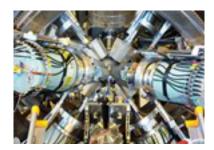
Workshop on Muonic Atom Spectroscopy



Contribution ID: 8 Type: Invited

MINIBALL - Status and Perspectives

Friday, 21 October 2016 14:15 (30 minutes)

The high-resolution MINIBALL germanium detector array consists of 24 six-fold segmented, tapered, encapsulated high-purity germanium crystals. It was specially designed for low multiplicity experiments with low-intensity radioactive ion beams (RIB). Main features of the spectrometer are a very high photo peak efficiency for gamma or X-ray radiation and position sensitivity due to the electronic segmentation. The combination of these properties allows spectroscopic investigations in a wide energy range and to cope with huge Doppler effects. The Miniball array has been used in numerous Coulomb excitation and transfer reaction experiments with exotic RIBs with energies of 3 MeV/A produced at the ISOLDE facility. Recently the spectrometer was coupled to the super-conducting HIE-ISOLDE accelerator, which provides beams up to 5.5 MeV/A in a first stage. In the past, the array was successfully employed for studies with stable beams at various accelerator laboratories and RIBs provided at relativistic energies after fragmentation at GSI, Darmstadt.

Primary author: Prof. REITER, Peter (University of Cologne)

Presenter: Prof. REITER, Peter (University of Cologne)

Session Classification: Muon Spectroscopy for Atomic Parity Violation