

by contacting the group chairman, e-mail: IAIN.MCNAB@UK.AC.NEW-CASTLE.

Generous support for student travel to the meeting was provided by the Association of British Spectroscopists, Bentham Instruments, Caburn UHV, Cathodeon, Chell Instruments, Coherent, Edwards High Vacuum, Fisons Instruments, Goodfellow Metals, Hamamatsu Photonics, Heraeus Silica and Metals, LeCroy Instruments, Teeside Valve and Fitting Company, Tektroniks and Thorn EMI electron tubes.

Aspects of Spectroscopy V will be held at Sheffield University. I, as a third year postgraduate student, recommend any spectroscopist, especially those just starting out on research, to attend. Not only does it give an insight into the many other fields of research but this conference is a good way to make contact with fellow students working on similar problems to your own. It gives you a good feeling to know that other people are suffering just as much as you are.

Applications of NMR in Analytical Chemistry

15 September 1994, Metropolitan Forensic Science Laboratory, London, UK

by Chris Groombridge

Dr John Lindon (*Wellcome Research, Beckenham*) spoke in detail about the extensive current work on HPLC-NMR, with examples from the collaborative research with Bruker Spectrospin. Usefully, the current status of detection limits was addressed: for typical drug metabolites at 600 MHz with stopped-flow, 400 ng was considered detectable in 1 hour (standard ^1H spectrum), whereas ^1H 2-D spectra required c. 3 μg and HMQC ^{13}C - ^1H could be recorded with 80 μg samples.

Dr Will Prowse (*Lilly Research, Windlesham*) gave an industrial perspective on the practical use of chiral reagents for the analysis of pharmaceutical synthesis products.

Dr Geoff Hawkes (*Queen Mary and Westfield College, London*) described two topics: the use of a range of NMR techniques for the characterisation of velutinol A, a natural product isolated from a traditional Brazilian snake venom remedy, and the detection and quantitation of aldehydes produced during the heating of various types of cooking oils.

Dr John Dennis (*Ministry of Agriculture, Fisheries and Food, Norwich*) reviewed the use at MAFF of deuterium SNIF-NMR for the measurement of isotopic ratios in food authentica-

tion, particularly for wine, fruit juices and honey.

Dr Alistair Swanson (*Pfizer Research, Sandwich*) described the implementation of two new NMR experiments for structure elucidation; improved observation of exchangeable protons using a selective excitation sequence (REFOPT), and the analysis of multiple-component biological fluids using diffusion measurement (DOSY).

The meeting was attended by 80 scientists, and was organised by Dr Chris Groombridge (MPFSL).

11th European Symposium on Polymer Spectroscopy

20–22 July 1994, Valladolid, Spain

by John Chalmers

The hosts and organisers of this ESOPS conference were Professor José Pastor and his colleagues from the Facultad de Ciencias at the Universidad de Valladolid. The meeting was held in the Palacio de Congresos "Conde Ansúrez", on the university site close to the centre of the town.

The symposium attracted about 100 delegates from across Europe. It consisted of 15 plenary lectures, with the speakers, like the delegates, representing many different countries. Three speakers were from the USA, one from Japan, while the remainder were drawn from 10 European countries. The presentations covered both recent theoretical characterisation tools along with a



Relaxing in the town square at Salamanca. From left to right: Professor José Pastor, chairman of ESOPS-11; Dr Gilbert Lachenal, Université Claude Bernard, Lyon, and probable organiser of the next ESOPS conference—perhaps modelling the official uniform for ESOPS-12!; together with Professor Heinz Siesler, University of Essen.

wide variety of studies and applications using different measurement techniques, which included vibrational spectroscopic methods, FT-NIR, NMR, electron microscopy, AFM, and neutron scattering. Many of these were also well represented in the poster sessions, which attracted about 70 contributions.

Overall the meeting had a high quality technical content, which was served in an ambience of cordiality generated by the hosts and their wonderful hospitality. If other meetings hosts come half way to reaching the standard of hospitality accorded the guests at this event, then I, for one, hope I am present as a delegate! As a climax to this highly sociable symposium, many of the delegates stayed on for a Saturday excursion to visit the historic and delightful city of Salamanca.

143rd IRDG meeting

12 October 1994, Renishaw plc, Wotton-under-Edge, UK

by K. Williams

The Industrial meeting of the Infrared and Raman Discussion Group was held for the first time at the premises of Renishaw plc in the Cotswold town of Wotton-under-Edge and was attended by an audience of 70.

The first speaker of the day was Professor Bob Young from UMIST who presented applications of a Raman microprobe for the analysis of fibres and composites. The relationships between the Raman band positions and the stress in the fibres were shown for a variety of systems. Dr Andy Sommer, from Miami University, Ohio, provided information obtained from both micro Raman and micro FT-Raman systems. Some of his micro Raman data related to the measurement of stress in silicon devices which amply demonstrated that the most critical factor in making this kind of measurement is instrumental stability and not resolution.

Dr Dick Lacey (*Police Scientific Development Branch*) concluded the morning session with a presentation which highlighted the use of direct 2-dimensional Raman imaging forensic science. His talk targeted at the detection of illicit materials such as explosives and drugs and clearly demonstrated the potential of the Raman method in this area. Professor Stradling (*Imperial College*) began the afternoon session by talking about the application of Raman spectroscopy for investigating semiconductors, epitaxial layer structures and high T superconductors. Dr Peter Mathews (*Rank Xerox*) followed this by describing the application of micro FT-IR spectroscopy in his