

Let's meet in Prague!



Prague is the venue of the 4th EuCheMS Chemistry Congress. (Photo: Pavel Drasar)

EuCheMS, the Czech Chemical Society and their institutional and business partners invite scientists of all chemical and related disciplines to join the 4th EuCheMS Chemistry Congress (4ECC), taking place in Prague, Czech Republic, August 26 to 30, 2012. We invite you not only to the Congress but to a fascinating destination. August in Prague and in whole Bohemia is still a part of the holiday season and many attractions and inexpensive options for travel and accommodation are therefore on offer. The organisers will do their best to let you experience valuable time interacting with colleagues from all over the world and we are sure you will enjoy the summer days in our fascinating capital of the Czech Republic.

The main themes of the Congress are: analytical chemistry and electrochemistry, education/history and professional chemists, food chemistry, environment and green chemistry, inorganic chemistry, life sciences, nanochemistry and nanotechnology, organic chemistry and polymers, physical, theoretical and computational chemistry, solid state chemistry.

There will be many programme highlights. A number of Nobel Prize winners and around 200 prominent chemists are on the preliminary list of plenary and keynote speakers who have agreed to present their lectures at 4ECC, among them:

- Vlasta Bonacic-Koutecký (Germany): Metal-cluster enhanced photochemistry and photophysics

- Aaron Ciechanover (Israel): The ubiquitin proteolytic system
- Gerhard Ertl (Germany): Catalysis at surfaces
- Richard Ernst (Switzerland): Chemistry and ethics in science
- Robert H. Grubbs (USA): Design and applications of selective reactions of olefins
- Jean-Marie Lehn (France): From supramolecular chemistry towards adaptive chemistry
- Roger Y. Tsien (USA): Breeding and building molecules to image cells, electric fields, and disease processes
- Kurt Wüthrich (USA): NMR – Where physical chemistry meets biology and medicine
- Ada Yonath (Israel): The amazing ribosome

Among several important awards that will be presented at the Congress, the European Young Chemist Award has already a good tradition. Additional events will be presented, for example the Career Days, a historical overview on “Preserving scientific heritage: Prague monuments related to history of chemistry” and a very practical presentation on “Beer: Chemistry from the first glass to a hangover”.

Some bursaries will be available for participants although the number will be dependent mainly on the number of sponsors. For congress attendees inexpensive (for Prague) hotel accommodation and also student dormitories rooms for those interested are available. Please check the web pages at www.euchems-prague2012.cz.

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Around 4ECC in Prague

Congress venue

The 4th EuCheMS Chemistry Congress from August 26 to 30 will be held in the Prague Congress Centre (5. května 65, 140 21 Prague 4, www.kcp.cz), a venue with easy access to many hotels in near vicinity. With the subway located within just two minutes walking distance, the very heart of the city can be reached in a matter of minutes.

Airfare discount

The network of Star Alliance member airlines is appointed as the Official Airline Network for 4th EuCheMS Chemistry Congress. Registered participants plus one accompanying person travelling to the event qualify for a discount of up to 20 percent, depending on fare and class of travel. Discounts are offered on most published business and economy class fares, excluding internet fares, senior and youth fares, group fares and Round the World fares. www.euchems-prague2012.cz/airfare-discount.htm

Accommodation

Rooms at special Congress rates are being held in hotels of different categories close to the venue (Prague Congress Centre). Rooms will be allocated on a first come, first served basis. Participants are recommended to reserve the accommodation by May 25, 2012. After this deadline requests will be accepted, however, hotel rooms are subject to availability and cannot be guaranteed. www.euchems-prague2012.cz/accommodation-guidelines.htm

Important dates

May 5: Abstract submission deadline
May 5: Regular registration deadline
May 5: Application deadline for European Young Chemist Award
May 31: Exhibition space booking deadline
August 15: Late registration deadline (after August 15: On-site registration)
August 26: Opening Ceremony
More information is available on www.euchems-prague2012.cz

New sectors for the EIT

In 2011, sectors for three new Knowledge Innovation Communities (KICs) were considered by the European Commission (EC) for 2014 and the selected areas were food, healthy living and raw materials, all of which involve chemists and chemistry. The EC has allocated a budget of 2.8 billion Euro in 2014 to 2020 to enable the European Institute of Innovation and Technology (EIT), based in Budapest, to expand and consolidate the development of its KICs.

The Knowledge Innovation Communities were created by the EIT, with the goal of increasing European sustainable growth and competitiveness by reinforcing the innovation capacity of the Member States and the EU. KICs operate by linking the higher education, research and business sectors to boost innovation and entrepreneurship.

The EC also adopted a proposal for the EIT's Strategic Innovation Agenda, which defines the framework for its operations in the years to come. This will provide an impetus for creating up to 600 start-up companies and for training 25 000 students and 10 000 PhDs in new curricula that combine excellent science with a strong element of entrepreneurship.

The first three KICs were established in 2009 (climate change and mitigation, sustainable energy and information communication technology), and these have been working to facilitate the transitions from idea to product, from laboratory to market and from student to entrepreneur by integrating the three sides of the knowledge triangle (higher education, research and business) in areas of high societal need.

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The International Year of Chemistry continues in France

The International Year of Chemistry 2011 was closed last December in Paris with the exhibition "Regards sur la Chimie" ("Chemistry at a glance"), held at the National Museum of Technologies, the place where one can visit the genuine laboratory of Lavoisier.

"Chemistry at a glance" is an invitation to thought and dialogue between the chemist community and society at large, about aspects such as coastal protection, cancer therapy, skin hydration, energy saving, or to drive cleaner, to collect solar energy, to preserve the quality of air – all topics related to health, beauty, environment, energy or transportation issues.

The aim was to convey a scientific and responsible message to the general public. This ten-poster exhibit, conceived by the Comité Ambition Chimie, was carried out by two photographers, Aldo Soares and Nicolas Guerbe, and was supported by the Ministry of Higher Education and Research and several commercial companies and other organisations: Arkéma, BASF, CNRS, EDF, IFP Energies Nouvelles, Lanxess, Rho-

dia (Solvay group), Total and Yara. In continuation of IYC 2011, the ten large posters will travel to several cities of France. The concept can be used by all the Member Societies of EuCheMS on request.

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News from and for European young chemists

2011 was a successful year that brought a massive inspiration for the promotion of chemistry in our daily life – something we hope to continue into 2012 and beyond.

In May, delegates of the European Young Chemists Network (EYCN) will gather together in Aveiro, Portugal, to discuss the future activities of European young chemists. Our Delegates Assembly will also host the award ceremony of the EuCheMS Award for Service that was conferred upon José Manuel Empis. We hope that this ceremony will emphasise the strong connection and ongoing cooperation between EYCN and EuCheMS.

2012 will also be a big year for EYCN with a two day event at the EuCheMS Congress in Prague made by and for young chemists: EYCN Career Days. Together with GDCh, we will be holding workshops, CV clinics and seminars in

Prague to teach you how to write outstanding scientific articles and effective grant proposals. Follow us on Facebook, Twitter or on our webpage for more info and updates to our programme.

Another big topic in Prague will be the European Young Chemist Award 2012 sponsored by the Italian Chemical Society and Consiglio Nazionale dei Chimici. It is intended to showcase and recognise the excellent research being carried out by young scientists working in the chemical sciences. The finalists will present their work on Wednesday 29 August. It will follow the 2006, 2008 and 2010 European Young Chemist Awards awarded at the European Chemistry Congresses in Budapest, Torino and Nuremberg respectively.

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Sweden's short IYC videos

Where does the color in our jeans come from? How can Gore-Tex be waterproof and breathe at the same time? What is the greenhouse effect? These questions (and many others) have been addressed in the Chemistry Calendar, a series of twelve short videos produced during the International Year of Chemistry (IYC) 2011. The project was recently acclaimed as Sweden's most innovative and successful activity during IYC 2011.

The Chemistry Calendar is a joint project between Molecular Frontiers, an international outreach organisation, Chalmers University of Technology, University of Gothenburg, science center Universeum and Untamed Science, a small movie company specializing in fun and educational science videos. Working together, they created twelve videos (one for each month of the year) not only to illustrate how chemistry plays an important role in everyday life, but also to point to the future by highlighting ongoing research.

"We combine scientific content with humor, adventure and action. Our goal is to inspire the audience to want to learn more," says Per Thorén of Molecular Frontiers, who initiated the project. "The videos appeal to kids in all age groups – but are also appreciated by many adults." Each video is



Jonas Stenström, one of the filmmakers, in the November video where the theme was food.

approximately five minutes long, which makes it easy to use the videos in various contexts, such as during a lesson at school.

Teaching material has been created in conjunction with each video and is available for download on the Molecular Frontiers website www.moleclues.org. The teaching material contains background facts and descriptions of experiments of varying degree of difficulty that can be carried out in a classroom. On the website are also games, news and interviews that relate to the content in each video. The videos are published on YouTube, from where they can be embedded on websites and blogs.

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EuCheMS contribution to the European Research Area

In late 2011 the European Commission launched a public consultation on areas of untapped potential for the development of the European Research Area (ERA). The consultation aimed to reinforce the Commission's analysis of the key issues to be addressed as well as to gather views on their importance. These key issues are:

- researchers
- cross-border operation of research organisations
- research infrastructures
- knowledge circulation
- international dimension
- managing and monitoring the ERA partnership

The outcome of the consultation will help the Commission to draft the ERA framework document which is expected to address the aforementioned issues as priorities. The ERA framework will set out the focused, appropriate and effective measures to be taken to realize the ERA and will focus on non-funding aspects (whereas the financial pillar of realizing ERA will be included in the financial framework Horizon 2020).

EuCheMS conveyed key messages for each of the topics. These are published in detail on EuCheMS webpages.

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Global education: Powerful tools for chemistry teachers

The recently launched EuCheMS report "Chemistry – developing solutions in a changing world" identifies priorities for chemistry research in areas of energy, resource efficiency, health and food, along with the breakthrough science needed to support these goals.

The Royal Society of Chemistry (RSC) has developed a global framework for chemistry education to support the future of these priority areas. The RSC believes that core chemistry in schools and colleges should equip students with the knowledge and skills required to enable them to become the scientists and informed citizens of the future who, ultimately, will be tackling these challenges.

Global frameworks for the 11 to 14 and 14 to 16 age range and the report "Developing a global framework for chemistry education" are available online. These represent the outputs of the first stage of the RSC's wide-ranging project "Global framework for chemistry education".

The frameworks are not intended to represent a curriculum. Instead they represent an illustration of how the contextual approach based on global challenges can be applied to curriculum design in any country. The frameworks have also been populated with examples of how core chemistry content could be delivered in the context of these global priority areas, acting as a powerful tool to aid chemistry teachers.

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Global Frameworks for Chemistry Education

for the 11-14 and 14-16 age ranges



RSC
Joining the
Chemical Sciences

www.rsc.org/globalframework

First Eurodoctorate in Genova

The European Chemistry Thematic Network Association finalised in 2011 all necessary procedures for awarding of a Chemistry Doctorate Eurolabel to PhD programmes. As is the case with other Eurolabels, the awarding process is conducted by the Label Committee. The first university with the Eurodoctorate label is Università degli Studi di Genova who were awarded the quality label for its degree of PhD at the Doctorate School in Science and Technology of Chemistry and Materials (Scuola di Dottorato in Scienze e Tecnologie della Chimica e dei Materiali) which includes three "Corso di Dottorato": in chemical technology science, in pharmaceutical, cosmetic and food science or in material science. The initiative was supported by the European Commission in its lifelong learning programme – the project of the Erasmus sub-programme entitled "Eurodoctorate – a framework for a third cycle qualification in chemistry", coordinated by the Aristotle University of Thessaloniki.

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Chemistry for cultural heritage

Istanbul will host the 2nd International Conference in Chemistry for Cultural Heritage from July 9 to 12, organised by the Turkish Chemical Society. Preservation and protection of our universal cultural heritage of moveable and immovable natural, archaeological, historical and artistic materials for future generations is the essential responsibility of humanity. Unfortunately, such materials are always faced with the constant threat of environmental pollutants, pests, poor handling practices, natural disasters, international conflicts, accidental damage or just plain neglect. The main agenda is to first stop the deterioration, then to stabilize the material state and finally to conserve it without falsification in order to minimize further decay. The main objective of the Conference is to provide a universal scientific platform for chemists, conservators and restorers to discuss the major issues in conservation and restoration.

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Events 2012

11 – 13 June 2012, Uppsala, Sweden

EuCheMS Analytical Days (Analysdagarna)
www.analysdagarna.se

9 – 12 July 2012, Istanbul, Turkey

2nd International Conference on Chemistry for Cultural Heritage, www.chemch2012.org

5 – 11 August 2012, Wales, UK

EUCHEM Conference Molten Salts and Ionic Liquids
www.euchem2012.org

26 – 30 August 2012, Prague, Czech Republic

4th EuCheMS Chemistry Congress
www.euchems-prague2012.cz

13 – 15 September 2012, Vukovar, Croatia

14th Ruzicka Days: "Today science – tomorrow industry", www.ptfos.hr/ruzicka

16 – 19 September 2012, Bragança, Portugal

11th Food Chemistry Meeting
www.spq.pt/eventos/11eqa

26 – 28 September 2012, Leipzig, Germany

EuCheMS conference Flavors & Fragrances 2012
www.gdch.de/flavorsfragrances2012

14 – 16 November 2012, Prague, Czech Republic

EuCheMS 7th International Conference on Chemical reactions in Foods, www.crf2012.eu

Events 2014

31 August – 4 September, Istanbul, Turkey

5th EuCheMS Chemistry Congress
www.euchems-istanbul2014.org



Prague: Chemistry and ethics at the 4th Chemistry Congress

The special symposium "Ethics in science – chemistry and ethics" at the 4th EuCheMS Chemistry Congress from August 26 to 30 in Prague will be organised by Frank Hartmut, who will have around him well-respected scientists e.g. Attila Pavlath (USA), Marina Frontasyev (Russia), Karine Ndjoko and Frank Moser (Switzerland), Jan Mehlich (Germany), Jan van der Westhuizen (Republic of South Africa), Jerzy Vetulani (Poland) and Luigi Dei (Italy). At the end of this symposium a round table discussion will take place. Finally it is expected that the "Prague Memorandum" will be drafted.

On the occasion of the symposium Carl Djerrassi (USA) will be special guest of the Congress and his play "Insufficiency" will be staged as dramatic reading on Wednesday evening. The newest science-in-theatre play deals with the science of "bubbleology" as applied to champagne and beer with a few digs along the way at the foibles of academic publishing, academic snobbery, and academic tenure – an apt illustration of themes pertaining to the "Ethics in science" Congress special topic, but actually of relevance to the entire chemical community.

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EuCheMS Newsletter



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