

FASC Newsletter 9, October 2023

The past month was dominated by a good attendance of African chemists at the IUPAC meeting (attendees and committee members) held in the Netherlands and reports are given below. It can be predicted that the Continents involvement will increase in the years ahead. *Neil Coville*.

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Algeria

1st International conference on Environment Technologies and Sustainable Energy (ICETSE2023)

Mauritania

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• Southern Africa







South Africa

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- i) Biophysics in Africa conference,
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DETAILED CONFERENCE INFORMATION

See adverts at the end of the Newsletter

See FASC website for data on conferences https://www.faschem.org/

ABOUT FASC

FASC website

The FASC website is now up and functioning. Information on the FASC history, the updated FASC constitution, old copies of the newsletter, copies of the African Journal of Chemistry etc., has been loaded onto the site. https://www.faschem.org/

FASC membership and invoices

Payment of fees

Online payment is now available to all Members and Societies

Please email <u>fasc.chem@wits.ac.za</u> and request an online payment link – Note it will be in ZAR. The Equivalent daily rate will be used when the payment link is created. You can enter card details via a safe site.

Mrs Laila Smith

Membership Fees

Please apply online: http://www.faschem.org/contact/membership_application

Advertising in the FASC newsletter

The newsletter will provide a means of getting messages to our member countries. This newsletter thus provides a means of advertising employment opportunities, conferences, and workshops, and even for companies/Universities to promote themselves. We encourage member countries to use the Newsletter for advertising purposes. All conferences and events will be advertised for free; if not a FASC country, there could be a small charge. For advertising costs, contact the FASC office in South Africa: laila.smith@wits.ac.za

CHEMISTRY NEWS

FASC news









) FASC Congress first announcement

7th ANNUAL DAYS OF CHEMISTRY OF SENEGAL AND 9th FASC CONGRESSES (FASC|JACS 2024)

Chemistry, a lever for sustainable development of African countries 19-21 November 2024, Radisson Blu Hotel, Dakar Sea Plaza, Senegal

FIRST ANNOUNCEMENT

Overview

Senegal will host the African Chemical Societies for the General Assembly of the Federation of African Societies of Chemistry (FASC), It will be held in conjunction with the Annual Days of Chemistry of Senegal (Journées Annuelles de Chimie du Sénégal - JACS), the major event of the Senegalese Committee for Chemistry (CSC), from 19 to 21 November 2024 at Radisson Blu Hotel, Dakar Sea Plaza, Corniche Ouest, Dakar, Senegal. The conference is themed "Chemistry, a lever for sustainable development of African countries".

FASC|JACS 2024 will be jointly organized by CSC and FASC along with their partners among which are RSC, ACS, IUPAC, OPCW and West African Society of Chemistry (SOACHIM/Senegal) and in collaboration with Senegalese universities. The aim of this conference is not only to bring together Africa's scientific, technological and industrial communities, but also to rethink together a structurally sustainable development centered on mankind and its priority investments. Chemistry is heavily involved in solving problems of African societies linked to health, energy, environment, water supply and nutrition, and therefore plays a key role in the sustainable development of African countries.

The Covid 19 crisis revealed the fragility of African economies and the need for genuine policies of sovereignty in the fields of pharmaceuticals, health, food, energy and more.

Africa has a very low profile at IUPAC. Senegal is one of 4 African countries and the only French-speaking member of IUPAC, with CSC as its National Adhering Organization. This conference is an opportunity for FASC and IUPAC to recruit new members.

Topics

The following topics will be developed around this general theme:

- 1. Green chemistry
- 2. Sustainable materials
- 3. Water and environment
- 4. Electrochemistry and nanotechnology
- 5. Chemistry and health
- 6. Miscellaneous

Abstracts

Abstracts for all oral and poster presentations must be written in English, on a single page, in Word format (1.15 line spacing, Times New Roman font, size 12) and include the title, authors and affiliations, abstract text, keywords and references (if any). Abstracts should be submitted simultaneously by e-mail to the following 3 addresses:

• Prof. Matar Seck: <u>matar.seck@ucad.edu.sn</u>

• Prof. Modou Fall: modou.fall@ucad.edu.sn







IUPAC Reports

There are three African Societies that belong to IUPAC (also many individual members). Below are reports from the three member countries on the recent meeting held in The Hague - Nigeria, Senegal and South Africa.

Nigeria

Women in Chemistry from Nigeria attended the conference in the company of the FASC President, Prof. Gloria U. Obuzor. They are Dr. Ihesinachi Kalagbor, Dr. Cynthia Ibeto, and Dr. Oluseun Popoola. The event featured Technical sessions, Exhibitions, and Plenary sessions which were all inspiring and very informative. We also made presentations at our various Divisions and represented Nigeria at the General Assembly.



Dr. Ihesinachi A. Kalagbor, Rivers State University, Rivers State-Nigeria

Senegal

SENEGALESE PRESENCE AT IUPAC STRENGTHENED

The 52nd General Assembly and the 49th World Congress of Chemistry of the International Union of Pure and Applied Chemistry (IUPAC) were held in The Hague (Netherlands) from 18 to 25 August, 2023. This double event called <u>IUPAC|CHAINS2023</u> saw a honorable participation of the Senegalese Committee for Chemistry (CSC), National Adhering Organization representing Senegal at IUPAC.

During these days, some CSC members were elected to the Union bodies, namely:

- 1. Dr. Maryam Khadim Mbacké, new Titular Member of CHEMRAWN (Committee on Chemical Research Applied to World Needs)
- 2. Prof. Djibril Fall, who becomes Titular Member of Division VII (Chemistry and Human Health)
- 3. Prof. Modou Fall, re-elected Titular Member of Division I (Physical and Biophysical Chemistry)
- 4. Prof. Mayoro Diop, Associate Member of Division II (Inorganic Chemistry)
- 5. Prof. Makhtar Guène, National Representative to CCE (Committee on Chemistry Education).

For her first nomination, Dr. Maryam Khadim. Mbacké is admitted as a Titular member, which is a big performance and a grand premiere for CSC.

The Senegalese delegation participated in several meetings (Divisions I and VII, Presidents' Forum, etc.) and discussed with chemical societies or organizations such as RSC, ACS, OPCW,







etc. These activities made it possible to advertize FACS|JACS 2024, the next General Assembly FASC scheduled in November 2024 in Dakar on the sidelines of the Senegal Annual Chemistry Days and identify very interesting prospects for our event.

https://csc.ucad.sn/ (GoTo Congrès, and navigate).

We recall that Senegal is present at IUPAC, alongside South Africa and Nigeria, the other two representatives of our continent.

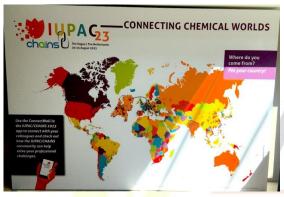


The Senegalese delegation at the IUPAC General Assembly and CSC President and Secretary General of participating during Forum of Presidents of Chemical Societies.

Prof Modou Fall

South Africa

The <u>IUPAC|CHAINS2023</u> conference was held at The Hague, Netherlands (18 – 25 August 2023), themed 'Connecting Chemical Worlds'. The conference comprised three parts: the 52nd IUPAC General Assembly (18-25 Aug), the 49th IUPAC World Chemistry Congress (20-25 Aug), combined with the 11th CHAINS, the largest chemistry congress in the Netherlands (20-25 Aug). The event was organized by the Royal Netherlands Chemical Society (KNCV) and the Dutch Research Council (NWO).





South Africa contributed actively to all parts of this prominent international chemistry conference. The World Chemistry Congress brought together all disciplines of chemistry from both academia and industry in a congress that included both oral and poster sessions. It was inspiring to see abstract submissions from across South Africa (UCT, UP, UNIVEN, Wits, NWU, UKZN, VUT, MUT, UJ, Mintek, NIC) and from the continent (Nigeria and Botswana).

From the <u>IUPAC General Assembly and Council meetings</u>, it was encouraging to see that South Africans are prominently holding representation in various facets within the IUPAC governance structures. Dr Greta Heydenrych (formerly from University of Stellenbosch) is appointed as the <u>Executive Director of IUPAC</u> (from 2022). Profs. Peter Mallon and Willem van Otterlo (University of Stellenbosch) together with Dr Sadhna Mathura (University of the Witwatersrand)







represent South Africa and the National Adhering Organisation (NAO) as voting delegates at IUPAC Council.

Further, Prof. Mallon has been elected to Division IV (Polymer) as vice president (2024-2027). Prof. Marietjie Potgieter (University of Pretoria) serves as Chair on the Committee for Chemistry Education (2022-2025). Prof. Alan Hutton (University of Cape Town) serves as titular member for Division VIII (Nomenclature). Further, Profs. Patricia Forbes (University of Pretoria) and Willem van Otterlo, together with Dr Sadhna Mathura, currently serve as National Representatives (South Africa) for Division V (Analytical), Division III (Organic), and Division II (Inorganic), respectively. It was inspiring to see our younger chemists also part of IUPAC governance. Doctoral student Ms Bianca Davids (University of the Witwatersrand) is the current Chair of the International Younger Chemists Network, a subcommittee of IUPAC.







Dr Sadhna Mathura, School of Chemistry, University of the Witwatersrand

African Chemical Societies and Other News

i) Senegal

Senegal will host the African Chemical Societies for the General Assembly of the Federation of African Societies of Chemistry (FASC), It will be held in conjunction with the Annual Days of Chemistry of Senegal (Journées Annuelles de Chimie du Sénégal - JACS), the major event of the Senegalese Committee for Chemistry (CSC), from 19 to 21 November 2024 at Radisson Blu Hotel, Dakar Sea Plaza, Corniche Ouest, Dakar, Senegal. The conference is themed "Chemistry, a lever for sustainable development of African countries" (see above for more details).

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ii) Mauritania







The Mauritanian Chemical Society are organising their fourth International Chemistry Days (JIC 2023), 09 to 11 December 2023 at the Nouakchott Hotel; Nouakchot; Mauritania. https://www.scmauritania.org/jic2023/

Contact M A Sanhoury (JIC 2023 Committee) for information; also, the advert at the end of the newsletter

iii) Mauritius

A successful Virtual Conference on Chemistry and its Applications was recently held in Mauritius. Refer to the link below for the final book of abstracts:

https://drive.google.com/file/d/1cDP-yL0nSV0k7z383pbDVz-XMNe7p3Fx/view?usp=sharing

The link to the conference platform is:

https://sites.google.com/uom.ac.mu/vcca-2023-presentations

The first Science Leadership Programme in Mauritius was also held at the same time and it was a success.

Dr Lydia Rhyman, University of Mauritius

Welcome Message (to the delegates)

It is one decade that we started with the organisation of an annual virtual conference. The 2023 edition of the virtual Conference on Chemistry and its Applications, VCCA-2023, will be held from 7th to 11th August 2023. The theme for VCCA-2023 is "Chemistry and Interdisciplinary Research towards SDGs". Research in chemical and interdisciplinary sciences can contribute to solving problems the world is facing and can also contribute to achieve sustainable development goals. VCCA offers an opportunity for researchers to present their work, interact using a virtual platform, discuss problems and find possible solutions. There will also be a virtual social gathering for networking purpose. Virtual conference has gained popularity and one of the advantages is the lower cost involved for participation. One simply has to have access to the internet or e-mail to be involved in the conference and one does not have to always be online. To date, 550 participants from 53 countries have registered for the conference. We received 151 abstracts for 11 keynote presentations and 140 presentations. As part of VCCA-2023, we will mark the Schrödinger Day and the International Youth Day on 10th and 11th August 2023 to commemorate the birth anniversary of Erwin Schrödinger by holding a workshop entitled "Science Leadership Programme for Doctoral Students". The workshop aims at developing the participants in the areas of thought leadership, team development, engagement and collaboration which are important in the professional and career growth of tomorrow's leaders. In addition, we will have live sessions with scientific editors from Wiley and the Royal Society of Chemistry. To conclude, we would like to thank the International Advisory Members and reviewers of the abstracts. We would also like to acknowledge the endorsement of the virtual conference by IUPAC and the support from Wiley, De Gruyter, Elsevier, the Organisation of the Prohibition of Chemical Weapons, the Royal Society of Chemistry, UNESCO, the Federation of African Societies of Chemistry and the Africa Science Leadership Programme. We are planning to have the proceedings of VCCA-2023 as publications in Pure and Applied Chemistry and a book of proceedings to be published by De Gruyter. We would also like to acknowledge all facilities from the University of Mauritius. We look forward to your participation and we hope that one will have an enriching experience extending over one week.

Professor Ponnadurai Ramasami







Chairman of VCCA-2023 (Taken from conference booklet)

iv) Ghana

A successful event was held in Ghana (7th September) to consider the direction of the Ghana Chemical Society. The advert for the past event is give below. The Keynote speaker was Prof James Darkwa who gave a presentation entitled "How Do You Position The Ghana Chemical Society (GCS) to be Visible in International Circles? In Africa and Around the World"



v) Lesotho

The Chemical Society of Lesotho, in Partnership with the Department of Chemistry and Chemical Technology, NUL, will present *The Annual Mole Day Celebration Symposium* on the 27th October 2023.

Background

The Mole Day is a chemistry "holiday" celebrated each year between 6:02 a.m. and 6:02 p.m. on October 23rd. Mole Day traces its origins to an article that appeared in *The Science Teacher* magazine in the early 1980s about a high school chemistry teacher's reasons for celebrating the day. The National Mole Day Foundation was formed on May 15th, 1991 and today Mole Day is celebrated around the world.

The Mole Concept

The mole (symbol: mol) is an important unit in chemistry. It is the SI <u>base unit</u> of <u>amount of substance</u> ("number of substance") in the <u>International System of units</u>. Chemical reactions often take place at levels where using grams or units of volume (mL or L) wouldn't make sense, yet, because of their extremely small size, using absolute numbers of atoms/molecules/ions would be confusing, too.

Like all units, a mole has to be based on something reproducible. Traditionally, a mole was defined as the quantity of anything that has the same number of particles found in 12.000 grams of







carbon-12. That number of particles is <u>Avogadro's Number</u>, which is rounded to 6.02×10^{23} . A mole of carbon atoms is 6.02×10^{23} carbon atoms; a mole of peaches is 6.02×10^{23} peaches; mole of chemistry teachers is 6.02×10^{23} chemistry teachers. The current definition of the mole, defined as exactly $6.022 \times 140 \times 10^{23}$ particles, was adopted in Nov. 2018, to revise the old definition based on the number of atoms in 12 grams of carbon-12.

We use the mole instead of regular units like grams, kilograms, nanograms, etc., because the moles gives us a consistent method to convert between atoms/molecules and grams. It's simply a convenient unit to use when performing calculations.

Call for Abstracts

Abstracts are invited from all interested chemists, members and non-members, for the Mole Day Celebration Mini-conference. Themes should be around the mole concept, stoichiometry, teaching of the mole/stoichiometry, theoretical aspects, etc.

Abstracts should be submitted to chemsol2021@gmail.com, cc t.mahamo@gmail.com and mseloanyane@gmail.com

Abstract Submission Deadline: 29th September 2023

N.B.: For those who can join virtually, links will be provided in due course.

African Physical Society

From: African Physical Society - Biophysics in Africa <secretariat@africanphysicalsociety.org> **Subject:** "Reminder: Call for abstracts and registrations - Biophysics in Africa Conference (25-29 September by Zoom)

Ig Nobel awards 2023

Taken from C&EN | CEN.ACS.ORG | SEPTEMBER 11, 2023 p40: Newscripts

Curating quirky science since 1943

2023 Ig Nobel Prizes

A scientist who likes to lick rocks, researchers who reanimated dead spiders, and the inventor of a smart toilet garnered awards at the 33rd Ig Nobel Prize ceremony. The humorous honors, which are given for "achievements that first make people LAUGH, and then THINK," were presented during a virtual celebration Sept. 14.

The satirical magazine Annals of Improbable Research produced the event, and its editor, Marc Abrahams, a commander of comedy, served as master of ceremonies.

This year's Chemistry Prize and Geology Prize were awarded jointly to the University of Leicester's Jan Zalasiewicz for his work explaining why scientists like to lick rocks in the essay "Eating Fossils," which appeared in the Nov. 2017 issue of the Palaeontology Newsletter. Licking a rock is an important technique, Zalasiewicz writes. "Wetting the surface allows fossil and mineral textures to stand out sharply, rather than being lost in the blur of intersecting microreflections and micro-refractions that come out of a dry surface."

And finally, the Physics Prize went to a team led by the University of Southampton's Bieito Fernández Castro "for measuring the extent to which ocean-water mixing is affected by the sexual activity of anchovies" (Nat. Geosci. 2022, DOI: 10.1038/s41561-022-00916-3). A recording of







the Ig Nobel ceremony will be available at youtube.com/improbableresearch. National Public Radio's Science Friday will air an edited recording of it Nov. 24, the day after US Thanksgiving

Bethany Halford wrote this week's column. Please send comments and suggestions to newscripts@acs.org

Emerging Chemists' News

Doctoral student Ms Bianca Davids (University of the Witwatersrand) was elected as the current Chair of the <u>International Younger Chemists Network</u>, a subcommittee of IUPAC at the recent IUPAC meeting

African Light Source Project



African Light Source Strategic Task Force Workshop on African Regional Infrastructure

Tuesday, 10 October, 2023 15h -17h40 GMT+2 by Zoom

The Roadmap towards an African light source requires local, national and regional X-ray related research infrastructure to be developed with a large footprint in Africa. African regional infrastructures are research infrastructures that are both highly competitive in their own right but also seen as important training and feeder infrastructures to an African light source. Some current examples are the OpenLabs started in several African countries together by the IUCr, X-TechLab in Benin, and the Electron Microscope Unit in Cape Town.

This workshop will specifically explore the science and technology of so-called compact light source (CLS) machines. Instead of using permanent magnets to bend the path of electrons, CLS machines use the magnetic field of a laser. That allows for machines that have a much smaller physical footprint and are much cheaper to build and operate. While large storage ring, and XFEL facilities can be the size of many football fields, and cost upwards of \$1b USD in construction plus 10% of that to operate per year, CLS machines can cost \$20-30m USD to procure, and less than 10% of that to operate per year.









Royal Society of Chemistry News



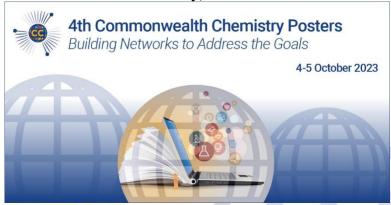
i) PACN meeting in Kenya;

This meeting will now take place in late 2024. More information will be available later in the year

Commonwealth Chemistry

i) 4th Commonwealth Chemistry Posters

Please note that Commonwealth Chemistry Posters is only open to those currently residing in a Commonwealth country, or those who are Commonwealth nationals.



https://commonwealthchemistry.org/event/4th-commonwealth-chemistry-posters/

secretariat@commonwealthchemistry.org

4 - 5 October 2023

We hope you are all well and are looking forward to the poster event taking place next week. We have almost 250 abstracts submitted across 13 of the 17 SDGs and we have approximately 600 people registered to attend. For those of you who have not yet registered to attend the event, you can do so via the following link: https://www.eventsforce.net/rsc/2840/register

Session times are as follows:

Session #1 - 4th October 15:00 - 17:00 GMT/UTC

Session #2 - 5th October 00:00 - 02:00 GMT/UTC







Session #3 - 5th October 08:00 - 10:00 GMT/UTC

The timings of the sessions listed above are in GMT/UTC, however attached is a document that shows the session times in your local time zone in case that is easier.

Publishing Q&A session

We have been approached by the RSC to see if we would like a member of their Publishing department to set-up a formal networking room where they will be located during the sessions to field any questions on how to get published/publishing processes etc. This is not a promotional opportunity for the specific journals, but is intended to be a Q&A session on wider, more generic publishing advice or challenges.

Rachel Thompson, Programme Manager, Commonwealth Chemistry, Royal Society of Chemistry, <u>www.rsc.org</u>

African Journals of Chemistry

African Journal of Chemical Education (FASC)

Enquiries and manuscripts should be addressed to the Editor-in-Chief: email <u>eic@faschem.org</u>, PO Box 2305, Addis Ababa, Ethiopia.

Dr. Temechegn Engida e-mail: temechegne@faschem.org

See the FASC website for a complete list of Journals

CONFERENCES/WORSHOPS (AFRICA)

See the FASC webpage for more details on the conferences listed below

West Africa

Nothing to report

North Africa

Algeria

• 1st International conference on Environment Technologies and Sustainable Energy (ICETSE2023), October 17-18, 2023, Tipaza, Algeria www.icetse.crapc.dz

Mauritania

• **Fourth International Chemistry Days** (JIC 2023), 09-11 December 2023, Nouakchott Hotel; Nouakchot; Mauritania. https://www.scmauritania.org/jic2023/

Southern Africa

South Africa

• CATSA 2023, Catalysis Society of South Africa, Mossel Bay, South Africa. 14–17th November 2023







- 16th Frank Warren conference (organic chemistry) 3-6 Dec 2023, Polokwane, South Africa. https://www.saci.co.za/FW2023/
- SACI Inorganic and Carman 2024 4-6th June 2024, Drakensberg Mountains, South Africa
- Analitika 2024 0-14th March, 2024, Drakensberg Mountains, South Africa

Conferences/Workshops (International)





Annual Mole Day Celebration Symposium

27th October 2023

09:30 Hrs

ISAS Auditorium, NUL







Abstracts should be submitted to chemsol2021@gmail.com, cc t.mahamo@gmail.com and mseloanyane@gmail.com

Abstract Submission Deadline: 29th September 2023

N.B.: For those who can join virtually, links will be provided in due course.







Federation of African Societies of Chemistry





