

2023 Annual Meeting

54th Meeting of EuChemS-DAC

Sunday, August 27, 2023

Time: 9.00 - 12.00

Venue: International Conference Centre Geneva (CICG), room #4,
Rue de Varembé 17, 1202 Geneva, Switzerland

MINUTES

1. Opening

1.1 Welcome by Marcela Segundo (Chair)

Chair Marcela Segundo (MS) welcomed all the present Delegates, Guests, and Observers, particularly those attending the Annual Meeting for the first time. MS introduced herself, secretary Snežana Miljanić (SM), treasurer Martin Vogel (MV) and past-chair and webmaster Slavica Ražić (SR), after which everyone introduced themselves, indicating the society they represent and the institution to which they are currently affiliated.

1.2 Finalisation of the Agenda

MS asked to include the topic “2.2 DAC strategy for 2024-2026” in the Agenda and the delegates agreed.

Apart from this item, no additional topics were proposed.

1.3 Changes in membership, attendance, apologies

MS asked SM to address this topic. SM reported that new delegates have been appointed by the French Chemical Society (Aura Tintaru) and the Norwegian Chemical Society (Malgorzata Elzbieta Zawadzka). SM indicated that delegates of the Austrian Chemical Society (Martina Marchetti-Deschmann), the Hungarian Chemical Society (Viola Horváth) and the Slovak Chemical Society (Lubomír Švorc) were present at the DAC Annual Meeting for the first time, welcoming them to DAC. Eight (8) DAC delegates (Aura Tintaru, Charlotta Turner, Daniel Mandler, Elia Psillakis, Gennady Evtugyn, Luigi

Mondello, Rudolf Krska, Sergey N. Shtykov) sent their apologies for not being present. The attendance list is attached to the Minutes.

1.4 Approval of the Minutes of 53rd DAC Meeting, August 28, 2022, Lisbon

The minutes of the previous DAC Annual Meeting were approved.

2. Report of the Chair

2.1 Chair remarks and News from EuChemS (2022-2023)

MS informed attendees that two meetings of the EuChemS Executive Board (EuChemS-EB) have been held since the last DAC AM in Lisbon: in-person in Thessaloniki, Greece, February 9-10, 2023, and on-line on June 16, 2023.

Regarding the EuChemS-EB meeting in February 2023, MS reported on EuChemS participation in several EU public consultations or initiatives (High-Level Roundtable on the Chemicals Strategy for Sustainability (HLRT CSS) – FEB 2023, Constitutive online Assembly of Coalition for Advancing Research Assessment (CoARA) – DEC 2022, Zero Pollution Stakeholder Conference - DEC 2022, response submission to 3 public consultations: Soil Health Law, Raw Materials, and Revision of EU rules on food contact materials). Further on, MS informed that EuChemS updated its communication channel, discontinuing the EuChemS newsletters “Chemistry in Europe” and “Brussels News Updates” and creating the new EuChemS Magazine.

Regarding the EuChemS-EB meeting in June 2023, MS informed attendees that EuChemS-EB decided that the 10th EuChemS Chemistry Congress (ECC) in 2026 will take place in Antwerp, Belgium (proposed by Christophe De Bie and Thomas Vranken). In addition, MS informed that progress in organization of the 9th EuChemS Chemistry Congress was presented, pointing out that DAC will participate in the scientific program. MS also mentioned that two new professional networks have been proposed: Mechanochemistry (Working Party) and Glycoscience (Division). EuChemS-EB agreed that new networks should begin as working parties, yet divisions should be contacted before approval at the next EuChemS General Assembly meeting. Further on, EuChemS-EB unanimously agreed to recommend to the General Assembly to elect Peter Szalay, nominated by the Hungarian Chemical Society, and Aura Tintaru, nominated by the French Chemical Society, (who is also the delegate of the French Chemical Society in DAC) as elected members of the EuChemS-EB for a period of four years. They will start their first term as elected members of the Executive Board on

January 1, 2024 (end on December 31, 2027). MS reported that a Memorandum of Understanding between EuChemS and ACS has been signed a few days ago, on August 24, 2023, in The Hague at the IUPAC Chemistry congress.

The next General Assembly meeting will take place in mid-October in Larnaca, Cyprus, and MS will attend the meeting.

Any other information is available in the Minutes of the EuChemS-EB meetings which can be shared on request.

2.2 DAC strategy for 2024-2026

MS informed that new DAC Strategy for 2024-2026 was discussed at the StC meeting held yesterday. The new Strategy is based on the goals similar to those in previous triennium, except for topic 5, where the review of the implementation of activities proposed by delegates was suggested. Currently, activities of the Task Forces evolve to Study Groups, and since in most cases the objectives seem diffuse, the intention is to create a model with a clear definition of activities and a defined time span for them. The delegates are asked to conditionally approve the new Strategy and submit their opinions and comments on the Strategy by the end of November 2023, which will be published in January 2024.

Regarding topic 5 in the new DAC Strategy, the StC is preparing a proposal about Task Groups, to be sent to the delegates in November 2023 for discussion, which will be open till mid-March 2024. Heads of the existing Study Groups will be asked to prepare proposals for their activities based on the new model of the Task Groups, to be voted at the next DAC annual meeting which will take place in Dublin, in July 2024 (EuChemS Chemistry Congress, ECC). There will be a transitional period between the current and the future model, that will last until January 2025.

3. Elections and Appointments

3.1 Steering Committee membership for 2024

MS informed that the members of the DAC Steering Committee for 2024 will be Marcela Segundo (Chair), Slavica Ražić (Past-Chair and web manager), Snežana Miljanić (Secretary), Martin Vogel (Treasurer), Sibel Ozkan (past EA organizer), Franka Kalman (current EA organizer), and Anna de Juan (future EA organizer). MS acknowledged Charlotta Turner for all her contributions along the years, especially for organizing the

EuroAnalysis conference in Sweden in 2017, informing that she had already contacted her by email as she could not be present at the Annual Meeting.

4. Awards

4.1. DAC Tributes

MS informed that the call for DAC Tribute is open without a given deadline. Nominations can be sent to MS and SM, and will be discussed at the next DAC AM. In addition, MS reminded that the delegates cannot be nominated.

4.2. Robert Kellner Lecture

4.3. DAC Award

Both topics were addressed together. MS reminded that the deadline for nominations is October 31, 2024. The delegates were referred to the document “DAC practices and procedures” where they can find more information about the DAC awards.

MS invited members to send proposals for EuChemS Lecture, which will be then supported by DAC. MS also indicated that any award in analytical chemistry given in the delegate’s country can be highlighted as a lecture at the next EuroAnalysis conference. In the end, MS thanked for all the proposals sent in the last calls.

5. Cooperation with other EuChemS divisions

5.1. Cooperation with Division of Chemistry and the Environment (DCE) and Division of Food Chemistry (DFC)

MS invited SR to address topics related to cooperation. SR informed the DAC members that joint sessions with the Division of Food Chemistry (DFC) and the Division of Chemistry and Environment (DEC) were held at the EuroFoodChem Congress in Belgrade, Serbia, and the ICCE 2023, in Venice, Italy, respectively, in June 2023, and acknowledged everyone involved in these conferences. SR announced that the International Conference on Chemistry and the Environment (ICCE 2025) will be held in Belgrade, Serbia, in June 2025. SR emphasized poor communication with ECC organizers and other EuChemS divisions (apart from DFC and DCE). SR also mentioned that a Memorandum of Understanding between EuChemS and ACS has been signed.

5.2. Other initiatives

There was no topic to this item.

6. EUROANALYSIS Conferences

In the beginning MS pointed out that it is not easy nowadays to organize a conference due to increasing number of conferences, leading to a competition for lecturers and sponsors.

6.1 EUROANALYSIS XXI, Genève, Switzerland, 2023

MS gratefully acknowledged Franka Kalman and all the EA 2023 organizing team for welcoming DAC and all the hard work devoted to the organization of the EuroAnalysis conference. Information about the conference attendance would be presented at the conference closing ceremony.

6.2 EUROANALYSIS XXII, Barcelona, Spain, 2025

MS invited Anna de Juan (AdJ) to address this topic. The EA 2025 organizers prepared bookmarks containing the conference logo and all the main information about the conference. AdJ gave a presentation about the progress in organization, including information about the conference venue, public transport, and accommodation for participants as well as the conference website. After the presentation, MS opened discussion with the delegates. A question was raised about the support of the other chemical societies in Spain, to which AdJ replied that all Spanish chemical societies fully support organization of the conference by the Catalan Chemical Society. SR suggested to send the invitation to EA 2025 to all the member societies.

6.3 EUROANALYSIS XXIII, 2027

MS informed that the decision about the host of EuroAnalysis 2027 will be made at the next DAC Annual Meeting in Dublin, in July 2024, earlier than usual because the EuChemS congress was not scheduled in September. The call for bid books will be open in November 2023 and last until mid-March 2024.

7. Reports and Information

MS asked the present heads of the Study Groups to provide details about the study group annual reports and the assembly for their approval, suggesting that the extension of activities should be granted for one year more for all the Study Groups, especially due to transition to the Task Group activities. All the delegates agreed with this proposal.

7.1 Study Group 'Education in Analytical Chemistry'; Head: M. Vogel (2023)

The report for 2022/2023 has been received and sent to the delegates prior to the Annual Meeting (in attachment). The Head of the Study Group, M. Vogel, reported about the group activities. The activities of this Study Group were extended for 2024.

7.2 Study Group 'History'; Head: D.T. Burns (2023)

The report for 2022/2023 has not been received and the Head of the Study Group, D. T. Burns, was not present at the AM. Nevertheless, due to restructuring into the Task Groups, the DAC delegates agreed that the activities of this Study Group were extended for 2024.

7.3 Study Group 'Bioanalytics'; Head: R. van Staden (2023)

The report for 2022/2023 has been received and sent to the delegates prior to the Annual Meeting (in attachment). The Head of the Study Group, R. van Staden, reported about the group activities. The activities of this Study Group were extended for 2024.

7.4 Study Group 'Chemometrics'; Head: F. Marini (2023)

The report for 2022/2023 has been received and sent to the delegates prior to the Annual Meeting (in attachment). The Head of the Study Group, F. Marini, reported about the group activities. The activities of this Study Group were extended for 2024.

7.5 Study Group 'Nanoanalytics'; Head: S. Shtykov (2023)

The report for 2022/2023 has been received and sent to the delegates prior to the Annual Meeting (in attachment). Given that the head of the Study Group, S. Shtykov, could not attend the meeting, MS reported about the activities of “Nanoanalytics” Study Group. The activities of this Study Group were extended for 2024.

7.6 Study Group 'Electroanalytical Chemistry'; Head: J. Barek (2023)

The report for 2022/2023 has been received and sent to the delegates prior to the Annual Meeting (in attachment). The Head of the Study Group, J. Barek, reported about the group activities. The activities of this Study Group were extended for 2024.

7.7 Study Group 'Sample Preparation'; Head: E. Psillakis (2021-2023)

The report for 2022/2023 has been received and sent to the delegates prior to the Annual Meeting (in attachment). Given that the head of the Study Group, E. Psillakis, could not attend the meeting, MS reported about the activities of “Sample Preparation” Study Group. Though E. Psillakis in email communication with MS asked for two years prolongation, in accordance with the upcoming restructuring into the Task Groups, the activities of this Study Group were extended for one year, 2024.

7.8 DAC website and social media presence; S. Ražić

MS invited SR to address this topic. SR reported that the DAC web site is regularly updated, including news, lists of members, DAC overview (that can be used to promote DAC), etc. SR also emphasized that there is an active LinkedIn DAC page with an increasing number of followers.

MS thanked SR for time, dedication and hard work on the website and social media.

8. Events organized in cooperation with DAC-EuChemS

MS reminded that events organized on the topic of analytical chemistry can ask for DAC sponsorship that allows them to use the DAC logo, and in return the event will be announced on the DAC website. This also applies to local events with an international contribution. Funding is not included, only promotion and visibility of the event.

MS informed the DAC members that a request for organization of International Conference on Analytical Chemistry (ROICAC 2024) in Romania in cooperation with DAC has been received by Raluca-Ioana van Staden. After a short conference description by R.-I. van Staden, the members approved this cooperation.

9. Any other business

9.1 Date and venue of the 2024 DAC Annual Meeting (in conjunction with 9th EuChemS Chemistry Congress in Dublin – 7 July 2024)

MS announced that the next DAC Annual Meeting will take place on Sunday, July 7, 2024, at 9.00, in Dublin, Ireland, prior to the 9th EuChemS Chemistry Congress.

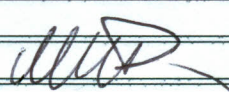
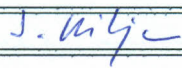
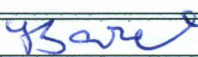
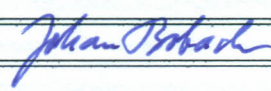
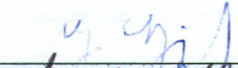
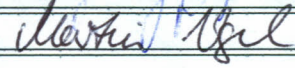

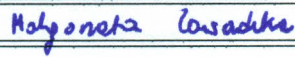
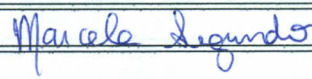
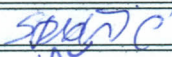

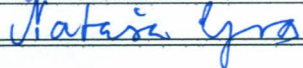
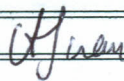


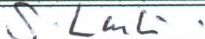
Snežana Miljanić
(Secretary)

Marcela Segundo
(Chair)

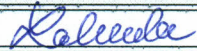
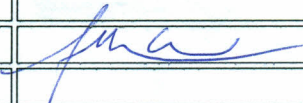
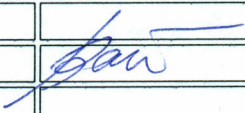
Attendance list

DAC Annual Meeting 2023 - August 27, 2023, Geneva


Delegates of the Division of Analytical Chemistry

Member Society / Supporting Member	Delegate	Signature
Austrian Society of Analytical Chemistry (ASAC)	Rudolf Krska	
Austrian Chemical Society (GÖCH)	Martina Marchetti-Deschmann	
Société Royale de Chimie (SRC)	Claudine Buess-Herman	
Croatian Chemical Society (HKD)	Snežana Miljanić	
Pancyprian Union of Chemists (PUC)	Constantina P. Kapnissi-Christodoulou	
Czech Chemical Society (CSC)	Jiri Barek	
Danish Chemical Society	Nikoline Juul Nielsen	
Finnish Chemical Society (SKS)	Johan Bobacka	
French Chemical Society (SCF)	Aura Tintaru	
German Bunsen Society for Physical Chemistry (DBG)	Günter Gauglitz	
German Chemical Society (GDCh)	Martin Vogel	
Association of Greek Chemists (AGC)	Elia Psillakis	
Hungarian Chemical Society (MKE)	Viola Horváth	
Institute of Chemistry of Ireland (ICI)	Jeremy D. Glennon	
Israel Chemical Society	Daniel Mandler	
Italian Chemical Society (SCI)	Luigi Mondello	
Royal Netherlands Chemical Society (KNCV)	Lutgarde Buydens	
Norwegian Chemical Society (NKS)	Malgorzata Elzbieta Zawadzka	
Polish Chemical Society (PTC)	Krystyna Pyrzynska	
Portuguese Chemical Society (SPQ)	Marcela Segundo	
Romanian Chemical Society (SChR)	Raluca-Ioana van Staden	
Mendeleev Russian Chemical Society (MRCS)	Sergey N. Shtykov	
Russian Scientific Council of Analytical Chemistry	Gennady Evtugyn	
Serbian Chemical Society (SHD)	Slavica Ražić	
Slovak Chemical Society (SCS)	Ľubomír Švorc	
Slovenian Chemical Society (SKD)	Nataša Gros	
Spanish Royal Society of Chemistry (RSEQ)	José M. Pingarron	
Spanish Society for Analytical Chemistry (SEQA)	José Luis Pérez Pavón	
Catalan Chemical Society (SCQ)	Anna de Juan	
Swedish Chemical Society	Charlotta Turner	
Swiss Chemical Society	Franka Kalman	
Turkish Chemical Society (TKD)	Sibel A. Ozkan	
Royal Chemical Society (RSC)	Steve Lancaster	

Guests and observers of the Division of Analytical Chemistry


Association / Country	Guest / Observer	Signature
IUPAC	Jan Labuda	
South African Chemical Institute	Mathew Nindi	
EuChemS – Division of Environmental Chemistry	Ioannis A. Katsoyiannis	
EuChemS – Division of Environmental Chemistry	Willem de Lange	
EuChemS – Division of Food Chemistry	Joana Amaral	
EuChemS – Division of Green and Sustainable Chemistry	Ana Aguiar-Ricardo	
EuChemS – European Young Chemists' Network (Alumni)	Mark Kelada	
Australia	Paul Francis	
Austria	Wolfgang Buchberger	
Brazil	Solange Cadore	
France	Philippe Garrigues	
Germany	Heiner Korte	
Germany	Reiner Salzer	
Greece	Miltiades Karayannis	
Ireland	Duncan Burns	
Italy	Federico Marini	
Hungary	George Horvai	
Poland	Boguslaw Buszewski	
Poland	Maciej Jarosz	
Portugal	Maria Filomena Camoes	
Russia	Yuri A. Zolotov	
Russia	Oleg A. Spigun	
Romania	Koos Van Staden	
Spain	Gemma Rauret Dalmau	
Sweden	Bo Karlberg	
Sweden	Jonas Berquist	
Switzerland	Eric Bakker	
UK	Paul Worsfold	
Ukraine	Vladimir Zaitsev	

EuChemS-DAC Study Group / Task Force Annual Report for 2022-2023

Study Group / Task Force Name: SG Education
Study Group / Task Force Head and Affiliation: Dr. Martin Vogel, University of Muenster, Germany
Study Group / Task Force Members and Affiliations: Prof. Dr. Reiner Salzer, Dresden University of Technology, Germany Prof. Dr. Ivo Leito, University Tartu, Estonia Prof. Dr. Miltiades Karayannis, University of Ioannina, Greece (stopped his membership in 2023) Dr. Martin Vogel, University of Muenster, Germany
Objectives: -Teaching analytical chemistry in the 21st Century - Evaluation of curricula in analytical chemistry at the current stage of the Bologna process - European employment survey for chemists and chemical engineers - Electronic media in teaching and assessing analytical chemistry
Activities and Outputs in 2022-2023 (e.g. reports, publications, seminars, meetings): - Co-editor of the educational column in “Analytical and Bioanalytical Chemistry”, focus on closing the gap between academia and industry regarding education (M. Vogel). - Member of IUPAC Project 2019-039-3-500: Status of Anal. Chem. Education (M. Vogel) - Completion of the evaluation of responses to the ACS/EuChemS Joint Employment Survey for Chemists and Chemical Engineers ESEC3 in March 2020. Support by several organisations including DAC is again gratefully acknowledged (R. Salzer). - Meeting: How to Navigate to your Dreamjob? Summerschool of the Erasmus+ programme “Excellence in Analytical Chemistry”; Tartu; 2022/23 (R. Salzer, I. Leito)
Activities planned for 2023-2024: - Publication of the results of the ACS/EuChemS Joint Employment Survey for Chemists and Chemical Engineers (R. Salzer). - Meeting: How to Navigate to your Dreamjob? Summerschool of the Erasmus+ programme “Excellence in Analytical Chemistry”; Tartu; 2023/24 (R. Salzer, I. Leito) - Renewal of SG Education with new members, which has been unfortunately delayed the last year - First plans for contribution to Euroanalysis 2025
Report submitted by: Martin Vogel 
Date submitted: August 25, 2023

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EuChemS-DAC Study Group / Task Force Annual Report for 2022-2023

Study Group / Task Force Name: Bioanalytics Study Group
Study Group / Task Force Members and Affiliations: Head of Study Group: Raluca-Ioana van Staden – Romanian Chemical Society Guenter Gauglitz – Gesellschaft Deutscher Chemiker (GDCh) Jan Labuda – Slovak Chemical Society Jacobus Frederick van Staden – South African Chemical Institute Coral Barbas Arribas - UCEU San Pablo, Spain Ryszard Lobinski – UPAU, France Ede Bodoki – UMedicine and Pharmacy Iuliu Hatieganu, Cluj Napoca, Romania Mehmet Gumustas – AnkaraU, Türkiye Jose M. Pingarron – Spanish Royal Society of Chemistry Viola Horvath – Hungarian Chemical Society
Objectives: The aim of the Bioanalytics study group is to search ways for bringing closer the analytical and bioanalytical chemistry community. Main purpose of this group is besides „listing“ of methods and „applications“ a help for deciding which to use for what and warn about pitfalls. It might be a help for those using analytics in fields like life science, environment and food analysis and not being a really well-trained Analyst.
Activities and Outputs in 2022-2023 (e.g. reports, publications, seminars, meetings): A workshop on Bioanalysis was organized on the national level in Romania, 2-3 February 2023. PBA 2023, Ankara, Türkiye , 33rd International Symposium on Pharmaceutical and Biomedical Analysis (PBA 2023) held between July 2-6 2023, in Ankara: Short course: SPME: New Developments and Pharmaceutical Applications (sample preparation in bioanalysis is included); Conference special issue will be published in Journal of Pharmaceutical and Biomedical Analysis. EUROANALYSIS Geneva 2023 : Short course: Trends in Bioanalysis; Study group minisymposium; 20th International Symposium and Summer School on Bioanalysis, June 24-30, 2022, Pécs, HUNGARY ; IUPAC Technical Report Analytical chemistry of engineered nanomaterials with parts on fate and analyses of NMs in biological samples. J Labuda - liason person between ACD IUPAC and DAC/EuChemS All, six Universities in Madrid with grades in Chemistry or Chemistry related topics (Pharmacy, Biochemistry, etc.), have developed and approved through the Ministry of Education an official master entitled: Universitary Master in Analytical and Bioanalytical Sciences and Technologies .
Activities planned for 2023-2024: Planning for special session on Bioanalysis in the coming conference. Preparing reviews related to bioanalysis (topics: sensors, -omics, HPLC, RAMAN), and their publication as open access for increasing the visibility of the study group. MG, Editor of a Special Topic: Pharmaceutical and Biomedical Applications in Separation Techniques: Recent Trends and Developments , https://www.mdpi.com/topics/7G6FXDS84D , Deadline 31 March 2024, Journals: Metabolites, Molecules, Pharmaceuticals, Pharmaceutics, Separations. IUPAC project "Electroanalytical flow through systems for monitoring of biologically and electrochemically active species" J Labuda - liason person between ACD IUPAC and DAC/EuChemS ROICAC 2024: Organizing a workshop on bioanalytics in Bucharest, Romania with the main scope of improving the concept on Bioanalytics, and also publish the presented papers in a special issue. Organizing a round table with members of the study group able to improve the Concept on Bioanalytics document.
Analytica 2024 3 Sessions on <i>Trends in Analytical&Bioanalytical Chemistry</i> : (1) <i>Miniaturized biosensors for clinical diagnostics</i> (2) <i>Towards self-driving labs</i> (3) <i>Lateral Flow Chips</i>
Report submitted by: Prof Dr habil Raluca-Ioana van Staden 
Date submitted: 31/07/2023

EuChemS-DAC Study Group Annual Report for 2022-2023

Study Group Name: Chemometrics
Study Group Head and Affiliation: Federico Marini, Dept. of Chemistry, University of Rome La Sapienza
Study Group / Task Force Members and Affiliations: Richard Brereton, University of Bristol, England Lutgarde Buydens / Jeroen Jansen, Radboud University of Nijmegen, Netherlands Giorgio Tomasi, University of Copenhagen, Denmark Joao Lopes, Universidade de Lisboa, Lisbon, Portugal Alexey Pomerantsev/Oxana Radionova, Institute of Chemical Physics RAS, Moscow, Russia, Jean Michel Roger, INRAE, Montpellier, France Douglas Rutledge, AgroParisTech, Paris, France Romà Tauler, IDAEA-CSIC, Spain Anna de Juan, University of Barcelona, Spain Johan Trygg, University of Umeå, Sweden Beata Walczak, University of Silesia, Katowice, Poland Claudia Beleites, Chemometrics GmbH
Objectives: 1) Promote Chemometrics in Europe 2) Organize Chemometrics sessions in EuChemS related conferences 3) Organize European Schools/Workshops on Chemometrics
Activities and Outputs in 2022-2023 (e.g. reports, publications, seminars, meetings): 1) Regular meetings of StG members taking advantage of the various other conferences where some were present to discuss future activities and enlargement of the team. 2) Preliminary discussion with prof. Peter Harrington, Chemometrics session Chair of SciX conferences, about the possibility of organizing a completely DAC-chemometrics related session in next SciX meetings (probably SciX2024). 3) Organization of a full day short course at Euroanalysis 2023 4) Organization of a study group session at Euroanalysis 2023
Activities planned for 2023-2024: 1) Organizing one or two half-day webinars on chemometric tools for analytical chemists with a thematic characterization (e.g., metabolomics, process chemometrics, imaging). 2) Extending the participation of European chemometricians to the StG and the interaction with the national Chemometric groups (especially within Chemical Societies). 3) Organizing a Chemometric Session at the next Euchems2024 conference and offering pre-conference Chemometric short courses. 4) Planning of one tutorial papers on hot topics in applied chemometrics, which can be of interest for the analytical chemists. 6) Organizing a DAC-chemometrics study group thematic session within the FACSS conference SciX2024.
Report submitted by: Federico Marini
Date submitted: 02/08/2023

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EuChemS-DAC Study Group / Task Force Annual Report for 2022-2023

Study Group / Task Force Name: Nanoanalytics

Study Group / Task Force Head and Affiliation: Prof. Dr. Sergei Shtykov (Head), Saratov State Univ., Russia

Study Group / Task Force Members and Affiliations:

Prof. Dr. Pavel Nesterenko, Moscow State Univ., Russia

Prof. Dr. Nikolay Khlebtsov, IBPPM, Russian Acad. of Sci., Russia

Prof. Joao Luis Machado Santos, Univ. Porto, Portugal

Prof. Raluca-Ioana Stefan-van Staden, Nat. Inst. of Res. Electrochem. and Condensed Matter, Romania

Objectives:

The aim of the Nanoanalytics Task Force is to start a dialog within the analytical chemistry community on the concept of Nanoanalytics. There is however a need to explain in a clear way what Nanoanalytics does, what the outputs of Nanoanalytics are and what the terminology means.

- A concept and definition of Nanoanalytics.
- The most important types and classifications of nanotechnologies used in the chemical analysis.
- The scope of applications of Nanoanalytics in Chemical Analysis.
- Preparation of a textbook and/or manuals for students.

Activities and Outputs in 2022-2023 (e.g. reports, publications, seminars, meetings):

Shtykov S.N. develops fundamental and applied aspects of nanoanalytics.

1. Labuda J., Johnston L.J., Mester Z., Gajdosechova Z., Goenaga-Infante H., Barek J., Shtykov S. Analytical chemistry of engineered nanomaterials: Part 1. Scope, regulation, legislation, and metrology (IUPAC Technical Report). Pure Appl. Chem. 2023. V. 95. № 2. P. 133-163. – a result of IUPAC project <https://doi.org/10.1515/pac-2021-1001>

2. Khabibullin V.R., Chetyrkina M.R., Obydenny S.I., Maksimov S.V., Stepanov G.V., Shtykov S.N. Study on doxorubicin loading on differently functionalized iron oxide nanoparticles: Implications for controlled drug-delivery application // Int. J. Mol. Sci. 2023. V. 24. 4480. <https://doi.org/10.3390/ijms24054480>

Khlebtsov N.G. Head of the scientific group developing the theory of plasmonics and the synthesis of gold and silver nanoparticles of different morphology and the practice of their use in bioanalysis.

1. Khlebtsov N.G., Khlebtsov B.N., Kryuchkova E.V., Zarkov S.V., Burov A.M. Universal determination of gold concentration in colloids with Uv–Vis spectroscopy. J. Phys. Chem. C 2022. V. 126. 19268–19276.

2. Khanadeev V.A., Simonenko A.V., Grishin O.V., Khlebtsov N.G. One-shot laser-pulse modification of bare and silica-coated gold nanoparticles of various morphologies. Nanomater. 2023. V. 13. 1312.

<https://doi.org/10.3390/nano13081312>

3. Evstigneeva S.S., Chumakov D.S., Tumskiy R.S., Khlebtsov B.N., Khlebtsov N.G. Detection and imaging of bacterial biofilms with glutathione-stabilized gold nanoclusters. Talanta. 2023. V. 264. 124773

<https://doi.org/10.1016/j.talanta.2023.124773>

4. Khlebtsov N.G., Dykman L.A., Khlebtsov B.N. Synthesis and plasmonic tuning of gold and gold–silver nanoparticles. Russ. Chem. Rev., **91**, RCR5058, DOI: <https://doi.org/10.57634/RCR5058>

At the IV Congress of Russian Analysts, a one-day symposium on nanoanalytics was organized, at which its chairman S.N. Shtykov presented the plenary lecture “Fundamental and applied aspects of Nanoanalytics”.

Activities planned for 2023-2024:

1. In accordance with the invitation of the Organizing Committee of the IV International Conference on Analytical Spectroscopy, on September 25-30, 2023, a plenary lecture "Nanospectroscopy and Nanoanalytics - Opportunities, Limitations and Prospects" will be presented

2. In accordance with the invitation of the Organizing Committee of the VI International Conference on Colloid Chemistry and Physicochemical Mechanics, October 23-26, dedicated to the 125th anniversary of the birth of P.A. Rebinder will present a plenary lecture "Engineering nanomaterials: regulation of chemical and physical properties, parameters for their characterization, reference materials and nanometrology".

3. Continued preparation of papers, reviews and manuals on the properties of nanomaterials, their modification and use in chemical analysis.

Report submitted by: Sergei Shtykov



Date submitted: 02.08.2023

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EuChemS-DAC Study Group / Task Force Annual Report for 2022-2023

Study Group / Task Force Name: Electroanalytical chemistry

Study Group / Task Force Head and Affiliation: Berek Jiri Charles University

Study Group / Task Force Members and Affiliations:

Barek Jiri Charles University Prague, Ozkan Sibel University of Ankara, Labuda Jan Slovak University of Technology Bratislava, Matysik F.M. University of Regensburg, Korotkova E.K. Tomsk Polytechnic University, Vyskocil Vlastimil Charles University Prague, Economou Tasos National and Kapodistrian University of Athens, Ignjatovic Ljubisa University of Belgrade, Mandler Daniel Hebrew University of Jerusalem, Moreira Josino FIOCRUX, Rio de Janeiro, Bret Christopher University of Coimbra, Pingarron Jose Complutense University of Madrid, Nesmerak Karel Charles University Prague, Tomas Krizek Charles University Prague

Objectives:

The main aim of the study group is to promote possibilities of modern electroanalytical methods and their benefits for society via organizing special sessions on electroanalytical chemistry in broad spectrum analytical and chemical conferences, student's competitions in electroanalytical chemistry, competitions of the best papers on electroanalytical chemistry for young electroanalytical chemists, international seminars for young electroanalytical chemist, exchange of students in electroanalytical chemistry, and network of electroanalytical laboratories. Attention is also paid to closer cooperation between electroanalytical laboratories in Europe and in Americas, Asia, Africa and Australia using the support of producers of electroanalytical instrumentation and international programs of the Erasmus+ type an cooperation via European society on electroanalytical chemistry (ESEAC), division V of IUPAC and European chemistry thematic network association (ECTNA). Moreover, the study group prepare and publish papers for generally oriented analytical journals promoting electroanalytical chemistry.

Activities and Outputs in 2022-2023 (e.g. reports, publications, seminars, meetings):

1. The 5th Cross-Border Seminar on Electroanalytical Chemistry (CBSEC 2023), Waldmünchen, 4. - 6. April 2023. For details see Chem. Listy 117, 473 (2023)

2. 18th International Students Conference 'Modern Analytical Chemistry' 2022 was held on September 15–16, 2022 at Charles University. See [18th International Students Conference 'Modern Analytical Chemistry' 2022 — Přírodovědecká fakulta UK \(cuni.cz\)](#)

3. 19th International Students Conference 'Modern Analytical Chemistry' 2023 will be held on September 15–16, 2022 at Charles University. See [19th International Students Conference 'Modern Analytical Chemistry' 2023 — Přírodovědecká fakulta UK \(cuni.cz\)](#)

4. Metrohm CZ Prize for best papers of young researchers from CZ and SK (3 prizes were awarded in 2023) Prague 1.2.2023 see Chem. Listy 117, 256 (2023) Three prizes were awarded.

4. Karel Stulik Price for the best work of undergraduate students of analytical chemistry from Czech and Slovak republic was held at Ostrava University in Ostrava on 8.2.2023. Special edition of selected presentation will be published in Czech chemical society symposium series in autumn 2023 and an article about this conference will be published in Chemické Listy.

5. Heyrovsky-Ilkovic-Nernst lecture organized jointly by Czech, Slovak and German society was held on 6.12.-9.12.2023 in Prague, Brno, and Bratislava. Lecture was delivered by prof. Kranz from Ulm, Germany.

On all International students conferences the prize for best presentation in electroanalytical chemistry supported by Metrohm CZ was awarded.

6. Joint electroanalytical seminars Charles University Prague-Macquarie university Sydney will be held on 12.-15.9.2023 in Prague.

7. Electroanalytical chemistry and DAC were promoted on IUPAC meetings, ESEAC meetings and ECTNA meetings especially in cooperation with prof. Labuda, Slovak Technical University Bratislava.

8. SC DAC seminar Analytical Chemistry and Nanoparticles was held on 1.4.2023 in Prague

Activities planned for 2023-2024

1. The 6th Cross-Border Seminar on Electroanalytical Chemistry (CBSEC 2023) will be held in Germany in spring 2023.

2. 19th International Students Conference 'Modern Analytical Chemistry' 2023 will be held in September 2023 in Prague.

3. Metrohm CZ Prize for best papers of young researchers from CZ and SK (3 prizes) will be held in spring 2024 at Charles University in Prague.

4. Karel Stulik Price for the best work of undergraduated students of analytical chemistry will be held in Hradec Kralove Czech Republic, in spring 2024.

On all International students conferences the prize for best presentation in electroanalytical chemistry supported by Metrohm CZ will be awarded.

5. Joint on line electroanalytical seminars Charles University Prague-Macquarie university Sydney and Hebrew University of Jerusalem will be organized in 2024.

5. Electroanalytical chemistry and DAC will be promoted on IUPAC meetings, ESEAC meetings and ECTNA meetings especially in cooperation with prof. Labuda, Slovak Technical University Bratislava

6. Heyrovsky-Ilkovic-Nernst lecture organized jointly by Czech, Slovak and German society will be held in Germany in autumn 2023.

Report submitted by: Jiri Berek

Date submitted: 25.07.23

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EuChemS-DAC Study Group / Task Force Annual Report for 2022-2023

Study Group / Task Force Name: Sample Preparation
Study Group / Task Force Head and Affiliation: Elia Psillakis, TUCrete, Greece
Study Group / Task Force Members and Affiliations: Manuel Miró, UBalearic Islands, Spain; Stig Pedersen-Bjergaard, UOslo, Norway; Slavica Ražić, UBelgrade, Serbia; Marcela Segundo, UPorto, Portugal; Sibel A. Ozkan, UAnkara, Turkey; Charlotta Turner, LundUni, Sweden; Barbara Bojko, NicolausCopernicusUni, Poland; Ezel Boyacı, METU, Turkey. International members: Janusz Pawliszyn, UWaterloo, Canada; Gangfeng Ouyang, SYSU, China
Objectives: The objectives of the Sample Preparation Study Group are the promotion of Sample Preparation through the organization of events, facilitation of communication, information exchange and networking, and the promotion of fundamental studies and cross-disciplinary collaboration. To further benefit the area, efforts were placed on promoting innovation and entrepreneurship next to promote early stage researchers' involvement
Activities and Outputs in 2022-2023: The Sample Preparation Network working under the umbrella of this Study Group now counts 780 members from 55 countries around the world. The network has five working groups (WG: WG1. Science and Fundamentals ; WG2. Automation, Innovation and Entrepreneurship ; WG3. Information Exchange and Networking) and WG4. Green Sample Preparation that represent the most important directions in the field. In 2023 we created our first Task Force (TF1) on Green Metrics that supports our network members by answering questions on e.g., the criteria used for assessing analytical methods, the use of the corresponding open-source software, the quantification of specific criteria etc. The four leaders of TF1 are younger members of our scientific community. We continue our strong presence in the social media and regularly post news on our LinkedIn Page (582 followers), LinkedIn Group (360 members) and Twitter (570 followers) accounts, Facebook (168 followers), Instagram (305 followers) and ResearchGate (115 followers). Since August 2022 our Study Group has been acknowledged in 29 scientific papers published by our members in ISI Journals. We continued supporting the new journal connected to our Study Group, " Advances in Sample Preparation ", Elsevier. This year this Elsevier Journal (SAMPRE) was indexed in Scopus. The 2023 annual theme for our Study Group and Network was "Fundamentals of Sample Preparation" and a series of webinars are planned for the last quarter of 2023 aiming to reveal the complex phenomena underlying sample preparation. These webinars will be free for our members. Our Study Group supported the participation and paid the registration for: 1 PhD student attending the 7th Green and Sustainable Chemistry Conference (Dresden, Germany, 22-24 May 2023), 1 PhD student attending HPLC2023 (Dusseldorf, Germany, 18-22 June 2023); 1 PhD student attending PBA2023 (Ankara, Turkey, 2-6 July 2023); 6 PhD students attending ExTech 2023 (Tenerife, Spain, 18-21 July 2023); 1 PhD student attending Euroanalysis 2023 (Geneva, Switzerland, 27-31 August 2023). We have also given one Best Oral presentation Award to a Turkish PhD student participating at PBA2023 (Ankara, Turkey, 2-6 July 2023) Our IUPAC project entitled "Greenness of official standard sample preparation methods" that aims to evaluate current status of the greenness of the sample preparation methods used in official standard methods, proceeds as planned and after invitation we submitted one article at the IUPAC 's magazine Chemistry International. We are also organizing a round table discussion to discuss the outcome of this project during Euroanalysis 2023. The 2023-Sample Preparation Summer Course in Hradec Králové, Czech Republic (Automation and miniaturization in sample preparation) was cancelled. This course belongs to a series of courses organized by our Study Group and Network.
Activities planned for 2023-2024: In November 2023 we will organize a series of webinars where top experts of our community will presents the fundamentals behind sample preparation. These webinars will be free for our members. We hope to attract sponsorship and continue supporting the participation of PhD students in international conferences. In September 2023, we will announce the 3rd European Sample Preparation Conference (EuSP2024) and the 2nd Green and Sustainable Analytical Chemistry Conference (GSAC2024) that will occur simultaneously from 15-18 September 2024 in Chania-Crete, Greece. The two events will aim to bring together top experts from academia and industry to discuss new advancements in the fields of sample preparation and green analytical chemistry. This conference is directly related to our network. The sample preparation summer course will take place the days before the two events. We will continue our efforts on creating further policy actions for the benefit of sample preparation and our members as well as increase the visibility of Sample Preparation worldwide.
Report submitted by: Professor Elia Psillakis (Head), TUCrete, Greece 
Date submitted: 2 August 2023