

Materials List for:

Microfluidic Pneumatic Cages: A Novel Approach for In-chip Crystal Trapping, Manipulation and Controlled Chemical Treatment

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Materials

Name	Company	Catalog Number	Comments
High resolution film masks	Microlitho, UK	-	Features down to 5 µm
SU8 photoresist	MicroChem Corp., USA	SU8-3050	-
Silicon wafers	Silicon Materials Inc., Germany	4" Silicon Wafers	Front surface: polished, Back surface: etched
Silicone Elastomer KIT (PDMS)	Dow Corning, USA	Sylgard® 184	-
Spinner	Suiss MicroTech, Germany	Delta 80 spinner	-
UV-Optometer	Gigahertz-Optik Inc., USA	X1-1	-
Mask Aligner	Suiss MicroTech, Germany	Karl Suss MA/BA6	-
SU8 developer	Micro resist technology GmbH, Germany	mr-Dev 600	-
Trimethylsilyl chloride	Sigma-Aldrich, Switzerland	386529	≥97%, CAUTION: Handle it only under fume hood.
Biopsy puncher	Miltex GmBH, Germany	33-31AA-P/25	1 mm
Biopsy puncher	Miltex GmBH, Germany	33-31A-P/25	1.5 mm
Glass coverslip	Menzel-Glaser, Germany	BB024040SC	24 mm × 60 mm, #5
Laboratory Corona Treater	Electro-Technic Products, USA	BD-20ACV	-
PTFE tubing	PKM SA, Switzerland	AWG-TFS-XXX	AWG 20TFS, roll of 100 m
Silicone rubber tubing	Hi-Tek Products, UK	-	1 mm I.D.
neMESYS Syringe Pumps	Cetoni GmbH, Germany	Low Pressure (290N)	-
High resolution camera	Zeiss, Germany	Axiocam MRc 5	-
Fluorescent inverted microscope	Zeiss, Germany	Axio Observer A1	Operable at two wavelengths, <i>i.e.</i> , 350 nm and 488 nm
Green polystyrene fluorescent particles	Fisher Scientific, Switzerland	11523363	Size: 5.0 µm, solid content: 1%
Silver nitrate (AgNO ₃)	Sigma-Aldrich, Switzerland	209139	≥99.0%
L-Cysteine (Cys)	Sigma-Aldrich, Switzerland	W326305	≥97.0%
Disposable weighing dish	Sigma-Aldrich, Switzerland	Z154881	L × W × H : 86 mm × 86 mm × 25 mm
Disposable weighing dish	Sigma-Aldrich, Switzerland	Z708593	Hexagonal, Size XL
Plastic spatula	Semadeni, Switzerland	3340	L × W : 135 mm x 14 mm
Dye, Bemacron ROT E-G	Bezema, Switzerland	BZ 911.231	Red

Stereomicroscope	Wild Heerbrugg, Switzerland	Wild M8	500x magnification
Disposable scalpels	B. Braun, Switzerland	233-5320	Nr. 20
L-Ascorbic acid	Sigma-Aldrich, Switzerland	A4403	-