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Job Description

Post title: Specialist Technician

Date last updated/evaluated: April 2025

Author: Dr Pier Sazio

Standard Occupation Code: 2125

School / Department: Optoelectronics Research Centre

Faculty / Directorate: Faculty of Engineering and Physical Sciences

Job Family: Technical and Experimental (TAE)

Grade: Level 4

ERE Pathway (if applicable): Not applicable

Post reporting to: Dr Pier Sazio

Post line report(s): N/A

Post base location: Highfield Campus

Job purpose: To provide specialist technical support and advice to all group members and to the Novel and Compound Glass Cleanroom facilities and its external customers.

This includes fabrication support for the Lithium doped glass fibre project activities within the ORC, including developing and characterising processes that can be used to advance the project. To provide additional support to cleanroom technical staff

## Key accountabilities and indicative time allocation:

1. **25%**

Apply a full understanding of glass and solid state battery (SSB) material fabrication processing to manage and deliver fabrication tasks as required within the group and the Novel Glass facilities. This will include but not limited to mixing glass precursors, melting glass precursors and other SSB materials using a melting furnace, cleaning and annealing processes. Logging/recording day-to-day process notes and key results.

To ensure specialist technical support for the department’s education, research and/or enterprise activity; designing, developing and building specialist machines and equipment and developing solutions, techniques and procedures.

1. **25%**

Improve processes on specialist equipment for our bespoke research projects. This will include the development of processes such as material purification, annealing processes and material characterisation. Responsibilities include literature review, critical evaluation and interpretation, fault finding and design of experiments and change programmes as part of a wider project team that contributes to academic publications in the area of technical specialism.

1. **20%**

Manage and deliver fabrication of our glass materials and solid state battery project. Plan, define and monitor process flows and progress of projects. Plan and disseminate key equipment calibration changes. Identify bottle-necks in process flows and establish new working methods to resolve delays.

Define, develop, review and refine working practices to meet service and/or quality standards and objectives. To provide a repair and fault finding service including planned maintenance of equipment and devices within the work environment, advising on future resource requirements and ensuring health and safety standards within the environment are complied with by staff and students and manage the upkeep and general housekeeping of the laboratories.

To act as an Area Safety Officer as required, which would include developing appropriate risk assessments.

1. **10%**

Monitor and maintain appropriate records and reports to meet internal and external requirements (e.g., audit and compliance reports, service level agreements, health and safety records). To attend internal and external meetings to ensure the work unit issues are represented.

Manage or oversee assigned resources, monitor relevant budgets and contribute to short and medium-term resource planning processes. Advise on future resource requirements within own area.

1. **5 %**

To demonstrate and advise research staff and students on techniques and the use of materials in relation to University projects, assisting in the interpretation of test results. Provide advice, guidance and support relating to the design, development and application of new and existing specialist techniques, equipment and/or procedures.

1. **5%**

Proactively work with and influence peers and other colleagues to help achieve objectives and coordinate technical activities across different parts of the University.

1. **5%**

Line manage or supervise junior colleagues performing a range of complex, mostly standardised, technical or experimental activities. Plan and prioritise short and medium-term work, monitor progress, conduct appraisals, formulate development plans and provide advice, guidance and coaching as required. Conduct recruitment, induction and probation activities as required.

To be a mentor for technical apprentices as required.

1. **5%**

Any other duties as allocated by the line manager following consultation with the post holder.

Internal and external relationships:

Departmental management and University senior management

Other members of the department/University staff

External customers, including our Industry partners Morgan Advanced Materials Plc

Relevant suppliers and external contacts, including our main point of contact with Morgan Advanced Materials Plc, Dr Mike Thomas

Special requirements:

Work in Class 100, 1000 and 10000 cleanrooms

Willingness to undertake Health and Safety training specific to role

# Person Specification – Skills and Competencies

All essential and desirable criteria outlined in this Person Specification will be assessed through a combination of recruitment application and CV, and where applicable numerical or written assessment.

**Knowledge, Experience and Qualifications**

Essential

* Substantial experience in a laboratory environment, with proven experience of successfully planning and progressing work activities.
* Ability to make effective use of standard and specialist computer systems
* Substantial practical knowledge of Health and Safety within a laboratory environment, including effective knowledge of risk management.
* The required level of knowledge and understanding will normally have been gained through some or all of the following:
  + Considerable work experience
  + Vocational training
  + Formal qualification(s) equivalent to Level 5 or 6 of the [Regulated Qualifications Framework](https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels) e.g. foundation degree or degree with honours, or Level 5 or 6 award, certificate, diploma, NVQ.
* Knowledge, experience and competence may also be evidenced through professional registration:
  + Professional registration at the Registered Scientist (RSci) level will typically indicate partial competence at TAE Level 4.
  + Professional registration at the Incorporated Engineer (IEng) level will typically indicate full competence at TAE Level 4.

Desirable

* Understanding of how the specialist technical services provided by the post holder support the objectives of the University.
* Degree in science related subject.
* Experience performing physical characterisation of glasses and related SSB materials
* Knowledge of Glass and Fibre fabrication techniques

**Teamwork and Communication**

Essential

* Delegates and/or collaborates effectively, understanding the strengths and weaknesses of colleagues.
* Works proactively with colleagues and other stakeholders, within and beyond the University, to achieve outcomes.
* Communicates effectively to develop understanding and achieve cooperation.
* Provides clear specialist advice, guidance and recommendations on complex issues.

**Planning, Organisation and Resource Management**

Essential

* Plans and progresses a rage of work activities within broad professional guidelines and established University policies and procedures.
* Formulates development plans to meet current skill requirements.

**Problem Solving and Initiative**

Essential

* Develops detailed understanding of long-standing and/or complex problems and applies professional knowledge and experience to resolve them.
* Demonstrates an awareness of principles and trends in a professional or specialist field and awareness of how this affects activities in the University.

Desirable

* Familiarity with general diagnostic test equipment

# Job Hazard Assessment

A full health clearance is required for this role where any hazards marked “**^**”, using the agreed Occupational Health referral template [available from here](https://sotonac.sharepoint.com/teams/HealthWellbeing/SitePages/Occupational-Health.aspx). Where a full health clearance is required, this will apply to all role holders, including existing members of staff.

## Physical Environment

Working outside **^** Not applicable

Exposure to noise levels >80dbA **^** Not applicable

Working with dust or fumes **^** Frequently 30-60% Time

Working with skin irritants **^** Frequently 30-60% Time

Working with chemicals (industrial or cleaning) **^** Frequently 30-60% Time

Working in a confined space **^** Not applicable

Working at height **^** Occasionally <30% Time

Working with sewage **^** Not applicable

Contact with cytotoxins **^** Not applicable

Exposure Prone Procedure (EPP) work **^** Not applicable

Contact with clinical specimens or pathology work **^**  Not applicable

Direct patient care or patient contact Not applicable

Exposure to temperature extremes Not applicable

Frequent hand washing Occasionally <30% Time

Ionising radiation Not applicable

## Psychological and Social Environment

Working shifts **^** Not applicable

Working nights **^** Not applicable

Lone working Occasionally <30% Time

Working with children Not applicable

Exposure to persons with challenging behaviourNot applicable

Working with larger groups Not applicable

## Equipment, Tools and Machines

Working with vibrating machinery or tools **^** Not applicable

Driving duties e.g. LGV, PCVs, forklift trucks **^** Not applicable

Food handling Not applicable

Contact with latexNot applicable

## Physical Abilities

Prolonged physical movements or actions e.g. walking **^** Occasionally <30% Time

Prolonged Standing or Sitting **^** Frequently 30-60% Time

Moving or handling heavy loads **^** Not applicable

Repetitive pulling or pushing **^** Occasionally <30% Time

Repetitive climbing (steps, stools, ladders, stairs) **^** Not applicable

Repetitive crouching, kneeling or stooping Occasionally <30% Time

Repetitive lifting Occasionally <30% Time

Fine motor grips (e.g. pipetting) Frequently 30-60% Time

Repetitive reaching below shoulder height Not applicable

Repetitive reaching at shoulder height Occasionally <30% Time

Repetitive reaching above shoulder height Not applicable

# Behaviours

Our [Inclusion and Respectful Behaviour Policy](https://www.southampton.ac.uk/about/governance/regulations-policies/policies/inclusion-respectful-behaviour) describes the expectations of everyone who is a part of our community.

Our **Southampton Behaviours** (below) outline the responsibilities we each have in working collaboratively to achieve our University strategy.

**Personal Leadership**

- I take personal responsibility for my own actions and an active approach towards my development.

- I reflect on my own behaviour, actively seek feedback and adapt my behaviour accordingly.

- I demonstrate pride, passion and enthusiasm for our University community.

- I demonstrate respect and build trust with an open and honest approach.

**Working Together**

- I work collaboratively and build productive relationships across our University and beyond.

- I actively listen to others and communicate clearly and appropriately with everyone.

- I take an inclusive approach, value the differences that people bring and encourage others to contribute and flourish.

- I proactively work through challenge and conflict, considering others’ views to achieve positive and productive outcomes.

**Developing Others**

- I help to create an environment that engages and motivates others.

- I take time to support and enable people to be the best they can be.

- I recognise and value others’ achievements, give praise and celebrate their success.

- I deliver balanced feedback to enable others to improve their contribution.

**Delivering Quality**

- I identify opportunities and take action to make improvements.

- I plan and prioritise efficiently and effectively, taking account of people, processes and resources.

- I am accountable for tackling issues, making difficult decisions and seeing them through to their conclusion.

- I encourage creativity and innovation in others, to deliver workable solutions.

**Driving Sustainability**

- I consider the impact on people before taking decisions or actions that may affect them.

- I embrace, enable and embed change effectively.

- I regularly take account of external and internal factors, assessing the need for change, and gaining support to move forward.

- I take time to understand our University strategy and communicate this to others.