

Editorial



Two years ago, I had the privilege to write my first editorial introducing young talent in Swiss University Departments of Chemistry. Once again, I am able to introduce another new dawn in scientific distinction within Switzerland. In this issue, we hear from seven Young Professors and Ambizione Fellows. As ever, the demands on early career scientists meant that not all those whom I invited to contribute were able to do so. Nonetheless, the issue provides a representative geographical distribution and gender balance among young faculty, as well as a range of cutting-edge research topics.

Murielle Delley describes progress in the field of transition metal phosphides and sulfides as catalysts for chemical transformations; these inorganic materials exhibit high catalytic activities but at the same time, Murielle and her coworker observe different selectivities compared to noble metal catalysts. **Ross Milton** continues on a theme of catalysis, with a focus on metalloenzymes that catalyse reactions including N_2 reduction to NH_3 or proton reduction to H_2 ; in his concluding remarks, Ross addresses the question of whether metalloenzymes might be applied in new biotechnologies. **Alexandria (Ali) Deliz Liang** provides a thought-provoking overview of the methodologies used in her laboratory for studying the site-selective incorporation of noncanonical amino acids (ncAAs) into proteins; this is clearly a challenging area as detailed by Ali and her coauthor who also provide insight into future prospects in the field. The research group led by **Dmitry Katayev** focuses on the development of organic nitrating reagents, thereby breaking away from the paradigm of inorganic nitrating agents; the applications of electrochemical and mechanochemical techniques add to the exciting ways forward in nitration chemistry. SNSF Ambizione Fellow **Jutta Toscano** takes us into the realms of interstellar space; she describes ground-breaking investigations in which she is able to measure rate constants and product branching ratios as a function of the rotational excitation of the neutral species in ion–molecule reactions resulting in C–O and C–C bond formation. All-things-chiral are at the heart of the research projects of **Malte Oppermann**. By using time-resolved circular dichroism spectroscopy, Malte advances molecular chirality to the ultrafast time domain, enabling innovative investigations of chiral photoactive species. The final contribution comes from the group of **Takuji Adachi** and delivers insight into applications of *in situ/in vivo* optical microspectroscopy; their challenging goal is to unravel macroscopic form from microscopic level molecular information.

As you delve into this issue of CHIMIA, I am sure that you will enjoy exploring the diverse research interests of some of our newest colleagues in chemistry within Switzerland.

Catherine Housecroft
Editor-in-Chief, CHIMIA