

## International Association of Colloid and Interface Scientists

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### From the IACIS president



Happy New Year to everyone; Depending on your calendar preference, welcome to 2023 and (soon) to the year of the rabbit.

I hope that this year we will continue to re-emerge from our pandemic isolation and re-engage with the international colloid and interface science community. Personally, it was great to be able to resume international travel and get out of Australia to attend the wonderful 100th Anniversary conference of the German Colloid Society at TU Berlin last September. Side trips to Copenhagen and to LINXS in Lund were also very rewarding. My prior most recent international travel was to Okinawa Colloids back in 2019 – and I'm already looking forward to returning next time.

You will also see in this newsletter a rich programme of upcoming conferences spanning colloids, interfaces, and nanoscience, as well as research positions opening at many levels. I hope that these will help nucleate and grow a resumption of the international movement that has long been a hallmark of the free exchange of ideas in our discipline and across all of science. Zoom, Teams, Facetime, etc. have been a great asset, but nothing beats proper "interfacing" by making personal contacts and experiencing different cultures and ways of thinking.

We are still in the process of co-opting additional IACIS Council members to achieve a regional balance and ensure that IACIS is a truly global international association representative of our membership. I would like to welcome both Prof. To Ngai from the Chinese University of Hong Kong and Prof. Dan Daniel of King Abdullah University of Science and Technology (one of our IACIS Emerging Researcher Award Winners and, until recently, from A\*STAR in Singapore) to the Council. Welcome back also to Prof. Watson Loh from the University of Campinas, Brazil. You can find the profiles and contact details of all IACIS Councilors on the website.

If you are reading this, then you are already a member of IACIS, of course. However, you may like to know that we recently simplified membership application and renewal, including accepting payment in US dollars and British pounds as well as Euros, and by credit card, bank transfer, or invoice. Please encourage your colleagues and students who are not members to join; if you know of colleagues having difficulties paying by any of these methods we have included an option to defer payment at the honorary secretary's discretion.

As always, please feel free to contact me or members of the Standing Committee or Council with any suggestions to grow and improve our IACIS.

Greg Warr

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### From your Newsletter Editor



First of all best wishes for 2023. In this new year the website will move. We are already setting up a new website, hosted by the University of Twente. This will also mean the format of the newsletter will change. So this might be the last newsletter in this format. On the new website I am making a newsletter archive. Hans Lyklema has kept all the newsletters from when he was a newsletter editor. I will get access to his archive soon and scan these old newsletters in, so they will be available to all our members.

I am very happy that some of our new members have sent me job announcements and conference announcements. If you have information that you would like to share, for instance about conferences, book reviews or, you would like to showcase your publication, send me an email so it can be included in our next NL, deadline March 15.

Stay safe, take care and make the best of it.

Your Newsletter Editor,  
Saskia Lindhoud

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### 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 [here](#). The aim is to include 2 or 3 showcase texts in each Newsletter, preferably from three different continents. The next Newsletter will appear beginning of January, the deadline for submitting your showcase text is December 15.

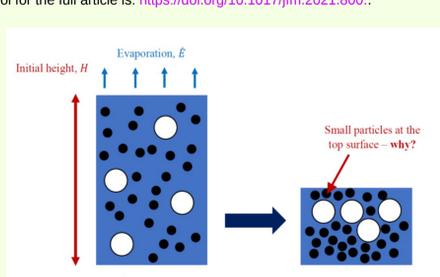
Your Newsletter Editor, Saskia Lindhoud

### Stratification in drying films: a diffusion-diffusiophoresis model

My name is Clare Rees-Zimmerman and I have just completed my PhD at the University of Cambridge, supervised by Prof. Alex Routh. My PhD sought to understand the relative importance of different phoretic effects: diffusiophoresis refers to the transport of particles up or down the concentration gradient of a different solute and can be exploited to control particle motion.

Of particular interest is the concentration gradients formed in drying films as the solvent evaporates. It is often observed experimentally that small particles preferentially accumulate to the top surface during drying but it is not fully understood why. Understanding this would allow the formulation of coatings which self-assemble into desired structures during drying. In this article, we investigate the relative magnitudes of diffusion and excluded volume diffusiophoresis, which has been hypothesised to cause this small-on-top stratification. A fluid mechanics model, valid to close-packing, is derived and solved for a drying film with (1) just diffusion, and (2) diffusion and diffusiophoresis. I am pleased that the simplicity of the derived fluid mechanics model allows insight into the effect of each flux term. We learn that excluded volume diffusiophoresis does contribute to small-on-top stratification but may not be the only contributing factor.

The doi for the full article is: <https://doi.org/10.1017/jfm.2021.800>.



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### Conference: Phase Separation Regulated Life, In and Outside of Cells



'Phase Separation Regulated Life, In and Outside of Cells' is a 3-day research workshop to be held in Singapore during 1-3 March 2023 and will feature talks from the leading experts in the area of liquid liquid phase separation (LPS)/coacervation in life and physical sciences. The workshop is organised by the faculty at Nanyang Technological University (NTU), Singapore and is primarily funded by the Singapore Ministry of Education (MOE) and NTU.

The program schedule features a distinguished list of speakers including 16 overseas speakers and keynote presentations from Ashutosh Chilkoti (Duke University, USA), Manajit Hayer-Hartl (Max Planck Institute of Biochemistry, Germany) and Rohit Pappu (Washington University in St. Louis, USA). For those interested in phase-separation research, the workshop is a good opportunity to learn about the recent advances in the field while also giving the participants a chance to meet and network with fellow-researchers. PhD students and postdocs working in the field of phase-separation are likely to benefit the most from this workshop.

Participants will have the opportunity to share and showcase their research at the workshop via short talks and/or poster presentations by submitting their research abstract during the online registration process. Please visit the event website at <https://lpsworkshop.com/> for more info. The workshop is limited to 200 participants.

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### UK Colloids



The fourth colloid science conference in this series will be held in Liverpool from July 17 - 19, 2023. It will provide a perfect opportunity for UK and international researchers interested in colloid and interface science to meet, present and discuss issues related to current developments in this field.

For more information visit [www.ukcolloids.com](http://www.ukcolloids.com)

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### 13th International Symposium on Polyelectrolytes



From 28 August - 1 September 2023 the 13th International Symposium on Polyelectrolytes (ISP) will take place in Prague.

The International Symposium on Polyelectrolytes is a series of meetings organised biennially since 1995. Its aim is to facilitate interdisciplinary interactions between researchers working with charged macromolecules of both synthetic and biological origin. Being an interdisciplinary field, the research on polyelectrolytes connects chemists and physicists from both academic and industrial research.

Research in the area of polyelectrolytes contributes to the fields of physics and physical chemistry through understanding how electrostatic and hydrodynamic interactions are related to the behaviour of macromolecules in solution, complexes and at solid interfaces. Counterion condensation and its impact on structure, assembly and complex formation is an important issue. Research on polyelectrolytes, by providing important physical insights relevant to surface and interface science and to materials engineering, contributes to many fields.

For more information visit <http://isp2023.com/>

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### 37th conference of European Colloid and Interface Society



The 37th Conference of the European Colloid and Interface Society (ECIS 2023) will take place from 3rd to 8th September 2023 in Naples (Italy).

ECIS 2023 is organized by the University of Naples Federico II and CSGI, under the auspices of ECIS, bringing together participants working in the interdisciplinary field of colloid and interface science, with a broad background ranging from chemistry to physics, from biology to engineering.

The scientific program will include plenary and keynote invited lectures, oral presentations and posters, consisting of four parallel sessions.

The venue is the Stazione Marittima, located close to the Maschio Angioino Castle and the very heart of the historical centre of Naples.

Complementing the scientific program, a diverse social program will offer to participant the possibility to discover the beauties and the historical and cultural gems spread in and around the city of Naples.

For more information visit <https://www.ecis2023.eu/>

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### Senior lecturer position in Lund

The University of Lund is looking for a senior Lecturer (Associate Professor) in Physical Chemistry, with specialization towards colloid and interface science studied by scattering methods

**Job description**

The candidate should have a strong research profile within soft and/or biological matter that adheres to and is complementary to the other research currently conducted within the division. The applicant's research should to a large extent involve the use of scattering methods, using both local in house equipment, and large-scale synchrotron and/or neutron facilities. The successful candidate is expected to actively engage in the planned faculty infrastructure platform Center for Scattering Methods, and in the LINXS Institute of Advanced Neutron and X-Ray Science. The successful candidate is also expected to pursue a leading role in interacting with the ESS and MAX IV facilities.

The person is expected to develop active research, which includes applying for external funding and developing collaborations with other university units and governmental organizations.

The position entails teaching at both the undergraduate and graduate levels. The amount of undergraduate teaching will be circa 10-20% of full time. In addition, there will be supervision of bachelor and master student projects, as well as supervision of PhD students. The work assignments of the position, as well as the relative proportions of research and teaching, may however change over time.

For more information visit <https://lu.varbi.com/>

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### PhD positions on Microgels as Energy Carriers at TU Freiberg

1-2 PhD positions (3 years each, starting in early 2023) are available at the Institute of Physical Chemistry (TU Bergakademie Freiberg, Germany) in a project related to energy storage materials ("Microgels as Energy Carriers"). Experience in at least some of the following fields is greatly welcome: colloid and polymer chemistry, electrochemistry, calorimetry, organic chemistry. Hence, we search for highly motivated and skilled students. Feel free to spread the information. If interested, please contact Felix Plamper ([felix.plamper@chemie.tu-freiberg.de](mailto:felix.plamper@chemie.tu-freiberg.de)).

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### PhD and Postdoc positions in Self-Organizing Soft Matter

Prof. Ilja Voets (TU Eindhoven, the Netherlands), is looking for talented MSc/PhD students for PhD/PD vacancies on the imaging and design of ice-binders (ERC Consolidator Grant PROTECT) and for talented PhD students for a project on polymerization-induced electrostatic self-assembly (PIESA). Please contact Ilja Voets for more information ([I.Voets@tue.nl](mailto:I.Voets@tue.nl))

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