



SCS  
Swiss Chemical  
Society

## Community News

[www.scg.ch](http://www.scg.ch)

[www.chemanager-online.com](http://www.chemanager-online.com)

### SWISS CHEMICAL SOCIETY NEWS

#### Call for Nominations for the EFMC Prizes 2025



To acknowledge and recognise outstanding young medicinal chemists and chemical biologists ( $\leq 12$  years after PhD) working in European industry and academia, EFMC established the “EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Industry” and the “EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Academia”.

The two prizes are given annually and consist of a diploma, 2.500€. The prize winners will also be invited to give an oral communication at the X EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2025), scheduled to be held in Porto, Portugal from August 31 to September 4, 2025.

Deadline for nominations is January 31, 2025.  
More information: <https://www.efmc.info/awards>

#### A Warm Welcome to Our New Members!



Period: 02.10.2024–28.10.2024  
Barnabé Berger, Zurich - Reinhard Karge, Büsserach - Andrea Elizabeth Melgar Aguilar, Chavannes près Renens - Ritika Vitthal More, Bern - Sofia Pinheiro, Basel - Mathilde Vincent, Zurich.

### HONORS, AWARDS, APPOINTMENTS

#### Hansch Award 2024 awarded to Prof. Philippe Schwaller, EPFL Lausanne and Prof. Seraina Riniker, ETH Zurich



**Prof. Philippe Schwaller**, EPFL Lausanne, has been awarded the prestigious Hansch Award 2024 for his significant contributions to the field of chemoinformatics and quantitative structure-activity relationships (QSAR). As a core principal investigator of NCCR Catalysis, Prof. Schwaller contributes to sustainable chemistry research, education,

and innovation. His innovative work in applying artificial intelligence to chemical synthesis has earned him the Hansch Award 2024.



**Prof. Seraina Riniker**, ETH Zurich has been awarded the prestigious Hansch Award 2024 for her significant contributions to the field of quantitative structure-activity relationship and physical chemistry applied to drug discovery.

The Hansch and Fujita Awards are prestigious recognitions in the fields of chemoinformatics and quantitative structure-activity relationship (QSAR). They are named after pioneers Professor Corwin Hansch and Professor Toshio Fujita. The Hansch Award honors young scientists under the age of 40 who have made noteworthy advances in the field. Presented at the European Symposium on QSAR (EuroQSAR), the Awards celebrate significant contributions to chemoinformatics and QSAR research.

More information: <https://actu.epfl.ch> and <https://chab.ethz.ch>

#### Prof. Michael Grätzel, EPFL Lausanne receives a Doctor Honoris Causa from the Kapodistrian University of Athens (NKUA)



**Prof. Michael Grätzel**, EPFL's School of Basic Sciences has been awarded an honorary doctorate from the National and Kapodistrian University of Athens (NKUA), Greece.

The NKUA citation reads: “The National and Kapodistrian University of Athens, by conferring this title, which is the highest honorary title awarded by our Institution, wishes to honour Professor Grätzel, a distinguished scientist in his field, who through outstanding work has bestowed praise and credit on photochemistry.”

Source: <https://actu.epfl.ch>

#### Philip J. Stephens Award 2024 for Prof. Sandra Luber, University of Zurich



**Prof. Sandra Luber**, University of Zurich received the Philip J. Stephens Award 2024 that was established in 2014 by the International Steering Committee of the conference series on Vibrational Optical Activity (VOA). In order to distinguish this award from those in more established fields, and to place greater emphasis on encouraging the creative

development of VOA as field, the award is presented at each VOA conference to the authors of the paper judged to be most deserving that was published in the two calendar years prior to the conference.

Source: <https://www.chem.uzh.ch>

## JOURNAL NEWS

Helvetica, Volume 107, Issue 10, October 2024



### Research Articles

Conversion of Isoxazoles to Functionalized Pyrrole and Isoquinoline Derivatives via ROCC Mechanism

*Dr. Karri Raghavulu, Varukolu Shanker, Dr. Ramakrishna Gudipati, Prof. Dr. Keloth Basavaiah, Dr. Raju Doddipalla, Dr. Mahipal Yadav, Dr. Satyanarayana Yennam, r. Manoranjan Behera*

Divergent Synthesis of Trifluoromethyl Ketones via Photoredox Activation of Halotrifluoroacetones

*Rahul Giri, Mathias Kissling, Egor Zhilin, Anthony J. Fernandes, Quentin E. L. Ordan, Dmitry Katayev*

Selective Carbohydrate Deacetylation: Simple and Mild Approach based on Supported Copper Nanoparticles

*Joaquín Marchán-García, Marcos J. Lo Fiego, Yanina Moglie*

Website: <https://onlinelibrary.wiley.com/journal/15222675>

## INDUSTRIAL NEWS

Source: [www.chemanager-online.com](http://www.chemanager-online.com)

### Lonza Completes Acquisition of Vacaville Biologics Site from Roche

October 2, 2024: Lonza has completed its acquisition of the Genentech large-scale biologics manufacturing site in Vacaville, California, USA, from Roche for \$1.2 billion. The deal was announced in March of this year. With a total bioreactor capacity of around 330,000 liters, the Vacaville site is one of the largest biologics manufacturing facilities in the world. This acquisition significantly extends Lonza's manufacturing capacity for late-stage clinical and commercial products, and new molecules on the path to commercialization within the Lonza network. The site, which employs more than 750 people, joins the Mammalian business unit within the company's Biologics division. The Vacaville facility creates a substantial commercial manufacturing presence on the US West Coast close to the pharmaceutical and biotech hub of San Francisco and complements Lonza's existing East Coast manufacturing site in Portsmouth, New Hampshire, as well as its international network in Europe and Asia Pacific, the Swiss contract manufacturing and development organization (CDMO) said. Wolfgang Wienand, CEO of Lonza, commented: "The successful acquisition of the Vacaville site marks a major milestone for Lonza, and for our commitment to deliver long-term value for our customers and shareholders. As the Vacaville site joins our Biologics division, we look forward to bringing new customer projects into the facility to meet sustained demand for commercial biologics manufacturing across our business." According to Lonza, the acquisition of this site complements the company's ongoing investments in large-scale bioconjugation in Visp, Switzerland, and drug product manufacturing in Stein, Switzerland. Lonza said that it plans to invest approximately 500 million Swiss francs to further upgrade the facility and add capabilities to meet demand for the next generation of mammalian biologics therapies. The products previously manufactured at the site will now be supplied by Lonza to Roche with committed minimum volumes over the medium term, phasing out over time

as the site transitions to serve alternative customers, the company stated.

### Innovative and Sustainable Network

October 21, 2024: Röhm strives for global technology leadership as a methacrylate specialist. In 2019, the sale of Evonik Industries' methacrylate network to Advent International created the company Röhm. The investor's declared aim was to develop the independent company into the global market and technology leader in methacrylate chemistry. Today, the Darmstadt, Germany-based company, whose roots go back to the founding of Röhm & Haas in 1907, produces over 1 million tons of chemical products at nine sites in Germany, China and the USA and most recently generated annual sales of €1.6 billion with 2,850 employees worldwide. Andrea Gruß talked to Hans Bohnen, CEO of Röhm, about the growth and sustainability strategy of the young yet traditional company.

*CHEManager: Mr. Bohnen, Röhm was founded five years ago. How has the company developed since then?*

Hans Bohnen: Personally, I have only experienced the past nine months of this development. However, my colleagues told me that they started with a lot of enthusiasm in 2019. The team was looking forward to building a smaller, independent company outside of the structures of a large corporation and of course inspired by the strong Plexiglas brand and the return to the Röhm name, which stands for quality and pioneering spirit. However, the coronavirus crisis and the war in Ukraine soon followed. The pandemic did not stop us at first. Although it placed a heavy burden on our employees and we also had to deal with supply bottlenecks, the demand for Plexiglas for protective shields boomed and we were able to implement the capacity expansion in China despite the strict isolation regulations there. The situation was different after the start of the war in Ukraine. The high energy and gas costs massively weakened the market and the competitiveness of energy-intensive industries in Europe from one day to the next. This had – and still has – a massive impact on our business.

*How did your investor react to this development?*

H. Bohnen: Despite the difficult conditions, Advent stuck to the investment program as planned at the time of the carve out – a very courageous decision by our owner. Over the past four years, a total of €1.5 billion has been invested into the development of Röhm's plants and research – a sum that is roughly as high as our annual turnover.

*What measures does the investment program include?*

H. Bohnen: The measures address all regions and include sites in Germany, the USA and China. We have significantly expanded our production capacities for polymethyl methacrylate, PMMA, in Worms and Shanghai. In Wesseling, the bead polymerization reactor for the production of methacrylate resins was replaced and capacity expanded. And in the USA, we are currently investing into a new production facility for methyl methacrylate, MMA, at the Bay City site in Texas. At this site, a completely new way of producing MMA – the LiMA technology developed by Röhm – will be used for the very first time. The plant in Bay City will have a capacity of 250,000 tons of MMA per year and is scheduled for mechanical completion in the fourth quarter of 2024.

*What is behind the LiMA technology?*

H. Bohnen: LiMA stands for Leading in Methacrylates. The technology was developed by Röhm and will make us the global technology leader in the production of MMA, the precursor to Plexiglas. There are currently two established processes for

producing MMA: the so-called C4 process based on MTBE or isobutene, which we use in China, and the C3 process with acetone and hydrogen cyanide as starting materials, which we use in Worms and Wesseling, among other places. LiMA technology is a C2 technology. It is a two-stage process that converts ethylene-based propionaldehyde, formalin and methanol into methyl methacrylate at very low pressures and temperatures. The environmentally friendly process requires less energy and water and reduces CO<sub>2</sub> emissions by around 26% compared to C3 technology and by more than 50% compared to C4 technology. In the future, climate-neutral production would also be possible with the new process if sufficient green ethylene and methanol are available and economically viable.

*Why did you choose the USA as the location for the first LiMA plant?*

H. Bohnen: Our previous MMA plant in the USA is quite old and can no longer be operated sustainably. The question for us was therefore whether we should either invest significantly into the existing plant or shut it down. The USA is also an important market for Röhm, where we want to expand our capacity in the medium term in order to become the market leader. An investment in China was not an option due to the current overcapacity on the market there, and in Germany we have modern plants in Worms and Wesseling, which we can use to serve the European market. In addition, as just described, C2 technology is not a drop-in technology with which you can expand existing plants. In the USA, we have built the plant at a completely new location where we will produce MMA in the future. Thanks to our targeted investments, we will be the only manufacturer in the world to produce MMA and PMMA in a local network in North America, Europe and China. This is essential to our strategy of becoming the global market leader.

*Röhm is not only investing into the efficiency and expansion of its plants, but also into research centers and its future portfolio. What measures have already been implemented here?*

H. Bohnen: We have established new research and development centers in all regions. Our innovation center in Worms, in which we have invested around €100 million, was opened in 2023. We are pooling our European research activities in this state-of-the-art research center, which consists of a laboratory building and a technical center with several pilot plants. We have deliberately located the innovation center at our largest site with 1,200 employees, so that research and production work closely together. This has created a total of around 100 new jobs in Worms. Further development centers have been established in Wallingford in the USA and Shanghai in China in recent years. Employees from research, development and application technology work in our global innovation centers on the development and optimization of innovative products, processes and applications. Thanks to our regional presence, we work closely with our customers, for example, on innovations in the medical and automotive sectors, and can quickly pick up on local trends for product developments.

*What is the innovation potential of Röhm's most important product, Plexiglas?*

H. Bohnen: PMMA is indispensable as a material in a number of industries, for example the automotive industry or medical technology, due to its high heat and weather resistance as well as its light transmission. One driver here is e-mobility and the associated changes in vehicle construction and design.

We also see great future potential – not only for our PMMA products – in the development of sustainable products with a reduced carbon footprint as part of our ProTerra portfolio. With Plexiglas, we offer our customers two different ways to reduce their product carbon footprint while maintaining identical prod-

uct properties and thus achieve their sustainability goals: firstly, through PMMA with a proportion of up to 30% mechanically recycled PMMA, and secondly, through PMMA for whose production fossil raw materials are replaced by ISCC Plus-certified raw materials and allocated via mass balancing. In addition to the reduced use of fossil raw materials, ProTerra products are also produced using less energy and water. In the medium and long term, we are also focusing on the use of biomass that is not suitable for food production and on the material use of CO<sub>2</sub> as a raw material to further improve the sustainability of our products.

*What role does chemical recycling of PMMA play?*

H. Bohnen: In principle, PMMA can be chemically recycled several times without any significant loss of properties. Compared to other plastics, the pyrolysis of PMMA to the monomer is already possible at lower temperatures and the material produced is certified without any problems. Chemical recycling can therefore usefully complement mechanical recycling of PMMA and represent another important building block for achieving recycling and climate protection targets. However, the infrastructure for post-consumer PMMA waste is currently still challenging, as there is no established collection system for this, as there is for PET bottles, for example. However, in order to make chemical recycling of PMMA economically viable, we need very large quantities of the plastic, which tends to represent a niche in the commodities sector.

*What measures can be taken to accelerate the transformation to a circular economy?*

H. Bohnen: The circular economy can only work if everyone involved in the value chain works together. Products must be designed in such a way that their end-of-life use is. They should be easy and quick to dismantle. We need more monomaterials instead of composite systems and durable materials that can also be recycled at the end of their product life cycle. Clear regulatory requirements, such as recycling quotas, also contribute to the rapid development and expansion of the circular economy for plastics. Credible and traceable certifications, such as the International Sustainable Carbon Certification (ISCC), are essential. This is because only appropriately certified raw materials can be fully traced back to the source. In principle, there are several suitable technological approaches for realizing the necessary transformation to a circular economy. Nevertheless, there are still many big challenges. Among other things, we are currently lacking the infrastructure for green hydrogen and today's industrial electricity prices and raw material prices are not suitable for supporting the transformation in a competitive way.

*Mr. Bohnen, you have already accompanied numerous transformation processes in the chemical industry. As you mentioned at the beginning, you have joined Röhm as CEO in February 2024. What motivated you to take on this new role?*

H. Bohnen: I had previously only worked for listed companies. My new role at Röhm is the first time that I am working for a private equity-invested company. What convinced me from the start was Advent International's investment logic and strategy of profitable, sustainable growth for Röhm. And I have not been disappointed so far. Our investor has extensive expertise in our market and is consistently developing Röhm with a long-term perspective. As already mentioned, since the takeover they have invested €1.5 billion not only in plants but also in research. This is unusual for an investment company, as the return on investment in the area of innovation is associated with higher risks and takes longer to realize. In my view, however, this is essential in order to secure and expand the competitiveness of a chemical company. The plants for implementing our growth strategy will be in place by the end of the year; now we have to fill them with



life, that is, with the right products – an exciting task to be able to drive and realize this as CEO. With Advent International, we have a courageous investor and a strong owner with long-term perspective at our side – something that one could only wish for across the entire chemical industry in the current situation.

### Lonza Extends ADC Manufacturing Collaboration with Biopharma Company

October 24, 2024: Swiss contract development and manufacturing organization (CDMO) Lonza has announced a long-term extension of its collaboration with a key global biopharmaceutical partner for the manufacture of antibody-drug conjugates (ADCs) at commercial scale.

The name of the partner was not disclosed. The extended agreement, Lonza said, will expand the dedicated bioconjugation footprint for the customer through the construction of a new bioconjugation suite at the company's Ibox Biopark in Visp, Switzerland.

In addition, Lonza will provide commercial-scale monoclonal antibody (mAb) manufacturing services for a new ADC therapy. ADCs are bioconjugates that usually combine a targeting antibody with a highly-potent payload using a linker molecule. The new Visp bioconjugation suite will occupy approximately 800 m<sup>2</sup> of manufacturing space and support the manufacture, handling, and containment of highly potent modalities. The new

suite, which will generate approximately 100 new jobs, is expected to be operational in 2027. According to Lonza, its relationship with the customer, already consists of an integrated supply of the highly potent payload, drug-linker, commercial mAb manufacturing, conjugation services, and drug product filling for the ADC molecule targeting hard-to-treat cancers. The collaboration has also been extended to include long-term manufacturing services for a new ADC targeting solid tumors. Under the terms of the new agreement, Lonza will manufacture the mAb at its biologics facility in Porriño, Spain, occupying a majority of the site's manufacturing capacity. The ADC will then be conjugated in the new dedicated large-scale bioconjugation suites in Visp, Lonza explained. Christian Morello, vice president and head of Bioconjugates at Lonza, commented: "The relationship with our valued partner has evolved over the years to incorporate all stages of bioconjugate manufacturing and commercialization. Offering end-to-end ADC manufacturing services eliminates supply chain complexities and streamlines product delivery at scale." Jean-Christophe Hyvert, president of Lonza's Biologics division, added: "Bioconjugates represent an exciting modality poised for substantial growth in the coming years driven by market demand, increased therapeutic efficacy, and access to novel disease targets."

SAOG

The Swiss Surface and Interface Symposium



SAOG 2025

39th meeting

## Science of Surfaces, Interfaces and Nanostructures

**When:** January 31<sup>st</sup> 2025

**Where:** Haute école d'ingénierie et d'architecture, Bd de Pérolles 80  
Fribourg, Switzerland



### Call for Papers

#### Abstract Submission

**Deadline:**

Friday, December 6th 2024

**Registration Deadline:**

Friday, January 10th 2025

### Exhibition

**contact:** Paul Muralt, EPFL  
paul.muralt@epfl.ch



<https://saog.ch>

### Invited Speakers



**Robert Schlögl**  
Fritz-Haber Institute, Berlin  
President Humboldt Foundation  
«Life of a dead material:  
how interfacial catalysts work»



**Liv Hornekær**  
Aarhus University, Denmark  
«Interstellar Catalysis –  
a route to molecular complexity  
in space»



**Katharina Franke**  
FU Berlin, Germany  
«Opportunities from single magnetic  
adatoms on superconductors»



**Lars Jeurgens**  
Empa, Dübendorf, Switzerland  
«Recent advances in lab-based  
HAXPES for chemical-state analysis»