

Microreactor Technology

From “Batch processes” for producing a large volume at a time to microreactors for producing small quantities with a continuous flow method

Conventional batch process reactor

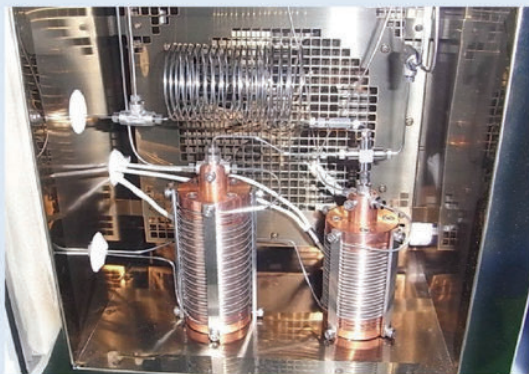
- Large-scale production equipment (20,000 liters) that requires a huge building
- Suitable for large-volume production of pressure-sensitive adhesives and functional materials



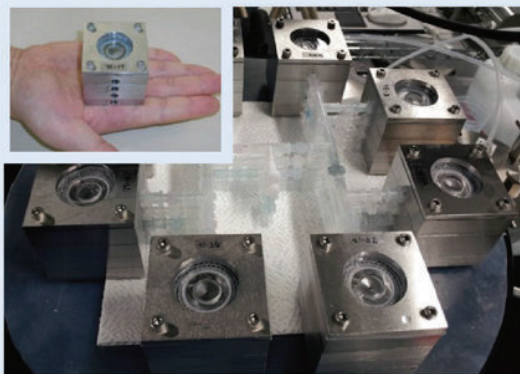
Microreactor type continuous flow reactor

Soken's original microreactor that can be installed in a limited space

Microreactors are suitable for small-lot production. We counts on this technology for application in the fields of medicine and fine chemicals.



Microreactor for manufacturing dyes for solar cells
Tube inside diameter: 0.5 mm



Micropassage for manufacturing twist balls for electronic paper
Palm size

Example of reaction

Suzuki-Miyaura coupling reaction (dye synthesis)
Batch: from 6 to 8 hours
Microreactor: Within 20 seconds
(under high temperature and high pressure)
Yield: 90% or more; Selectivity: 96% or more

1mm of the following tube

