

Research Facility Development Division
Accelerator Group
Infrastructure Management Team

1. Abstract

Our team oversees the design, operation, and maintenance of the large-scale infrastructure for the entire RI Beam Factory (RIBF), including cooling water, air conditioning, and electrical equipment, as well as the research and development of their advanced management. In order to operate the RIBF efficiently, it is very important to ensure the sound operation of these infrastructures that lead to the stable functioning of various devices. Another important mission is to coordinate the scheduling of major construction and repair work related to the RIBF so that beamtime runs smoothly.

The recent issue is the aging of infrastructure equipment. In line with these measures, we are making modifications that contribute to the stability of accelerator equipment and energy saving. In addition, infrastructure equipment has many sensors for management, and a huge amount of measurement data from these sensors is archived. We are planning to use this data to build a more advanced management system.

2. Major Research Subjects

- (1) Operation, maintenance, and monitoring of infrastructure of RI Beam Factory
- (2) Development of advanced management of infrastructure that contributes to accelerator and beam stability
- (3) Coordination of large construction work and modification related to RI Beam Factory

Members

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List of Publications & Presentations

Publications

[Proceedings]

内山暁仁, 金子健太, 木寺正憲, 込山美咲, 「アーカイバーアプライアンスの RIBF 制御系への展開」, “Deployment of archiver appliance to RIBF control system,” Proceedings of the 19th Annual Meeting of Particle Accelerator Society of Japan, Kyushu University, Online, Japan, October 18–21, 2022, pp. 9–13.

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山内啓資, 西隆博, 大木智則, 小山田和幸, 田村匡史, 遊佐陽, 金子健太, 坂本成彦, 今尾浩士, 内山暁仁, 大関和貴, 木寺正憲, 須田健嗣, 長友傑, 藤巻正樹, 山田一成, 渡邊環, 渡邊裕, 上垣外修一, 「理研重イオンリニアックの現状報告」, “Present status of RILAC,” Proceedings of the 19th Annual Meeting of Particle Accelerator Society of Japan, Kyushu University, Online, Japan, October 18–21, 2022, pp. 1144–1147.