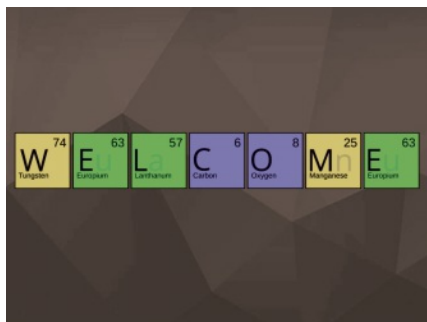




EDITORIAL

Welcome



Welcome to this new style EuCheMS Newsletter!

We would like this to be *your* Newsletter embracing all the member networks of EuCheMS (Member Societies, Supporting Members, Divisions and Working Parties) so sections will be set aside for your news and updates. We hope it will be read very widely within Europe and beyond.

With the increased activity of EuCheMS and the extra staff in Brussels, we have decided to produce the Newsletter in-house with the bulk of the editorial work being carried out by Nineta Majcen, Bruno Vilela and Marta Kucza. The new Newsletter is electronic although a printable PDF version is also available.

There could not be a more important time for EuCheMS to have a dynamic and interactive newsletter. We are beginning to become noticed by the wider European community, with amongst others Executive Board member, Wolfram Koch being appointed to the High-Level Group on Open Science, Nicola Armaroli, Chair of the Working Party for Energy in Chemistry, being a key member of EU Missions on the circular economy and Hartmut Frank, Chair of the Working Party on Ethics in Chemistry, being heavily involved in the ALLEA revision of the EU Code of conduct on Ethics and The Hague Ethical Guidelines.

In addition, with the UK voting to leave the EU, threats in academic freedom in Turkey, chemical weapons again being used in Syria and a new President soon to enter the White House who may not be so supportive of carbon emissions reduction, there has never been a more important time to have a strong, united, independent voice speaking on chemical matters for all chemists in Europe.

The newsletter will be one way in which we plan to reach not only all our members but also the legislators and remind them how central chemistry is to all of life.

More locally, this year sees most of the Divisions and Working Parties having their biennial meetings. These are events where experts in specific disciplines talk to one another about the most recent developments in their research area. Some of these have been running for many years, others are new, but all of them are exciting and invigorating. I hope you will find at least one in which you can participate with enjoyment.

Finally, the Executive Board meeting in Sevilla, which took place in September 2016, was the last one for Ulrich Schubert as Past President. Ulrich has now served 6 years on the Presidential Council, three as President. Ulrich has had a huge influence on the development of EuCheMS and we thank him deeply for what he has done. After many successful years as EuCheMS Treasurer, Franco de Angelis will now end his mandate. Antonio Laganà has completed his term on the Executive Board as a representative of the Divisions. We thank him for his very positive interventions, particularly his commitment to Open Science.

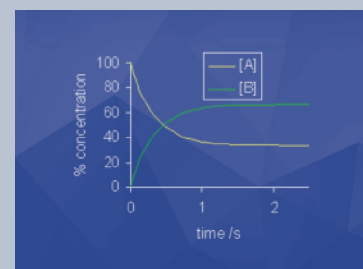
I would like to thank Karin Schmitz and her team at GDCh for the truly exceptional work they have done over the last 10 years in editing and producing the Newsletter to a very high standard and always on time. We are really grateful for what they have done. I wish the new Editorial team of the Newsletter every success in developing it in this exciting future.

David Cole-Hamilton
EuCheMS President

FOCUS

Dynamic chemical equilibrium

A dynamic chemical equilibrium is a balanced condition within a system of chemical reactions in which both reactants and products are present in concentrations which have no further tendency to change with time, while the reaction rates of the forward and backward reactions are generally not zero, but equal. In EuCheMS, such dynamic equilibrium occurs with chemistry, research, education, professional networks, member organization, research conferences, responses to public consultations and communication as key reactants and products.



Sometimes reactions need to be speeded up and then we add a catalyst in a form of management and leadership actions, which affects both the forward and the reverse reaction in the same way and does not have an effect on the equilibrium constant, but increases the speed at which equilibrium is reached.

Furthermore, rather often we deal with multiple equilibria, and sometimes with disturbed dynamic equilibria, by changing the reaction conditions (though the equilibria constant stays the same, as described by the Le Châtelier's principle). With this new old EuCheMS Newsletter the reaction conditions are changing and let us see if the system will adjust itself in such a way that the effect of the change will be nullified and the high quality of the Newsletter remains as it was so far.

I hope you will enjoy reading thought provoking contributions and news on chemistry related topics in Europe and worldwide. If you would like to contribute, you are most welcome to contact the Editorial Board members for details.

Nineta Hrastelj
EuCheMS General-Secretary

POLICY

Where to find chemistry in Brussels

As you already know, chemists are academics, researchers, entrepreneurs, but do they have anything to do with politics, namely Brussels' politics?

First things first - what is politics?

Simply put, politics is the way the members of a community are organised, it sets priorities in the use of available resources, it sets the rules needed for common living, and creates a vision of what tomorrow should be. This community, has considerably grown from the ancient Greek cities (*Polis*, in ancient Greek, from which the term *politics* derives) into bigger political unities, with many different systems of political organisation. Today we see the beginning of a European citizenship based on the European Union, with a community of more than 500 million citizens. The political action within this community is visible in policy-making from laws to funding, from statements of purpose to awards, among many other.

How does the European Union work?

Every five years, EU citizens elect national Members for the European Parliament. At the same time, each country of the EU, nominates a Commissioner to the European Commission college

of commissioners, currently presided over by Jean-Claude Juncker. Each Commissioner will oversee one of the EU areas such as Research, Health, Education, Finances and so on. Each commissioner oversees



and sets the main policy lines for one or more departments of the European Commission, the so-called Directorate-Generals (DGs). Another main institutional actor is the Council (also known as the Council of the European Union, or Council of Ministers). The Council is the institution where national governments are represented from the most technical level to the higher political level.

You can read the entire article at <http://bit.ly/2jUNFN5>

Bruno Vilela

EuCheMS Public Affairs Officer

RESEARCH

25 years of the concept of green chemistry and green engineering



In celebration of the past 25 years of green chemistry and engineering the journal *ACS Sustainable Chemistry & Engineering* published a special issue in November 2016. On first inspection, the scope of the research

articles, features, perspectives and letters is striking. Immediately apparent is the multi- and interdisciplinary nature of green chemistry and engineering. Topics span green solvents for bioprocessing, entropic considerations in molecular design, quantitative sustainability analysis, the road to sustainable nanotechnology, waste to wealth by sustainable approaches, directed discovery of greener cosolvents, green recycling, multistage optimization for chemical process sustainability enhancement under uncertainty and clean enzymatic preparation of oxygenated biofuels from vegetable and waste cooking oils.

Of note is the inclusion of features on *Green Engineering Education in Chemical Engineering Curricula* and *Green Chemistry Education: 25 Years of Progress and 25 Years Ahead*. These insightful papers report how undergraduate curricula has been influenced

by advances in green chemistry and engineering research, especially at the undergraduate level.

Current status and future challenges in molecular design for reduced hazard by Paul Anastas and colleagues is also disseminated. Anastas states that "design strategies need to incorporate information and data at the nexus of multiple disciplines. Critically, there is a need for the incorporation of toxicology into the design phase of the molecular design process." Consistent with this message recent advances in this area are showcased in the RSC journal *Green Chemistry* themed issue: *Molecular Design for Reduced Toxicity* in August 2016. Perspectives published on *connecting toxicology and chemistry to ensure safer chemical design*, *alarms about structural alerts* and *on the design of safer chemicals: a path forward*, are landmark papers in this field. A highlight is the generic course curricula for training of toxicological chemistry proposed by Steven DeVito which raises awareness of green chemistry education initiatives that can be easily adopted by universities.

You can read the entire article at <http://bit.ly/2j7EBra>

Nicholas Gathergood

EuCheMS Division of Green and Sustainable Chemistry, Chair

MEMBERS' PERSPECTIVES

Sharing means growing

Dear members of the EuCheMS chemical societies, this is the first Chemistry in Europe article on news from Member Societies. Therefore, I would like to use this chance, to invite each one of you to share your society news with our readers. These news could be an important moment in your society life, a European meeting, beginning of a new teamwork, changing presidency or any other affair. It does not have to be a very large event, or an event at the European level to be mentioned in this section of the newsletter. It needs to be an interesting moment within your society's life, that is exciting and interesting for your members and which can serve as an example for other EuCheMS societies.

You can read the entire article at <http://bit.ly/2k3TM41>

*Cristina Todasca
Romanian Chemical Society*

How typical is your professional career

The 2nd Employment Survey for European Chemists (ESEC2) investigates the current employment situation for chemists and chemical engineers across Europe. Your participation will contribute to the acquisition of quantitative data about job market needs.

You can read the entire article at <http://bit.ly/2k3TM41>

*Reiner Salzer
ECTN (TU Dresden)*

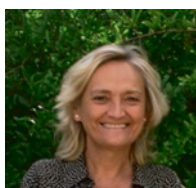
News from European Quality Labels in chemistry education

Quality assurance is the main requisite in setting up an effective European Higher Education Area. Such an area is characterised by mutual recognition of study programmes within a transparent framework of harmonised practices. The Chemistry Eurolabel® quality system is recommended as easily readable and comparable model, it is concerned with mobility and recognition.

You can read the entire article at <http://bit.ly/2k3Na5x>

*Reiner Salzer
ECTN (TU Dresden)*

WHO IS WHO



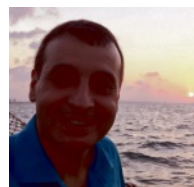
Pilar Goya, EuCheMS Vice-President.
Pilar Goya Laza is research professor of the Spanish Research Council (CSIC) at the Instituto de Química Médica, Madrid.



Bahattin Yalçın, President of the Turkish Chemical Society.
Professor Bahattin Yalçın is a professor at the Department of Chemistry, Marmara University, Istanbul.



Eckart Rühl, EuCheMS Treasurer.
Eckart Rühl is a professor of Physical Chemistry at the Freie Universität Berlin.



Mustafa Çulha, General Secretary of the Turkish Chemical Society.
Mustafa Çulha is a professor at the Genetics and Bioengineering Department, Yeditepe University, Istanbul.



Christophe Copéret, EuCheMS Executive Board Elected Member.
Christophe Copéret is a professor in the Department of Chemistry and Applied Biosciences at ETH Zürich.



Jon Petter Omtvedt, Chair of the Division of Nuclear and Radiochemistry.
Jon Petter Omtvedt is a professor of Environmental Sciences at the University of Oslo.



Artur Silva, EuCheMS Executive Board Elected Member.
Artur M. S. Silva is a professor of Chemistry at the University of Aveiro and President of the Portuguese Chemical Society.

NOTES

New Award - European Chemistry Gold Medal

Every two years, the exceptional achievements of one scientist working in the field of chemistry in Europe will be rewarded. The winner will receive a gold medal and the opportunity to give the opening lecture at the next European Chemistry (EuCheMS) Congress (ECC).

The first call for nominations will take place during 2017, please visit www.euchems.eu regularly for more updates.

EuCheMS Secretariat

AGC Awards Professor James Watson

The Association of Greek Chemists awarded Prof. James Watson for his contribution to science, during the 17th Medicinal Conference of Greece, that was held in Spetses.

The President of the AGC offered Prof. James D. Watson an original prototype metallic sculpture.

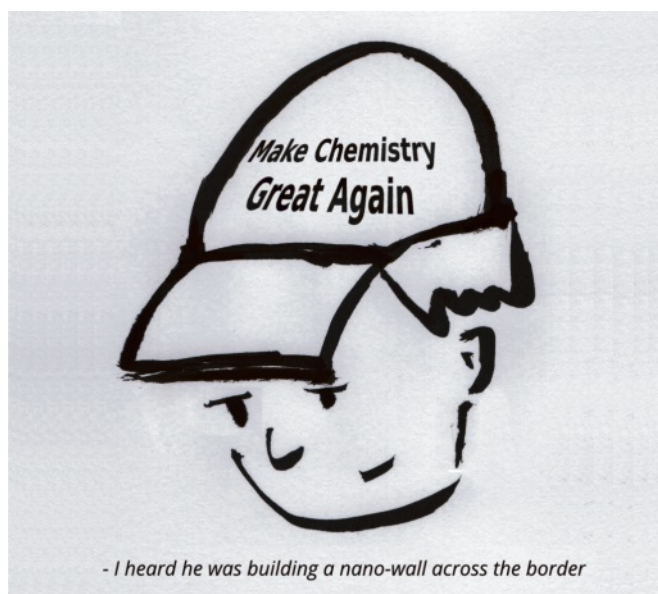
Fillenia Sideri, President of AGC, also thanked Prof. Watson for his public statements in support of the Greek people during the last years.

Association of Greek Chemists



<http://on.fb.me/1B8Qa0n>  <https://twitter.com/EuCheMS>

FUNNY



CALENDAR

EuCheMS Executive Board Meeting

28 February - 1 March
 Frankfurt, Germany

Circular Economy in Drugs

5 April 2017
 Valleta, Malta

Glyphosate: Harmless Chemical or Silent Killer?

10 May 2017
 Brussels, Belgium

7th EuroVariety - 7th European Variety in University Chemistry Education

28 - 30 June 2017
 Belgrade, Serbia
 Website: <http://www.chem.bg.ac.rs/eurovariety/>

EICC-4 - 4th EuCheMS Inorganic Chemistry Conference

2 - 5 July 2017
 Copenhagen, Denmark
 Website: <http://www.eicc-4.dk>

ISSNP 2017 - International Summer School on Natural Products

3 - 7 July 2017
 Naples, Italy
 Website: <http://www.issnp.org>

EuCOMC 2017 - 22nd European Conference on Organometallic Chemistry

9 - 13 July 2017
 Amsterdam, The Netherlands
 Website: <http://www.eucomc2017.amsterdam/>

ICCE 2017 - 16th EuCheMS International Conference on Chemistry and the Environment

18 - 22 July 2017
 Oslo, Norway
 Website: <http://icce2017.org/>

For the complete list of events please visit our events calendar at www.euchems.eu

COLOPHON

Editorial Board

David Cole-Hamilton, Pavel Drašar, Nineta Hrastelj (responsible), Marta Kucza, Santiago Luis, Camille Oger, Karin Schmitz, Cristina Todasca, Bruno Vilela (coordinator).

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Adam Brownsell
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English Proof-reading

David Cole-Hamilton

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