

NATIONAL UNIVERSITY OF SINGAPORE

Doc No.

Type: Experiment / Equipment Activity-Based Risk Assessment Form

Name of Department Physics Location of Lab S7-01-16  
 Name of Laboratory CIBA Name of PI Professor Mark Breese  
 Name of Researcher/LO Chan Taw Kuei Name of Activity/Experiment Carbolite Tube Furnace High-temperature Annealing

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	Switch on the furnace	The Carbolite Furnace is a fully integrated product purchased from vendor. All electrical systems are properly insulated. Engineering of various mechanical parts are well done, rigidly held to avoid any accident. Periodic maintenance checks are performed for all components. No significant hazard/risk to user.					0			
2	Loading sample into furnace	High temperature of furnace, samples or steel wires.	Thermal burns	Cotton gloves are to be used during loading in and removal of samples. Proper training provide for all users. Warning signs in place outside furnace room when furnace is in operation.	1	1	1			
3	Remove sample from furnace									
4	Switch off the furnace	Same as step 1.					0			

**Conducted By** Mark Breese, Chan Taw Kuei  
Xiong Boqian, Sara Azimi, Dang Zhiya, Song Jiao, Wu Jianfeng  
Mallikarjuna Rao Motapolhula, Liang Haidong

**Approved By** \_\_\_\_\_  
 Name \_\_\_\_\_  
 Signature \_\_\_\_\_  
 Approval date \_\_\_\_\_  
 Next Revision date \_\_\_\_\_  
 (Maximum 3 years)