

## ISCOOL: cooled and bunched beams for ISOLDE

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The increasing need for cold and bunched radioactive beams for nuclear physics experiments has motivated the development of new methods, instrumentation and devices for ion beam manipulation. A radio frequency quadrupole ion cooler and buncher is an example of such devices, presenting features that make it suitable for many radioactive ion beam facilities. The ISOLDE ion cooler (ISCOOL), in particular, was tailored to be a general purpose device. It is planned to be integrated with the existing beam optics equipment at the High Resolution Separator (HRS), in order to deliver better quality beams in terms of emittance and energy spread, both in continuous and bunched modes. Prior to its on-line installation the cooler is being intensively tested to assess its performance and reliability. The off-line results presented here strongly suggest that ISCOOL will meet the standards necessary for on-line operation. Some physics experiments should soon directly or indirectly benefit from its capabilities.

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