

REGISTRATION FORM

Recent advances in Spectroscopy at Terahertz Frequencies.

The meeting will take place in the Barton Room, Thomas Graham House. Attendance is limited, so early registration is recommended.

To register for this meeting, please complete and return the form below, together with the appropriate fee to:

**Brian Woodget, 14 Benington Road, Aston, Herts, SG2 7DX
[bwoodget1@sky.com]**

Registration fees are: **RSC/MSG members £75, non-members £105, student/retired members and unwaged £35.**

Please make cheques payable to 'RSC/AD East Anglia Region Trust'.

To pay by BACS please contact Brian Woodget for payment details.

Delegate name:.....

Affiliation:.....

Address for
correspondence:.....

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.....

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Tel:.....Fax:.....

E-mail:.....

Cheque enclosed for £..... payable to **The RSC/AD East Anglia Region Trust.**

I do/do not have any special dietary requirements – please specify if necessary

RSC | Advancing the
Chemical Sciences

Analytical Division, Molecular
Spectroscopy Group & the East Anglia
Region

3rd one day meeting on THz
spectroscopy:

***“Recent Advances in Spectroscopy
at Terahertz Frequencies”***

to be held on:

Thursday 31 October 2013

**at the RSC Thomas Graham House,
Science Park, Milton,
Cambridge,
CB4 0WF**

Registered Charity Number 207890

The Molecular Spectroscopy Group and East Anglia Region of the RSC will jointly host the **3rd Terahertz Spectroscopy** meeting to be held on Thursday 31st October 2013:

Recent Advances in Spectroscopy at Terahertz Frequencies

This 3rd one day meeting will be held at Thomas Graham House in Cambridge and will focus on recent advances in terahertz spectroscopy.

Terahertz radiation, the part of the electromagnetic spectrum between microwaves and infrared radiation, has unique properties in that it easily penetrates through most polymeric materials and is therefore an exciting new tool to study such materials. As well as being a non-destructive imaging probe, in organic molecular crystals terahertz radiation interacts with vibrational modes that extend across large domains of a crystal lattice. This makes terahertz spectroscopy unique: even though it is possible to excite molecules using a variety of energies it is only through the careful selection of the low energy in the terahertz range that it is possible to selectively excite crystal lattice vibrations and study the presence and nature of interactions between molecules.

Note: alterations to this programme will appear on the East Anglia Region web site [www.rsc.org/adearegion] and Molecular Spectroscopy Group web site [<https://sites.google.com/site/rscmolecularspectroscopygroup/calendar/3rd-terahertz>].

Travel directions for getting to Thomas Graham House may be found at: <http://www.rsc.org/AboutUs/Contacts/TGH.asp>

PROGRAMME

10.00 - 10.40	Registration and coffee
10.40 - 10:50	Welcome by John Chalmers and Axel Zeitler
10:50 - 11:20	"Terahertz spectroscopy – title TBA". Prof. Bernd Fischer (Institut Franco-Allemande de Recherches de Saint-Louis, France)
11.20 - 11:50	DFT methods for THz spectral assignments. Prof. Timothy Korter (Department of Chemistry, Syracuse University, USA)
11:50 - 12.20	Low frequency Raman spectroscopy of phase transformations. Dr. Jonathan Burley (Department of Chemistry, University of Nottingham, UK)
12.20 - 12.50	Normal coordinate analysis of neutron diffraction data – link to THz spectroscopy. Prof. Jacqui Cole (Cavendish Laboratory, University of Cambridge, UK).
12.50 - 14:00	Lunch
14.00 - 14.30	Coherent Synchrotron Radiation in low-alpha mode at Diamond Light Source for Fourier Transform IR Interferometer in the (sub-)THz gap 5-100cm⁻¹ Dr. Gianfelice Cinque (MIRIAM Beamline, Diamond Light Source, Harwell Campus, UK)
14.30 - 15:00	Thermal decoupling of molecular relaxation processes from the vibrational density states in supercooled hydrogen-bonded liquids. Juraj Sibik (Department of Chemical Engineering & Biotechnology, University of Cambridge, UK)
15:00 - 15.30	Tea break
15.30 - 16:00	Microstructure analysis of confined liquids with terahertz time-domain spectroscopy. Nicholas Tan (Department of Chemical Engineering and Biotechnology, University of Cambridge, UK)
16:00 - 16.30	Crystallization of amorphous lactose at high humidity studied by terahertz time domain spectroscopy. Dr. Robert Donnan (School of Electronic Engineering and Computer Science, Queen Mary, University London, UK)
16:30	Close