



The facility development and user activities at the Synchrotron Radiation Research Center (SRRC) progressed very smoothly in the year of 2000.

The 1.5 GeV full energy injection upgrade was completed and became routine operation in February 2000. The construction of superconducting radio frequency (SRF) system was on schedule and the cryogenic plant for the SRF system was designed and contracted out. The dynamic gap tuning of the insertion devices during user shifts has been achieved, facilitating experiments that require continuous photon energy scan. The design and construction of the 6 Tesla superconducting wave length shifter and the 3.5 Tesla superconducting multipole wiggler are progressing well.

The year 2000 reaches the important milestone of the development of IR, VUV and soft-X-ray beamlines at SRRC. All 16 beamlines planned for these spectral regions were constructed and most of them are already open for user experiments. Especially, the new experimental capabilities brought by the three undulators, U5, U9, and EPU, offer new challenging scientific opportunities to our users.

## Preface

Following the completion of three wiggler X-ray beamlines in 1999, the X-ray absorption spectroscopy and high-resolution diffraction/scattering are routinely used for materials research in 2000. Synchrotron X-ray protein crystallography has been demonstrated in solving an unknown bio-structure. More excitingly, the first Taiwan contract beamline at SPring-8, the BL12B2 bending magnet beamline, starting its commission in late 2000, has opened new opportunities for bio-structure and materials research. For the BL12XU Taiwan beamline at SPring-8, the in-vacuum X-ray undulator and front-end were installed and the beamline has been designed and its components contracted out. This beamline will be completed and start commissioning in late 2001.

The annual experiment-runs and user-runs have increased to 340 and 1370, respectively, for the year of 2000. The Annual Users' Meeting was held from October 25 to 27, 2000. During the meeting, two parallel workshops on "Synchrotron Radiation in Life Sciences" and "Synchrotron-based Microscopies and Studies of Nanostructure" were conducted. The meeting attracted 260 participants.

With the completion of a total number of 20 beamlines at the closing of 2000, the SRRC is now well equipped for supporting advanced synchrotron radiation research in the new millenium.

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