Preface

Organic synthesis in flow for medicinal chemistry

Within the last decade, flow chemistry has matured from a specialist method to a frequently used tool in organic synthesis. The principles of flow chemistry are known for a long time, but have typically been applied in manufacturing of bulk chemicals. The availability of commercial equipment to carry out small and medium scale reactions in the laboratory has clearly triggered lots of the current research. Advantages of flow chemistry such as facile mass- and heat transfer, the ability to safely handle hazardous compounds or intermediates, the ease of photochemical transfor-mations and the power to use unusual reaction conditions (high temperatures and pressures) has prompted also pharmaceutical industries and regulatory institutions to include flow chemistry reaction steps in the development and in the production of pharmaceuticals.

All the valuable publications to this Symposium-in-print issue give a glance of the current state-of-the-art in this area, where the contributions from industry and academia are inspired from the advanced techniques in flow chemistry allowing to take precise control over reactions and their outcome. The demonstration of the synergistic impact which flow chemistry has on medicinal chemistry is further highlighted by the review on multistep flow syntheses, which is part of this Symposium-in-print. Being an efficient and very powerful tool, flow chemistry will be further integrated in medicinal chemistry and also be applied in the routine production of pharmaceuticals in the future.

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