

Materials List for:

# Fabrication and Operation of Acoustofluidic Devices Supporting Bulk Acoustic Standing Waves for Sheathless Focusing of Particles

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## Materials

Name	Company	Catalog Number	Comments
Silicon wafers	Addison Engineering, Inc.	3P1	6" mechanical grade silicon wafer <111>
AZ 9260 photoresist	MicroChemicals GmbH	AZ9260-Q	Positive photoresist
AZ 400K developer	MicroChemicals GmbH	AZ400K CONC-CS	Dilute 1 part AZ 400k in 4 parts deionized H <sub>2</sub> O
H <sub>2</sub> O <sub>2</sub>	Sigma Aldrich, Co.	216763	30 wt.% in H <sub>2</sub> O
H <sub>2</sub> SO <sub>4</sub>	Sigma Aldrich, Co.	320501	ACS reagent, 95.0-98.0%
1165 Photoresist Remover	Dow Chemical, Co.	DEM-10018073	1-methyl-2-pyrrolidinone based
Acetone	Sigma Aldrich, Co.	320110	ACS reagent, ≥99.5%
Isopropyl alcohol	Sigma Aldrich, Co.	W292907	≥99.7%, FCC, FG
Methanol	Sigma Aldrich, Co.	322415	Anhydrous, 99.8%
Borosilicate glass (Nexterion glass B)	Schott AG	2098576	Size: 120 x60 ±0.1 mm Thickness: 1 ±0.005 mm
Drill bit for glass and ceramic	McMaster-Carr, Inc.	2954A1	Drill bit size: 1/8" Overall length: 2 3/16" Shank diameter: 7/64"
Polydimethylsiloxane (PDMS) kit	Sigma Aldrich, Co.	761036	Dow Corning, Co.; Sylgard 184®; 10 g clip-pack
Biopsy punch	Ted Pella, Inc.	15078	Harris uni-core Tip ID: 3.0 mm Tip OD: 3.40 mm
Lead zirconate titanate (PZT) transducer	APC International, Ltd.	Custom order, (841 WFB)	Length: 30.0 mm, Width: 5.0 mm, Freq.: 2.46 MHz, 2.0 mm end wrap for leads
Silicone tubing	Cole Parmer Instrument, Co.	07625-22	0.6 mm I.D.
Polystyrene beads	Thermo Fischer Scientific, Inc.	F-8836	10 μm yellow-green fluorescence