

Quantum Science Ltd

Device Engineer

Location: Daresbury, Warrington

Salary: Highly competitive (negotiable depending on experience)

Hours: Full time

Contract Type: Permanent

Role Overview

Quantum Science Ltd (QS) is seeking a Device Engineer to join our R&D team based in Daresbury, UK. The Device Engineer will play a crucial role in supporting new product development within QS as well as driving research efforts into next generation technologies. As a member of the team, you'll have the opportunity to work on exciting optoelectronic projects advancing the company's research and development and pushing the technologies for emerging markets such as next-generation smartphones, advanced driver-assistance systems, industrial automation. You will be given the flexibility to succeed and are provided avenues to reach your individual career goals while fulfilling the company's mission.

The work environment is fast-paced and requires comprehension and resolution of complex problems. A high level of self-discipline, initiative, and motivation is required as you will need to handle and prioritise multiple tasks simultaneously, with minimal supervision. Diligence towards meeting project requirements on schedule is essential.

Company and Business Overview

Quantum Science is a leading material innovation company with strong portfolio of intellectual properties. We contribute to society through material innovations to transform image sensors, to change the way we detect diseases, and to introduce more efficient and cost-effective membrane technology for clean water.

We have fostered strong relationships with leading research organisations and industrial partners to keep us at the forefront of innovation while achieving a stable foundation thanks to investors who share our long-term vision. Several of our R&D team innovators are from top universities in the world.

We work closely with research and business partners to develop innovative technologies and then license the developed technologies to create a win-win partnership with our customers.

Our company is based in Daresbury National Laboratory, Warrington

Main tasks and responsibility

- Serve as a device and process technical expert to develop advanced semiconductor photodiode devices along with their fabrication processes and wafer-level integration technologies to realise QS technology strategy, vision, and imperatives with a measurable impact on the business.
- Collaborate with internal team members and external partners (leading industrial partners, universities, research institutes, contractors, etc.) to develop advanced image sensor technologies that meet aggressive performance goals.

- Fabricate semiconductor nanocrystal thin films using different coating techniques and surface treatments as required.
- Carry out routine materials characterisation and data analysis to help understand and suggest solutions to improve device performance.
- Prepare nanomaterials following the established procedures if required.
- Prepare progress technical reports, invention disclosure/patents in timely manner to provide competitive advantage and protect QS's IP

Skills and Experience

- A Master or PhD in physics, physical chemistry, material science or equivalent degree with experience in semiconductor optoelectronic device fabrication and characterisation.
- Strong physics-based thinker able to perform device design and simulation, experimental design, electrical characterisation, and process development in a cleanroom
- Deep understanding of semiconductor materials, processes, device design and integration schemes with the ability to propose and demonstrate novel solutions to enhance the performance of optoelectronic devices. Hands-on experience enabling custom test configurations is a plus
- Experience in different fabrication methods of semiconductor nanocrystal thin films
- Experience in making semiconductor nanomaterials is a plus
- Familiarity in the design of ROIC and CMOS is a plus
- Demonstrated ability to solve problems and to plan, prioritise and address forthcoming issues
- Excellent verbal and written communication skills including IT literacy (Microsoft Word, Excel, PowerPoint).

KPI's:

- Achieving project milestones
- Reporting results to Head of R&D in a timely manner
- All invention disclosures/ patents filed in a timely manner
- All samples are sent to other teams and customers in a timely manner
- Perform proper characterisation on samples
- Identify needed equipment and carry out procurement if necessary

Benefits Package

- Competitive salary
- Performance-related bonus system
- Pension contribution
- Life insurance

Qualified candidates should send the CV to HR@qscis.com