

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **JACOBUS (KOOS) FREDERICK VAN STADEN**
 Address(es) **PASCANI Strada Nr. 8, Bloc. 728A, Sc. B Et. 4, Ap. 52, 062085. Bucharest-6. ROMANIA.**
 Telephone(s) Mobile: **+4 074 169 5743** Mobile: **+4 074 943 2360**
 E-mail koosvanstaden2012@yahoo.com; koosvanstaden@patlab.ro Website: www.patlab.ro
 Nationality South African and Permanent Residence Romania.
 Date of birth 12 January 1945
 Gender Male

Expert **PTA / Actually Senior Researcher (Director PATLAB) and Professor**

NMP-2008-2.1-1, Nanostructured membrane materials
 NMP-2008-2.6-4, ERA-NET PLUS on Materials Research
 NMP-2009-2.1-1, Nano-structured materials based on graphene
 NMP-2009-2.6-1, Novel membranes for water technologies
 NMP.2010.2.4-1, New materials and/or membranes for catalytic reactors
 GC.NMP.2010-1, Materials, technologies and processes for sustainable automotive electrochemical storage applications
 GC.NMP.2012-1, Innovative automotive electrochemical storage applications based on nanotechnology
 NMP.2012.1.2-1, Nanotechnology solutions for in-situ soil and groundwater remediation
 NMP.2011.1.2-3, Active nanomembranes/-filters/-adsorbents for efficient water treatment with stable or regenerable low-fouling surfaces
 NMP.2011.1.2-1, Development and up-scaling of innovative photovoltaic cell processes and architectures to pilot-line scale for industrial application
 NMP.2010.4.0-1, Development of nanotechnology-based systems for detection, diagnosis and therapy for cancer
 Coordination between projects related to Nanomedicine
 NMP.2010.4.0-2, Capacity building for the development of nanotech-based multi-parameter sensors
 NMP.2010.1.2-1, Novel tools integrating individual techniques for real time nanomaterials characterisation
 NMP.2011.1.3-1, New methods for measuring, detection and identification of nanoparticles in products and/or in the environment
 NMP.2011.1.3-1, New methods for measuring, detection and identification of nanoparticles in products and/or in the environment
 NMP.2011.2.3-2, ERA-NET on research on materials science and engineering, including international cooperation
 NMP.2012.2.1-2, Fine chemicals from CO₂
 NMP.2012.2.2-6, Photocatalytic materials for depollution
 NMP.2012.4.0-1, Novel materials and design-based solutions for the creative industry
 Processing technologies, synthetic chemistry, process Intensification, catalysis, Wood and Pulp & Paper Technologies (NMP.2012.3.0-1, NMP.2011.3.2-1)
 Green Cars: Advanced Manufacturing of batteries, electrical components, lightweight structures
 (GC.NMP.2012-1, GC.NMP.2012-2, GC.NMP.2011-1)

EXPERT: Project Technical Advisor in 13 projects for the European Commission since 2009 where he was also involved as rapporteur, independent observer, evaluator and as technical scientific reviewer.

Work experience

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| Dates (From- To) | 2007 - Current |
| Occupation or position held | Senior Researcher 1 (Director PATLAB), Full Professor status. Professor . Polytechnica University of Timisoara |
| Main activities and responsibilities | Director PATLAB , Research and coordinator of Different Projects, Professor Status (Supervisor) for PhD Graduates |
| Name and address of employer | National Institute for Research and Development in Electrochemistry and Condensed Matter-Timisoara, PATLAB and Laboratory of Electrochemistry, Bucharest, 202, Splaiul Independentei Str., 060021-Bucharest, Romania |
| Type of business or sector | Research/Management |
| Dates (From- To) | 2005 -2006 |
| Occupation or position held | Private Consultancy |
| Main activities and responsibilities | Research, Education, Management Courses |
| Name and address of employer | Self Employed |
| Type of business or sector | Universities, National Institutes, Industries. |
| Dates (From- To) | 1991-2004; 1987-1990; 1980 -1986; 1976-1980 |
| Occupation or position held | Full Eminent Professor, Head of Analytical Chemistry and Process Analytical Chemistry; Associate Professor; Senior Lecturer; Lecturer |
| Main activities and responsibilities | Education, Research (Pure and Applied), Collaborations with Industries, Institutes, Universities, Various responsibilities. |
| Name and address of employer | University of Pretoria, Faculty of Natural and Agricultural Sciences, Department of Chemistry, 0002 Pretoria, South Africa |
| Type of business or sector | University |
| Dates (From- To) | 1975-1976; 1973-1975; 1964-1973 |
| Occupation or position held | Pretoria Technicon and University of Zululand, SASOL |
| Main activities and responsibilities | Lecturer, At SASOL from Laboratory Assistant to Scientist and Section Head responsible for GC, MS and Corrosion. |
| Name and address of employer | Universities (Pretoria and Zululand), SASOL, Sasolburg, RSA |
| Type of business or sector | Universities and production of Petrol, Diesel, Fine Chemicals from Coal. |
| Education and training | |
| Dates | 1978; 1970; 1969; 1968 |
| Title of qualification awarded | DSc; MSc; BSc Honns; BSc |
| Principal subjects/occupational skills covered | Chemistry |
| Name and type of organisation providing education and training | University of Pretoria (DSc), University of the Orange Free-State |
| Level in national or international classification | DSc |

Personal skills and competences

Mother tongue(s) **Specify mother tongue Afrikaans**

Other language(s) **ENGLISH**

Self-assessment

European level ()*

Language (English)

Language

| Understanding | | Speaking | | Writing |
|----------------------|-----------|--------------------|-------------------|----------------|
| Listening | Reading | Spoken interaction | Spoken production | |
| Excellent | Excellent | Excellent | Excellent | Excellent |
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() Common European Framework of Reference for Languages*

Specialist Fields :

1. H2020->Science->NATURAL SCIENCES->Chemical sciences->Physical chemistry, Polymer science, Electrochemistry (dry cells, batteries, fuel cells, corrosion metals, electrolysis)->Photochemistry
2. H2020->Science->NATURAL SCIENCES->Chemical sciences->Physical chemistry, Polymer science, Electrochemistry (dry cells, batteries, fuel cells, corrosion metals, electrolysis)->Structure and dynamics of disordered systems: soft matter (gels, colloids, liquid crystals, etc.), glasses, defects, etc.
3. H2020->Science->NATURAL SCIENCES->Chemical sciences->Physical chemistry, Polymer science, Electrochemistry (dry cells, batteries, fuel cells, corrosion metals, electrolysis)->Materials for sensors
4. H2020->Science->NATURAL SCIENCES->Chemical sciences->Physical chemistry, Polymer science, Electrochemistry (dry cells, batteries, fuel cells, corrosion metals, electrolysis)->Nanochemistry
5. H2020->Science->NATURAL SCIENCES->Chemical sciences->Physical chemistry, Polymer science, Electrochemistry (dry cells, batteries, fuel cells, corrosion metals, electrolysis)->Electrochemistry, electrodialysis, microfluidics, sensors
6. H2020->Science->NATURAL SCIENCES->Chemical sciences->Analytical chemistry->Analytical chemistry
7. H2020->Science->NATURAL SCIENCES->Chemical sciences->Analytical chemistry->Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions
8. H2020->Science->NATURAL SCIENCES->Chemical sciences->Applied and industrial chemistry
9. H2020->Science->NATURAL SCIENCES->Chemical sciences->Applied and industrial chemistry->Process Chemistry
10. H2020->Science->NATURAL SCIENCES->Chemical sciences->Applied and industrial chemistry->Process Intensification
11. H2020->Science->NATURAL SCIENCES->Chemical sciences->Applied and industrial chemistry->Catalysis
12. H2020->Science->NATURAL SCIENCES->Biological sciences->Biochemical research methods
13. H2020->Science->ENGINEERING AND TECHNOLOGY->Chemical engineering->Chemical process engineering
14. H2020->Science->ENGINEERING AND TECHNOLOGY->Chemical engineering->Chemical process engineering->Production technology, process engineering
15. H2020->Science->ENGINEERING AND TECHNOLOGY->Materials engineering->Materials engineering
16. H2020->Science->ENGINEERING AND TECHNOLOGY->Materials engineering->Materials engineering->Nanotechnology, nano-materials, nano engineering
17. H2020->Science->ENGINEERING AND TECHNOLOGY->Environmental biotechnology->Environmental biotechnology
18. H2020->Science->ENGINEERING AND TECHNOLOGY->Industrial biotechnology->Bioproducts (products that are manufactured using biological material as feedstock) biomaterials, bioplastics, biofuels, bioderived bulk and fine chemicals, bio-derived novel materials
19. H2020->Science->ENGINEERING AND TECHNOLOGY->Nano-technology->Nano-materials (production and properties)
20. H2020->Science->ENGINEERING AND TECHNOLOGY->Nano-technology->Nano-processes (applications on nano-scale)

Pre-defined Themes :

7. Horizon 2020 ->Horizon 2020 areas->Future and Emerging Technologies
8. Horizon 2020 ->Horizon 2020 areas->Nanotechnologies
9. Horizon 2020 ->Horizon 2020 areas->Advanced materials
10. Horizon 2020 ->Horizon 2020 areas->Biotechnology
2. Horizon 2020 ->Horizon 2020 areas->Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy
4. Horizon 2020 ->Horizon 2020 areas->Secure, clean and efficient energy
1. Horizon 2020 ->Horizon 2020 areas->Smart, green and integrated transport
6. Horizon 2020 ->Horizon 2020 areas->Climate action, environment, resource efficiency and raw materials
3. Horizon 2020 ->Horizon 2020 cross-cutting issues->Sustainable development
5. Horizon 2020 ->Horizon 2020 cross-cutting issues->Programme monitoring and evaluation

Open Keywords :

- 1 Active nanomembranes/-filters/-adsorbents for efficient water treatment with stable or regenerable low-fouling surfaces, waste reduction, water treatment
- 2 Critical raw materials, new process technologies
- 3 Materials, technologies and processes for sustainable automotive electrochemical storage applications
- 4 Multiple process and analytical platforms
- 5 Nano-structured materials based on graphene and graphene related materials
- 6 Nanostructured membrane materials, Capacity building for the development of nanotech-based multi-parameter sensors
- 7 New materials and/or membranes for catalytic reactors, water technology
- 8 New methods for measuring, detection and identification of nanoparticles in products and/or in the environment
- 9 Novel materials and design-based solutions for the creative industry
- 10 Novel tools integrating individual techniques for real time nanomaterials characterisation
- 11 Processing technologies, synthetic chemistry, process Intensification, catalysis
- 12 Smart, green integrated transport
- 13 diagnosis, medical screening, point of care diagnostics
- 14 high-throughput fully automated real time information management and process control systems
- 15 industrial, food, agricultural, environmental (water, air, soil), clinical, pharmaceutical, petroleum analysis and on-line monitoring
- 16 innovation and business cooperation
- 17 remote monitoring, remote sensing, technology transfer

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| Social skills and competences | At University of Pretoria. 1. President of CHEMTUKS (Student organisation for a number of years). 2. On number of Social Committees for Department of Faculty and Chemistry for number of years (Chairman, Vice-Chairman on number of occasions). See Annexes |
| Organisational skills and competences | <ol style="list-style-type: none"> 1. Currently Director of PATLAB. See www.patlab.ro 2. Currently Member of Advisory Panels of NRF (National Research Foundation) of South Africa. Previous Chairman of some Advisory Panels of NRF. 3. Currently SENIOR MEMBER of Division of Analytical Chemistry of European Association for Chemical and Molecular Sciences. 4. Currently member of South African Council of IUPAC. See also annexes. 5. Currently Project Technical Advisor, PTA, for the European Commission. 6. Member of the ACS and ECS |
| Technical skills and competences | <p>Current research interest is concentrated on Process Analytical Technology and flow-based systems (flow and sequential injection etc.) with other interests in electrochemistry and spectroscopy.</p> <p>With this scientific research and development project he involves a group of new generation fully high performance real-time intelligent interactive multi-point multi-species process analytical technological microsystems that also includes new innovations in the fields of nanotechnology/biotechnology (like nanostructured materials for various purposes e. g. for catalytic micro reactors, for membranes, for nanotubes, for water treatment technologies, for chemical sensors and actuators, for real time nanomaterials characterization, development of nanotech-based multi-parameter sensors, etc.).</p> <p>The systems tried to go far beyond the current fragmented technology to a point very near to mankind operation with some preset decision makings and implementations, thus PATMAN. New developments in microsystems technology (nanotechnology) become increasingly important in various operations in industrial processes and real life.</p> <p>The main objective will be to transfer real sample(s) to detection and beyond as required by control into an operating system. R&D in most current systems is however fragmented and does not include entire total dynamic integrated intelligent interactive patman systems. Special R&D attention is given to sampling (fouling and clogging of flow-through sampling devices still a problem), manifold unit operation devices for microreactor technology (still new with large potential), especially flow solution-phase organic synthesis (current experience limited running time over long periods still a main draw back), homogeneous and heterogeneous catalysts as solid-supports in production of value added fine chemicals and pharmaceuticals, challenges for new detection and sensor technology devices (especially with nanoparticles).</p> <p>These objectives (sampling, manifold unit, detection, data processing also remote sensing and control) will be integrated into a single powerful reliable, durable smart system suitable for complete fast automatic real-time, decisive information and management control over extended periods without any real human intervention, assessment in risk analysis to yield high quality cost effective industrial production, food processing, complete waste water management.</p> |
| Computer skills and competences | Handle the normal working conditions of computers in Laboratories, like MS OFFICE, ACROBAT etc. |
| Other skills and competences | I am an expert as evaluator in various international bodies. SEE ANNEXES. |
| Driving licence | YES HAVE ONE. CODE: EB |
| Additional information | SEE ANNEXES |

Annexes

1. SUMMARY-SHORT CV FOR PROF. JACOBUS (KOOS) FREDERICK VAN STADEN
2. ACHIEVEMENTS
3. PROJECTS.
4. CITATION REPORTS
5. PUBLICATIONS
6. CONTRIBUTIONS AT CONFERENCES
7. MANAGEMENT AND ADMINISTRATIVE DUTIES
8. EDITORIAL BOARDS
9. REFEREEING DUTIES
10. COMMUNITY SERVICES OR PROFESSIONAL SKILLS
11. OTHER CONTRIBUTIONS AT CONFERENCES ETC.

ANNEXES
1. SUMMARY-SHORT CV FOR
PROF JACOBUS (KOOS) FREDERICK VAN STADEN

Koos van Staden has more than 40 years of experience (the majority in project management on international level) in research with various contributions to FIA, SIA, **advanced Process systems with PAT with various sensors** – being recognized as pioneer (JAFIA Scientific honor award, 2003), **groups still ranked among top research labs with third position in world** ([www.GlobalFIA.com/Database/Leading Authors](http://www.GlobalFIA.com/Database/LeadingAuthors)).

He received a number of awards e.g. Sasol award and scholarship as student (1967-1970), Robertson award as excellent student (1967-1970), D F du Toit Malherbe-award for his research on Flow Injection Analysis, the prestige AECI Gold medal for his research work and the Eminent Academic Achievement from the University of Pretoria since 1995 etc., was one of the finalists of the NSTF SET awards for 2000, 2002 and 2003 and the runner-up in 2001 (**Scientific Oscars at the Hilton, SABC TV Broadcast May 30, 2003 for Lifetime Achievers**), was the winner of the prestigious Havenga prize for Chemical Sciences of the South African Academy of Art and Science for 2000.

Koos together with Raluca Stefan received the first Merck Medal from SACI in 2000.

Koos has been awarded the JAFIA Scientific Honor Award (Certificate and Medal) for his glorious contribution to Advance of Modern Chemical Analyses as pioneer of Flow Injection Method by The Japanese Association for Flow Injection Analysis and the Division of the Japanese Society for Analytical Chemistry as part of their 20th anniversary celebrations in December 2003. This award is granted only every 5 years.

Excellent track record with a H-INDEX of 31 (ISI WEB OF KNOWLEDGE, THOMSON REUTERS), WITHOUT SELF CITATIONS of all authors and a total number of citations of 3310 (without self- citations) as reflected by more than 300 peer refereed international research publications in ISI journals (Talanta (Impact Factor = 3.545, Ranking 10th in Analytical Chemistry), Analytica Chimica Acta (Impact Factor = 4.513, Ranking 2nd in Analytical Chemistry), Analytical and Bioanalytical Chemistry (Impact Factor = 3.578, Ranking 7th in Analytical Chemistry), Sensors and Actuators B (Impact Factor = 5.401), Analyst (Impact Factor 4.107), Laboratory Robotics and Automation (Impact Factor = 3.66), Critical Reviews in Analytical Chemistry (Impact Factor = 2.667), Electroanalysis (Impact Factor = 2.851), Biosensors and Bioelectronics (Impact Factor = 7.47 Ranking 22 out of 76 in Analytical Chemistry), J Pharmaceutical and Biomedical Analysis (Impact Factor = 3.255, Ranking 11 out of 76 in Analytical Chemistry), Analytical Letters (Impact factor = 1.088, Ranking 29 out of 70 in Analytical Chemistry), Microchemical Journal (Impact Factor = 3.034, Ranking 30 out of 76 in Analytical Chemistry), 2 books, and numerous chapters in research books with well known publishers (CRC Press, Marcel Dekker, Taylor and Francis), He has more than 380 presentations at national and international level (74 as plenary, keynote and on invitation), supervised 11 PhD-students (GD Marshall, currently President of FlobaFIA, PL Kempster international expert in water management, JJ Schoeman, Prof., International Expert in Reverse Osmosis etc.), 31 MSc-students, 6 Post Docs.

He serves on International Editorial and Advisory Board of a number of international journals (Anal Lett, Anal & Bioanal Chem, Talanta, Analyst, J Flow Injection Analysis), and in various positions in the scientific community e.g. Chairman on the Commission on General Aspects of Analytical Chemistry (V 5.1) of the Analytical Chemistry Division of the International Union of Pure and Applied Chemistry (January 1996 till the end of 2001), member of the Analytical Chemistry Division of the International Union of Pure and Applied Chemistry (January 1996 till the end of 2001), titular member of IUPAC from 1994 and FELLOW from 2001, observer for Southern Africa on the Working Party of Analytical Chemists now **Analytical Division of the Federation of European Societies** for a number of years, Vice-Chairman (1989 – 1990) and Chairman (1990 – 1993) of the Chemistry Division of the South African Academy for Science and Art, Chairman of the First National Symposium in Analytical Chemistry, ANALYTICA'90, in South Africa, etc.

He serves on the Scientific Committees of various international conferences, symposiums and bodies, is a Member of a number of Steering Committees and serves in various positions on a number of International Research Foundations.

He was chairman of the Advisory Panel for the National Research Foundation (NRF) in the nineties for disadvantage universities in South Africa with special attention to the University of Zululand and served currently on the Advisory Panel of NRF for capacity building of research in South Africa and on the evaluations committees of NRF.

He was co-chairman and chairman of the International Program Committee of the 12th international conference on FIA analysis (ICFIA'2003) held in Venezuela in 2003, serves on the international steering and scientific committees of ICFIA'2003, ICFIA'2005, ICFIA'2007, the international scientific committees of FA VI, 1994, (FA VII), 1997, FA VIII, 2000, FA IX, 2003, FA X, 2006 FA XII, 2012 and the international scientific committee of IMA'2003 IMA'2005. He serves on International Scientific Committees on Kinetics in Analytical Chemistry, KAC'2001 (Co-Chairman), KAC'2004, KAC'2006, International Steering Committee IMCS'2004, IMCS'2006, IMCS'2008, IMCS'2010, IMCS'2012, IMCS'2014, IMCS'2016, is on various international scientific commissions, advisory councils etc in project management.

Previous and current collaborations (projects) with various process industries for example with **SASOL, pharmaceutical companies, de Beers, Element 6, Anglo American, Amplats, MINTEK, National Water Research Commission** etc in RSA and international where he developed expertise with involvement in Process Intensification, Process Engineering, Chemical, Electrochemical and Optical Sensors, Catalysis, Process Technologies, Catalytic Membrane (Bio)Reactors, Automotive Battery Research etc. and international). Numerous founded projects since 1976 awarded from NRF on the base of a competitive evaluation.

He is currently Project Director of 4 R&D projects in Romania.

Management experience: Coordinator and Head of Analytical Chemistry and Process Analytical Chemistry at University of Pretoria, Experience in Management at SASOL, as Chairman in International committees (e.g. at IUPAC, Scientific conferences and NRF in RSA).

Interest in automation dated back to early 1970s with involvement in 1971 -1972 at SASOL in one of the first information and management systems (Developed with collaboration of Siemens first semi-automated data assembling and data processing system with an 18 K computer system for 38 GC instruments. Group of Koos also developed and implemented some of first capillary columns for the determination of various components in oil refinery with excellent results. Personal contact with miniaturized systems dated back to 1978 with research on the flow injection turbidimetric determination of sulphate with a miniaturized manifold (channel i.d. between 100 and 500 µm) in FIA {W D Basson and J F van Staden*, *Laboratory Practice* 27 (10) (1978) 863 -865}. PI invited by Prof Horacio Mottola in 1981 to present a lecture

(Some application aspects of flow-injection analysis, **J F van Staden. 182nd A C S National Meeting. New York, N. Y., USA. 23 - 28 August 1981, Division Analytical Chemistry, Symposium on Flow Injection and other unsegmented continuous-flow**), presentation of first work done on monitoring by reversed flow injection analysis (RFIA) and alternating reagent injection. Further breakthroughs in the early 1980's were prevalve reduction of nitrate in FIA for automated simultaneous determination of nitrate and nitrite using solid-phase reactors, automated prevalve sample filtration in FIA removing suspended solids and colour before sampling in turbidimetric determination of sulphate in water, automated prevalve dilution in FIA, using formation constants to remove drift in turbidimetric sulphate analysis.

Impact of this research awarded by invited lecture "Sampling of industrial flow injection analysers". J F van Staden. **Second International Symposium on Analytical Chemistry in the exploration, mining and processing of materials under aegis of IUPAC. Pretoria. 15 - 19 April 1985.**

Next breakthrough was on tubular solid-state ISE electrodes in FIA rewarded with international lectures "Coated tubular solid-state ion-selective electrodes in flow analysis". J F van Staden. **Flow Analysis III. Royal Society of Chemistry. Birmingham. Great Britain. 5 - 8 September 1985.** and "Advances in flow injection analysis with coated tubular ISE units."

J F van Staden. **International symposium on electrochemistry and sensors in biomedical, environmental and industrial sciences. Royal Society of Chemistry. Analytical Division. Cardiff. Great Britain. 6 - 9 April 1987 (Invitation by Prof Ron Thomas).**

Major scientific impact given in [Advances in flow injection analysis with coated tubular ion-selective electrode units. J F van Staden. **Anal. Proc.** 24 (11) (1987) 331 – 333].

Some of further major scientific impacts can be found in the determination of multi-species in real-time with my research groups dated back to the early eighties [simultaneous determination of sodium, potassium, magnesium and calcium in surface, ground and domestic water by FIA with flame photometry and AAS (1980)], up to recently [determination of Lead(II), Copper(II), Zinc(II), Cobalt(II), Cadmium(II), Iron(III) and Mercury(II) using SIA Extractions with multivariate calibration and multiwavelength detection with a diode array detector (2004)],{Simultaneous determination of L-thyroxine (L-T₄), D-thyroxine (D-T₄) and L-triiodothyronine (L-T₃) using a sensors/SIA system (2004)}. His research groups exploited numerous sampling devices, manifold configurations and detection systems successfully in 1990s and early 2000s and some of these results have been reported in on-line dialysis configurations in flow injection analysis

[J F van Staden. **Laboratory Robotics and Automation (LRA)** 6 (February 1994) 29 – 44], aspects of signal processing in flow injection systems

[J F van Staden. **S. Afr. J. Chem.** 48 (1-2) (1995) 8 – 14], analyte enrichment using sequential-injection analysis

[G D Marshall and J F van Staden. **Instrumentation Science and Technology** 25 (4) (1997) 307 – 320], application of sequential injection analysis as process analysers

[R E Taljaard and J F van Staden. **Laboratory Robotics and Automation (LRA)** 10 (6) (1998) 325 – 337], analytical aspects of chemical process control. Part 1. Fundamentals

[J F van Staden. **Pure and Applied Chemistry** 71 (12) (1999) 2303 – 2308], automated *in situ* preparation of azomethine H and the subsequent determination of boron in fertilizers with sequential injection analysis

[J F van Staden and T A van der Merwe. **Analyst**, 125 (11) (2000) 2094 – 2099] and solving the problems of sequential injection systems as process analyzers

[J F van Staden. **Anal. Chim. Acta**, 467 (1-2) (2002) 61 -73]. See the impact from citations in ANNEXES

Koos van Staden is currently director of a project with financial support to establish a further extension of PATLAB, the Process Analytical Technology Laboratory in Bucharest, Romania, (Website: www.patlab.ro) and the first of its kind in Romania. PATLAB already marked some breakthroughs in the EU e.g. Koos van Staden and Raluca-Stefan van Staden from PATLAB, Bucharest won numerous gold medals and special awards at International and National ProInvents and Innovations Exhibitions since 2009. (See www.patlab.ro).

See also technical skills and competences.

2. SOME ACHIEVEMENTS BY PROF JACOBUS (KOOS) FREDERICK VAN STADEN

- 2.1 1971-1972: Developed at SASOL with collaboration of Siemens first semi-automated data assembling and data processing system with an 18 K computer system for 38 GC instruments.
- 2.2 Interest in automation dated back to early 1970s with involvement in 1971 -1972 at SASOL in one of the first information and Management systems.
- 2.3 Commissioned in 1971, the Natref refinery (National Petroleum Refiners of South Africa) at Sasolburg had been at the cutting edge of refining technology since its inception. It was therefore no surprise that the first miniaturized analytical manifold of a flow system, as

part of a gas chromatograph, was probably the production of a first capillary column in the Gas Chromatography Laboratory in the early 1970's at SASOL in Sasolburg, to separate the complex hydrocarbon mixture from the Naphta Cracker at Natref. A sample splitter was used to prevent overloading of the miniaturized GC column and this was also accompanied at the same time with the first fully automated computerized system of the 38 gas chromatographs in collaboration with Siemens, Germany.

- 2.4 Group of Koos also developed and implemented some of first capillary columns for the determination of various components in oil refineries with excellent results.
- 2.4 The first practical FIA for the water authorities was soon after build in the Chemistry Department at UP in South Africa, followed by various different configurations up to the first process analyzer.
- 2.4 Our main aim was however to develop multiple-component process analyzers and our first achievement in 1980 was the simultaneous FIA determination of sodium, potassium, magnesium and calcium in surface, ground and domestic water, followed by the simultaneous determination of protein, phosphorus and calcium in animal feedstuffs by multi-channel flow-injection analysis.
- 2.5. We were also very successful with our main goal in flow systems in the second half of the 1980s with the achievement of further steps towards process industrialization with the development and implementation of a fully automated on-line flow system for the manufacturing of a very important drug where the raw feed materials were non-toxic, but the intermediate products were very toxic (but inside the manifold tubes and did not come in contact with human beings) and the final curable drug product was used as medicine.
- 2.6. Personal contact with miniaturized systems dated back to 1978 with research on the flow injection turbidimetric determination of sulphate with a miniaturized manifold (channel i.d. between 100 and 500 μm) in FIA {W D Basson and J F van Staden*, Laboratory Practice 27 (10) (1978) 863 -865}. PI invited by Prof Horacio Mottola in 1981 to present a lecture. (Some application aspects of flow-injection analysis, **J F van Staden. 182nd A C S National Meeting. New York, N. Y., USA. 23 - 28 August 1981, Division Analytical Chemistry, Symposium on Flow Injection and other unsegmented continuous-flow**), presentation of first work done on monitoring by reversed flow injection analysis (RFIA) and alternating reagent injection. Further breakthroughs in the early 1980's were preclude reduction of nitrate in FIA for automated simultaneous determination of nitrate and nitrite using solid-phase reactors, automated preclude sample filtration in FIA removing suspended solids and colour before sampling in turbidimetric determination of sulphate in water, automated preclude dilution in FIA, using formation constants to remove drift in turbidimetric sulphate analysis. Impact of this research awarded by invited lecture "Sampling of industrial flow injection analysers". J F van Staden. **Second International Symposium on Analytical Chemistry in the exploration, mining and processing of materials under aegis of IUPAC. Pretoria. 15 - 19 April 1985**. Next breakthrough was on tubular solid-state ISE electrodes in FIA rewarded with international lectures "Coated tubular solid-state ion-selective electrodes in flow analysis". J F van Staden. **Flow Analysis III. Royal Society of Chemistry. Birmingham. 5 - 8 September 1985**. and "Advances in flow injection analysis with coated tubular ISE units." J F van Staden. **International symposium on electrochemistry and sensors in biomedical, environmental and industrial sciences. Royal Society of Chemistry. Analytical Division. Cardiff. Great Britain. 6 - 9 April 1987 (Invitation by Prof Ron Thomas)**. Major scientific impact given in [Advances in flow injection analysis with coated tubular ion-selective electrode units. J F van Staden. **Anal. Proc.** 24 (11) (1987) 331 – 333]. Some of further major scientific impacts can be found in the determination of multi-species in real-time with my research groups dated back to the early eighties [simultaneous determination of sodium, potassium, magnesium and calcium in surface, ground and domestic water by FIA with flame photometry and AAS (1980)], up to recently [determination of Lead(II), Copper(II), Zinc(II), Cobalt(II), Cadmium(II), Iron(III) and Mercury(II) using SIA Extractions with multivariate calibration and multiwavelength detection with a diode array detector (2004)].{Simultaneous determination of L-thyroxine (L-T₄), D-thyroxine (D-T₄) and L-triiodothyronine (L-T₃) using a sensors/SIA system (2004)}. His research groups exploited numerous sampling devices, manifold configurations and detection systems successfully in 1990s and early 2000s and some of these results have been reported in on-line dialysis configurations in flow injection analysis. [J F van Staden. **Laboratory Robotics and Automation (LRA) 6** (February 1994) 29 – 44], aspects of signal processing in flow injection systems [J F van Staden. **S. Afr. J. Chem.** 48 (1-2) (1995) 8 – 14], analyte enrichment using sequential-injection analysis [G D Marshall and J F van Staden. **Instrumentation Science and Technology 25** (4) (1997) 307 – 320], application of sequential injection analysis as process analysers. [R E Taljaard and J F van Staden. **Laboratory Robotics and Automation (LRA) 10** (6) (1998) 325 – 337], analytical aspects of chemical process control. Part 1. Fundamentals. [J F van Staden. **Pure and Applied Chemistry 71** (12) (1999) 2303 – 2308], automated *in situ* preparation of azomethine H and the subsequent determination of boron in fertilizers with sequential injection analysis. [J F van Staden and T A van der Merwe. **Analyst**, 125 (11) (2000) 2094 – 2099] and solving the problems of sequential injection systems as process analyzers. [J F van Staden. **Anal. Chim. Acta**, 467 (1-2) (2002) 61 -73].

3. SOME PROJECTS BY PROF JACOBUS (KOOS) FREDERICK VAN STADEN

- 3.1. High speed continuous flow analysis and chemical analysis, National Research Foundation, South Africa From 1976-
- 3.2. Automation of selected methods and process systems for Fischer Tropsch Products, SASOL, From 1985
- 3.3. Heavy metals, inorganic or organic pollutants in river-, dams-, groundwater, sediments and waste waters, Water Research Commission, South Africa, From 1986
- 3.4. Flow Injection, Sequential Injection and Chromatographic Systems as Process Analyzers in Industry, MINTEK, South Africa, From 1986

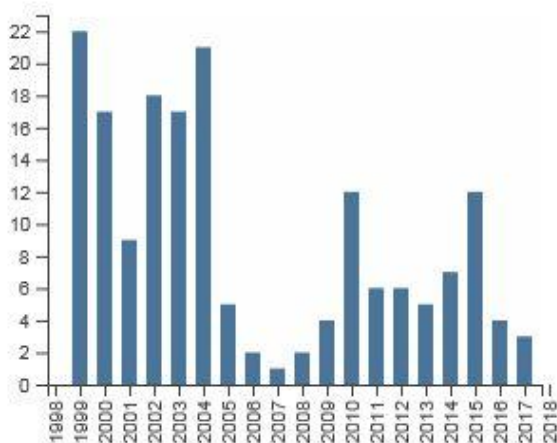
- 3.5. **ESTABLISHMENT OF A LABORATORY OF PROCESS ANALYTICAL TECHNOLOGY. PATLAB**
Project financed by contract 120 CP/II/14.09.2007, From PN II, Capacity, Module 1
- 3.6. **ESTABLISHMENT OF A LABORATORY OF PROCESS ANALYTICAL TECHNOLOGY. EXTENSION1. PATLAB-EXTENSION1.**
Project financed by contract 172 CP/II/02.09.2008 From PN II, Capacity, Module 1
- 3.7. PNII – Ideas (CNCSIS, 2008-2011) – DOT sensors. A new concept in sensors' technology. Two Capacity
- 3.8. PNII-Ideas (UEFISCI, 2011-2015; Topic:-Hightech-based Micro/Nanostructured Sensors Devices and Microreactors in Real-time for Automated Process Analytical Multianalyte Platform Systems.
- 3.9. PED-19/2017 (UEFISCI). Development of Dedicated Automated Realtime Detection Systems to Monitor and Control Selected “toxic” Target Substances to Lower their Impact and Improve Quality of Sustainable Daily Life.
- 3.10. PCE-45/2017 UEFISCI. Novel Innovative Chemical, Electrochemical and Optical Sensor Platforms for Reliable and Sustainable Real-Time Implementation in Automated Data-Intensive Process Systems.

4. CITATION REPORT
PROF JACOBUS (KOOS) FREDERICK VAN STADEN

PROF DR JACOBUS (KOOS) FREDERICK VAN STADEN CITATION REPORT: WEB OF SCIENCE THOMPSON REUTERS 13 DECEMBER 2017

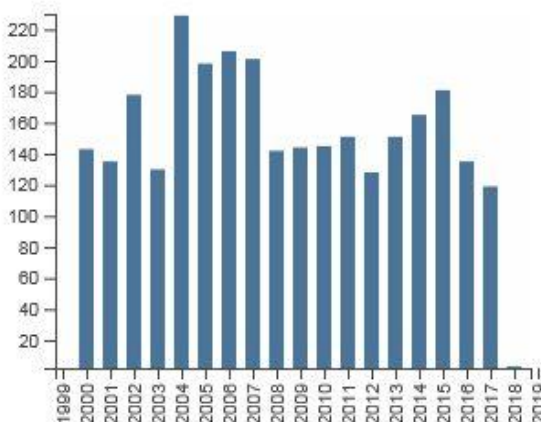
Citation Report Author=(VANSTADEN JF OR van Staden JF OR van Staden JKF OR vanStaden JF OR vanStaden JKF OR van Staden Jacobus F OR van Staden J F OR Van Staden JF OR Van Staden J F OR Van Staden Jacobus F OR Staden J.F. van OR Staden JF van OR van Staden Jacobus Frederick OR STADEN J.F. OR Staden J.F Van OR VAN STADEN JACOBUS (KOOS) FREDERICK OR van Staden Jacobus (KooS) Frederick OR van Staden Koos OR Staden Jacobus (KooS) Frederick OR van Staden Jacobus) Timespan=All Years.

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Sum of the Times Cited [?] : 4137

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Citing Articles [?] : 2580

Citing Articles without self-citations [?] : 2362

Average Citations per Item [?] : 13.74

h-index [?] : 31

5. PUBLICATIONS.

5.1 LIST OF TOP PEER REVIEWED PUBLICATIONS from more than 300 original published articles in ISI journals

256. Sequential Injection Spectrophotometric Determination of Ritodrine Hydrochloride Using 4-Aminoantipyrine.
J F van Staden, N W Beyene, R I Stefan and H Y Aboul-Enein.
Talanta, **68** (2) (2005) 401 – 405.
267. Application of porphyrins in flow-injection analysis. A Review.
J.F. van Staden and R.I. Stefan-van Staden.
Talanta, **80** (5) (2010) 1598 – 1605. doi:10.1016/j.talanta.2009.10.016
275. Wireless electrochemical sensors. A tool for process control. The past, present and the future. A mini-review.
J.F. van Staden, R.I. Stefan-van Staden, S.C. Balasoiu
Critical Reviews in Analytical Chemistry, **40** (4) (2010) 226-233. DOI:10.1080/10408347.2010.515450
279. Disposable stochastic dot sensors for the assay of ascorbic acid in pharmaceutical samples, beverages and biological fluids.
R.I. Stefan-van Staden, J.F. van Staden and S.C. Balasoiu
Analytical Letters, **43** (13) (2011) 2280-2286.
285. Flow-injection analysis systems with different detection devices and other related techniques for the in vivo and in vitro determination of dopamine as neurotransmitter. A review.
J.F. van Staden and R.I. Stefan-van Staden.
Talanta, **102** (2012) 34-43. http://dx.doi.org/10.1016/j.talanta.2012.05.017
294. Graphene based dot microsensors used for the screening of urine for adenine, guanine and epinephrine
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297. Evaluation of amperometric dot microsensors for the analysis of serotonin in urine samples
J.F. van Staden, R. Georgescu, R.I. Stefan-van Staden, I. Calinescu
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Talanta, **139** (2015) 75-88.
310. Analytical continuous flow systems. Where two worlds collide! From gravimetry and test tubes to flow systems to FIA to SIA to PAT and from Orsat to control room to PAT to TAP.
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311. Nitrogen-Containing Coronenes: Theoretical Evaluation of the Influence of Aza-substitution on their Aromaticity
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89. Spectrophotometric determination of vanadium(IV) and vanadium(V) in each other's presence. Review.
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74. Computer-aided flow-analysis for laboratory use and process analysis.
G D Marshall and J F van Staden.
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11. Automated simultaneous determination of nitrate and nitrite by pre-valve reduction of nitrate in a flow-injection system.
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166. Amperometric biosensors/sequential injection analysis system for the simultaneous determination of S and R captopril.
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27. On-line quality control in concentrated hydrochloric acid production plants. Flow injection analysis of HCl content in concentrated hydrochloric acid by automated prevalue dilution and a coated tubular solid-state chloride-selective electrode.
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2. Low-level determination of hydrazine in boiler feed water with an unsegmented high speed continuous-flow system.
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3. Turbidimetric determination of sulphate with a miniaturized manifold on a non-segmented high-speed continuous flow system.
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Lab. Practice 27 (10) (1978) 863 - 868.
4. Direct determination of calcium in milk on a non-segmented continuous-flow system.
W D Basson and J F van Staden*.
Analyst 104 (1979) 419 - 424.
5. Simultaneous determination of sodium, potassium, magnesium and calcium in surface, ground and domestic water by flow-injection analysis.
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6. Automated determination of total alkalinity in surface, ground and domestic waters by single-point titration and flow-injection analysis.
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7. Automated flow-injection analysis of urinary inorganic sulphates.
J F van Staden* and W D Basson.
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8. Simultaneous determination of chloride and sulphate in natural waters by flow-injection analysis.
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9. Determination of phosphorus(P₂O₅) as molybdovanadophosphoric acid in phosphate rock with a flow-injection procedure.
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11. Automated simultaneous determination of nitrate and nitrite by prevalve reduction of nitrate in a flow-injection system.
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12. Automated prevalve sample filtration in flow injection analysis. Determination of sulphate in water removing suspended solids and colour before sampling.
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14. Determination of creatinine in urine and serum by flow injection analysis using the Jaffé reaction.
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16. Automated prevalve dilution in flow-injection analysis. The automated determination of chloride in surface, ground and domestic water.
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17. Flow-injection turbidimetric analysis of sulphate in water.
J F van Staden.
Water SA 12 (1) (1986) 43 - 50.
18. A coated tubular solid-state chloride-selective electrode in flow-injection analysis.
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23. Electrodes in series. Simultaneous flow injection determination of chloride and pH with ion-selective electrodes.
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25. On-line sulphate monitoring by reversed flow injection analysis and alternating reagent injection.
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28. Flow injection analysis of substances in water. Part 1. Anions. A critical review.
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29. Investigation of small volume cloud chambers for use in inductively coupled plasma nebulisation.
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30. Advances in flow injection analysis with coated tubular ion-selective electrode units.
J F van Staden.
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31. Some concepts and misconcepts in the teaching of electrochemistry.
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32. Flow-injection analysis with a coated tubular solid-state copper(II)-selective electrode.
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34. Determination of sulphide using flow injection analysis with a coated tubular solid-state silver sulphide ion-selective electrode.
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35. Determination of phosphate at low concentrations in surface waters by flow-injection analysis.
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36. Preparation and performance of a coated tubular solid-state cadmium-selective electrode in flow-injection analysis.
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37. Determination of silver in photographic material by flow-injection analysis with a coated tubular solid-state silver sulphide ion-selective electrode as detector.
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44. Flow injection analysis of substances in water. Part 2. Cations. A critical review.
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49. Multicomponent flow injection analysis with on-line dialysis.
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52. Simultaneous determination of total and free calcium in milk by flow injection.
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Analyst **115** (5) (1990) 605 - 608.
53. The automated determination of nitrate in water.
J J Pauer, H R van Vliet and J F van Staden.
Water SA **16** (2) (1990) 105 - 108.
54. Effect of coated open-tubular inorganic-based solid-state ion-selective electrodes on dispersion in flow injection.
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55. Separation of lanthanide and yttrium cations by gradient ion-interaction chromatography.
E A Jones, M J Hemmings and J F van Staden.
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56. The automated determination of silica in surface and ground water.
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57. Three-component flow injection analysis with on-line dialysis. Simultaneous determination of free calcium, total calcium and total chloride in milk by flow injection analysis and on-line dialysis.
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58. Experimental evaluation of commercially available, semi-permeable membranes for use with parallel-plate dialyzers in flow injection systems.
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59. Automatic precipitation in flow injection analysis with on-line dialysis. Indirect determination of sulphate by measurement of the unprecipitated, excess barium in the dialysate stream of the flow system.
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J. Chromatog. **537** (1-2) (1991) 277 - 286.
63. An XPS investigation of the influence of bromide and iodide solutions on the surface of chloride coated ion-selective electrodes.
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5.2 Books

1. Research

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J F van Staden in J L Burguera. (ed.)
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2. *"Electrochemical Sensors in Bioanalysis"*
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3. *"Laboratory Auditing for Quality and Regulatory Compliance"*
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4. "Recent developments of chemiluminescence sensors" (Chapter 20)
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H.Y. Aboul-Enein and J.F. van Staden
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Jack Cazes (Editor) Marcel Dekker, Inc., **New York. USA, 2001.**
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Jack Cazes (Editor) Marcel Dekker, Inc., New York. USA, 2004.
8. "Enantioselective Biosensors"
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CHIRAL SEPARATION TECHNIQUES. A PRACTICAL APPROACH.
R.I. Stefan, J.F. van Staden and H.Y. Aboul-Enein
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S Alegret, A Merkoci (Eds)
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1. Educational

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J L van Schaik, Pretoria (1980).
2. **Introduction to Inorganic, Physical and Analytical Practicum for Chemistry I. (In Afrikaans).**
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3. **Inorganic, Physical and Analytical Practicum workbook for Chemistry I. (In Afrikaans).**
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J L van Schaik, Pretoria (1981).
4. **Introduction to the mole concept, chemical formulae and reaction equations. (In Afrikaans).**
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2nd revised edition. J L van Schaik, Pretoria (1982).
5. **Basic principles in Physical, Analytical and Inorganic Chemistry. (In Afrikaans).**
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6. **Studyguide in chemistry. Part 1. (In Afrikaans).**
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8. **HAUM Examination studyguide. Science aid for std 9 and 10- pupils. Chemical equilibrium. (In Afrikaans).**
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9. **HAUM Examination studyguide. Science aid for std 9 and 10- pupils. The rate of chemical reactions. (In Afrikaans).**
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10. **HAUM Examination studyguide. Science aid for Senior Secondary Pupils and Teachers in Training. Solutions. (In Afrikaans).**
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HAUM, Pretoria (1985).

2.3 Patents

1. **Procedure for the design of a sensor for early diagnosis of cancer.** STOC- μ SENS-CMD, R I van Staden and J F van Staden, B1125050/2010, OSIM/Romania
2. **Enantioselective DOT Sensor and procedure for its construction,** R I van Staden and J F van Staden, A/01120/2010, OSIM/Romania
3. **Sistem de Scanare pentru analize biomedicale,** R I van Staden and J F van Staden, A/1013753/2016, OSIM/Romania

6. CONTRIBUTIONS AT CONFERENCES, SYMPOSIUMS, ETC.

SUMMARISED AS FOLLOWS:

International:-

| | |
|--|-----|
| Plenary, Keynote and Invited lectures: | 42 |
| Submitted lectures: | 74 |
| Submitted posters: | 170 |

National:-

| | |
|---|----|
| Invited lectures: | 21 |
| Invited lectures (Electrochemistry School): | 2 |
| Invited lectures (Mini courses): | 5 |
| Invited lectures (Workshops): | 7 |
| Submitted lectures: | 22 |
| Submitted posters: | 56 |

OUTLINED:

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J F van Staden.
Natal Section. S A Chemical Institute. Kwadlangezwa. Zoeloeland. 1974.

2. High speed continuous flow analysis.
W D Basson and J F van Staden.
S A Chemical Institute. Southern Transvaal. Johannesburg. 1976.
3. Flow-injection analysis.
W D Basson and J F van Staden.
Vickers International, London. August 1978.
4. Flow-injection analysis - A new analytical technique.
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27th Convention. S A Chemical Institute. Pretoria.
28 July - 1 August 1980.
5. Flow-injection applications in agricultural chemistry.
W D Basson and J F van Staden.
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6. Some application aspects of flow-injection analysis.
J F van Staden.
182nd A C S National Meeting. New York, N. Y., USA.
23 - 28 August 1981.
7. Ion-selective electrodes.
J F van Staden.
Electrochemistry School. S A Chemical Institute. Northern Transvaal Section. University of Pretoria. Pretoria.
January 1982.
8. Automation in molecular spectroscopy.
J F van Staden.
Symposium - Molecular Spectroscopy. S A Spectroscopic Society. Pretoria. 30 July 1982.
9. Electrochemical detectors in flow-injection analysis.
J F van Staden.
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10. Potentiometry.
J F van Staden
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11. Principles of flow-injection analysis.
J F van Staden.
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12. Valve systems used in flow-injection analysis.
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15. Techniques applied in flow-injection analysis.
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16. Education and research in analytical chemistry. The industry, the technician and the university.
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17. Flow-injection analysis: A new concept in instrumental analysis.
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28th Convention. S A Chemical Institute. Stellenbosch. 30 January - 3 February 1984.
18. Automatic pre-valve dilution in flow-injection analysis. Determination of chloride.
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28th Convention. S A Chemical Institute. Stellenbosch. 30 January - 3 February 1984.
19. Creatinine determination in urine and serum using the Jaffé reaction.
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20. Determination of alkalinity in water.
J F van Staden.
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J F van Staden.
S A Association of Teachers of Physical Science. Pretoria-branch. Afrikaans Boy's High School. Pretoria. 11 February 1985.
23. Sampling of industrial flow injection analysers.
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25. Coated tubular solid-state ion-selective electrodes in flow analysis.

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Flow Analysis III. Royal Society of Chemistry. Birmingham. Great Britain.
5 - 8 September 1985.
26. Research and Education - integrated or differentiated?
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Wild Coast Sun. Transkei.
22 - 24 January 1986.
27. Flow-injection determination of inorganic substances in water.
 J F van Staden.
Symposium on Water Quality Assessment. Pretoria. 26 - 27 Mei 1986.
28. Advances in flow injection analysis with coated tubular ISE units.
 J F van Staden.
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29. Some concepts and misconcepts in the teaching of electrochemistry.
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31. Automated methods of analysis.
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34. Halide ion-selective electrodes as detectors in interfaced flow injection/ion exchange systems.
 J F van Staden.
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35. Nitrate determination in water.
 J F van Staden.
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36. The education of electrochemistry by using the cell voltage line concept.
 J F van Staden and **R G Böhmer.**
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37. The pE-concept in electrochemistry.

- R G Böhmer** and J F van Staden.
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38. Analytical characteristics of a small volume spray chamber for ICP emission spectrometry.
P L Kempster, J F van Staden and H R van Vliet.
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42. Automation in analytical chemistry.
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43. Flow injection analysis: Theories and techniques. Part 1. The FIA concept.
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46. Flow injection analysis: Theories and techniques. Part 2. Gradient techniques, intermittent pumping, phase techniques and merging zones.
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48. FIAstar applications.
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49. Flow-injection analysis.
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J F van Staden.
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53. Simultaneous determination of free and total calcium in biological material with a flow injection system.
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55. Mass transfer with on-line dialysers in continuous flow and flow injection systems.
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J F van Staden.
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J F van Staden and A van Rensburg.
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60. Determination of strontium by flow injection analysis with inductively coupled plasma emission spectroscopic detection.
P L Kempster, **J F van Staden** and H R van Vliet.
11th International Symposium on Microchemical Techniques. Fachgruppe Analytische Chemie of Gesellschaft Deutscher Chemiker. Wiesbaden. West-Germany. 28 August - 1 September 1989.
61. Multicomponent flow injection analysis with on-line dialysis.

J F van Staden and A van Rensburg.

11th International Symposium on Microchemical Techniques. Fachgruppe Analytische Chemie of Gesellschaft Deutscher Chemiker. Wiesbaden. West-Germany. 28 August - 1 September 1989.

62. The detection of rare earth elements after separation by ion-interaction chromatography.
E A Jones and J F van Staden.
International Symposium on Detection in liquid chromatography and flow injection analysis (HPLC/FIA). University of Cordoba. Cordoba. Spain. 20 - 22 September 1989.
63. Determination of rare earths by ion-interaction chromatography.
E A Jones and J F van Staden.
Analytical Forum. Mintek. Randburg. 2 November 1989.
64. Flow injection analysis - A useful analytical instrumental tool for application in analytical laboratories.
J F van Staden.
ANALYTICA '90. First national symposium on analytical science. S A Chemical Institute. Pretoria. 19 - 23 March 1990.
65. Spray chamber design in interfacing FIA to an ICP emission spectrometer.
P L Kempster, J F van Staden and H R van Vliet.
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66. Application of FIA-ICP for the determination of strontium in water.
P L Kempster, J F van Staden and H R van Vliet.
ANALYTICA '90. First national symposium on analytical science. S A Chemical Institute. Pretoria. 19 - 23 March 1990.
67. The determination of silica in surface and ground water.
J J Pauer, **J F van Staden**, H R van Vliet and P L Kempster.
ANALYTICA '90. First national symposium on analytical science. S A Chemical Institute. Pretoria. 19 - 23 March 1990.
68. A surface investigation of some silver halide ion-selective electrodes.
C A Strydom, **J F van Staden** and H J Strydom.
ANALYTICA '90. First national symposium on analytical science. S A Chemical Institute. Pretoria. 19 - 23 March 1990.
69. Automatic precipitation in flow injection analysis with on-line dialysis. Indirect determination of sulphate.
J F van Staden and A van Rensburg.
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70. An automated colorimetric analytical method for the determination of cyanoguanidine in water and soil extracts.
D C Pretorius and **J F van Staden**.
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71. The use of on-line dialysis in flow injection systems for the simultaneous determination of two- or three-components.
J F van Staden and A van Rensburg.
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72. Factors that affect the post column detection of rare-earth elements.

- E A Jones** and J F van Staden.
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73. Separation of rare earths by ion-interaction chromatography.
E A Jones and J F van Staden.
ChromSA. S A Chemical Institute. Pretoria. 16 August 1990.
74. The need for the standardization of chemicals in the RSA.
 J F van Staden.
S A Chemical Institute. Southern Transvaal. Annual School. University of the Witwatersrand. Johannesburg. 6 September 1990.
75. Relationship between fluoride concentration of drinking water and cows' milk.
S D Janse van Rensburg, J H Taylor, S G Reinach and J F van Staden.
International Association of Dental Research (I. A. D. R.).
South African Section. Lord Charles Hotel. Somerset West.
12 - 14 September 1990.
76. On-line configurations for dialysis in flow injection analysis.
 J F van Staden.
31st Convention. S A Chemical Institute. Grahamstown.
24 - 27 June 1991.
77. Flow-injection analysis as a diagnostic tool in the evaluation of solvent-extraction processes based on supported liquid membranes.
D E Barnes and J F van Staden.
31st Convention. S A Chemical Institute. Grahamstown.
24 - 27 June 1991.
78. Simultaneous determination of arsenic, selenium and antimony in water by an ICP/hydride method.
L Pretorius, P L Kempster, H R van Vliet and J F van Staden.
31st Convention. S A Chemical Institute. Grahamstown.
24 - 27 June 1991.
79. The influence of halide- and silver ions on coated silver halide ion selective electrodes.
C A Strydom, J F van Staden and H J Strydom.
33rd IUPAC Congress. Hungarian Academy of Sciences. Budapest. Hungary.
17 - 22 August 1991.
80. Simultaneous determination of arsenic, selenium and antimony in water by hydride generation inductively coupled plasma (ICP) emission spectrometry.
L Pretorius, P L Kempster, H R van Vliet and J F van Staden.
33rd IUPAC Congress. Hungarian Academy of Sciences. Budapest. Hungary.
17 - 22 August 1991.
81. The use of flow injection analysis (FIA) in the evaluation of supported liquid membranes (SLM).
J F van Staden and D E Barnes.
Flow Analysis V. Japanese Association for Flow Injection Analysis. Kumamoto. Japan. 21 - 24 August 1991.
82. The prospect on the role of flow analysis in the whole analytical chemistry field.
J F van Staden.
Presented at the Restaurant "Studio Life" of the Dojindo Drug Store as an evening lecture as part of Flow Analysis V. Japanese Association for Flow Injection Analysis, a Division of the Japanese Society for Analytical Chemistry. Kumamoto. Japan. 22 August 1991.

83. Simultaneous determination of arsenic, selenium and antimony in water by an ICP/hydride method.
L Pretorius, P L Kempster, H R van Vliet and **J F van Staden**.
Flow Analysis V. Japanese Association for Flow Injection Analysis. Kumamoto. Japan. 21 - 24 August 1991.
84. Influence and contribution of coated open-tubular solid-state silver halide ion-selective electrodes on dispersion in flow injection analysis.
J F van Staden.
Flow Analysis V. Japanese Association for Flow Injection Analysis. Kumamoto. Japan. 21 - 24 August 1991.
85. On-line dialysis in flow injection analysis.
J F van Staden.
Flow Analysis V. Japanese Association for Flow Injection Analysis. Kumamoto. Japan. 21 - 24 August 1991.
86. Analysis of metals in river sediments as indicators of pollution status.
P L Kempster, L Pretorius, H R van Vliet and J F van Staden.
8th International Conference on Heavy Metals in the Environment. Royal Society of Chemistry. Edinburgh. United Kingdom. 16 - 20 September 1991.
87. Automated analysis of the nitrification inhibitor dicyandiamide in soils.
D C Pretorius, J F van Staden, A D P Botha and C Kolver.
17th Congress of the Soil Science Society of South Africa. Stellenbosch. South Africa. 28 January 1992.
88. Operational parameters affecting zone penetration in sequential injection analysis.
G D Marshall and J F van Staden.
ANATECH'92. Third International Symposium on Analytical Techniques for Industrial Process Control. Atlanta. GA. USA. 5 - 8 April 1992.
89. An on-line membrane separator for multiple flow analysis.
J F van Staden.
Third International Symposium on Analytical Chemistry in the exploration, mining and processing of materials under the aegis of IUPAC. Sandton. South Africa. 2 - 7 August 1992.
90. Sequential injection analysis - A new tool for process analysis.
G D Marshall and J F van Staden.
Third International Symposium on Analytical Chemistry in the exploration, mining and processing of materials under the aegis of IUPAC. Sandton. South Africa. 2 - 7 August 1992.
91. The extraction of gold using supported liquid membranes.
D E Barnes and J F van Staden.
Third International Symposium on Analytical Chemistry in the exploration, mining and processing of materials under the aegis of IUPAC. Sandton. South Africa. 2 - 7 August 1992.
92. Dialysis configurations in multiple flow analysis.
J F van Staden.
SAC 92, an international conference on analytical chemistry. Royal Society of Chemistry. Analytical Division. University of Reading. Reading. Great Britain. 20 - 26 September 1992.
93. The time factor in flow injection/solid-state ion-selective electrode systems.
J F van Staden.
SAC 92, an international conference on analytical chemistry. Royal Society of Chemistry. Analytical Division. University of Reading. Reading. Great Britain. 20 - 26 September 1992.
94. The determination of orthophosphate in water.

J F van Staden.

Seminar organised by the Water Science Division of the Water Institute of Southern Africa. N C P Club. Chloorkop. 14 October 1992.

95. Flow injection analysis in environmental monitoring.
J F van Staden.
34rd IUPAC Congress. Chinese Chemical Society. Beijing. China. 15 - 20 August 1993.
96. Mobilization and transport of metals in sediments from the Koekemoerspruit/Orkney area: A pH-dependent sequential extraction procedure.
J F van Staden, L van der Merwe, P L Kempster and H R van Vliet.
34rd IUPAC Congress. Chinese Chemical Society. Beijing. China. 15 - 20 August 1993.
97. Aspects of signal processing in flow injection/detector systems.
J F van Staden.
Euroanalysis VIII. Royal Society of Chemistry. Edinburgh. Scotland. United Kingdom. 5 - 11 September 1993.
98. Determination of trace metals in fish tissue and sediment using a closed-vessel microwave digestion procedure.
J F van Staden, L van der Merwe, P L Kempster and H R van Vliet.
Euroanalysis VIII. Royal Society of Chemistry. Edinburgh. Scotland. United Kingdom. 5 - 11 September 1993.
99. Electrodialysis of hydrochloric acid solutions by electro-osmotic pumping.
J J Schoeman and J F van Staden.
ICOM'93. The 1993 International Congress on Membranes and Membrane Processes. Sponsored by The European Society of Membrane Science and Technology. Heidelberg. Germany. 30 Augustus - 3 September 1993.
100. Some aspects of signal processing in flow injection/detector systems.
J F van Staden.
31st Convention. S A Chemical Institute. ESKOM Conference centre. Halfway House. 30 January - 3 February 1994.
101. Some aspects of the theory behind flow injection analysis.
J F van Staden.
Flow injection analysis workshop. Indaba Hotel. Organized by MINTEK. 10 February 1994.
102. Tandem (hyphenated or coupled) flow injection systems: A new dimension in flow injection analysis.
J F van Staden.
Flow Analysis VI. Spanish Society for Analytical Chemistry. Toledo. Spain. 8 - 11 June 1994.
103. A study of factors influencing the efficiency and dilution in various dialyser configurations.
C J Hattingh and **J F van Staden**.
Flow Analysis VI. Spanish Society for Analytical Chemistry. Toledo. Spain. 8 - 11 June 1994.
104. A study of preconcentration of an analyte dialysate in a flow injection system.
C J Hattingh and **J F van Staden**.
Flow Analysis VI. Spanish Society for Analytical Chemistry. Toledo. Spain. 8 - 11 June 1994.
105. Evaluation of a number of methods for the determination of trace amounts of phosphates with flow injection systems.

J van der Merwe and **J F van Staden**.
Flow Analysis VI. Spanish Society for Analytical Chemistry. Toledo. Spain.
8 - 11 June 1994.

106. Membrane separation in flow injection systems by dialysis.
J F van Staden.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
107. A study of preconcentration of an analyte dialysate in a flow injection system.
C J Hattingh and J F van Staden.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
108. Evaluation of a number of methods for the determination of trace amounts of phosphates with flow injection systems.
J F van Staden and J van der Merwe.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
109. Analysis of mixtures of halides by flow-injection with solid-state ion-selective electrode arrays.
D Malan and J F van Staden.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
110. Improved automated colorimetric determination of dicyandiamide in water.
J F van Staden and D C Pretorius.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
111. Simultaneous determination of certain selected trace elements with an FIA-ICP-system.
H du Plessis, C J Rademeyer and J F van Staden.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
112. A study of mass transfer in on-line analytical parallel-plate dialysers in series in flow injection systems.
C J Hattingh and J F van Staden.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
113. A study of the influence of certain factors on the spectrophotometric determination of nitrite in flow injection systems.
M A Makhafola and J F van Staden.
ANALYTICA '94. Second National Symposium on Analytical Science. S A Chemical Institute. Stellenbosch. 8 - 13 December 1994.
114. Non-linearity with metal-metal indicator complex reactions in flow injection analysis.
J F van Staden and D Malan.
ICFIA 95. Seventh International Conference on Flow Injection Analysis. Seattle. Washington. USA. 13 - 18 August 1995.
115. Analytical Chemistry at the University of Pretoria.
J F van Staden.
EDCHEM 95. 3rd International Conference on Philosophy, History and Education of Analytical Chemistry. Vienna, Austria. 8 - 10 October 1995.
116. Non-linearity with complex reactions in flow injection analysis.

- J F van Staden.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
117. Incorporation of electro dialysis into the conduits of FIA systems.
C J Hattingh and J F van Staden.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
118. Determination of sulphate in natural water and effluent water by sequential injection analysis.
R E Taljaard and J F van Staden.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
119. In-line determination of copper by adsorptive anodic stripping voltammetry on a glassy carbon electrode using a continuous flow system.
M Matoetoe and J F van Staden.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
120. Spectrophotometric determination of nitrite in foodstuffs by flow injection analysis.
M A Makhafola and J F van Staden.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
121. Simultaneous determination of chloride and fluoride with an FIA-ISE system.
D Malan and J F van Staden.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
122. Determination of phenols in oils by flow injection analysis.
H E Britz and J F van Staden.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
123. Simultaneous determination of certain selected trace elements with an FIA-ICP-system.
H du Plessis, J F van Staden and C J Rademeyer.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
124. Preconcentration of selected metal ions from the platinum group of metals and determination by FIA-ICP.
S M Linsky, J F van Staden and C J Rademeyer.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
125. Non-linearity with metal-metal ligand complex reactions in FIA. The metal-thiocyanate reactions.
C Saling, **J F van Staden**, R E Taljaard, S M Linsky, D Malan and H E Britz.
33rd Convention. S A Chemical Institute. Cape Town. 28 January - 2 February 1996.
126. The road of continuous flow systems via flow injection analysis via sequential injection analysis to process analysers. Past, present and future.
J F van Staden.
Lecture at the AECl gold medal award. Northern-Transvaal Division. S A Chemical Institute. Pretoria. 4 June 1996.
127. From segmented flow via flow injection via sequential injection systems to process analysers.
J F van Staden.
Chemical Society of Ethiopia. Addis Ababa University. Addis Ababa. Ethiopia. 17 June 1996.
128. Determination of trace elements by anodic stripping voltammetry on a glassy carbon electrode using a continuous flow system.
J F van Staden.
Chemical Society of Ethiopia. Addis Ababa University. Addis Ababa. Ethiopia. 17 June 1996.

129. From non-linearity to linearity with complex reactions in flow injection analysis.
J F van Staden.
Euroanalysis IX. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the Italian Chemical Society. Bologna. Italy.
1 - 7 September 1996.
130. Non-linearity with metal-metal ligand complex reaction in FIA. The metal-thiocyanate reactions.
J F van Staden, C Saling, R E Taljaard, S M Linsky, D Malan and H E Britz.
Euroanalysis IX. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the Italian Chemical Society. Bologna. Italy.
1 - 7 September 1996.
131. Determination of sulphate in natural water and effluent water by sequential injection analysis.
R E Taljaard and J F van Staden.
Euroanalysis IX. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the Italian Chemical Society. Bologna. Italy.
1 - 7 September 1996.
132. Incorporation of electrodialysis into the conduits of FIA systems.
C J Hattingh and J F van Staden.
Euroanalysis IX. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the Italian Chemical Society. Bologna. Italy.
1 - 7 September 1996.
133. The syllabus in Analytical Chemistry. Understanding the chemistry involved or just operating the black box.
J F van Staden.
10th Anniversary Symposium. PROGRESS AND CHANGE. The teaching of Inorganic and Analytical Chemistry. S A Chemical Institute. Wild Coast Sun.
23 - 27 September 1996.
134. The link between Analytical Chemistry in South Africa and the International World. Reporting back from WPAC/FECS and IUPAC.
J F van Staden.
10th Anniversary Symposium. PROGRESS AND CHANGE. The teaching of Inorganic and Analytical Chemistry. S A Chemical Institute. Wild Coast Sun.
23 - 27 September 1996.
135. Gravimetric and volumetric analyses.
J F van Staden.
SACI Annual School 1996. Southern Transvaal Section. S A Chemical Institute. Rand Afrikaans University. 2 October 1996.
136. Solid-phase reactors in flow systems.
J F van Staden.
ICFIA 97. Eighth International Conference on Flow Injection Analysis. Orlando. Florida. USA. 12 - 16 January 1997.
137. Membrane separation in flow systems.
J F van Staden.
ICFIA 97. Eighth International Conference on Flow Injection Analysis. Orlando. Florida. USA. 12 - 16 January 1997.
138. Incorporation of electrodialysers into the conduits of FIA systems.
C J Hattingh and J F van Staden.
ICFIA 97. Eighth International Conference on Flow Injection Analysis. Orlando. Florida. USA. 12 - 16 January 1997.
139. Non-linearity with metal-metal ligand complex reactions in FIA. The metal-thiocyanate reactions.

J F van Staden, C Saling, R E Taljaard, S M Linsky, D Malan and H E Britz.
ICFIA 97. Eighth International Conference on Flow Injection Analysis. Orlando. Florida. USA. 12 - 16 January 1997.

140. Determination of iron(III) in pharmaceutical samples using dialysis in a sequential injection system.
H du Plessis, R E Taljaard and **J F van Staden**.
ICFIA 97. Eighth International Conference on Flow Injection Analysis. Orlando. Florida. USA. 12 - 16 January 1997.
141. Ion selective electrodes in flow systems.
J F van Staden.
1st National Workshop on Electrochemistry. Education, Fundamental studies and Applications. S A Chemical Institute. Johannesburg. 22 - 24 May 1997.
142. Stripping methods in flow liquids.
M Matoetoe and J F van Staden.
1st National Workshop on Electrochemistry. Education, Fundamental studies and Applications. S A Chemical Institute. Johannesburg. 22 - 24 May 1997.
143. From flow injection analysis (FIA) to sequential injection analysis (SIA): from the tube to the valve.
J F van Staden.
ICAC 97. International Congress on Analytical Chemistry. Moscow. Russia. 15 - 21 June 1997.
144. Sequential injection titrations. A new frontier in process analytical science.
J F van Staden and H du Plessis.
36th IUPAC Congress. New Swiss Chemical Society. Geneva. Switzerland. 17 - 22 August 1997.
145. Determination of iron(III) in pharmaceutical samples using dialysis in a sequential injection system.
J F van Staden, H du Plessis and R E Taljaard.
36th IUPAC Congress. New Swiss Chemical Society. Geneva. Switzerland. 17 - 22 August 1997.
146. Simultaneous determination of cobalt and nickel in water and soil with sequential injection analysis.
R E Taljaard and J F van Staden.
Flow Analysis VII. Brazilian Chemical Society. Piracicaba. Brazil. 25 - 28 August 1997.
147. Sequential injection acid-base titrations. A useful application for process analytical science.
H du Plessis and J F van Staden.
Flow Analysis VII. Brazilian Chemical Society. Piracicaba. Brazil. 25 - 28 August 1997.
148. The role of flow analysis and process analytical chemistry in chemical education.
J F van Staden.
Flow Analysis VII. Brazilian Chemical Society. Piracicaba. Brazil. 25 - 28 August 1997.
149. The dialysis and preconcentration of copper using an electrolysers/FIA system.
C J Hattingh and J F van Staden.
Flow Analysis VII. Brazilian Chemical Society. Piracicaba. Brazil. 25 - 28 August 1997.
150. Spectrophotometric determination of nitrite in foodstuffs by flow injection analysis.

M A Makhafola and J F van Staden.

XXX Colloquium Spectroscopicum Internationale. Australian Academy of Science. Melbourne. Australia. 21 - 26 September 1997.

151. Simultaneous determination of substances using flow injection systems with multi sensor ion-selective electrodes in arrays.
J F van Staden and R I Stefan.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
152. New theoretical concepts concerning the ion-selective membrane electrodes based on ion-pair complexes.
R I Stefan and J F van Staden.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
153. Simultaneous analysis of S and R perindopril using amperometric biosensors.
R I Stefan, J F van Staden and H Y Aboul-Enein.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
154. Simultaneous determination of mercury(II) and cadmium(II) using sequential injection extraction.
R E Taljaard and J F van Staden.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
155. The development of a flow system with electrochemical detection and its application to trace element determinations.
C Billing, D R Groot and J F van Staden.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
156. Simultaneous determination of trace amounts of Cu, Pb, Fe, Cd and Zn with DPASV using a glassy carbon electrode in a flowing system.
M C Matoetoe and J F van Staden.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
157. Determination of sulphuric acid in process streams using sequential injection titration.
H du Plessis and J F van Staden.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
158. Spectrophotometric determination of Cu(II) with sequential injection analysis.
A Botha and J F van Staden.
7th International Chemistry Conference in Africa and 34th Convention of the South African Chemical Institute. Durban. South Africa. 6 - 10 July 1998.
159. Sequential injection systems (SIA) as analytical tool for kinetic determinations in analytical chemistry.
J F van Staden and R E Taljaard.
ICFIA 98. Ninth International Conference on Flow Injection Analysis. Seattle. Washington. USA. 23-27 August 1998.
160. Determination of sulphuric acid in process streams using sequential injection titration.
H du Plessis and **J F van Staden**.
ICFIA 98. Ninth International Conference on Flow Injection Analysis. Seattle. Washington. USA. 23-27 August 1998.
161. Spectrophotometric determination of Cu(II) with sequential injection analysis.

- A Botha and **J F van Staden**.
ICFIA 98. Ninth International Conference on Flow Injection Analysis. Seattle. Washington. USA. 23-27 August 1998.
162. Determination of nitrite, nitrate and boron in liquid fertilizers with on-line sequential injection process analysis.
J F van Staden and T A van der Merwe.
ICFIA 98. Ninth International Conference on Flow Injection Analysis. Seattle. Washington. USA. 23-27 August 1998.
163. Simultaneous determination of mercury(II) and cadmium(II) using sequential injection extraction.
R E Taljaard and **J F van Staden**.
ICFIA 98. Ninth International Conference on Flow Injection Analysis. Seattle. Washington. USA. 23-27 August 1998.
164. Simultaneous flow injection determination of calcium and fluoride in natural and borehole water with conventional ion-selective electrodes in series.
R I Stefan and **J F van Staden**.
ICFIA 98. Ninth International Conference on Flow Injection Analysis. Seattle. Washington. USA. 23-27 August 1998.
165. Simultaneous determination of trace amounts of iron(II) and iron(III) using DPASV in a flow-through configuration on a GC electrode.
J F van Staden and M C Matoetoe.
ICFIA 98. Ninth International Conference on Flow Injection Analysis. Seattle. Washington. USA. 23-27 August 1998.
166. Enantioselective biosensors in the analysis of chiral drugs.
R I Stefan, H Y AboulEnein and **J F van Staden**.
ISCD 98. Tenth International Symposium on Chiral Discrimination. Vienna. Austria. 30 August - 3 September 1998.
167. Flow and sequential injection systems. The status, achievements and challenges towards process control, monitoring and miniaturization.
J F van Staden.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
168. The use of an electrolysers/flow system for zinc assays in pharmaceutical samples.
C J Hattingh and **J F van Staden**.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
169. Spectrophotometric determination of Cu(II) with sequential injection analysis.
A Botha and **J F van Staden**.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
170. Determination of sulphuric acid in process streams using sequential injection titration.
H du Plessis and **J F van Staden**.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
171. Comparison of flow and sequential injection systems for fluoride assays in toothpaste and borehole water, using a F-selective electrode.
R I Stefan and **J F van Staden**.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
172. Solid-phase reactors in flow injection systems.

- J F van Staden** and L G Kluever.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
173. Determination of nitrite, nitrate and boron in liquid fertilizers with on-line sequential injection process analysis.
J F van Staden and T A van der Merwe.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
174. Simultaneous determination of trace amounts of iron(II) and iron(III) using DPASV in a flow-through configuration on a GC electrode.
J F van Staden and M C Matoetoe.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
175. Simultaneous determination of mercury(II) and cadmium(II) using sequential injection extraction.
R E Taljaard and **J F van Staden**.
Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
176. Sequential injection systems (SIA) as analytical tool for kinetic determinations in analytical chemistry.
J F van Staden and R E Taljaard.
6th International Symposium on Kinetics in Analytical Chemistry. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the Association of Greek Chemists. Kassandra, Chalkidiki, Greece. 16-19 September 1998.
177. Flow and sequential injection systems in process control and monitoring. Achievements and challenges.
J F van Staden.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
178. The use of an electrolysers/flow system for zinc assays in pharmaceutical samples.
J F van Staden and C J Hattingh.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
179. Spectrophotometric determination of Cu(II) with sequential injection analysis.
J F van Staden and A Botha.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
180. Spectrophotometric determination of thiocyanate with sequential injection analysis.
J F van Staden and A Botha.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
181. Determination of sulphuric acid in process streams using sequential injection titration.
H du Plessis and **J F van Staden**.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.

182. Comparison of flow and sequential injection systems for fluoride assays in toothpaste and borehole water, using a F-selective electrode.
R I Stefan and **J F van Staden**.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
183. Solid-phase reactors in flow injection systems.
J F van Staden and **L G Kluever**.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
184. Determination of nitrite, nitrate and boron in liquid fertilizers with on-line sequential injection process analysis.
J F van Staden and **T A van der Merwe**.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
185. Simultaneous determination of trace amounts of iron(II) and iron(III) using DPASV in a flow-through configuration on a GC electrode.
J F van Staden and **M C Matoetoe**.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
186. Simultaneous determination of mercury(II) and cadmium(II) using sequential injection extraction.
R E Taljaard and **J F van Staden**.
SCAR=98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
187. Flow and sequential injection systems. The status, achievements and challenges towards process control, monitoring and miniaturization.
J F van Staden.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
188. The role of ion-selective membrane electrodes in pharmaceutical analysis.
R I Stefan and **J F van Staden**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
189. The use of an electro-dialyser/flow system for zinc assays in pharmaceutical samples.
C J Hattingh and **J F van Staden**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
190. Simultaneous spectrophotometric determination of nitrate and nitrite in foodstuffs/water by flow injection analysis.
M Makhafola and **J F van Staden**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
191. Simultaneous determination of trace amounts of iron(II) and iron(III) using DPASV in a flow-through configuration on a GC electrode.

- J F van Staden** and M C Matoetoe.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
192. Determination of sulphuric acid in process streams using sequential injection titration.
H du Plessis and **J F van Staden**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
193. Spectrophotometric determination of Cu(II) with sequential injection analysis.
A Botha and **J F van Staden**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
194. Comparison of flow and sequential injection systems for fluoride assays in toothpaste and borehole water, using a F-selective electrode.
R I Stefan and **J F van Staden**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
195. Simultaneous determination of mercury(II) and cadmium(II) using sequential injection extraction.
R E Taljaard and **J F van Staden**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
196. Solid-phase reactors in flow injection systems.
J F van Staden and **L G Kluever**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
197. Determination of nitrite, nitrate and boron in liquid fertilizers with on-line sequential injection process analysis.
J F van Staden and **T A van der Merwe**.
ANALYTICA '98. Third National Symposium on Analytical Science. S A Chemical Institute. Midrand. 12 -14 October 1998.
198. Estimation of uncertainties in clinical analysis.
R I Stefan, **G E Baiulescu**, **H Y Aboul-Enein** and **J F van Staden**.
The Twelfth International Conference of the Israel Society for Quality. Jerusalem, Israel. 1-3 December 1998.
199. Simultaneous detection of enantiomers using amperometric biosensors in flow injection systems
J F van Staden, **R I Stefan**, **H Y Aboul-Enein** and **G E Baiulescu**.
Pittcon'99. Orlando, Florida, USA. 7-12 March 1999.
200. New construction for potentiometric, enantioselective membrane electrodes.
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L V Mulaudzi, J F van Staden and R I Stefan.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
319. On-line simultaneous determination of the activity of α - and β -amylase by sequential injection analysis.
L V Mulaudzi, J F van Staden and R I Stefan.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.

320. Biosensors for the determination of ortho-acetyl-L-carnitine. Their utilization as detectors in a sequential injection analysis system.
R I Stefan, R G Bokretson, J F van Staden and H Y Aboul-Enein.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
321. Diamond paste based electrodes for the determination of Ag(I).
R I Stefan, S G Bairu and J F van Staden.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
322. Diamond paste based electrodes for the determination of Cr(III) in pharmaceutical compounds.
R I Stefan, S G Bairu and J F van Staden.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
323. Diamond paste based electrodes for the determination of iodide in vitamins and table salt.
R I Stefan, S G Bairu and J F van Staden.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
324. Simultaneous determination of L- and D-carnitine using a sequential injection analysis/amperometric biosensor system.
R I Stefan, R G Bokretson, J F van Staden and H Y Aboul-Enein.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
325. Simultaneous determination of creatine and creatinine using amperometric biosensors.
R I Stefan, R G Bokretson, J F van Staden and H Y Aboul-Enein.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
326. Biosensors for the enantioselective analysis of pipecolic acid.
R I Stefan, R M Nejem, J F van Staden and H Y Aboul-Enein.
IMA'2003. The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
327. The CDA system. A new generation in microfluidic flow analysis.
J F van Staden.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
328. Speciation by sequential injection analysis.
J F van Staden.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
329. Multicomponent analysis using electrochemical sensors in flow systems.
R I Stefan and J F van Staden.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
330. Sequential injection spectrophotometric determination of phenylephrine hydrochloride in pharmaceutical preparations.
N W Beyene and J F van Staden.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.

331. Determination of fenoterol hydrobromide by a sequential injection spectrophotometric method.
N W Beyene and **J F van Staden**.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
332. Determination of isoxsuprine hydrochloride by sequential injection visible spectrophotometry.
N W Beyene and **J F van Staden**.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
333. Sequential injection spectrophotometric determination of ritodrine hydrochloride using 4-aminoantipyrine.
N W Beyene and **J F van Staden**.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
334. Sequential injection spectrophotometric determination of iron as Fe(II) in multi-vitamins using 1,10-phenanthroline as complexing agent.
J F van Staden and Z O Tesfaldet.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
335. On-line simultaneous determination of the activity of α - and β -amylase by sequential injection analysis.
L V Mulaudzi, **J F van Staden** and R I Stefan.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
336. Spectrophotometric determination of bromate by sequential injection analysis.
L V Mulaudzi, **J F van Staden** and R I Stefan.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
337. On-line spectrophotometric determination of iodate by sequential injection analysis.
L V Mulaudzi, **J F van Staden** and R I Stefan.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
338. Multi-component determination by sequential injection analysis. Determination of lead(II), copper(II), zinc(II), cobalt(II), cadmium(II), iron(III) and mercury(II) using sequential injection extractions.
J F van Staden and R E Taljaard.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
339. Simultaneous detection of Cu(II), Zn(II), Co(II), Ni(II) and iron(II) by sequential injection analysis with diode array detection and principal component regression.
P J Fletcher and **J F van Staden**.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.

340. Tandem sequential injection analysis with a single UV/Vis spectrophotometer as detector: Sequential determination of iron(III) and sulphate.
J F van Staden and R E Taljaard.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
341. Flow injection analysis of bromine with spectrophotometric detection.
 L V Mulaudzi, **J F van Staden** and R I Stefan.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
342. On-line spectrophotometric determination of bromine using sequential injection analysis.
 L V Mulaudzi, **J F van Staden** and R I Stefan.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
343. Biosensors for the determination of ortho-acetyl-L-carnitine. Their utilization as detectors in a sequential injection analysis system.
 R I Stefan, R G Bokretsiion, **J F van Staden** and H Y Aboul-Enein.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
344. Biosensors for the enantioselective analysis of pipecolic acid.
R I Stefan, R M Nejem, J F van Staden and H Y Aboul-Enein.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
345. On-line assay of the S-enantiomer of elanapril, ramipril and pentopril using a sequential injection analysis/amperometric biosensor system.
 R I Stefan, **J F van Staden**, C Bala and H Y Aboul-Enein.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
346. Simultaneous determination of L- and D-carnitine using a sequential injection analysis/amperometric biosensor system.
 R I Stefan, R G Bokretsiion, **J F van Staden** and H Y Aboul-Enein.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
347. Simultaneous determination of creatine and creatinine using amperometric biosensors.
 R I Stefan, R G Bokretsiion, **J F van Staden** and H Y Aboul-Enein.
ICFIA'2003. 12th International Conference on Flow Injection Analysis, including related techniques. Merida. Venezuela. 7 - 13 December 2003.
348. Diamond paste based electrochemical sensors.
R I Stefan and J F van Staden.
37th SACI Convention, Chemistry for a better life. Pretoria. 4-9 July 2004.
349. Enantioselective, potentiometric membrane electrodes for the enantioanalysis of L- and D-2-hydroxyglutaric acids in urine samples.
 R. M. Nejem, **R I Stefan**, J F van Staden and H. Y. Aboul-Enein.
37th SACI Convention, Chemistry for a better life. Pretoria. 4-9 July 2004.
350. Sequential injection spectrophotometric determination of trace amounts of iodide by its catalytic effect on the 4,4'-methylenebis(N,N-dimethylaniline)-chloramine-T.
Z O Tesfaldet, J F van Staden and R I Stefan.
37th SACI Convention, Chemistry for a better life. Pretoria. 4-9 July 2004.
351. Sequential injection of formaldehyde.
S Matlhodi, J F van Staden and R I Stefan.
37th SACI Convention, Chemistry for a better life. Pretoria. 4-9 July 2004.
352. Sequential injection spectrophotometric determination of calcium in pharmaceutical preparations using o-cresolphthalein complexone as complexing agent.
J F van Staden, Z O Tesfaldet, **R I Stefan** and H Y Aboul-Enein.
ICFIA'2005. 13th International Conference on Flow Injection Analysis, including related techniques. Las Vegas, Nevada, USA. 24 - 29 April 2005.

353. Sequential injection spectrophotometric determination of ritodrine hydrochloride using 4-aminoantipyrine.
J F van Staden, N W Beyene, R I Stefan and H Y Aboul-Enein.
ICFIA'2005. 13th International Conference on Flow Injection Analysis, including related techniques. Las Vegas, Nevada, USA. 24 - 29 April 2005.
354. Process analytical technology (PAT) as an environmental tool. Does it fulfill expectations?
J F van Staden and R I Stefan-van Staden.
3rd Black Basin Conference on Analytical Chemistry, Constanta, Romania. 12 - 14 September 2005.
355. Environmental analysis using diamond paste based electrochemical sensors.
R I Stefan-van Staden and J F van Staden.
3rd Black Basin Conference on Analytical Chemistry, Constanta, Romania. 12 - 14 September 2005.
356. Process analytical technology (PAT) as an environmental tool. Does it fulfill expectations?
J F van Staden and R I Stefan-van Staden.
IMA'2005. The 4th International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Iraklion, Crete. Greece. 2 - 6 October 2005.
357. Diamond paste based electrochemical (bio)sensors.
R I Stefan-van Staden and J F van Staden.
IMA'2005. The 4th International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Iraklion, Crete. Greece. 2 - 6 October 2005.
358. Applications of enantioselective sensors and biosensors in pharmaceutical and clinical analysis.
R I Stefan-van Staden, J F van Staden and H Y Aboul-Enein.
ICE-V. The 5th International Conference on Electrochemistry, Luxor, Egypt. 13 – 16 February 2006.
359. Flow Analysis, Process analytical technology (PAT) and Industry.
J F van Staden and R I Stefan-van Staden.
Flow Analysis X. Portugese Chemical Society. Porto, Portugal. 3 - 8 September 2006.
360. PATLAB. From test tube to Process Systems. The road ahead.
J.F. van Staden.
International Conference on Chemistry and Chemical Engineering. Romanian Chemical Society, Politehnica University of Timisoara, Timisoara, Romania. 28 – 30 May 2008.
361. The importance and essentiality of real-time intelligent interactive monitoring and control in medical, pharmaceutical and clinical fields with PAT.
J.F. van Staden, R.I. Stefan-van Staden and I. Balcu.
3rd International Conference on Biomaterials and Medical Devices, BIOMMEDD'2008, Romanian and European Society for Biomaterials, Politehnica University of Bucharest, Romania. 13 – 16 November 2008.
362. New nanostructured materials based on porphyrins for the design of stochastic sensors.
R.I. Stefan-van Staden, E. Fagadar-Cosma, J.F. van Staden, O. Radacina and S. Balasoiu.
3rd International Conference on Biomaterials and Medical Devices, BIOMMEDD'2008, Romanian and European Society for Biomaterials, Politehnica University of Bucharest, Romania. 13 – 16 November 2008.
363. Nanostructured glasses and powders based on hybrid silica materials incorporating 5,10,15-tris(3-hydroxy-phenyl)-20-(3,4-dimethoxy-phenyl)-porphyrin
E. Fagadar-Cosma, C. Enache, D. Vlascici, Gh. Fagadar-Cosma, R.I. Stefan-van Staden, H. Stadler, J.F. van Staden.
Nanotech Insight, 29th March – 2nd April 2009, Barcelona, Spain.
364. Determination of free-L-T₃ and free-L-T₄ from blood using the immunosensors/sequential injection analysis system.
RI van Staden, J.F. van Staden, H.Y. Aboul-Enein, G.L. Radu, N. Mirica, I. Balcu, M.C. Mirica
Journées d'Electrochimie XIV-ème édition, 6 - 10 July 2009, Sinaia, Romania.

365. Flow- or Non Flow-based, Unit operations, Micro- or/and Nanosensors: "Microfluidics", Real-time: Is a marriage with PAT always possible? The Reality and the Future.
JF van Staden.
Euroanalysis XV, Division of Analytical Chemistry (DAC) of the European Association of Chemical and Molecular Sciences (EuChemS) and the Austrian Society for Analytical Chemistry (ASAC), Innsbruck, Austria, 6 - 10 September 2009.
366. Porphyrins in flow injection analysis
J. F. van Staden
IMA'2009. The 6th International Conference of Instrumental Methods of Analysis. Modern Trends and Applications. Athens, Greece, 4 - 8 October 2009.
367. Sensors and biosensors for multicomponent analysis using flow systems
J.F. van Staden, R. I. van Staden
Modern Analytical Methods 2009 (dedicated to the 50th Anniversary of Nobel Prize in Polarography, J Heyrowsky). Prague, Czech Republic. 9 - 13 December 2009.
368. Monocrystalline diamond paste based sensors and microsensors
R. I. van Staden, J. F. van Staden
Modern Analytical Methods 2009 (dedicated to the 50th Anniversary of Nobel Prize in Polarography, J Heyrowsky). Prague, Czech Republic. 9 - 13 December 2009.
369. Porphyrins as new nanostructured materials for the design of stochastic sensors.
R.I. Stefan-van Staden, E. Fagadar-Cosma, O. Radacina, J.F. van Staden, S. Balasoiu, I. Balcu, M. Iorga.
Nanotech Insight, 29th March – 2nd April 2009, Barcelona, Spain.
370. Enantioanalysis of (-)-butaclamol using vancomycin and teicoplanin as chiral selectors
R.I. van Staden, J.F. van Staden, H.Y. Aboul-Enein, N. Mirica
Euroanalysis XV, Division of Analytical Chemistry (DAC) of the European Association of Chemical and Molecular Sciences (EuChemS) and the Austrian Society for Analytical Chemistry (ASAC), Innsbruck, Austria, 6 - 10 September 2009.
371. Modified diamond paste microelectrodes for the assay of ascorbic acid
R.I. van Staden, S.C. Balasoiu, O.R. Vasile, J.F. van Staden, G.L. Radu
Euroanalysis XV, Division of Analytical Chemistry (DAC) of the European Association of Chemical and Molecular Sciences (EuChemS) and the Austrian Society for Analytical Chemistry (ASAC), Innsbruck, Austria, 6 - 10 September 2009.
372. Modified diamond paste microsensors for the assay of dopamine
R.I. van Staden, S.C. Balasoiu, O.R. Vasile, J.F. van Staden, G.L. Radu
IMA'2009. The 6th International Conference of Instrumental Methods of Analysis. Modern Trends and Applications. Athens, Greece, 4 - 8 October 2009.
373. Wireless sensors a tool for process control
J.F. van Staden, R.I. van Staden, S.C. Balasoiu, O.R. Vasile,
IMA'2009. The 6th International Conference of Instrumental Methods of Analysis. Modern Trends and Applications. Athens, Greece, 4 - 8 October 2009.
374. New nanostructured materials based electrochemical microsensors
O.R. Vasile, R.I. van Staden, J.F. van Staden, S.C. Balasoiu, B.S. Vasile
TNT 2009. 7-11 September, 2009, Barcelona, Spain.
375. The Importance and essentiality of interactive real-time intelligent monitoring and control in PAT with food processing and distribution.
J. F. van Staden.
Challenges in Food Chemistry, Workshop, 28th May – 29th May 2010, Constanta, Romania.
376. The evolution of analytical chemistry from manual procedures in routine laboratories to fully automated real-time interactive micro information management and process control on-site systems.
Prof Univ.Dr J. F. (Koos) van Staden.
CMEQF 01-2010, Control and Metrology of Environmental Quality Factors, 23 – 27 November 2010, Iasi, Romania
377. DOT Sensors – New Tools for Biomedical Analysis.
J. F. van Staden and R.I. Stefan-van Staden.
IMCS'13, 13th International Meeting on Chemical Sensors, 11 – 14 July 2010, Perth, Australia.

378. Carbon and Diamond Paste Microelectrodes based on Mn(III) Porphyrins for the Determination of Dopamine.
J.F. van Staden, R.I. Stefan-van Staden, S.C. Balasoiu, and G.L. Radu.
IMCS'13, 13th International Meeting on Chemical Sensors, 11 – 14 July 2010, Perth, Australia.
379. DOT Sensors.
J. F. van Staden.
Diaspora Conference, 22nd – 24th September 2010, Bucharest, Romania.
380. Combined dot sensors for food analysis.
J. F. van Staden and R. I. van Staden.
AACD 2010, 7th Aegean Analytical Chemistry Days, 29th September – 3rd October 2010, Lesvos, Greece.
381. Minicells for biomedical investigations.
R. I. van Staden and J. F. van Staden.
AACD 2010, 7th Aegean Analytical Chemistry Days, 29th September – 3rd October 2010, Lesvos, Greece.
382. Modified Carbon Paste Electrodes based on Porphyrin for the Enantioanalysis of S-Captopril.
S. Balasoiu, R.I. van Staden, J.F. van Staden and G. L. Radu.
Nanomeasures2010, 3rd – 4th June 2010, Krakow, Poland.
383. Nanotechnology and flow systems.
J F van Staden.
ICFIA'2011. 17th International Conference on Flow Injection Analysis, including related techniques. Krakow, Poland. 3-8 July 2011.
384. Nanotechnology in the flow domain of Process Analysis.
J.F. van Staden, R.I. van Staden.
Euroanalysis XVI, Division of Analytical Chemistry (DAC) of the European Association of Chemical and Molecular Sciences (EuCheMS) and the Austrian Society for Analytical Chemistry (ASAC), Belgrade, Serbia, 11 - 15 September 2011.
385. Enantioanalysis of Pipelicolic acid with stochastic and potentiometric microsensors.
R.I Stefan-van Staden, I Moldoveanu, DF Sava, C Kapnissi-Christodoulou, JF van Staden.
Euroanalysis XVI, Division of Analytical Chemistry (DAC) of the European Association of Chemical and Molecular Sciences (EuCheMS) and the Austrian Society for Analytical Chemistry (ASAC), Belgrade, Serbia, 11 - 15 September 2011.
386. Amperometric Dot-sensors Based on Zinc Porphyrins for Sildenafil Citrate Determination.
S. Balasoiu, R.I. van Staden, J.F. van Staden and G. L. Radu.
Euroanalysis XVI, Division of Analytical Chemistry (DAC) of the European Association of Chemical and Molecular Sciences (EuCheMS) and the Austrian Society for Analytical Chemistry (ASAC), Belgrade, Serbia, 11 - 15 September 2011.
387. Amperometric Dot-Sensors based on Zinc Porphyrins for the Determination of Sildenafil Citrate.
J. F. van Staden and R. I. van Staden.
ICS 2012 The 14th International Meeting on Chemical Sensors, May 20 –23, 2012 Nuremberg, Germany (Oral presentation).
388. New Stochastic Sensors for Biomedical Applications.
R. I. van Staden, I. Moldoveanu, J. F. van Staden.
IMCS 2012 The 14th International Meeting on Chemical Sensors, May 20 – 23, 2012 Nuremberg, Germany (Oral presentation).
390. Nanotechnology and Multianalyte Platform Flow Systems.
J. F. van Staden and R. I. van Staden.
4th EuCheMS Chemistry Congress (EuCheMS 2012) 26-30 August 2012, Prague, Czech Republic (Oral presentation).
391. Simultaneous neurotransmitters analysis using microelectrodes based on porphyrins.
R. I. van Staden, I. Moldoveanu, J. F. van Staden.
4th EuCheMS Chemistry Congress (EuCheMS 2012) 26-30 August 2012, Prague, Czech Republic (Oral presentation)
392. Nanotechnology in the Flow Domain of Process Analysis.
J. F. van Staden.
1st International Conference on Analytical Chemistry. Analytical Chemistry for a Better Life, Targoviste, Romania, September 18 - 21, 2012 (Invited Key note).

393. Influence of the physical immobilization of dsDNA on the carbon based matrices of electrochemical sensors.
L. A. Gugoasa, R. I. van Staden, A. A. Ciucu, J. F. van Staden
1st International Conference on Analytical Chemistry. Analytical Chemistry for a Better Life, Targoviste, Romania, September 18 - 21, 2012. (poster)
394. New amperometric microsensors for the analysis of serotonin in urine samples.
R. Georgescu, J. F. van Staden, I. Calinescu, R. I. van Staden
1st International Conference on Analytical Chemistry. Analytical Chemistry for a Better Life, Targoviste, Romania, September 18 - 21, 2012. (poster)
395. Graphene based sensors for the assay of adenine, guanine and epinephrine
R. Georgescu, J. F. van Staden, R. I. van Staden
1st International Conference on Analytical Chemistry. Analytical Chemistry for a Better Life, Targoviste, Romania, September 18 - 21, 2012. (poster)
396. New amperometric microsensors for the analysis of serotonin in urine samples
J. F. van Staden, R. Georgescu, R. I. van Staden.
223rd ECS Meeting, May 12-16, 2013, Toronto, Canada (Oral presentation).
397. Combined DOT sensors for food, pharmaceutical and biological analysis.
J. F. van Staden, R. I. van Staden.
245th ACS Meeting, April 7-11, 2013, New Orleans, USA (Oral presentation)
398. Stochastic Sensors – New Tools for the Screening for Obesity.
R. I. van Staden, L. A. Gugoasa, J. F. van Staden.
223rd ECS Meeting, May 12-16, 2013, Toronto, Canada (Oral presentation)
399. Graphene Based Microsensors for the Assay of Adenine, Guanine and Epinephrine.
J. F. van Staden, R. Georgescu.
224th Meeting of ECS, 27 October – 1 November, 2013, San Francisco, CA, USA (Invited keynote).
400. Crisis in the Food Industry:- Is there a solution in real-time finding the source before, and along the distribution line before the hazard strikes?
J.F. van Staden.
International Workshop Challenges in Food Chemistry, 31 May-1 June 2013, Constanta, Romania. (Invited Keynote)
401. Graphene based dot microsensors for the assay of adenine, guanine and epinephrine.
J.F. van Staden, R. Georgescu and R.I. Stefan-van Staden.
224th ECS Meeting, 17 October-1 November 2013, San Francisco, USA. (Oral presentation)
402. Combined dot sensors for food, pharmaceutical and biological analysis.
J.F. van Staden and R.I. van Staden.
224th ECS Meeting, 17 October-1 November 2013, San Francisco, USA. (Invited Keynote)
403. Combined dot sensors in the domain of food, pharmaceutical and biological areas.
J.F. van Staden and R.I. van Staden.
225th ECS Meeting, 11 – 16 May 2014, Orlando, FL, USA. (Invited lecture)
404. The Potential of Sensors and Biosensors for Integrated Process Control in Real-Time. Can They Survive the Environment?
J.F. van Staden.
224th ECS Meeting, 11 – 16 May 2014, Orlando, FL, USA. (Invited lecture)
405. Coated Tubular Ion-Selective Electrode Units in Process Systems.
J.F. van Staden.
224th ECS Meeting, 11 – 16 May 2014, Orlando, FL, USA. (Invited lecture)
406. Can Sensors and Biosensors Survive the Demand of Factories of the Future for Process Control in Real-Time?
J.F. van Staden.
International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences “IC-ANMBES 2014”, Brasov, Romania, 13-15 June 2014 (Invited Plenary lecture)

407. Novel Stochastic Sensor for Simultaneous Assay of Neurotransmitters
R.I. Stefan-van Staden, I. Moldoveanu, J.F van Staden
International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences "IC-ANMBES 2014", Brasov, Romania, 13-15 June 2014 (Oral presentation)
408. Screening Tools for Neuron Specific Enolase
I.R. Comnea, R.I. Stefan-van Staden, J.F van Staden, C.S. Gavan (Oral presentation)
International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences "IC-ANMBES 2014", Brasov, Romania, 13-15 June 2014 (Oral presentation)
409. Evaluation of Amperometric Dot Microsensors for the Analysis of Folic Acid in Urine Sample, Pharmaceutical Tablets and Fruits Juice
R. Georgescu, J.F van Staden, R.I. Stefan-van Staden, I. Calinescu (Oral presentation)
International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences "IC-ANMBES 2014", Brasov, Romania, 13-15 June 2014 (Oral presentation)
410. Analytical continuous flow systems. Where two worlds collide! From gravimetry and test tubes to flow systems to FIA to SIA to PAT and from Orsat to control room to PAT to TAP.
J.F. van Staden.
2nd International Conference on Analytical Chemistry (RO-ICAC'2014), 17 - 21 September 2014, Targoviste, Romania. (Invited Plenary lecture)
411. Detection of folic acid from orange juice using amperometric dot microsensors based on graphite modified with tetraamino and tetranitro phthalocyanines.
R. Georgescu, J.F. van Staden, R.I. Stefan-van Staden, C. Boscornea.
2nd International Conference on Analytical Chemistry (RO-ICAC'2014), 17 - 21 September 2014, Targoviste, Romania. (Oral presentation)
412. Porphyrin based stochastic microsensors for the assay of dopamine, epinephrine, norepinephrine, serotonin, acetylcholine, gaba and glutamate.
I. Moldoveanu, R.I. Stefan-van Staden, J.F. van Staden.
2nd International Conference on Analytical Chemistry (RO-ICAC'2014), 17 - 21 September 2014, Targoviste, Romania. (Oral presentation)
413. Platform based on microsensors used for the screening of her-1 in peritoneal fluid.
I. Moldoveanu, R.I. Stefan-van Staden, J.F. van Staden, C. Stanciu-Gavan, C. Savlovschi.
2nd International Conference on Analytical Chemistry (RO-ICAC'2014), 17 - 21 September 2014, Targoviste, Romania. (poster)
414. Amperometric dot microsensors based on graphite and graphene modified with porphyrins for the analysis of folic acid from pharmaceutical tablets.
R. Georgescu, J.F. van Staden, R.I. Stefan-van Staden, I. Calinescu.
2nd International Conference on Analytical Chemistry (RO-ICAC'2014), 17 - 21 September 2014, Targoviste, Romania. (poster)
415. Stochastic microsensors as screening tools for neuron specific enolase.
I.R. Comnea, R.I. Stefan-van Staden, J.F. van Staden, C. Stanciu-Gavan.
2nd International Conference on Analytical Chemistry (RO-ICAC'2014), 17 - 21 September 2014, Targoviste, Romania. (poster)
416. Stochastic Sensors Based on Diamond Paste for Screening of Biological Fluids for Neurotransmitters.
R.I. Stefan-van Staden, I. Moldoveanu, J.F. van Staden.
227th ECS Meeting, 24-28 May 2015, Chicago, IL, USA.
417. ANALYTICAL CONTINUOUS FLOW SYSTEMS. WHERE TWO WORLDS COLLIDE! (1) FROM GRAVIMETRY AND TEST TUBES TO FIA TO SIA TO PAT AND (2) FROM ORSAT TO CONTROL ROOM TO PAT TO TAP.
J.F. van Staden
Euroanalysis XVIII, Division of Analytical Chemistry (DAC) of the European Association of Chemical and Molecular Sciences (EuChemS), Bordeaux, France, 6-10 September 2015.

418. The Potential of Sensor Platforms for Dynamic Integrated Process Control in Real-Time. Are they Suitable to Function Properly in the Environment?
Jacobus (Koos) van Staden (**Invited talk**)
IC-ANMBES 2016, International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences– June 29-July 1, 2016, Brasov, Romania.
419. SENSOR (DETECTION) DEVICES AND PROCESS CONTROLLERS IN INTEGRATED REAL-TIME PROCESS CONTROL. DO THEY FULLFIL THE ACTUAL REAL-TIME ON-SITE?
Jacobus F. van STADEN
3rd International Conference on Analytical Chemistry August 28-31, 2016, Iasi, Romania
420. NEW NANOSTRUCTURED MATERIAL DETECTS 8-HYDROXY-2' DEOXYGUANOSINE
Roxana BALAHURA, Raluca-Ioana STEFAN-van STADEN, Livia Alexandra GUGOASA, Jacobus F. van STADEN, Hassan Y ABOUL-ENEIN.
3rd International Conference on Analytical Chemistry August 28-31, 2016, Iasi, Romania
421. DETERMINATION OF DOPAMINE USING THE ALKALINE LUMINOL-HYDROGEN PEROXIDE SYSTEM FOR SEQUENTIAL INJECTION – ZONE FLUIDICS ANALYSIS.
Ramona GEORGESCU-STATE, Jacobus Frederick van STADEN.
3rd International Conference on Analytical Chemistry August 28-31, 2016, Iasi, Romania
422. Reliable, sustainable, sufficient and convenient devices and/or systems for real-time interactive monitoring and control.
Jacobus (Koos) F van Staden
41st ARA, Congress of the American Romanian Academy of Arts and Sciences, 2-5 August 2017, PALACE, Sinaia. Romania.
423. Determination of Lead in Water Using Modified Electrodes Based on Phthalocyanine
Georgiana-Luiza Arnold, Jacobus (Koos) Frederick van Staden, Ramona Georgescu-State, Luisa-Roxana Popescu-Mandoc
41st ARA, Congress of the American Romanian Academy of Arts and Sciences, 2-5 August 2017, PALACE, Sinaia. Romania.
424. New Nanostructured Materials Detect Dopamine in Biological Fluids
Raluca-Ioana Stefan-van Staden, Liliana-Roxana Balahura, Alexandra Oprisanu-Vulpe, Livia Alexandra Gugoasa, Jacobus F. van Staden, Eleonora-Mihaela Ungureanu, Crina Socaci
41st ARA, Congress of the American Romanian Academy of Arts and Sciences, 2-5 August 2017, PALACE, Sinaia. Romania
425. A Fluorimetric Method for the Determination of Nitrite in Water
Ramona Georgescu-State, Jacobus (Koos) Frederick van Staden, and Georgiana-Luiza Arnold, Luisa-Roxana Popescu-Mandoc
41st ARA, Congress of the American Romanian Academy of Arts and Sciences, 2-5 August 2017, PALACE, Sinaia. Romania.
426. Heavy Metals Detections Using Stochastic Microsensors
Ioana-Georgiana Lazar, Raluca-Ioana Stefan-van Staden, Livia Alexandra Gugoasa, Jacobus Frederick van Staden.
41st ARA, Congress of the American Romanian Academy of Arts and Sciences, 2-5 August 2017, PALACE, Sinaia. Romania.
427. Microbiological Study: Effect Of Pinaceae and Lamiaceae Essential Oils on 3 Bacterial Germs
Ioana Adina Oancea, Jacobus (Koos) Frederick van Staden, Elena Oancea, Eleonora-Mihaela Ungureanu
41st ARA, Congress of the American Romanian Academy of Arts and Sciences, 2-5 August 2017, PALACE, Sinaia. Romania.
428. Molecular Determination of Pyruvic Acid in Diabetic Patients by Using Stochastic Mode
Raluca-Ioana Stefan-van Staden, Ioana Popa-Tudor, Livia Alexandra Gugoasa, Jacobus Frederick van-Staden, Constantin Ionescu-Targoviste
41st ARA, Congress of the American Romanian Academy of Arts and Sciences, 2-5 August 2017, PALACE, Sinaia. Romania.
429. Pattern Recognition of Cu(II), Cd(II), Hg(II), and Pb(II) in Waste Water Samples
Jacobus (Koos) Frederick van Staden
EUROANALYSIS2017, Stockholm, Sweden. 28 August – 1 September 2017

430. Electrochemical detection of Ursolic Acid from one original dermato-cosmetic plant extract with regenerative effect on human skin, using modified sensors
Ioana Adina Oancea, Jacobus Frederick van Staden, Elena Oancea, Eleonora-Mihaela Ungureanu
20th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE2017), Polana, Brasov, Romania, 6-9 September 2017.

7. MANAGEMENT AND ADMINISTRATIVE DUTIES (LEADERSHIP)

MANAGEMENT SKILLS

1. Coordinator and Head of Analytical Chemistry and Process Analytical Chemistry (University of Pretoria).
2. Experience in Management at SASOL. **Trained by SASOL as Manager.**
3. Experience in Management as Chairman of various International and National committees.
4. Experience as Chairman and member of various National and International Scientific Committees.
5. Experience as Chairman in Organizing National and International Conferences.
6. Chairman of a number of projects of IUPAC and of active commission at IUPAC.
7. Currently Director of PATLAB. See www.patlab.ro
8. Currently Member of Advisory Panels of NRF (National Research Foundation) of South Africa. Previously Chairman of some Advisory Panels of NRF.
9. Currently SENIOR MEMBER of Division of Analytical Chemistry of European Association for Chemical and Molecular Sciences.
10. Currently member of South African Council of IUPAC.
11. Currently Project Technical Advisor, PTA, for the European Commission (Handled 15 FP7 Projects).

8. EDITORIAL BOARDS

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| Editorial Boards: ADVISORY BOARD MEMBER ANALYTICAL INSTRUMENTATION - 1992 – 1993 |
| Editorial Boards: REGIONAL ADVISORY EDITOR FOR THE ANALYST: 1991 – 1995 |
| Editorial Boards: EDITORIAL BOARD MEMBER TALANTA 1990 - 1997 |
| Editorial Boards: ADVISORY BOARD MEMBER FRESENIUS JOURNAL OF ANALYTICAL CHEMISTRY- 1990 – MAY 1997 |
| Editorial Boards: EDITORIAL BOARD MEMBER FRESENIUS JOURNAL OF ANALYTICAL CHEMISTRY- JUNE 1997 – 2002 |
| Editorial Boards: EDITORIAL BOARD MEMBER INSTRUMENTATION SCIENCE AND TECHNOLOGY – 1992 – 2006 |
| Editorial Boards: EDITOR, ANALYTICAL CHEMISTRY SOUTH AFRICAN JOURNAL OF CHEMISTRY – 1996 - 2004. |
| Editorial Boards: EDITORIAL BOARD MEMBER ANALYTICAL LETTERS – 2001 - CURRENT |
| Editorial Boards: ADVISORY BOARD MEMBER – 2002 - 2007 ANALYTICAL AND BIOANALYTICAL CHEMISTRY |
| Editorial Boards: EDITORIAL BOARD MEMBER JOURNAL OF FLOW INJECTION ANALYSIS (JFIA) from 2002 - CURRENT |
| Journal: GUEST EDITOR OF ANALYTICAL AND BIOANALYTICAL CHEMISTRY ON IMA'2003 |

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| Journal: GUEST EDITOR OF ANALYTICAL AND BIOANALYTICAL CHEMISTRY ON KAC'2001 |
| Journal: GUEST EDITOR OF TALANTA ON ICFIA'2003 |

9. Refereeing Duties

Regular reviewer for publications submitted to the following international journals

- 1 Analytical Chemistry
Talanta
The Analyst
Analytica Chimica Acta
Analytical and Bioanalytical Chemistry
Journal of Analytical Atomic Spectrometry
Fresenius' Journal of Analytical Chemistry
Analytical Letters
Instrumental Science and Technology
Mikrochimica Acta
Electroanalysis
Sensors and Actuators
Journal of Chemical Education
Journal of the Association of Official Analytical Chemists (USA)

S A Journal of Chemistry

S A Journal of Science
ScienceAsia
Water S A
S A Journal of Marine Science
Bulletin of the Chemical Society of Ethiopia
- 2 Regular book reviewer for some of the Journals mentioned above.

10. COMMUNITY SERVICE OR PROFESSIONAL SKILLS

1. Fellow of the Royal Society of Chemistry from May 1992 and entitled to use the designation CHARTERED CHEMIST (till 2004).
2. Member of Steering Committees for research projects on membrane technology and on sealed cell electro dialysis for the Water Research Commission. Also a member of the technical subcommittee on electro dialysis.
3. Act as external specialist scientist on several occasions for the Department of Water Affairs and Forestry, industries, manufacturers, laboratories, research institutions etc.
4. Act as external examiner for undergraduate courses for a number of Universities. Act also as external examiner for postgraduate MSc-dissertations and PhD- thesis's for a number of National and International Universities.
5. Subject Editor (Chemistry) of Spectrum, the journal for teachers of Mathematics, Physical Science and Technology, published by the Foundation for Education, Science and Technology since 1983 - 2000.
6. Member of the subject committee of Physical Science of the Transvaal Education department for the period 1991 - 1994. Is currently approach from time to time on Professional Advice.
7. Act as an adjudicator at the Northern Transvaal regional competition and the National finals of EXPO for young Scientists for a number of years.
8. Involved for a number of years with the yearly student symposium of the Chemistry Division of SACI and the South African Academy of Science and Art.

11. Other Activities at conferences, workshops, short courses etc.

- 1 . 1986. Act as a Session Chairman at a symposium entitled Progress and Change. Symposium on the education of Analytical Chemists. S A Chemical Institute. Natal Section. Wild Coast Sun. Transkei. 22 - 24 January 1986.
- 2 . 1987 Took part in various activities on behalf of Spectrum at the 12th National Convention for teachers of Mathematics, Physical Science and Biology in Pretoria, July 1987.
- 3 . 1988 Invited to give a lecture at Flow Analysis IV at Las Vegas, Nevada in the USA, 17 - 20 April 1988. Could however not attend due to a lack of funding.
- 4 . 1989 Took part in various activities on behalf of Spectrum at the 13th National Convention for teachers of Mathematics, Physical Science and Biology in Grahamstown, July 1989.
- 5 . 1989 Representative of Spectrum at ChemEd'89, a Chemical Education Conference at Queen's University, Kingston, Ontario, Canada. 14 - 18 August 1989.
- 6 . 1989 Act as Convenor and Chairman of Editors of Chemical Educational Journals at the tenth International Conference on Chemical Education, Waterloo, Ontario, Canada. 20 - 25 August 1989. Act also as a Chairman of a full session at the same conference.
- 7 . 1990 Chairman of the First National Symposium in Analytical Chemistry, ANALYTICA'90 under the auspices of the South African Chemical Institute: Northern Transvaal Section, ChromSA, SAAMS and the SA Spectroscopic Society at the CSIR Conference Centre, Pretoria. 19 - 23 March 1990.
- 8 . 1990 Gave the Welcoming Address at ANALYTICA'90, the first National Symposium on Analytical Science at the CSIR Conference Centre, Pretoria. 19 - 23 March 1990.
- 9 . 1990 Gave the Opening Address at a Symposium on "Chemical Technology in a future South Africa" organised by the Chemical Section of the South African Academy of Science and Art in Pretoria on the 10th August 1990.
10. 1991 Act as Chairman of a Session at the 33rd IUPAC Congress at the University of Budapest, Budapest, Hungary. 17 - 22 August 1991.
11. 1991 Act as Chairman of a Session at Flow Analysis V organised by the Japanese Association for Flow Injection Analysis in Kumamoto, Japan. 21 - 24 August 1991.
12. 1991 Representative of Spectrum at the 11th International Conference on Chemical Education sponsored by the Royal Society of Chemistry and the International Union of Pure and Applied Chemistry, in collaboration with UNESCO and the Association for Science Education at the University of York, York. Great Britain. 25 - 30 August 1991.
13. 1991 Presenting Spectrum at the International Meeting of Editors of Chemical Educational Journals at the 11th International Conference on Chemical Education sponsored by the Royal Society of Chemistry and the International Union of Pure and Applied Chemistry, in collaboration with UNESCO and the Association for Science Education at the University of York, York. Great Britain. 29 August 1991.
14. 1991 Act as Chairman of the Program Committee and as Vice Chairman of the Central Committee on a Symposium on "The role of Science and a Technology Policy in a future South Africa" organised by the South African Academy of Science and Art in Pretoria. 22 - 23 October 1991.
15. 1993 Attend the 37th IUPAC General Assembly as National Representative of South Africa on the Commission on General Aspects of Analytical Chemistry (V.1) of the Analytical Chemistry Division, Lisbon University, Lisbon. Portugal. 5 - 12 August 1993. Elected as Titular member.
16. 1993 Act as Chairman of a Session at the 34th IUPAC Congress in Beijing, China. 15 - 20 August 1993.
17. 1993 Attend a International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 8 September 1993 at Euroanalysis. Edinburgh. Scotland. UK. 30 August - 3 September 1995.
18. 1994 Serve on the international committee that organised Flow Analysis VI in Toledo, Spain. 8 - 11 June 1994.
19. 1994 Attend a meeting of the Working Party of Analytical Chemists of the Federation of European Societies as observer for Southern Africa on 12 June 1994 in Toledo. Spain.

20. 1994 Attend a meeting of the Commission on General Aspects of Analytical Chemistry (V 5.1) of the Analytical Chemistry Division of IUPAC. Jena. Germany. 19 - 21 August 1994. Appointed to lead a project on Process Analytical Chemistry.
21. 1994 Discussions with the Fresenius Academy of the Fresenius Institute in Wiesbaden, Germany and the Fresenius Institute in Taunusstein on collaboration. Visit to Springer-Verlag, publishers of Fresenius Journal of Analytical Chemistry, in Heidelberg, Germany. 22 - 26 August 1994.
22. 1994 Attend the 7th International Symposium on Synthetic Membranes in Science and Industry in Tübingen. Germany. 29 August - 1 September 1994.
23. 1995 Attend the 38th IUPAC General Assembly as member of the Commission on General Aspects of Analytical Chemistry (V.1) of the Analytical Chemistry Division. University of Surrey. Guildford. UK. 4 - 11 August 1995. Elected as Chairman of the Commission. Attend a number of committee meetings.
24. 1995 Attend a International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 5 October 1995 at the Technical University, Vienna. Vienna. Austria.
25. 1995 Attend the 3rd International Conference on Philosophy, History and Education of Analytical Chemistry. Part of WPAC of FECS. Vienna University of Technology. Vienna. Austria. 6 - 7 October 1995.
26. 1995 Attend a meeting of the Working Party of Analytical Chemists of the Federation of European Societies as observer for Southern Africa on 8 October 1995 in Vienna. Austria.
27. 1995 Attend the 3rd International Austro- Tunisian Meeting on Analytical Chemistry. Part of WPAC of FECS. Vienna University of Technology. Vienna. Austria. 8 - 10 October 1995.
28. 1995 Visit to the Institute of Analytical Chemistry. Vienna University of Technology. 11 October 1995.
29. 1996 Receive the AECl Gold medal of the S A Chemical Institute for 1995 on 4 June 1996. Give a lecture.
30. 1996 Visit the Department of Chemistry, Addis Ababa University at Addis Ababa, Ethiopia during 12 - 18 June 1996 on official invitation for discussions on research and as external examiner.
31. 1996 Give 2 lectures on Monday 17 June 1996 at the Addis Ababa University, Addis Ababa. Ethiopia on invitation from The Chemical Society of Ethiopia.
32. 1996 Attend a meeting of the Working Party of Analytical Chemists of the Federation of European Societies as observer for Southern Africa on 1 September 1996 in Bologna. Italy.
33. 1996 Attend a International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 3 September 1996 in Bologna, Italy.
34. 1996 Is Chairman of a meeting of the Commission on General Aspects of Analytical Chemistry (V.1) of the Analytical Chemistry Division of IUPAC in Bologna, Italy. 27 - 31 August 1996.
35. 1997 Act as Chairman of a session at ICFIA 97. Eighth International Conference on Flow Injection Analysis in Orlando. Florida. USA. 12 - 16 January 1997.
36. 1997 Act as Chairman of a session at ICAC 97. International Congress on Analytical Chemistry in Moscow. Rusland. 15 - 21 June 1997.
37. 1997 Attend a meeting as part of the International Scientific Committee of ICAC 97 on 16 June 1997 in Moscow, Russia.
38. 1997 Visit the Vernadsky Institute of Geochemistry and Analytical Chemistry in Moscow, Russia on 17 June 1997.
39. 1997 Guest of Honour of the Vernadsky Institute of Geochemistry and Analytical Chemistry in Moscow, Russia on 18 June 1997.
40. 1997 Visit the Faculty of Chemistry of the Lomonosov Moscow State University in Moscow, Russia on 19 June 1997.
41. 1997 Visit the Kurnakov Institute for General and Inorganic Chemistry in Moscow, Russia on 20 June 1997.
42. 1997 Guest of the Fresenius Academy of the Fresenius Institute in Idstein, Germany on 23 June 1997. Follow-up Discussions on further cooperation.

43. 1997 Act as Chairman of a session at the 36th IUPAC Congress in Geneva, Switzerland. 17 - 22 August 1997.
44. 1997 Is Chairman of a meeting of the "Commission on General Aspects of Analytical Chemistry (V.1)" of the Analytical Division IUPAC, 23 - 30 August 1997 in Geneva, Switzerland.
45. 1997 Invited by The Brazilian Chemical Society and The International Association of Flow Analysis to serve on the International Science Committee organising the VII INTERNATIONAL CONFERENCE ON FLOW ANALYSIS (FA VII) held in Piracicaba, Brazil. 25 - 28 August 1997.
46. 1998 Attend a meeting of the Analytical Chemistry Division (President, Secretary and Commission Chairs) in Idstein, Germany, 17-18 January 1998.
47. 1998 Act as Session Chairman at ICFIA 98. Ninth International Conference on Flow Injection Analysis in Seattle, Washington. USA. 23 - 27 August 1998.
48. 1998 Act as Session Chairman at Euroanalysis X. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the New Swiss Chemical Society. Basel. Switzerland. 6 - 11 September 1998.
49. 1998 Attend a meeting of the Working Party of Analytical Chemists (WPAC) of the Federation of European Societies (FECS) as observer for Southern Africa on 6 September 1998 at Basel in Switzerland.
50. 1998 Attend a International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 8 September 1998 in Basel, Switzerland.
51. 1998 Is Chairman of a meeting of the Commission on General Aspects of Analytical Chemistry (V.1) of the Analytical Chemistry Division of IUPAC in Basel, Switzerland. 3-5 September 1998.
52. 1998 Act as Session Chairman at KAC'98. 6th International Symposium on Kinetics in Analytical Chemistry. Working Party on Analytical Chemistry of the Federation of European Chemical Societies and the Association of Greek Chemists. Kassandra, Chalkidiki, Greece. 16-19 September 1998.
53. 1998 Act as Session Chairman at SCAR'98 XIVth National Conference on Analytical Chemistry. Division of Analytical Chemistry of the Federation of European Chemical Societies and the Romanian Society of Analytical Chemistry. Piatra Neamt. Romania. 24-26 September 1998.
54. 1999 Attend an International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 8 March 1999 at Pittcon'99 in Orlando, Florida, USA.
55. 1999 Attend an International and Advisory Board meeting of Instrumentation Science and Technology on 9 March 1999 at Pittcon'99 in Orlando, Florida, USA.
56. 1999 Act as Session Chairman at ICFIA 99. Tenth International Conference on Flow Injection Analysis in Prague, Czech Republic. 20 - 25 June 1999.
57. 1999 Is Chairman of a meeting of the Commission on General Aspects of Analytical Chemistry (V.1) of the Analytical Chemistry Division of IUPAC in Berlin, Germany. 5 - 12 August 1999.
58. 1999 Is member of a meeting of the Analytical Chemistry Division of IUPAC from 5 - 12 August 1999 in Berlin, Germany.
59. 2000 Attend an International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 14 March 2000 at Pittcon'2000 in New Orleans, LA, USA.
60. 2000 Attend an International and Advisory Board meeting of Instrumentation Science and Technology on 14 March 2000 at Pittcon'2000 in New Orleans, LA, USA.
61. 2000 Attend a meeting of the Analytical Chemistry Division (President, Secretary and Commission Chairs) in Alderley Edge, United Kingdom 5 - 7 May 2000.
62. 2000 Invited by the Polish Academy of Sciences and The International Association of Flow Analysis to serve on the International Science Committee organising the VIII INTERNATIONAL CONFERENCE ON FLOW ANALYSIS (FA VIII) held in Warsaw, Poland. 25 - 29 June 2000.

63. 2000 Give the welcome address at the VIII INTERNATIONAL CONFERENCE ON FLOW ANALYSIS (FA VIII) held in Warsaw, Poland. 25 - 29 June 2000.
64. 2000 Act as Chairman of a Session at the VIII INTERNATIONAL CONFERENCE ON FLOW ANALYSIS (FA VIII) held in Warsaw, Poland. 25 - 29 June 2000.
65. 2000 Is Chairman of a meeting of the Commission on General Aspects of Analytical Chemistry (V.1) of the Analytical Chemistry Division of IUPAC in Lisboa, Portugal. 31 August - 2 September 2000.
66. 2000 Attend a meeting of the Division of Analytical Chemistry (DAC) of the Federation of European Societies (FECS) as observer for Southern Africa on 3 September 2000 at Lisboa in Portugal.
67. 2000 Attend a International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 5 September 2000 in Lisboa, Portugal.
68. 2001 Attend an International and Advisory Board meeting of Instrumentation Science and Technology on 6 March 2001 at Pittcon'2001 in New Orleans, LA, USA.
69. 2001 Attend an International and Advisory Board meeting of Fresenius' Journal of Analytical Chemistry on 6 March 2001 at Pittcon'2001 in New Orleans, LA, USA.
70. 2001 Act as Chairman of a Session at the 38th IUPAC Congress (World Chemistry Congress) held in Brisbane, Australia. 1 - 6 July 2001.
71. 2001 Is Chairman of a meeting of the Commission on General Aspects of Analytical Chemistry (V.1) of the Analytical Chemistry Division of IUPAC in Brisbane, Australia. 29 June - 8 July 2001.
72. 2001 Is member of a meeting of the Analytical Chemistry Division of IUPAC from 29 June - 8 July 2001 in Brisbane, Australia.
73. 2001 Act as Chairman of a Session at IMA'2001. Instrumental Methods of Analysis. Modern trends and Applications held in Ioannina. Greece. 5 - 8 September 2001.
74. 2001 Act as Chairman of the committee responsible for poster awards at IMA'2001 and form part of the Closing Ceremony Presidium. Instrumental Methods of Analysis. Modern trends and Applications held in Ioannina. Greece. 5 - 8 September 2001.
75. 2001 Is Co-Chairman of KAC'2001; Gave the Welcoming and Opening Address as part of the Opening Ceremony and gave the Closing Address. 7th International Symposium on Kinetics in Analytical Chemistry. Working Party on Analytical Chemistry of the Federation of European Chemical Societies. Bucharest, Romania. 26 -29 September 2001.
76. 2001 Act as Guest Editor for a special edition of Analytical and Bioanalytical Chemistry on the Proceedings of KAC'2001.
77. 2001 Act as Chairman of a Session at KAC'2001. 7th International Symposium on Kinetics in Analytical Chemistry. Working Party on Analytical Chemistry of the Federation of European Chemical Societies. Bucharest, Romania. 26 -29 September 2001.
78. 2001 Invited to join the Steering Committee of 11th ICFIA, 11th International Conference on Flow Injection Analysis to be held in Chiang Mai, Thailand, 16 - 20 December 2001.
79. 2001 Act as Chairman of a Session at 11th ICFIA, 11th International Conference on Flow Injection Analysis to be held in Chiang Mai, Thailand, 16 - 20 December 2001.
80. 2002 Invited to join the Steering and Scientific Committee of IMCS, 9th International Meeting on Chemical Sensors to be held in Boston, USA, 7 - 10 July 2002.
81. 2002 Act as Chairman of a Session at IMCS, 9th International Meeting on Chemical Sensors in Boston, USA, 7 - 10 July 2002.
82. 2002 Attend a Steering and Scientific Committee of IMCS, 9th International Meeting on Chemical Sensors in Boston, USA, 8 July 2002.
83. 2002 Attend a meeting of the Division of Analytical Chemistry (DAC) of the Federation of European Societies (FECS) as observer for Southern Africa on 8 September 2002 at Dortmund in Germany.
84. 2002 Attend International Board meetings of Analytical and Bioanalytical Chemistry on 8 and 11 September 2002 at Euroanalysis-12 in Dortmund, Germany.

85. 2003 Invited by the Australian Chemical Society and The International Association of Flow Analysis to serve on the International Science Committee organising the IX INTERNATIONAL CONFERENCE ON FLOW ANALYSIS (FA IX) to be held in Australia. February 2003.
86. 2003 Attend a meeting of the Division of Analytical Chemistry (DAC) of the Federation of European Societies (FECS) as observer for Southern Africa on 21 September 2003 at Thessaloniki in Greece.
87. 2003 Invited to join the International Scientific Committee of IMA'2003, The 3rd International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Thessaloniki. Greece. 23 - 27 September 2003.
88. 2003 Act as Guest Editor for a special edition of Analytical and Bioanalytical Chemistry on the Proceedings of IMA'2003.
89. 2003 Selected as Co-chairman and on the Steering Committee of 12th ICFIA, 12th International Conference on Flow Injection Analysis to be held in Merida, Venezuela, 7 - 13 December 2003. Chairman of the International Scientific Committee.
90. 2003 Act as Guest Editor for a special edition of TALANTA on the Proceedings of ICFIA'2003.
91. 2004 Invited to join the International Scientific Committee of the 8th International Conference on Kinetics in Analytical Chemistry, KAC'2004 in Rome, Italy in July 2004.
92. 2004 Invited to join the Steering and Scientific Committee of IMCS, 10th International Meeting on Chemical Sensors to be held in Tsukuba, Japan, 11 - 14 July 2004.
93. 2005 Invited to join the Steering Committee of 13th ICFIA, 13th International Conference on Flow Injection Analysis to be held in Las Vegas, Nevada, USA, 24 – 29 April 2005.
94. 2005 Invited to join the International Scientific Committee of IMA'2005, The 4th International Conference of Instrumental Methods of Analysis. Modern trends and Applications. Iraklion, Crete. Greece. 2 - 6 October 2005.
95. 2006 Invited to join the Steering and Scientific Committee of IMCS, 11th International Meeting on Chemical Sensors to be held in Brescia, Italy, July 2006.
96. 2006 Invited by the Portugese Chemical Society and The International Association of Flow Analysis to serve on the International Scientific Committee organising the X INTERNATIONAL CONFERENCE ON FLOW ANALYSIS (FA X) to be held in Porto, Portugal. 3-8 September 2006.
97. 2006 Invited to join the International Scientific Committee of the 9th International Conference on Kinetics in Analytical Chemistry, KAC'2006 in MARRAKECH, MOROCCO. 4-6 November 2006.
98. 2007 Invited to join the Steering Committee of 14th ICFIA, 14th International Conference on Flow Injection Analysis to be held in Berlin, Germany, 3 – 7 September 2007.
99. 2008 Invited to join the Steering and Scientific Committee of IMCS 2008, 12th International Meeting on Chemical Sensors to be held in Columbus, Ohio, USA, 13 – 16 July 2008.
100. 2009 Attend a meeting of the Division of Analytical Chemistry (DAC) of European Association for Chemical and Molecular Sciences) on 6 September 2009 at Innsbruck, Austria
101. 2010 Invited to join the Steering and Scientific Committee of IMCS 2010, 13th International Meeting on Chemical Sensors to be held in Perth, Australia. 11-14 July 2010.
102. 2012 Invited to join the Steering and Scientific Committee of IMCS 2012, 14th International Meeting on Chemical Sensors to be held in Nuremberg, Germany. 20-23 June 2012.
103. 2012 Invited to serve on the International Science Committee of the XII INTERNATIONAL CONFERENCE ON FLOW ANALYSIS (FA XII) to be held in Thessaloniki, Greece, 23-28 September 2012.
104. 2014 Invited to join the Steering and Scientific Committee of IMCS 2014, 15th International Meeting on Chemical Sensors to be held in Buenos Aires, Argentina. 16-19 March 2014.
105. 2014 Invited to join the Steering Committee of 19th ICFIA, 19th International Conference on Flow Injection Analysis to be held in ACROS, Fukuoka, Japan, 30 November – 5 December 2014.

106. 2016 Invited to join the Steering and Scientific Committee of IMCS 2016, 16th International Meeting on Chemical Sensors to be held in Ramada Plaza Jeju, Jeju Island, Korea. 10-13 July 2016.