

## Conference announcement

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# 4th International Conference *Implementation of Microreactor Technology in Biotechnology (IMTB 2017)*, Bled, Slovenia, April 23–26, 2017

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Microreactors and miniaturized unit operations have changed the paradigm of chemical process development and several reports on industrial implementation show that microscale devices have also moved from laboratories to large scale productions. A holistic approach in process design was introduced and operation windows in chemical processing have been significantly extended by using microflow systems. The benefits of microscale operation have also influenced the design and efficiency of analytical devices used in medicine, biological and (bio)chemical analysis, as well as in process control.

On the other hand, introduction of microreactor technology in biotechnology took place on a slower path. However, recent trends in the biotechnology, pharmaceutical and fine chemicals industry towards continuous and integrated production clearly shows the need to also use micro- and meso-flow systems for bioprocess intensification.

The main goal of the series of conferences on the implementation of microreactor technology in biotechnology (IMTB) is to promote the introduction of this sustainable technology in bioprocessing. The conferences aim to provide a platform for people from industry and academia, working in the cross-section of microfluidics, life science, analytics and bioprocess engineering. The interdisciplinary feature of the IMTB conferences enables participants to present and discuss their latest results, developments and strategies within these complementary fields and to integrate them to gain new improvements for industrial implementation.

This event is a sequel of the IMTB 2010 Conference held in Ljubljana, Slovenia, in September 2010, the IMTB

2013 Conference, which took place in Cavtat, Croatia, in May 2013, and the IMTB 2015 Conference, which was held in Opatija, Croatia, in May 2015. Organizers of this conference series are collaborative research groups from the Faculty of Chemistry and Chemical Technology of the University of Ljubljana, Slovenia, and the Faculty of Chemical Engineering and Technology of the University of Zagreb, Croatia.

The 4th edition of the international conference IMTB 2017 will take place from the 23rd to 26th April 2017 in the picturesque town of Bled in Slovenia. It will be organized under the auspices of the Section on Applied Biocatalysis of the European Federation of Biotechnology and with the support of the COST Action CM1303 “Systems Biocatalysis”, which will merge this event with their action on process intensification.

Invited prominent speakers from leading research institutions and industry together with participants of various backgrounds including chemical, mechanical and electrical engineering, medicine, pharmacy, chemistry, biochemistry, microbiology and biotechnology, will present their recent achievements in the field of enzymatic microreactors, cells within microdevices, analytical microdevices and bioprocess intensification and integration within microdevices. The following invited speakers have already confirmed their presence at the IMTB 2017 Conference:

- Prof. Marko Mihovilovic, Technical University Wien, Austria
- Prof. Florian Hollfelder, University of Cambridge, UK
- Prof. Michal Přibyl, University of Chemistry and Technology, Prague, Czech Republic
- Prof. Jennifer Littlechild, University of Exeter, UK
- Prof. Jochen Büchs, RWTH Aachen University, Germany
- Prof. Manabu Tokeshi, Hokkaido University, Japan
- Prof. Brian Paul, Oregon State University, and Micro-products Breakthrough Institute, USA.

Furthermore, several oral presentations of interesting research results and practical applications will be selected

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among the submitted abstracts and presented within the following sessions:

- Enzymatic microreactors: multiphase systems, enzyme immobilization, kinetic studies, multistep enzymatic reactions
- Cells within microdevices: microbioreactors for cell culturing, whole-cell biotransformations within microreactors, microfluidic high-throughput screening, stem cells
- Analytical microdevices: monitoring of bioprocesses, analysis of biomolecules, cell analysis, medical diagnostics, microarrays,  $\mu$ TAS
- Bioprocess intensification and integration: bioprocess intensification, downstream processing, Lab-on-a-chip, bioprocess modeling, microreactor technology across the scales.

Papers not allocated for oral presentations will be presented in poster sessions and the best poster award will

be given. The deadline for abstract submission is the 10th February 2017. Abstracts should be sent by e-mail to [imtb2017@fkkt.uni-lj.si](mailto:imtb2017@fkkt.uni-lj.si) and information about abstract allocation will be given by the 27th February 2017. Selected papers will be invited to be published in a special issue of one of the renowned journals in the field.

The IMTB 2017 Conference will be held at the Grand Hotel Toplice, which has been known to host the most demanding protocol, social, business and education events. The conference rooms are infused with the character, history and the tradition of the hotel. The atmosphere is particularly pleasant thanks to natural light and magnificent views of Lake Bled, sheltered by picturesque mountains and with an island in the middle of it.

More information about the IMTB 2017 Conference can be found at <http://imtb2017.fkkt.uni-lj.si>.

We encourage you to present your work and to participate in this exciting event and we look forward to welcoming you at the IMTB 2017 Conference in Bled in April 2017!



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MICROREACTOR TECHNOLOGY  
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4<sup>TH</sup> INTERNATIONAL  
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