

Annual Report
of the
South African Chemical Institute

18th August 2021 to 25th August 2022



THE SOUTH AFRICAN
CHEMICAL INSTITUTE

COUNCIL
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President	Prof W Van Otterlo
Vice President	Prof Z Tshentu
Immediate Past President	Prof P Mallon
Executive Secretary	Prof N Bathori
Executive Treasurer	Mrs S Finney
Co-opted Member	Prof C Nkambule
Co-opted Member	Prof C Billing
Co-opted Member	Prof V Nyamori
Co-opted Member	Prof B Martincigh
SACI Student Representative (Immediate past)	Ms Megan Matthews

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Publicity	Prof B Martincigh
Webmaster	Mrs L Smith
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SACNASP	Prof E Breet
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Eastern Cape	Dr R Krause
SACI North	Prof C Nkambule
SACI Central	Dr M Smith
Kwazulu-Natal	Prof B Owaga
Western Cape	Prof D Beukes

Chairpersons of Divisions

Analytical Chemistry	Prof N Nindi
Chemical Education	Prof H Drummond
Chromatography (ChromSA)	Mrs B Hickman Mosdell
Electrochemistry	Prof O Arotiba
Environmental Chemistry	Prof OJ Okonkwo
Mass Spectrometry (SAAMS)	Ms M Linsky
Industrial Chemistry	Mrs S Finney
Inorganic Chemistry	Prof D Billing
Molecular Modelling	Prof C van Sittert
Organic Chemistry	Dr C Veale
Physical Chemistry	Prof D Haynes (Interim)
Green Chemistry	Prof R Klein
ThermSA	Prof L van der Merwe

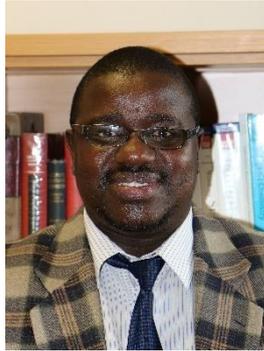
Forum

Chemists for Diversity and Inclusivity (CDI)	Dr S Mathura
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OFFICE BEARERS



Prof W van Otterlo
President



Prof Z Tshentu
Vice-President



Prof P Mallon
Immediate Past- President



Prof N Bathori
Executive Secretary



Mrs S Finney
Executive Treasurer



Prof B Martincigh
Co-opted Member



Prof V Nyamori
Co-opted Member



Prof C Nkambule
Co-opted Member



Prof C Billing
Co-opted Member

MEETINGS

Council meetings were held on:
18th August 2021 (AGM)
Executive Committee meetings were held on:
25th November 2021, 8th February 2022, 2nd June 2022
and 25th July 2022

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PRESIDENT'S REPORT

At the last Council meeting in August 2021, the then SACI President Prof. Peter Mallon, noted in his report that he hoped 2022 would be less affected by the Covid-19 pandemic restrictions. Finally, after a period of two-and-a-half years it now does appear that life has reached a new equilibrium. In August 2021, who would have thought that only in July 2022 our academic institutions and more administrative work environments would be back to full face-to-face interactions. So, my first point of my report-back for 2021/2022 is that it was still a difficult year, experienced on a very personal level by many SACI members due to Covid-19's impact on their lives and the economic impact of pandemic restrictions. Keeping these sobering ideas in mind, I will now try to highlight some of the "silver-linings" of the year (whilst also acknowledging Peter's wise leadership during the previous tough years!) One of the most obvious outcomes of the periods of separation and work-from-home has been the onset of "on-line" meetings and hopefully judicious use of this technology has meant that SACI's volunteers have been able to engage productively without breaking the bank during these lean times.

Secondly, I'd like to start the positives by warmly acknowledging and thanking the SACI Exco team, as well as all the other volunteer leaders, exemplified by the Institute's Division and Sections heads, as well as the SAJChem leadership. Our in-house "multi-tasker" (Mrs Laila Smith) again needs to be thanked for being the engine in the SACI ship – Exco provides the direction, but Laila certainly provides the institutional know-how in terms of how to get things done!

My third point involves exciting news! – I'm sure that all Council members will by now have received the invitation to attend the 44th SACI National Convention, which will be held at Stellenbosch University over the period 8-13 January 2023 – see the website at this address: <https://www.saci.co.za/SACI2023/index.html>. Of importance too is that the Convention will form an integral part of the South African contribution to the International Year of Basic Sciences for Sustainable Development (IYBSSD 2022/2023), as overseen by the Academy of Science of South Africa (ASSAf). This convention will be held over 5.5 days, and apart from the usual chemistry themes organized by our Divisions, will also include SACI award lectures and special sessions representing the 19th Inorganic-Carman Conference, an American Chemical Society-sponsored "Global Innovation Imperatives" meeting on "Medicinal Drugs and Devices", and focused sessions on Young Chemists, Polymer Science, NMR Spectroscopy etc. So far, more than 30 invited speakers (including many SACI award winners), local and from abroad, have confirmed their attendance, and registrations for oral and poster sessions are now open. Since this is the Institute's first National Convention in 4 years (!), after the one hosted by the Gauteng North section in 2018, I would like to encourage all SACI members to start the 2023 year with a chemical "bang" and to attend this important event. Bursaries for postgraduate and postdoctoral attendees are available, and we would encourage any potential sponsors to contact the organizing committee. This committee, under the able leadership of Chair, Prof. Catharine Esterhuysen, and Vice-Chair, Prof. Delia Haynes, have since the middle of 2022 been hard at work organizing all the not-so-inconsequential logistics of organizing a major convention at short notice, and I would thus like to express my gratitude on behalf of Council to the SACI members involved in this task.

Furthermore– in terms of further recognition, for their valuable contributions to the Institute's initiatives, I would like to mention the following:

- a) Profs Cornie van Sittert (current editor-in-chief), Patricia Forbes (immediate past editor-in-chief) & Gert Kruger (rotating in editor-in-chief), need to be lauded for their continuing efforts at the Institute's South African Journal of Chemistry. Their work includes maintaining the excellent standards at the journal and I would encourage SACI members to consider submitting their research and reviews through the journal's submission system at <https://journals.co.za/journal/chem/submit>.
- b) Ms Megan Mathews, Ms Bianca Davids and other Divisional and Sectional Young Chemist leaders are gratefully recognized for their initiatives during the 2021/2022 year. The regional and national Young Chemists Symposia have been some of the most successful SACI events during the last two years and tangible evidence of the types of benefits members can enjoy by being part of our Institute.
- c) All the active SACI Divisional and Sectional leadership, be it regional or within the thematic divisions, are acknowledged for their important efforts in providing opportunities for SACI members to engage with fellow chemists. Your volunteering spirit is lauded and fully appreciated by the SACI Council!
- d) All SACI members involved in the successful migration of all our PrChemSA members to SACNASP, including Profs Ernst Breet, Peter Mallon and Zenixole (Zeni) Tshentu, as well as Mrs Suzanne Finney and Laila Smith. This finalization has also allowed us to vote on the acceptance of the new SACI constitution, as communicated to all members recently.
- e) SACI Exco members are also thanked for their valuable input and leadership in terms of their portfolios – Prof. Zenixole (Zeni) Tshentu (Vice-president, SACI prizes & Fellowships), Prof. Nikoletta (Niki) Báthori (Executive Secretary), Mrs Suzanne Finney (Executive Treasurer), Ms Megan Mathews (Student Representative) and Immediate Past President, Prof Peter Mallon, and the other “co-opted members” - Prof Caren Billing, Vincent Nyamori, Bice Martincigh & Comfort Nkambule, are all gratefully acknowledged for their valuable insight and wisdom.

Finally, in terms of “rands and cents”, despite the tough financial year, I would like to thank the dedicated SACI members for continuing to pay their membership fees. I would also register admiration of the eagle-eyed Laila for providing membership support and related accounting, acknowledge SACI Exco for overseeing operation “lean” and finally give credit to the accounting prowess of our SACI Treasurer, Mrs Suzanne Finney, for her guidance and wisdom in terms of the Institute's financial affairs. A shout out too to Prof. Zenixole (Zeni) Tshentu for his ongoing discussions with various industry partners in terms of sponsorships for some of the Institute's awards and our appreciation is mentioned for SASOL and Merck for their positive engagement in terms of generous support. I'm cautiously optimistic that with an uptick in membership numbers due to the National Convention on the horizon, as well as the Institute's increased visibility through national and thematic SACI Division activities, the Institute will be able to charter a financially sustainable course in the years ahead. Important changes to the way professional chemists are registered (mentioned above), a process which will now involve SACNASP registration and SACI membership, in addition to a re-activation of our SACI Industrial Chemistry Division should also mean that the numbers of industrially-active members should see an increase.

Regarding some news from the “5 year SACI goals” initiative implemented under the last President's watch, I can report back that the goal to build stronger relationships with

other Chemical organizations has already had some positive outcomes. This includes SACI's involvement with the Commonwealth Chemistry Federation of Chemical Sciences Societies (CC), culminating recently in one of our past-President's – Prof. Neil Coville – well deserved elevation to the President-elect position of the CC! The strengthening of ties with the Federation of African Societies of Chemistry (FASC) and other international societies means that our Institute is well on its way to becoming a gateway for intra-Africa and other international interactions. For example, in the case of the CC there is now an opportunity for South African Early Career Chemists to join the SA delegation at the CC's Second Commonwealth Chemistry Congress in Trinidad in May next year!

I would also mention the launch of the new 'Chemists for Diversity and Inclusion' initiative, which is also part of our Institute's strategic priorities and a worthy outcome from the "5 year SACI goals" initiative! The core focus of this forum is to ensure that "SACI is committed to nurturing the values of diversity, inclusivity and equity in the chemical sciences" and the first discussions held during the past year have been insightful and inspiring. My thanks to Dr Sadhna Mathura, Prof. Bice Martincigh, Prof. Nikoletta Báthori, Ms Bianca Davids and Ms Laila Smith for being instrumental in the setting up of this important initiative.

In terms of some goals for my second year ahead, I'm going to stay heavily involved in the SACI 44th National Convention at Stellenbosch (and encourage all SACI members to attend), will endeavor to refocus Exco on the 5 year goal plans for the Institute, will try to interact with as many of the Divisions as possible in the year ahead (please remember to send me invites for any on-line events) and lastly, will start the process of redesigning and reinvigorating the Institute's webpage, with the aim of providing members with a more modern and informative web platform.

Finally, I would like to thank all chemists who gave their time to further the Institute's mission – through the volunteerism demonstrated by Council, Exco and ordinary Institute members across the country, it has ensured that engagement with SACI is an enriching experience that benefits chemists and chemistry across South Africa. I am optimistic that despite the potential challenges ahead, because of the opportunities on the radar and the quality of its members, the next year will be a constructive period in the Institute's history.

Prof WAL van Otterlo
President of SACI 2021-2023

AWARDS 2021

2022 awards will be announced at the AGM

THE GOLD MEDAL

The award, a gold-plated medal bearing the Institute's name and crest on the obverse and name of the medal and the recipient and date on the reverse, is made to a person whose scientific contribution in the field of chemistry or chemical technology is adjudged to be of outstanding merit.

Prof Fanie R. van Heerden
University of KwaZulu-Natal

THE MERCK MEDAL

The medal is awarded to the senior author of the paper, or papers, published in the South African Journal of Chemistry in a specific field of chemistry, adjudged to have made the most significant contributions to the discipline. The award for 2021, covering papers published in the period 2015 to 2020, was the most cited (without self-citation) SA authored paper in the field of Chemistry.

Rabelani Mudzielwana, Mugera W. Gitari,* Segun A. Akinyemi, and Titus A.M. Msagati

***S. Afr. J. Chem.*, 2018, 71, 15–23,**

**Performance of Mn²⁺-modified Bentonite Clay for the
Removal of Fluoride from Aqueous Solution**

THE SACI POST-GRADUATE AWARDS

The awards shall be made to student members of the Institute engaged in research towards a MSc or PhD degree and registered in a School/Department of Chemistry at a South African University, or a MTech or DTech degree registered in a School/Department of Chemistry at a South African University of Technology. The number of medals awarded shall not exceed five per annum, and the awards are limited to one per institution. Past SACI/Sasol Postgraduate Awardees are not eligible for nomination for a second award of the medal. The recipients of the award shall be known as The SACI Postgraduate Awardees.

Dr Sifiso Nsibande – University of the Pretoria

Ms Pumza Mente – University of the Witwatersrand

Mr Akeem Akinfenwa – Cape Peninsula University of Technology

THE CHEMICAL EDUCATION MEDAL

The award is made to a person who has made an outstanding contribution to chemical education as judged by the person's published work in the previous 5 years. Published work may be in any form and may be related to any level or educational context.

Dr Rene Toerien

Rondebosch Boys' High School

THE RAIKES MEDAL

The award shall be made to a person, under the age of 40 on 31 March in the year of the award, whose original chemical research shows outstanding promise, as judged by the person's publications in reputable journals. It is further stipulated that the research shall have been performed in South Africa. [For this award, Profs Mallon and van Otterlo recused themselves from the Awards Committee due to a COI. Mrs Suzanne Finney (Executive Treasurer) and Prof. Zenixole Tshentu (Executive Secretary) were therefore invited to join Prof. Vincent Nyamori on the Awards Committee to evaluate the reviewers' reports for this award).

Dr Katherine de Villiers

Stellenbosch University

THE JAMES MOIR MEDALS

Medals shall be awarded to the best fourth year student in chemistry at each University and University of Technology. To be eligible for the award the student must have achieved a minimum average final pass mark of 75%.

Awardees	University
Mr KS Masotla	University of Limpopo
Mr Z Johnston	University of Pretoria
Mr AI Nemudzivhadi	University of Venda
Mr I Vawda	University of KwaZulu-Natal
Ms AG Sekopelo	North West University
Ms N Teixeira	University of Cape Town
Ms M Reed	Nelson Mandela University
Ms L Masemola	Tshwane University of Technology
Ms H van Dyk	University of the Free state
Ms CM Bemiah	Durban University of Technology
Ms K Heinrich	Stellenbosch University
Mr M Bracken	University of the Witwatersrand
Mr CN Chiyumba	Rhodes University

MEMBERSHIP REPORT

1.1 General membership figures (30 April 2022)

	Apr-19	Apr-20	Apr-21	Apr-22
Paying Members				
Corporate Members	388	370	402	430
RPL Member	0	3	4	2
Retired Members	15	12	11	13
Associate Members Old	33	22	18	14
Associate Members New	47	46	44	59
Married Associates	2	1	1	1
Students (Paying)	348	262	271	229
Patron Members	2	1	1	1
Company members	6	4	4	7
Post Doc	62	60	73	85
Total Paying	903	781	829	841
Non-Paying Members				
Honorary Members	17	17	17	17
Life Members	104	103	106	103
Students Honours (non-Paying)	15	50	65	46
Teachers	35	36	41	42
Under Graduate Students	35	69	72	51
Student representatives	11	11	11	14
Total Non-Paying	217	286	312	273
Total SACI members	1120	1067	1141	1114
PrChemSA Total approved	81	59	55	0
Fellows	26	31	40	43

Divisions	2021	2022
Analytical Chemistry Division	532	509
Chemical Education Division	158	144
Chromatography Division	166	152
ThermSA	67	62
Environmental Division	315	294
Industrial Chemistry Division	278	262
Inorganic Chemistry Division	256	246
Organic Chemistry Division	364	349
Electrochemistry Division	112	111
Green Chemistry Division	202	223
Physical Chemistry Division	213	210
Molecular Modelling Division	54	66
Mass Spectrometry Division	134	129

Sections	2021	2022
Western Cape	182	174
Kwazulu Natal	150	144
North	245	214
Central	507	558
Eastern Cape	79	98
International Members	66	45

Employment Sector	2021	2022
Academia	790	759
Industry	233	227
Public sector	12	12

Patron Member

Bruker South Africa (Pty) Ltd

Company Members

PerkinElmer South Africa
Separation Scientific SA (Pty) Ltd
Microsep (Pty) Ltd
Merck (Pty) Ltd
Consol Glass Pty Ltd
Wildlife Pharmaceuticals (Pty) Ltd
Gauteng Refinery (Pty) Ltd

The total number of SACI members shows a slight decrease, but the number of paying members increased compared to April 2021 data. There are noteworthy increases in the membership of the Green Chemistry and Molecular Modelling divisions. Membership is growing in the Eastern Cape and the Central Sections.

1.2 Life members 2022

Life members will be announced at the AGM once approved by Council. A report will be tabled at Council.

1.3 Fellow of SACI (FSACI) 2022

Fellows will be announced at the AGM once approved by Council. A report will be tabled at Council.

1.4 PrChemSA migration to Pr.Sci.Nat. (Chem.) under SACNASP

Eight past PrChemSA members are waiting for approval from SACNASP, currently.

1.5 Membership fees for 2022/2023

1. Member (R1080)
2. Associate Member (R1080)
3. Retired Member (R280)
4. Patron Member (R19780)
5. Company Member (R9870)
6. Student Member - Undergraduate Chemistry Student (Free membership)
7. Student Member - Honours/BTech/PG Dip (Free membership)
8. Student Member - MSc/PhD/MTech/DTech (R200)
9. Post-Doctoral Member (R280)
10. Secondary School - Chemistry Teacher (Free membership)
11. Life Membership (Free membership, must have been a member of the institute for 35 or more years and be over 70 years of age).
12. SACI Fellow Membership (By prestigious appointment of a full SACI member in good standing with the Institute. One must have been a member of the Institute for at least ten years. In addition, they must have demonstrated excellence and leadership in the areas of both: (a) the profession, education and/or management of chemistry, and (b) volunteer service to the chemical community.)

1.6 Regulations Governing Admission and method of application

The annual subscription year runs from 1st July to 30th June each year. The subscription of members admitted between 1st January and 30th June is reduced by one-half.

1. Corporate Member

The Council may admit as a Member:

A person who has completed a course in any branch of chemistry that is equivalent to NQF level 8, and has been granted a degree, diploma or certificate of an approved examining body, and (except in special cases) who has been engaged in full-time chemical work or further study in chemistry for at least three years; in exceptional circumstances, any person whose position and experience in chemistry justifies such admission.

2. Associate Member

The Council may admit as an Associate Member:

A person regardless of qualification and experience, who is passionate about chemistry.

3. Patron and Company Members

Any company interested in chemistry and chemical technology is eligible for election as a Patron or as a Company Member.

Patron members can get up to 10 members within their company to get SACI benefits and discounts for registration at SACI conferences and conventions. Patron companies get a 15% discount on exhibition space at SACI conferences and conventions, and free advertising in SACI newsletter and website.

Company members can get up to 5 members within their company to get SACI benefits and discounts for registration at SACI conferences and conventions. Companies get a 10% discount to exhibit at SACI conferences and conventions, and free advertising in SACI newsletter and website.

4. Students in Training

Bona fide students studying with the objective of qualifying for the practice of chemistry, and being not less than 17 years old, may be admitted as Student Members and shall be allowed reduced subscriptions.

5. Free membership to undergraduate and honours students registered at Chemistry department of Institutions – proof of registration will be required on the application form

Method of application:

Complete the online application form at

http://www.saci.co.za/apply_for_membership.html.

Note particularly the need to identify three referees, at least one of whom is a Member of the SA Chemical Institute. Make sure you have filled in an email address.

Obtain documentary evidence (e.g. official letters, degrees or diploma certificates, or certified copies of these) of your experience and qualifications and attach it to

the online application.

Once the application has been processed and approved, you will receive an invoice from Head Office with banking details.

When payment is made, please use your membership number as reference. The annual subscription year runs from 1st July to 30th June each year. The subscription of members admitted between 1st January and 30th June is reduced by one-half.

1.7 Benefits of Belonging to SACI

1. SACI is the only body in South Africa which is concerned solely with the promotion of the interests of chemistry and chemists. This involves representation on SACNASP, NSTF/SETAG, CHIETA and other government and non-government organizations.
2. SACI has both a geographical (in terms of Sections, namely Central (Gauteng, North-West and Free State), North (Limpopo and Mpumalanga), Western Cape, Eastern Cape and KwaZulu-Natal) and a discipline-based structure. The thirteen Divisions include Analytical, Environmental, Industrial, Inorganic, Organic and Physical chemistry, Molecular modelling, Electrochemistry, Chemical education, Green chemistry, ThermSA, ChromSA and SAAMS.
3. Membership is open to all those with qualifications in chemistry or have an interest in chemistry.
4. SACI holds a Convention every three years. Many of the Divisions also hold regular biennial specialist conferences.
5. Reduced registration fees apply for SACI members to SACI-sponsored conferences and workshops.
6. Membership of SACI entitles chemists to join IUPAC, and enjoy access to IUPAC publications and services.
7. SACI publishes an electronic research journal, the South African Journal of Chemistry, which is Open-Access and part of the Scielo platform. It is indexed by Chemical Abstracts Service (CAS), Current Web Contents, Chemistry Citation Index, Index to Scientific Reviews and Speleological Abstracts. It is accredited by DHET.
8. SACI makes annual awards to its members recognizing outstanding achievements by chemists.
9. SACI fosters and encourages student participation in events of interest to chemists, such as Young Chemists' Events, research colloquia, postgraduate symposia, etc.
10. SACI publishes a monthly newsletter, which reports news and events of interest to chemists.
11. SACI has links with other related institutions and associations, for example the South African Institution of Chemical Engineers, the Chemical and Allied Industries Association, American Chemical Society (ACS), Royal Society of Chemistry (RSC) and the European Federation for Medicinal Chemistry (EFMC).
12. Membership of SACI gives benefits when attending RSC events.
14. SACI carries out an annual salary survey.
15. Access to SACI webpages is by membership only. Non-members have limited access.

Prof N Bathori
Executive Secretary

PROGRAMME COMMITTEE

1 SACI National Programme (2016-2026)

Date	Convention*	Inorganic/Carman*	Org/Frank Warren*	Analitika/ChromSA/SAAMS	Electrochemistry	Others
2016			14th Frank Warren, 4 - 8 December 2016, Eastern Cape	ChromSA/SAAMS: 11 - 14 Sept 2016, Vanderbijlpark, Gauteng		Fluorine Conf, Feb 2016 Cape Town; 27th CATSA annual conference; hosted by University of Johannesburg
2017		18th Inorganic/Carman Chemistry Conference, Western Cape; 25 - 29 June 2017				28th CATSA annual conference 19-22 November 2017, Pilanesberg-hosted by the ULUNISA
2018	43rd SACI Convention, North Section (Gauteng North of the Jukskei river, Limpopo and Mpumalanga); 2 - 7 December 2018			Analitika; 22 - 26 July 2018, Gauteng	4th International Symposium on Electrochemistry; 3-5 April 2018	29th CATSA annual conference 11 - 14 November 2018; Legend Golf & Safari Resort
2019			15th Frank Warren, KwaZulu-Natal, 7-11 July 2019, Alpine Heath Resort		5th International Symposium on Electrochemistry; 11-14 Aug 2019	30th CATSA annual conference; 5th International Symposium on Electrochemistry 11-14 August 2019
2020						1st Commonwealth Chemistry Posters 18-20 May - hosted by RSC
2021						31st CATSA annual conference (7-10 Nov), The 1st Commonwealth Chemistry Congress, 18 - 20 May 2021 and 2nd Commonwealth Chemistry Posters 30 Sept-01 Oct 2021 - both hosted by RSC
2022						3rd Commonwealth Chemistry Posters - hosted by RSC dates TBC; 32nd CATSA annual conference (13 - 16 Nov); ABC Chem Conf., Marrakech, Morocco, 13-16 Dec; 26th KCCE (Chem. Ed.) July
2023	44th SACI Convention, Western Cape, Stellenbosch, 9-13 January 2023 (inc. 19th Inorg/Carman Conf)		16th Frank Warren, North Section (Gauteng North of the Jukskei river, Limpopo and Mpumalanga)	Analitika; September/October 2023	8th International Symposium on Electrochemistry - 4 - 6 April 2023	2nd Commonwealth Chemistry Congress - Trinidad and Tobago, dates TBC; 33rd CATSA annual conference
2024		20th Inorganic/Carman Chemistry Conf. KwaZulu-Natal				34th CATSA annual conference
2025	45th SACI Convention, Central Section (Gauteng South of the Jukskei river, North-West and Free State)			ChromSA/SAAMS; Sept/October 2025		35th CATSA annual conference
2026			17th Frank Warren, Central Section			36th CATSA annual conference

1.1 SACI 44th National Convention (Stellenbosch, 8-13 January 2023)

The preparations are going very well. The website is up and running <https://www.saci.co.za/SACI2023/> and the programme has started taking shape. The conference chair is Prof. Catharine Esterhuysen. This convention is the premier event of the Institute, with more than 100 presentations and is expected to host 300-400 delegates, many of whom are postgraduate students. The theme of this convention is “Chemistry for Sustainable Development in Africa” which falls directly under UNESCO’s “International Year of Basic Sciences for Sustainable Development” IYBSSD 2022/2023 initiative overseen by DSI and ASSAf. Many of the individual sessions within the Convention will have as focus chemical topics pertaining to how the basic science Chemistry plays an important role in the promotion of the quality of life in South Africa and the Continent through sustainable processes.

2 International Year of Basic Sciences for Sustainable Development (IYBSSD)

The United Nations General Assembly approved by consensus a resolution that promulgated 2022 as the International Year of Basic Sciences for Sustainable Development. The IYBSSD 2022 is seen as a key moment of mobilisation to convince economic and political leaders, as well as every citizen, of our dependence on basic science to ensure a balanced, sustainable, and inclusive development of the planet. The official inauguration of IYBSSD 2022 took place on the 8 July 2022 with an opening conference at the United Nations Educational, Scientific and Cultural Organisation (UNESCO) headquarters in Paris, France. The year will conclude in June 2023. IYBSSD stresses that the applications of basic sciences are vital for advances

in medicine, industry, agriculture, water resources, energy planning, environment, communications and culture, and that basic sciences-inspired technologies respond to the needs of humankind by providing access to information and increasing societal well-being and promoting peace through improved collaboration toward Sustainable Development Goals (SDGs).

We have invited our members to submit events that are related to the IYBSSD 2022 through SACI at the invitation of ASSAf. Two were received thus far and details are provided below:

2.1 Committee on Chemistry Education (CCE) of IUPAC launches the IYBSSD at the Cape Town Science Centre

Venue: Cape Town Science Centre
(CTSC) Date: 23 July 2022

Event: Open Day to celebrate chemistry and introduce the IYBSSD

Contact persons: Marietjie Potgieter, marietjie.potgieter@up.ac.za, and Uday Maitra, maitra@iisc.ac.in

2.2 44th South African Chemical Institute National Convention (SACI-44)

Venue: Stellenbosch University
Date(s): 8-13 January 2023

Event: National Convention of the South African Chemical Institute

Contact persons: Prof Catharine Esterhuysen (chair of the organising committee), ce@sun.ac.za, and Prof Willem van Otterlo (chair of the programme committee), wvo@sun.ac.za

The details for submission of IYBSSD 2022 proposals for official endorsement by the Steering Committee are available at <https://www.iybssd2022.org/en/your-proposal-for-the-program-southern-africa/>. A template for submission of your event via SACI is provided below and is available from Mrs Laila Smith (Laila.Smith@wits.ac.za) and Prof. Zeni Tshentu (zenixole.tshentu@mandela.ac.za) in an editable format:

IYBSSD 2022 Your proposal for the program

Title of the event/initiative/program:

Complete name of organizer(s) (organization or individual people): The South African Chemical Institute

Kind of organization: Other NPO

Tell us about the diversity of the organizing committee:

Contact person:

Contact Email:

Title, Name and Surname:

Is this a one country Event/Initiative/Program? Yes/No

Main location:

Address:

Planned date of beginning:

Planned date of end:

Short description of the event/initiative/program:

Attach a file (PDF or JPG only) about event: Send with this form to
saci.chem@wits.ac.za

Write a few lines about how your initiative is relevant to basic sciences and sustainable development:

What are the expected outcomes in term of progress toward SDGs? How will the event/initiative/outcome be transformative?

Which SDGs are concerned (at least two)?

- SDG1 - No Poverty
- SDG2 - Zero Hunger
- SDG3 - Good Health and Well-Being
- SDG4 - Quality Education
- SDG5- Gender Equality
- SDG6 - Clean Water and Sanitation
- SDG7 - Affordable and Clean Energy
- SDG8 - Decent Work and Economic Growth
- SDG9 - Industry, Innovation and Infrastructure
- SDG10 - Reduced Inequalities
- SDG11 - Sustainable Cities and Communities
- SDG12 - Responsible Consumption and Production
- SDG13 - Climate Action
- SDG14 - Life Below Water
- SDG15 - Life on Land
- SDG16 - Peace, Justice and Strong Institutions
- SDG17 - Partnerships for the Goals

Who do you want to reach?

- General public
- School children
- School teachers
- High school students
- University students
- Scientists

- Policy makers
- Company managers
- Others

How many people are expected to participate?

How do you plan to ensure diversity of target audience?

Did you previously organize such an event/programme/initiative?

- Yes
- No

Do you already plan any follow up?

- Yes
- No

What will be different with the content for this IYBSSD2022 edition?

Website address with information:

If this proposal is agreed by IYBSSD2022 Steering Committee, I will:

- use the IYBSSD2022 logo on all the related communication material;
- make the event and its outcomes accessible to all, under a license [cc BY-NC-SA 4.0](#) or less restrictive;
- provide the IYBSSD2022 Secretariat with links toward website, brochures, video, etc. as much as possible ahead of the beginning of the program/event/initiative;
- provide a short report no longer than 3 months after the end of the event/program/initiative, in order that it can be included into the final global report of IYBSSD2022.
- not request for any money to the IYBSSD2022 secretariat. The organizers of every event/program/initiative within IYBSSD2022 will take care by themselves about funding. The funds origin must be clearly indicated in the communication about the event/initiative/program.

I agree

Sign:

Date:

Prof Z Tshentu

Vice President and Chair of the programme committee

SA JOURNAL OF CHEMISTRY

All SAJC papers are freely available online via the Sabinet website from Volume 53 in 2000 to the current volume (with additional older volumes back to 1920 also available online via the link "OA African Journal Archive"). See <https://journals.co.za/content/journal/chem>. The journal submission page can be found at <http://www.saci.co.za/journal/>.

Currently, the International Advisory board (updated in 2020) consists of 13 members (listed below).

E. Alessio, Trieste, Italy

A. J. Barnes, Salford, U.K.

R. Bucat, Perth, Australia

U. Domanska-Zelazna, Warsaw, Poland

H. G. M. Edwards, Bradford, U.K.

I. Fleming, Cambridge, U.K.

L. Glasser, Perth, Australia

G. J. Hutchings, Cardiff, U.K.

T. M. Letcher, Bath, U.K.

R. Simoyi, Portland, OR, U.S.A.

C. J. van der Schyff, Rootstown, OH, U.S.A.

R. M. A. von Wandruszka, Moscow, ID, U.S.A.

T. Welton, Imperial College London, U.K

Statistics relating to the journal are presented in Figure 1 (downloaded from the Web of Science August 2022). The number of citations has increased remarkably from 2008 until 2020. However, the citations for 2020 and 2021 were 502 and 500, respectively. The average citation per paper for the last 30 years is 5.53. The total number of citations over this period was 4582, of which only 226 were self-citations. It should also be noted that more papers were published in 2021 than in 2020, but still less than in 2019. The number of papers already published in 2022 is 11, which compares well with the 9 already published in 2021 at the same time. One concerning aspect is the H-index which changed from 26 in 2021 to 25 in 2022.

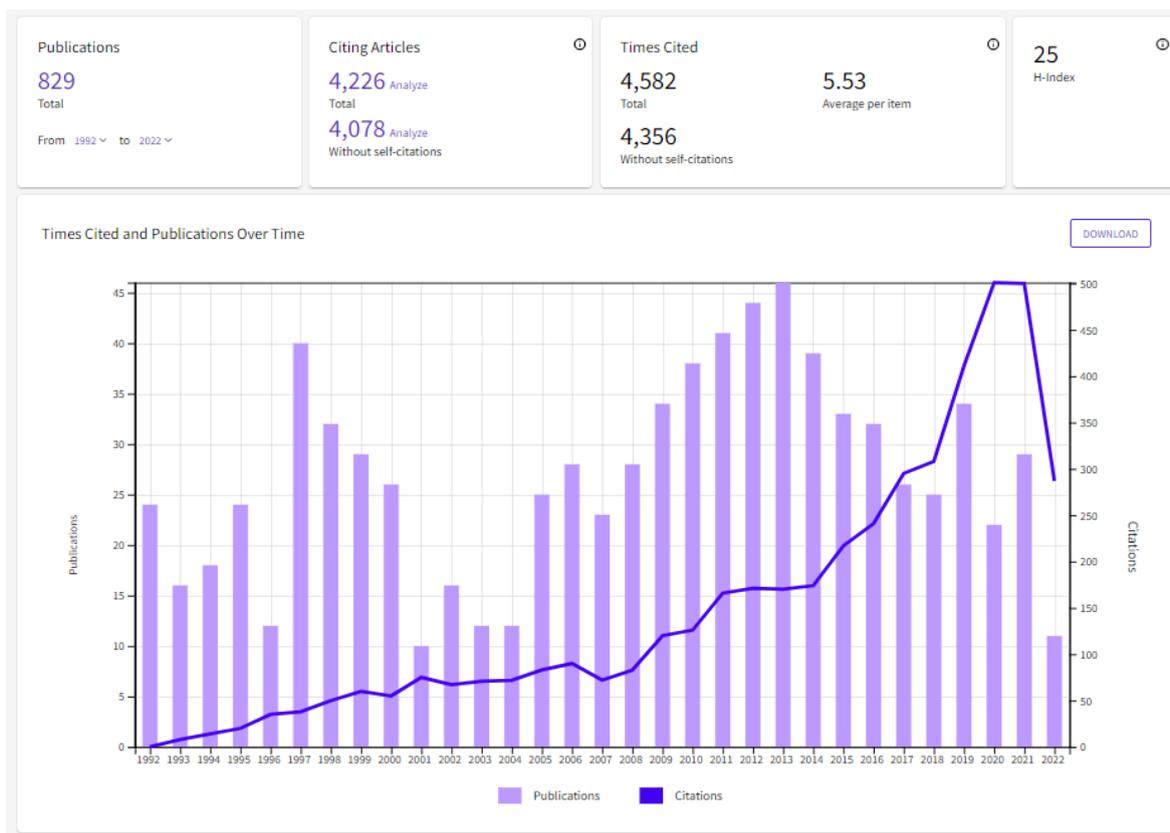


Figure 1: Web of Science citation report for South African Journal of Chemistry

The 829 publication records (1992-2022) in SAJC found from the Web of Science search shown in Figure 1 are overall primarily from South Africa (48%), followed by Iran (8%), India (6%), China (5%) and the USA (4%). For those records from 2021 to present, the relative contribution by country is rather different: South Africa (32%, 32% for 2020, 38% for 2019), UK (25%), Netherlands (5%), Botswana (4%), Brazil (3%), Ghana (3%), Nigeria (3%, 10% for 2020, 11% for 2019), China (3%), USA (3%), Iran (1%, 10% for 2020, 18% for 2019), India (0%, 10% for 2020, 9% for 2019) and Germany (1%, 6% for 2020, 0% for 2019). There was also one publication from authors from the following countries: Algeria, Estonia, France, Indonesia, Jordan, Lesotho, Libya, Mozambique, Serbia, Tunisia, Turkey, Uganda and Yemen.

The impact factor of the journal is 1.24 (SCI Journal), and the Scopus Cite Score has increased from 1.21 in 2018, to 2.2 in 2019 and to 2.8 in 2020, which is very encouraging. It is still 2.8 for the second quartile of 2022. Our dedicated editorial team (as listed in Table 1) should receive a special acknowledgement,

Table 1: The 2021 SAJC editorial team

Physical Chemistry Prof Bice Martincigh Prof Jeanet Conradie Prof Elizabeth Erasmus	Organic Chemistry Prof Gert Kruger Dr Leigh-Anne Fraser Prof Tricia Naicker
Educational Chemistry Prof Bette Davidowitz	
Analytical Chemistry Prof Patricia Fobes Dr Lawrence Madikizela Prof Vernon Somerset	Assistant Editors Dr Siyabonga Maphumulo Dr Thashree Marimuthu Dr Sifiso Nsibande
Inorganic Chemistry Dr Glenn Maguire Dr Sam Mahomed	Editors-in-Chief Prof Cornie van Sittert Prof Gert Kruger
Computational Chemistry Prof Gert Kruger Dr Thishana Singh	Publishers Mr Mike Schramm
Materials Science and Nanotechnology Dr Lucky Sikhwivhilu Prof Patrick Ndungu Prof Nosipho Moloto	System Support and Developer Mr Colin Schwagele

Since the beginning of 2016, the journal has had two Editors-in-Chief on a rotational basis: First, it was Profs Gert Kruger and Luke Chimuka. In 2018, this was followed by Prof Tricia Naicker, who replaced Kruger; in 2019, Prof Patricia Forbes replaced Chimuka; in 2020, Prof Cornie van Sittert replaced Naicker; and in 2022, Prof Gert Kruger replaced Forbes. Currently, Prof van Sittert is the Editor-in-Chief 1 that oversees the journal and its operation together with the “Screening to Approved” processes for all new submissions. Prof Kruger is Editor-in-Chief 2 and takes over from the approved to published processes for all submissions, referred to as the “End process”. After serving as Editor-in-Chief for three years, Prof van Sittert will be stepping down at the end of 2022. Prof Kruger will take over the management of the front end of the process, and a current subject editor will take over as Editor-in-Chief of the end process.

Figure 2 shows the number of papers rejected and published from 2013 to 2021 based on the year in which the manuscripts were submitted as per the online management system reports (note that the 2020 data has been updated since last year’s annual report and now reflects the results of the full year). In general, the number of published articles per year seems to be stabilising around 25-30 per year of submission, with more than half of the submitted papers being rejected or withdrawn, which has helped to improve the quality of the published papers and the impact factor of the journal. To date, 73 of 89 submissions made in 2021 were rejected/withdrawn, whilst 11 have been published/approved, and 5 are still in progress. A total of 38 papers have been submitted in 2022 to date, and 16 of these have been rejected, primarily due to plagiarism issues, poor scientific quality, being outside the scope of SAJC or too specialised, or

unacceptably poor English. The impact of the Covid-19 pandemic on research productivity is evident in the number of submissions for 2021.

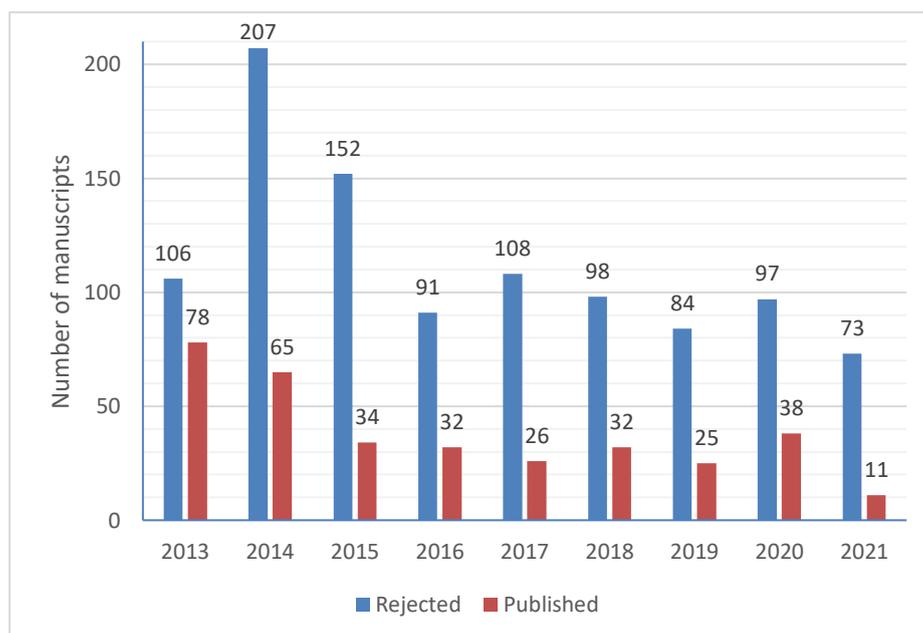


Figure 2: Number of papers rejected and published from 2013 to 2021 based on the year of submission

In 2013 the journal published 46 papers comprising 289 journal pages; 2014 was 39 papers (240 pages), 2015 was 34 papers (262 pages), 2016 was 32 papers (253 pages), 2017 was 26 papers (208 pages), 2018 was 21 papers (195 pages), 2019 was 34 papers (273 pages), 2020 was 22 papers (162 pages), and 2021 was 53 papers (245 pages), which includes a special edition publication. Note: this data is based on published annual issue information from Sabinet, and publications in a specific year would include some submissions made in previous years.

The submissions received per field are detailed in Table 2. In 2019, we agreed to a South African Journal of Chemistry Special Issue entitled "Africa-UK partnership for the computer-aided development of sustainable catalysts". This caused the elevated submissions in Computational Chemistry (Table 2).

Table 2: Data from the online SAJC submission system relating to submissions per field of chemistry from 2013 to date

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 to date
Total Submissions	140	243	189	158	108	130	109	135	89	38
Analytical	22	45	61	53	37	34	36	38	28	15
Computational	15	12	14	12	9	6	15	26	11	3
Education	5	7	3	5	0	3	5	2	3	0
Inorganic	25	26	20	17	13	13	8	13	7	2
Nano	12	21	10	16	12	23	9	8	10	5
Organic	34	103	53	37	28	24	24	26	20	7
Physical	27	28	29	18	9	27	12	22	10	6

The average number of days for acceptance or rejection varies from year to year and from manuscript to manuscript but is an area which requires improvement. The biggest challenge is finding quality, willing reviewers who are also prompt in their responses, as this is a limiting factor in the review process. Another problem is the slow response of some subject editors due to their other commitments, and sometimes authors take more than the specified time to respond.

Lastly, it should be mentioned that the Sabinet website is migrating to a new platform. This is in progress. The cost for this migration is R20 000, which will be reflected in next year's report.

Finances of the Journal:

Annual costs were R21 759.15 to Sabinet for hosting the journal and R51 211.59 for creating proofs in 2021 (R209 per page for 53 papers). We also paid R17 835.50 for hosting and maintaining the online management system website.

Total costs for the year were thus R90 806.24

Prof C van Sittert
Editor-in-Chief of SAJC

SACI NEWSLETTER

The Newsletter is published regularly and reports on Sectional and Divisional events that have taken place. In addition, we report on activities of societies that SACI is affiliated to, for example, IUPAC, NSTF, RSC, FASC, Federation of Commonwealth Chemical Sciences Societies, etc. Conference calls are also placed in the newsletter as are job advertisements and items of research interest.

A small charge for advertisements in the newsletter is requested and this assists with raising funds to keep SACI alive.

I would like to thank all the contributors to the Newsletter and would like to invite any member to send me contributions of interest to other SACI members.

Prof B Martincigh
Publicity

IUPAC

There have been several major developments with regards to IUPAC over the reporting period. Most notably is a significant restructuring of IUPAC to streamline the functioning of the organization and importantly to place heavier emphasis on the scientific work of IUPAC. During the course of the year several meetings and workshop were held with the National Adhering Organizations (NAO) to discuss the proposed changes. This culminated in the formal adoption of the new structure. The South Africa IUPAC committee fully supported the proposed changes as did the overwhelming majority of the NAOs. The most notable change is that the former Bureau will be disbanded and replaced by a smaller **Executive Board** tasked with administrative and management issues and a **Science Board** which will focus solely on the scientific issues of the Union. The Science Board will be composed of representative of the Presidents of the Divisions and the Committee Chairs as well as eminent scientists nominated and elected to serve on the board. As members of IUPAC, we will have the opportunity to nominate members for the Science Board in the coming months, so please give this some thought as to whom we could potentially nominate to serve in this important role!

The most notable IUPAC event held in South Africa in recent times is no doubt the 26th IUPAC Conference on Chemical Education (ICCE) hosted in Cape Town in July (<https://icce2022.org.za/>). This conference was originally scheduled to take place in 2020 and we must thank Bette Davidowitz (Chair of the organising committee) and her team for not only organising a very successful event, but in addition for serving a very extended term as an organising committee! As part of the conference the current IUPAC President Professor Javier Garcia-Martinez spent the week in the Western Cape. He had the opportunity to contribute to the ICCE conference as well as to take part in many outreach events and visit and present at the various tertiary institutions in the Western Cape to promote the work of IUPAC.

Once again, the IUPAC Global Women's Breakfast was a great success, and this event has now become an established highlight of IUPAC activities. It was great to see that once again South Africa took part in this global initiative to acknowledge the contribution of women to chemistry. This is becoming an increasingly popular annual event and planning is already well underway for the 2023 event on 14 February 2023 (<https://iupac.org/gwb/>). Currently South Africa has three formal representatives on the IUPAC Divisions and Committees. These are Alan Hutton as Immediate Past President of Division VIII (Chemical Nomenclature and Structure Representation), Marietjie Potgieter (who is the standing Committee Chair of the Committee on Chemistry Education) and me as a Titular Member of Division IV (Polymer Division). It is our sincere hope that we will increase the South African representation within the various IUPAC structures in the coming years! The IUPAC national committee would once again like to encourage South African chemists to get involved in the various IUPAC Divisions and Committees! Typically, this involves some hard work and commitment, but it can also be very rewarding to serve in this international chemistry body!

Finally, some of you may have missed this, but IUPAC has published an updated version of the periodic table with the most recent abridge standard atomic weights. This version is free to download and use from the IUPAC website (<https://iupac.org/what-we-do/periodic-table-of-elements/>).

Prof P Mallon
Chair of the SA IUPAC National Committee

SACNASP

- **History in Brief**

The South African Council for Natural Scientific Professions (SACNASP) is a statutory body which registers scientists in various fields of practice (FOP's) in the Natural Sciences, and which regulates the Natural Science profession under the auspices of the Department of Science and Technology (DST). The concept of a Council for registration of Natural Scientists dates back to the early eighties through the initiative of the late Victor Pretorius at the University of Pretoria. The newly established entity at that point in time slowly but steadily grew to a well-functioning organization in the mid-nineties, and was converted into a legal entity when the Natural Scientific Professions Act (NSP), No 27 of 2003, as amended, was promulgated in Parliament.

- **Voluntary Associations**

The Act makes provision for voluntary adherence of scientific societies, such as the South African Chemical Institute (SACI), to SACNASP by encouraging their members to register as Natural Scientists in their particular FOP's for the purpose of public recognition and confidence. There are three registration categories, viz. Professional, Certificated and Candidate Natural Scientist, and all registered scientists need to comply with the SACNASP Code of Conduct in accordance with the NSP Act.

- **Registration Statistics**

There are currently 737 active registrations within Chemical Science, with 352 in the Professional, 171 in the Certificated and 214 in the Candidate category. The total number of active registrations for the 26 FOP's is 14 276.

- **Migration of SACI's Pr.Chem.SA**

SAQA had to withdraw the Professional Chemist designation (Pr.Chem.SA) issued by SACI due to legal issues, but a subsequent Memorandum of Agreement (MoA) made provision for the migration of SACI members holding that designation to register with SACNASP as a Professional Natural Scientist (Pr.Sci.Nat.). This transition took place during the last quarter of 2021 by re-evaluating the more than 50 applications concerned.

- **Career Development Program**

SACNASP recently initiated a programme whereby scientists progressing from Candidate to Professional level can acquire relevant work experience with the help of a suitable mentor. Currently, SACI has two SACNASP sponsored positions available for suitable mentees, and further details can be obtained by contacting Suzanne Finney.

- **SACNASP Website**

The reader is encouraged to visit <https://www.sacnasp.org.za> for the latest news and

events. Typical examples include an informative YouTube documentary on the Fourth Industrial Revolution (4IR) for SA (20 October 2021), a webinar on Promoting Ethical and Professional Conduct (15 February 2022), a workshop by the SA Journal of Science aimed at postgraduates and early career researchers to write/publish journal articles (8 June 2022), and a YouTube documentary on the Potential Role of Hydrogen and Fuel Technology (15 June 2022).

- **Mentoring Program**

SACI has a Memorandum Agreement with SACNASP for mentoring of Chemists in a Career Development Program (CDP), i.e. a mentoring program is now available for SACI members requiring only one more year of relevant work experience, in accordance with the Professional Natural Scientist registration guidelines (number of work experience years is dependent on qualification). Currently, SACI has two SACNASP sponsored positions available for Mentees. If you would like to be part of this mentorship program, and you are a SACI member, please contact mrssuzefinney@gmail.com or suze.finney@icloud.com, for further details. Please note that the CDP is an intensive program, which requires that you submit a portfolio of evidence for all requirements which must be met to be a registered Professional Natural Scientist. To maintain this registration, continual learning and development are required by SACNASP – please ensure that you are fully aware of the commitment required before applying.

- **End of Term-of-Office**

The SACNASP Council recently appointed Suzanne Finney as the Deputy Chair of the PAC for Chemical Science as the alternative to Ernst Breet, who has been the SACI representative and PAC Chair since 1996. The Governance Manual of SACNASP now stipulates all officials to maximally serve three consecutive two-year terms in a given position. Consequently, this report is the last one to be submitted by Ernst Breet before termination of his largely exceeded term-of-office at the end of 2022.

**Prof ELJ Breet Pr.Sci. Nat., SACNASP
Chairperson of PAC for Chemistry**

NSTF

The National Science and Technology Forum (NSTF) draws together more than 100 organisations, councils and institutions involved in science, engineering, technology (SET) and innovation in South Africa. SACI is among the professional bodies and learned societies – known as proSET (Professionals in SET) who are members of NSTF. Its core vision is a transformed society where SET contributes to improving lives, the demographic profile of SET professionals is reflective of that of SA's population, and where the education system functions properly, especially in SET subjects.

NSTF continued to hold discussion forums online. NSTF Discussion Forums are run like short conferences and usually span two days. The topics are of cross-cutting relevance to the SET and innovation community. There are up to 15 speakers at every event. They include officials from government departments, researchers, experts from member

organisations, and other stakeholders or role players. The topics in 2021 included: Internet of Things (IoT) technologies and 5G connectivity roll-out; Preparing for epidemics in South Africa – human and animal; and Loadshedding and power cuts – what is really going on?

The NSTF-South32 Awards took place as a hybrid event, with two gala dinners in Johannesburg and Cape Town, on 30 September 2021. Tributes were made to Prof Robert (Bob) Scholes who passed on in April this year. He will be remembered as an NSTF Award Winner in the Lifetime category in 2015. He played an important role as one of the world's leading environmental scientists, warning of the climate emergency, and as a member of the UN Intergovernmental Panel on Climate Change. In addition, the NSTF Executive Director, Ms Jansie Niehaus, sadly lost her husband, Mr Lionel Murcott, to COVID-19 in June 2021. He was a teacher, poet, writer and artist, among others – a man of many talents indeed.

After five years of planning, the STEMulator was launched online at www.stemulator.org. The STEMulator is a virtual platform of animated STEM (science, technology, engineering, and mathematics) educational exhibitions. It is designed to ignite a spark of curiosity in young minds. In the STEMulator you can explore how things work, and the science and engineering behind them. STEM careers related to the various 'exhibits' are also explained. The STEMulator is an interactive animated landscape, where every object reveals its structure and the STEM underlying it. As the user clicks through the various levels, more knowledge is uncovered, mostly in visual form. Examples include the inner structure and workings of cars, airplanes, human beings, animals, buildings, dams, satellites, etc. It also shows how STEM applies to aspects such as production processes, supply chains, and links within systems.

The AGM took place by Zoom on 19 November 2021 and this year's AGM will also take place by Zoom, on 11 November 2022.

Prof H Drummond
Reporting Officer

SECTION AND DIVISION REPORTS

EASTERN CAPE

No report submitted

Prof R Krause
Chairperson Eastern Cape Section

SACI CENTRAL

1. SACI Central Division Committee

The composition of the committee for 2022 was as follows:

Dr Mark Smith	Chairperson
Dr Caren Billing	Vice-chairperson
Dr Phumlani Msomi	Secretary
Dr John Moma	Treasurer/fund raising
Dr Sadhna Mathura	Women's representative
Ms Bianca Davids	Student representative
Ms Alida-Louise Henning	Industry/RSC representative
Dr Manoko Maubane-Nkadimeng	Events coordinator
Dr Patrick Moisini	Additional member

2. Meetings

The committee has had several meetings during the past year. Attendance and participation of committee members was very good with only one or two apologies at each meeting.

Several key points that were discussed at the meetings were as follows:

1. Young Chemists Symposium. This has been finalized and will take place on Friday 19 August
2. Joint SACI/RSC lunch. This will be held in October 2022.
3. Finances. The Central Division currently does not have any money and ways of funding have been discussed.
4. Improving the links between industry and universities. SACI Central has decided to start a seminar programme where guest speakers will be invited to present at Universities. Students and staff will be invited.

Details of the activities are described below.

3. Finances

The Central Division currently does not have active finances and plans to start fundraising have been discussed.

4. Young Chemists Symposium 2022

The Young Chemists Symposium 2022 will be held via an online platform on Friday 19 August 2022. The symposium will be hosted by Wits University and is being organized by an organizing committee headed by Dr Manoko Maubane-Nkadimeng and Ms Bianca Davids.

There is massive participation this year, with 20 oral presentations and 20 poster presentations on the final programme.

The prizes for the event have been sponsored by the RSC.

The 2023 Young Chemists Symposium will be hosted by Unisa and in 2024 it will be hosted by North West University. The committee stressed that the annual symposium should be hosted on a rotational basis by all the universities in the division in order to maintain interest and participation by all universities.

5. SACI / RSC Lunch (an awards ceremony)

The annual SACI awards are traditionally handed out at the joint SACI / RSC lunch. Due to all divisions having financial considerations, neither RSC, SACI, nor the divisions can fund the event.

Despite the lack of funding, a sponsor of a venue has been found, and we will be able to host the lunch if members are willing to pay an individual fee of approximately R250, all inclusive. The Central Division Committee, as well as many of its members and RSC members, have expressed their approval of this arrangement. The lunch will therefore go ahead in 2022 and it is currently being finalized. It is envisaged that it will be held in October. We are also looking into the possibility of RSC or SACI funding the prizewinners' contributions for the event.

6. Improving the links between industry and universities

One of the ideas that the committee intends to implement from 2023 is the launch of a new public lecture series, where quarterly online presentations will be given by members of industry. Staff and students at Chemistry Departments at all universities in the division will be invited to the public lectures. Currently students are generally only exposed to lectures by academic staff and this exposure to industry will go a long way to closing the gap between industry and universities, as well as educating universities on desired graduate attributes required by the chemical industry in general.

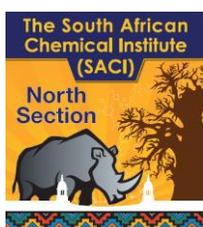
7. Conclusion

The committee members are very enthusiastic and have re-started many of the activities previously performed by SACI Central. The year has been fruitful and is becoming more and more active each year.

I would like to thank the committee for their dedication and hard work. You are making a difference and it shows!

Dr M Smith
Chairperson Central Section

SACI NORTH



SACI North Section Committee Members

MEMBER	PORTFOLIO	INSTITUTION
DE LANGE J (Dr)	Student Matters	University of Pretoria (UP)
KHANYILE N (Dr)	Scientific Events	University of Mpumalanga (UMP)
MAKHUBELA N (Mr)		Sefako Makgatho Health Sciences University (SMU)
MAMPA RM (Prof)	Scientific Events	University of Limpopo (UL)
MAPHORU MV (Dr)	Marketing & Outreach	Tshwane University of Technology (TUT)
MNYAKENI-MOLEELE SS (Dr)	Deputy Chairperson	University of Venda (UNIVEN)
MODIBEDI RM (Dr)	Treasurer & Sponsorships	Council for Scientific and Industrial Research (CSIR)
NKAMBULE CM (Prof)	Chairperson	Tshwane University of Technology (TUT)
SONOPO MS (Dr)	Secretary	South African Nuclear Energy Corporation (NECSA)

SACI North Section Student Representative Committee

Council for Scientific and Industrial Research (CSIR)	<i>Vacant</i>
Sefako Makgatho Health Sciences University (SMU)	<i>Vacant</i>
South African Nuclear Energy Corporation (NECSA)	<i>Vacant</i>
Tshwane University of Technology (TUT)	CHAUKE NG (Mr)
University of Limpopo (UL)	<i>Vacant</i>
University of Mpumalanga (UMP)	<i>Vacant</i>
University of Pretoria (UP)	<i>Vacant</i>
University of Venda (UNIVEN)	SIPOYO D (Mr)

1. Committee Meetings

The section held four (4) meetings, all virtual due to the COVID-19 lockdowns, since the last SACI AGM on 18 August 2021; here are some of the key points of discussions and decisions:

I. 20 August 2021.

- Dr Maria Mogane (SMU) resigned from the committee for health reasons.
- The following SACI-NS members were congratulated on their awards announced at the SACI Council meeting of 18 August 2021
 - Newly inducted SACI Fellows are:
 - Prof Ignacy Cukrowski (UP)
 - Prof Marietjie Potgeiter (UP)
 - Merck Medal
 - Prof Mugeru Gitari (Univen)
 - Postgraduate medal:
 - Dr Sifiso Nsibande (UP)
- SACI-NS Chairperson Prof Nkambule was congratulated on joining the SACI EXCO as a co-opted member (2021-2023).
- In light of the POPI Act SACI Sections are reminded to treat members' information with utmost security; all mass communication to be channelled via the SACI main office.
- The SACI-NS engagement with the Editor-in-Chief of the South African Journal of Chemistry has resulted in a call for volunteer reviewers for the journal that has been circulated by the SACI main office; there has been a massive response from the community.
 - The committee is hopeful that this commitment will translate to a faster, but still rigorous review process for the journal.

II. 10 December 2021.

- The SACI EXCO meeting of 25 November 2021 resolved that the James Moir award will only be awarded for completion of NQF8 qualifications (BSc Honors and Postgraduate Diploma). Students from Universities of Technology (UoTs) who have not completed the Postgraduate Diplomas will not be awarded for excellence in completion of the Advanced Diploma.
- SACI-NS plans to launch an event to celebrate with members from the section who have won SACI awards; the University of Limpopo (UL) is the most central venue to host such an event.
- The proposed SACI-NS seminar series featuring research supervisors in the section did not take-off in 2021, but the idea is still a goal for the committee.
- Members were reminded that to serve on any SACI committee an individual needs to be a registered member of SACI in good standing with the membership dues fully paid for the period they serve in the committee.
- The committee expressed extreme disappointment with the failure of UP to host the 2021 YCS which had been postponed from 2020. That means for two (2) years there has been no YCS in SACI-NS.
 - Since part of the problem was that the UP representative had been overwhelmed by family emergencies had the family issues the committee resolved that going forward the YCS should not be the responsibility of any one person. The event will still be run by the respective host institutions without the interference from the SACI-NS committee other than a liaison member included on the LOC.
- Fundraising in 2021 was very poor; the merchandise (shirts and grocery bags) did not fly off the shelves. All members were encouraged to increase marketing commitments.
- The effects of COVID on teaching and learning were a passionate discussion regarding the different experiences at the various institutions.
 - Integrity of assessments and invigilation were of great concern as to how it will affect the quality of chemistry graduates
 - Different institutions used different invigilation software, but all seemed to have “cheating blindspots”.

III. **24 February 2022.**

- SACI-NS concerned about the persistence of Gauteng-South and Gauteng-North vocabulary of many SACI communications and tasked the Chairperson to submit clarity on this issue to the SACI-EXCO.
- The SACI-EXCO encourages members to renew their SACI membership annually so that they can continue enjoying the benefits of being SACI members. A document describing some benefits is on the SACI website
- The Organic Chemistry Division (OCD) seminar series (virtual platforms) for organic chemistry PhD students finally launched on 18 February 2022. The first speaker was a PhD candidate from the SACI-NS (TUT). Members were encouraged to advertise and spread the word about the seminars to PhD candidates at their institutions.
- The committee resolved that UP would again be given the right to host the 2022 YCS.

- Dr Jurgens de Lange was advised to prioritize the formation of the local organising community (LOC) to mitigate against overloading one person with the responsibility for the organization
- Members were concerned by the excessive shortage of liquid helium since this has a negative impact on some instrumentation (NMR) that relies on this commodity; the fight between Russia and Ukraine was feared would only exacerbate this situation.

IV. **01 June 2022**

- SACI-NS committee members were reminded that the SACI awards nominations were open and urged to nominate qualifying students from respective institutions for these awards on time.
- There is funding available for small conferences and workshops until June 2023 under the International Year of Basic Sciences for Sustainable Development (IYBSSD)
- Due to depleted funds in the SACI-NS bank account, the committee cannot afford to sponsor (subsidize) costs for members attending the RSC/SACI-Central lunch
- The preferred date for SACI-NS YCS is 28 October 2022.
 - The YCS is planned as a hybrid event (contact & virtual) under the theme “Chemistry for Sustainable Development”.
- The LOC for 2023 FWC has been finalized; the following people volunteered to join the FWC LOC as representatives of the institutions within the SACI-NS:
 - Dr M Bvumbi (UNIVEN)
 - Dr N Khanyile (UMP)
 - Mr N Makhubela (SMU)
 - Dr R Mohlala (UL)
 - Dr SS Mnyakeni Moleele (UNIVEN)
 - Prof CM Nkambule (TUT)
 - Prof W Nxumalo (UL)
 - Dr MA Selepe (UP)
 - Dr VJ Tembu (TUT)

2. Financial Statements and Fundraising

- On 16 August 2022 the balance on the account of SACI North Section was R12 999.00. To raise funds SACI-NS still has T-shirts and grocery bags for sale at each of the member institutions.



3. Symposia and Conferences

- There was no Young Chemist Symposium (YCS) in 2021 due to logistical challenges at the host institution University of Pretoria (UP).
- In February 2022 SACI-NS was instrumental to get the SACI Organic Chemistry Division (SACI-OCD) PhD Seminar Series off the ground. These seminars are national and open to students across the country; they held on one Friday morning per month (February–November) and feature 2 speakers (30 min lecture + 5-8 min question & answer session).
- The planning for the 2023 FWC is ongoing; the LOC has been fully constituted. The preferred venue is The Ranch Hotel in Polokwane, Limpopo; the proposed date is first week of December 2023 (Sunday 03-Thursday 07).

4. Membership Matters

- SACI National Awards
 - **Lifetime Membership:**
 - **SACI Fellowship:** Prof Ignacy Cukrowski (UP), Prof Marietjie Potgeiter (UP)
 - **Gold Medal:**
 - **Merck Medal**
 - **Raikes Medal:**
 - **Chemical Education Medal:**
 - **Postgraduate Award:** Dr Sifiso Nsibande (UP)
 - **James Moir Medal:** L Masemola (TUT), G Ramaremisa (UL), Z Johnston (UP), Al Nemudzivhadi (Univen)

Prof C Nkambule
Chairperson North Section

KWAZULU-NATAL

The South African Chemical Institute, KwaZulu-Natal Section had fewer activities than we normally do. Besides the COVID-19 pandemic, KZN witnessed two serious setbacks which in my opinion slowed down progress of normal activity immensely. There was the July 2021 unrest followed by the April 2022 floods and landslides. The province is slowly getting back to its feet. However we still had some activities between August 2021 and August 2022. First, we had the SACI KZN HONS/BTECH symposium, held via Zoom on 2 December 2021 where only students from UKZN Westville and UKZN Pietermaritzburg campuses presented a total of 7 oral and 4 flash poster presentations. There was absolutely no response from the other institutions in KZN. The oral and poster presentations were adjudicated and two prizes were awarded for each of the two categories, the oral and poster presentations. The winners are listed below together with their respective institution. The prizes were sponsored by the RSC North section, whom we kindly acknowledge.

We also had the Annual General Meeting (AGM) on the 10th of December 2021, during which the 2021 SACI Gold Medal awardee, Prof Fanie van Heerden gave a lecture. The lecture was well attended by SACI members from all over the country.

The annual SACI Postgraduate Research Colloquium was to be held at University of KwaZulu-Natal. As stated earlier, a combination of a whole of issues has led us to a very rough patch where response for these activities from postgraduate students in the province is at its worst. The committee is looking into ways through which we can make our students enthusiastic about activities in KZN.

SACI KZN 2021 SACI HONS/BTECH symposium held via Zoom on 2 December 2021

The SACI KZN Section organises the annual Honours/BTech Symposium. The event was kindly organised by Drs. Mzamo Shoji and Phindile Khoza from Westville campus of the University of KwaZulu-Natal, assisted by the SACI postgraduate rep Cheslin Moodley. The event sees academics and students converging in one area to discuss employment, funding, research and developments within the field of chemistry and was well attended by both students and academic staff. The symposium caters for postgraduate students doing their Honours and Bachelor of Technology degrees. The students are given an opportunity to present their research to fellow students and academics. Top students that are studying chemistry are selected from each university and compete against each other for the best presentation.

Seven students from UKZN Westville and UKZN Pietermaritzburg campuses, presented their Honours research projects orally while another four students presented flash posters on their projects. The oral and poster presentations were adjudicated and two prizes were awarded for each of the two categories, the oral and poster presentations. The winners are listed below together with their respective institution. The prizes were

sponsored by the RSC North section, whom we kindly acknowledge.

Oral presentations:

1st place: Otisha Govender

2nd place: Palisha Aboo

Poster presentations:

1st prize: Thanduyise Flathele

2nd place: Amanda Ngema

LECTURE IN CELEBRATION OF TONY FORD'S 80TH BIRTHDAY – 25th August 2022



Tony turned 80 on 4th August 2021. Tony has been a loyal member of SACI and served as its President from 2005 to 2007. He has served on the KZN Coordinating Committee since 1992. He was made a Fellow of SACI in 2013. He also served as Editor of the South African Journal of Chemistry. Tony is a NRF B-rated scientist well known in the areas of infrared spectroscopy and computational chemistry.

The event was opened by an interesting lecture entitled: “Ab initio calculations of hydrogen and halogen bonding involving Au(I) complexes” given by Professor Catharine Esterhuysen, Professor of Physical Chemistry, Department of Chemistry and Polymer Science at Stellenbosch University, in which she discussed some fascinating aspects of the bonding in gold complexes. This was followed by a tribute to Tony given by Professor Neil Coville, a former colleague of Tony from the University of the Witwatersrand. This was followed by further tributes from friends, family and colleagues. The event was attended by approximately 70 persons, all of whom wish Tony many more happy and productive years!!.

The event was held virtually on 25th August 2021. And was organized by Prof Bice Martincigh assisted by Dr Mzamo Shozi.

Bice Martincigh

2021 SACI KZN AGM

The Annual General Meeting of the KZN Section was held virtually on Thursday, 16th December 2021 via Zoom. The attendance was good and on the agenda for the meeting some of the items, included, the chairperson's report, the financial report and Awards of the Institute. Among the awardees were Professor Fanie van Heerden who was awarded the SACI Gold Medal. Fanie's research interest is the phytochemical investigation of important South African medicinal plants and the screening of plant extracts and isolated compounds for biological activity. She also has an interest in indigenous knowledge on the use of plants and ethnopharmacology. She holds a DSI-NRF South African Research Chair Initiative (SARChI) Chair in Chemistry of Indigenous Medicinal Plants. She is a C-rated scientist within the NRF system. The James Moir medal was awarded to Mr I Vawda and CM Bemiah.

Gold Medal: Prof Fanie R. van Heerden (UKZN).

The James Moir Medals: Mr. I Vawda University of KwaZulu-Natal and CM Bemiah Durban University of Technology.

We are looking forward to more events for the remainder of the year and early next year.

Prof BO Owaga
Chairperson KZN Section

WESTERN CAPE

79TH ANNUAL GENERAL MEETING AND ACTIVITIES OF THE SACI WESTERN CAPE SECTION (BY EDITH ANTUNES AND DENZIL R. BEUKES)

The 79th SACI AGM of the Western Cape section was held on the 27th of November 2021 at Stellenbosch University in the De Beers Building. The AGM was attended by 34 academic, professional and student members.

The meeting, chaired by Prof Bathori, started by the acceptance of the 79th AGM minutes, followed by the financial report and a summary of the yearly activities.

The mandate of the current Western Cape steering committee was extended for the 2021-2022 cycle: Nikoletta Bathori, Willem van Otterlo, Denzil Beukes, Edith Antunes, Margaret Blackie, Robbie Luckay, Peter Mallon, Delia Haynes, Ivan Green, as well as the four new members Wilson Mogodi (UCT), Ncediwe Ndube-Tsolekile (CPUT), Elise de Vries (CPUT), and Rehana Malgas-Enus (SU). Student representatives from the four universities included Megan Matthews (interim), Larnelle Garnie, Ramokone Junia Malapile (interim) and Franklin Quelain De Bruin.

A small token of appreciation together with certificates were given to Clive Oliver, Gareth Arnott, Megan Matthews and Junia Ramokone Malapile for their many years of service in the WC SACI division.

Several Western Cape individuals were awarded fellowships or medals in 2021 including Dr Rene Toerien (Rondebosch Boys' High School, Chemical Education Medal), Dr Katherine de Villiers (SU, Raikes medal), and Mr Akeem Akinfenwa (CPUT, Postgraduate Award). The top performers of their Honours class, Ms Nicole Teixeira (UCT) and Ms Kayla Heinrich (SU) received the James Moir medals.

The outgoing chair, Prof Niki Bathori was thanked for her tremendous contributions to the SC division over the last 6 years. She was given a standing ovation. Dr Margaret Blackie, as incoming chair, closed the AGM in 2021. Margaret has since moved to the Eastern Cape, accepting a position at Rhodes University. Denzil Beukes has since stepped in as Acting Chair for the WC SACI division.



Dr Rene Toerien (2021 Chemical Education Medal), Ms Kayla Heinrich (James Moir medal-SU), Ms Nicole Teixeira (James Moir medal-UCT)

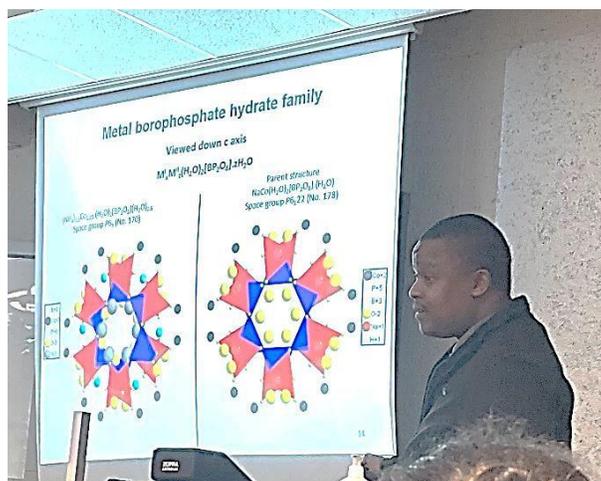


Ms Megan Matthews and Dr Clive Oliver

The meeting was closed by the incoming SACI WC chair, Dr Margaret Blackie, who reminded members about the activities in 2022. The event was followed by a light lunch in the courtyard.

NEW CHEMISTRY ON THE BLOCK 2022

The main aim of this event was to introduce new researchers and novel research directions to the western cape chemistry community. The event was created by Prof van Otterlo and held in 2016 at Stellenbosch University. Guest speakers, typically in the early stages of their career, are invited from the four tertiary institutions in the Western Cape. For the first time in two years, the event was held face to face at Stellenbosch University on the 29th of June 2022. The invited speakers, Dr. Wilson Mogodi (UCT), Dr. Candice Franke (UWC) and Dr. Prinessa Chellan (SU), presented talks on a diverse range of topics including X-ray thermodiffraction of porous borophosphates, nano-electrochemical sensors for drug metabolites and antimicrobial organometallic complexes. The event attracted a great deal of interest with more than 60 participants (including staff and students) from all four universities. Most of the participants were registered as SACI members. The event ended with casual discussions over great food and wine. WC SACI would like to thank Dr Rehana Malgas- Enus and Prof Peter Mallon for organizing the event and for their contributions.



Wilson Mogodi (UCT)



Candice Franke (UWC)



Prinessa Chellan (SU)



Denzil Beukes (SACI WC Acting Chair), Wilson Mogodi (UCT), Prinessa Chellan (SU) and Candice Franke (UWC)



Staff and student attendees from CPUT, SU, UCT and UWC

FUTURE EVENTS:

- 3 Pub Quiz: Thursday 11 August 2022, Time: 6 - 9 pm, Venue: Baxter Theatre, Rondebosch
- 4 WC YCS 2022: Stellenbosch University, 9 September 2022 from 9 am to 4 pm.
- 5 SACI convention 2023

Prof DR Beukes
Chairperson of SACI Western Cape Section

ANALYTICAL CHEMISTRY

Nothing to report

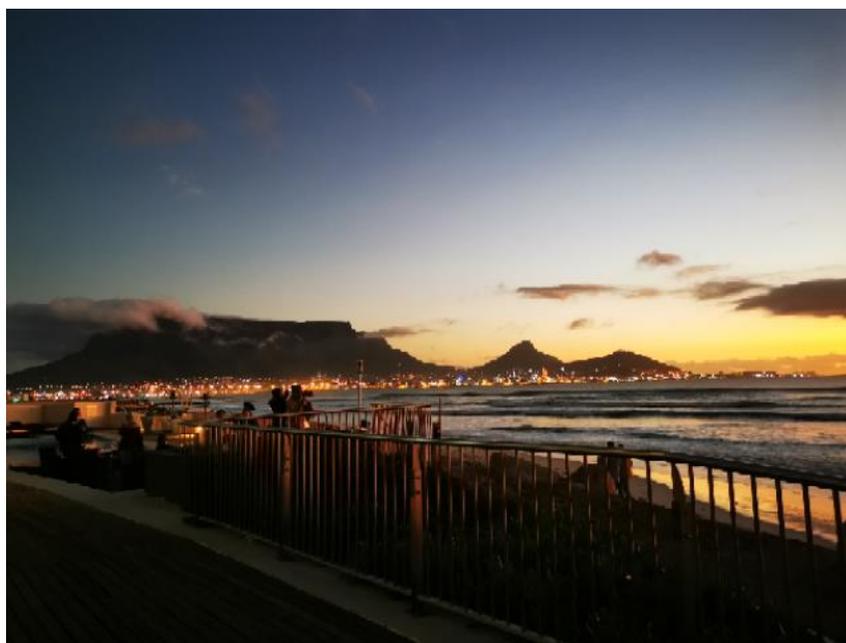
Prof MM Nindi
Chairperson Analytical Chemistry

CHEMICAL EDUCATION

Dr Rene Toerien was the recipient of the SACI Chemical Education Medal in 2021. Rene is a Physical Sciences teacher at Rondebosch Boys' High School. Rene completed her PhD at the School of Education at the University of Cape Town, on the topic Mapping the learning trajectories of physical sciences teachers' topic specific knowledge for teaching chemical bonding. Rene's interest and passion is teacher development, especially high school science teachers who are in the field. "How do teachers know what to teach and how to do so?" Rene investigated this question in her Masters when she looked at pedagogical content knowledge (PCK). She has further built upon this work by focusing on teachers when they start their careers. For her PhD she looked at support programmes for new teachers and more specifically at how mentorship can support the development of teacher knowledge.



The 26th IUPAC International Conference on Chemical Education, ICCE 2022, postponed from 2022, finally took place in Cape Town from 18-22 July 2022. This was the first time that the conference was held in South Africa. Prof Bette Davidowitz was the chair of the local organising committee.



The theme of the conference, 21st Imperatives for Chemistry Education, was chosen to allow delegates to contribute on a wide range of issues across the seven programme themes listed below:

- Curriculum and Assessment Reform Initiatives
- Effective Instruction in the Online Environment
- Chemistry Teaching and Learning, Pedagogy and Cognition
- Chemistry For Sustainability

- Context and Diversity in Chemistry Education
- Rethinking Laboratory Training Post-COVID-19
- Teacher Education, Teacher Knowledge and Continuous Professional Development

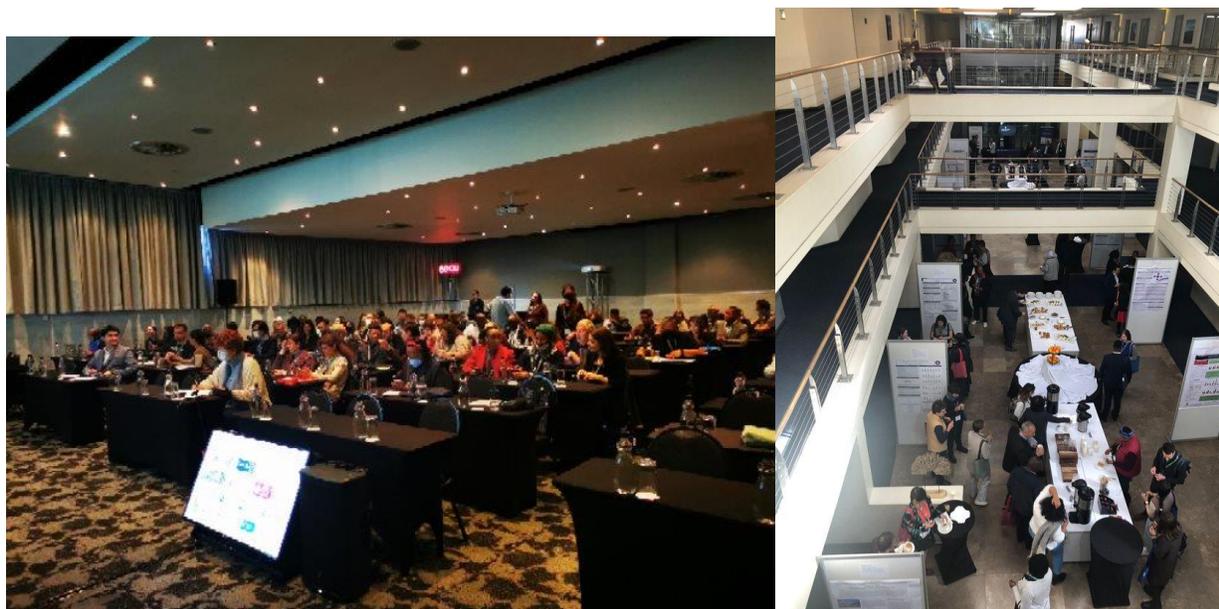
Chemistry is a key discipline in achieving Sustainable Development Goal 4, SGD-4, to “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. ICCE 2022 provided an opportunity for delegates from many countries around the world to exchange ideas on how to achieve SGD-4 while at the same time creating networks between chemistry education researchers and practitioners. The conference was attended by 154 delegates, exactly half of whom came from Africa (both South Africa and other African countries).

The Opening ceremony featured African musical instruments and music demonstrated by Prof Dizu Plaatjies and Tabisa Dinga which “struck the right note” to start the conference. It set the tone of a conference with an African flavour. It combined the academic and the indigenous knowledge.

It was a feather in the ICCE cap to have the president of IUPAC, Prof Javier Garcia Martinez, present at the conference. He talked at the opening ceremony and participated in the conference. He outlined what IUPAC can do towards achieving the SDGs, and the importance of chemical education. Also present was Prof Marietjie Potgieter, the chair of the IUPAC Committee on Chemistry Education.



Plenary sessions were given by Prof Elizabeth Mavhunga, who pointed out that chemical education is a discrete disciplinary field, with its own practice, specific content and decision-making processes. Prof Thomas Holme gave his talk by pre-recorded video. He talked about systems thinking versus context. Prof Ruby Hanson outlined the role of chemical education in managing humanitarian challenges. She talked about humanitarian and environmental problems, and the role of chemistry in contributing to the problems as well as in solving them. The plenary by Ozcan Gulacar captured and held attention. He highlighted the need to make Chemistry teaching relevant and to address social issues. It needs to be meaningful to students to capture their interest. The last plenary of Hannah Sevian was done by video – but a live broadcast, not pre-recorded. This worked well and meant she could interact with the audience and answer questions herself. She described an asset-based intervention programme, after showing that most bridging and remediation programmes actually have very little long term benefit.



Some of the most important take home messages of the conference include imperatives for sustainability, and the need to teach Chemistry in context. The most important aspect of a conference, which can only really happen when the conference is in-person, is the contacts that are made and the people met. Often this entails putting faces to names of people whose work has been referenced. The next conference in Pattaya, Thailand, 15-19 July 2024, was introduced.



**Prof H Drummond
Chairperson Chemical Education**

CHROMSA



**THE CHROMATOGRAPHY DIVISION
Of the South African Chemical Institute
P.O. Box 12098 Hatfield 0028 Pretoria**

FOR THE PERIOD MAY 2021 TO APRIL 2022

COMMITTEE and MEMBERSHIP:

Three committee meetings were held during the above period.

The national committee members are:

Belinda Hickman Mosdell (Chairperson)

Prof Patricia Forbes (Immediate Past Chairperson)

Marion Rippon (Vice Chairperson and Treasurer)

Dr Yvette Naudé (Honorary Secretary and Membership)

Dr Lawrence Madikizela (Minutes secretary)

Dr Madelien Wooding (Website)

Dr Sifiso Nsibandé and Dr Somandla Ncube (Student liaison)

Additional members: Margaux Lim Ah Tock; Dr Elize Smit and Corlien Bezuidenhout.

Prof André de Villiers is the ChromSA representative for the Western Cape. Additional members of the Western Cape committee are Ben Burger, Dalene de Beer, Wessel Kriek, Brenda Marx, Marietjie Stander, Karl Storbeck, Hannes van der Merwe, Mare Vlok, and Merrill Wicht.

Belinda Hickman Mosdell represented ChromSA at the SACI Council meeting and AGM on 18 August 2021.

There are currently over 588 members on the ChromSA mailing list.

ANNUAL GENERAL MEETING:

No AGM was held in 2021 due to the global Covid-19 pandemic. The 2021 annual report and audited financial statements will still be circulated electronically to members for their information and acceptance.

CHROMATOGRAPHER OF THE YEAR AWARD:

The 2021 ChromSA Chromatographer of the Year award was awarded to Piet de Coning.

FINANCES:

The funds held by the National ChromSA division are >R450 000.

EVENTS ORGANISED:

Two online events were arranged for the ChromSA members in the 2021/2022 year as detailed in the table below. The events were held online and there was a good response from the ChromSA members

Speaker	Title	Date
Dr Mathapelo Seopela	Combined fluorescent measurements, parallel factor analysis and GC-mass spectrometry in evaluating the photodegradation of PAHS in freshwater systems	19 August 2021
Postgraduate Student Workshop	Various	6 October 2021

FUTURE EVENTS:

A national online ChromSA student event is planned for October 2022.

CONCLUDING COMMENTS:

It has been a quiet year as everyone still seems to be recovering from the Covid pandemic and things are slowly returning to normal which includes not having to wear masks! We are planning on hosting our first dual face to face / online event in July 2022 which we are

all looking forward to and 2023 has the Analitika Conference on the horizon which is going to be challenging after 4 years of not having organized such an event.

It is encouraging to see the ChromSA membership grow every year which is an indication of an ongoing interest in the chromatography field and we hope this trend continues.

I must give a heartfelt thank you to the ChromSA Committee members who give of their own time and effort to keep the ChromSA activities going. It is very much appreciated.

Finally, I would like to thank all the ChromSA members who contribute to the division and for their participation in our events. Without them, there would not be a ChromSA.

Mrs BH Mosdell
Chairperson ChromSA

ENVIROMENTAL CHEMISTRY

Nothing to report

Prof OJ Okonkwo
Chairperson Environmental Chemistry

PHYSICAL CHEMISTRY

There have been two main activities relating to this Division over the past year.

1. Sessions for the SACI Convention

The Carman (Physical Chemistry) Division, ThermSA and the Molecular Modelling were allocated three sessions at the upcoming SACI Convention. I worked together with the Division Heads of ThermSA and Molecular Modelling to select and invited keynote and invited speakers for these sessions. Speakers were chosen in part because their work is relevant in more than one of these divisions.

2. Online meeting to discuss the future of the division

On 16 August 2022, a meeting was held via Teams to discuss the future of the Division. A brief summary of the meeting is attached to this report. As mentioned in the report, I will work together with Gerhard Venter, who offered to help, to constitute a committee to take the division forward.

SACI Carman (Physical Chemistry) Division meeting 16 August 2022

Short summary

Location: held online via Teams

Time 17h15-18h00

Attendees: Delia Haynes (chair), Tony Ford, Gerhard Venter, Eric Morifi, Lyudmila Moskaleva, Bernard Omondi Owaga, Dave Billing, Demetri Levendis, Catharine

Esterhuysen, Nikoletta Bathori, Caren Billing, Ebrahim Botha, Kabane Bakusele, Neil Coville, Susan Bourne, Songeziwe Ntsimango, Bice Martincigh, Thishana Singh (18 attendees) (one additional attendee, identified only as Eric(Guest), joined the meeting late and left early)

The meeting was started by the chair, who welcomed all attendees.

Professor Tony Ford then gave a short history of the Carman (Physical Chemistry) Division. This was followed by a discussion on the future of the division. During the discussion, Prof Bathori shared some data from SACI relating to changes in divisional membership. The Physical Chemistry division is mid-range in terms of numbers of members. During the discussion Prof Martincigh clarified how the structure of SACI should work: each section (region) should have a representative from each division.

The following main points arose during the discussion:

- Attendees clearly felt that continuing a Physical Chemistry Division is important.
- At the least, the division should continue to organise the Carman meeting regularly. The feeling was that at this stage organising the Carman symposium alongside the Inorganic conferences is working well, and should continue.
- There are challenges with overlap of divisions that should be considered. Working together with other divisions will be important, particularly ThermSA, Molecular Modelling and Electrochemistry.
- SACI, in the form of its divisions, should offer more to members than just the conferences and symposia. Additional activities should be considered.
- The idea of organising specialized training workshops and/or seminars was well-supported.
- We need to discuss whether the name of the division should be maintained.

Gerhard Venter volunteered to help in moving the division forward. Delia and Gerhard will organize the process of putting together a committee to run the division.

Prof Delia Haynes
Interim Chairperson Carman (Physical Chemistry)

ELECROCHEMSA

Nothing to report

Prof OA Arotiba
Chairperson ElectrochemSA

INORGANIC CHEMISTRY

Prof Egan passed on during 2022 and that Prof David Billing has agreed to take over the Division leadership

Prof D Billing
Chairperson Inorganic Chemistry

INDUSTRIAL CHEMISTRY

A new Chairman took over the Industrial Division at the end of 2021. Notifications were e mailed out to the Industrial members of SACI, requesting ideas for resurrecting the Division, for committed committee member nominations and improvements for the future of the Division.

The Chairman recommended regular presentations (on-line), which should in the future, assist students in their chosen careers, and give them an opportunity to ask questions to Industrial Chemists.

The first set of presentations was conducted 30 March 2022, by two SACI Chemists, with a wealth of experience in their chosen fields of work, namely:

- Xolani Nocanda , a Scientist at Ethekewini Municipality Water & Sanitation division, who gave an excellent presentation entitled "A Chemist in Water and Sanitation"
- Alida-Louise Fourie-Henning , a Senior Chemist at Impala Platinum Ltd, Refineries, who's talk on "A day in the Life of a Chemist at a Platinum Refinery", was extremely well received by the audience

The information presented to the 78 attendees, gave students a bigger picture of what Chemists actually do in industry!

Regular presentations are envisaged in the future when additional presenters from industry are available. Eskom has already committed to the next round of presentations.

In order to have a diverse committee, representing the different South African industries, Industrial members are requested to contact the Chairman, Suzanne Finney, mrssuzefinney@gmail.com or suze.finney@icloud.com, from the Provinces (Gauteng and KZN nominees have already been nominated). Once a new committee has been established, improved communication and joint projects between industry and academia are possible.

Industrial members are also requested to submit ideas for the Division's future activities. Now that COVID restrictions have been lifted industry visits are envisaged.

The Industrial Division will be represented at the SACI Convention in January 2023.

Mrs S Finney
Chairperson Industrial Chemistry

MOLECULAR MODELLING

Nothing to report

Prof CGCE van Sittert
Chairperson Molecular Modelling

ORGANIC CHEMISTRY

1. PhD seminars

The main achievement of the SACI Org Division since the last SACI meeting, has been the establishment of the Organic Chemistry PhD Online Seminar Series. The seminars occur regularly, on a once monthly basis, featuring two final year PhD students speakers per seminar.

Starting in February 2022, we have held six seminars, with a total of 12 speakers representing TUT, UKZN, Wits, UCT, SU and UFS. The seminars have proven popular in the community, attracting roughly 50 attendees per seminar, and feature a blend of students and academics. The highest attendance was just over 70 people. Four more seminars remain for this year, with speakers from UCT, RU, UNISA, UP, UFS, WITS and TUT.

Most importantly, it has given a small number of students the opportunity to present their work to an engaged audience. Furthermore, the seminars have been high quality, collegial and have highlighted the diverse array of work across the spectrum of organic chemistry in South Africa.

A special thank you must go out to Prof Comfort Nkambule, who progressed this project from committee level discussions to a tangible product.

2. Frank Warren Organic Chemistry Conference

The shift in the SACI calendar, has meant that the next Frank Warren conference will be in 2023. The proposed date is the first week of December 2023 (Sunday 03-Thursday 07), and the preferred venue is the Ranch Hotel in Polokwane with whom the committee have already had preliminary communications.

The Committee for the 2023 Frank Warren is as follows

Chairperson:	Prof CM Nkambule (TUT)
Deputy Chairperson:	Dr N Khanyile (UMP)
Secretary:	Dr M Bvumbi (UNIVEN)
Treasurer:	Dr SS Mnyakeni Moleele (UNIVEN)
Chair, Scientific Programme:	Dr VJ Tembu (TUT)
Scientific Programme:	Dr R Mohlala (UL), Prof W Nxumalo (UL), Dr MA Selepe (UP)

Marketing and Entertainment:
Prof CM Nkambule (TUT)

Dr M Bvumbi (UNIVEN), Mr N Makhubela (SMU),

Dr C Veale
Chairperson Organic Chemistry

SAAMS



Report for the period August 2021 to July 2022

1. **Committee**

One committee meeting was held during this period:
4 March 2022

SAAMS National Committee – 2021/2023:

Chairperson: Maré Linsky
Immediate past chairperson: Ljiljana Marjanovic
Treasurer: Schalk de Kock *
Other committee members: Egmont Rohwer (International representative)
Ireshyn Govender (Website and Communication)
Madelien Wooding (Minutes secretary)
Duncan Cromarty
Désirée Prevoo-Franzsen *
Previn Naicker
Cornelius Rimayi
Vendor industry representative: Maxime Chalmers van den Berg
Liaison with SACI (Co-opted): Mike Britton

* Schalk indicated that this will be his last term to serve as treasurer. Désirée will be shadowing him for the next two years to take over from him.

2. **Membership**

SAAMS has a membership of 436 members (as of March 2022) including students, analysts, researchers and instrument supplier representatives. Apart from chemical laboratories and institutions, members come from other disciplines such as veterinary, microbiology, pharmaceutical, food and drug, geology, agricultural, medical etc.

3. Finances

Auditing of the SAAMS financial statements for the 2021/2022 period has not been completed. The financial auditor is Mr John Mosdell. SAAMS bank statements on 8 February 2022 were:

SAAMS Financial position on 30 April 2021:

- Savings account: R39 674.74
- Unit Trust: R278 677.60

The only income received during the last financial year was interest on the unit trust investment as well as a R 20 000.00 refund for ChromSAAMS seed funding provided.

Expenses during the period included the cost of bank charges, website hosting fees and auditor fees. IMSF membership for 2021 and 2022 to the amount of €510 was also made during the period. Due to the lack of income from conferences, the SAAMS finances have been steadily declining over the last couple of years.

4. Functions and activities

Unfortunately, SAAMS did not host any events during the last financial year. Information regarding several international virtual events were distributed to members.

5. Website and Social media

SAAMS are currently maintaining a website. A LinkedIn account that has been dormant has been recovered.

6. General

The SAAMS committee looks forward to organizing more mass spectrometry related activities once the Covid-19 pandemic is over and will, in the meantime, continue to support applicable web-based events as far as possible.

Maré Linsky
Chairperson SAAMS

GREEN CHEMISTRY

Nothing to report

Prof Rosalyn Klein
Chairperson Green Chemistry

THERMSA



Committee

Chairperson: Prof Liezel van der Merwe (UP)
Immediate Past Chairperson/Website: Dr. Kobus Wagener (Necsa)
Treasurer and Secretary: Dr Isbé van der Westhuizen (UP)
Communication and membership: Mr. Benni Vilakazi (Necsa)
Regional Representatives: Dr. Chris Woolard, Dr. Andrew Pienaar

Events 2021-2022

No events were held during this period.

Knowledge dissemination

E-mail communication were sent to members and interested parties to ensure that local events such as local and international conferences, webinars and training sessions were communicated. Our website has been updated regularly.

Membership

There are currently 62 members of SACI who are members of ThermSA. In addition, there are 5 members who are not SACI members.

Prof L van der Merwe
Chairperson ThermSA

SACI STUDENT REPORT

Dear members,

After taking my farewell as the national student representative last year, I am privileged to be writing the annual report again for 2022. Just as the world is in a particular state of

flux as we return to a version of life as we knew it, so our student leadership is also in a state of flux. The digital interactions we had during the pandemic has shown us that our old ways of selecting student leadership have become obsolete and, for the first time, our student members will be able to elect their own leader at this year's national Young Chemists' Symposium.

The process of changing to this new system has taken us a while to implement, and the student activities have been a bit lacking as a result. SACI WC hosted a quiz night on 11 August for all students in the region co-sponsored by SACI WC and the RSC Southern section. Approximately 45 participants attended from four institutions in the Western Cape. At the time of writing this report many student activities are being planned. The national Young Chemists' Symposium is scheduled to for 3rd to 4th October while the Central and Western Cape sections have regional Symposia scheduled for 19 August and 9 September, respectively. Many of these events will take place in person, as the student membership is eager for these events after an almost 3-year hiatus. I wish my fellow students well as they organise these events and re-establish the networks which may have lapsed. Once the new student representative is elected, the focus of the rest of their term will be to revive the student activities in other sections which have been quiet during the past year and a half. I encourage the sectional student representatives to step up and support their new leader as much as possible for the remainder of their term. Finally, I express my gratitude to all our student members for being patient with the leadership during the pandemic period. I look forward to meeting you all at next year's national convention!

Megan Matthews
National SACI Student Representative

SACI CDI



The SACI CDI Forum was founded in 2021 to foster discourse on inclusion and diversity in the Chemical Sciences. SACI is dedicated to promoting diversity, inclusivity, and equity in the chemical sciences and rejects any form of discriminatory behaviour or threats. As a result, SACI will keep taking the lead in promoting international collaboration while respecting inclusivity and diversity, as well as ensuring the professionalism and integrity of chemists. In light of this, the CDI emerged to steer this discussion from a South African perspective.

SACI CDI Forum contributed to the 2022 IUPAC Global Women's Breakfast (GWB) by

organising the GWB event in South Africa (GWB2022, SA Edition), which was held on 16th February 2022 with the theme of "Empowering Diversity in Science". Members from Wits, UKZN, CPUT, Univen, Rhodes, and UJ, who represented the various sections of SACI, collaboratively organised the event. Pearson and Elsevier generously donated various prizes for the event, which was joined by more than 200 registered delegates from around the globe (Finland, Turkey, India, Nigeria, Kenya, Zimbabwe, Morocco, Egypt, Lesotho, and South Africa). Industry representatives from Sasol, Microsep, Separations, Play Africa and SANGO also joined us. Our guest speaker was Prof. Catherine Ngila (Acting Executive Director: African Academy of Sciences), who was discussing the gender gap within STEM, and the following panel discussion by Prof Kriveshini Pillay (UJ), Dr Roseanne Diab (GenderInSite), and Ms Dorothy Ngila (NRF) were reflecting on the raised points.

The current CDI team include Dr Sadhna Mathura (Chair), from Wits University; Prof. Bice Martincigh (Vice Chair), from UKZN; Prof. Nikoletta Báthori (Secretary/Treasurer) from CPUT and Ms Bianca Davids (Student Representative) from Wits University and assisted by Ms Laila Smith (SACI Administrator). We hope to facilitate many interesting conversations in the future by way of lectures, panel discussions, workshops and so on. To that end, do feel free to email SACI with any suggestions and comments on what types of activities you would like to see as part of the CDI's contributions.



Dr S Mathura
Chairperson SACI CDI

FINANCIAL REPORT - PERIOD 1 MAY 2021 TO 30 APRIL 2022

A full audited report is available on request.

	2020-2021	2021-2022	Y/Y-1	2021-2022	2021-2022
Income	Actual, R	Actual, R	%	Budget, R	Actual/Budget %
Admin donation from conferences	-				
Advertising Income	21,250	29,500	38.8	22,100	133.5
Critical Skills Evaluation	2,750	-	-100.0		#DIV/0!
Interest on Marketlink account	12	4,270	34931.9	8,000	53.4
IUPAC income	13,440	19,800	47.3	13,977	141.7
Journal Income	-	7,824	#DIV/0!		#DIV/0!
Membership Fees ¹	445,915	437,363	-1.9	481,655	90.8
Merchandise/Ties and Scarfs	2,340	5,790	147.4	2,434	237.9
PrChemSA annual and once off registration Fees	14,270	3,750	-126.3	3,750	100.0
SACNASP Mentorship program ²	-	30,000	#DIV/0!	30,000	100.0
Unallocated Income ¹	4,541	21,913	382.5		#DIV/0!
Total Income³	504,518	552,710	9.6	554,416	99.7
Expenditure	Actual, R	Actual, R	%	Budget, R	Actual/Budget %
Auditors ⁴	11,850	15,925	34.4	12,324	129.2
Bank Charges	8,721	5,106	-41.5	8,602	59.4
Certificates (Membership)	6,820	4,995	-26.8	7,093	70.4
Computer/Software/Pastel/Internet	32,541	32,256	-0.9	36,372	88.7
Courier and Postage	2,452	2,288	-6.7	2,550	89.7
Critical skills evaluation Prof Breet	700	-	-100.0		#DIV/0!
Entertainment Expenses (Council/Exco Functions)	-	-	#DIV/0!		#DIV/0!
General Expenses	6,236	7,732	24.0	6,486	119.2
Journal Expenses	56,146	72,971	30.0	67,866	107.5
Medal Prize Money and Minting of Medals	21,473	27,926	30.1	23,621	118.2
Merchandise	-	-	#DIV/0!	41,587	0.0
PrChemSA/PrSciNat Administration	-	-	#DIV/0!		#DIV/0!
Printing, Stationery and Photocopying	7,850	6,751	-14.0	8,164	82.7
Rental ⁵	18,000	4,500	-75.0	18,720	24.0
SAJC online submissions	16,493	17,836	8.1	17,153	104.0
Salaries and Wages ⁶	431,329	463,415	7.4	582,931	79.5
SACNASP Mentorship costs (training material/short courses)	-	-	#DIV/0!	20,000	0.0
Subscriptions (IUPAC/FASC/EBSCO/NSTF/SAQA) ⁷	12,057	38,184	216.7	32,540	117.3
Telephone and Fax	4,473	4,112	-8.1	4,652	88.4
Telkom Wifi	5,778	5,238	-9.3	6,008	87.2
Travel and Accommodation	1,915	-	-100.0	1,992	0.0
25% loss ChromSAAMS ⁸		20,000			
Zoom Conference call	-	-	#DIV/0!		#DIV/0!
Total Expenditure⁹	644,834	729,234	13.1	898,661	81.1
Item	Actual, R	Actual, R	%	Budget, R	Actual/Budget %
Total Income	504,518	552,710	9.6	554,416	99.7
Total Expenditure	644,834	729,234	13.1	898,661	81.1
Balance¹⁰	- 140,316	- 176,524	25.8	- 344,245	-51.3

SACI Admin Accounts	Opening Balance, R - 01 May 2021	Closing Balance, R	Gain/Loss, R
Wits Admin account	213	3,147	2,934
Standard Bank Market Link Account	1,871	84,599	82,727
Standard Bank Cheque account	247,491	42,853	-204,639
Total	249,576	130,598	-118,978

Investment Accounts	Opening Balance, R - 01 May 2021	Closing Balance, R	Gain/Loss, R
Coronation Global Optimum Growth Fund	276,691	223,476	- 53,216
Fairtree SA Equity Prescient Fund	306,103	321,366	15,264
Ninety One Equity Fund H	610,025	662,408	52,384
SIM General Equity Fund	531,278	601,451	70,174
Total¹¹	1,724,096	1,808,701	84,605

Seed Monies and Loans	Total, R
Central	18,081
ICCE 2020	200,000
Total	218,081

Profit Derived from Conferences, R	2020-2021	2021-2022	Gain/Loss, R
Total	-	-	-

Divisional Accounts not managed by SACI	Opening Balance, R - 01 May 2021	Closing Balance, R	Gain/Loss, R
ChromSA	419,586	451,067	31,481
SAAMS	310,032	319,688	9,657
Western Cape	4,900	4,900	-

Divisions' Market Link Accounts managed by SACI	Opening Balance, R - 01 May 2020	Closing Balance, R	Gain/Loss, R
Analytical Chemistry	261,682	269,403	7,721
Central	111	111	-
Chemical Education	1,232	1,243	11
Computational Chemistry	5,658	5,714	56
Eastern Cape	78,237	86,910	8,673
Electrochemistry	158,135	162,800	4,666
Green Chemistry	57,161	58,322	1,161
Inorganic Chemistry	200,226	205,164	4,939
Kwazulu Natal	108,356	107,956	- 401
KZN Womans Functions	23,371	24,060	690
North	11,391	12,903	1,513
Organic Chemistry	262,398	270,140	7,742
ThermSA	52,853	53,645	792
Western Cape	100,033	95,841	- 4,193
Total¹²	1,320,844	1,354,213	33,369

NOTES: INCOME

1. Membership 91% of budget (which was based on membership numbers 30 April 2021) - Significant input from Secretariat. R21 913.20 income not yet allocated. 3-yearly memberships paid in 2018/2019 budget year, hence, not included in this

year's income. In addition, memberships decreased due to COVID and no Convention, conferences.

2. New income ex SACNASP - grant received for mentorship program, but no referrals ex SACNASP for mentorship yet.
3. Total income on budget (99.7%).

EXPENDITURE

4. Additional Auditors charges for tax return audit.
5. Wits office rental fees waived due to COVID and office moved.
6. Wits account for Secretariat's salary – 12 invoices received. It is noted that the budget incorrect as included increase from 01 May 2021 and should only be from 01 Jan 2022.
7. SAQA outstanding invoices paid; no future PrChemSA registrations via SAQA.
8. R50 000 Seed Money to ChromSA/SAAMS; conference cancelled due to COVID-19; R80 000 loss, hence, 25%, R20 000, of loss paid by SACI and R30 000 of Seed Money returned.
9. Total expenditure 81% of budget.
10. Balance Income minus Expenditure = loss; i.e. significantly less than expected due to a tight rein on the routine finances by the Secretariat.

INVESTMENT ACCOUNTS

11. Investments performing, well except for Coronation, which has been subjected to International investments and exchange rate – US\$ fluctuations (financial year end R15.5:1US\$; bought at R18:2US\$).

DIVISIONAL ACCOUNTS

12. Divisional accounts in credit and gains for the year; only Central accounts static.

The audited accounts for 01 May 2021 to 30 April 2022 were approved. Overall loss, including Income, Expenditure, Investments & Divisional Accounts was only R8 558, which is insignificant considering no conference income received (& a ChromSAAMS seed money loss of R20 000).

Thank you to the Secretariat for the day to day management of the finances.

SACI BUDGET 01 MAY 2022 to 30 APRIL 2023

The budget for new financial year 01 May 2022 to 30 April 2023 approved by EXCO.

A 10% increase for 2022/2023 financial year, from actuals 2020/2022, unless otherwise noted.

	2021-2022	2021-2022	2021-2022	2022-2023	021/2022 to 2022/2023
Income	Budget, R	Actual, R	Actual/Budget %	Proposed Budget, R	Act 2021/2022 vs Bud 2022/2023, %
Admin donation from conferences					
Advertising Income	22,100	29,500	33.5	29,500	-
Interest on Marketlink account	8,000	4,270	- 46.6	4,270	- 0.0
IUPAC income	13,977	19,800	41.7	19,800	-
Journal Income		7,824		7,823	- 0.0
Membership Fees ¹	481,655	437,363	- 9.2	1,031,680	135.9
Merchandise/Ties and Scarfs	2,434	5,790	137.9	5,790	-
PrChemSA annual and once off registration Fees	- 3,750	- 3,750	-	-	- 100.0
SACNASP Mentorship program	30,000	30,000	-	-	- 100.0
SACI convention/ conference income (75% profit) ²				243,408	#DIV/0!
Unallocated Income		21,913		-	100.0
Total Income	554,416	552,710	- 0.3	1,342,271	142.9

	2021-2022	2021-2022	2021-2022	2022-2023	021/2022 to 2022/2023
Expenditure	Budget, R	Actual, R	Actual/Budget %	Proposed Budget, R	Act 2021/2022 vs Bud 2022/2023, %
Auditors ³	12,324	15,925	29.2	19,750	24.0
Bank Charges	8,602	5,106	- 40.6	5,106	0.0
Certificates (Membership)	7,093	4,995	- 29.6	5,495	10.0
Courier and Postage	2,550	2,288	- 10.3	2,517	10.0
Entertainment Expenses (Council/Exco Functions)		-	30,000.0		
General Expenses	6,486	7,732	19.2	8,505	10.0
IT (Computer/Software/Pastel/Internet/Web page) ⁴	36,372	32,256	- 11.3	85,481	165.0
Journal Expenses ⁵	67,866	72,971	7.5	100,268	37.4
Medal Prize Money and Minting of Medals	23,621	27,926	18.2	30,719	10.0
Merchandise	41,587	-	- 100.0	45,746	#DIV/0!
Printing, Stationery and Photocopying	8,164	6,751	- 17.3	7,426	10.0
Rental ⁶	18,720	4,500	- 76.0	18,450	310.0
SAJC online submissions	17,153	17,836	4.0	19,619	10.0
Salaries and Wages ⁷	582,931	463,415	- 20.5	483,365	4.3
SACNASP Mentorship costs (training material/short courses)	20,000	-	- 100.0	20,000	
Subscriptions (IUPAC/FASC/EBSCO/NSTF/SAQA)	32,540	38,184	17.3	9,003	- 76.4
Telephone and Fax	4,652	4,112	- 11.6	4,523	10.0
Telkom Wifi	6,008	5,238	- 12.8	5,762	10.0
Travel and Accommodation	1,992	-	- 100.0	40,000	#DIV/0!
25% loss ChromSAAMS		20,000		-	100.0
Total Expenditure	898,661	729,234	- 18.9	911,734	25.0

	2021-2022	2021-2022	2021-2022	2022-2023	021/2022 to 2022/2023
Item	Budget, R	Actual, R	Actual/Budget %	Proposed Budget, R	022 vs Bud 2022/2023, %
Total Income	554,416	552,710	- 0.3	1,342,271	142.9
Total Expenditure	898,661	729,234	- 18.9	911,734	25.0
Balance⁸	- 344,245	- 176,524	- 48.7	430,537	343.9

NOTES:

INCOME

1. Membership fee income based on invoices issued in Jun 2022. 3-year memberships 01 Jul2022 to 30 Jun 2025: 155 members (144 Corporate, 3 old Associate, 2 Associate, 6

Retired) = R482 940. Annual invoices all other members for 01 Jul 2022 to 30 Jun 2023 R548 740.

2. 75% profit returns - Based on SACI 44th Convention budget from organising committee.

EXPENDITURE

3. Additional auditor charges for 2022/2023 for tax return audits.
4. Additional cost for updated SACI web page (R30 000) & new laptop for Secretariat (R20 000).
5. Additional journal expenses for updating the journal portal (R20 000).
6. Rental based on current monthly cost (invoices Apr to Dec 2022) and 10% increase (invoices Jan to Mar 2023) - rental waived by Wits in 2021 due to COVID.
7. Based on current monthly Secretariat salary (invoices Apr to Dec 2022) and 6% increase (invoices Jan to Mar 2023).
8. Excludes Divisions' accounts & investments.

Mrs S Finney
Executive Treasurer

RECIPIENTS OF THE GOLD MEDAL OF THE INSTITUTE

1970	L H Ahrens	1996	D Ferreira
1971	P C Carman	1997	N J Coville
1972	S G Shuttleworth	1998	W McGill
1973	W S Rapson	1999	T M Letcher
1974	P E Rousseau	2000	M E Brown
1975	V Pretorius	2001	J P Michael
1976	C van der Merwe Brink	2002	H G Raubenheimer
1977	D G Roux	2003	L Nassimbeni
1978	G J Stander	2004	B Burger
1979	R E Robinson	2005	No award
1980	C F Garbers	2006	T A Ford
1981	P R Enslin	2007	P Kaye
1982	GW Perold	2008	No award
1983	J C A Boeyens	2009	M R Caira
1984	J R Bull	2010	No award
1985	A M Stephen	2011	C J H Schutte
1986	M Peisach	2012	T Nyokong
1987	P S Steyn	2013	B Klumperman
1988	C W Holzapfel	2014	L J Barbour
1989	No award	2015	H Marques
1990	J G H du Preez	2016	TJ Egan
1991	No award	2017	H Pasch
1992	A Goosen	2018	K Chibale
1993	R J Haines	2019	K Koch
1994	A M Heyns	2020	C B de Koning
1995	S E Drewes	2021	F R van Heerden

RECIPIENTS OF THE RAIKES MEDAL

1961	P C Haaroff	1993	G H Verdoorn
1962	A J de Koning	1994	N V Jarvis
1963	No award	1995	M Raynor
1964	No award	1996	No award
1965	No award	1997	No award
1966	S E Drewes	1998	No award
1967	W Robb	1999	K J Naidoo
1968	C H J Shutte	2000	M H S Gradwell
1969	R A Basson	2001	M J Mphahlele
1970	No award	2002	R I Stefan
1971	No award	2003	No award
1972	D P Botes	2004	W A L van Otterlo
1973	R J Haines	2005	No award
1974	P S Steyn	2006	No award
1975	No award	2007	J R Zeevaart
1976	R D Hancock	2008	O Q Munro
1977	G V Fazakerley	2009	R Meijboom
1978	R van Eldik	2010	M Fernandes
1979	K De Haas	2011	G Smith
1980	G J Mc Dougall	2012	H Tutu
1981	T V Ashworth	2013	E Strauss
1982	R L Paul	2014	A Lemmerer
1983	No award	2015	A J de Villiers
1984	No award	2016	Z R Tshentu
1985	No award	2017	D I Bezuidenhout
1986	M O Albers	2018	No award
1987	No award	2019	No award
1988	No award	2020	T Naicker
1989	H M Marques	2021	K A de Villiers
1990	C A Strydom		
1991	M D Adams		
1992	J H Potgieter		

RECIPIENTS OF THE MERCK MEDAL

2000 J F van Staden
2001 G H P Roos
2002 N J Coville
2003 J C A Boeyens
2004 I Cukrowski
2005 B Staskun
2006 H M Marques
2007 J J Pienaar
2008 P P Coetzee
2009 C W van der Westhuizen
2010 N J Coville

2011 R H Simoyi
2012 D A Katskov
2013 D D N'Da
2014 J Conradie
2015 N J Coville
2016 B S Martincigh
2017 B S Martincigh
2018 P G Ndungu
2019 L M Madikizela
2020 V O Nyamori
2021 M W Gitari

RECIPIENTS OF THE CHEMICAL EDUCATION MEDAL

1993 M J Laing
1994 J Elsworth
1995 M Selvaratnam
1996 J D Bradley
1997 GC Gerrans
1998 No award
1999 S J Nel
2000 P Huddle
2001 No award
2002 M S Rollnick
2003 No award
2004 B Davidowitz
2005 No award
2006 G O M Onwu
2007 M White
2008 M Potgieter

2009 G V Green
2010 E Steenberg
2011 P Loyson
2012 J D Sewry
2013 No award
2014 P Forbes
2015 E Mavhunga
2016 H Drummond
2017 L A Pilcher
2018 K Mathabathe
2019 M H Du Toit
2020 M A Blackie
2021 R Toerien

RECIPIENTS OF THE SASOL INNOVATOR OF THE YEAR AWARD

2002	No award	2012	No award
2003	No award	2013	L J Barbour
2004	M J Green	2014	O Munro
2005	I Smith	2015	L B Klumperman
2006	No award	2016	No award
2007	No award	2017	No award
2008	No award	2018	No award
2009	No award	2019	No award
2010	No award	2020	No award
2011	No award	2021	No award

RECIPIENTS OF THE INDUSTRIAL CHEMISTRY MEDAL

1961	G E Mapstone	2003	No award
1962	No award	2004	K McIntosh
1963	No award	2005	No award
1994	A Geertsema	2006	No award
1995	F Fisher	2007	No award
1996	No award	2008	No award
1997	No award	2009	No award
1998	No award	2010	No award
1999	No award	2011	J Dixon
2000	N Ravenscroft	2012	No award
2001	T Grimmbacher	2013	No award
2002	No award		

RECIPIENTS OF SASOL POST-GRADUATE MEDAL

- 1994 J J Nair, O Q Munro, P G Mountford, M H S Gradwell
1995 B G Taverner, J L Scott, S L Roberts, P Mason
1997 J A Ferreira, J du Toit, V Sewram, D Bessarabov, A Horne
1998 M A Hearshaw, W A L van Otterlo, J J C Erasmus, H A Mahomed, J J C Grove
1999 H van Rensburg, M A Fernandes, G Cripps
2000 S Otto, A Rousseau
2001 K Kaschula, W van Rensburg, K Blann
2002 H de Bod, M Onani, C B Perry, D Webber
2003 L Mpholle, K Barnes, C Gray
2004 A Landman, E E Mmutlane, T le Roex, M Shezi
2005 S C Pelly, N Govender
2006 A Lemmerer, J N Zimba, M Lawton
2007 G Morgans
2008 S D Mhlanga, K A de Villiers, S Hadebe, M Shaw
2009 S Pelly, C B Barnett, G A Boyle, T I Nkambule
2010 D Bezuidenhout, E Nxumalo
2011 W Motswainyana, O Onajole, D Cruishcank, A Shaikjee, R Wamsley
2012 T Chetty, C F Zipp, D Kuter
2013 D Ondigo, M Maubane, N Njuguna, H Wahl
2014 A S Ogunlaja, M M Johnson, K J Wicht, C Obuah

RECIPIENTS OF SACI POST-GRADUATE MEDAL

- 2015 B P Camden Grover, W F Petersen, M N Pillay
2016 M W Dlamini, I Rogers, K Gopaul
2017 G Kleinhans, EM Njogu, C I Nkanga, T N Phaahlamohlaka, J Okombo
2018 E Mombeshora, S Ncube, S Sayed, A E van der Westhuyzen
2019 H Montaseri, M Seopela, T Amollo, U Muza, L Greyling
2020 A Shnier, J Lombard, A H Labulo
2021 A O Akinfenwa, P Mente, S A Nsibande

RECIPIENTS OF THE JAMES MOIR MEDAL

- 1999 J P K Reynhardt, A J de Villiers, R Best, K Thornell, S V Goodall, K Blann, U Naidoo, N I Harmse, D P de Carcenac, R Cock, J C Nel

- 2000 N Grootboom, E Lamprecht, Amaluleke, D Rautenbach, G L Natrass, A M Castille, W Gerber
- 2001 J van Rensburg, T Le Roex, X K Peter, J Taljaard, K Lobb, G Venter, A van Aswegen
- 2002 L Greyvenstein, D Patten, Y Baijnath, T Raasch, K Stern, M du Toit, S Botha, O Horwood
- 2003 V Buchanan, E T Borkum, E Erasmus, P Reddy, P Franklyn
- 2004 W Barnard, R Gessner, A Gordon, Z Hall, G Lloyd, L Rota
- 2005 D I Bezuidenhout, C Booyjzsen, J Coetzee, R Janse van Vuuren, Y Koen, C A Laing, E Marais, S Mohamed, M S Mokhadinyana, N Moodley, J Paraskevopoulos, T S Pentz
- 2006 T Paquet, I Rootman, N Rose, P D R Kptze, S Travis, N Miti, D Duma, V A Patterson, M van Rhyn
- 2007 L Loots, M Adendorf, S Botha, M W Smith, P Skillington, N E Hendricks, T Hughes, B Waldron, M N Kay, D J Brankin
- 2008 S A Herbert, K E Mason-Jones, N Silwana, C Reynolds, J I du Toit, A Manival, A Cullen, T R Madihlaba, B Truscott
- 2009 E Hanekom, W Xu, S M Jing, C F Zipp, Y Nortje, K J Gillham, B Dzepina, P Nyamukamba, A C Conibear, A Ilchev, P I Tshoke, K Potgieter, B Simpson
- 2010 C Eley, A Falch, I Grobler, K Hadje Georgiou, N Jijana, P Khalili, R Koen, L Komarsamy, H Maritz, W Petersen, A Pholosi, C A Renison, B K Sebogisi, P Sobantu, S Thompson
- 2011 M Lephoto, H Mungondori, R Pretorius, C Rassie, S Robinson, T Pieterse, A Sayed, K Wicht, M Ungerer
- 2012 L van der Westhuizen, L van der Wat, B B Davies, B Camden-Smith, J Coetzee, M B Ismail, T Gunther, J M Taylor, T N Phaahlamohlaka, I Clifford
- 2013 N Steyn, N Mvumvu, S F Douman, R Hartzenberg, L Dralle, E H Kamanga, F M Amombo Noa, A J K Kupeta, M Mohale
- 2014 E Mamedov, S Raghunath, I Strydom, P L Pohl, M Dunn, T Saywood, N A Dare, J B M L Smit, S Chohan
- 2015 H H Shiri, R Chitongo, O A Makgae, S De Kock, R Mente, S Magqazolo, R M Taylor, J Ferreira, M Visser, D E Chetty, S Pakade
- 2016 D Botes Myalo, B Steytler, K B Govender, J Leygonie, A Vicatos, J Lombard, L Swartzberg, A L Battison, K Nyamayaro, M Chizema
- 2017 V Tokoyi, N R Molupe, B Dzingwe, D Rademeyer, V D Ramasamy, S Lovisa, W Duminy, J Botha, S E Orango Adewinogo, B Shaku, O M C Matlhaku, V Vermaak, G S Motloung, B L Davids, N I Richardson, T Cooper
- 2018 S L Bewana, L Parrott, S Jama, Z Nqakala, T Sithuba, A Welsh, J J Moser, J L Slabbert, F Jagot, A L Henning, V L Porter, T Naidoo, U Ndagano
- 2019 T P Mabate, Z Madikizela, B A Fortuin, S B Tshifaro, L Garnie, A Khasipo, D B Malihase, N Mqoni, W J Rudolph, S Abdullah, R Mphephu, J L Thibaud, Y Sukku, N Mpiti, M Seloi
- 2020 I J Minnie, A Kritzinger, S A Fraser, L Amod, P Maseko, Khuzwayo, G Ramaremsa, L Mbonzhe, M Maritz
- 2021 K S Masotla, Z Johnston, A I Nemudzivhadi, I Vawda, A G Sekopelo, N Teixeira, M Reed, L Masemola, H van Dyk, C M Bemiah, K Heinrich, M Bracken, C N Chiyumba

RECIPIENTS OF THE AECI MEDAL

1961	P R Enslin, L A Anderson and W T de Kock	1979	G M L Cragg
1962	F J Joubert and T Haylett	1980	J C A Boeyens
1963	O A Swanepoel	1981	E Singleton
1964	V Pretorius and P C van Berge	1982	C Pohlandt
1965	M Peisach and C O Poole	1983	J M Koekemoer and G J Lourens
1966	C v d M Brink, W Nel, G H J Rall, J C Weitz and K G R Pachler	1984	No award
1967	M B Hanley, S C Churms and E C Leisegang	1985	R M A von Wandruszka
1968	G W Perold and H K L Hunt	1986	E Singleton
1969	J Turkstra, G B Behrens and W J de Wet	1987	A E Watson
1970	W J Engelbrecht and M J de Vries	1988	C W Holzapfel
1971	J G H du Preez	1989	T A Ford
1972	J A van den Berg	1990	E Singleton
1973	J C A Boeyens	1991	P P Coetzee
1974	T W Steele	1992	J R Bull
1975	A Goosen	1993	A Amman
1976	P C Carman	1994	N J Coville
1977	E F C Rohwer and J J Cruywagen	1995	J F van Staden
1978	F E W Strelow	1996	P P T Kaye
		1997	T A Ford
		1998	J M Anderson

RECIPIENTS OF THE HENDRIK VAN ECK MEDAL

1983	A E Rupert	1999	No award
1984	N Stutterheim	2000	No award
1985	No award	2001	No award
1986	No award	2002	P S Steyn
1987	No award	2003	No award
1988	No award	2004	No award
1989	No award	2005	No award
1990	No award	2006	No award
1991	C F Garbers	2007	No award

1992	No award	2008	No award
1993	F E Malherbe	2009	No award
1994	No award	2010	No award
1995	No award	2011	No award
1996	R R Arndt	2012	No award
1997	No award	2013	No award
1998	No award		

RECIPIENTS OF THE MISCHA MROST (ANALYTICA) PRIZE

1977	J M Pratt	1996	G J Stander
1978	I R Leith	1997	J H Potgieter
1979	H J Hattingh	1998	No award
1980	P Theron	1999	P Apps
1981	J Zlotnick	2000	N J Coville
1982	G L Moore	2001	E W Neuse
1983	M F Dutton	2002	No award
1984	No award	2003	S S Potgieter
1985	R Osborne	2004	No award
1986	G L Moore	2005	P W Lotz
1987	M A B Pougnet and M A E Wandt	2006	No award
1988	S Parris	2007	No award
1989	T M Letcher	2008	No award
1990	M A B Pougnet	2009	No award
1991	C Pohlandt-Watson and E A Jones	2010	No award
1992	D Gravett and L Salter	2011	No award
1993	No award	2012	No award
1994	No award	2013	No award
1995	M J Laing		