

CURRICULUM VITAE

A. PERSONAL DATA

1. **Full Name:** ONINLA, Vincent Olukayode
2. **Date of Birth:** 24th November, 1973
3. **Contact Details:**
 - (a) **Physical Address:** Opposite Christ Way Church, Erinta Scheme 3, Ife-City, Ile-Ife
 - (b) **Contact Address:** Room 104, NCL (Yellow House), Department of Chemistry, Obafemi Awolowo University, Ile-Ife
 - (c) **E-mail Addresses:** vinzoninla@daad-alumni.de; voninla@oauife.edu.ng
 - (d) **Mobile Phone Number:** +234(0)7065377096; +234(0)7012982586
4. **Nationality:** Nigerian
5. **State of Origin:** Ondo
6. **Senatorial District:** Ondo North
7. **Local Government Area:** Akoko South East
8. **Permanent Home Address:** No. 42, Iba Quarters, Ipe-Akoko, Ondo State
9. **Marital Status:** Married
10. **Number of Children and Their Ages:** Three (3): 11 years; 8 years and 5 years
11. **Next of Kin:** Mrs. Yetunde Folake Oninla
12. **Contact Details of Next of Kin:**
 - (a) **Physical Address:** Opposite Christ Way Church, Erinta Scheme 3, Ife-City, Ile-Ife
 - (b) **E-mail address:** folakeoninla@gmail.com
 - (c) **Mobile Phone Number:** 08101660054
13. **Present Status:** Senior Lecturer
14. **Present Salary, Grade Level and Step:** CONUASS 05 Step 4
15. **Faculty / Directorate:** Science
16. **Department / Unit:** Chemistry/Physical Chemistry

B. EDUCATIONAL BACKGROUND

1. Higher Educational Institutions Attended with Dates:

- a. University of Ilorin, Ilorin 2001 – 2005
- b. University of Ibadan, Ibadan 2006 – 2008
- c. University of Ibadan, Ibadan 2009 – 2013

2. Academic/Professional Qualifications and Distinctions Obtained with Dates:

- a. B.Sc (Hons) Chemistry (2nd Class Upper) 2005
- b. M.Sc (Physical Chemistry) 2008
- c. Ph.D (Chemistry) 2013

3. Other Distinctions and Awards with Dates:

(a) Scholarship:

- University of Ibadan Postgraduate Research Scholarship, 2009 – 2012

- Deutscher Akademischer Austausch Dienst (DAAD) Scholarship, Life and Medical Sciences Institute (LIMES), Rheinische Friedrich-Wilhelms-Universität Bonn, Germany, 2009 – 2011

C. WORK EXPERIENCE WITH DATES:

1. Previous Work Experience Outside the University System with Dates:

- Oct. 2008 - June 2009: Tutorial officer/Chemistry instructor, University of Ibadan Pre-degree programme, University of Ibadan.
- June 2009 - Dec. 2012: Teaching Assistant (Under the Postgraduate Scholarship Scheme), Department of Chemistry, University of Ibadan, Ibadan.
- Oct. 2011 - Aug. 2012: Research Assistant (*Wissenschaftliche Hilfskraft*), Life & Medical Sciences Institute (LIMES), Rheinische Friedrich-Wilhelms-Universität Bonn, Germany.

2. Previous Work Experience in Other Universities:

Feb. 2014 – Jan. 2016: Lecturer II, Department of Chemistry, University of Ibadan, Ibadan

3. Work Experience in Obafemi Awolowo University:

Lecturer I February 1, 2016 – September 30, 2019
Senior Lecturer October 1, 2019 till date

4. Courses Taught Within the Past Seven Years:

(a) At the University of Ibadan

Undergraduate Courses

- CHE 257 – Thermodynamics, Kinetics and Electrochemistry (co-taught)
- CHE 259 – Physical Chemistry for The Life Sciences (co-taught)
- CHE 357 – Physical Chemistry III (co-taught)
- CHE 452 – Advanced Chemical Kinetics (co-taught)

Postgraduate Course

- CHE 745 – Biophysical Chemistry (co-taught)

(b) At Obafemi Awolowo University, Ile-Ife

Undergraduate Courses

- CHM 101 – Introductory Chemistry I (co-taught)
- CHM 102 – Introductory Chemistry II (co-taught)
- CHM 103 – Experimental Chemistry I (co-taught)
- CHM 104 – Experimental Chemistry II (co-taught)
- CHM 203 – Basic Physical Chemistry (co-taught)
- CHM 205 – Experimental Physical/Inorganic Chemistry (co-taught)
- CHM 206 – Experimental Organic Chemistry (co-taught)
- CHM 304 – Thermodynamics (co-taught)
- CHM 305 – Chemical Kinetics (co-taught)
- CHM 309 – Experimental Physical Chemistry (co-taught)
- CHM 429 – Statistical Thermodynamics (co-taught)

(b) Postgraduate Courses

- (i) CHM 602 – Advanced Physical Chemistry (co-taught)
- (ii) CHM 607 – Theoretical Aspects of Structure Determination (co-taught)
- (iii) CHM 608 – Advanced thermodynamics (co-taught)
- (iv) CHM 613 – Photochemistry (co-taught)
- (v) CHM 616 – Colour Chemistry (co-taught)

5. Graduate Students Supervision:

(a) By Research M.Sc. (Completed at the University of Ibadan)

- (i) Adesanmi, Olubukade John (Matric No. 180476) – M.Sc., 2015 (Sole Supervisor)

(b) By Research M.Sc. (Completed at Obafemi Awolowo University)

- (i) Elugoke, Saheed Eluwale (SCP 15/16/R/0066) – M.Sc., 2018 (Co-supervisor)
- (ii) Bello, Dolapo Jolade (SCP 16/17/H/0247) – M.Sc., 2020 (Co-supervisor)

(c) By Research M.Phil/M.Sc. (On-going)

- (i) Oyelaran Tolulope (SCP 18/19/H/0886) – 2019 till date (Main supervisor)
- (ii) Ibiroke Olufunke – 2020 till date (Co-supervisor)
- (iii) Oggunniyi Jumoke (SCP 18/19/H/0886) – 2021 till date Co-supervisor)

6. Current Undergraduate Supervision: Four (4)

D. MEMBERSHIP OF PROFESSIONAL BODIES:

- (i) Member, Chemical Society of Nigeria (CSN)

E. PUBLICATIONS:

1. Thesis/ Dissertations:

- (b) **Oninla, V.O (2005)**. Application of metal antibiotic-drug complex. B.Sc (Hons) Dissertation, Department of Chemistry, University of Ilorin, Nigeria.
- (c) **Oninla, V.O (2008)**. Biosorption of chromium(III), lead(II), nickel(II) and cadmium(II) by *Basella alba* L. M.Sc Thesis, University of Ibadan, Nigeria
- (d) **Oninla, V.O (2013)**. Regulation of acid sphingomyelinase activity by membrane lipids. Ph.D Thesis, University of Ibadan, Nigeria

2. Published Journal Articles:

- (i) Babalola, J.O., Babarinde, N.A.A., **Oninla, V.O** and Popoola, O.A. (2008). Kinetics, equilibrium, and thermodynamics studies of the biosorption of Lead(II) and Chromium(III) by *Basella alba* L. *The Pacific Journal of Science and Technology* 9(2): 610 – 620.
- (ii) Babalola, J.O., Babarinde, N.A.A., Popoola, O.A and **Oninla, V.O** (2009). Kinetic, equilibrium, and thermodynamic studies of the biosorption of Cd(II) and Pb(II) from aqueous solutions by *Talinum triangulare* (Water Leaf). *The Pacific Journal of Science and Technology* 10(1): 428 – 438.
- (iii) Babalola, J.O., Babarinde, N.A.A., Popoola, O.A. and **Oninla, V.O.** (2009). Kinetic, equilibrium, and thermodynamic studies of the biosorption of Ni(II) and Cr(III) from aqueous solutions by *Talinum triangulare* (Water Leaf). *The Pacific Journal of Science and Technology* 10(1): 439 – 450.
- (iv) Babalola, J.O., Overah, L.C., Adesola B., **Oninla, V.O.**, Olatunde, A. (2011). Kinetic, equilibrium and thermodynamic studies on the biosorption of Cd(II) from aqueous solutions by

- the leaf biomass of *Calotropis procera* - 'Sodom apple'. *Journal of Applied Science and Environmental Management*, 15: 607 – 615.
- (v) Babalola, J.O., Omorogie, M.O., Babarinde, A.A., Unuabonah, E.I., **Oninla, V.O.** (2016). Optimization of the biosorption of Cr³⁺, Cd²⁺ and Pb²⁺ using new biowaste: *zea mays* seed chaff. *Environmental Engineering and Management Journal*, 15: 1571 – 1580.
- (vi) **Oninla, V.O.**, Breiden, B., Babalola, J.O., Sandhoff, K. (2014). Acid Sphingomyelinase activity is regulated by membrane lipids and facilitates cholesterol transfer by NPC2. *Journal of Lipid Research* 55: 2606 – 2619.
- (vii) Babalola, J.O., Koiki, B.A., Eniyewu, Y., Salimonu, A., Olowoyo, J.O., **Oninla, V.O.**, Alabi, H.A., Ofomaja, A.E., Omorogie, M.O. (2016). Adsorption efficacy of *Cedrela odorata* seed waste for dyes: non linear fractal kinetics and non linear equilibrium studies. *Journal of Environmental Chemical Engineering* 4: 3527 – 3536.
- (viii) Awokoya, K.N., Sanusi, R.O., **Oninla, V.O.** and Ajibade, O.M. (2017). Activated periwinkle shells for the binding and recognition of heavy metal ions from aqueous media. *International Research Journal of Pure and Applied Chemistry* 13: 1-10.
- (ix) Awokoya K.N., **Oninla, V.O.**, Ibikunle A.A., Adebajo A.O., Okunniyi A.O. and Moronkola B.A. (2018). Pasting, morphological and functional properties of breadfruit (*Artocarpus altilis*) starch crosslinked with ethylene glycol dimethacrylate. *African Journal of Food Science and Technology* 9: 008 – 018.
- (x) Awokoya K.N., **Oninla, V.O.**, Adeleke I.T. and Babalola J.O. (2018). Preparation and characterization of methacrylic acid-based molecularly imprinted polymer as a new adsorbent for recognition of 1,4-dihydroxybenzene (2018). *International Research Journal of Pure and Applied Chemistry* 16: 1 – 11.
- (xi) **Oninla, V.O.**, Olatunde A.M., Babalola J.O., Adesanmi O.J., Towolawi G.S., Awokoya K.N. (2018). Qualitative assessments of the biomass from oil palm calyxes and its application in heavy metals removal from polluted water, *Journal of Environmental Chemical Engineering* 6: 4044 – 4053.
- (xii) Awokoya, K.N., **Oninla, V.O.**, Bakare, M.A. (2018). Extraction of pyrocatechol from pharmaceutical wastewater through adsorption using molecularly imprinted polymer prepared from methacrylic acid monomer, *Journal of Chemical Society of Nigeria* 43(3): 553 – 562.
- (xiii) Adigun, O.A., **Oninla, V.O.**, Babarinde, N.A.A. (2019). Application of sugarcane leaves as biomass in the removal of cadmium(II), lead(II) and zinc(II) ions from polluted water, *International Journal of Energy and Water Resources* 3:141–152.
- (xiv) Olowoyo, J.O., Kumar, M., Singh, B., **Oninla, V.O.**, Babalola, J.O., Valdés, H., Vorontsov, A.V., Kumar, U. (2019). Self-assembled reduced graphene oxide-TiO₂ nanocomposites: Synthesis, DFTB+ calculations, and enhanced photocatalytic reduction of CO₂ to methanol, *Carbon* 147 385 – 397.
- (xv) Awokoya, K.N., **Oninla, V.O.**, Jonathan O. Babalola, J.O., Mbaeyi, N.N., Folorunso, F.T., Ndukwe, N.A. (2019). Adsorption of malachite green onto Styrene-Methacrylate based molecularly imprinted polymer, *Ife Journal of Science* 21(3): 67 – 80.
- (xvi) Awokoya, K.N., **Oninla, V.O.**, Oni, O.D. (2019). Physicochemical properties of Carica papaya starch enhanced by etherification modification with sodium monochloroacetate, *Journal of Agroalimentary Processes and Technologies*, 25(3), 157 – 170
- (xvii) Adigun, O.A., **Oninla, V.O.**, Babarinde, N.A.A., Oyedotun, K.O., Manyala, N. (2000). Characterization of sugarcane leaf-biomass and investigation of its efficiency in removing Nickel(II), Chromium(III) and Cobalt(II) ions from polluted Water, *Surfaces and Interfaces* 20, 100621.

- (xviii) Awokoya, K.N., **Oninla, V.O.**, and Bello, D.J (2021). Synthesis of oxidized Dioscorea dumentorum starch nanoparticles for the adsorption of lead(II) and cadmium(II) ions from wastewater. *Environmental Nanotechnology, Monitoring & Management*, 15: 100440.
- (xix) **Oninla, V.O.**, Awokoya, K.N., Babalola, J.O., Abimbola, A.A., Adesokan, T.B. (2022). Comparison of methylene blue sequestration potentials of unmodified and Fenton's modified plantain (*Musa paradisiaca*) peels biomass. *International Journal of Energy and Water Resources*, <https://doi.org/10.1007/s42108-022-00185-1>.
- (xx) Awokoya K.N., **Oninla V.O.**, Adeyinka G.C., Ajadi M.O., Chidimma O.T., Fakola E.G., Akinyele O.F. (2022). Experimental and computational studies of microwave-assisted watermelon rind – styrene based molecular imprinted polymer for the removal of malachite green from aqueous solution. *Scientific African*, 16: e01194.

3. Edited and Refereed Conference Proceedings:

- (xxi) Babalola, J.O., Babarinde, N.A.A., **Oninla, V.O** and Popoola, O.A (2008). Kinetic, equilibrium and thermodynamic studies of biosorption of cadmium (II) and Nickel (II) by *Basella alba* L. (Malabar spinach). In, food, health and environmental issues in developing countries: the Nigerian situation. Eds. Adebooye, O.C., Taiwo, K.A and Fatufe, A.A. A compilation of Humboldt college conference in Ile-Ife, Nigeria. *Cuvillier Verlag Göttingen*, 482 – 491 (Nigeria).

F. PROFESSIONAL ACCOMPLISHMENT:

As a lecturer, I have taught at two different Universities: The University of Ibadan, and Obafemi Awolowo University, Ile-Ife, Osun State. I have so far been able to positively influence the lives of a number of students through direct teaching and one-on-one interactions, as a staff adviser. As a researcher, I have personally designed and undertaken research projects both in the field of membrane lipids and adsorption, with articles published as well as submitted for publication in reputable journals. I have also supervised a number of students both at undergraduate and postgraduate levels.

G. CONFERENCES, SEMINARS AND WORKSHOPS ATTENDED WITH DATES:

- (i) Summer School Bonn 2011 on “Molecular Architecture and Cellular Functions of Lipid/Protein Assemblies”, September 12 – 14, 2011. Transregional Collaborative Research Centre 83 (TRR83) Heidelberg – Bonn – Dresden
- (ii) LipidomicNet Steering Committee meeting on “Lipid droplets as dynamic organelles of fat deposition and release: Translational research towards human disease” 24 – 25 January, 2011, Bonn. Life and Medical Sciences Institute, Bonn University
- (iii) Gordon Research Conference on Glycolipid and Sphingolipid Biology. April 22-27, 2012, Renaissance Tuscany Il Ciocco Resort, Lucca (Barga), Italy. **Poster presented:** Breiden, B., **Oninla, V.O.**, Sandhoff, K. Membrane lipids regulate acid sphingomyelinase and cholesterol transfer by NPC2
- (iv) Faculty of Science International Conference Held at National Centre for Technology Management (NACETEM), Obafemi Awolowo University, Ile-Ife, Nigeria. 4th – 8th September, 2016. **Paper presented:** Awokoya, K.N., Adebajo, A.O., **Oninla, V.O.**, Adeyinka, G.C. Effect of Acylation on Functional and Textural Properties of Breadfruit (*Artocarpus altilis*) Starch.
- (v) Workshop for Early Career Researchers (ECRs) on sustainable futures for institutional strengthening programme (ISP) Held at Obafemi Awolowo University Teaching Hospital, Ile-Ife, Nigeria. 23rd January, 2018.

- (vi) Faculty of Science International Conference Held at National Centre for Technology Management (NACETEM), Obafemi Awolowo University, Ile-Ife, Nigeria. 1st – 5th October, 2018. Theme: Harnessing Scientific Innovations for a Safer Planet. **Papers presented:** Elugoke S.E., Awokoya, K.N., **Oninla, V.O.** Imprinted polymer particles for catechol and hydroquinone adsorption: synthesis, characterization and analytical applications (FSC-OAU-2018-022); **Oninla, V.O.**, Awokoya, K.N., Abimbola, A.A., Adesokan, T.B., Babalola, J.O. Application of fenton modified plantain peels biomass in the removal of methylene blue from aqueous medium (FSC-OAU-2018-108).
- (vii) Workshop on Computational Studies and Molecular Dynamic Stimulation Held at Postgraduate College Board Room, University of Ibadan, Ibadan, Nigeria. 29th April - 11th May, 2019
- (viii) International Conference of the Faculty of Science (Hybrid), Faculty of Science main board room, Obafemi Awolowo University, Ile-Ife, Nigeria. 8th – 10th June, 2021. Theme: Building partnerships for sustainable development through scientific interventions. Papers presented: **Oninla, V.O.**, Awokoya, K.N., Oyelaran, T.E., Olasunkanmi, L.O. Graft copolymerization of itaconic acid onto cellulose isolated from plantain tree trunk: synthesis, characterization and optimization (SC21-5-P011); Abiodun, O.M., Babatunde, T.C., **Oninla, V.O.**, Awokoya, K.N. Ethanol induced changes in pasting, structural, morphological, and functional properties of succinylated potato (*Ipomoea batatas*) starch (SC21-6-P005); Dolapo J. Bello., **Oninla, V.O.**, Awokoya, K.N. Synthesis of oxidized *Dioscorea dumentorum* starch nanoparticles for the adsorption of lead(II) and cadmium(II) ions from wastewater (SC21-5-P006).

H. CURRENT RESEARCH ACTIVITIES:

- (i) Isolation and purification of cellulose from agricultural waste products, and graft copolymerization of different monomers onto the materials for the removal of both organic and inorganic pollutants from industrial wastewaters.
- (ii) Synthesis and modification of nanoparticles of starch for the removal of toxic materials from polluted fresh water mimics
- (iii) Surface modification of adsorbent materials for enhanced removal of toxic substances from polluted water
- (iv) Membrane-protein solubilization: syntheses of novel polymers for lipid-bilayer nanodiscs.

I. CURRENT RELEVANT INFORMATION:

1. Services Within the Department:

- (i) Member, Departmental Board of Examiners
- (ii) Secretary, Departmental Board of Examiners (2016/2017 – 2017/2018)
- (iii) Coordinator, CHM 104 (Experimental Chemistry II), 2016/2017 till date
- (iv) Part Adviser (Pure Chemistry) from 2018/2019 academic session
- (v) Member, Departmental Committee on provision of Solutions to Past Questions
- (vi) Member, Departmental Committee on NEEDS assesment.

2. Services Within the Faculty:

- (i) Member, Faculty Board of Science
- (ii) Member, Faculty Committee on Assessment and Maintenance

3. Services Outside the Obafemi Awolowo University:


- (i) Reviewer, Biomass Conversion and Biorefinery (Springer, Switzerland)
- (ii) Reviewer, Journal of Environmental Chemical Engineering (Elsevier, The Netherland)
- (iii) Reviewer, International Journal of Energy and Water Resources (Springer, Switzerland)

- (iv) Reviewer, BMC Chemistry (United Kingdom)
- (v) Reviewer, Ife Journal of Science, (OAU, Nigeria)
- (vi) Collation Officer, Independent National Electoral Commission, 2019 General Election and 2020 Ondo State, Governorship Election.

J. CONTRIBUTIONS TO KNOWLEDGE:

In my work on enzymatic hydrolysis of membrane lipids, I was able to show that anionic phospholipids derived from the plasma membrane (phosphatidylglycerol and phosphatidic acid) stimulate the hydrolysis of sphingomyelin (SM) and phosphatidylcholine by a phospholipase C – like enzyme hydrolase, acid sphingomyelinase (ASM). The report of the work, (Oninla *et al.*, 2015), which has been widely referenced, suggests that SM degradation by ASM is required for physiological secretion of cholesterol from the late endosomal compartment, and is a key regulator of endo-lysosomal lipid digestion. This has thus shed more light on the enzyme – lipid interactions within the endo-lysosomal compartment of cells.

Moreover, in my research in the area of adsorption, I have been able to add to the growing knowledge on the use of low-cost Biological/Agricultural waste materials in removing toxic materials (such as heavy metals, dyes and organic pollutants) from polluted water, especially industrial effluents. Currently, I am working on enhancing the efficiencies of these biomasses by co-polymerising them with various monomers (such as acrylic acid, methacrylic acid and others) as well as synthesising the nano variants of these adsorbents, including starch and cellulose. The outcome of these research works, I believe will further help in furthering the translation of the concept of adsorption of toxic material from pilot scale to full scale industrial applications.



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Signature

16 – 07 – 2022

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Date