1. Abstract
The operation and maintenance of the RIKEN Heavy-ion Linac (RILAC) have been carried out. There are two operation modes: one is the stand-alone mode operation and the other is the injection mode operation. The RILAC has been used especially as an injector for the RIKEN RI-Beam Factory accelerator complex. The RILAC is composed of the 28 GHz SC ECR ion source, the frequency-variable RFQ linac, the frequency-variable main linac, and the SC booster linac (SRILAC).

2. Major Research Subjects
(1) The long-term high stability of the RILAC operation.
(2) Improvement of high efficiency of the RILAC operation.

3. Summary of Research Activity
The RILAC was started to supply ion beams for experiments in 1981. Thousands hours are spent in a year for delivering many kinds of heavy-ion beams to various experiments.

The RILAC has two operation modes: one is the stand-alone mode operation delivering low-energy beams directly to experiments and the other is the injection mode operation injecting beams into the RRC. In the first mode, the RILAC supplies a very important beam to the nuclear physics experiment of “the research of super heavy elements.” In the second mode, the RILAC plays a very important role as upstream end of the RIBF accelerator complex.

The maintenance of these devices is extremely important in order to keep the long-term high stability and high efficiency of the RILAC beams. Therefore, improvements are always carried out for the purpose of more stable and more efficient operation.

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List of Publications & Presentations
Publications
[Proceedings]

Presentations
[Domestic Conferences/Workshops]
小山田和幸, 池沢英二, 大木智則, 山内啓資, 田村啓治, 渡邉裕, 上垣外修一「理研重イオンリニアックの現状報告」, 第 17 回日本加速器学会年会, PASJ2020 FRSP06.