



Royal Microscopical Society
and the
EPSRC NanoFIB Network



Nano FIB 2009

Advances in Focused Ion Beam microscopy

Oral Programme:

- 10.00 Registration, Tea and Coffee
- 10.25 **Welcome: Dr Beverley Inkson**
- Session One Chair: TBA**
- 10.30 **Dr AJ Smith** - Kleindiek Nanotechnik, Germany
New Tools and Techniques for Increasing TEM Sample Preparation Throughput
- 10.50 **Dr D C Cox** - University of Surrey
High complexity patterning using lithographic software and its application to ion beam milling of nanoSQUIDS
- 11.10 **Dr A C Stanley-Clarke** - University of Bristol
Increasing the photon collection efficiency from N-V defects in diamond
- 11.30 **Dr V V Artemov** - Institute of Crystallography, Russia
Focused-ion-beam assisted fabrication of nanoelectronic components based on SWNT@pyrolytic carbon nanocomposites
- 11.50 **Dr E S Osley** - London Centre for Nanotechnology
The Effect of Residual TEOS Precursor on FIB-Induced Tungsten Deposition
- 12.10 **Lunch, Exhibition and Poster Session**
- Session Two Chair: Dr Beverley Inkson**
- 13.30 **(Invited) Dr David Bell** - Harvard University, USA
The helium ion microscope for materials modification and patterning
- 14.00 **Dr D Maas** - TNO Science and Industry, The Netherlands
Scanning Helium Ion Microscopy at TNO NanoLabNL
- 14.20 **Dr R Forbes** - University of Surrey
On the fundamental ion optical limitations of gas field ionization sources used in Helium Ion FIB machines

14.40 **Dr V Sidorkin** – Kavli Institute of Nanoscience, The Netherlands
Scanning Helium Ion Beam Lithography using HSQ resist

15.00 **Tea and Coffee / Poster Session**

Session Three **Chair: TBA**

15.30 **Dr H Edwards** - University of Nottingham
Cryo-FIBSEM techniques for the sectioning and TEM analysis of the cell-biomaterial interface

15.50 **Dr N Payraudeau** - Trinity College Dublin, Ireland
Scale effects in nano-indentation fracture toughness measurements of brittle ceramics arising from crack-microstructure interactions

16.10 **Dr H Wang** - University College London
Fabrication and mechanical characterization of tungsten nanorods

16.30 **Dr Q HU** - University of Cambridge
Focused Ion Beam induced clustering on glassy carbon and associated cleaning for toolsets application

16.50 **Close of Meeting**

Posters : (As of 17/02/09)

1. **Brigida Alfano** - ENEA Research Centre, Italy
Platinum electrodes deposited by focused ion beam for chemical sensor applications
2. **PFA Alkemade** - Delft University of Technology, The Netherlands
Instability in single-pass ion beam milling
3. **Johannes Leiner** - London Centre for Nanotechnology
Nanopatterning of high-Tc intrinsic Josephson junctions
4. **L Marseglia** - University of Bristol
Photonic crystal defect cavities coupled to N-V centres in diamond
5. **F Elfallagh** - The University of Sheffield
3D analysis of crack morphologies in silicate glass using FIB tomography
6. **Ping Chen** - Delft University of Technology, The Netherlands
Ion-Beam-Induced Deposition of Platinum