

Materials List for:

Generation of Size-controlled Poly (ethylene Glycol) Diacrylate Droplets via Semi-3-Dimensional Flow Focusing Microfluidic Devices

Yan Wu¹, Xiang Qian¹, Shengli Mi¹, Min Zhang¹, Shuqing Sun¹, Xiaohao Wang^{1,2}

¹Graduate School at Shenzhen, Tsinghua University

²The State Key Laboratory of Precision Measurement Technology and Instruments, Tsinghua University

Correspondence to: Xiang Qian at qian.xiang@sz.tsinghua.edu.cn

URL: <https://www.jove.com/video/57198>

DOI: [doi:10.3791/57198](https://doi.org/10.3791/57198)

Materials

Name	Company	Catalog Number	Comments
Silicon wafer	Huashi Co., Ltd		
SU-8 2025, 2100	Microchem Co.	Y111069	
SU-8 developer	Microchem Co.	Y020100	
Chromium mask	Qingyi Precision Mask Making Co., Ltd		
polydimethylsiloxane(PDMS)	Dow Corning	Sylgard 184	
poly(ethylene glycol) diacrylate (PEGDA)	Sigma	26570-48-9	
2-hydroxy-40-(2-hydroxyethoxy)-2-methylpropiophenone	TCI	H1361-5G	photoinitiator
Hexadecane	Sigma	544-76- 3	
ABIL EM 90	CHT	144243-53-8	surfactants
Rhodamine B	Aladdin	81-88-9	fluorescent dye
Spin Coater			
Lithography machine			
Automatic ointment agitator	Thinky	ARV-310	
Oven	BluePard		
Optical microscope	OLYMPUS	IX71	
High-speed camera	Hamamatsu, Japan	ORCA-flash	
MAESFLO Microfluidic Fluid Control System	FLUIGENT	MFCS-EZ	
UV lamp	FUTANSI		365 nm UV light, 8000 MW/CM ²