

NATIONAL UNIVERSITY OF SINGAPORE

Doc No. CIBARAEExp014

Type: Experiment / Equipment Activity-Based Risk Assessment Form

Name of Department Physics Location of Lab S7-01-01  
 Name of Laboratory CIBA Clean Room Name of PI Mark Breese  
 Name of Researcher/LO Dang Zhiya, Mallikarjuna Rao Motapothula Name of Activity/Experiment Silicon etching of selected areas

1. Hazard Identification				2. Access the Risk			3. Risk Control			
No	Description/Details of Steps in Activity	Hazards	Possible Accident / Ill Health & Persons-at-Risk	Existing Risk Control (Mitigation)	Severity	Likelihood (Probability)	Risk Level	Additional Risk Control	Person Responsible	By (Date)
1	Clean Room. 1. Spin Coating Machine for depositing ProTek coatings containing PGME (Propylene glycol monomethyl ether).	flammable liquids.	May cause skin and eye irritation, headaches, dizziness	1. Measures to avoid inhalation. 2. Wear suitable eye protection and lab coat. 3. Store in well-ventilated location	2	1	2			
2	Heating to 200 degrees to cure resists.	Flammable liquids.	May cause skin burn.	Keep away from heat and flames.	2	1	2			
3	UV exposure to pattern the photoresist.	UV exposure to eye.	UV exposure to eye.	1. Wear UV goggles. 2. Standard UV procedure.	2	1	2			
4	Using ethyl lactate to develop the patterned photoresist.	Toxic liquids.	Inhalation of toxic vapor.	1. Operate in fume hood. 2. Wear suitable eye protection and lab coat.	2	1	2			
5							0			
6							0			
7							0			
8							0			

Conducted By Dang Zhiya  
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Approved By Mark Breese  
 Name Mark Breese  
 Signature \_\_\_\_\_  
 Approval date \_\_\_\_\_  
 Next Revision date \_\_\_\_\_  
 (Maximum 3 years)