

<b>Job Title:</b>	Technologist	<b>Position Type:</b>	Full Time – 37 hrs per week
<b>Location:</b>	Laughton, East Sussex	<b>Travel Required:</b>	10%
<b>HR Contact:</b>	personnel@quorumtech.com	<b>Date posted:</b>	February 28, 2022

### Job Description

#### MAIN PURPOSE OF JOB

To ensure the company maintains and grows its leadership in the area of sample preparation for electron microscopy by researching, developing, commercialising and supporting new thin coating technology and technologies for Quorum's entire range of sample preparation products for electron microscopes, including sputter coaters, vacuum evaporators, critical point dryers, freeze dryers, plasma etchers and cryo-SEM, as well as other technologies that would complement our current offering.

#### RELATIONSHIPS

**REPORTS TO:** Engineering Manager

**RESPONSIBLE FOR:** Thin films technology development.

**INTERACTS WITH:** Engineers: technical specifications; Commercial: new product roadmap; External: Universities and research organisations, specialist equipment providers.

#### ROLE AND RESPONSIBILITIES

The Technologist will be a subject matter expert in the technologies involved in thin films coating and related processes. Key tasks include:

- Maintain an active and detailed understanding of the science behind and technologies required for vacuum coaters such as sputtering, ion beam, e-beam, evaporation and PE-CVD.
- Develop an understanding of other sample preparation techniques such as critical point dryers, freeze dryers, plasma etchers and cryo-SEM.
- Recommend changes to the specification of existing products with commercial justifications.
- Be responsible for lab area and associated equipment, overseeing service schedules, ensuring calibration and any other routine maintenance activities are carried out in a timely manner.
- Provide expert advice to technical sales and service roles.

The Technologist will be responsible for development of new products for thin film coating and related electron microscopy process. Key tasks include:

- Convert broad marketing requirements into detailed technical specifications and get management approval.
- Work closely with the design team from the initial stages of development, providing technical expertise.
- Develop and implement detailed test plans. Where necessary, develop and build measurement and control systems suitable for automated testing of products.
- Build prototypes, performing detailed measurements and assessments.
- Conduct comprehensive testing of new product prototypes and present the results in reports for the management team.

The Technologist will be responsible for product failure investigations and support of Quality. Key tasks include:

- Monitoring of failure rates, product performance and reporting of any findings.
- Identifying issues and finding root causes.
- Completing product failure investigation, analysing data, report writing and escalation to management where required.
- Some investigation lab work required ad hoc, which may involve working with hazardous materials.

The Technologist will act as the project lead for one or more new product development projects. Key tasks include:

- Develop project plans with clear allocation of responsibilities and deadlines.

**The above is not an exhaustive list of duties and you will be expected to perform different tasks as necessitated by your changing role within the organisation and the overall business objectives of the organisation.**

### **QUALIFICATIONS AND EDUCATION REQUIREMENTS**

Relevant Degree in Physics, Engineering or related technical discipline.

Key Words: sputter | coater | vacuum | plasma | magnetron | cryo | electron microscopy | sample preparation | SEM | new product development | thin film coatings

### **REQUIRED EXPERIENCE & SKILLS**

The Technologist will need to have a sound technology and engineering background, as well as scientific curiosity, be self-motivated, have a passion for quality and the drive to champion and implement new ideas.

Demonstrable practical experience in relevant technologies either in an industrial organisation, academia or a combination of both.

#### **The successful candidate will have experience in:**

- Vacuum coating equipment technology, particularly vacuum sputter coating
- The engineering associated with plasma processes
- Materials characterisation techniques.
- Technology screening and product development
- Collaboration with third parties and in-house resources to complete assignments
- IPR identification and protection
- Applicable regulations and standards affecting scientific instrumentation
- Demonstrable innovative thinking in solving complex problems

### **PREFERRED EXPERIENCE & SKILLS**

- Experience with other forms of PVD/CVD
- Knowledge of electron microscopes and familiarity with alternative methodologies for sample preparation (e.g. critical point drying, cryo)
- Formal qualifications in methodologies such as Agile Product Development and Six Sigma
- Working knowledge of Plasma Physics
- Applications and embedded software knowledge
- Electronics design
- Mechanical design
- Design for Manufacturing
- Ability to engage with customers

### **ADDITIONAL NOTES**

Full valid driving licence a requirement.

Passport required, because this role involves travel to meet suppliers and customers, which may include occasional overseas trips.