

Editorial

Dear Readers of CHIMIA,



Frédéric R. Leroux

This special issue is dedicated to French faculty members in chemistry who received their education, or spent a considerable period in Switzerland as researcher and are currently leading a research team in France.

All the corresponding authors of this special issue received extensive training and acquired profound expertise in Switzerland which created the pathway for their successful and independent academic carrier in France, either as professors at renowned universities or as researchers at the French National Centre of Scientific Research (CNRS). We wish to express at this occasion our gratitude towards the Swiss National Science Foundation (SNSF) who made this experience to a large extent possible.

Switzerland has a very strong and long history in chemistry and chemical industry which is an attractive factor for students. The excellence of the Swiss universities and the ETH and EPFL has attracted, for many years, students all over the world but in particular from France. Although French students are very well trained, the difficulty to obtain PhD grants or post-doctoral fellowships made Switzerland an attractive choice for them.

This special issue in CHIMIA will showcase the research of 14 groups in France who have strong Swiss connections:

Thierry Achard joined the group of Prof. Jérôme Lacour at the University of Geneva as a post-doctoral fellow where he stayed between 2011–2014. He got then a permanent position at the CNRS in 2014 where he is working at the Institut de Physique et Chimie des Matériaux de Strasbourg. His research focuses on asymmetric synthesis (new chiral ligands) and catalysis using organometallic or coordination species. He reports in this special issue on ‘Advances in Homogeneous Catalysis Using Secondary Phosphine Oxides (SPOs): Pre-ligands for Metal Complexes’.

Gilles Hanquet was a post-doctoral collaborator of Prof. Albert Eschenmoser at the ETH Zürich from 1995 to 1996. He then joined the CNRS in 1996 where he is currently Research Director at the University of Strasbourg (ECPM). His research interests are in the field of total synthesis, the synthesis of biologically active compounds and asymmetric oxidation reactions. In this special issue he reports on ‘New Insights into the Synthesis and Biological Activity of Pamamycin Macrodilolides’.

Emmanuel Lacôte started in 1995 a joint PhD between the Université Pierre et Marie Curie (advisor Prof. Max Malacria) and the University of Fribourg (advisor Prof. Philippe Renaud), which he defended in 1999. He got a CNRS junior position at the Université Pierre et Marie Curie in 2000. Currently, he is CNRS Research Director in Lyon where he chairs a joint academic/industry department devoted to the chemistry of energetic compounds. His research interests lie at the interface of organic chemistry with materials science. His contribution deals with ‘Polymer-containing Organopoloxometalate: Towards New Catalytic Objects’.

Yannick Landais spent seven years as Maître Assistant (Assistant Professor) between 1990 and 1997 at the University of Lausanne. He is now full professor at the University of Bordeaux. His research interests are in organosilicon chemistry, organocatalysis, radical and organometallic chemistry, asymmetric synthesis and the synthesis of natural products. In this special issue he reviews ‘Free-radical Carbo-functionalization of Olefins Using Sulfonyl Derivatives’.

Frédéric Leroux joined the group of Prof. Manfred Schlosser at the University of Lausanne in 1998 as a postdoctoral fellow and got in the same year a position of Maître Assistant (Assistant Professor). In 2001 he moved to the Swiss Federal Institute of Technology in Lausanne (EPFL) as a Chargé de Cours and entered the CNRS in 2003. He is currently CNRS Research Director and Team Leader at the University of Strasbourg where he chairs a joint CNRS-Bayer laboratory. He is interested in asymmetric methodologies and fluorine chemistry. In this special issue, he reports on ‘Lithium/Element Exchange as an Efficient Tool for Accessing Atropo-enriched Biaryls via Arynes’.

Florence Mongin did a two-year stay at the University of Lausanne as a postdoctoral fellow with Prof. Manfred Schlosser between 1995 and 1997. She was appointed as Assistant Professor at the University of Rouen in 1997 and accepted a position as Full Professor at the University of Rennes in 2005. Her present scientific interests include the functionalization of aromatic compounds including heterocycles with recourse to mixed lithium-metal bases: see more in her article ‘Long-range Effect of Bromine in the Deprotonative Metalation of Aromatic Compounds’.

Florian Monnier did a postdoctoral stay from 2003 to 2004 in the group of Prof. Peter Kündig at the University of Geneva. After another postdoctoral fellowship, in industry, he obtained a permanent position as an Assistant Professor and then as an Associate Professor in 2012 at the Ecole Nationale Supérieure de Chimie de Montpellier. His present scientific interests include the development of Cu-complexes for diverse catalytic processes, the synthesis of biologically active compounds and the development of new organic methodologies mediated by Cu- or Fe-catalysts. In this special issue he gives a personal account on ‘From Ruthenium to Copper: A la carte Tools for the Synthesis of Molecules of Interest’.

Jean-François Nierengarten spent two years in the group of Prof. François Diederich at the ETH Zurich. He entered then the CNRS in 1996 where he is now CNRS Research Director at the University of Strasbourg. His research interests are oriented towards fullerene chemistry, dendrimers and their application in materials sciences and as bioactive molecules. In this special issue, he reports on 'From Pillar[n]arene Scaffolds for the Preparation of Nanomaterials to Pillar[5]arene-containing Rotaxanes'.

Cyril Ollivier joined Prof. Philippe Renaud's group at the University of Fribourg in 1996 for a PhD program in collaboration with the laboratory of Prof. Max Malacria (Paris VI) and received his degree in *cotutelle* in 2000. In 2002, he joined the CNRS at Aix-Marseille University. In 2007, he moved to UPMC-Sorbonne University in Paris where he develops asymmetric counteranion-directed organometallic catalysis, electron transfer reactions involving iron complexes and visible-light photoredox catalysis. In this special issue he reports on 'Tin-free Alternatives to the Barton-McCombie Deoxygenation of Alcohols to Alkanes Involving Reductive Electron Transfer'.

Florence Popowycz got her PhD with Prof. Pierre Vogel in 2003 from the Ecole Polytechnique Fédérale de Lausanne (EPFL) after working on mannosidase inhibitors. After a one-year post-doctoral stay in Geneva she moved to Lyon where she now holds a Full Professor position at the Institut National des Sciences Appliquées (INSA). Her main interests are devoted to the development of new synthetic methodologies and its applications to heterocyclic scaffolds. She reports on 'Nitrogen-functionalized Isohexides in Asymmetric Induction'.

Alejandro Perez-Luna performed a post-doctoral fellowship at the University of Geneva as a Lavoisier Fellow in the group of Prof. Peter Kündig. He got a permanent researcher position at the CNRS in 2004 at the Université Pierre et Marie Curie in Paris and is currently CNRS Research Director in this university. His scientific interests include the fields of metal-mediated synthesis, organozinc chemistry and asymmetric synthesis. He contributes on 'tert-Butanesulfinamides as Nitrogen Nucleophiles in Carbon-Nitrogen Bond Forming Reactions'.

Jean-François Poisson performed a post-doctoral fellowship at the ETH Zurich with Prof. Andrea Vasella from October 2000 to October 2001. He got a permanent researcher position at the CNRS in 2001 at the Université Joseph Fourier in Grenoble and accepted in 2013 a Professorship at the same university. His scientific interests include total synthesis and the development of novel synthetic methods. He contributes on 'Ynol Ethers: Synthesis and Reactivity'.

Adrien Quintard completed his PhD in 2011 under the supervision of Prof. Alexandre Alexakis at the University of Geneva. Since 2014, he holds a French CNRS permanent researcher position in Marseille. His research interests include the development of organometallic/organocatalytic enantioselective methodologies and application in natural product synthesis. He contributes an article on 'Recent Achievements in Enantioselective Borrowing Hydrogen by the Combination of Iron- and Organocatalysis'.

Eva Tóth joined in 1995 the group of Prof. André E. Merbach at the University of Lausanne as a post doctoral fellow and became in 2000 Maître Assistante (Assistant professor) followed by Chargée de Cours at the Ecole Polytechnique Fédérale de Lausanne in 2001. She joined in 2005 the CNRS as a Research Director at the Centre of Molecular Biophysics in Orléans, which she directs since 2012. Her research interest focuses on metal-based imaging agents, with a special emphasis on smart probes capable of giving an MRI response to biological cations, enzymes or neurotransmitters. In this special issue she contributes on 'Smart Contrast Agents for Magnetic Resonance Imaging'.

Finally, I hope that many future French students will have the opportunity to stay either for their studies, PhD work, post-doctoral fellowships or as a staff member in Switzerland. The international reputation and high geographical concentration of world top leading groups, the excellent working conditions, the generosity of Swiss people and the loveliness of the country contribute that such a stay will be an unforgettable and personality-forming period.

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The Editorial Board of CHIMIA would like to express its gratitude to Dr. Frédéric R. Leroux for his efforts in organising this special topic issue on 'The French Connection' illustrating the value of international cooperation in scientific research.