

Risk Assessment Summary Report/Print (landscape)



Reference	2433	Description of Space or Activity/Task or Equipment	Superconductivity and Magnetism Group - Sample Preparation Laboratory. Preparation of samples including polycrystalline materials for scientific studies.
Assessment Date	25/04/2023	Publish To Portal	Yes
Assessor Name	Martin Lees	Risk Assessment Title	P122 Crystal Growth Laboratory on Level 1 and mezzanine on Level 2.
Assessment Team Members	G Balakrishnan	Review Date	20/06/2025
Role / Space / Project Reference		Current Risk Level (1=Very Low, 2=Low, 3=Moderate, 4=High, 5=Very High)	2
Department	Use the search function above or double click here for org chart -> Academic Faculties -> Faculty of Science, Engineering and Medicine -> Physics	Final Risk Level (1=Very Low, 2=Low, 3=Moderate, 4=High, 5=Very High)	2
Location Details	01-042-000-011	Not in use	0
Risk Assessment Category	Space	Additional Information	Follow Room P122 Laboratory Rules (attached).
Date Record Created	25/04/2023		

Risk Assessment Summary Report/Print (landscape)



Hazard Type & Hazard Description	Who may be at Risk? & How May Person(s) Be Harmed	Existing Control Measures	L	S	R	Where current risk is M, H or VH, what additional Control Measures are required?	L	S	R
Work Environment Glass working station.	<p>Staff. Burns, Eye irritation from IR light.</p> <p>Loose clothing caught in slowly rotating lathe.</p> <p>Inhalation of fumes.</p>	<p>Users must be trained and follow RA for glass working.</p> <p>User must follow standard operating procedures (see RA)</p> <p>Wear suitable clothing. No loose clothing.</p> <p>Wear googles. Eye protection provided.</p> <p>Ensure adequate ventilation including using fume extractor.</p> <p>Use fire resistant desk for hot work.</p> <p>Eng - Adequate ventilation in place. Admin - Good levels of housekeeping maintained with clean as you go policy in place. Admin - Specific risk assessment/survey completed. PPE - Personal Protective Equipment (PPE) or suitable clothing is issued and worn (specify).</p>	Serious	Unlikely	Low		Serious	Unlikely	Low

Risk Assessment Summary Report/Print (landscape)



<p>Work Environment Arc furnace</p>	<p>Staff. Students Burns, Eye irritation from IR light</p>	<p>Do not look directly into the light in the furnace, always observe the arc through darkened glass.</p> <p>Draw protective curtain around area before striking the arc.</p> <p>Wait until the furnace is cooled down before removing sample.</p> <p>PPE - Personal Protective Equipment (PPE) or suitable clothing is issued and worn (specify).</p> <p>Other room users should not approach the arc furnaces when in operation.</p>	<p>Minor</p>	<p>Possible</p>	<p>Low</p>		<p>Minor</p>	<p>Possible</p>	<p>Low</p>
<p>Working at Height Fall</p>	<p>Staff. Students Falls.</p>	<p>When using any steps do not try to overreach> Keep two feet on the steps at all times.</p> <p>Steps are visually inspected before each use.</p> <p>Admin - students and staff are provided with information, instruction and training through lab inductions.</p>	<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>		<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>

Risk Assessment Summary Report/Print (landscape)

<p>Work Environment Wet floors.</p> <p>Obstructed walkways.</p> <p>Closely spaced equipment.</p>	<p>Staff. Students Cleaners Slip and trips</p> <p>Hit by falling objects.</p>	<p>Dry floors if wet, be aware of potential hazard.</p> <p>Caution wet floor signage is used if floors are wet to warn those using the area of the potential hazard.</p> <p>Do not block walkways with equipment or personal belongings. Be aware.</p> <p>Walkways are not obstructed by trailing cables. Cable floor covers are to used where necessary.</p> <p>Take care when using stairs, and use the provided handrail.</p> <p>Do not place any items on mezzanine guard rail.</p> <p>Eng - Adequate lighting in place. Eng - Adequate ventilation in place. Eng - Cooling/heating equipment used. Admin - Information, instruction, supervision & training. Admin - Signage used to raise awareness. Admin - University policy & procedure guidance followed.</p>	<p>Minor</p>	<p>Unlikely</p>	<p>Very Low</p>		<p>Minor</p>	<p>Unlikely</p>	<p>Very Low</p>
<p>Work Environment Fire.</p> <p>Flammable substances including solvents, paper, flammable chemicals and samples</p>	<p>Staff. Students</p> <p>Burns, fumes. Inhalation leading to poisoning, lung and or organ damage loss of consciousness, asphyxiation.</p>	<p>Store chemicals and solvents properly, use solvents sparingly, avoid sources of ignition, especially furnaces.</p>	<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>		<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>

Risk Assessment Summary Report/Print (landscape)



<p>Electricity Electrocution, burns. Contact with live electrics.</p> <p>Electrical overload.</p> <p>Incorrect isolation.</p> <p>Unauthorized access to electrical systems / infrastructure.</p>	<p>Staff. Students. Electrocution, burns.</p>	<p>Do not tamper with or attempt to modify apparatus.</p> <p>Do not use untested apparatus.</p> <p>Eliminate - No live working permitted.</p> <p>Eng - Cables and leads are appropriately insulated.</p> <p>Eng - Electrical cabinets are secured.</p> <p>Eng - Electrical equipment is suitably fused and earthed.</p> <p>Admin - All fixed wire electrical installations are tested as per regime. All portable electrical equipment are PAT tested.</p> <p>Admin - Extension reels fully unwound before use.</p> <p>Admin - Information, instruction, supervision & training.</p> <p>Admin - Signage used to raise awareness.</p> <p>Admin - University policy & procedure guidance followed.</p>	<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>		<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>
--	---	--	----------------	-----------------	------------	--	----------------	-----------------	------------

Risk Assessment Summary Report/Print (landscape)



<p>Substances All chemicals in use to prepare samples</p> <p>Samples after preparation..</p> <p>Solvents (ethanol, acetone, propanol).</p> <p>Acids, bases.</p> <p>Pump oil, vacuum greases.</p> <p>Contact or interaction with dangerous substances. Inhalation exposure to hazardous substance.</p> <p>Skin exposure to hazardous substance.</p> <p>Eye exposure to hazardous substance.</p>	<p>Staff Students</p> <p>Contact or interaction with dangerous substances.</p> <p>Skin exposure to hazardous substance.</p> <p>Eye exposure to hazardous substance.</p> <p>Chemical burns.</p> <p>Poisoning. Organ damage.</p> <p>Inhalation of a hazardous substance or gas.</p> <p>Ignition, reaction, exposure to fumes etc. due to reactions or mixing</p>	<p>Read all relevant safety data sheets, University and Departmental Safety regulations and guidance, and pass any required safety tests.</p> <p>Minimise exposure, use appropriate PPE. Use appropriate PPE, minimise exposure.</p> <p>Admin - Awareness training provided.</p> <p>Admin - General ventilation used.</p> <p>Admin - Information, instruction, supervision & training.</p> <p>Admin - Refer to relevant COSHH Assessment (state).</p> <p>Admin - Signage used to raise awareness.</p> <p>Admin - Spill response/containment equipment in place.</p> <p>Admin - Storage in accordance with substance requirement.</p> <p>Admin - Substance awareness sheet available at point of use.</p> <p>Admin - University policy & procedure guidance followed.</p> <p>Admin - Wash facilities close by.</p> <p>PPE - Personal Protective Equipment (PPE) is issued and worn (gloves, goggles, masks, lab coats).</p>	<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>		<p>Serious</p>	<p>Unlikely</p>	<p>Low</p>
<p>Assessment Conclusion</p>	<p>All risks minimized.</p>								