

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/id/eprint/106693/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Wirth, Thomas 2017. Organic synthesis in flow for medicinal chemistry. *Bioorganic & Medicinal Chemistry* 25 (23) , p. 6179. 10.1016/j.bmc.2017.11.013

Publishers page: <http://dx.doi.org/10.1016/j.bmc.2017.11.013>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies. See <http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



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 transformations 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.

Thomas Wirth
Cardiff, July 2017

E-mail address: WirthT@cardiff.ac.uk