

Postgraduate/Postdoctoral Scientists

Dear Colleagues,

The NPL Surface and NanoAnalysis group (www.npl.co.uk/nanoanalysis) has **4 vacancies** for high-calibre postgraduate/postdoctoral scientists

1. Physicist/chemical physicist to conduct frontier research in surface analytical methods for multi-layer organic coatings with applications in organic electronics. The ideal candidate will have experience of ToF-SIMS along with other surface analytical techniques.

The NanoAnalysis group currently has collaborative projects focused on addressing the requirements of the Organic electronics community as well as the analysis of drug delivery systems and other surface coated medical devices. The ideal candidate will have experience in these key technology areas and knowledge of Time-of-Flight Secondary Ion Mass Spectrometry (ToF-SIMS) and other techniques such as X-ray Photoelectron Spectroscopy (XPS) and Atomic Force Microscopy (AFM). Key to success in the post will be the ability to develop models to describe physical systems.

2. Physicist/chemical physicist/chemist to undertake frontier research into the micro and nanoscale measurement of surface chemistry and wettability with applications in printing and the deposition of organic coatings.

The ideal candidate will have experience in UHV surface analysis techniques and experience of the analysis of organic coatings for printed polymer electronics. A background that includes knowledge of printing processes and printing inks would be useful but not essential.

3. Physicist/chemical physicist to conduct frontier research into current and future SPM techniques including AFM and near-field optical techniques.

The ideal candidate will have a proven record in the development and application of SPM techniques with a particular bias towards the analysis of organic polymer coatings and bio-molecular coatings. Experience of friction force microscopy, force calibration of AFM cantilevers or analysis of single molecules on surfaces would be an advantage. Excellent capabilities in mathematical modelling and data analysis are desirable skills for this post.

4. Physicist/chemical physicist to undertake fundamental research into the measurement and characterisation of nanoparticles with applications in air quality, engineered nanoparticles and toxicology.

NPL undertakes a broad range of Nanoparticle research from measurements of size, number density, mass and surface area to bulk chemical composition and the determination of chemical profiles through nanoparticles. Experience of the measurement of any of these properties would be valuable particularly if this was coupled to knowledge of nanoparticle measurement requirements for the fields of air quality or toxicology. Capability in the design and evaluation of MEMS systems for particle sampling and detection would be beneficial as would good mathematical modelling and data analysis skills.

For more details please see the NPL recruitment website

http://www.npl.co.uk/npl/vacancies/vacancies/specific/ql_2007_007_nano.html

Many thanks

Ian Gilmore

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