

Materials List for:

Analyzing Mixing Inhomogeneity in a Microfluidic Device by Microscale Schlieren Technique

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Materials

Name	Company	Catalog Number	Comments
Permanent Epoxy Negative Photoresist	MicroChem	SU-8 2150	
single side polished silicon wafer	Light Technology	S4W1PP5SABUP1	p-type, diameter: 100±0.5 mm, thickness: 525±25 mm, orientation: (1 0 0)
syringe pump	kdScientific	kds210	
syringe, <i>i.e.</i> 10 ml	Terumo	SS-10L2138	
Hoffman modulation contrast microscope	Leica Microsystems	DM IL LED	
5X objective lens	Leica Microsystems	N PLAN	NA = 0.12
knife-edge			custom made part
camera, <i>i.e.</i> high speed	Integrated Design Tools	NX7-S1	
C-mount adapter HC 0.63x	Leica Microsystems	541537	
camera operating software	Integrated Design Tools	MotionPro X Studio 2.02.01	
polydimethylsiloxane (PDMS)	Dow Corning	Sylgard-184 silicone elastomer kit	
Teflon tubing, <i>i.e.</i> O.D. x I.D. 1/16 in. x 0.031 in.	Supelco	58700-U	
micro glass slide	Matsunami Glass	S2215	
hot plate	Yeong-Shin	HP-303DN	
distilled water, <i>i.e.</i> HPLC grade	Alps Chemicals		
ethyl alcohol, <i>i.e.</i> reagent grade	Nihon Shiyaku Reagent	EA448652	
image processing software	Mathworks	MATLAB R2009a	
computational fluid dynamics package	ESI group	CFD-ACE+ 2008	