

MicroReaction Technologies

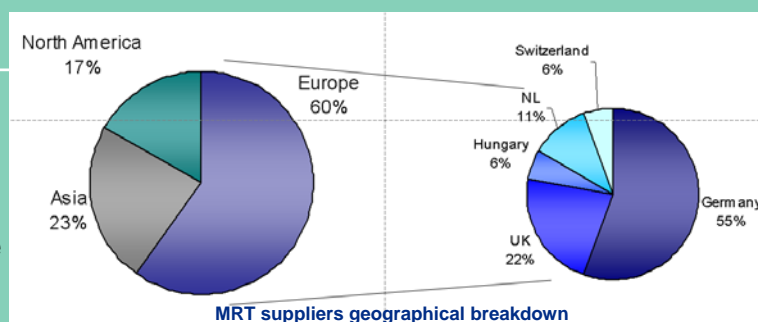
Microtechnologies for chemical process intensification

UNIQUE REPORT
DESCRIBING MRT MARKET

MicroReaction Technology (MRT), a solution for process intensification, is evolving from R&D lab use to chemicals production, leading to new products and new companies' strategies, which widen technology possibilities and increases users' number.

The change of paradigm from batch production to continuous flow is occurring. Indeed, 20 to 30 chemical plants are now running with microstructured elements. Large chemical and pharmaceutical companies are increasingly considering MRT as a process intensification solution to solve some of their current processing problems for lab research and debottlenecking production.

The current market for microreaction products is low, but exponential potential is forecasted in the coming years, provided that proof of technical and economical efficiency drives the change of paradigm.



Currently, microreaction modules sold as stand-alone modules account for 50% of the market, the other half being the sale of integrated systems. Fine & specialty chemicals businesses represent the largest part of MRT market which is today at its beginning. The wider use of MRT is going behind fine & specialty chemicals frontiers to pharmaceuticals, commodity chemicals and petrochemicals. Major MRT players as the Institute fur Mikrotechnik Mainz (IMM) and its spin-offs CPC, Mikroglas, Ehrfeld BTS, but also Syrris and Velocys are ever gaining new customers. However, new players are entering the market presenting new offers.



- TO UNDERSTAND MRT MARKET STATUS AND EVOLUTION
- TO GET TO KNOW PRODUCTS, SUPPLIERS AND USERS

- How is MRT going from lab to production: players involved, products, examples of realizations
- What are the key know how of MRT suppliers?
- What are key success factors to succeed in MRT market?

The report presents the industry status of microreaction market, with players, their business models, products but it also describes the applications of the technology and the status of involvement of the fine chemical and pharmaceutical industry in this technology.

Who should buy the report:

- **Executives of companies active in the development of microreaction products or assessing their entry in this field**
- **Executives of engineering companies, that could broaden their process intensification offer with microreaction**
- **R&D managers or Production leaders of chemical companies, that want to discover a new technology (products, players, market)**

Bio

Barbara Pieters was granted a master degree of industrial marketing and a master degree in chemistry.

Working with Yole for 3 years, she is in charge of the market analysis in the fields of microreaction and nano-materials.



Companies in the report

Akzo Nobel, Atotech, BASF, Bayer, Bristol Myers Squibb, CEA, Cherts Industry, Clariant, Corning, CPC, Degussa, Dow Chemical, DSM, Dupont, Eli Lilly, Ehrfeld BTS, FDA, Forschung Zentrum Karlsruhe, Fraunhofer ICT, Glaxo SmithKline, Heatric, IMM, Institute for Microchemical Technology, Kyoto University, LG Chem, Lonza, L'Oréal, MCPT, Merck, Mikrogas, Mikroinnova, MIT, Modular Block, Pfizer, Procter & Gamble, Rhodia, Roche, Rohm & Haas, SAFIC, Schering, Siemens, Sigma Aldrich, Stevens Institute, Synthacon, Syntics, Syrris, Takada Pharmaceuticals, Technical University Chemnitz, Thomas Swan, Tokyo University, Uhde, Velocys...

- Report: Microreaction Technologies (MRT) -
A tool for process intensification
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- Author: Barbara Pieters



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