Accommodation

Through a generous contribution from the University of Oxford, accomodation and meals will be provided in St Edmund Hall for all Princeton student participants. St Edmund Hall is one of Oxford's oldest and most beautiful colleges, and dates to the 13th century. Princeton faculty participants will be expected to cover their accomodation costs, estimated to be about $78 USD per day.

Social Programme

The Summer School will include a number of social activities to provide the Oxford and Princeton participants with the opportunity to mix socially, and to enjoy the idyllic Oxford summer. Punting, leisurely sporting activities, a visit to Blenheim Palace and a tour of Oxford are scheduled, as is a Summer School Dinner in a traditional Oxford College.

OxfordMaterials

Timetable

The Summer School runs from 9 am on 30 June to 5 pm on 7 July 2004. There are lectures and practicals each day, together with laboratory visits and demonstrations. Participants attend all lectures and have a choice of practicals.

For more information about the school, please contact:

Professor David Cockayne
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david.cockayne@materials.oxford.ac.uk

Dr. Nan Yao
Princeton Institute for the Science and Technology of Materials
Princeton University
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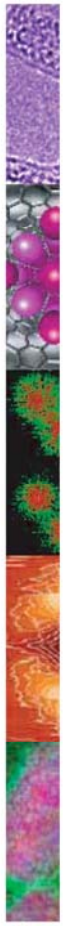


OXFORD-PRINCETON SUMMER SCHOOL

IN

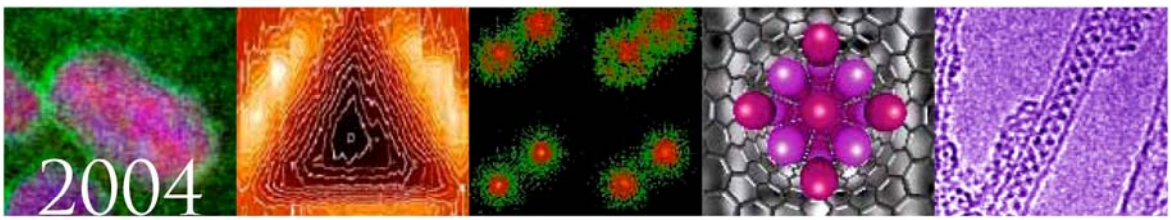
ADVANCED MATERIALS CHARACTERIZATION

DEPARTMENT OF MATERIALS

UNIVERSITY OF OXFORD

JUNE 30 – JULY 7

2004



June 30 – July 7

The Oxford-Princeton Summer School in Advanced Materials Characterisation is one part of the growing links between the two Universities. It is the first Summer School organised jointly between the Department of Materials at Oxford and the Institute of the Science and Technology of Materials at Princeton. It is to be held in the Department of Materials in Oxford, which has extensive advanced microscopy and microanalysis instrumentation, and whose staff have a long history of international leadership in this field. The Summer School aims to provide participants with an exposure to a wide range of advanced materials characterisation techniques, through lectures, practicals and demonstrations delivered by international experts.

The Summer School is led on the Oxford side by Professor David Cockayne, and by Dr. Nan Yao and Dr. Joe Michels on the Princeton side.

Lectures

Overview of characterisation techniques
High resolution electron microscopy
Electron diffraction
EDX/Multivariate analysis
EELS/EFTEM
High resolution image analysis and reconstruction
Electron microscopy of magnetic materials
RDF of amorphous and glassy phases
Characterisation of nanostructures
Defect analysis
Focused ion beam/low voltage SEM
NanoSIMS
Atom probe microscopy
Atomic force microscopy
STM for soft and organic materials
Electron backscatter diffraction

Practicals

High resolution electron microscopy
Atom probe microscopy
Electron energy loss spectroscopy analysis
Scanning tunneling microscopy
Aberration corrected transmission electron microscopy
Electron energy loss spectroscopy/Energy filtered TEM
Energy dispersed X-rays/Multivariate analysis
Focused ion beam
Image analysis and reconstruction
Electron diffraction
Defect analysis
Secondary ion microspecrtroscopy/NanoSIMS
Magnetic materials
Atomic force microscopy
Electron backscatter diffraction

Summer School Faculty

David Cockayne
Nan Yao
Henny Zandbergen
Jouk Jensen
John Titchmarsh
Angus Kirkland
Mike Jenkins
George Smith
Crispin Hetherington
John Pethica
Chris Grovenor
Alfred Cerezo
Steven Bernasek
George Smith
Rudi Meyer
John Hutchison
Amanda Petford-Long
Angus Wilkinson
Martin Castell

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