



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

**Research Fellow in Liquid Crystal Device Theory,
Faculty of Engineering & Physical Sciences**



Salary: Grade 7 (£33,797 – £40,322 p.a.)

Reference: EPSPA1005

Closing date: 09 February 2020

Fixed-term for up to 36 months

We will consider job share / flexible working arrangements

Research Fellow in Liquid Crystal Device Theory, School of Physics and Astronomy.

Are you an ambitious and capable researcher seeking a challenging role in the areas of Soft Matter, Liquid crystals and Optical devices? Do you want to further your career in one of the UK's leading research intensive Universities?

You will work on a collaborative project on the invention, fabrication and characterisation of novel liquid crystal devices, collaborating with Prof Cliff Jones FREng, FInstP, FRSC and a second Research Fellow working on the experimental aspects of the programme.

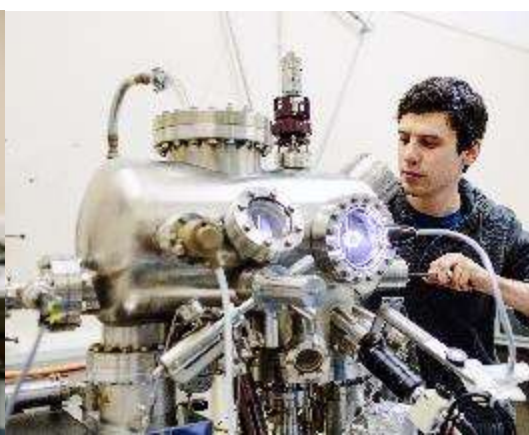
You will have a PhD degree, or equivalent, in Physics and/or Engineering and research experience in liquid crystal physics, along with significant experience in electro-optics, active and passive device fabrication or related areas.

You will focus on a range of liquid crystals based technologies and work on implementing theoretical and computational models for the novel liquid crystal devices. You will have experience of Q-tensor modelling of liquid crystals and including the electrical and optical features of the liquid crystal in the model. You will work closely with a second Fellow being recruited simultaneously that will be responsible for the experimental aspects of the projects. In addition to carrying out a series of research projects, you will be an excellent communicator, experienced at writing high impact papers and conference presentations. You will be a good team player and have a proven ability to work collaboratively.

What does the role entail?

As a Research Fellow, your main duties will include:

- Theoretical work, both analytical and computational for understanding liquid crystal devices;
- Helping design and analyse experimental results being generated by the project and across the Soft Matter Physics group;
- Generating and pursuing independent and original research ideas in the areas of liquid crystals, optoelectronic and photonic devices, and more generally in the use of soft matter materials for applications;



- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

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 Research Fellow, you will have:

- A PhD (or close to completion) in physics and/or engineering and research experience in theoretical liquid crystal physics;
- Experience of the development and use of computational models for liquid crystals and liquid crystal devices;
- An initiative approach to exploring new ideas and contributing to the development of the research, both conceptually and in practice;
- The ability to design, execute and write up research independently;
- The ability to work accurately and carefully;
- A developing track record of peer reviewed publications in international journals, and the ability to evidence personal involvement in the writing of such papers;
- Excellent communication skills, both written and verbal, with the ability to work with industrial partners and communicate your research at national and international conferences;



- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A proven ability to work well both independently and as part of a team;
- A strong commitment to your own continuous professional development.

You may also have:

- Skills in experiments of fabrication and/or characterisation of liquid crystal devices or materials.

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](#).

Contact information

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

[Prof Cliff Jones](#), EPSRC Manufacturing Fellow

Tel: +44 (0)113 343 7311

Email: J.C.Jones@leeds.ac.uk

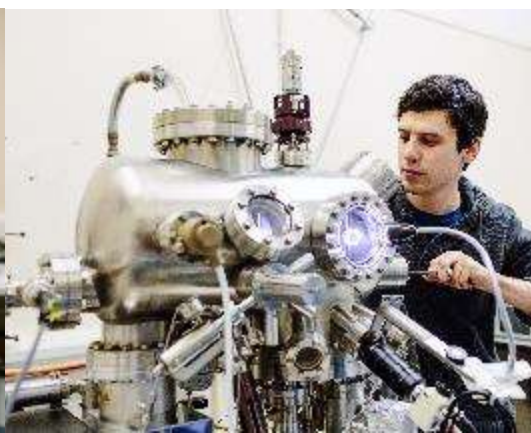
Additional information

A diverse workforce

The Schools in the Faculty of Engineering & Physical Sciences are proud to have been awarded the Athena SWAN [Bronze or Silver](#) Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our [equality and inclusion webpage](#) provides more information.

Working at Leeds

You can find out more about our generous benefits package and more about what it is like to work at the University and live in the Leeds area in our [Working at Leeds](#) information page.



Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found in our [Accessibility](#) information page or by getting in touch with us at disclosure@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 made in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

