SCI INFORMA

CALENDARIO DELLE MANIFESTAZIONI DELLA SCI

Scuola di Chemiometria
21-24 gennaio 2013, Genova
www.dictfa.unige.it/images/stories/depliant_Scuola_Gen2013.pdf

European Winter School on Physical Organic Chemistry (EWISPOC2013)
27 gennaio - 1 febbraio 2013, Bressanone
www.chimica.unipd.it/wispoc/pubblica/index.htm

17° Corso di Spettrometria di Massa
18-22 marzo 2013, Certosa di Pontignano (SI)
www.soc.chim.it/divisioni/SdM/scuola2013

Finali Regionali Giochi della Chimica 2013,
4 maggio 2013
11 maggio 2013, Premiazioni regionali
Finale Nazionale "Giochi della Chimica 2013",
24 maggio 2013, Frascati (Roma)
Prova di selezione per la XLV IchO,
25 maggio 2013, Frascati (Roma)
Allenamento squadra italiana indicat.,
10-15 giugno e 8-13 luglio 2013, Pavia
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31st Camerino-Cyprus Noordwijkerhout Symposium
19-23 maggio 2013, Camerino
www.unicam.it/farmacia/symposium/index.html

XLV International Chemistry Olympiad (IChO)
15-24 luglio 2013, Mosca (Russia)
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XXII National Meeting on Medicinal Chemistry
10-13 settembre 2013, Roma
http://w3.uniroma1.it/nmmc2013/

PATROCINI SCI

EPF 2013
Congresso della European Polymer Federation
16-21 giugno, Pisa
www.epf2013.org

VII International Congress on Pigments in Food
18-21 giugno 2013, Novara
http://pif2013.org/

Ulrich Schubert writes Public Service Review article

Earlier in October, Professor Ulrich Schubert, EuCheMS President, gave his contribution to the 24th issue of the Public Service Review with an article entitled "The chemical element". In the article, prof. Schubert underlined the importance of chemistry as a transversal component for many crucial economic sectors and highlighted the needed for a strong link between chemical sciences and industry. He also emphasized the role that chemistry may play in providing solutions to some global grand challenges of our time such as energy supply, resource efficiency, healthcare and food supply
(www.euchems.eu/news/single-news/article/ulrich-schubert-writes-public-service-review-article.html)

From Public Service Review: European Union - Issue 24
The chemical element
04 October 2012

Professor Ulrich Schubert, President of the EuCheMS, champions progress in chemistry as the solution to many of the global grand challenges…

The key message of the Lund Declaration, issued at the start of the Swedish Presidency of the European Union in July 2009, is 'Europe must focus on the Grand Challenges of our time' [1].

Chemistry is not only a key economic factor in Europe - Europeans would not enjoy the same standard of living, prosperity and ever-improving healthcare without its innovative power. The results of chemical research and the productivity of the chemical industry are all around: from food, to methods of travel or communication, to clothing or the environment. Chemistry is the science of matter, dealing with its composition, transformation, modification or interactions, and therefore has significant impact on many other sectors. In addition to its problem-solving abilities, chemistry is also central to progress in many other scientific fields, such as physics, the life sciences, medicine and materials science, amongst others.

For this reason, it has never been so important to realise that strong chemical sciences and industry are a key innovation factor, emphasising the opportunities without neglecting the associated problems.

Global change is creating enormous challenges relating to energy, food, health, climate change and other areas. Critical gaps in knowledge are limiting technological progress and advances in chemistry will help to provide solutions.

Energy supply - Securing a sustainable, affordable and plentiful supply of energy requires multidisciplinary input from many scientific and technical areas. However, all energy issues - whether efficiency, production, storage or transportation - are closely associated with new or improved materials. For example, alternative energy sources, such as hydrogen, will not be viable without advances in materials chemistry. Electrochemistry and surface chemistry, meanwhile, will contribute to improving the efficiency of fuel cells or the storage capacity of batteries. The ultimate solution for energy related problems would be the direct conversion of sunlight in chemical compounds, which can not only serve as new raw materials, but are also the most efficient way to store energy (as is the case for oil or coal). A visionary goal is to develop artificial leaves to convert water and carbon dioxide, with sunlight as the energy source, into valuable organic feedstock.

Resource efficiency - Better-quality and increased levels of chemistry can also assist in the drive towards improved resource efficiency. Current rates of global growth and technological expansion mean that not only fossil fuels, but also a number of metals and minerals, are becoming depleted, some to critical levels. In order to tackle this challenge and guarantee a sustainable supply of raw materials, significant changes need to be made by governments, industry and consumers. The chemical sciences have a role in assisting the development of new or improved approaches for recycling and recovery, and will be at the forefront of delivering alternative materials for technologies to replace scarce ones. Improved synthesis methods - for example, the development of new catalysts - will help to reduce the depletion of natural resources.

Healthcare - Chemistry is also central to many aspects of healthcare. There are big challenges associated with healthcare, such as an ageing society, chronic diseases, urbanisation and personalised medicine. Without progress in organic chemistry, we would be without our modern arsenal of drugs and therapies that allow us to fight diseases. The discovery of new drugs and improved delivery methods are, however, only one aspect. Other examples include hygiene and infection issues, materials for prosthetics, biomarkers for early diagnosis, and better detection techniques for non-invasive diagnosis.

Food supply - With an increasing global population and ever-limited resources, we face a global food crisis, which also includes water supply. The management of the resources that we already have and the development of technologies to improve agricultural productivity, require the input of scientists and engineers from a range of disciplines to ensure that we can feed the world in a sustainable manner.
Amongst its impacts, chemistry can contribute new products and formulations in pest control and fertilisers, improved techniques to monitor and purify water, biosensors for effective farming, and veterinary medicines for livestock health. Understanding the chemical transformations that occur during the manufacturing, processing, storage and distribution of food will help to improve its palatability and safety. Chemists will be essential in formulating fortified food products to help combat malnutrition and improve immunity.

Maximising breakthroughs - Identifying challenges and highlighting the way forward with possible solutions is only one side of the coin. An indispensable requirement for rendering solutions possible is breakthroughs in science that originate from advances in understanding, new methods and techniques, as well as major and sometimes unpredictable discoveries. Often, the impact of breakthrough science is not felt until many years after the initial discovery.
To maximise the capacity for breakthroughs, it is crucial to adequately support curiosity-driven research in general, and chemical research in particular. Both dedicated programmes and funding of knowledge-oriented, bottom-up research is consequently needed. There is a long tradition in chemistry for innovation chains from fundamental science to commercialisation. An alliance between science, industry and policy must safeguard viable mechanisms for the innovation-to-market process. The EU has renewed its commitment to innovation, resulting in growth and jobs. Chemistry will play a pivotal role in ensuring that the EU is able to realise its vision of becoming an Innovation Union. Accelerating innovation is essential for enhanced European competitiveness and growth: chemical stakeholders have a leading role to play here, and are committed to these goals.

[1] www.se2009.eu/polopoly_fs/1.8460!menu/standard/file/lund_declaration_final_version_9_july.pdf
www.euchems.eu/fileadmin/user_upload/highlights/Euchems_Roadmap_gesamt_final2.pdf
www.publicservice.co.uk/article.asp?publication=European%20Union&id=590&content_name=Research,%20Innovation%20and%20Science&article=21041