Job Title: New Process Development Engineer - KTP Associate

Theme: Reduction of cure time using RF heating in the manufacture of epoxy tooling boards.

Project: Knowledge Transfer Partnership (KTP): to optimise a key process, increase throughput and develop new products using a novel heating technology.

School/Department: Faculty of Engineering – Base Materials Ltd

Contract: This post will be offered on a fixed-term contract for a period of 21 months on a full time basis.

Location: Base Materials Ltd, Whetstone, Leicester and the University of Nottingham.

1. Job purpose:
This is an exciting opportunity for a Chemical or Process Engineer to join our diverse team in partnership with Base Materials to deliver a novel curing process to reduce processing time and increase throughput of Base Materials’ primary product, epoxy composite tooling boards. As well as increasing production for application in the Formula 1, automotive and aerospace industries, this process will reduce process environmental impacts and enable a broader product range, allowing access to new markets.

2. Duties and responsibilities:

- characterisation and optimisation of existing curing process
- Experimental development of novel curing process
- Design and development of novel processing line
- Procurement and commissioning of new processing line and running trials
- Development of business case and techno-economic analysis

3. Special Conditions:
Whilst the position will be based at Base Materials Ltd in Leicester, the Associate must be prepared to travel within the UK and spend some time at the University of Nottingham.

Knowledge, Skills, Qualifications & Experience:

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<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>Education</td>
<td>First degree or equivalent in chemical or process engineering or a related discipline</td>
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<td>Experience</td>
<td>Experience with team working</td>
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| General Skills and Abilities | • Strong drive to interact with industry and to work in an interdisciplinary field to deliver commercial solutions to industry  
  • Ability to build strong alliances with colleagues and stakeholders, develop network of contacts and builds trust  
  • Written and verbal communication is clear, well-structured and easy to understand  
  • Organised and methodical with ability to manage own time and workload effectively  
  • Ability to work well in a team and lead when necessary  
  • Able to analyse data and carefully present data  
  • Enthusiasm, motivation and drive to embed new knowledge and to take full ownership of the project in all respects.  
  • Ability to adapt rapidly to varying workload, including supporting work outside of core project | • Commercial acumen to be able to understand the business proposition and communicate with the supply chain and customers.  
  • Demonstrate creativity and leadership in problem solving  
  • Ability to communicate clearly to a wide range of audiences |
|---|---|---|
| Technical Skills and Knowledge | • Knowledge of process characterization and optimization methods  
  • A strong understanding of core chemical and process engineering principles such as thermodynamics, heat and mass transfer, process design and safety  
  • Project Management – a proactive, clear and logical approach to planning, resources and reporting on progress | • An understanding of polymer resin curing  
  • Technical knowledge of radio frequency or microwave processing  
  • Skills in experimental design for new product development |
| Other | • Willingness to travel between the university of Nottingham and Base Materials  
  • Commitment to observing Equality & Diversity policies at all times  
  • Commitment to maintain confidentiality at all times | • Willingness to undertake appropriate further training and to adopt new procedures as and when required |

Informal enquiries may be addressed to Chris Dodds Email: Chris.Dodds@nottingham.ac.uk. Please note that applications sent directly to this email address will not be accepted. Knowledge Transfer Partnerships is a government funded technology transfer initiative that supports partnerships between business and universities, placing graduates on challenging, high profile projects. To be eligible for this KTP, candidates must have completed their Masters or PhD in the last few years. Further information is available at: http://www.ktponline.org.uk.

The University of Nottingham strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women’s careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.