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and

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Analytical Chemistry
Chemical Research
Industrial Chemistry
Medicinal Chemistry
Polymers and Colloids

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SACC Swiss Association of Computational Chemistry
SGLUC Swiss Soc. of Food and Environmental Chemistry
SGMS Swiss Group for Mass Spectrometry
VSN Swiss Association of Science Teachers

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GSASA Ges. Schweiz. Amts- und Spitalapotheker
SACC Schweiz. Arbeitsgemeinschaft für Computerchemie
SGLUC Schweiz. Ges. für Lebensmittel- und Umweltchemie
SGMS Schweiz. Gruppe für Massenspektrometrie
VSN Verein Schweiz. Naturwissenschaftslehrerinnen und -lehrer

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Leserdienst Nr. 1

Microreactor Technology in Siegfried's API Manufacturing

Siegfried has added a Microreactor Laboratory to its technological toolbox. Depending on the demands of the reaction being checked, the team is able to quickly assemble the necessary reactor and infrastructure configuration. A new candidate can be checked for feasibility quickly. Moreover, if the feasibility proves positive one of the major strengths of the MRT concept comes into play: there is no scale-up delay. The installation is moved to the kilo-lab and the reactor is just run for the required time to produce the first kilos. This can be done without having to change anything besides the size of the feed tanks and the re-

ceiver for the product solution. Siegfried believes that this technology will increasingly appear in the chemical and pharmaceutical industry, adding its benefits, and become as common as stirred tanks.

Reactions best suited for a conversion using MRT technology show the following attributes:

- fast
- mixing controlled
- exothermic
- with a narrow temperature „window“ for best results

- safety concerns asking for high investments if done in conventional reactors

Reactions that ask for fast „mix – react – cool – quench“ sequences are therefore preferred – even for unstable intermediates as follow up reactions can subsequently be performed within seconds.

Siegfried when substance matters