

Accelerator Applications Research Division
 RI Application Research Group
 Industrial Application Research Team

1. Abstract

Industrial application research team handles non-academic activities at RIBF corresponding mainly to industries.

2. Major Research Subjects

Support of industrial utilization of the RIBF accelerator beam.

3. Summary of Research Activity

RNC promote facility-sharing program “Promotion of applications of high-energy heavy ions and RI beams.” In this program, RNC opens a part of the RIBF facility, which includes the AVF cyclotron, RIKEN Ring Cyclotron and experimental instruments, to non-academic proposals from users including private companies. The proposals are reviewed by a program advisory committee, industrial PAC (IN-PAC). The proposals which have been approved by the IN-PAC are allocated with beam times and the users pay RIKEN the beam time fee. The intellectual properties obtained by the use of RIBF belong to the users. In order to encourage the use of RIBF by those who are not familiar with utilization of ion beams, the first two beam times of each proposal can be assigned to trial uses which are free of beam time fee.

In July 2022, the IN-PAC met and approved fee-based proposals from private companies; four proposals from new companies and three proposals from continuously using companies. In January 2023, the IN-PAC held a mail review and approved five fee-based proposals from continuous users. In 2022, five companies executed 15 fee-based beamtimes, ten of which utilized a Kr beam with a total beam time of 146 hours, four utilized an Ar beam with a total beam time of 65 hours and one of which utilized a C beam with a total beam time of 11 hours.

Members**Team Leader**

Atsushi YOSHIDA

Special Temporary Technical Scientist

Kowashi WATANABE

Research Consultant

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List of Publications & Presentations**Publication****[Book]**

吉田敦, 「2.2 応用研究 I—宇宙開発と加速器」, 量子ビーム科学の基礎と応用: 原子力システム研究懇話会 (NSA コメントリーシリーズ), NSA/COMMENTARIES: No.27, pp. 40–45, ISBN978-4-88911-315-0.

Presentation**[Seminar]**

吉田敦, 「照射施設利用の効率化について～理研・仁科加速器センターの取り組み～」, 経産省: 放射線試験・ソフトウェア対策に関する勉強会 (第 10 回), オンライン, 2022 年 5 月 13 日.

Other

Fee-based beamtimes for private companies: Kr beam 146 hours, Ar beam 65 hours, C beam 1 hour; 222 hours in total.