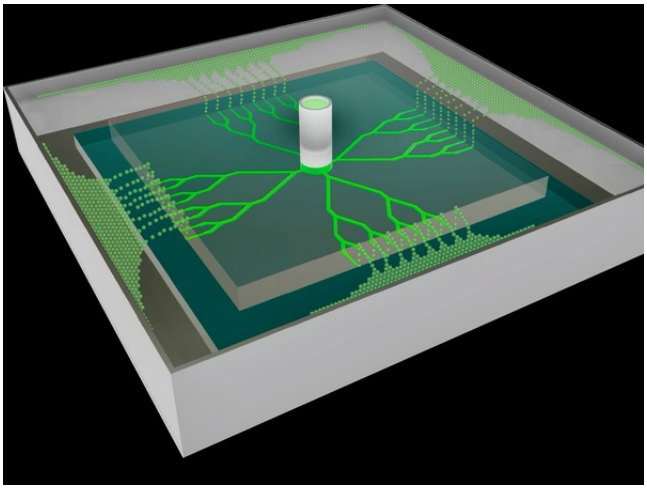
INNOVATION PARTNERSHIPS
UNIVERSITY OF MICHIGAN

High Throughput Droplet Generator

TECHNOLOGY NUMBER: 2026-156



Technology ID
2026-156

Category
Medical Devices
Life Sciences

Inventor
Sasha Cai Lesher-Perez

Further information
Aparna Bubna
abubna@umich.edu

Innovation Partnerships Tech Marketing Team
IPInventions@umich.edu

View online

OVERVIEW

A high-throughput droplet-generating microfluidic device capable of reproducibly generating monodispersed droplets with diameters between 65-370 µm. Operation of this device requires only the droplet solution to be loaded into a syringe the syringe connected to the device (via a blunt end cannula or tubing) and the device submerged in a higher-density fluorinated oil with surfactant.

These devices feature a design that is relatively insensitive to fluctuations in fluid flow rate – and can be operated using manual (e.g. by hand) or automated fluid injection (e.g. via syringe pumps) which has been tested with flow rates up to 10 mL/hour. Each device is manufactured using PDMS and is compatible with multiple aqueous containing polymer solutions (e.g. polyethylene glycol, hyaluronic acid).

Droplet generation depends on the size of the microfluidic device channels.

HOW TO ORDER:

Note: each order includes ten devices. Protocols on how to use the system will be provided once ordered.

Select the "Order Now" button located on the right hand side, and please specify the following:

1. Approximate diameter of droplets you are aiming for – which will specify which channel geometries will be provided to you. Average droplet size may be slightly shifted by specific polymer solution though sizes will be approximately the listed average droplet diameter.
2. Approximate droplet diameters (in microns) to designate device dimensions: 65, 75, 100, 150, 250, 370

   If you have any additional questions, please select the "Contact Us" button and the Licensing Manager will contact you shortly.