

The HRIBF, Present and Future

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The Holifield Radioactive Ion Beam Facility (HRIBF) was developed in an extremely cost effective manner by adapting the existing accelerator complex at the Oak Ridge National Laboratory to the production of radioactive ion beams (RIBs). The primary mission of the HRIBF is to provide high-quality RIBs in support of research devoted to the study of nuclear astrophysics and the structure of nuclei. The HRIBF is unique in its ability to provide post-accelerated beams of both neutron-deficient and neutron-rich radioactive species. A real strength of the facility lies in the impressive suite of experimental equipment, carefully optimized for use in experiments with radioactive ion beams. Over the last few years we have made excellent progress in our beam-delivery capabilities, and we have produced a variety of high-quality, high-profile scientific results.

The future of low energy nuclear physics in the U.S. is based on the construction of RIA. However, even in the most optimistic scenario, completion of RIA is more than a decade away. It is critical to the future health of our field that a broad-based program of RIB science be maintained until RIA is available. We believe that the HRIBF, improved by a modest upgrade program, can be an important part of this interim program.

This talk will describe the present status of the HRIBF including its suite of experimental hardware, and give a brief overview of some recent high-profile experiments. I will also present a view of the future of the HRIBF, serving as part of the bridge that can carry our research community toward RIA.

[†] Managed by UT-Battelle, LLC, for the U.S. Department of Energy under contract DE-AC05-00OR22725.