

NATIONAL UNIVERSITY OF SINGAPORE

Doc No.

Type: Experiment / Equipment Activity-Based Risk Assessment Form

Name of Department Physics Location of Lab S07-01-09
 Name of Laboratory CIBA chemistry lab Name of PI Mark Breese
 Name of Researcher/LO Dang Zhiya Name of Activity/Experiment KOH etching

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	Preparation of 20% KOH solution by mixing KOH pallets and DI water, IPA.	KOH solutions are caustic, corrosive, IPA is flammable liquid.	May cause skin burn, eye burn.	1. Wear coat, gloves and mask to prevent the accidents to skin and eyes. 2. Operate in the fume hood.	2	1	2			
2	KOH etching in the 90 degree water bath condition for 8hours.	1. Corrosive and caustic Pirahna etching solution.	May cause skin burn, eye burn.	etching process is in the fume hood to prevent the splashing of the hot solution. 2. Wear coat, gloves and masks to prevent the KOH splashing.	2	1	2			
3	Waste disposal	KOH solution are caustic, corrosive.	A hot solution in a tight container might explode due to the gas generation due to the gas generation and over pressurization of the container.	1. etching process is in the fume hood to prevent the splashing of the hot solution. 2. Wear coat, gloves and masks to prevent the KOH splashing.	2	1	2			

Conducted By Dang Zhiya, Jeroen van Kan

Approved By _____

Name Mark Breese

Signature _____

Approval date 31/10/11

Next Revision date 31/10/14
(Maximum 3 years)