current events

This section carries events of interest to the synchrotron radiation community. Works intended for this section should be sent direct to the Current-Events Editor (s.hasnain@dl.ac.uk).

SRS celebrates its 25 years

The world's first dedicated X-ray synchrotron radiation source, simply known as SRS (the Synchrotron Radiation Source), at Daresbury celebrated its 25th anniversary through a series of events during September and October 2005. The major science event was organized on 11–12 September, with a tour of the laboratory on 11 September where the making of ERL-P (the prototype stage of 4GLS), as well as the SRS and the high-performance computer, were shown. In October it had a staff and family day, as well as a public open day attracting some 2500 visitors.

SRS was constructed during the period from 1977 to early 1980 and achieved its first circulating beam on 30 June 1980. This was quickly followed by the completion of two beamlines (numbered 6 and 7 owing to the dipole number from which they originated) with several independent experimental stations. The facility was formally opened on 7 November 1980 by the Minister of State for Science, Mark Carlisle. First light on beamline 6 was observed on 20 March 1981, closely followed by beamline 7 on 8 April 1981, with the first meeting of international experts on EXAFS on 28–29 March 1981 (the XIII International XAFS Conference will be held in July 2006 in Stanford).

Synchrotron radiation research at Daresbury Laboratory started in 1968 with an exploratory experiment by Ian Munro and Scot Hamilton. A facility to exploit synchrotron radiation from the NINA 6 GeV electron synchrotron was approved in 1969 and ran until the closure of NINA on 1 April 1977. In fact, the First International Symposium for Synchrotron Radiation Users (which eventually became SRI) took place at Daresbury Laboratory in 1973.

The establishment of SRS was followed by the setting up of a strong theory group under the leadership of John Pendry, and a number of collaborative computation projects (CCPs) were established under the guidance of Phil Burke, both Fellows of the Royal Society. The close interaction between theoreticians and experimentalists was obvious from the first publication originating from SRS [*Nature (London)*, (1981), **293**, 611–616].

The first major storage-ring modification was the installation of a 5 T superconducting wavelength-shifter (wiggler) magnet to extend the spectrum of X-rays available to higher energies. This device was brought into operation for users in November 1982. In December 1982, with the first international agreement with the Dutch Research Council (ZWO) the construction of the second X-ray beamline started which brought together the world's first directly cooled slitless double-crystal monochromator. At the end of 1982, the first superconducting 5 T wavelength shifter was installed, giving beam to five independent experimental stations wishing to use X-rays of energies up to 70–80 keV. One of the stations on this first superconducting device, station 9.5, was funded by the Swedish Research Council through the efforts of the late Carl Branden, strengthening the early internationalization of the SRS.

From October 1986 to April 1987, the high-brightness lattice was implemented in the SRS, reducing the horizontal source size substantially. SRS went through its first science review in 1987, which was chaired by Tom Blundell, and recommended the construction of a second superconducting wavelength shifter and a low-energy source. A feasibility study of DAPS (Daresbury Advanced Photon Source) for the low-energy community was submitted. The 6 T wiggler was installed in November 1991 and became available to users in July 1992. The 1993 Woolfson Report on the future provision of synchrotron radiation for the UK recommended a three-source scenario, with ESRF for hard X-rays, SINBAD for the low-energy community and DIAMOND for soft X-ray to medium-energy X-ray applications. The restructuring of research councils led to delays in fulfillment of these recommendations and further upgrades to SRS continued. Two 2 T permanent-magnet devices were installed between October and December 1998. One of these provided the much needed capacity for protein crystallography with two independent stations (line 14, stations 14.1 and 14.2), while the other multipole wiggler (6) provided stations for combined techniques for materials science research. In 2003, the storage-ring klystron power

Delegates during the science session.

Some of the guests attending a celebratory dinner at Daresbury on 11 September 2005. Professor Chesters (CCLRC Director of Synchrotron Radiation) in the centre is flanked on the right-hand side by Ian Munro, John Pendry, Herman Winick, Samar Hasnain and Colin Whitehouse (Director of Daresbury Laboratory). On the left is Hugh Huxley, Helen Southworth (MP for British Parliament), Akira Kira, Michael Woolfson, Gerd Materlik and Alan Leadbetter.

supply and the liquid-helium cryoplant for the two superconducting wigglers were replaced. In 2004, the last of the insertion devices (a 2.4 T multipole wiggler) was installed for a high-throughput MAD facility with capabilities for single-crystal XAFS [Cianci *et al.* (2005), *J. Synchrotron Rad.* **12**, 455–466].

The events on 11 and 12 September attracted many distinguished leaders of synchrotron radiation, including directors of many synchrotron facilities. Akira Kira (Director of SPring-8), Keith Hodgson (Director of Photon Science at SLAC) and Herman Winick travelled the farthest. Many of the synchrotron radiation sources were represented, including Bill Stirling from ESRF, Denis Raoux and Roger Fourme from SOLEIL, Matthias Wilmanns from Hamburg, and Gerd Materlik, Lousie Johnson, Colin Norris and John Evans from DIAMOND. The science event and the users meeting (13–14 September) were held in Manchester and were attended by nearly 350 delegates.

Ian Munro (the first synchrotron radiation user of Daresbury on NINA SRF) and Tom Blundell (Chair of the first SRS review) cutting the anniversary cake at the dinner event on 12 September 2005. Janos Hajdu and John Pendry can be seen in the background.

Stanford synchrotron gets a new director

Joachim Stöhr, who is a Professor at Stanford, became the new Director of the Stanford Synchrotron Radiation Laboratory (SSRL) on 1 October 2005. He had been the Deputy Director of SSRL since 2000, and will be the fourth Director in the laboratory's 32-year history.

Keith Hodgson, the outgoing SSRL Director, said, 'We are fortunate to have such an outstanding scientist with excellent leadership

Joachim Stöhr.

experience become the new leader for SSRL. Jo has a world of experience in studying and understanding the behaviour of magnetic materials, particularly with applications to the electronics industry.' Earlier this year Keith Hodgson became a Deputy Director of SLAC as well as Director of the new Photon Science Directorate.

Jo is well known to the international synchrotron radiation community. He began his synchrotron radiation career in the early 1970s when he came to Lawrence Berkeley National Laboratory as a postdoctorate fellow having gained his PhD from the Technical University in Munich in 1974. During his postdoctorate study, he participated in the early days of synchrotron radiation experiments at SSRL, making his mark in the general field of surface science, and coined the phrase NEXAFS for near-edge structure and championed its use in understanding the behaviour of surfaces.

Another partner joins the Australian synchrotron project

The Minister for Innovation, John Brumby, welcomed the Australian Association of Medical Research Institutes (AAMRI) to the Australian Synchrotron partnership. "AAMRI's commitment to provide $5 million towards the initial suite of Australian Synchrotron beamlines is great news for the project", Mr Brumby said. "This announcement takes beamline funding up to $30 million, and brings key players in national and international science into the synchrotron team. The Australian Synchrotron is an entirely new breed of project, Australia's first ever national collaboration to provide major science infrastructure, and we are delighted AAMRI is joining us as a foundation partner", he continued.

Mr Brumby said that the contributions of CSIRO, ANSTO, Melbourne University, Monash University, New Zealand, and now AAMRI, would provide the platform for leading-edge research.