

**JOB DESCRIPTION**

Post-Doctoral Research Associate in Thin Film Surface Characterisation for Molecular Electronics

**Ref:** 1221-23

|  |  |
| --- | --- |
| **Job Title:** Senior Research Associate in thin film surface characterization for molecular electronics | **Present Grade:** 6/7 |
| **Department/College:** Physics | |
| **Directly responsible to:** Dr. Samuel Jarvis | |
| **Supervisory responsibility for:** Co-supervision of PhD students and UG projects | |
| **Other contacts** | |
| **Internal:** Collaborating with academic staff, PDRAs and postgraduate students including Professor Colin Lambert’s theory group and Dr Ben Robinson’s experimental group as part of the QMol project. | |
| **External:** Collaborators from Imperial, Oxford, Liverpool, and the STFC within the EPSRC-funded QMol project. A range of outside collaborators from EPSRC and EU funded projects. | |
| **Major Duties:**  To study surface growth and characterisation of molecular thin films designed to optimise thermoelectric and memristive properties as part of the QMol programme.  **In particular, the post holder will be expected to:-**   1. Take responsibility for day to day project management of the EPSRC-funded QMol project. 2. Develop methods for thin film deposition for a range of organic molecules synthesized by colleagues at the University of Oxford and Imperial College London. 3. Characterise molecular thin films using STM, AFM, and XPS. 4. Develop methods for on-surface 2D covalent organic frameworks across a range of substrate materials. 5. Contribute to device integration of materials, in collaboration with QMol project partners. 6. Draft scientific papers arising from the project. 7. Participate in national and international conferences, presenting the results of the project and learning about current advances in the field. 8. Assist with running the research group, including: supervision of new/junior members of the group and UG/PG students; maintaining laboratories and equipment; participating in relevant public engagement events; and such other activities as may be directed by the PI. | |