Happy New Year, Organic Materials!

Three years ago, in 2019, an idea called Organic Materials was born as the new Open Access journal launched by Thieme. In this editorial, we would like to outline the development of this journal and highlight some of the scientific contributions that represent its milestones. I, Michael Mastalerz, was recruited by Thieme in 2018 to become the Editor-in-Chief of the journal and, since then, together with my colleagues Pol Besenius and Xiaozhang Zhu, in their role as Associate Editors, have been working to shape the format and scientific scope of Organic Materials to represent all the chemists interested in the synthesis of materials, the study of their properties, and the applications of new “home-made” compounds.

Looking back at the launch of the journal we can say that the community accepted our concept and within the first issue (https://www.thieme-connect.com/products/ejournals/issue/10.1055/s-009-44931) in 2019, high-quality contributions from well-known and leading groups from all over the world were published. The first contribution to the journal came from Uwe Bunz and co-workers, who wrote a review on starphenes and phenes, the larger hydrocarbon congeners of well-known acenes, which highlights the organic synthetic approaches to this class of processable organic materials with tunable optoelectronic properties.[1]

With the beginning of 2020, and despite the challenges associated with the ongoing pandemic in all areas of social and scientific life, we kept developing the journal. As it was hard to fill the gap left by the absence of symposia and conferences, we started to organize virtual focus sections on specific hot topics of organic materials. In fact, the first two focus sections published in Organic Materials were “Structure to Function in Supramolecular Polymers and Materials” (https://www.thieme-connect.com/products/ejournals/category/075677/10.1055/s-00040992) and “Curved Organic π-Systems” (https://www.thieme-connect.com/products/ejournals/category/073308/10.1055/s-00040992), both were supposed to be associated with conferences that in the end had to be postponed due to the pandemic. Among the great contributions in those issues, the first Practical Review from Palmans, Vantomme, Meijer, and co-workers was published.[2] The idea of Practical Reviews is new, and authors are asked to provide a clear overview of the state of the art and the key synthetic or experimental details, as well as challenges of a cutting-edge topic for the readership of Organic Materials. In the Meijer contribution,[2] key strategies to control the length of supramolecular polymers were covered. Whereas in covalent polymer chemistry, modulation of sequence and control over chain length are routinely used to fine-tune the properties of macromolecules, the same principles are still not fully elucidated for supramolecular (co)polymers. The Practical Review brings forward guidelines and classifications to assess and control molecular weights. In order to highlight the practical nature of this Practical Review, the authors have also included Matlab scripts, which allow the reader to apply simulations based on thermodynamic parameters to their own supramolecular polymer systems. In the same issue, the first Original Article that included video content was published. The teams of Schrettl and Weder reported mechanoresponsive luminescent elastomers that change their fluorescence color or intensity upon deformation.[3] The videos provided in the article show that the polyurethane materials are able to facilitate and visualize simple strain detection through optical signals.

Only some time afterwards, a contribution from German colleagues and the group of Würthner has been highlighted by Timothy Swager in the materials section of Synfacts.[4] In their Original Article, Würthner and coworkers reported the synthesis of perylene bisimide (PBI) based cyclophanes, and investigated a series of linker lengths to evaluate interchromophore separation dependent exciton coupling strengths between the coplanar PBI units, as well as structure-property relationships such as reduced fluorescence lifetimes in cyclophanes with smaller π-cavities.[5] The Swager group themselves presented an Original Article, which with 4425 accesses ranks as the most accessed article in 2020. In this contribution, Swager and his team described the preparation of bowl-shaped acceptor molecules and donors which bind to form lock-and-key supramolecular complexes.[6] A library of tailor-made donors allowed the authors to investigate exciplex formation for thermally activated delayed flu...
orescence, with tunable emission colors in organic light-emitting devices (OLEDs).

In 2020, 11% of the contributions published in Organic Materials originated from research groups in China, a proportion that has increased in 2021 and is expected to grow in the coming years. One relevant contribution from China comes from Meixiang Wang’s group from Tsinghua University. They reported a theoretical study that estimated strain energies of conjugated and partially hydrogenated hydrocarbon belts and the corresponding heteroatom-embedded analogs. The results are important for the synthesis of zigzag molecular belts that are highly challenging and have been targeted since 1983.[7] Another important contribution to the journal came from Jian Pei’s group from Peking University and it summarized the current progress on the molecular doping of conjugated polymers and their applications in organic thermoelectronics. The excellent review paper provides valuable guidelines towards highly efficient chemical doping.[8]

Many more interesting contributions from all over the world have made Organic Materials the stimulating platform it is today. Thanks to its focused scope and its Open Access model, Organic Materials offers specialized and easy-to-discover scientific content! We hope that the community around this journal will continue to grow and will be able to share valuable information that contributes to the development of our society.

I, Michael Mastalerz, feel that my role as Editor-in-Chief of Organic Materials is to serve the community and support all scientists who want to contribute to the journal by making the whole process from submission to publication as convenient and fair as possible. Thus, I invest time to choose the appropriate reviewers, who are interested in the work but are not biased or direct competitors. I believe that only reviewers who are interested in the content of a manuscript, and do not see the whole process as a “burden”, will deliver a strong and reliable report, on time. Currently, the peer-review process has become very fast, and the quickest so far took less than one day to get two comprehensive reports. Needless to say, we aim to keep these high standards and we are very grateful to all the authors, reviewers, and our high profile twelve-member international advisory board (https://www.thieme.de/de/organicmaterials/organic-materials-advisory-board-136547.htm), who make this possible. Since we, the Editors, are active researchers, we understand what authors expect from the editorial process; besides scientific fairness, it is the quality of the publications paired with short times from submission to publication. We are looking forward to further high-quality contributions from the quickly growing community of Organic Materials.

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References