

## 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

### Team Leader

Masanori KIDERA

### Technical Scientist

Takeshi MAIE

### Special Temporary Employee

Tetsuhiko OHSHIRO

## List of Publications

### Publications

#### [Proceedings]

小山亮, 大関和貴, 福澤聖児, 濱仲誠, 石川盛, 小林清志, 茂木龍一, 仲村武志, 西田稔, 西村誠, 柴田順翔, 月居憲俊, 矢富一慎, 足立泰平, 段塚知志, 藤巻正樹, 藤縄雅, 福西暢尚, 長谷部裕雄, 日暮祥英, 池沢英二, 今尾浩士, 上垣外修一, 木寺正憲, 込山美咲, 熊谷桂子, 真家武士, 三宅泰斗, 長友傑, 中川孝秀, 中村仁音, 大西純一, 奥野広樹, 坂本成彦, 須田健嗣, 内山暁仁, 渡部秀, 渡邊環, 渡邊裕, 山田一成, 「理研 RIBF におけるリングサイクロトロン運転報告」, “Operation report on ring cyclotrons in the RIBF accelerator complex,” Proceedings of the 20th Annual Meeting of Particle Accelerator Society of Japan, Funabashi, Japan, August 29–September 1, 2023, pp. 1012–1016.

遊佐陽, 山内啓資, 小山田和幸, 田村匡史, 金子健太, 鈴木惇也, 大木智則, 日暮祥英, 坂本成彦, 藤巻正樹, 今尾浩士, 木寺正憲, 中川孝秀, 長友傑, 西隆博, 大関和貴, 須田健嗣, 内山暁仁, 渡邊環, 渡邊裕, 山田一成, 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 20th Annual Meeting of Particle Accelerator Society of Japan, Funabashi, Japan, August 29–September 1, 2023, pp. 1024–1028.

西村誠, 須田健嗣, 福澤聖児, 濱仲誠, 石川盛, 小林清志, 小山亮, 茂木龍一, 仲村武志, 西田稔, 柴田順翔, 月居憲俊, 矢富一慎, 足立泰平, 藤巻正樹, 福西暢尚, 長谷部裕雄, 日暮祥英, 今尾浩士, 上垣外修一, 木寺正憲, 込山美咲, 熊谷桂子, 真家武士, 三宅泰斗, 長友傑, 中川孝秀, 西隆博, 大西純一, 奥野広樹, 大関和貴, 坂本成彦, サキラヤングリニスメイ, 内山暁仁, 渡部秀, 渡邊環, 渡邊裕, 山田一成, 鎌倉恵太, 小高康熙, 「理研 AVF サイクロトロン運転の現状報告」, “Status report on the operation of riken AVF cyclotron,” Proceedings of the 20th Annual Meeting of Particle Accelerator Society of Japan, Funabashi, Japan, August 29–September 1, 2023, pp. 1049–1053.