

NATIONAL UNIVERSITY OF SINGAPORE

Doc No: CIBA/RA/Exp/013 Experiment-Based Risk Assessment Form

Name of Department Physics Location of Lab S7 01-08
 Name of Laboratory CIBA/ESP Nano fabrication lab Name of PI Asst Prof Jeroen Anton Van Kan
 Name of Researcher/LO Shao Peige Name of Activity/Experiment General Laboratory Operations and Lab practices for ESP

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	Common procedures on handling of chemical, e.g. refill of wash bottle (IPA, Acetone); transferring chemical from storage cabinet to the fume hood; Disposal of waste chemicals.	Chemical Spillage, Glass breakage, sharp objects, Flammable organic	Hazardous in case of inhalation of organic vapor, Eye or skin contact of solution spilled out may cause injury, Flame from organic vapor.	1) Wear gloves, mask, and proper PPE when working with chemicals 2) Wash bottles refill in fume hood that located in Chemical room. 3) Emergency chemical spill kits are placed in chemical lab, S7-01-09, which is next door. 4) Bottles for broken glassware and sharp things are available. 5) Sample development, Cr etching and Waste disposal is done in a fully closed fume hood, the danger is reduced to minimum.	1	1	1			
2	Hot plate for the experiments including the pre-bake and post bake at 95 degree; centrifuge for spin-coating; thermal bonding for PDMS at 65 degree	Inhalation of fumes, skin burns	At increased temperature, the SU-8 photoresist may evaporate, Accidental touch	1) Tweezers must be used to transport the sample from the hot plate. 2) The baking of the SU8 sample is carried out in a close fume hood	1	1	1			

Conducted By Shao Peige, shripad

Approved By Asst Prof Jeroen Anton Van Kan

Signature _____

Approval date 12/4/2010

Next Revision date 11/4/2013
(Maximum 3 years)