## NMR Discussion Group Spring Meeting

## 12 April 1994, Edinburgh, UK

## Conference report by J. C. Lindon

This meeting was held at the Chemistry Department of the University of Edinburgh on12 April.

The scientific programme was organised and chaired by Dr lan Sadler (University of Edinburgh).

The first speaker was Dr Paul Barlow (University of Edinburgh) who provided an overview of how NMR can be used to determine protein structure and gave a detailed explanation of recent work on zinc-binding proteins. Dr Frank Riddell (University of St Andrews) described high resolution magic-angle spinning solid-state <sup>13</sup>C NMR studies of molecular dynamics in organic molecules using lineshape analysis, 2D-exchange spectroscopy and relaxation rime measurements. The morning session was completed by Professor William McFarlane (University of Newcastle-upon-Tyne) who gave a lecture illustrating his recent work on organometallic compounds using 1- and 2-dimensional NMR techniques, including the use of NOE measurements to obtain the absolute configuration of chiral molecules.

After lunch, and following a short presentation on the 600 MHz NMR service by Ian Sadler, Professor Brian Johnson (University of Edinburgh) gave a presentation on the use of NMR to investigate structure and fluxionality in metal-arene cluster compounds. Dr David Rycroft (University of Glasgow) in a talk entitled "Experiments with hydroxyl groups" explained how partial deuteration of hydroxyl groups and the subsequent isotope effects in the <sup>13</sup>C NMR spectrum can be used to aid resonance assignment in natural products. Finally, Dr Steve Homans (University of Dundee) provided a comprehensive account of his recent work using multi-dimensional NMR and molecular dynamics calculations to probe the structure, sequence, conformation and dynamic of oligosaccharides and protein-carbohydrate complexes.

The meeting resulted in a stimulating day, both scientifically and socially.