

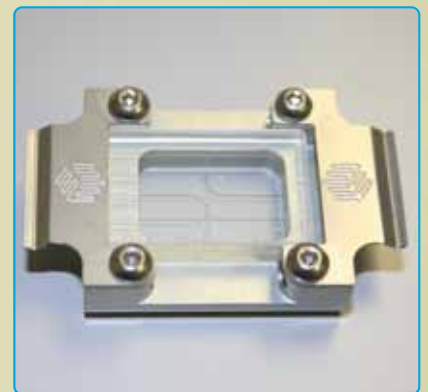


mitos

standard microfluidic
products

droplets

modular systems
for droplet microfluidics



Innovators in microfluidic solutions

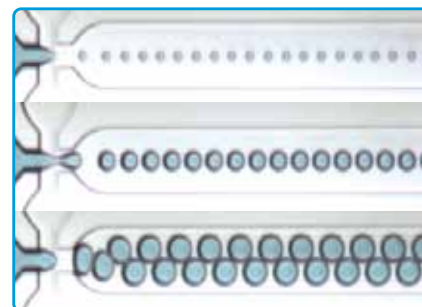
What are the Micro Droplet Systems?

The modular **Micro Droplet Systems** enable rapid advances in droplet microfluidics allowing users to produce 10,000 droplets per second. Each system provides a complete solution containing all necessary pumps, connectors and chips to start making droplets immediately.

Micro Droplet Systems

The Micro Droplet Systems benefit a wide range of applications including compartmentalised chemistry, high throughput experimentations, polymeric microspheres and the production of emulsions.

They are built around Dolomite's industry leading microfluidic pumps, connectors and chips. All systems include a range of Droplet Junction Chips with different junction geometries, channel sizes and surface properties. The chips have excellent optical transparency for clear imaging of droplets. Advanced hydrophobic coating treatments enable water-in-oil droplets (as shown in the picture) to be generated as well as oil-in-water droplets formed in the untreated chips.



Dolomite's range of Micro Droplet Systems includes:

system	experience	description	main benefits
pressure-based droplet starter system	initial demonstration of droplet microfluidics	This basic toolkit eliminates dead volume and sample waste and offers quick liquid changeover . The pump features a lockable pressure chamber as well as an innovative 3-way chamber lid allowing pumping of up to 3 liquids simultaneously.	<ul style="list-style-type: none"> Highly monodispersed droplets ranging from \varnothing 20 to \varnothing 150μm Pulseless and stable liquid flow Wide pressure range 0 - 10bar Cost effective solution Excellent chemical resistance Easily expandable
syringe-based droplet starter system	users new to microfluidics and droplet research	Easy to use , this system provides 2 independent syringes with rotary valves for a quick refill. The pump module and droplet generation module are quick to connect, reliable and simple to understand ensuring that results can be obtained within a short time scale.	<ul style="list-style-type: none"> Monodispersed droplets ranging from \varnothing 20 to \varnothing 250μm Syringes refill automatically from up to 3 different sources Wide flow range 0.1μl/min to 10ml/min Excellent chemical resistance
droplet advanced system	users with some experience in microfluidics and droplet research	Developed for experienced researchers, this system provides a flexible high performance solution for droplet formation. The pressure driven pumps and flow resistors give the user precise control over flow rates and droplet size . Quick changes to flow conditions lead to fast optimisation.	<ul style="list-style-type: none"> Highly monodispersed droplets ranging from \varnothing 20 to \varnothing 250μm Pulseless and stable liquid flow Wide pressure range 0 - 10bar Supplied with a choice of 5 flow resistors Excellent chemical resistance

Accessories

There is a broad range of accessories available including high speed optical systems, larger reservoirs, reagent kits and flow sensors. If you would like to generate droplets of a different size, operate without surfactant or create Janus particles, Dolomite can help you with custom designs. We offer a wide range of customised chips tailored to your specific requirements.

Let us help you with your microfluidic project - contact us for more information.

Innovators in microfluidic solutions

ISO 9001:2008 certified



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