

## ♠ Microfluidics Lithography 1 Mold Fabrication: Spin Coating of Photoresist (version s2) V.2

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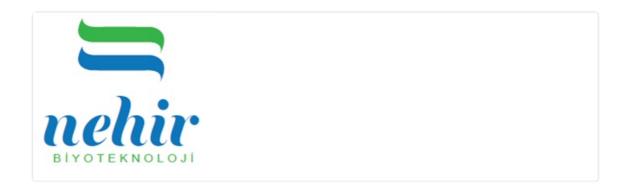
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**ABSTRACT** 



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Version created by Serhat S

KEYWORDS

Microfluidics, Spin coating, SU8, Si wafer

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PROTOCOL INTEGER ID 52480 MATERIALS TEXT Acetone Isopropanol SU8 Photoresist SAFETY WARNINGS \* All the related steps must be done in a clean room classD (min) and under yellow or red light. \* All spin coating procedures must be performed inside the fume hood. BEFORE STARTING This protocol is derived from [Reference: Processing guidelines for permanent epoxy negative photoresist SU8 2025, SU8 2035, SU8 2050 and SU8 2075, MicroChem company SpinCoater Instrument Adjustment 10m Dispense 1ml of photoresist (SU8) resin for each inch (25mm) of Si wafer substrate diameter. Spin at 500 rpm for 10 seconds with an acceleration of 100 rpm/second. Spin at "N" rpm for 30 seconds with an acceleration of 300 rpm/second. Expected results of photoresist thickness: 40um film thickness with N=4000 rpm spin of SU8 2050 25um film thickness with N=4000 rpm spin of SU8 2025 75um film thickness with N=2000 rpm spin of SU8 2050 40um film thickness with N=2000 rpm spin of SU8 2025 The step is performed inside the Class 100.000 cleanroom and in a fume hood. 1m 1m Place the wafer in the spin coater and run the device. Microscope slides, Si/SiO2 wafers, and glass/PMMA wafers are alternatives substrates. Spin Coater WS-650MZ-23NPPB

Laurell

Spin Coater Run

2

Soft Baking of SU8 Coated Wafer 15m

Soft baking is done depending on the thickness of the coated photoresist film. It is a few minutes of baking at 65°C and 5-15 minutes of baking at 95°C are applied. 15m

mprotocols.io 2 08/19/2021 Hot Plate

Electromag LB.EM.M4060

## Stocking the Coated Wafer

In a petri plate, covered tightly with aluminum foil, photoresist-coated wafers can be stored in the cleanroom at room temperature for approximately one month.