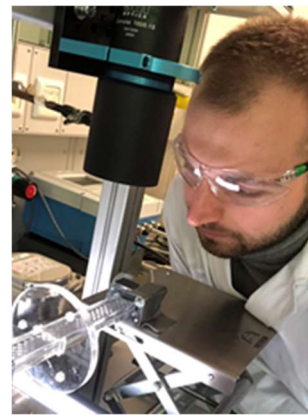


Establishing Micro- and Millireactors worldwide

Gas-Liquid Flow Patterns in a Rectangular Milli-Structured Channel with Static Mixing Elements

Flow patterns and their transitions were determined for a milliscaled rectangular channel with a staggered herringbone-like static mixer. Three different flow patterns – surge flow, slug flow, and bubbly flow – were observed. Depending on the fluid properties, the transitions between these flow patterns occur at different flow rates. It was shown that slug flow is the dominant flow pattern in water-nitrogen systems and bubbly flow only occurs at high liquid flow rates and low gas contents, while surge flow occurs at gas contents over 50 %.

A detailed and systematic study of mass transfer behavior was done by our PhD student Jan-Niklas Denker. Please read about details in the [publication](#).



Miprowa Lab reactor – New design with enhanced handling

Our master in heat transfer got a new design. The Miprowa Lab is now equipped with eight T-sensors, which offer a perfect temperature profile over the whole reaction distance. Because of the new method of construction, the handling is a lot easier in several terms. Following you will find some of the latest benefits:

- T-sensors are more corrosion resistant
- customers can disassemble the T-sensors
- Improved compact fluid management
- Reduced dead volume
- Automatic venting at start-up
- Resistance for higher pressures
- Simplification of cabling and connections
- Less different sealings and easier handling
- Less screws for opening
- More flexibility on the base plate
- Modified mixing inserts
- Injection nozzles are now available
- Multiport for injecting is standard with every Miprowa Lab



Chemspec Europe – Frankfurt

Please, do not miss the opportunity to meet us finally in person. We will be delighted to show you our latest improvements. Place will be the Messe in Frankfurt and you will find us at booth D77 from 31st of May until 1st of June. Have a look at the new designed Miprowa Lab and talk to us about your challenges and requirements.

You don't know, if your process would benefit from the transition to flow chemistry by using microreaction technology? We will assist you with our experience and support you with workshops and proof of principle studies. See you there!



If you have any questions, we will be pleased to answer them by phone, email or in a personal meeting. Visit us under www.ehrfeld.com to obtain an initial impression of our technology.

Or meet us in person at the next events:

Chemspec Europe, booth E76
31st of May – 1st of June 2022 in Frankfurt, Germany



ACHEMA, hall 9.1 booth F12
22nd of August – 26th of August in Frankfurt, Germany



In case of further questions, please do not hesitate to contact us:

info@ehrfeld.com

+49 6734 91546-0

Kind regards,
Anne Kaaden

Mikroforum Ring 1, 55234 Wendelsheim, Phone: +49 (0)6734 91546-0, info@ehrfeld.com
Geschäftsführung: Dr.-Ing. Joachim Heck, Sitz der Gesellschaft: Wendelsheim, Amtsgericht Mainz HRB 33094
www.ehrfeld.com

If you do not wish to receive e-mails from us please send an e-mail with the subject 'unsubscribe' to anne.kaaden@ehrfeld.com