

## **MICE: its program of ionization cooling measurements in the subsequent steps**

The international Muon Ionization Cooling Experiment (MICE) collaboration has undertaken the construction of a complete unit cell of a muon ionization cooling channel for test in a muon beam at RAL. The main cooling devices are three 35 cm long liquid hydrogen tanks interspaced with two RF half cells each comprising four 200 MHz RF cavities to be operated at 8MV/m, that can be cooled to liquid Nitrogen temperature. The whole is embedded in a series of solenoid magnets providing the optics. The experiment will be executed in steps. Measurements can also be performed on solid absorbers, including wedge-like absorbers allowing study of 6D cooling by exchange between transverse and longitudinal emittance. The set of cooling experiments to be performed and the progress on the construction of the cooling elements is described.

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