

## **Establishing Micro- and Millireactors worldwide**

#### **Production reactor in Worldscale dimension**

Implementing and scale-up of the technology platform micro- and millireactors is based on established equipment concepts with an analogy to tube-bundle heat exchangers and to plate heat exchangers. Process of scale-up to millimeter scale is done for meeting demands of robustness of production plants in a ton's scale. Channel geometries will be same as later in production scale, which is leading to an incredible fast scale-up. Visible Lighthouse Reference is the first Miprowa® Millireactor in production of up to 10,000 t/a and an inner volume of 40 liters commissioned in 2016. A former process did run in about 20 batch reactors with an overall volume of 50 m³. Just two years after start-up of the first production reactor we had a capacity increase of two additional production millireactors with a start-up in November 2018. These three millireactors are now running with a throughput of up to 30,000 t/a.

Next step is now a production millireactor with the even doubled capacity running at a throughput of up to 20,000 t/a with an inner volume of 80 liters (see picture). In total we will meet the worldscale dimension of more than 100,000 t/a using Miprowa® millireactors in 2023.



#### **Production validation unit in South Korea**

Chemisky received and successfully installed a production validation unit using Miprowa Matrix. With this unit Chemisky will provide scale-up services to existing and future customers. Miprowa Matrix devices will actively support our way to establish the platform of micro- and millireactors in South Korea and worldwide.



### Christmas time and end of the year

We wish you, your colleagues and your loved ones a very happy Holiday Season and a successful New Year. Warmest wishes from the Ehrfeld-Team!



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

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Kind regards,

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