Preface

It is a great pleasure to present to you the 2017 issue of the NSRRC Activity Report. I thank you for your interest. Since 1995, NSRRC published an annual report every year describing organizations, research, facility development, user statistics, events and summaries of our operation. These activity reports show the efforts of all members of NSRRC throughout the years. Their dedication to advancing synchrotron-based science and technology has produced many significant results, which can only be briefly highlighted in the reports.

This year, we continue our record of scientific accomplishments and facility progress at NSRRC. In the session of Scientific Highlights, we select representative articles performed by our users and staff in fundamental research and applied studies, and group them into five areas -- physics and material science, chemical science, soft matter, life science and energy science. We cover also three studies using neutrons, resulting from the Taiwan-Australia Neutron Project, of which NSRRC has taken charge since 2013. In the session of Facility Status, besides highlighting our newly completed rooftop solar-power system, we report the commissioning and operation status of three TPS phase-I beamlines – X-ray Nanoprobe, Coherent X-ray Scattering, and Submicron Soft X-ray Spectroscopy, as well as the progress in construction of three TPS phase-II beamlines – Soft X-ray Tomography, Projection X-ray Microscopy, and Quick-scanning X-ray Absorption Spectroscopy. SIKA, the Taiwanese neutron instrument at Australia Nuclear Science and Technology Organisation, is also included.

This report is being published in two media -- a printed version and an electronic version on our NSRRC website, http://www.nsrrc.org.tw/. We hope that you will find this publication informative and useful.

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