

Job Title:	Research and Development Engineer	Position Type:	Full Time
Location:	Laughton, East Sussex	Travel Required:	10%
HR Contact:	personnel@quorumtech.com	Date posted:	March 5, 2021

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: NA

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

ROLE AND RESPONSIBILITIES

The R&D Engineer will be responsible for developing new thin coatings and processes, primarily but not limited to the electron microscopy sample preparation market. This will involve screening new technologies, developing the fundamental processes and then working with internal and external resources to create a commercial product offering.

The scope for such innovation is varied and includes various types of vacuum coaters such as sputtering, ion beam, e-beam, evaporation and PE-CVD. Knowledge of other sample preparation techniques would be a distinct advantage (i.e. critical point dryers, freeze dryers, plasma etchers and cryo-SEM).

Key internal stakeholders for new product development are Sales and Marketing, Service Operations and the Senior Management Team, and development work will include working with outside parties such as academic groups, technology suppliers, microscope manufacturers and vendors.

The R&D Engineer will need to have scientific curiosity, be self-motivated, have a passion for quality and the drive to champion and implement new ideas.

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

Minimum 2 to 3 years of practical experience.

The successful candidate will have:

- Development of vacuum coating equipment, particularly vacuum sputter coating
- 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.

No relocation assistance available for this role.

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

Prepared by:	Tony Larkin	Date:	September 16, 2019
Reviewed by:	Tony Larkin	Date:	March 8, 2021
Last Updated by:	Martin Stuart	Date/Time:	March 1, 2021
Employee Signature:		Date:	
Employee Name (printed):			