UNIVERSITY OF LEEDS

CANDIDATE BRIEF

KTP Associate – Corrosion Specialist

School of Mechanical Engineering and Roemex Limited

Salary: £27,000-£33,000 p.a. plus a personal development allowance of £6,000. This position is not on the University of Leeds salary scale

Based at the company premises in Porthlethen, near Aberdeen

Reference: CSRIS1156

Fixed-term for 36 months

KTP Associate – Corrosion Specialist
School of Mechanical Engineering and Roemex Ltd.

Do you have a strong background in corrosion science at PhD level? Are you a multi-talented candidate familiar with corrosion mechanisms, electrochemical measurements and surface analysis?

Are you enthused by using your knowledge of corrosion science to address a challenging problem in a commercial setting? If so, would you like to develop novel corrosion inhibitors for the emerging geothermal energy market and thereby take a significant step on your career path?

Then the University of Leeds has an excellent opportunity for you to 'fast track' your career in industry by leading a strategically important project to a successful conclusion. Through a Knowledge Transfer Partnership (KTP), you will be working in partnership with Roemex Ltd and the Institute of Functional Surfaces (IFS) in the School of Mechanical Engineering at the University of Leeds, one of the UK's leading research intensive universities. IFS has an excellent global reputation in the corrosion research field across many industrial sectors.

Roemex Limited, based in Porthlethen (near Aberdeen), manufactures and distributes Speciality Chemicals used by the global Oil & Gas industry during exploration and production. These products are used to increase the volume, consistency and quality of oil production, and have been developed by Roemex following the company philosophy of successfully finding solutions to problems faced by the industry through the application of novel technology and chemistry. Roemex now wishes to further develop their knowledge and abilities in order to find novel solutions to corrosion problems occurring in the emerging geothermal energy market.

You will primarily be working in Roemex's R&D centre in Aberdeen as part of a dynamic team of chemists and engineers to develop novel corrosion testing methods, investigating and understanding the corrosion mechanisms occurring in the geothermal market sector and using this knowledge to develop novel corrosion inhibition chemistries tailored specifically for geothermal energy environments.

Roemex's dedicated R&D centre provides a unique environment to undertake extensive chemical research, testing and development across three high specification laboratories and will afford you access to excellent facilities throughout the duration of your project. These will be supplemented when necessary during the project by utilising the "state of the art" facilities available in Leeds.



What does the role entail?

As a KTP Associate on this project your main duties will include:

- Developing a data repository, product specification and inhibitor selection process;
- Evaluating static corrosion of current oil & gas inhibitor chemicals in order to create benchmark performance indicators for candidate chemistries in geothermal settings;
- Developing laboratory tests/procedures for appropriate inhibitor selection for field application;
- Chemical evaluation of existing and new corrosion inhibitors in flowing systems, identifying optimum chemistries for further development in geothermal conditions;
- Evaluating interference of other flow assurance issues and material selection strategies in geothermal wells;
- Investigating down-hole corrosion through the development of an approved field sensing system;
- Producing and testing novel inhibitor chemistries;
- Embedding knowledge into the company through the development and delivery of training programmes;
- Creating a knowledge bank that informs reports and written papers for publication.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a KTP Associate you will have:

- A minimum 2:1 degree in Mechanical or Chemical Engineering or Chemistry;
- A PhD in the general area of Corrosion/Material Science;
- A background in corrosion with a good knowledge of corrosion chemistry;
- An excellent understanding of electrochemistry, specifically in the context of corrosion measurement;
- Strong inter-personal and communication skills;
- Excellent project management skills with a proven ability to work independently and manage your own time;



- A strong work ethic with a commitment to drive a project forward and meet challenges head on, seeking solutions to problems relating to corrosion.

You may also have:

- A background or general understanding of the geothermal market with a desire to progress your career in this field;
- Knowledge of corrosion inhibitor evaluation and/or surfactant chemistry;
- Experience in thermodynamic modelling and oilfield/geothermal chemistry;
- The ability to manage a budget with a view to investing in your personal development and career progression;
- Experience of working in a cross-organisational team or a team of individuals from different working backgrounds;
- Experience in the commercial application of your work in a company setting.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23:59** (UK time) on the advertised closing date.

Please note that interviews for this role may be conducted virtually, more information will follow about this process should you be successful in gaining an interview.

Contact information

To explore the post further or for any queries you may have, please contact either;

Dr Richard Barker, Associate Professor
Tel: +44 (0)113 343 2206
Email: r.j.barker@leeds.ac.uk

Peter Wilkie, General Manager at Roemex
Tel: +44 (0)1224 783444
Email: peter.wilkie@roemex.com

Additional information

Find out more about the Faculty of Engineering and Physical Sciences.

Find out more about our School of Mechanical Engineering.

Find out more about our Research and associated facilities.

Further information about Roemex Limited may be found at https://roemex.com/about.

Further information on KTPs can be found at http://ktp.innovateuk.org/

Please note - Your application and any uploaded documents you may submit in support of your application to this role will be shared with Roemex Ltd. for the purposes of assessing your suitability for this role. If at any time you would wish to withdraw this consent, please contact hr@leeds.ac.uk

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at j.hartford@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position, however, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information.