News

Election for the term 2018–2020 at the Department of Chemistry

In 2017, the head of department, assistant head of department and members of the department board and members of the board of undergraduate studies (GU-nämnd) for the term 2018-2020 are to be appointed. In the beginning of October the Nomination committee at KILU presented their suggestion and the election took place between 16 October and 20 October 2017. Election results (pdf).

New head of department and assistant head of department

Head of department: Leif Bülow
Assistant head of department: Ola Wendt

New department board
Ola Wendt, ordinary member
Charlotta Turner, substitute

Ulf Olsson, ordinary member
Tõnu Pullerits, substitute

Susanna Horsefield, ordinary member
Ingemar André, substitute

Marie-Francoise Gorwa-Grauslund, ordinary member
Magnus Carlquist, substitute

Kristofer Modig, ordinary member
Margareta Sandahl, substitute

Marie Skepö, ordinary member
Viveka Alfredsson, substitute

Helena Persson, ordinary member
Maria Levin, substitute

Caroline Lindblom, ordinary member
Sanel Peric, substitute

New board of undergraduate studies (GU-nämnd)
Sophie Manner, chair
Mikael Lund, ordinary member
Marie Skepö, substitute
Anna Stradner and Arkady Yartsev are promoted to professors at Lund University

Anna Stradner from the Division of Physical Chemistry, was recently promoted to professor in physical chemistry specialising in biocolloids studied using scattering methods and Arkady Yartsev from the Division of Chemical Physics, was promoted to professor in chemical physics specialising in ultrasonic spectroscopy on chemical reactions and new materials for solar energy conversion.

Tommy Nylander is awarded the Norblad-Ekstrand medal

Tommy Nylander at the Division of Physical Chemistry is the 2017 recipient of the Norblad-Ekstrand medal, presented by the Swedish Chemical Society. The Norblad-Ekstrand medal is awarded to persons who are distinguished by outstanding scientific research in chemistry and bordering sciences or who have performed work of great value to the Swedish Chemical Society.

Recent study evidences the influence of shape complementarity and specific interactions on colloidal lock-and-key self-assembly

So-called lock-and-key interactions, i.e., the preferred association of molecular building blocks with complementary shapes, are omnipresent in biology, where they for example describe the interactions between enzymes and their substrates. They are also providing the basis for the formation of well-defined molecular complexes using supramolecular chemistry. This approach from the molecular world has now been successfully transferred to the colloidal domain, i.e. to much larger synthetic particles with complementary shapes.

Scientists at the Division of Physical Chemistry and the Division of Theoretical Chemistry have investigated the association between oppositely charged thermos-responsive synthetic lock and key particles. Supported by model calculations, the experiments demonstrate the high specificity of the assembly highlighted by the formation of defined clusters, so-called colloidal molecules. The lock and key particles exhibit temperature-dependent changes in size and conformation that allowed the researchers to reversibly tune the ‘valence’ of the colloidal molecules. This reversible temperature-responsive dynamic self-association process can be seen as the colloidal analogue of adaptive chemistry. The emerging assembly rules could provide new routes to the creation of higher order hierarchical structures, which can be reversibly controlled by external stimuli.

The work has been published in Science Advances.

New publication in the journal Proceedings of the National Academy of Sciences (PNAS)

Researchers at the Division of Theoretical Chemistry explain how highly charged, cell penetrating peptides attract each other, and describe a new molecular motif that may drive self-association of biomolecules. The study is based on Molecular Dynamics simulations, NMR and Small-Angle X-ray Scattering measurements, where the latter was achieved through MAX-IV/ESS seeding funds from the Faculty of Science. The study has been published in PNAS.
Researchers in media

• **Sara Snogerup Linse** (who is also the chair of the Nobel Committee for Chemistry), **Viveka Alfredsson** and **Peter Somfai** were interviewed about this years Nobel Prize in Chemistry.

• **Rajni Hatti-Kaul** and **Mohammad H A Ibrahim** were interviewed on the subject that wasted bird feathers are turned into food. Read about it here (in Swedish): Forskning.se

• **Ulf Ellervik** has written an article with the title “Fiendens fiende”. The article was published in Kemivärlden Biotech. Read the article (in Swedish).

• In the latest issue of LUM, **Peter Schurtenberger**, from the Division of Physical Chemistry, talks about the new LINXS centre linking the University with MAX IV and ESS. **Tommy Cedervall**, from the Division of Biochemistry and Structural Biology, was interviewed on the subject of the project "Den sjätte kontinenten" (The sixth continent). The project includes theatre performances, workshops and an exhibition highlighting sea pollution. The article also mentions **Mikael Ekvall** and **Martin Lundqvist**, from the same division. LUM website

• **Tommy Cedervall** was interviewed in Skånska Dagbladet on the subject that plastic particles in water may end up inside fish brains. The plastic can cause brain damage, which is the likely cause of behavioural disorders observed in the fish.

• Researchers have succeeded in establishing the relationships between 200-million-year-old plants based on chemical fingerprints. The unique results stem from a collaboration between researchers at Lund University, the Swedish Museum of Natural History in Stockholm, and Vilnius University. **Per Uvdal**, at the Division of Chemical Physics, is one of the researchers who conducted the study. The research results have been presented in an article in the newspaper The Guardian.

Don't miss..

Kemicentrum 50 years – save the date

Kemicentrum is celebrating its 50th anniversary! On the 14th of December there will be a 50th anniversary celebration for all employees & guests, students, service functions and enterprises at Kemicentrum.

**Time and Place**

14th of December between 13:00-16:00 at Kemicentrum.
Invitation and program will be sent out in November.

Seminar: Light-induced aggregation of a 2D colloidal gas, November 1

A seminar by Professor Erika Eiser, University of Cambridge, United Kingdom.
**Time and place:** November 1 at 14:15 - 15:00, Kemicentrum, lecture hall B.

Lecture: Asymmetric Autocatalysis and the Origin of Homochirality, October 30

A lecture by Kenso Soai, Professor of applied chemistry, Tokyo University of Science, Japan.
**Time & place:** October 30 at 18:00, Kemicentrum, lecture hall C.
The lecture is arranged by Kemiska föreningen i Lund.
Workshop on Synchrotron X-ray and Neutron application to Food Science and Technology, 5-6 December 2017

We would like to invite you to a workshop, organized within the EU Interreg project ESS & MAX IV: Cross Border Science and Society (MAX4ESSFUN). We hope it will inspire you as a food scientist in academia and industry to make use of the new opportunities MAX IV and ESS offer you. We are happy to offer a program with both prominent food scientist and neutron and x-ray specialist who have worked with food applications. But most importantly we are looking forward to your active participation in discussions, poster and oral presentations.

Time and Place
The meeting will be held at Elite Hotel Ideon in Lund and starts with lunch on the 5 December and finish with lunch on the 6 December with get together and dinner on the 5 December. The participation is free but limited to 60 people. The event is sponsored by MAX4ESSFUN.

More information and registration
More information, registration and abstract submission at: https://indico.maxiv.lu.se/event/601/
Deadline for registration and abstract submission is 15 of November.

Seminar: Engineering (with) molecular motors, November 6
A seminar by Professor Heiner Linke, Solid State Physics, Lund University.
Time and place: November 6 at 14:15 - 15:00, Kemicentrum, lecture hall A.

Seminar: Nanocellulose Based Gels and Polymer Nanocomposites, November 8
A seminar by Professor Maria do Carmo Goncalves, University of Campinas, Brazil.
Time and place: November 8 at 14.15 – 15.00, Kemicentrum, lecture hall F.

Supervisors afternoon, November 16
Time and place: 16 November at 13.15 – ca 16.30, Kemicentrum, lecture hall B.

Programme overview: European research grants with repeated calls, Regulations regarding stipends and joint/multiple degrees, UKÄ evaluation – update and info regarding ongoing evaluations at LU, A personal view on startup research without long-term funding.

Speakers: Karin Langborger (Forskningsservice), Per Warfvinge (LTH), Eva Nordberg Karlsson (CALS), Tobias Nilsson (The Faculty of Science).

Registration to (Please use “Supervisors afternoon 2017” in heading): caroline.lindblom@kc.lu.se
Deadline for registration: 8 November.

PhD Information

Ethics course, 14/11- 5/12 2017, 2 credits

Preliminary schedule:
14/11: 10.15-12.00, lecture by Jan Hartman
16/11: 10.15-12.00, lecture by Jan Hartman
21/11: 10.15-12.00, lecture by Jonas Josefsson
22/11: 10.15-12.00, lecture by Jonas Josefsson
28/11: 10.15-12.00, lecture by Jonas Josefsson
30/11: 10.15-12.00, seminar by Jonas Josefsson
5/12: 10.15-12.00, seminar by Jonas Josefsson
Registration to: caroline.lindblom@kc.lu.se Please use “Ethics course” in heading.

Financial information

Financial report Q3 and P3 2017

The actual financial result for the period January to September 2017 (Q1-Q3) for the Department of Chemistry as a whole, including the board of joint services at Kemicentrum (husstyrelsen), is +0.2 MSEK compared to a budget of -9.5 MSEK, i.e. 9.7 MSEK better than budget. Although we still see red figures in Education, there is an improvement versus budget, which is caused by additional income, e.g. a compensation from LTH for the project “Quality in Education”, and lower expenses for premises. The lion share of the improvement versus budget is however to be found within Research and also here additional income plays a major role. The Department of Chemistry has been successful in receiving external grants but has also been a receiver of additional state grants e.g. linked to LINXS (Lund Institute of Advanced Neutron and X-ray Studies), the research school QDETAILSS (high Quality DETection and Analysis of Liquid and Solid Samples) and infrastructure. Although costs for personnel have increased along with the additional financing, the costs for consumables and premises have been lower, resulting in the budget on the cost side not being exceeded significantly. See table 1.

Also the third forecast of the year, P3 2017, shows an improved financial result compared to budget, for the full year a positive deviation of 6 MSEK is expected. Compared to the actual outcome year to date, the costs for personnel are forecasted to increase further and the usage of consumables is expected to pick up in the last quarter the year, hence the improvement of the financial result is lower in P3 than in quarters 1-3. See table 2.

If you have any questions contact Karolina Isaksson, Head of Finance at the Department of Chemistry.

Table 1

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Actuals Q1-Q3 2017</th>
<th>BU Q1-Q3 2017</th>
<th>Deviation</th>
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<td>Education</td>
<td>Research</td>
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<td>Nat Fak</td>
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Table 2

<table>
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<th>BU 2017</th>
<th>Deviation</th>
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<tbody>
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<td>Research</td>
<td>Tot</td>
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<tr>
<td>Nat Fak</td>
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Information from the library

ICIS - Independent Chemical Information Service

ICIS provides pricing information and analysis for more than 180 product markets. The information is collected from market participants by ICIS global network of reporters, delivering unrivalled coverage of established and emerging markets, including China and Asia.

Note: To receive login information, please contact: the Library of Chemistry and Chemical Engineering
Research funding

On the Department of Chemistry website we have gathered information about research funding on a specific page. Here we publish calls for proposals that come to the attention of the department. Visit the page: www.kilu.lu.se/internt/forskningsfinansiering/

Messages

Opening hours at Kemicentrum on November 3 (day before All Saints day/Alla helgons dag)
INFORMATION DESK: 08.00 -12.00
LIBRARY: 09.00 – 12.30

Emergency evacuation drill

A partial evacuation drill was conducted at Kemicentrum on the 17th of October 2017 in building 1, west side. The overall results from this emergency evacuation drill were positive, all doors leading to/from the labs and offices had been closed in a correct manner. Within approximately four (4) minutes the building had been evacuated and all concerned personnel had gathered at the assembly points. Observations at both the assembly points were positive. While the alarm sounded, groups stayed at the assembly points; however, once the alarm was silenced large groups of students started to re-enter Kemicentrum before staff/authorities had given the “all clear” signal.

An important note is that nobody may enter Kemicentrum prior to the “all clear” signal being issued by Kemicentrum’s staff/authorities.

In Emergency Evacuation Situations, we communicate through a SMS service. If you would like to sign up to this SMS service, please talk to your department’s administrator.

At Lund University

Seminar series: Bias in Science?
Inspiring talks on research-based knowledge about diversity in science with internationally recognized speakers, followed by dinner and mingle.

**November**
Londa Schiebinger, Stanford University
Honorary Doctor 2017 at the Faculty of Science

*Workshop on gendered science*
A workshop for research groups that are interested in the gender dimension in the knowledge of science.

**Time and time:** November 24, 14:00-16:30, Fysicum, H:221.
Dinner: Pinxtos, Lilla Gråbrödersgatan 2, 17:30

Please register for the dinner by e-mail at ragnhild.moller@science.lu.se

**February 2018**
Dorothea Griffiths, Imperial College London

*Unconscious bias*
How to work against bias in the promotion of women in science. Experiences from Imperial college.

**Time and time:** To be announced.
Propose Advanced Study Groups at the Pufendorf Institute
Researchers can now apply to start a new Advanced Study Group at the Pufendorf Institute. The application deadline is 15 January 2018. Read more

Horizon 2020 Information meeting on the last calls, November 27
Vinnova, Malmö University and Lund University invite you to an information meeting on funding opportunities for 2018-2020 with focus on digitalisation in Horizon 2020, the societal challenge Inclusive societies and Marie Sklodowska-Curie Actions.
You will have the opportunity to listen to and meet National Contact Points for ICT, Inclusive societies and Marie Sklodowska-Curie Actions. Staff from the Research Services office at Lund University will also be present. National Contact Points will give a general introduction to Horizon 2020 and a brief overview of novelties in the work programme 2018-2020.
The meeting will be in English and targets those who are who are interested in learning more about the funding opportunities in Horizon 2020 or are planning to submit an application.

Time: Monday November 27, 13.00 - 16.00 (registration from 12.30)
Location: Hörsal C, Niagara, Nordenskiöldsgatan 1, Malmö
Registration: No later than November 15 Register here

KLARA-dagen, 16 november

Första delen: Introduktionskurs för inventerare/registrerare. Kursen kommer framöver att bli ett krav för att få registrera kemikalier i KLARA.

Andra delen: Kurs i hur man kan använda KLARA som ett riskbedömningshjälpmedel.

Tredje delen: Tredje delen riktar sig till dig som är administratör på ett mera övergripande plan.

Anmälan till KLARA-dagen (anmäl dig till de delar av dagen som du önskar delta i).

Informationsmöte om dataskyddsförordningen som ersätter PUL, 5 december
Forskare vid Lunds universitet är välkomna på möte om dataskyddsförordningen som under nästa år ersätter personuppgiftslagen (PUL). Tid och plats: 5 december kl. 15.30–17.00 i Palaestra, Paradisgatan 4.

CALENDAR

Lecture
"Asymmetric Autocatalysis and the Origin of Homochirality"
Time: 2017-10-30 18:00

Seminar
Erika Eiser: Light-induced aggregation of a 2D colloidal gas
Time: 2017-11-01 14:15 - 15:00

Seminar
Heiner Linke: Engineering (with) molecular motors
Time: 2017-11-06 14:15 - 15:00
Seminar
Maria do Carmo Goncalves: Nanocellulose Based Gels and Polymer Nanocomposites
Time: 2017-11-08 14:15 - 15:00

Symposium
3rd Lund symposium on lignocellulose valorisation – Agricultural biomass in the bioeconomy
Time: 2017-11-09 17:30 - 2017-11-10 16:30

Conference
Workshop on Synchrotron X-ray and Neutron application to Food Science and Technology
Time: 2017-12-05 12:00 - 2017-12-06 13:00

More events