 6(2):665 657.
- O.L. Faboya, O.S. Sojinu, O.O. Sonibare, (2012). "An Assessment of heavy metals in surface sediments of the Niger Delta, Nigeria". Canadian Journal of Pure and Applied Sciences 6 (3): 2169-2174
- Sojinu, O. S., Sonibare, O. O. and Zeng, E. Y. (2011).Concentrations and Distributions of PAHs in soils affected by forest fire in Igbanko Mangrove forest, Lagos, Nigeria. Environmental Toxicology and Chemistry 93.(3): 450–461.
- T.A. Adedosu, H.O. Adedosu, O.S. Sojinu, and A.A. Olajire (2011). Comparism of Polycyclic Aromatic Hydrocarbons (PAHs) Level in Obio Akpor and Etche L.G.A. of River State, Niger Delta, Nigeria. Science Focus 16(1) 44-49
- O. S. Sojinu\*, O. O. Sonibare, O. Ekundayo, E. Y. Zeng (2011) "Occurrence of organochlorine pesticides (OCPs) in surface sediments of the Niger Delta, Nigeria" Journal of Applied scientific Research 7(8):1299 -1305
- 15. **O.S. Sojinu**, Wang, J.Z., Sonibare, O.S., and Zeng, E.Y., (2010) Polycyclic Aromatic Hydrocarbon in Soils and Sediments from Oil Exploration areas, Niger Delta, Nigeria **Journal of Hazardous Materials**, 174, 641–647.

- 16. Zhao, Y.-Y., Zhang, X.-H. and **Sojinu, O. S**. (2010). Thermodynamics and photochemical properties of  $\alpha$ ,  $\beta$ , and  $\gamma$ -hexabromocyclododecanes: A theoretical study, **Chemosphere** 80.(2):150-156.
- 17. **Sojinu**, **O. S\***., Sonibare, O. O., Ekundayo, O. and Zeng, E. Y. (2010). Biomonitoring potentials of polycyclic aromatic hydrocarbons (PAHs) by higher plants from an oil exploration site, Nigeria. **Journal of Hazardous Materials** 184 759–764.
- O. O. Sonibare, and O. S. Sojinu (2009). "Chemical composition of leaf lipids of angiosperms: origin of land plant- derived hydrocarbons in sediments and fossil fuel." European Journal of Scientific Research 25: 192-199.
- 19. Y.-F. Guan; S. O. S. Sojinu; S.M. Li; and E. Y. Zeng (2009). "Fate of polybrominated diphenyl ethers in the environment of the Pearl River Estuary, South China." Environmental Pollution 157: 2166-2172.

\* Corresponding Authorship

# Papers published in Conference Proceedings/Book of Abstracts

- T.A. Adedosu, H.O. Adedosu, O.S. Sojinu, A.O. Ibrahim, I.A. Bello and A.A. Olajire (2011). Polycyclic Aromatic Hydrocarbons of Soil from Some Polluted Sites in Niger Delta, Nigeria. Humboldt-Kollege, Alexander von Humboldt Conference: Potential Applications of Nanotechnology in Developing Countries of West Africa: Trend of Research Activities. Book of Abstracts. 4TH 7TH July, Ogbomoso, Nigeria.
- 21. T.A. Adedosu, H.O. Adedosu, O.S. Sojinu and A.A. Olajire (2011). *n* alkanes and Polycyclic Aromatic Hydrocarbons (PAH) Profile of Soil From Some Polluted Sites in Niger Delta, Nigeria. Annual International Conference, Workshop and Exhibition of Chemical Society of Nigeria: Chemistry and the Millenium Development Goals. Book of Abstracts. 19TH – 23RD September, University of Ilorin, Nigeria.
- 22. **O.S.S Sojinu**, O. Sonibare Oil generating potential of coals from lower Benue trough, Nigeria, in Book of Abstracts. 233rd American Chemical Society National Meeting & Exposition March 25-29, 2007 Chicago, IL ACS
- 23. O.S.S. Sojinu, Adegoke O.D Environmental impacts of Textile Industries in Lagos, Nigeria – A consultant View Point- In Proc. of the 22nd International Conference on Solid Waste Management and Technology, March 18-21 2007, Philadelphia.

### Articles under peer review

S.Y. Lu, W.J. Chang, **S. O. Sojinu** and H.G. Ni (2013)'Bisphenol A in supermarket receipts and its human exposure in Shenzhen, China'

C. Tang and **O. S. Sojinu** (2012) 'Quantitative determination of ribavirin in human plasma using isotope dilution integrated with hydrophilic interaction liquid chromatography tandem mass spectrometry

**O. S. Sojinu**, O. O. Sonibare, O. Zeng. Y (2013) "Effects of increased abundance of carbon oxides on carbon isotope( $\delta^{13}$ C) profiles in higher plants"

**O. Samuel Sojinu,** O. O. Sonibare, C.B Adeosun (2013) 'Profiles of *n*-alkane in higher plants: A marker for anthropogenic contaminations of soils and sediments'

### Manuscript under preparation

- 1. Olajuwon. Abiola, Gilbert. Adie, and **Samuel** O. **Sojinu** (2012). The Occurrence of Heavy Metals And Polycyclic Aromatic Hydrocarbons in selected food samples from Mowe Market, South western Nigeria
- 2. Sojinu O. Samuel "The Global trends in water and food pollution: A review"

Undergraduate Project Supervision	
Number of Students	6
Postgraduate Student Supervision	
M.Sc	1
Ph.D	1

# **CONFERENCE AND SEMINAR PRESENTATIONS**

# \* Nnamdi Azikiwe University, Akwa, Anambra State Nigeria.

2<sup>nd</sup> Nigerian Young Academy General Assembly/conference with the theme '*Connecting the Academé with other critical sectors for Nigeria Development*' between 6-8<sup>th</sup> June, 2012.

### \* Covenant University, Nigeria.

Resource Person for the "Workshop on Essential of Quality Research Output" held at the Covenant University, Ota, Nigeria between 6-8<sup>th</sup> October, 2011.

# San Juan PEURTO RICO, USA

Compositional profiles of Polycyclic Aromatic Hydrocarbons in Higher Plants using Multivariate analysis techniques presented at the 43rd IUPAC World Chemistry Congress, the IUPAC General Assembly and 70<sup>th</sup> CQPR Annual Conference and Exhibition July 30<sup>th</sup> to August 7, 2011.

# \* Federal University of Technology, Imo State, Nigeria

Compositional profiles of Polycyclic Aromatic Hydrocarbons in Higher Plants using Multivariate analysis techniques presented at the conference organized by the Nigerian Young Academy 23<sup>rd</sup>-25<sup>th</sup> May, 2011.

### \* University of Ibadan, NIGERIA

Aspects of Environmental Geochemistry of the Niger Delta, Nigeria: Organic Pollutants in Sediments, Soils and Plants April 28<sup>th</sup>, 2010.

# ✤ Abuja, NIGERIA

Polycyclic Aromatic Hydrocarbons in Sediments and Soils from Oil Exploration Areas of the Niger Delta, Nigeria at An International conference held by the Nigerian Association of Petroleum Explorationists (NAPE) 29<sup>th</sup> Nov. to 3<sup>rd</sup> Dec. 2009.

### \* Redeemer's University, NIGERIA

Polycyclic Aromatic Hydrocarbons: Occurrences, sources, fate and ecotoxicological assessment in oil exploration areas of Niger Delta: A cause for concern presented at the Department of Chemical Sciences, Redeemer's University, Nigeria. Nov. 25<sup>th</sup>, 2009

### Sun City, SOUTH AFRICA

Bioaccumulation and Ecotoxicological Assessments of Polycyclic Aromatic Hydrocarbons (PAHs) in Higher plants, Soils and Sediments of from oil Producing Areas of Niger Delta Nigeria, at an International Conference organized by Toxicology Society of South Africa. 6 - 9<sup>th</sup> August, 2009.

### ✤ Guangzhou, CHINA

Managing the future of our environment: Fate and Remediation of contaminants in Air, Water and Sediment-an International collaborative workshop (Rutgers University, USA and Guangzhou Institute of Geochemistry, China) held at Guangzhou Institute of Geochemistry, November 2008

### University of Ibadan, Nigeria

Catalytic hydropyrolysis of higher plants: Origin of land-plant biomarkers, a seminar paper presented at the chemistry department, university of Ibadan, Nigeria, April 2008.

#### \* Chicago, IL USA

O.S.S Sojinu, O. Sonibare Oil generating potential of coals from lower Benue trough, Nigeria, at 233rd American Chemical Society National Meeting & Exposition March 25-29, 2007 Chicago, IL USA.

### \* Philadelphia, USA

O.S.S. Sojinu, Adegoke O.D Environmental impacts of Textile Industries in Lagos, Nigeria – A consultant View Point- at *the 22nd International Conference on Solid Waste Management and Technology*, March 18-21 2007, Philadelphia, USA

### **Extra-Curricular Activities**

### Acting as a Reviewer for Professional International Journals

- African Journal of Environmental Science and Technology
- African Journal of Pure and Applied Chemistry

- Journal of Oceanography and Marine Science
- Journal of Environmental Chemistry and Ecotoxicology
- Pertinaka Journals
- Journal of Hydrology
- Bentham Science publishers Mini reviews in Medicinal chemistry
- Science of Total Environment
- Environmental Pollution
- Chemosphere

#### **University Committee Membership**

-Member University Sports Committee	2006 - 2010
-Member University Cafeteria Committee	2006 - 2012
- Department Seminar Coordinator	2010 - 2012
- Departmental SIWES/ Final Year Project Coordinator	2010 - 2012

### **National Service**

- Resource Person for the Training Workshops of the Nigerian Inst. of Sci. Tech.	2012- Till date
- Environmental Consultant for the Nigerian Television Authority Network Service	

Program 'Environmental Matters'

2012-Till date

### REFEREES

# Dr. Ehinola, O.A

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#### Dr. Olubajo, O.O

Snr. Lecturer, Dept. of Chemical Sciences, College of Natural Sciences, Redeemer's University, Redemption City, Mowe, Ogun State.

# Dr. Sonibare Dayo

Associate Professor, Dept. of Chemistry, Uni. of Ibadan, Nigeria Tel: (234) 8080627459 E-mail:sonibaredayo@yahoo.com



Date: 20th August, 2012.

Signature