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EDITORIAL



Excellence in Publishing with *ChemXChem*

Lisa Abel, Meghan Campbell, Neville Compton, Greta Heydenrych, Guido Kemeling, Kate Lawrence, Natalia Ortúzar, Michael Rowan, Marisa Spiniello, and Kira Welter^[a]

ChemPubSoc Europe Journals are Dedicated to Excellence

Over the years, far-reaching collaborations between the European national chemical societies allied in ChemPubSoc Europe and Wiley-VCH have resulted in a range of internationally renowned top chemistry journals and the news and information service *Chemistry Views*. The first journals to launch under the umbrella of ChemPubSoc Europe were *Chemistry: A European Journal* (1995), the *European Journal of Organic Chemistry* (1998), and the *European Journal of Inorganic Chemistry* (1998). In 2000, the programme was expanded with the journals *ChemBioChem* and *ChemPhysChem*. As of 2013, in addition to these two titles, the “ChemXChem” range includes *ChemCatChem*, *ChemMedChem*, *ChemPlusChem*, and *ChemSusChem*. We are pleased to

announce that in 2014, *ChemElectroChem* will start publication as the seventh journal in this highly successful series.

Selecting a *ChemXChem* journal for your work offers tremendous benefits for your research. All published articles are disseminated in various ways, including Early View and Table of Contents alerts, marketing campaigns, social media (LinkedIn, Facebook, and Twitter), and features such as the Spotlights section in our sister journals. Within the Wiley-VCH/ChemPubSoc Europe programme, the journals are closely connected—also to *Angewandte Chemie (International Edition)* and other journals—with the aim to improve the speed at which we publish and the technical quality of the papers. The sections below offer more detail on each title, allowing you to select the journal that is best suited to your research work.

Since the start of the first journals in the series in 2000, much has changed in the way journals are published and read. Digital access is now the norm, research output across the globe has increased tremendously, and the pros and cons of different publishing models are fiercely debated. We consider it our duty to respond to these developments in the community: Several of our journals already operate on a fully-digital strat-

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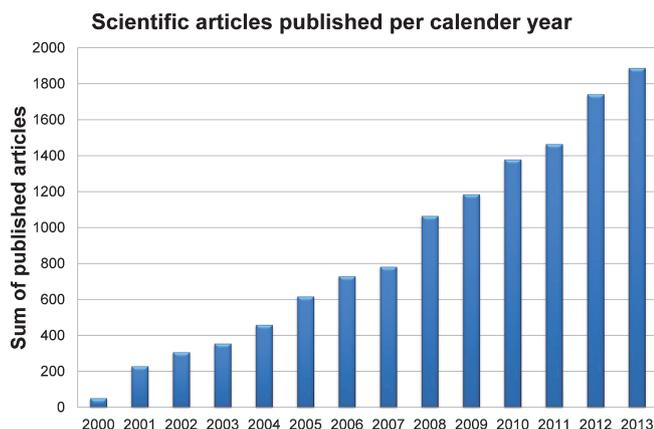


Figure 1. Growth in the number of scientific articles published per year in all of the *ChemXChem* journals. Scientific articles include: Articles, Communications, Concepts, Correspondence, Essays, Full Papers, Highlights, Minireviews, Reviews, and Viewpoints.

egy, also offering apps to browse content. The number of published articles has increased to keep up with the tremendous growth in research activity worldwide (Figure 1). And, all of our journals offer OnlineOpen as a way to publish your article as an Open Access contribution. The evolution of research communication will continue in the future, and we will contribute to this development and offer our services in the best possible way.

One thing does not change, though: researchers want to keep themselves informed of the latest and most important developments in their field, and this remains the guiding principle of the *ChemXChem* journals: high-quality scientific content tailored to specific audiences. We have selected superb articles published in these titles in 2013, and a preview of two top articles from *ChemElectroChem*, and offer them free to read. We trust that you will enjoy this selection of high-quality science!

ChemBioChem



Start: 2000

Editor-in-Chief: Peter Göllitz

Managing Editor: Lisa Abel

Associate Editor: Meghan Campbell

Homepage: <http://www.chembiochem.org>

<https://www.facebook.com/pages/chembiochem/167014003430427>

[@ChemBioChem](https://twitter.com/ChemBioChem)

Looking back at the year 2013, *ChemBioChem* has seen a wealth of exciting topics emerge from its pages. Chemical biology is a broad field that is accelerating quickly in the areas of protein engineering, labeling of biomolecules, and new gen-

erations of therapeutics based on peptides and nucleic acids. Since its start in 2000 as one of the first journals on chemical biology, *ChemBioChem* has held its place among the leaders of this field for 13 years now. In this time, we have seen the rise of fields such as RNA interference, directed protein evolution using an expanded genetic code, and synthetic biology, which have been aided by the development of techniques such as single-molecule imaging and next-generation DNA sequencing.

2013 has been an eventful year for *ChemBioChem*, as we said farewell to our Deputy Editor, Dr. Adrian Neal, after three years with the journal, but welcomed a new Associate Editor, Dr. Meghan Campbell, to the team. Also this year, we paid tribute to the career of the late Professor Ivano Bertini, an Editorial Board member since the beginning, with a special issue devoted to spectroscopy in bio(in)organic chemistry, with guest editors Joshua Telser (Roosevelt University) and Harald Schwalbe (Universität Frankfurt). The outlook for *ChemBioChem* for 2014 is a busy one. We are looking forward to a special issue on expanding the genetic code by using non-canonical amino acids as well as a busy schedule of networking with authors at chemical biology conferences.

This publication gives us the opportunity to highlight the best of *ChemBioChem* from 2013, with a wide range of topics. First, we selected an excellent Review by Barbara Imperiali et al. Imperiali (MIT) serves as one of the Chairs of the Editorial Advisory Board; the others are Thomas Carell (LMU Munich) and Donald Hilvert (ETH Zürich). The Review by Imperiali and Krueger summarizes techniques and applications for the incorporation of fluorescent amino acids into polypeptides. This area has always been a strong one for *ChemBioChem*, and this Review serves as a valuable resource for all those looking to site-specifically label proteins. We have also selected a Full Paper from three top research groups at the University of Cambridge. Hyvönen and co-workers have used a fragment-based approach to screen small-molecule suppressors of the breast cancer gene (BRCA2) by disrupting its interaction with RAD51. Finally, we highlight an important contribution to the field of DNA biotechnology from Andreas Marx et al. Their crystal structures of two of the "error-prone" family of DNA polymerases in a complex with their substrate DNA duplex should prove highly valuable to those interested in synthesizing functional nucleic acids with modified nucleobases.

ChemCatChem



Start: 2009

Editor-in-Chief: Michael Rowan

Homepage: <http://www.chemcatchem.org>

[@ChemCatChem](https://twitter.com/ChemCatChem)

ChemCatChem is key reading for a wide range of researchers from all forms of catalysis. *ChemCatChem* seeks to bring down the barriers between homogeneous, heterogeneous, bio-, and nanocatalysis and to promote communication within and between these communities. Its authors and readers come from academia, the chemical industry, and government laboratories across the world. Indeed, last year *ChemCatChem* published manuscripts by authors representing over 40 countries.

As a snapshot of the catalysis that we publish, we present in this “Highlights of 2013” issue some remarkable papers. The Review by De Chen and co-workers was invited for the excellent special issue “World of Catalysis—A Perspective from the Netherlands” (issue 2, 2013) guest edited by Harry Bitter and Barbara Mojet. The Review article presents a broad overview of the topic of carbon nanotubes and carbon nanofibers in heterogeneous catalysis. The Communication by Yasushi Obora and co-workers presents an unprecedented aerobic palladium(II)-catalyzed arylation of acrylamides. The reaction is highly chemoselective and that chemoselectivity is subtly controlled by the amount of ligand used. The Full Paper by Steven V. Ley and co-workers was judged to be very important by reviewers and is an excellent and very detailed manuscript describing a gas–liquid flow system for Heck reactions involving ethylene gas and (telescoped) hydroformylations using syngas. This Full Paper highlights the use of several recent innovations by the Ley group in flow chemistry.

ChemCatChem would love for you to become part of our broad catalysis community. It would be great if we could include your work, and with this in mind we look forward to receiving your next excellent manuscript!

ChemMedChem

CHEMMEDCHEM
CHEMISTRY ENABLING DRUG DISCOVERY

Start: 2006

Editor-in-Chief: Natalia Ortúzar

Homepage: <http://www.chemmedchem.org>

 <https://www.facebook.com/ChemMedChem>

 @ChemMedChem

ChemMedChem is a leading journal at the interface of chemistry and medicine, covering all aspects of medicinal chemistry, from traditional structure–activity relationship studies to more emergent topics in drug discovery and development such as vaccine development and chemical proteomics. Like its sister journals, *ChemMedChem* publishes primary research results in the form of both Full Papers and Communications, and also features secondary and tertiary articles such as Reviews, Minireviews, Highlights, Concepts, and Viewpoints. The Italian and German chemical societies (SCI and GDCh, respectively) were particularly instrumental in the founding of *ChemMedChem* and are joined by the 14 other European chemical societies of ChemPubSoc Europe in co-ownership of

the journal. Dr. Rainer Metternich and Prof. Giorgio Tarzia are co-chairs of the Editorial Board.

The articles selected are intended to give a flavor of the diversity of indications and topics covered in *ChemMedChem*. The journal has gained a reputation for excellence in medicinal chemistry research for rare and neglected diseases, with the recent article from Ballell et al. showcasing this. The article is also OnlineOpen, the Wiley-VCH open-access option available in all the journals; for a set fee, an article can be made open-access immediately upon publication. The article on *Smoothened* inhibitors by Peukert et al. was considered to be very important by the reviewers and so was given “Very Important Paper” (VIP) status; VIP articles are typically featured on the cover of the journal, and written up for broader distribution in the form of press releases and news pieces. Finally, the Minireview on carboxylic acid bioisosteres by Ballatore et al. has been very well received, as it outlines ways in which medicinal chemists have been able to use isosteric replacements to retain the benefits of carboxylic acid functional groups, while circumventing their drawbacks.

ChemPhysChem

A EUROPEAN JOURNAL
CHEMPHYSCHEM
OF CHEMICAL PHYSICS AND PHYSICAL CHEMISTRY

Start: 2000

Editor-in-Chief: Greta Heydenrych

Homepage: <http://www.chemphyschem.org>

 @ChemPhysChem

ChemPhysChem aims to publish the most exciting new results at the interface between chemistry and physics, including biophysics, nanoscience, and materials-related topics. Since its launch in 2000 by the French and German Chemical Societies (together with Wiley-VCH), *ChemPhysChem* has continuously grown to become one of the leading journals in its field. Today, it is published on behalf of several chemical societies involved in ChemPubSoc Europe and appears 18 times per year. The quality of the papers featured in *ChemPhysChem* is ensured by a strict peer-reviewing process and backed up by an outstanding Editorial Advisory Board, which is co-chaired by Prof. Christian Amatore (Ecole Normale Supérieure), Prof. Michael Grätzel (Ecole Polytechnique Fédérale de Lausanne), and Prof. Michel Orrit (Universiteit Leiden).

Each issue of *ChemPhysChem* contains contributions of the highest standard, which are submitted by authors from around the globe and presented as a nice mixture of Review-type Articles, Highlights, Essays, Full Papers, and Communications. *ChemPhysChem* also regularly publishes special issues on topical subjects including electrochemistry and energy, atmospheric chemistry, single molecules, functional materials, and advanced computational methods. *ChemPhysChem*'s best content is regularly promoted on Twitter and *Chemistry Views*, as well

as on the journal's news site and the newly created section "Editor's Selection". The visibility of papers published in *ChemPhysChem* is further enhanced at conferences and through cooperation with the sister journals. The Minireview on "Surface-Tension-Confined Microfluidics and Their Applications" (by H. Lee and co-workers), the Full Paper on "Nuclear Magnetic Resonance of Hydrogen Molecules Trapped inside C_{70} Fullerene Cages" (by S. Mamone and co-workers), and the Concept on "Elucidating Inorganic Nanoscale Species in Solution: Complementary and Corroborative Approaches" (by J. E. Hutchison, D. W. Johnson, and co-workers) should give the readers a taste of what to expect when browsing through *ChemPhysChem*.

ChemPlusChem

A GENUINELY MULTIDISCIPLINARY JOURNAL

CHEMPLUSCHEM

CENTERING ON CHEMISTRY

Start: 2012
Editor-in-Chief: Neville Compton
Deputy Editor: Marisa Spiniello
Homepage: <http://www.chempluschem.org>
 <https://www.facebook.com/ChemPlusChem>
 @ChemPlusChem

When the Institute of Organic Chemistry and Biochemistry (IOCB) of the Academy of Sciences of the Czech Republic felt it was time to revitalize the journal *Collection of Czechoslovak Chemical Communications* (CCCC), it chose to put a greater emphasis on collaborative work and multidisciplinary research. With this in mind, the IOCB teamed up with ChemPubSoc Europe and Wiley-VCH and the journal was transformed into *ChemPlusChem*. Accordingly, *ChemPlusChem* began with volume 77, following on from 76th and last volume of CCCC. Like its predecessor, *ChemPlusChem* is fully digital and offers free color graphics to all authors. Uniquely, for a general chemistry journal, every article published in *ChemPlusChem* covers at least two different subfields of chemistry or one of chemistry and one of another scientific discipline.

The high quality of *ChemPlusChem* is not only ensured through the links with its sister journals but also through its Editorial Board, which is co-chaired by Prof. Matthias Driess (Technische Universität Berlin, Germany), Prof. Michal Hocek (Institute of Organic Chemistry, Czech Republic), and Prof. Nico Sommerdijk (Technische Universiteit Eindhoven, The Netherlands) and features a further 10 highly reputable members, as well as an International Advisory Board, who were selected for their wide-ranging fields of expertise. Visibility for the best papers in *ChemPlusChem* is enhanced by regular features on *Chemistry Views*, Cover Profiles, and promotion of the journal and its content in newsletters and at conferences throughout the year. The three articles chosen to be highlighted herein, namely, the Minireview on Molecular Catalytic Assemblies for Electrodriven Water Splitting by K. S. Joya, F. Buda, and H. J. M.

de Groot and co-workers, the Full Paper on the Preparation of Fluorescent Tubulin Binders by G. Cappelletti, J. S. Snaith, and D. Passarella and co-workers, and the Communication on 0D to 1D Switching of Hybrid Polyoxometalate Assemblies by Y.-F. Song and co-workers, clearly illustrate the key aim of *ChemPlusChem* to bring readers the very best in multidisciplinary research centering on chemistry.

ChemSusChem

CHEMISTRY & SUSTAINABILITY

CHEMSUSCHEM

ENERGY & MATERIALS

Start: 2008
Editor-in-Chief: Guido Kemeling
Homepage: <http://www.chemsuschem.org>
 @ChemSusChem

Sustainability is a central theme in society nowadays. Humanity is facing several issues such as climate change, population growth, changes in population demographics, resource scarcity, and pollution, that are forcing us to change our ways. Scientists have taken on these challenges and are applying their skills towards solving these problems. With this in mind, the Italian Chemical Society (SCI) together with the other members of ChemPubSoc Europe decided to revamp the journal *Annali di Chimica* at the end of 2007. A change to a broader journal on sustainability was rather natural, as *Annali di Chimica* already had a strong tradition in publishing work on environmental issues.

The first issue of *ChemSusChem* appeared in 2008. The journal is dedicated to publishing the most important scientific developments towards sustainable chemistry and the materials of the future. These developments include fields such as carbon capture and storage, carbon dioxide chemistry, solar fuels and hydrogen generation (for example by water splitting), hydrogen storage, battery technologies, solar cells and other photovoltaic technologies, improved catalysts and materials based on earth-abundant metals, and renewable chemicals and fuels. The diversity of topics covered by the journal is expressed by the backgrounds of the members of the Editorial Board, of which Gabriele Centi (Univ. of Messina), Matthias Beller (Univ. of Rostock), and Licheng Sun (KTH Sweden, and Dalian University of Technology) serve as Chairmen.

The top papers selected for this compilation also reflect the breadth of topics the journal covers. The Review by Francesco Zaera covers a key technology for sustainability: catalysis. In catalysis not only the catalyst material is important, but in the case of heterogeneous catalysis the shape of the material also matters, as different facets of a catalytic particle may have very different reactivities. Tailoring that shape enables optimum use of resources and, in turn, improved processes. Another important topic of the journal is biomass conversion, and the Full Paper by Kostas Triantafyllidis et al. describes an improvement

in pretreating cellulose for subsequent enzymatic hydrolysis. The hydrothermal treatment leads to a larger surface area and pore volume, which gives the enzymes better access to the material and produce glucose. Finally, Xin-bo Zhang et al. report in their Communication on sodium-ion batteries; a rapidly growing alternative to lithium-ion batteries. They use nitrogen-doped porous carbons (abundant elements!) as anode material, improving characteristics such as reversible capacity, cycling stability, and rate capability.

We look forward to receiving your next excellent manuscript on sustainability!

New in 2014: ChemElectroChem



Start: 2014

Editor-in-Chief: Greta Heydenrych

Homepage: <http://www.chemelectrochem.org>

 @ChemElectroChem

March 2013 saw the doors open for submissions to the latest journal in the family: *ChemElectroChem*. As electrochemistry has grown and blossomed from a subdivision of physical chemistry into a universal topic of its own, it is no longer a niche area but a broad and flourishing research division. *ChemElectroChem* is dedicated to covering the entire scope of electrochemical research, including fundamental electrochemistry, energy storage and applications, photo- and bioelectrochemistry, electroanalytical applications, as well as a host of other related topics.

With an experienced in-house editorial team and a wealth of expertise coming from the editorial board, fronted by chairpersons Wolfgang Schuhmann (Ruhr-Universität Bochum), Bing-Wei Mao (Xiamen University), and Jean-Marie Tarascon (Université de Picardie, Amiens), *ChemElectroChem* is making great progress, having already received several hundred submissions from all over the world. Many articles are already available on Early View. The first issue of *ChemElectroChem* is set to showcase the research of its editorial board in a dedicated special issue out in January 2014. This is to be followed by a wealth of additional groundbreaking electrochemical research in further issues in 2014 and beyond.

In this special publication, we highlight two articles that have already been published in Early View. Firstly, a Communication by Editorial Board member Yu-Guo Guo and his co-worker Xiaosi Zhou (Chinese Academy of Sciences, Beijing) that focuses on the fabrication of a highly disordered carbon material for room-temperature sodium-ion batteries. Electrical energy storage is a crucial research area, as the design and fabrication of new energy-storage devices is likely to be instrumental in addressing some of the global concerns regarding energy shortages and other related environmental issues. Second is a Full Paper by Elena Savinova (ICPEES, Strasbourg) et al. that presents a scanning photoelectron microscopy study on a membrane-electrode assembly in a high-temperature polymer exchange membrane fuel cell (PEMFC). A phosphoric-acid-imbibed polymer membrane is studied in a PEMFC under polarization, allowing in-depth insight into the processes that occur within fuel cells. Although batteries and fuel cells represent areas of exciting growth, there is much more on offer from *ChemElectroChem*. With a mixture of Review articles, Full Papers, Concepts, Communications, and Highlights, *ChemElectroChem* is committed to publishing high-quality research on all aspects of electrochemistry.