



ACS Nigeria Digest

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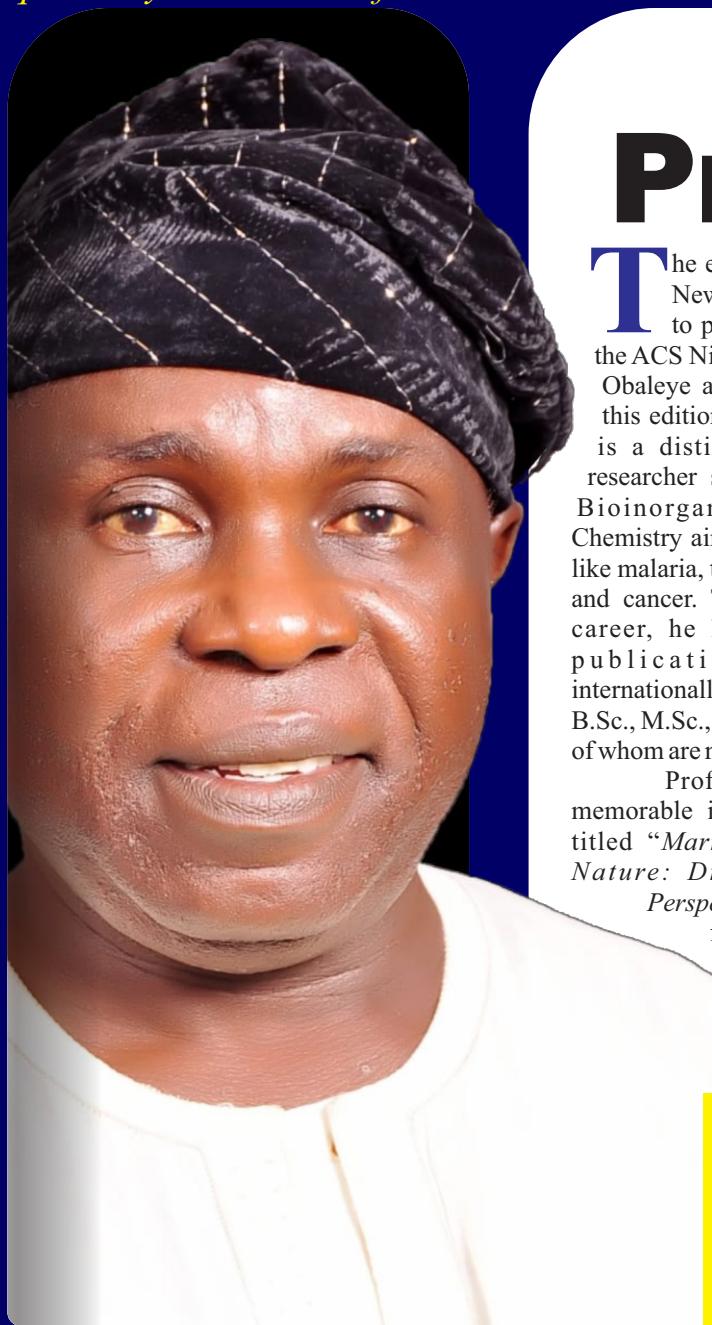


ACS Chapter
Nigeria

<https://acsnigeria.org/>

<https://linkedil.cocm/com/in/american-chemical-society-nigeria-international-chemical-sciences-chapter>

A quarterly newsletter of the American Chemical Society – Nigeria International Chapter



Featured chemist: Prof Obaleye

The editorial board of ACS Nig Newsletter is extremely elated to present the pioneer chair of the ACS Nig, Professor Joshua Ayoola Obaleye as her featured Chemist in this edition. The Ilesha-born scholar, is a distinguished academic and researcher specializing in Medicinal, Bioinorganic, and Coordination Chemistry aimed at combating diseases like malaria, tuberculosis, inflammation, and cancer. Throughout his illustrious career, he has authored over 160 publications nationally and internationally and supervised numerous B.Sc., M.Sc., and Ph.D. students, several of whom are now professors.

Prof. Obaleye delivered his memorable inaugural lecture in 2004 titled “*Marriageology of Chemical Nature: Drug Metal Complexes Perspective*.” He was one of the first two recipients of the \$500,000 STEP B grant for the University of Ilorin, Nigeria, and

was named Best Researcher of the Year by the University in 2009, with a reward of a new car.

He was among the international delegate that drafted the Global Chemists' Code of Ethics (GCCE) for world scientists. Prof. Obaleye has received several national and international awards, such as the Development in Nigeria Merit Award (2007), and holds fellowship titles in esteemed organizations like the Royal Society of Chemistry (RSC), American Chemical Society (ACS), and Chemical Society of Nigeria (CSN). He is also a Chartered Chemist (UK). As a widely travelled scholar, he has visited many countries in all continents. In 2019, he received the gold award for excellence by the CSN.

Despite his retirement, the accomplished inorganic chemist, Prof. Obaleye continues contributing to science while fostering mentorship and ethical standards in chemical research globally.

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From the

Dear Esteemed Members of ACS Nigeria,

It is with great pleasure and deep appreciation that I welcome you to the maiden edition of the ACS Nigeria International Chemical Sciences Chapter Newsletter. This publication marks the beginning of an exciting journey as we strive to foster a vibrant and dynamic scientific community dedicated to advancing the frontiers of chemical sciences in Nigeria and beyond.

As a chapter of the American Chemical Society (ACS), our mission is to promote excellence in chemical research, education, and industry while enhancing collaboration among scientists, professionals, and students. Chemistry is at the heart of human progress, impacting every aspect of modern life from healthcare and agriculture to energy and environmental sustainability. As



Chair's Desk

Nigeria continues its journey toward industrialization and economic transformation, the role of chemistry in solving critical challenges cannot be overstated.

Over the past decade, we have witnessed remarkable strides in advancing chemistry and its interdisciplinary fields. As a chapter we have organized the annual symposia with exciting and topical themes. This year the annual symposium will be held at the beautiful new TETFUND Conference Centre, National Open University of Nigeria, Abuja with a theme “Advancing sustainability through AI-driven chemistry” (10th Annual Symposium of the American Chemical Society (ACS) Nigeria International Chemical Sciences Chapter - American Chemical Society) Our student chapters have organized seminars, workshops, and community outreach programs, each designed to inspire the next generation of scientists and to elevate the standards of research and practice in our field. I am particularly proud of the efforts made in strengthening ties between academia, government and industry, enhancing public engagement through science outreach initiatives like the Chemistry Festival, National Chemistry Week (NCW), Chemist Celebrate Earth Week (CCEW) as well as recognizing and celebrating excellence in chemical research and education.

I invite every member to actively participate in shaping the future of our chapter. Your ideas, contributions, and commitment are invaluable as we work together to elevate chemistry's impact in Nigeria. Let us continue to build a thriving scientific community that inspires innovation, collaboration, and excellence.

As we launch this newsletter, we take pride in the remarkable contributions of our members who continue to push the boundaries of scientific discovery. From groundbreaking research publications to impactful community initiatives, our members are making a difference in various fields of chemistry.

We also recognize the vital role of educators in shaping the next generation of scientists. Teachers, lecturers, and researchers are the backbone of our scientific community, inspiring young minds and fostering a passion for chemistry. Their dedication to advancing chemical education ensures that the field remains vibrant and innovative.

Together, we can build a stronger network of professionals dedicated to making a lasting impact through chemistry. I look forward to working with all of you as we embark on this exciting journey.

Thank you for your unwavering commitment to the advancement of chemistry in Nigeria.

With best regards,
Professor Edu J. Inam
Chair,

YOUNG Chemist's Corner

My journey in chemistry began during my undergraduate study, but it has been shaped by a deep-rooted passion for science that started much earlier. As a high school student, I had always dreamed of becoming a mathematician because I loved calculations. Although, I was also admitted to study a Diploma in Industrial Chemistry (DIC) at Bayero University Kano (BUK) in 2009, but the interest I have for mathematics led me to write the JAMB exam just to get admission for mathematics program. In 2010, I secured admission to study mathematics at Aliko Dangote University of Science and Technology Kano (formerly KUST Wudil), but I still continued with the Diploma program instead of degree program because I enjoyed studying Chemistry.

After completing the DIC program in 2012, I realized that I excelled far more in Chemistry than in mathematics. I graduated with an impressive CGPA of 4.44 out of 5.00. This turning point led me to pursue a Direct Entry (DE) admission into the Department of pure and Industrial Chemistry at BUK,

where I continued my academic journey. In 2016, I graduated with Bachelor degree in Chemistry, feeling more confident and accomplished than ever.

The recognition I received for my work in Chemistry was incredibly encouraging, and it motivated me to pursue a higher degree. In 2018, I had the opportunity to present my undergraduate research titled *"Assessment of Some Heavy Metals and Physicochemical Parameters in Hand-Dug Well and Borehole Water Samples from Mubi South L.G.A., Adamawa State"* at the Faculty of Science International Conference held at Obafemi Awolowo University (OAU). The positive feedback from my presentation has not only fueled my passion for the subject but also made me realized my potential in Chemical Science.

In 2019, my passion for Chemistry took me further when I secured MSc scholarship at King Fahd University of Petroleum and Minerals (KFUPM) in Saudi Arabia. However, due to unforeseen challenges, I returned and completed my MSc program in Nigeria. I pursued a Master's in Physical Chemistry at BUK, with an excellent research project titled

"Inhibiting the Acid Corrosion of Aluminium Using Leaves Extract of Guiera Senegalensis: Experimental and Computational Methods." This research work led to multiple publications in reputable journals, and I graduated with a CGPA of 4.52 in 2021.

Throughout my academic journey, I gained valuable teaching and research experience, I attended several local and International Conferences, Seminars and Workshops, including the ACS Symposium organized by Nigerian Chemical Chapter. Today, I am fortunate to be a beneficiary of the Universiti Teknologi Petronas (UTP) Graduate Assistantship at Malaysia and a staff member in the Science and Technology Education Department at Bayero University Kano.

Looking back, I am incredibly grateful for the path I have walked. My career in Chemistry has been a testament to perseverance, passion, and divine guidance. Chemistry has shaped my life, and I can confidently say that God has beautifully made my career through this incredible field of study.



The 10th annual symposium and anniversary of the American Chemical Society Nigeria International Chapter holds 4th – 7th May, 2025 on the theme: Advancing Sustainability through AI-Driven Chemistry. Interested participants are expected to register using the link: <https://acsnigeria.org/10th-annual-symposium>

The event shall feature global resource person with diverse expertise in various areas of chemical sciences. More information are available on the website.

ACS Nigeria Chapter

holds her

10th

Annual Symposium
and Anniversary



Prof. Oluwayemi Olanike Esther Onawumi (MACS) delivers 62nd Inaugural Lecture at Ladoke Akintola University of Technology

Prof. Oluwayemi Olanike Esther Onawumi delivered the 62nd Inaugural Lecture on March 6, 2025, at The Great Hall, Ladoke Akintola University of Technology (LAUTECH), Ogbomoso, Oyo State, Nigeria. She made history as the first female scholar to present an inaugural lecture in the Faculty of Pure and Applied Sciences, the Department of Pure and Applied Chemistry, and the Analytical Chemistry unit.

Her lecture, titled "Quality in Quantity: Epitomic Focus of an Analytical-Inorganic

Chemist in a Sustainable World," explored her research contributions in alignment with the United Nations

Sustainable Development Goals (SDGs). She emphasized SDGs related to Life on Land (Goal 15), Clean Water and Sanitation (Goal 6), Responsible Consumption and Production (Goal 12), Good Health and Well-being (Goal 3), Zero Hunger (Goal 2), and Industry, Innovation, and Infrastructure (Goal 9). Through her work, she seeks to harness the transformative power of chemistry to drive sustainable solutions for humanity.

Her research delves into the interconnections between environmental monitoring, human health, the circular economy, and the synthesis of mixed-ligand complexes for analytical and antimicrobial applications. She highlighted that mineral compounds are non-biodegradable and accumulate in the environment, ultimately entering the food chain and posing a risk to human health. Her findings reinforce the notion that human activities are central to environmental pollution.

Additionally, Prof. Onawumi studied medicinal plants to analyze their phytochemical and nutritional composition, affirming nature's provision for human sustenance. She also emphasized that the synthesis of mixed-ligand complexes requires a precise balance of reagents to achieve quality crystal formation, further illustrating the interplay between quantity and quality in scientific research.

She concluded by urging individuals to be intentional in their actions, emphasizing the need for a future where quality and quantity coexist harmoniously, ensuring that every decision—no matter how small—creates a lasting positive impact.

As part of her lecture, she presented eight key recommendations to governments, institutions, industries, researchers, and communities to foster a more sustainable and scientifically driven society.

ACS Nigeria International

Chapters Activities

LAUTECH Chapter

LAUTECH Student Chapter



Unveiling the Wonders of Chemistry: A Festival of Discovery

Every year, chemists and enthusiasts worldwide come together to celebrate the Chemistry Festival, a program organized by the American Chemical Society. This year, the LAUTECH chapter participated in the event, exploring the fascinating theme "Chemistry: The Nature's Wonders."

Our journey took us back in time, uncovering the secrets of old-fashioned photography. We delved into the chemistry behind

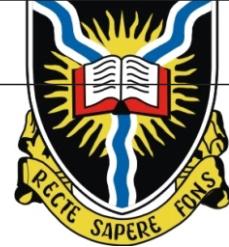
this process, using cyanotype paper to create stunning images. This experiment was conducted in secondary schools, introducing young minds to the magic of chemistry.

Using simple materials – cyanotype paper, a folder, water, and a plant leaf – we demonstrated the power of chemical reactions. The cyanotype paper, containing potassium ferricyanide, was carefully handled to avoid exposure to sunlight. A leaf was placed on the

paper, and the folder was opened, allowing a chemical reaction to occur. As the paper was washed and dried, a permanent, blue-and-white image of the leaf emerged.

The Chemistry Festival offers a unique platform to explore the intricacies of chemistry and its presence in everyday life. By engaging with the community and sharing our passion for chemistry, we hope to inspire the next generation of scientists and thinkers.

Chemistry Department University of Ibadan



UG Chemistry Program of University of Ibadan Receives ACS Global Recognition

The University of Ibadan is proud to announce that her Bachelor's Degree in Chemistry has received global recognition from the American Chemical Society (ACS). This prestigious recognition, granted by the ACS Global Recognition Program, affirms that the university's chemistry curriculum aligns with international standards set by the ACS Guidelines for International Chemistry Programs.

Established in 1948 as one of the foundation departments of the University of Ibadan, the Department of Chemistry has grown into the largest and most distinguished chemistry department in Nigeria. As the oldest chemistry department in the country, it has played a pivotal role in shaping

scientific research and education. The department provides vital support to science-based faculties across the university and offers degree programs at the undergraduate and postgraduate levels. Its graduates have significantly contributed to academia, industry, research, and government establishments nationwide. The department runs two programs, Chemistry and Industrial Chemistry.

Following a thorough evaluation by the ACS Committee on Professional Training, the program was commended for its comprehensive curriculum covering all key areas of chemistry—analytical, biochemistry, inorganic, organic, and physical chemistry (ABIOP).

The committee also praised the department's strong research offerings, specialized courses such as medicinal and industrial chemistry, and its commitment to laboratory safety and infrastructure development.

The ACS recognition which is valid for six years, comes with an annual review process to ensure continuous progress. This milestone positions the University of Ibadan's chemistry department among globally recognized institutions, further strengthening its commitment to academic excellence and research innovation.

Prof. Ganiyat K. Oloyode
Faculty Advisor,
University of Ibadan ACS
International Student Chapter

Breaking Barriers

Okediji, Oluwatoyin Asake
(ACS LAUTECH
Student Chapter)

*You can be what
you want to be, if
you believe in
what you want to
be.*

**Believe in
yourself and
you're half way
there.**



My Journey as a Young Chemist in Nigeria.

Chemistry has always been more than just a subject to me. It's a passion that fuels my curiosity and desire to solve real-world problems. My journey began in secondary school, where a simple acid-base titration experiment sparked an insatiable interest in the wonders of molecules and reactions.

However, pursuing this passion as a young Nigerian student was not without challenges. When I joined America Chemical Society LAUTECH Student Chapter, I found a community of like-minded individuals who were just as eager to explore the frontiers of chemistry.

Together, we organized workshops, engaged in outreach programs to inspire younger students, and even developed small research projects to address local environmental issues. One of our proudest moments was successfully synthesizing an affordable and eco-friendly water purifier using locally available materials.

Despite our achievements, there were moments of doubt. Limited funding, lack of modern laboratory equipment, and societal misconceptions about chemistry as a career often threatened to dampen our enthusiasm. But with the support of the ACS-Nigeria

network, mentors, and a shared belief in the power of chemistry to drive change, we persevered.

Today, I look back at my journey with immense pride. From being a curious student in a high school laboratory to presenting research at national conferences, the road has been tough but rewarding. The ACS community has given me a platform to grow, network, and contribute to a greater cause.

To other young chemists out there: never let obstacles define your limits. Science thrives on curiosity, collaboration, and resilience. Keep exploring, keep questioning, and above all, keep making an impact.

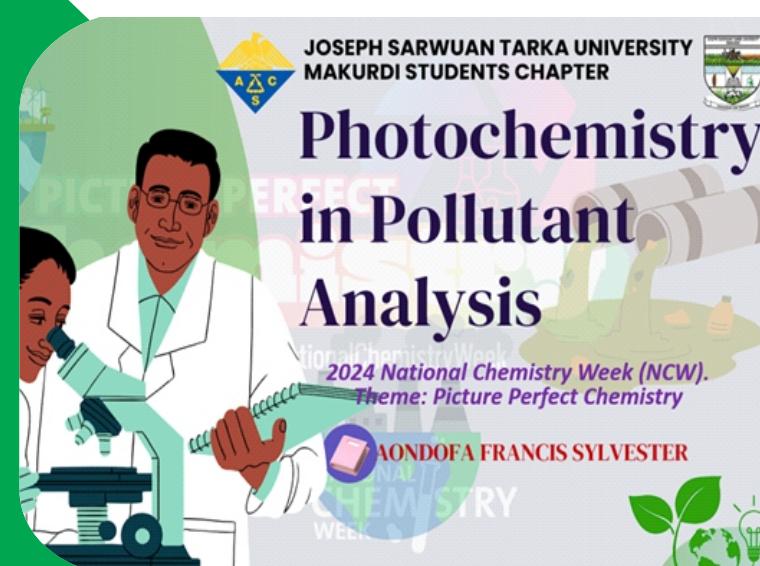


Joseph Sarwuan Tarka University Makurdi Chapter - JOSTUM

Sustainable Practices for a Planetary Earth
– Community Engagement

With the support of a grant, the Joseph Sarwuan Tarka University Makurdi chapter has successfully organized an impactful outreach program with activities which include:

- **Campus Outreach (JOSTUM):** Educating students on proper waste disposal.
- **Climate Change Awareness (Akawe Torkula Polytechnic, North Bank Makurdi):** Highlighting climate challenges.
- **Market Campaigns (North Bank & Wurukum Market):** Advocating responsible polyethylene use.
- **STEM Engagement in Schools:** Simplifying chemistry for young learners through practical demonstrations.
- **The Marvel of Biodiversity in Chemistry:** This emphasized the importance of biodiversity in Chemistry.
- **Diversity, Equity, Inclusion & Respect (DEIR) Initiative:** This includes workshops and Training addressing unconscious bias and fostering inclusivity.
- **ACS Nigeria National Chemistry Week (NCW): Addressing Photography & Imaging in Chemistry and Photochemistry in Pollutant Analysis**
- **Edu Webinar on Scholarships & International Study Opportunities:** Focusing on overseas scholarships, career mentorship, and research opportunities.



UNIUYO ACS Students Chapter: Festival of Chemistry



Chemistry: The Science Behind Creativity

"Our soap bubbles and perforated balloons didn't burst!"
That's the magic of chemistry!

In an inspiring effort to ignite a passion for science, we recently hosted a **Festival of Chemistry** at Oron Local Government Area, Akwa Ibom State. The event brought together students, educators, and community members for a hands-on experience showcasing the wonders of chemistry through engaging keynote lectures, interactive experiments, and captivating demonstrations.

Bringing Chemistry to Life

This was no ordinary science event as the students were not just spectators; they "became" scientists

themselves! Under the guidance of ACS chemists, they conducted experiments, observed fascinating reactions, and learned how chemistry is woven into everyday life.

Chemistry in Action: My perforated balloons didn't burst!

The hands-on and exhibition featured a variety of thrilling experiments, including:

- Excitement Experiment
- Moving Water
- Dry Finger Experiment
- Fireworks Under Water

• Perforated Balloons

The **perforated balloon demonstration** was another major highlight. A young girl excitedly exclaimed, *"Ouch! My perforated balloons didn't burst!"* Moments like this captured the essence of the festival—turning curiosity into discovery.

A Lasting Impact

The Chemistry Festival was more than just an event. It provided a front-row seat to the magic of chemistry, igniting creativity and scientific aspiration in these young minds. The success of the festival reaffirmed the power of chemistry in shaping the future "one inspired student at a time".

Chemistry is everywhere—and thanks to this festival, many young minds now see it as a gateway to endless possibilities.

Federal University Otuoke, Bayelsa Chapter



The ACS International Students' Chapter at Federal University Otuoke, Bayelsa is committed to empowering students through education, research, and inclusiveness in chemistry and allied sciences. Their recent initiatives focused on professional development, diversity, and bridging knowledge gaps.

Cultivating Future Chemists

The chapter organized career-driven programs which include panel discussion, workshop and keynote lecture to equip students for academic and professional success:

- **Entrepreneurial Training Workshop** – Developing business skills for chemical innovations.
- **Symposium on Advancing Chemical Sciences for Sustainable Development** – Showcasing research for a greener future.
- **Exploring Horizons: Further Studies & Research Opportunities**

- Guiding students on scholarships, internships and postgraduate research opportunities.

- **From Campus to Career**
 - Connecting students with established professionals and preparing them for the future job market.

Picture-Perfect Chemistry

A visual initiative capturing chemistry in action through high-resolution images of experiments and student-led projects was observed as part of the chemistry week in 2024.

Bridging the Gap: Towards Diversity & Inclusion in Chemical Sciences

Held on November 13–14, 2024, this event focused on fostering inclusivity through:

- **Digital Divide & Generational Shift** – Navigating technology gaps.
- **From STEM to STEAM**
 - Enhancing female participation in

innovation.

- **Collaboration in the Age of Specialization** – Building cross-functional teams.
- **Inclusive Leadership** – Equipping future leaders.

Chemistry without Borders: Celebrating Inclusion in the Lab

Through these programs, the chapter continues to shape future chemists, bridge knowledge gaps, and celebrate diversity in STEM. The ACS International Student Chapter at FUO further plan to expand *Chemistry Without Borders* through advanced entrepreneurial training, sustainability workshops, and interactive STEM outreach. Future initiatives include AI-driven research training, interdisciplinary collaborations, and diversity-focused programs, empowering students with cutting-edge skills, global networks, and innovative problem-solving for real-world impact.