

Preface

It is my pleasure to present the NSRRC Activity Report 2023 to you. As more beamline hours are available at the Taiwan Photon Source (TPS), alongside the enduring research foundation of the Taiwan Light Source (TLS) and our overseas facilities in Japan and Australia, NSRRC continues to work with the global scientific community to address a wide array of challenges the world faces and to uncover the mysteries of nature.

In 2023, NSRRC has facilitated 600 publications. This is a great achievement considering many of our staff scientists are working on constructing or commissioning new beamlines at the same time. The chapters comprised in this report include Research Highlights, Facility Development and Status, Facts and Figures, and the Appendix. The Research Highlights chapter features 31 captivating research topics, whereas the Facility Development and Status chapter offers an overview of the operational status of our main accelerators, TLS and TPS, along with reports on NSRRC's ongoing efforts to optimize accelerator-related systems. Additionally, two introductory reports on newly opened beamlines at the TPS, including the Micro-Focused Single Crystal X-ray Diffraction Beamline and NanoARPES Beamline, provide insight into the latest experimental techniques available to the users.

2023 marks the 30th anniversary of the first light from the TLS. It is also a year that many of our long-time colleagues retired from their posts; they include Dr. Chien-Te Chen who crafted the roadmap of NSRRC with countless ingenious ideas, Dr. Hong-Ji Lin, Dr. Jyh-Fu Lee, and Dr. Jin-Ming Chen who led the scientific programs of TLS 11A1, 17C1 and 20A1. The legacy and creative plans our senior retirees leave behind will continue to inspire us and help the facility's growth. Finally, I would like to thank the editors, reporters, and colleagues who contributed to the completion of this Activity Report. Without their guidance and collaboration, this publication would not have been possible. Enjoy the reading.



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