

Invitation for tenders for a desktop SU-8 mold station

IIT-Madras is interested in procuring a desktop station for making molds of SU-8 photoresist for PDMS (Polydimethylsiloxane) microfluidic devices. The required specifications of the station are given in the table shown below

Size Specification	
Minimum desired width of the mold	10 μ m
Maximum allowable error in the dimensions	Within 20% of the dimensions
Minimum area for UV exposure	Should be able to expose a circular wafer of 10 cm diameter
Equipment	
Spin coater	We already have the following spin coater: 'Laurell WS-650SZ-6NPP/A1/AR1' If the process is compatible with the above spin coater, do not include spin coater in the quote. If the process is incompatible with the above spin coater, bidder is advised to quote for a spin coater. Spin coater should be able to operate from 1 to 12000 rpm. Wafers of size up to 10 cm in diameter should be accommodated in the spin coater.
Mask aligner	Do not include mask aligner in the quote
Plasma cleaner and other PDMS device fabrication equipment	We already have a plasma cleaner and other equipment for PDMS device fabrication. These equipment should not be included in the quote.
Other equipment	Hot plate and exposure system compatible with both plastic and glass masks should be included in the quote.
Accessories and chemicals	
All the accessories for the equipment and process should be included in the quote. Developer Agitator, 25 silicon wafers, trash solvent bottle, funnel, isopropanol dispenser, acetone dispenser, blow air gun, air filter, macro-pipette 10ml, tips 10ml, thermometer/hygrometer, spirit level, diamond scraper, wafer stainless tweezer, clean room wipes, timer, plastic petri dish, glass petri dish, parafilm, glass substrate, glassware, funnel, scalpel with blade, tape with distributor should be included. Please quote 500 ml of SU-8 that can be used to make SU8 films of thicknesses 50 μ m to 250 μ m within the operating limits of spin coater. Taking the above-mentioned quantity of SU-8 as basis, quote for required amount of SU-8 developer, adhesion promoter and any other chemicals required for the process. Also include for 1 kg of PDMS prepolymer and required amount of curing agent in the quote.	
Other requirements	
Fume hood facility	Available in our laboratory if needed for the process

Cleanroom facility	Station should be operable at ambient conditions. No cleanroom facility is available.
Installation and training	
We want the supplier to visit our laboratory in person, install the equipment, and demonstrate the mold fabrication process. Research scholars in the lab must be trained to operate the supplier's equipment. Also, the supplier should identify optimum operating conditions for the PDMS device fabrication with the mold. Any charges for installation and training may be included in the quote.	
Warranty	
All the equipment in the station should have warranty of at least 1 year from the date of delivery.	