

Materials List for:

Microfluidic Picoliter Bioreactor for Microbial Single-cell Analysis: Fabrication, System Setup, and Operation

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Materials

Name	Company	Catalog Number	Comments
Silicon wafer 100 mm diameter, P/BOR <100>	Si-MAT, Silicon Materials, Germany		
Photoresist SU-8 2000.5	Micro Resist Technology GmbH, Germany		
Photoresist SU-8 2010	Micro Resist Technology GmbH, Germany		
SU-8 Developer mr DEV- 600	Micro Resist Technology GmbH, Germany		
Polydimethylsiloxane (PDMS) Sylgard 184 Silicone Elastomer Kit	Dow Corning; Farnell GmbH, Germany		
Dispensing needles Precision Tips 27 G; ID = 0.2 mm, OD = 0.42 mm	Nordson EFD Deutschland, Germany		
Glass plates D263 T eco, 30 mm x 25 mm x 0.17 mm	Schott AG, Germany		
Hole puncher AKA 5130-B-90	Harris Uni-Core		
Tubing Tygon S-54-HL, ID = 0.25 mm, OD = 0.76 mm	Saint Gobain; VWR International GmbH, Germany		
Disposable Syringes – Omnifix Spritzen BRAUN Omnifix 40 Duo, 1 ml	B. Braun Melsungen AG, Germany	552-183143	
Syringes, 1 ml sterile glass syringes	INNOVATIVE LABOR SYSTEME GMBH (ILS), Germany		
Chemicals			
(NH ₄) ₂ SO ₄	Carl Roth GmbH + Co. KG, Germany		
Urea	Carl Roth GmbH + Co. KG, Germany		
KH ₂ PO ₄	Carl Roth GmbH + Co. KG, Germany		
K ₂ HPO ₄	Carl Roth GmbH + Co. KG, Germany		
MgSO ₄ •7H ₂ O	Carl Roth GmbH + Co. KG, Germany		
MOPS	Carl Roth GmbH + Co. KG, Germany		
FeSO ₄ •7H ₂ O	Carl Roth GmbH + Co. KG, Germany		
MnSO ₄ •H ₂ O	Carl Roth GmbH + Co. KG, Germany		
ZnSO ₄ •7H ₂ O	Carl Roth GmbH + Co. KG, Germany		

CuSO ₄	Carl Roth GmbH + Co. KG, Germany		
NiCl ₂ •6H ₂ O	Carl Roth GmbH + Co. KG, Germany		
CaCl ₂	Carl Roth GmbH + Co. KG, Germany		
Biotin	Carl Roth GmbH + Co. KG, Germany		
Procatechuic acid	Carl Roth GmbH + Co. KG, Germany		
Glucose-Monohydrate	Carl Roth GmbH + Co. KG, Germany		
BHI	Becton, Dickinson		
Cells			
<i>Corynebacterium glutamicum</i> ATTC 13032	DSMZ; Leibniz-Institut DSMZ - Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Germany		
<i>Escherichia coli</i> MG 1655	DSMZ; Leibniz-Institut DSMZ - Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Germany		
Equipment			
Wafer Cleaner SSEC 3300	Solid State Equipment LLC		
Spin Coater SPIN150 -NPP	SPS Europe B.V.		
Mask Aligner MA-6	Karl Suess		
Hot Plate HP30A - 2	Torrey Pines Scientific		
Laboratory oven Memmert UN 200	Memmert		
Plasma Cleaner FEMTO	Diener Electronics, Germany		
neMESYS syringe pumps	Cetoni GmbH, Germany		
Magnetic stirrer CB 162	Stuart	VWR 442-0304	
Microscope Nikon Eclipse Ti	Nikon Microscopy		
Microscope incubuator	Pecon GmbH, Germany		
Centrifuge minispin plus "black line"	Eppendorf	9776501	
Photometer BioPhotometer plus	Eppendorf	6132000008	
Shake flask shaker/incubator 3031	GFL - Gesellschaft für Labortechnik mbH, Germany		
Profilometer, Dektak 150 Stylus Profiler	Veeco		