

International Association of Colloid and Interface Scientists

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From the IACIS President



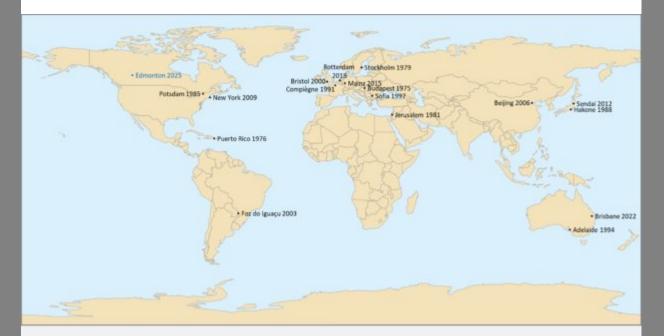
Happy New Year for 2024 and for the upcoming Year of the Dragon.

We have reached the mid-point between the last IACIS conference in Brisbane in June 2022 and the next IACIS conference in Edmonton in June 2025, and in this newsletter you will find a call for expressions of interest to host the 19th IACIS conference in 2028. Please take a look at the map below and think about where IACIS 2028 might be held and whether you are interested in organising and hosting it.

Since the first International Conference on Surface and Colloid Science (ICSCS) in Budapest in 1975, sequential IACIS conferences have generally moved between continents and hemispheres. They are sometimes co-hosted with meetings of national or regional societies, as will be the case for IACIS2025, co-hosted with the American Chemical Society Colloids Symposium. This arrangement can help boost participation and finances, as well as bringing in IACIS's broad global membership base as delegates. IACIS conference registration includes three years of IACIS membership for participants (although membership can of course also be renewed directly if you miss the conference <u>https://forms.office.com/r/0mSCfBHkFE</u>).

Later in the year, together with the conference chairs, we will turn our attention to the Lifetime Achievement and Emerging Investigator Awards for IACIS2025. If you can think of someone who should nominate, remember that they must be current IACIS members to be eligible, so encourage them to join to receive updates.

Greg Warr



FROM YOUR NEWSLETTER EDITOR



New Year, New Chances

At the start of 2024 I am happy to present our 82nd Newsletter. The content makes really excited. The organisation of IACIS 2025 has started and there are plenty of opportunities to get involved in the organisation. IACIS is looking for a Venue and the Organization for the 19th IACIS Conference. There is a postdoc job opening in Croatia. Finally, there are many Colloid meetings to look forward to this year, where we will have a chance to meet and interact.

As always, contact me when you have news, or would like to put your recently published article in the spotlight.

Take care, Your newsletter editor Saskia Lindhoud

IACIS 2025

We are excited to share that the preparations for IACIS 2025 is progressing well, and that University of Alberta has been chosen for the site of the conference after careful consideration. As you know this is a joint conference with ACS's Colloid Symposium. Last time such a joint event was held, it proved to be a smashing success! So, we like to continue this by calling upon the community to write to us at <u>cochair@colloids2025.com</u> with their ideas about:

- 1. An early research career (within 10 years from PhD) that we should highlight in the program, consider the Diversity, Equity and Inclusion principles.
- 2. Nominating or Self-nomination for organizing special session within the joint conference.
- 3. Let us know which high profile researcher you want to see potentially to be invited as a Plenary Speaker.
- 4. The website for the conference is being constructed and its address is: <u>https://colloids2025.com/</u>
- 5. We welcome any suggestions you may have for making this conference a success whether on the scientific, professional, or social aspects, so write to us!
- 6. Please pass on the above messages to your students and postdoctoral fellows to get them involved as well. They are our future!

From Conference Co-Chairs Alidad Amirfazli & Tian Tang

CALL FOR PROPOSALS VENUE AND ORGANIZATION FOR THE 19TH IACIS CONFERENCE IN 2028

Proposals should be sent to <u>Wuge H. Briscoe</u>, with a deadline on 1st July 2024.

To promote international co-operation among colloid and interface scientists, and to promote the stature and understanding of colloid and interface science, IACIS sponsors and supports the triennial IACIS Conference. A brief history of the conferences is here <u>https://www.utwente.nl/en/iacis/iacis-conferences/#previous-conferences</u>.

The immediate past 17th edition was held in Brisbane, Australia, in June 2022 (postponed from 2021 due to Covid-19). I am reminded to thank the Aussie organising committee for their heroic efforts in navigating through the minor inconvenience of the little rude virus, delivering a highly memorable event.

The 18th IACIS Conference will be in June 2025 in Edmonton, Alberta, Canada, jointly with the 98th American Chemical Society (ACS) Colloid and Surface Science Symposium. I hear from the organisers that an exciting update will be provided very soon.

We would now like to invite proposals from all IACIS members for the organization and venue for the 19th IACIS Conference in 2028. We will also publicise this invitation widely, reaching out to wider international colloids communities in different regions and countries. A guideline for the bid information and the procedure for selection are below, and questions can be directed to any of the Standing Committee members <u>https://www.utwente.nl/en/iacis/about/</u>.

Information in the proposal should include:

- Proposer(s): Titles, names, affiliations, and current positions
- Place and time: City, country, and dates in 2028
- A brief description of the development and present state of colloid and interface science in this country, and research groups involved in the organization (1 A4 max)
- Brief CV of the chair(s) of the Conference
- Members of the Organizing Committee (preliminary)
- Members of the Scientific Committee and International Advisory Board (preliminary)
- Main conference topics (preliminary)
- Venue: A brief description of facilities (for plenary lectures and parallel sessions)
- Accommodation: Hotels, dormitories/hostels, and estimated prices
- Estimated registration fees
- Potential financial support and possible sponsors

The proposals received will be sent to all IACIS Council members for discussions and consultation, with the provision for a voting process in the event of multiple bids. The Standing Committee will take the final decision before 1st Dec 2024.

From IACIS Honorary Secretary & Treasurer

SHOWCASE YOUR PUBLICATION

During the pandemic there was a lack of opportunities for young scientists to present their work at international conferences. Therefore we started to invite PhD students to showcase recent publications in the IACIS Newsletter. We have decided to continue this Newsletter item, because it gives an opportunity for young scientists to explain their recent discoveries. The idea is to write a short text in which you explain about your PhD topic, your recent publication and why it is interesting for our community. Detailed guidelines can be found <u>here</u>.

The aim is to include 2 or 3 showcase texts in each Newsletter, preferably from three different continents. The next Newsletter will appear in April, the deadline for submitting your showcase text is March

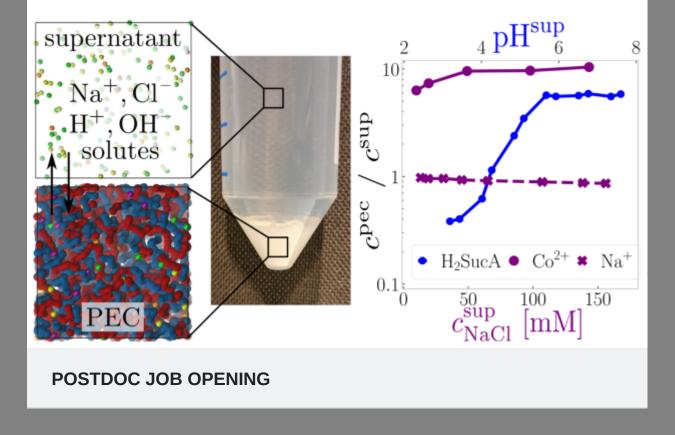
Your Newsletter Editor, Saskia Lindhoud

Sequestration of small ions, weak acids and bases by polyelectrolyte complex studied by simulation and experiment

My name is Roman Staňo and I am a doctoral student at the University of Vienna, where I work with Christos N. Likos. I am a computational physicist and in my research, I use molecular simulations to study polymers, focusing mainly on two topics: First, macromolecules with non-trivial topology such as ring polymers or polymers with knots. Second, polyelectrolytes, primarily in connection to the phenomena of complex coacervation, which is the main topic of my recent manuscript below.

Mixing of oppositely charged polyelectrolytes can result in phase separation into a polymer-poor supernatant coexisting with polymer-rich polyelectrolyte complex. The resultant two phases present strikingly different microenvironments, strongly affecting the partitioning equilibrium of small molecules between the two phases. In the present study, we combine computer modelling with experimental absorption spectroscopy and thermogravimetry to establish the main physical actors driving the above partitioning of solutes. With almost quantitative match between the simulations and the experiments, we show that monovalent ions exhibit a weak preference for the supernatant, divalent ions exhibit a strong preference for the complex phase, while partitioning of weak diprotic acid depends on the pH of the supernatant. Our results show how charge regulation in multivalent solutes can be exploited in engineering of polyelectrolyte-based extraction media.

If you wish to learn more, you are welcome to read the full paper available at <u>DOI:</u> <u>10.1021/acs.macromol.3c01209</u>



Postdoc position is available in the Laboratory for Colloids, Polyelectrolytes and Interfaces, University of Rijeka, Croatia, under supervision of assoc. prof. Duško Čakara, in the field of optics, spectroscopy, electrochemical and electrical measurements. The research is aimed at understanding the ion-to-electron charge transfer in conducting polymer and organic/inorganic composite thin films that exhibit a range of structural properties, resulting in complex optical and electrical response. In particular, the postdoc will be focusing on the development of electrochemical spectroscopic ellipsometry and the related interpretation of measurements.

Job Information

Organisation/Company: University of Rijeka, Croatia Department: Centre for Nano and Micro Sciences and Technologies (NANORI) Research Fields: Applied physics or Physical chemistry Application Deadline: 25 Feb 2024 - 23:59 (Europe/Zagreb) Type of Contract: Temporary (1 year with prolongation opportunity up to max. 4 years), Full-time employment Salary range: 2100 – 2300 Eur/month brutto (status and benefits as per Croatian law) Funding: EU Research Framework Programme (HORIZON-EIC-2023-PATHFINDEROPEN-01) **More at https://collsurf.uniri.br/postdoc-position/ or**

More at <u>https://collsurf.uniri.hr/postdoc-position/ or</u> https://euraxess.ec.europa.eu/jobs/180975

CONFERENCE ANNOUNCEMENTS AND UPDATES



ECIS Online Webinar on Fundamentals

Last year ECIS started with a webinar series on Fundamentals.

The webinar series kicked of with a session on Effects of Bubbles and Dissolved Gases in Colloid Science presented by Barry Ninham and Vincent Craig. On January 23 the second webinar took place with the topic: Fundamental aspects of wetting – drop friction, presented by Hans-Jürgen Butt and Joël de Coninck.

Recordings of these webinars are available online

Visit ECIS Webinars on Fundamentals

38th conference of European Colloid & Interface Society

1-6 September 2024 · Copenhagen · Denmark

The registration of ECIS 2024 in Copenhagen has been opened.

The conference is organised by the following scientific themes:

- Colloids at Interfaces, Membranes and Biointerfaces, Emulsions and Foams
- Design and Synthesis of Colloidal Systems, Nanoparticles and Novel Materials
- Self-Assembly: New structures, Dynamics and Supramolecular Hierarchical Assemblies
- Colloids in Biomaterials and Biomedical Applications
- Polymers, Polyelectrolytes, Gels and Ionic Liquids
- Composite, Hybrid and Magnetic Colloidal Materials
- Wetting Phenomena and Surface Forces
- Colloidal Robotics, Devices, and Actuated Materials
- Rheology, Flow, and Phase Behavior of Complex Liquids
- Colloid and Interface Phenomena in Food and Pharma
- Theory and Multi-scale Modeling of Colloids and Interfaces
- Colloidal Active Matter
- Advanced Colloid Science for Applications and Products
- Neoteric Fluids: Liquid Metals, Porous fluids, and Other Emerging Solvents
- Nanopaint theme: Nanoparticle Interactions in Dense Suspensions
- Artificial Intelligence and Machine Learning in Colloid Science
- ESS theme: Developments in Neutron and X-ray Methods and Novel Characterisation Approaches

For more information, registration and abstract submission visit: https://ecis2024.org/



ACS COLLOID & SURFACE SCIENCE SYMPOSIUM Save the Date June <u>23rd - 26th, 2024</u>

Seattle, Washington

Dear colleague,

Abstract submission for the 98th ACS Colloids and Surface Science Symposium is now Open for Oral Presentations and Posters.

The Symposium will be held **June 23-26, 2024** at the **University of Washington** in Seattle. The Symposium features outstanding plenary speakers and award talks for the Unilever Award, LaMer Award and graduate student Langmuir Award.

The technical sessions are organized around 16 broad topics:

- Colloidal and Surface Forces
- Rheology and Complex Fluids
- Surface Science, Catalysis and Electrochemistry

- Emulsions, Bubbles and Foams
- Wetting and Adhesion
- Environmental and Sustainability Topics
- Biological, Bio-Inspired and Biomimetic Colloids and Interfaces
- Directed and Self-Assembly
- Active and Dissipative Systems
- Automation, ML and AI in Colloid and Surface Science
- Electrokinetics and Microfluidics
- Polymers
- General Fundamentals and Applications
- Synthesis of Colloids, Crystals and Nanomaterials
- Programmable Materials and Additive Manufacturing
- Connecting the Dots (Colloids and Surfaces in Industry)

The full list of session organizers, invited speakers and the link to abstract submission is provided on the Symposium website: <u>www.colloids2024.org</u>

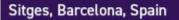
Deadline for abstract submission is March 1, 2024

Lilo D. Pozzo, Jim deYoreo, Shuai Zhang and Zachary Sherman Symposium Co-Chairs colloids2024.org



The 4th International Conference on Nanomaterials Applied to Life Sciences 2024 (NALS 2024) is being organized by the University of Granada and NanoMag Lab. of the Department of Applied Physics. It will be held in the Fuentenueva Campus, Faculty of Science, University of Granada (Spain) on 14th-16th Febrary 2024.

NALS events are promoted by the NanoBioAp Cluster, which consists of more than 70 researchers from different Spanish Research Institutions. The relentless advances made in nanotechnology in recent years require multidisciplinary and crossdisciplinary approaches, from the design of new materials to their final application. NALS 2024 aims to establish synergies, foster lasting collaborations and contribute to a fruitful academia-industry link, to work together in the development of disruptive techniques and devices based on nanomaterials for applications in the fields of Medicine, Biology and the Environment, among others.





Save the date 13th International Colloid Conference

the 13th International Colloids Conference, will take place from 9-12 June, 2024, Sitges, Barcelona, Spain

This conference aims to provide a forum for researchers from across the world to join in a relaxed atmosphere, to communicate and share the latest developments from these research areas.

The Conference will covers the following topics:

- New materials for energy generation and storage, catalysis, separations, buildings, foods, clothing and packaging
- Advanced soft matter systems, covering functional and adaptive surfactants, polymers, gels and biocolloids
- Designed responsive and functional interfaces, surfaces, films, membranes and composites
- Bio materials, nano-medicines novel approaches to drug delivery and medical diagnostics
- New theory, novel phenomena and advanced experimental techniques

Visit the conference website for more information



FOOD COLLOIDS C O N F E R E N C E USING COLLOID SCIENCE TO FIND NEW SUSTAINABLE SOLUTIONS IN FOOD 14 - 18 April 2024 Thessaloniki Concert Hall www.foodcollaids2024.org N INTERNATIONAL HELLENIC UNIVERSITY



The 19th Food Colloids Conference will take place in Thessaloniki, Greece from 14th to 18th April, 2024.

The conference aims to bring together international experts from academia and industry in order to share their latest research and knowledge in the complex and exciting world of food colloids. The 19th Food Colloids stresses the latest trends in colloidal food systems covering at the same time the classical but ever modern physical chemistry aspects in the field. This year's conference has also a special focus on sustainability with clean, environmentally friendly, plant-based approaches. Furthermore, the conference extends its focus in non-food, or close-to-food, applications including nutraceutics, pharmaceutics, packaging and medicine providing ground for interdisciplinary scientific interactions.

Please visit the website for more information.



The 24th International Symposium on Surfactants in solution" will be held at BITS Pilani K K Birla Goa Campus from June 16-21, 2024. This Symposium is jointly organized by BITS Pilani K K Birla Goa Campus, IISER Pune and ICT Mumbai, in association with Society for Industrial Chemistry & Indian Society for Surface Science and Technology.

Scope of the Symposium

- Thermodynamics, modelling, simulation and theory of surfactants-based systems
- Surfactants adsorption at interfaces and pseudo-phase formation
- Mixed surfactant systems, surfactants in separation processes
- Kinetics of surfactant-based systems
- Bio derived, bioinspired and Gemini surfactants, sustainability in surfactants
- Polymeric and polymerizable surfactants
- Surfactants in applications
- Surfactants wetting, spreading and capillary phenomena
- Monolayers and Langmuir-Blodgett films
- Surfactants experimental methods, techniques and approaches
- Surfactants in tribology
- Adsorption layer dynamics at interfaces
- General/other topics
- Young Scientist Forum

More information can be found on the SIS2024 website: sis2024.surfinsol.org



Neutrons and Food 7 will take place from June 10-14, 2024 at the STAR Tower, University of Delaware, Newark, DE

At this time, we are inviting oral (~20 minutes) and poster presentations. The following session topics are particularly encouraged:

Relevant topics include:

- Food Shelf-life and Processing | High-pressure, Rheology, Psychorheology, Tribology
- Food Safety and Quality | Packaging | Traceability
- Foams and Emulsions | Pickering, Oleogels, Polysaccharides
- Neutron Research Facility Access | Collaboration and Outreach
- Protein Sources | Plant-based and Dairy | Drinks and Beverages
- Digestion and Metabolic Processes
- Food standards | Food Taste and Perception
- Technology and the Global Food system

Follow this link for more information



52ND BIENNIAL ASSEMBLY OF THE GERMAN COLLOID SOCIETY

DRESDEN, September 30 - October 2, 2024

The 52nd Biennial Assembly of the German Colloid Society adds to a successful series of conferences. This time the meeting will take place in Dresden, Germany.

TOPICS:

- Surfactant Science, Membranes, Foams, Microemulsions,
- Emulsions, Amphiphilic Copolymers
- -Polyelectrolytes
- -Gelation, Hydrogels, Responsive Colloids
- -Nanoparticles
- -Theory / Modelling / Simulation of Colloids and Interfaces
- including Predictive Modelling and Artificial Intelligence /
- Deep Learning Approaches
- -Applications and Sustainable Formulations of Colloidal Systems
- -Wetting Phenomena
- -Functional Interfaces and Bio-Interfaces
- -Particle Based Functional Materials: Towards Device Integration

