

## Establishing Micro- and Millireactors worldwide

### “Personal Contact” in Present Time

This year turned out to be quite difficult regarding personal contacts. Because of not happening conferences, fairs and business trips, we miss the personal contact to our customers a lot. Even more, we very successfully compensate this gap as effectively as possible. This means it would be a great pleasure to talk to you via video conference, to share information or to explain presentations in detail. So, if you have questions or just interest in this future orientated technology platform of micro- and millireactors, please do not hesitate to contact us for a further appointment!



### Cartridge Reactor F200 - Synthesis of PEF

LIKAT recently made progress on the way to the industrial synthesis of PEF (Polyethylene furanoate) a plastic with properties similar to PET (Polyethylene terephthalate). Achieved from bio-organic and thus renewable raw materials by shifting the reaction conditions for the synthesis of an important intermediate product to a significantly “milder” pressure and temperature range using a new catalyst and the use of micro reaction technology.

The intended use of the Cartridge Reactor F200 is to lead a process fluid through a bed of solid particles at a defined temperature. The particles are filled into a cylindrical cartridge which can be easily removed, even when the module is fixedly installed in an experimental set-up. The flow through can be from bottom to top of the cartridge or vice versa just as is most suitable for the process. The temperature of the reaction is controlled by a flow of heat transfer fluid through the module. The integrated Pt 100 temperature sensor measures the temperature in the process fluid directly at the upper end of the cartridge. For more detailed information please follow the [link](#).

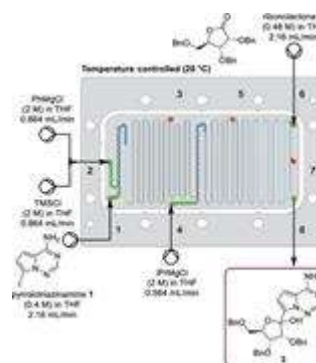


### Future Remdesivir Manufacturing in FlowPlate Technology

As remdesivir is the first approved treatment for COVID-19 (SARS-CoV-2), its production is likely to be of vital importance in the near future. Continuous flow processing has been demonstrated as a key technology in the manufacturing of highvolume active pharmaceutical ingredients and is considered for use in this synthetic



sequence. In particular, the challenging Cglycosylation of a pyrrolotriazinamine via metal–halogen exchange was identified as a transformation with significant potential benefit, as exemplified by calorimetric analysis of each reaction step. Multiple simplifications of this process were attempted in batch but in general were found to be unfruitful. The five-feed process was then transferred to a flow setup, where specific conditions were found to prevent solid formation and permit stable processing. Detailed optimization of stoichiometries provided an improvement upon batch conditions with a total residence time of <1 min. Read about more details [here](#).



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](http://www.ehrfeld.com) to obtain an initial impression of our technology.

Or meet us in person at the next event:

Chemspec Europe, booth E76  
19<sup>th</sup> – 20<sup>th</sup> of May 2021 in Cologne, Germany



ACHEMA, hall 9.1 booth F12  
14<sup>th</sup> – 18<sup>th</sup> of June 2021 in Frankfurt, Germany



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

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Kind regards,  
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