

PROGRAMME

Nanostructured Metal Oxide Thin Films

Date: Thursday 18th October 2012
Venue: Yorkshire Bank North (First Floor),
 Ricoh Arena, Coventry, CV6 6GE

**ADVANCE
 REGISTRATION
 REQUIRED (FREE)**

IT IS FREE TO ATTEND THIS CONFERENCE

[Please register by following this link](#)

A conference within the
3rd Vacuum Symposium UK

PROGRAMME

09.45 registration in foyer, coffee in meeting room

10.15 **Introduction to meeting**
 Mark Baker, Surrey Materials Institute,
 University of Surrey

SESSION 1 Fabrication & Characterisation

Chair: **Mark Baker**

10:20 **INVITED**
Characterisation of TCO-Si interfaces with XPS, HREM and ab-initio modeling based on DFT
 Dr Spyros Diplas, SINTEF, NORWAY

10:40 **Reduced preferential sputtering of titanium oxide thin films through argon cluster ion bombardment**
 Dr Rosanna Grilli, Surrey Materials Institute,
 University of Surrey

11:00 **The Electrical characterisation of TCO thin films**
 Dr Eric Don, Semimetrics Ltd, Kings Langley

11.20 - tea/coffee break -

SESSION 2 Optical Films

Chair: **Dr Spyros Diplas**

11.40 **INVITED**
Optical properties and applications of nanostructured oxide thin films
 Dr John Allen, AJ Thin Films Consultancy Ltd

12.00 **Thin film silica nanocomposites for anti-reflection coatings**
 Sasha Reid, Oxford Advanced Surfaces Grp

12.20 **Absorbance of Zinc Oxide Nanostructures on Conductive Glass Substrates.**
 Kieren Bradley, University of Bristol

12.40 **INVITED**
Plasma Assisted Reactive Magnetron Sputtering of High Performance Interference Filters
 Alfons Zöller, Leybold Optics, GERMANY

13:00 **POSTER SESSION*** - lunch break -
Delegates are encouraged to visit the exhibition during lunch, the poster session will be held in the exhibition area

** Poster titles are shown next page.*

SESSION 3 Industrial processing

Chair: **Dr Glen West**

14.40 **INVITED**
Traceable measurements of water vapour transmission rate for high performance barrier layers
 Dr Paul Brewer, National Physical Laboratory

15.00 **Managing flexible webs for vacuum roll-to-roll deposition for electronic of ultra-barrier applications**
 Dr Charles Bishop, C.A. Bishop Consulting Ltd

15:20 **Comparison of ITO and AZO properties from reactive and non-reactive deposition from rotatable sputter targets**
 Dr Dermot Monaghan, Gencoa Ltd

15.40 **Oxide thin films deposited by reactive magnetron sputtering**
 Dr Zhenxue Zhang, Teer Coatings Ltd

16.00 **UV Deposition of Thin Films and Nanostructures**
 Prof Ian W. Boyd, ETC, Brunel University

16.20 - meeting end -

ORGANISER

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ADMINISTRATION

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* POSTERS

Authors will be available during refreshment breaks and during lunch to discuss their research.

Electrical and Optical Characterisation of Fluorine Doped Tin Oxide Thin Film Grown by Pulsed DC Magnetron Sputtering Technique

Ziad Banyamin, Surface Engineering Group, Manchester Metropolitan University

Nano-scale multi-layer structures for optical rectifier devices

Evgeniy Donchev, Department of Materials, Imperial College

High oxygen pressure deposition and patterning methods of metal oxide heterostructures

Michael Faley, Forschungszentrum Jülich, GERMANY

Deposition structural and electrical characterisation of thin film ferroelectrics

Ullrich Hannemann, Imperial College London

Enhanced Photocatalytic Properties of Titanium Dioxide Thin Films Via Co-Doping with Nitrogen and Molybdenum

Marina Ratova, Surface Engineering Group, Manchester Metropolitan University

Roll-to-roll deposition of highly flexible organic-Inorganic barrier layers for printed electronics and photovoltaics

Vincent Tobin, University of Oxford

Metal Oxide Heterointerfaces for Nano-SQUID magnetometry

Clementine Walker, Imperial College London

Deep reactive ion etching of silicon for MEMS applications

Tianle Wang, Imperial College London

Ferroelectricity in ultrathin Ba_{0.5}Sr_{0.5}TiO₃ film

Bin Zou, Imperial College London

TECHNICAL PROGRAMME COMMITTEE

Dr Mark Baker

Surrey Materials Institute, University of Surrey, Guildford

Dr Zoe Barber

Materials Science & Metallurgy, University of Cambridge, Cambridge

Prof Peter Kelly

Head of Surface Engineering Group, Manchester Metropolitan University, Manchester

Prof Mike Thwaites

Plasma Quest Ltd, Hook

Hayley Brown

Surrey Materials Institute, University of Surrey, Guildford & Plasma Quest Ltd, Hook

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SUPPORTING COMMENT:

Dr Zoe Barber of the technical programme committee commented "Thin film deposition technologies offer the ability to control precisely the materials we fabricate, and there's a vast set of parameters to play with! This research field is multidisciplinary, and widely dispersed amongst workers and users in a range of groups and subject areas. It's essential that we get together, and a meeting such as 'Nanostructured Metal Oxide Thin Films' is an ideal place to compare approaches, find out about new ideas and challenges, and develop links.

A 3RD VACUUM SYMPOSIUM UK PROGRAMME



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This meeting is held during Vacuum Expo 2012. The meeting programme is prepared to allow all delegates sufficient time to visit the exhibition. It is highly recommended that all potential participants also register as visitors to the exhibition in advance to receive email updates about the event.

More at: www.vacuum-expo.com

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