

Newsletter 74, October 2021

International Association of Colloid and Interface Scientists

In this newsletter you will find the following topics:

From your newsletter editor IACIS Emerging investigator award Showcase your publication IACIS2022 Brisbane Update

Reminder: Nominations for the IACIS Lifetime Achievement Award

From your Newsletter Editor



Here is the October newsletter. This news letter contains important information about the new dates of the IACIS conference in Brisbane next year. It contains information about two IACIS awards, for emerging investigators and the life time achivement award. Finally, we have two interesting publication showcases. I hope you enjoy reading it.

If you have information that is relevant for our community, send me an email so it can be included in our next NL, deadline December 15.

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

Your Newsletter Editor, Saskia Lindhoud

Back to the top

IACIS Emerging investigator award

The IACIS Emerging Investigator Award is an award for outstanding fundamental or applied research in the field of colloid and interface science. Three prizes will be presented every three years at the IACIS conference. Candidates should demonstrate their own profile by publications or patents and a presentation at the IACIS conference.

Prior to a IACIS conference, nominations can be made by the candidates themselves or by a nominator. Nominations should include a cover letter explaining the contribution of the candidate to the field of colloid and interface science, a CV including a list of publications and patents, information about teaching activities and outreach activities. Typically nominees are within 6 years of receiving their PhD, however career interruptions or other circumstances will be considered on a case-by-case basis by the jury. The jury will be nominated by the chair of the conference and comprising: one representative of the IACIS council, one member of the local organizing Committee, one representative selected from the plenary speakers and one member of the International advisory board.

Candidates are selected by the jury in two steps. Before the IACIS conference, from the nominations up to 15 candidates will be selected to present their work during the IACIS conference. During the conference the jury, will select the three award winners based on this presentation.

All presenters will get a certificate "IACIS Early Career Researcher Award Finalist". The three award winners will receive a certificate and an equivalent of 3000 Australian dollars sponsored by KAO Corporation.

Back to the top

Showcase your publication

A side effect of the current pandemic is the lack of opportunities for young scientists to present their work at international conferences. Therefore we would like to invite PhD students to showcase recent publications in the IACIS Newsletter. 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 October, the deadline for submitting your showcase text is December 15. In this newsletter there contributions from two continents, please find the showcase from Rebeca Fortes-Martín and Niki Pandya below.

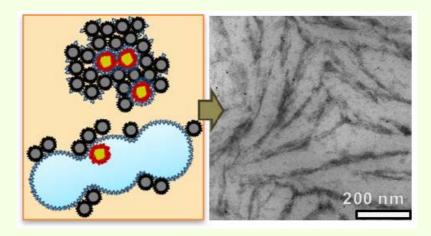
Your Newsletter Editor, Saskia Lindhoud

From Nanoparticle Heteroclusters to Filament Networks by Self-Assembly at the Water-Oil Interface of Reverse Microemulsions

My name is Rebeca Fortes-Martín and I am a PhD student of the Colloid Chemistry group at the University of Potsdam, Germany, under the supervision of Prof. Joachim Koetz. My project is based on studying the self-assembly of nanoparticles at the interface of water-in-oil microemulsions.

The incorporation of oil-dispersible superparamagnetic nanoparticles and water-dispersible gold nanoparticles in water-in-oil microemulsions can modulate the AOT microemulsion properties and create synergistic effects. Surprisingly, by depositing a drop of a reverse microemulsion phase over a surface and allowing solvent evaporation, a hierarchical pattern of filament-like nanoparticle networks was found out. Several techniques were used to understand the mechanism involved in this template-mediated process of nanoparticle assembly. Therefore, UV-Vis, SAXS and XPS proved that an initial clustering of nanoparticles was occurring under the mediation of the surfactant. Elongation of microemulsion droplets was observed by cryo-SEM, contributing as a soft template for the subsequent assembly of the nanoparticles by linking cross-points of heteroclusters with remaining "free" nanoparticles. The resulting filament-like network as shown by TEM can be modulated with other factors such as water content and could contribute to the development of surface-assembled nanostructures on a larger scale.

The doi for the full article is 10.1021/acs.langmuir.1c01348.



SLES/CMEA Mixed Surfactant System: Effect of Electrolyte on Interfacial Behavior and Microstructures in Aqueous Media.

My name is Niki Pandya and I am a PhD student at the Ahmedabad University, India. My supervisor is Dr. Dharmesh Varade. My PhD emphases on understanding the physicochemical properties of biodegradable surfactants that lead to the tuning micellar characteristics, mildness and rheology of these surfactants.

This work is in collaboration with ITC Company, India. We studied the influence of surfactant structure (SLES, SLS) and solution condition (ionic strength) on the formation of micellar aggregates using several complimentary techniques like tensiometry, rheology and small-angle neutron scattering. We were able to efficaciously form highly viscoelastic wormlike micelles using SLES/CMEA and SLS/CMEA mixed surfactant systems in the presence of NaCl. Micellar progression in SLES or SLS prompted by CMEA is ascribed to the decrease in cross-sectional area per surfactant which increases aggregation number of micellar aggregates resulting in a growth in the viscosity of the mixed systems. Moreover, it has been found that the foamability and foam stability of SLES can be modulated with CMEA and NaCl. This study will substantiate a suitable approach to offer pre-solubilized composition of CMEA in SLES which could be highly beneficial enabling CMEA blending at room temperature which otherwise needs high temperature mixing. Furthermore, the results presented here contribute to an enhanced understanding of the structure-rheology relations in micellar surfactant solutions and could be useful for governing the properties of formulations. This is of significant interest both in research and industries such as cosmetics.

The doi for the full article is 10.1016/j.mollig.2020.115096..



Back to the top

IACIS2022 Brisbane Update



Early-bird Registration and Abstract submission will open for the 17th Conference of the International Association of Colloid and Interface Scientists on October 12th. IACIS2022 (https://www.iacis2022.org) will be held in Brisbane, Australia, from June 26-29, 2022 at the Brisbane Convention and Exhibition Centre (BCEC). BCEC is easily accessible from downtown Brisbane by car, bus, train or CityCat/ferry, and is surrounded by a range of accommodation options.

For the first time, IACIS2022 will be run as a hybrid event. In addition to in-person participation, online participation will be available to delegates unable to get to Australia. All presentations will be livestreamed and recorded so that they remain available to all registrants for a limited time after the conference through a dedicated platform. All participants will gain access to all talks for a limited time post-event as an on-demand recording. If you're attending in person, you'll no longer have to choose which talks to attend, just which ones to see live.

If you choose online registration, you will have the option to upgrade to in-person attendance later if you are able to travel, preserving all early-bird or other privileges. Check the website regularly, and follow us on Facebook, Twitter, Instagram or WeChat for updates @IACIS2022.

In addition to the IACIS Lifetime Achievement Award lecture (nominations call elsewhere in the newsletter), IACIS2022 will host the AE Alexander plenary lecture of the Australasian Colloid and Interface Society, to be presented by Professor Stephen Hyde. We are also pleased to launch the IACIS Emerging Investigators Awards thanks to very generous support from KAO Corporation, as part of a diverse and exciting scientific program spanning all areas of colloid and interface science, from fundamentals to applications.

Students, don't forget the Koala Lloyd competition for a free registration (online or in-person). As we are slowly able to once again move around more freely, share your photos of Koala Lloyd also getting out and about on social media with the tags @IACIS2022 | #IACIS2022 | #koalalloyd.

For more information about sponsorship or to discuss the added possibilities that the hybrid conference offers, please contact our professional conference organiser's sponsorship and exhibition manager, Ms Rosie Johansson (rjohansson@arinex.com.au).

We are committed to creating an inclusive, accessible, supportive, and harassmentfree environment for scientific exchange for every participant, regardless of gender, sexual orientation, disability, physical appearance, race, or religion.

We look forward to seeing you in Brisbane, or online.

Ian Gentle and Greg Warr on behalf of the IACIS2022 Organising Committee.

Back to the top

Reminder: Nominations for the IACIS Lifetime Achievement Award

Dear IACIS member,

In 2010 IACIS introduced the IACIS Lifetime Achievement Award. This prestigious award was established to recognise the awardee's outstanding, lifetime contribution to colloid and interface science research, and also his/her contributions to IACIS. We are seeking nominations for the award and accompanying plenary lecture to be presented in June 2022 at the next IACIS conference in Brisbane, Australia (conference website IACIS2022).

The first IACIS Lifetime Achievement Award was made in Japan in 2012 to Tom Healy, the second in Germany in 2015 to Björn Lindman, and the third in Rotterdam in 2018 to Helmuth Möhwald. This award replaced the previous "IACIS Lectureship" Award, recipients of which were, in sequence: Hans Lyklema, Egon Matijevic, Bob Hunter and Brian Vincent.

If you wish to make a nomination, please send the name of your nominee, together with the suggested paperwork, as stated in the attached "rules", to myself, as chairman of the selection committee, by October 31, 2021, at the latest. Seconders are not a requirement, but if you wish to add the names of other persons supporting a particular nomination that is fine.

Yours sincerely, Björn Lindman, bjorn.lindman@fkem1.lu.se

Back to the top

You receive this newsletter because you are registered as a member of IACIS If you happen not be a member, please contact the **Honorary Secretary**. For comments or suggestions, please contact the **Newsletter Editor**.

