

The Mu2e calorimeter

The Mu2e calorimeter consists of 1348 pure CsI crystals coupled to two large area UV-extended Silicon Photomultipliers (SiPMs) organized in two separate annular disks. An intense R & D phase has been pursued to check if this configuration satisfies the Mu2e requirements. In May 2017, a dedicated test has been performed at the Beam Test Facility (BTF) in Frascati (Italy) where a large calorimeter prototype (Module-0) has been exposed to an electron beam in the energy range between 60 and 120 MeV. The prototype consists of 51 crystals, each one readout by two Mu2e SiPMs. We present results for timing and energy resolution both for electrons at normal incidence (0°) and at a grazing impact angle (50°) more similar to the experiment configuration. At the moment the calorimeter group is finishing the Quality Control of crystal al SiPMs and the installation of the calorimeter is expected for the summer 2020. A description of all the test stations installed for the Quality Control phase of the crystals and the SiPMs is also reported.

Working group

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