Dear SYNTHESIS readers,

It's both an immense honor and a pleasure for us to coordinate and to contribute to this Special Issue in honor of Professor Alain Krief for celebrating his 80th birthday. Prof. Krief is currently emeritus professor at the University of Namur (Belgium), adjunct professor at the University of Karachi (HEJ Research Institute, Pakistan) and an UNESCO research fellow at iThemba-Lab, at Cape Town (South Africa).

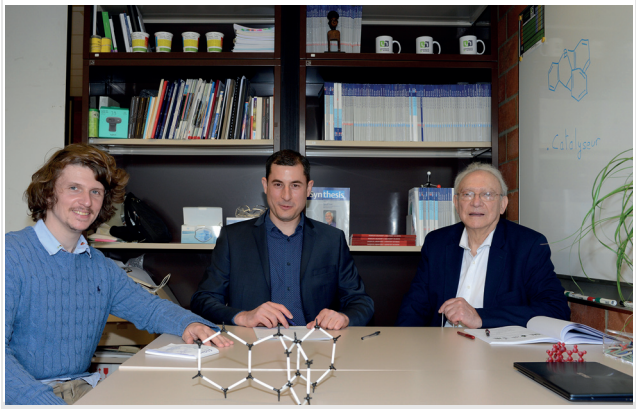
In 2015, a group of friends, Prof. Stephen A. Matlin (Imperial College London, UK), Prof. Goverdhan Mehta (Hyderabad University, India), Prof. Henning Hopf (Technical University Braunschweig, Germany) and Prof. Alain Krief created the think tank group (C4S: Chemists for Sustainability) to promote through publication in leading scientific journals, new ideas and attitudes especially on the transition to sustainable actions in science and particularly in chemistry. As described in the Preface of this special issue by Hopf, Mehta and Matlin, Prof. Alain Krief has very broad research interests, some of his favorites being linked with his postdoctoral work in the laboratory of E. J. Corey in the 70s, where he met at that time Prof. H. Yamamoto, one of the contributors of this special issue (see: *Regio- and Stereoselective (S_N2) N-, O-, C- and S-Alkylation Using Trialkyl Phosphates*, *Synthesis* **2022**, DOI: 10.1055/a-1504-8366).

Prof. Krief is currently involved in several research programs and published last year a full paper in *Chemical Synthesis* (*Chem. Synth.* **2021**, 1. DOI 10.20517/cs.2021.03) which was highlighted in the same journal by Profs. K. B. Sharpless and H. Yamamoto. Following his work on the reactivity of sulfur ylides and after the fortuitous discovery of on old bottle of selenium in his Namur laboratory, he initiated research projects on this topic at the time Sir Derek Barton, Prof. Barry Sharpless and Dieter Seebach were discovering unusual reactivity of organoselenium reagents. His original work in the field was the starting point of 40 years of fruitful investigations and success in the field or organoselenium chemistry.

In this special issue, sulfur and selenium chemistry is well represented with research articles on sulfur-based chiral iodoarenes (*Synthesis* **2022**, DOI: 10.1055/a-1508-9593), selenenium-bridged boratriptycene Lewis acids (*Synthesis* **2022**, DOI: 10.1055/a-1840-5680) and crystal structures of organoselenium compounds (*Synthesis* **2022**, DOI: 10.1055/a-1921-8664).

Professor Alain Krief was also a pioneer in chemoinformatic as he initiated projects aimed at the development of an electronic encyclopedia of organic synthesis; a search engine able to describe on the GUI of a computer the contextual chemist perceptions on chemical structures; a missing electronic chemical dictionary; and adaptation of collaborative tools to chemical problems. This led him to work, supported by EU funding, with computer scientists, IT researchers, telecommunication engineers, linguists, philosophers, and psychologists. He has been visiting Professor at Université Libre de Bruxelles (Belgium), University of Reims, University of Strasbourg (France), University of Bochum, University of Giessen, University of Hamburg, University of Hohenheim, University of Stuttgart (Germany); Technion, Haifa, (Israel), Japan Society for the Promotion of Science (Japan), University of Karachi (Pakistan) and French-speaking Swiss Universities (Switzerland). He also created and organized international organic chemistry congresses such as the "Belgian Organic Synthesis Symposium" (BOSS, with Profs. G. L'abbé, P. Decercq, L. Ghosez, J. Nasielski, M. Vanderwalle, H. Viehe, and later I. Marko), the "European Symposium on Organic Chemistry" (ESOC) and has been chairman of the 40th Bürgenstock Conference in 2005.

Professor Alain Krief is a highly respected scientist with an impressive and large scientific production. Till today, his knowledge and passion for chemistry are still a source of inspiration for young scientists and he is still present at scientific meetings at UNamur and always ready to help students to prepare an oral or a PhD defense, or even set up a crystallization in the lab!



Dr. Aurélien Chardon is a FNRS post-doctoral researcher ('chargé de recherche') in the group of Prof. Berionni. In 2021, he was recipient of the prestigious Incentive Grant Award from the Belgian Chemical Societies KVCV/SRC for his postdoctoral work on non-planar organoborons Lewis acids.

Prof. Guillaume Berionni received in 2010 his PhD from the University of Versailles (Lavoisier Institute) for his research on physical organic and supramolecular chemistry under the supervision of Prof. F. Terrier and Prof. R. Goumont. He then moved to the Ludwig Maximilian University of Munich as a Humboldt postdoctoral researcher under the guidance of Prof. Herbert Mayr and Prof. P. Knochel. Since 2018 he is Professor of chemistry at the University of Namur (Belgium). He is actively involved in teaching, especially at the master's level. Prof. Guillaume Berionni has been recently awarded a Belgian National Fund for Scientific Research grant (Fonds National de la Recherche Scientifique, FNRS) and an ERC consolidator grant under the Horizon Europe research and innovation programme of the European Research Council.

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This two-part special issue to celebrate the 80th birthday of Prof. Alain Krief, published in two subsequent volumes of SYNTHESIS and in a special online virtual collection, is gathering nearly twenty articles and reviews from researchers from ten different countries, with a significant representation from the current organic chemistry in Belgium. The special issue started at the time when Prof. Paul Knochel was the Editor-in-Chief of SYNTHESIS and has been continued with Prof. Mark Lautens and Prof. Martin Oestreich and all editorial members from *Thieme Chemistry*, which we would like to thank, as all the authors and contributors.

The 80th birthday of Prof. Alain Krief will be celebrated at the University of Namur with a one-day symposium of chemistry organized by Prof. Stéphane Vincent (University of Namur) covering all aspects of organic chemistry with six world renowned speakers: Prof. Davide Bonifazi (University of Vienna, Austria); Prof. Janine Cossy (ESPCI, Paris, France); Prof. Véronique Gouverneur (University of Oxford, UK); Prof. Jean-Marie Lehn (University of Strasbourg, France); Prof. Annemieke Madder (Ghent University, Belgium) and Prof. Ilan Marek (Technion – Israel Institute of Technology, Israel).

In the name of our colleagues from the chemistry department, of all the contributors of this Special Issue of SYNTHESIS which includes numerous of his former students, colleagues, and friends, we would like to wish you a happy birthday and all the best for the future, especially a good health for you and your family.

Best wishes,

Dr. Aurélien Chardon and Prof. Guillaume Berionni

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