



Researcher - Epitaxy, fabrication and characterisation of photo

BC-62 Researcher - Epitaxy, fabrication and characterisation of photovoltaic materials

Contract: Fixed term – 2 years

Job Description

We seek a postdoctoral researcher to design and develop reliable and robust Al(Ga)InP cells for high performance at light levels as appropriate to indoor illumination (spectrum and intensity) and the needs of the devices to be powered. The epi-structures will be grown to permit realisation of thin transferrable devices with enhanced photon absorption characteristics. These devices would be integrated in series connection for high voltage/low current applications. The structures will be initially deposited on lattice matched substrates before investigating deposition on alternative mismatched low-cost substrates. The aim will be to find means to passivate the structures. The work is part of a joint project with partners in Dublin City University, Ulster University, and the QESST centre in the US.

Key Responsibilities

- Epitaxial growth and characterisation of AlGaInP materials
- Fabrication of devices to assess material.
- Analysis and report the results to project meetings
- Disseminate the outcomes to peerreviewed academic publications and presentations at conferences of international standing.
- Participate in Education and Public Engagement activities.
- Contribute to the engagement on intellectual property activities in partnership with the Office of Technology Transfer
- Ensure all activities are compliant with the Tyndall Quality Management system.
- Ensure all activities are compliant with the required Health and Safety standards.

Essential Criteria

- PhD qualifications in relevant area
- Previous experience with metal organic chemical vapour deposition processes: growth and characterisation

Desirable Criteria

- Fabrication experience

Appointment may be made on the Postdoctoral Researcher Scale €37,873 - €45,041. Salary placement on appointment will be in accordance with public sector pay policy.

Any queries relating to this position can be forwarded to Brian Corbett at brian.corbett@tyndall.ie

Application Instructions

Step 1 - Click [here](#) to download the application form and indicate BC-62 as the Job Reference

Step 2 - Return the completed application form, together with your CV and motivation letter to careers@tyndall.ie.

Please note that Garda vetting and/or an international police clearance check may form part of the selection process.

The University, at its discretion, may undertake to make an additional appointment(s) from this competition following the conclusion of the process.

At this time, Tyndall National Institute does not require the assistance of recruitment agencies.

Tyndall National Institute at University College, Cork is an Equal Opportunities Employer