

Materials List for:

Multicolor Fluorescence Detection for Droplet Microfluidics Using Optical Fibers

Russell H. Cole¹, Zev J. Gartner¹, Adam R. Abate²

¹Department of Pharmaceutical Chemistry, University of California, San Francisco

²Department of Bioengineering and Therapeutic Sciences, California Institute for Quantitative Biosciences, University of California, San Francisco

Correspondence to: Russell H. Cole at russell.cole@ucsf.edu

URL: <https://www.jove.com/video/54010>

DOI: [doi:10.3791/54010](https://doi.org/10.3791/54010)

Materials

Name	Company	Catalog Number	Comments
Photomasks	CadArt Servcies		
3" silicon wafers, P type, virgin test grade	University Wafers	447	
SU-8 3035	Microchem	Y311074	
SU-8 2050	Microchem	Y111072	
Sylgard 184 silicone elastomer kit	Krayden	4019862	
1 ml syringes	BD	309628	
10 ml syringes	BD	309604	
27 gauge needles	BD	305109	
PE 2 polyethylene tubing	Scientific Commodities, Inc.	B31695-PE/2	
Novec 7500	Fisher Scientific	98-0212-2928-5	Commonly knowns as HFE 7500
Ionic Krytox Surfactant			Synthesis instructions in ref #10
Dextran-conjugated cascade blue dye	Life Technologies	D-1976	
Fluorescein sodium salt	Sigma	28803	
Quad bandpass filter	Semrock	FF01-446/510/581/703-25	
PMT	Thorlabs	PMM02	
Fiber port	Thorlabs	PAFA-X-4-A	
lens tube	Thorlabs	SM1L05	
Patch cable with 200 μ m core / 225 μ m cladding optical fiber with one stripped end and one FC/PC connector	Thorlabs	Custom	
Patch cable with 105 μ m core / 125 μ m cladding optical fiber with one stripped end and one FC/PC connector	Thorlabs	Custom	
125 μ m fiber stripping tool	Thorlabs	T08S13	
225 μ m fiber stripping tool	Thorlabs	T10S13	
laser fiber adapter	OptoEngine	FC/PC Adapter	
405 nm CW laser at 50 mW	OptoEngine	MDL-III-405	Distributor for CNI lasers
473 nm CW laser at 50 mW	OptoEngine	MLL-FN-473-50	