

Materials List for:

# A Microfluidic Chip for ICPMS Sample Introduction

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URL: <https://www.jove.com/video/52525>

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## Materials

Name	Company	Catalog Number	Comments
Silicon wafer 100 mm	Si-Mat (Kaufering, Germany)		
SU-8 2002	Microchem Corp. (Massachusetts, U.S.A.)		
SU-8 2050	Microchem Corp. (Massachusetts, U.S.A.)		
Acetone	Merk VWR (Darmstadt, Germany)	100014	
MR-developer 600	Microresist Technology GmbH (Berlin, Germany)		
Isopropanol	Merk VWR (Darmstadt, Germany)	109634	
1H,1H,2H,2H-perfluorodecyltrichlorosilane	ABCR-Chemicals (Karlsruhe, Germany)	AB111155	
Sylgard 184 silicone elastomer kit (PDMS)	Dow Corning (Michigan, U.S.A.)	39100000	
Perfluorohexane 99%	Sigma-Aldrich (Missouri, U.S.A.)	281042	
FC-40	ABCR-Chemicals (Karlsruhe, Germany)	AB103511	
Phosphate-buffered saline	Life Technologies (Paisley, U.K.)	10010-015	
Red blood cells in phosphate-buffered saline	Rockland Immunochemicals Inc. (Pennsylvania, U.S.A.)	R400-0100	
Single-element standard solutions Na, Fe	Inorganic Ventures (Virginia, U.S.A.)		
Multielement standard solution	Merck Millipore (Massachusetts, U.S.A.)	IV	
Nitric acid	Sub-boiled		
Ultrahigh-purity water	Merck Millipore (Massachusetts, U.S.A.)		
Hot plate HP 160 III BM	Sawatec (Sax, Switzerland)		used for wafer preparation
Spin modules SM 180 BM	Sawatec (Sax, Switzerland)		used for wafer preparation
High resolution film photomask	Microlitho (Essex, U.K.)		
Step profiler Dektak XT advanced	Bruker (Massachusetts, U.S.A.)		
Hot plate MR 3002	Heidolph (Schwabach, Germany)		used for replica molding
1.5 mm biopsy puncher	Miltex (Pennsylvania, U.S.A.)	33-31AA/33-31A	
Spin coater WS-400 BZ-6NPP/LITE	Laurell (Pennsylvania, U.S.A.)		used for adhesive bonding
Syringe pump neMESYS	Cetoni (Korbussen, Germany)		
1 ml syringe	Codan (Lensahn, Germany)	62.1002	
5 ml syringe	B. Braun (Melsungen, Germany)	4606051V	
PTFE tubing	PKM SA (Lyss, Switzerland)	PTFE-AWG-TFT20.N	

Quadrupole-based ICPMS ELAN6000	PerkinElmer (Massachusetts, U.S.A.)		
Membrane desolvator CETAC6000AT+	CETAC Technologies (Nebraska, U.S.A.)		only the desolvator unit is used
High speed camera Miro M110	Vision Research (New Jersey, U.S.A.)		
Data analysis program Origin pro	OriginLab Corp. (Massachusetts, U.S.A.)	version 8.6	
Microscope	Olympus (Tokyo, Japan)	IX71	