

## Preface

The theme for this meeting came from the recognition that all aspects of synchrotron radiation are vital to delivering a multidisciplinary tool that will serve scientists well into the 21st century. We wanted to emphasize those qualities of synchrotron light that are most likely to be exploited by the largest group of people. After a great deal of discussion the scientific sessions settled on were dynamic studies; use of coherence; polarization; high resolution and anomalous scattering. Within these scientific groups synchrotron light production requires significant input from ring builders, insertion-device designers, beamline optics engineers, experimental scientists and computational staff. Within each session we tried to select contributions that covered every aspect of synchrotron radiation delivery and exploitation, literally 'from source to science'. In reality this was too big a task but in attempting to do this we attracted an excellent cast of speakers and contributors. We believe we succeeded in creating a stimulating atmosphere with very lively discussion sessions that produced many new ideas.

We were particularly pleased with the way this meeting highlighted the diffusion of ideas in synchrotron radiation research to physics, chemistry, environmental science and biology. Daresbury Laboratory was the first synchrotron radiation source in the world built specifically for the purpose of producing light. The ideas which were produced early on by the engineers and physicists have been so effectively adopted worldwide that biologists now expect to solve high-resolution protein and medium-resolution virus

crystal structures as a matter of course; powder diffraction patterns can yield full structures; structures can be obtained from tiny crystals and reactions can be studied dynamically. Synchrotron radiation has comprehensively merged the boundaries of small-molecule and macromolecular crystallography. Large organically active peptides and oligonucleotides will be solved at high resolution as routinely as many small-molecule chemical structures are solved now.

Daresbury Laboratory is proud of its formative role in this process. As we look forward to a new generation of synchrotron sources the SRS will continue to produce world-class science and it will look back with pride at the magnificent scientific legacy it has left the world. I was privileged to have organized this meeting on behalf of the IUCr Commission on Synchrotron Radiation and greatly look forward to the scientific discoveries that synchrotron radiation research will produce in the next triennium and beyond.

The conference required a great deal of hard work and effort from the programme and organizing committee who were made up from members of the IUCr Commission on Synchrotron Radiation plus members of Daresbury staff. I would like to thank all who took part on behalf of the IUCr, particular thanks to Mrs Alison Mutch for leading the local organization and to all the secretarial and administrative staff at Daresbury – this was a real team effort.

**R. J. Cernik**