Communiqué of the 11th Annual Symposium of the American Chemical Society (ACS) Nigeria International Chemical Sciences Chapter

Ibadan, Nigeria | 8th–11th February 2026

The 11th Annual Symposium of the American Chemical Society (ACS) Nigeria International Chemical Sciences Chapter was successfully held at the University of Ibadan, under the theme:

"Emerging Technologies in Chemistry for Sustainable Development."

This symposium brought together a diverse and distinguished gathering of academics, researchers, industry experts, policymakers, students, and early-career scientists from across Nigeria and internationally. The conference provided a platform for interdisciplinary dialogue, scientific exchange, and collaboration, with a focus on the role of chemistry in addressing global and local challenges related to health, environment, energy, industry, and sustainable development.

Opening Addresses

The Local Organizing Committee Chair, Prof. Ganiyat Oloyede, welcomed participants to Ibadan, emphasizing the city's historic role as a center of scholarship, innovation, and intellectual leadership. Participants were encouraged to actively engage in discussions, workshops, and networking opportunities, ensuring that the conference would foster new collaborations and research initiatives with local, regional, and global impact.

The National Chair of ACS Nigeria, Prof. Edu J. Inam, highlighted the symposium theme, underscoring chemistry's central role in tackling climate change, energy security, environmental sustainability, and public health challenges. He recognized ACS Nigeria's achievements in student chapter expansion, publications, mentorship, and global recognition, and encouraged students and young chemists to think innovatively, question boldly, and translate learning into actionable solutions.

Professor Rigoberto Hernandes, 2026 President of the American Chemical Society, shared a recorded message celebrating the symposium and highlighting ACS's vision for advancing chemistry globally. He emphasized chemistry's central role in emerging innovations such as clean energy, advanced materials, water purification, and sustainable industrial practices. Professor Ednandes acknowledged the growth and accomplishments of ACS Nigeria, congratulating the chapter for welcoming a thousand new members and recognizing Professor Joshua Ayoola Obaleye's election as an ACS International Zone Councillor. He also introduced his three 2026 initiatives—ACS First, ACS for Life, and ACS for All—which focus on establishing ACS as a trusted voice in chemistry, promoting lifelong engagement, and fostering inclusion and belonging across the global chemistry community. His message reinforced the theme that chemistry is everything and thrives everywhere, inspiring participants to continue using chemistry to address the world's most pressing challenges.

The Honourable Minister of Innovation, Science, and Technology reaffirmed the Federal Government's commitment to strengthening Nigeria's science and innovation ecosystem, emphasizing the critical need for chemistry-driven solutions in healthcare, industrial competitiveness, energy transition, and environmental protection. She called for partnerships that translate research into deployable technologies, policy-relevant evidence, and scalable solutions.

Keynote Lecture and Plenary Presentations

1. Development and Application of Novel Radiopharmaceuticals for Positron Emission Tomography (PET)

Speaker: Prof. Franklin Aigbirhio, University of Cambridge, UK

- PET imaging utilizes short-lived positron-emitting isotopes such as Carbon-11 and Fluorine-18, enabling quantitative 3D imaging of physiological, biochemical, and pharmacological processes in vivo.
- Radiopharmaceuticals can be designed for specific molecular targets such as receptors, enzymes, and protein deposits.
- Applications include early detection of diseases like dementia and hypertension, and non-invasive drug evaluation during treatment.
- Prof. Aigbirhio emphasized the importance of rapid radiolabelling, translational research, and infrastructure development to support clinical applications in Nigeria.

2. Malaria: A Complex Disease — Collaborative Approach for Premedical Students

Speaker: Dr. Nevila Jana, MCPHS University, USA

- The course employs Project-Based Learning (PBL) integrating biology, chemistry, history, and social studies.
- Students explored malaria prevention, control, and treatment, including genetically modified mosquitoes, vaccine development, and environmental impact.
- Learning outcomes demonstrated critical thinking, interdisciplinary problem-solving, communication skills, and professional preparedness, showing that integrative educational approaches equip students to tackle real-world health challenges.

3. Addressing Global Challenges through Sustainable Practices in Chemistry

Speaker: Dr. Mary Anti Chama, University of Ghana

- Chemistry underpins public health, agriculture, energy, and environmental protection, and is central to achieving the Sustainable Development Goals (SDGs).
- The chemical industry contributes ~6% of global greenhouse gas emissions, necessitating green chemistry, renewable energy adoption, recycling, and benign chemical synthesis.
- Dr. Chama advocated for natural remedies, reduced reliance on hazardous chemicals, and sustainable industrial practices to improve human health and environmental outcomes.

4. Photocatalysis as a New Innovative Tool in Organic Synthesis

Speaker: Dr. Martins S. Oderinde, Bristol Myers Squibb, USA

- Photocatalysis harnesses light-activated catalysts to drive organic transformations under mild, environmentally friendly conditions.
- Applications include carbon-carbon and carbon-sulfur bond formation, cyclizations, and cross-coupling reactions, enabling three-dimensional molecular complexity in pharmaceuticals and agrochemicals.

- Dr. Oderinde highlighted the need for interdisciplinary collaboration and infrastructure to integrate photochemistry into industrial and academic innovation pipelines.

Student Symposium and Workshop

- Theme: *"From Laboratory to Society: Student Innovation in Sustainable Chemical Technology."*
- Workshop on Effective Academic Publication, facilitated by Thieme Publishers, with a virtual lecture by Dr. Yingxiao Cai, provided guidance on research writing, peer review, and publishing ethics.
- Students presented projects emphasizing sustainable chemical innovation, societal relevance, and entrepreneurship, highlighting the importance of translating laboratory research into impactful solutions.
- Coordinated by Prof. Atim Johnson, Chair Student Chapter Committee, the symposium strengthened critical thinking, collaboration, and communication skills for emerging chemists.

CA-Supported ACS Nigeria-Industry Relations Promotion and Green Chemistry Session

- Keynote Lecture (Virtual): *"Catalysts and Their Role in Industrial Revolution"* — Dr. Femi F. Oloye, University of Pittsburgh at Bradford, USA
- Panel Discussion: *"Green Environmental Technology"*, moderated by Dr. Sederra Ross, ACS Green Chemistry Institute. Panelists: Engr. Bolarinwa J. Olowe, Prof. Sherifat Aboaba, Mr. Ejikeme Patrick Nwosu, Mr. Aduamigba Owolabi, and Dr. Sumaila Haruna Baba.

Key Recommendations and Highlights

1. **Green Industrial Processes:**
    - Adopting green chemistry across production stages reduces costs, occupational hazards, and environmental impact.
    - Designing green products is crucial for market competitiveness and sustainable innovation.
2. **Waste Valorization and Circular Economy:**
    - Industrial, plastic, organic, and agricultural wastes can be converted into valuable materials, promoting entrepreneurship and job creation.
    - Waste management should be viewed as a business opportunity ("waste-to-wealth") rather than a liability.
3. **Energy Transition:**
    - Reliance on renewable energy reduces production costs and environmental degradation.
    - Non-renewable energy, while historically beneficial, has led to climate change, air pollution, and ecological damage, highlighting the need for sustainable alternatives.
4. **Academia-Industry Synergy:**

- Universities should establish industry boards to guide student projects towards strategic industrial solutions, ensuring research is commercializable and impactful.
- Collaborative, interdisciplinary approaches are essential to tackle engineering, chemical, and environmental challenges.

5. **Government and Individual Initiatives:**
    - Proactive policies are critical, but individuals and organizations must also lead initiatives to implement sustainable chemistry and innovative solutions.

Women Chemists Committee Event Report

Invited Lecture

Topic: *Maintaining a Healthy Work-Life Balance for Women Chemists in Academia and Related Fields*
Speaker: Prof. Olapeju O. Aiyelaagbe (University of Ibadan)

In her insightful presentation, Prof. Aiyelaagbe emphasized that achieving work-life balance for women chemists involves consciously managing the time devoted to professional responsibilities and personal life. She highlighted that professional duties for women chemists often include teaching, research, and student supervision, while family responsibilities may encompass roles as wives, mothers, sisters, grandmothers, and community leaders.

She noted that there is no universal formula for achieving balance; however, several key principles are essential:

- Effective time management
- Recognizing that one cannot do everything
- Distinguishing between what is urgent and what is important
- Setting clear boundaries, including periods of unavailability
- Identifying personal and professional goals
- Seeking and learning from role models
- Creating structured schedules and calendars
- Delegating tasks where possible
- Taking intentional time off for rest and relaxation
- Maintaining a healthy lifestyle, including proper nutrition

She concluded with a strong reminder that excellence is not gender-dependent and encouraged women chemists to pursue their careers with confidence and intentionality.

Panel Discussion: Women Development

The lecture was followed by a robust panel discussion on Women Development featuring:

- Prof. Olapeju O. Aiyelaagbe (University of Ibadan)

- Prof. Olayinka Asekun (University of Lagos)
- Prof. Dorcas O. Moronkola (University of Ibadan)
- Dr. Akande (Ministry of Health)

The panelists shared experiences and perspectives on career progression, leadership, mentorship, and policy support for women in chemistry and related fields. Discussions emphasized the importance of institutional support systems, mentorship networks, and deliberate efforts to empower women in science.

The session reinforced the symposium's broader commitment to inclusivity, leadership development, and sustainable advancement within the chemical sciences community.

Awards and Recognitions

The symposium honored outstanding contributions in STEM research, education, governance, and sustainable chemistry:

Awardee	Category	Recognition
Prof. Kayode Adebowale, mni, FAS	Distinguished Chemist	Advancement of STEM research and leadership as Vice-Chancellor of UI
Dr. Oluwaserimi Ajetunmobi	Distinguished Education	Longstanding impact in STEM education and mentorship
Chief Dotun Sanusi, Esq.	Outstanding Performance in Government	Contributions to STEM education and research in Oyo State
Engr. Bolarinwa Olowe James	Green and Sustainable Chemistry	Advancing sustainable chemical practices in Nigeria and beyond
Chief Saheed Oladele	Distinguished Education	Impactful contributions to STEM education in Oyo State
Prof. Oyewusi Gureje	Distinguished Education	Significant contributions to STEM research and education

Inferences and Observations

1. Chemistry as a Driver of Sustainable Development:
    - Green chemistry, photocatalysis, and radiopharmaceuticals exemplify sustainable, translational, and high-impact research.
2. Interdisciplinary Collaboration:
    - Effective solutions require integration across chemistry, biology, engineering, public health, and entrepreneurship.
3. Education and Capacity Building:
    - Project-based, interdisciplinary curricula equip students to solve real-world challenges and foster innovation.
4. Policy, Industry, and Governance Synergy:
    - Government, industry, and academia must collaborate to strengthen infrastructure, research translation, mentorship, and commercialization.

- Industry participation ensures research has practical, economic, and societal impact.

Recommendations

For Government:

- Strengthen research infrastructure, green technology adoption, and waste valorization policies.
- Support academia-industry partnerships and research commercialization initiatives.
- Foster renewable energy adoption to reduce long-term industrial costs and environmental impact.

For Industry:

- Integrate green chemistry in production to minimize environmental and occupational risks.
- Partner with universities to fund, mentor, and scale student-led innovation projects.
- Engage with students and early-career scientists to drive entrepreneurship and skill development.

For Academia:

- Embed interdisciplinary, project-based, and green chemistry-focused curricula.
- Ensure student projects are industry-relevant, entrepreneurial, and impactful.
- Promote mentorship, publication skills, and commercialization of research to foster innovation.

Conclusion

The 11th ACS Nigeria Annual Symposium demonstrated the pivotal role of chemistry in advancing sustainable development, innovation, and education. Participants engaged in lectures, workshops, student symposia, and panel discussions, highlighting the importance of green chemistry, translational research, industry collaboration, and student entrepreneurship. ACS Nigeria remains committed to scientific excellence, capacity building, and the translation of research into actionable solutions for a sustainable, innovative, and prosperous Nigeria.

Signed

Olatomide Ayodeji Fadare
Chair, Communique Committee

Signed

Omotola Micheal Fayomi
Secretary, Communique Committe