

Novel Aspects of Surfaces and Materials (NASM3)

Conference of the Applied Physics and Technology Division

11 – 15 April 2010

Chancellors Hotel & Conference Centre, Manchester, UK

www.nasm.org.uk

*Organised by the Applied Physics and Technology Division of the Institute of Physics
Co-sponsored by the British Vacuum Council and Institution of Mechanical Engineers (IMechE)*



Novel Aspects of Surfaces and Materials (NASM3)

An interdisciplinary and interactive conference delivered in a format that highlights new developments and promotes opportunities for new collaborations on funding applications and networking.

The conference is the third in the series and will include presentations on current applied physics challenges, developments and approaches to surfaces and materials. The invited speakers will share their vision and knowledge on contemporary research and technology.

Conference Scope

The conference will cover all areas related to applied physics and technology, with particular emphasis on solving applied physics and engineering challenges.

The conference is represented by the following groups

- Applied Mechanics (formerly Stress and Vibration)
- Computational Physics
- Energy
- Engineering Physics
- Ion and Plasma Surface Interactions
- Materials and Characterization
- Nonlinear and Complex Physics
- Particle Accelerators and Beams
- Polymer Physics
- Printing and Graphics Science
- Tribology
- Thin Films and Surfaces
- Vacuum

Topic areas will include, but are not limited to

Novel Types of Materials, including

Oxides and nitrides, metals, semiconductors, nanocomposites, biomaterials, polymers and gels.

Applications of Materials, including

Energy, particle accelerators and beams, adhesives, printing, displays, sensors, MEMS, thin films, coatings.

Innovation in Properties, including

Mechanical, optical, electrical, corrosion, durability and integrity

Surface and Interfacial Phenomena, including

Nanopatterning, nucleation, self-assembly, wetting, adhesion, wear and friction, film processing.

Latest Techniques

Advances in techniques for materials characterisation, surface and interfacial analysis.

In addition, NASM3 will feature

- session on wind energy applications
- suppliers' exhibition with opportunity for presentations
- session on future funding opportunities
- conference dinner

Cover Image Thermal Marangoni induced breakup of continuous inkjet jets (9 μm diameter and 20 ms^{-1} velocity) generated using a MEMS nozzle array. (courtesy Q.Yang and A.Clarke, Kodak Research Labs)



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Plenary Lecture

Materials Challenges for the Fusion Program

Prof Steven Cowley, Director, United Kingdom Atomic Energy Authority, Culham, UK

Confirmed invited speakers to date:

Prof Peter Barna, *Research Institute for Technical Physics and Materials Science, Budapest, Hungary*

Prof Hans Bjelkhagen, *Technium OpTIC*

Prof Stephen Donnelly, *University of Salford*

Prof Sergei Dudarev, *UKAEA Culham*

Dr Arutiun Ehasarian, *Sheffield Hallam University*

Prof Hugh Evans, *University of Birmingham*

Dr Mark Geoghegan, *University of Sheffield*

Prof Bill Graham, *University of Belfast*

Prof Richard Nichols, *University of Liverpool*

Dr Oleg Malyshev, *STFC Daresbury Laboratory*

Dr Emmanuelle Marquis, *University of Oxford*

Dr Boris Militsyn, *STFC Daresbury Laboratory*

Prof Roger Smith, *University of Loughborough*

Prof John Watts, *University of Surrey*

Prof Robert Wood, *University of Southampton*

A representative from the Engineering and Physical Sciences Research Council (EPSRC) will also give a presentation on the latest funding opportunities.

Venue

The conference will be held at Chancellors Hotel and Conference Centre, which is close to the University of Manchester and the city centre. It is conveniently located for all local amenities and is only 3 miles (4.8km) from Piccadilly Rail Station and approximately 5 miles (8km) from Manchester International Airport.

Chancellors Hotel and Conference Centre is an elegant country house set in five acres of mature landscaped gardens. The hotel was once the Firs House, built by Edward Walters for Sir Joseph Whitworth in 1850. The old house forms the western wing of Chancellors whilst the new eastern wing houses the Theatre, conference rooms and the majority of the bedrooms.

Facilities include en-suite accommodation, a main circular lecture theatre with excellent acoustics and presentation facilities, and conference/syndicate rooms suitable for breakout sessions. Full details on the venue can be found via the conference website.

Call for Abstracts

The conference format will be a mixture of invited lectures from distinguished national and international scientists and engineers on a range of topics of current interest, contributed talks, poster sessions and an exhibition. The meeting is an ideal platform for early career researchers and contributions from postgraduates and postdocs are particularly encouraged. Abstracts submitted from groups where the student is the lead author should be indicated. A student poster prize competition will be held during the conference.

Electronic abstract submission for oral and poster contributions will be on-line via www.nasm.org.uk. Extended abstracts should be prepared using the template supplied from the conference website. The overall length of the abstract must not exceed 2 pages of A4 including figures and references. The abstract submission deadline is 30 September 2009.

Key Dates

Abstract submission deadline	30 September 2009
Notification of abstract acceptance	30 October 2009
Early registration deadline	15 December 2009
Late registration deadline	15 March 2010
Conference dates	11–15 April 2010

Organising Committee

Dr Vladimir Vishnyakov, Manchester Metropolitan University (Conference Chair)

Prof John Colligon, Manchester Metropolitan University (Founder and Series Chair)

Dr Alec Goodyear, The Open University (Programme Chair)

Prof Janice Barton, University of Southampton (APTD Chair)

Dr Andrew Horsfield, Imperial College London (Computational Physics)

Dr John Roberts, University of Sheffield (Energy)

Dr Mohammad Sanduk, University of Surrey (Engineering Physics)

Dr Adrian Leyland, University of Sheffield (Ion and Plasma Surface Interactions)

Dr Matthew Healy, Cranfield University (Materials and Characterization)

Dr Bill Nuttall, University of Cambridge (Nonlinear and Complex Physics)

Prof Joe Keddle, University of Surrey (Polymer Physics)

Dr Andrew Clarke, Kodak European Research (Printing and Graphics Science)

Dr Arthur Jones, University of Nottingham (Applied Mechanics formerly Stress and Vibration)

Dr Mark Gee, National Physical Laboratory (Tribology)

Dr Tim Noakes, STFC Daresbury Laboratory (Thin Films and Surfaces)

Dr David Hucknall, Vac Tech Consultancy (Vacuum)

Local Organising Committee

Prof John Colligon, Manchester Metropolitan University (Chair of Local Committee)

Prof Jaap van den Berg, Salford University (Exhibition Coordinator)

Prof Bruce Hamilton, Manchester University

Dr James Marrow, Manchester University

Dr Vladimir Vishnyakov, Manchester Metropolitan University

Enquiries

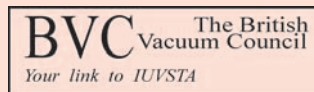
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