

Flow Micro Reactor

Features

- Up to 20 reactions can be performed using a small amount of sample.
- Reactions are performed more efficiently in a micro space.
- A hastelloy material is available for acid reactions.

Overview

(Technical principles, actions, etc.)

'Microreactor System x-1 with automatic search of the optimum reaction conditions featuring a continuous flow reaction method was newly developed as an alternative to conventional batch reactors. It will speed up new syntheses and prototyping. The system automatically performs reactions under 20 reaction conditions, obtains the optimum reaction conditions in a short time, and synthesizes samples of 100 g or more by continuously operating the system under the obtained optimum conditions.

Main features:

- The system automatically collects samples under up to 20 conditions to obtain the optimum reaction conditions for synthesis in a short time.
- Cleaning of the channel is fully automated for accurate synthesis.
- The size of the system itself is successfully reduced. The system is installed easily in a standard fume hood.
- Possible to give a response to optical reaction! 'Optical Response System L-1' is an optical response mechanism heating unit featuring customizable wavelengths.
- New feature! It is possible to save about 80% of dead volume! The feature substantially reduces reagent use. (Compared with our products: It varies depending on the condition.)

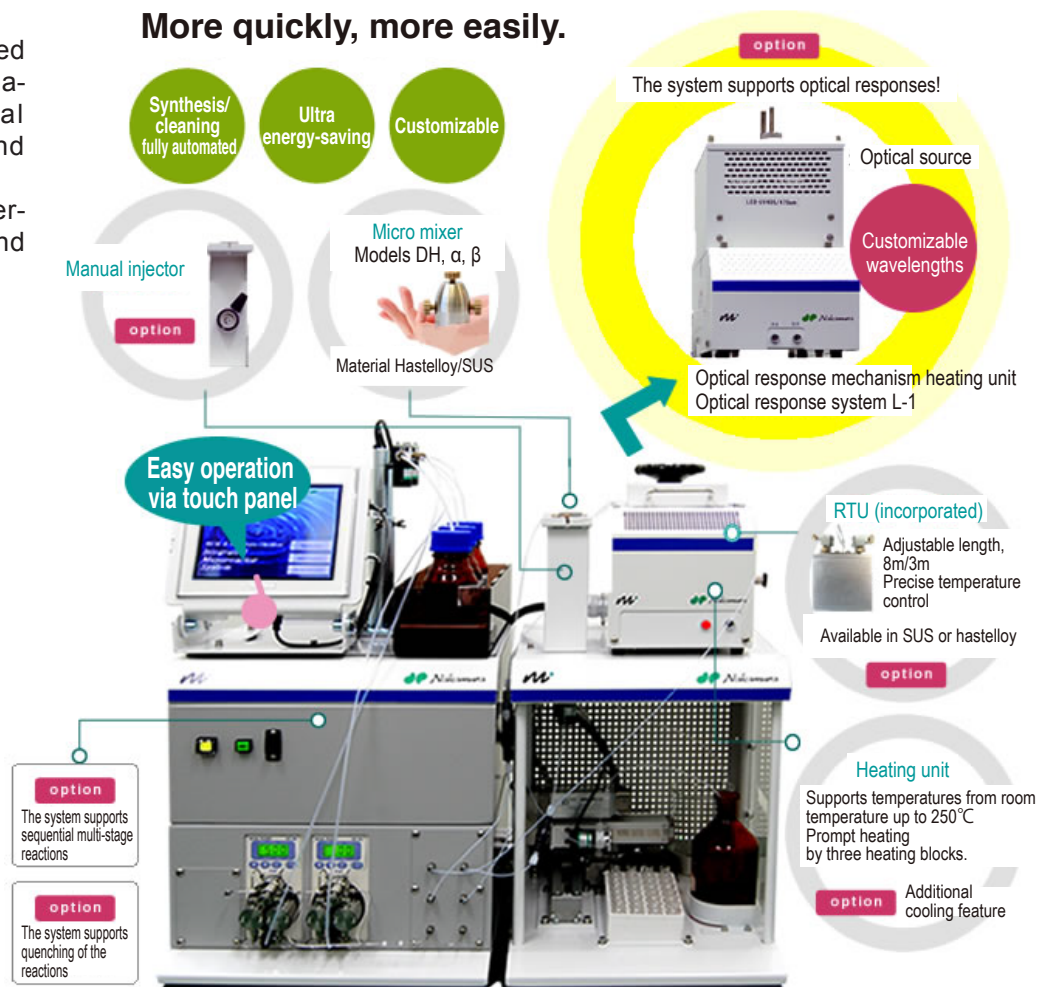
Introductory Track Record

- The system has been introduced at domestic laboratories, pharmaceutical companies, chemical manufacturers, universities and colleges. It has also been introduced overseas in Singapore, Australia and other countries.

Effects

- A microreactor refers to a flow-reaction chemical production process that performs chemical reactions in a micro space from dozens to hundreds of μm . Replacing the conventional batch system with a continuous flow system using the microreactor will eliminate investment in large-scale facilities and drastically reduce energy consumption. It is also highly safe.

More quickly, more easily.



Applicable field
(i) Organic synthesis
(ii) Medical

Water

Energy saving/Energy recovery

Energy storage/Energy creation

New energy

Waste disposal/
Recycling/
Resource saving

Air

Soil

Other

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