

The 36th symposium on tandem accelerators and related technologies

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The 36th Symposium on Tandem Accelerators and Related Technologies¹⁾ organized by the 36th Symposium Local Organizing Committee, was held on June 27–28, 2024, at Okochi Hall in the Wako campus. The local committee consists mainly of RNC Detector Team members who administrate the RIKEN Pelletron tandem accelerator at the Nishina R&D Building. The symposium was supported by RNC and the Society of Tandem Accelerators and Related Technologies.²⁾

Since the first meeting in 1988, this symposium has grown into a forum for engineers, researchers, and users of electrostatic tandem accelerators in Japan to exchange information and discuss solutions to various problems related to accelerators and accelerator facilities. The energy region of the ion beams is from one to tens of MeV, which covers material analysis, sample surface modification, nuclear physics, radiation physics, radiation biology, development of radiation detectors, and others. The meetings have been held at society members' campuses such as Univ. of Tsukuba, Univ. of Tokyo, Japan Atomic Energy Agency, Tohoku Univ., National Institute for Environmental Studies, Wakasa Wan Energy Research Center (WERC), National Institute for Fusion Science, Kobe Univ., Nara Women's Univ., Kyoto Univ., Kyushu Univ., Nagoya Univ., Science Tokyo, QST-NIRS, Paleo Labo Co., Ltd., Yamagata Univ., Tokyo City Univ., and RIKEN.

The 36th Symposium had 92 participants (Fig. 1) including 21 engineers from companies and 10 students. There were 29 contributions³⁾ to the talk and poster sessions. The topics included not only status reports but also new device developments and user experiments about, for example, “fluorine contamination in the plasma-sputter-type ion source” from WERC, “a beam-energy measurement system for SPICE microbeam” from QST, “space device irradiation equipment for radiation resistance” from the Univ. of Tsukuba, and “a high-rate data acquisition system for a microbeam line” from Tohoku Univ. Some users reported on “nuclear moments for unstable nuclei with a polarized ion source” from the Univ. of Tsukuba, “biomolecule damage in water caused by ion beams” from Kyoto Univ., “gamma-ray polarimetry based on multi-layer semiconductor detector,” “Nishina school experiment” from RIKEN, *etc.*

There were also two invited talks, with the titles “Research on Beam Transport Optimization Using Machine Learning at RIKEN RIBF” by Dr. Takahiro Nishi and “RIKEN Accelerator-driven compact neutron systems (RANS)” by Dr. Tomohiro Kobayashi.

More than 60 participants enjoyed a social gathering



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Fig. 1. Group photo at Okochi Hall in Wako campus.

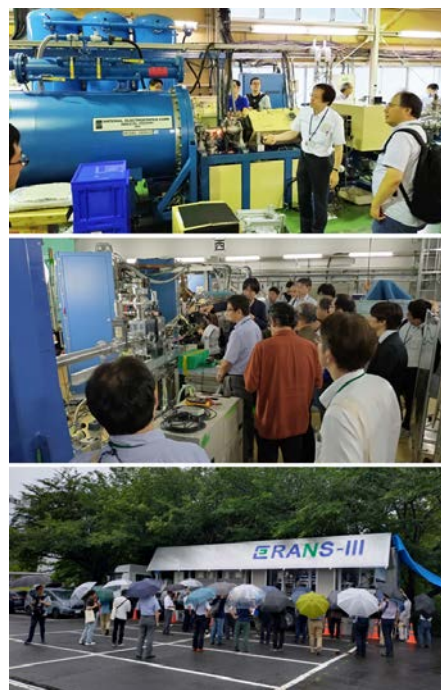


Fig. 2. Lab Tour at (Top) RIKEN Pelletron tandem accelerator (terminal voltage of 1.7 MV max), (Middle) Neutron Application Facilities, and (Bottom) RANS-III (RIKEN Accelerator-driven compact neutron systems-III).

at Hirosawa Club on the first day and a laboratory tour in the Wako campus (Fig. 2) on the second day.

The local organizing committee consisted of Tokihiro Ikeda, Hiromi Sato, Noriko Asakawa, Tomohiro Kobayashi, Yu Naya, Takao Kojima, Emiko Isogai, Naoto Hagura (Tokyo City Univ.), and Yukiko Kojima (Toho Univ.).

References

- 1) <https://indico2.riken.jp/event/4812/> (in Japanese only).
- 2) <https://www.tac.tsukuba.ac.jp/tandem/> (in Japanese only).
- 3) Proceedings of 36th Symposium on tandem accelerators and related technologies, March 1st 2025 (in Japanese only).

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