

## HiFi - A New High Field Muon Spectrometer at ISIS

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A new  $\mu$ SR spectrometer (HiFi) is being constructed at the ISIS pulsed muon source. The spectrometer is intended for measurements in magnetic fields up to 5 Tesla. Here we discuss various aspects of the design and future operation of the HiFi spectrometer. Detailed analysis of the detector design is presented, and results from tests on detector prototypes are compared to simulations. Possible applications of this spectrometer in the fields of condensed matter and chemistry are also discussed.

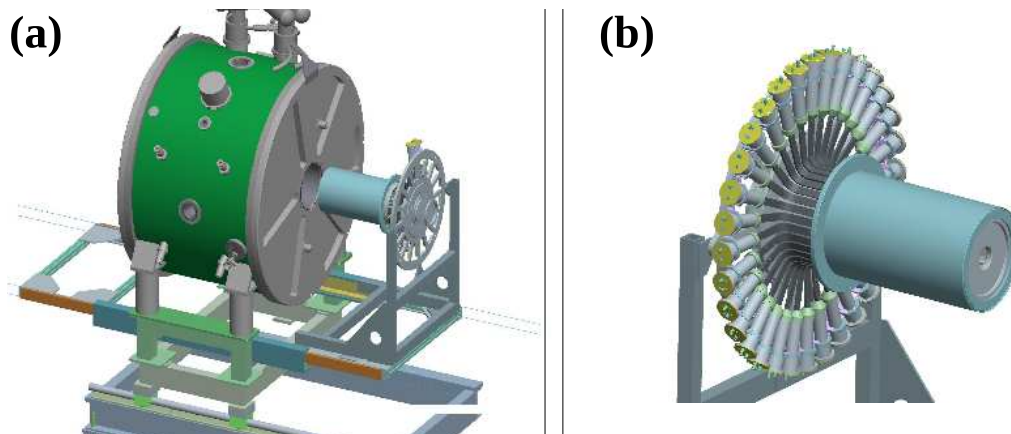


Fig. 1: (a) The design of the HiFi spectrometer including a 5 Tesla split coil superconducting magnet and two detector banks with 32 segments each. (b) A detailed drawing of the detectors.