

## ATMOSPHERIC MUON MEASUREMENTS II: ZENITH ANGULAR DEPENDENCE

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The altazimuthal counter telescope with a magnet spectrometer, the OKAYAMA telescope is able to move by servo-motor mechanism for any azimuth and zenith angles. The muons at sea level have been observed in vertical and in zenith angle  $40^\circ$ . We are able to get muon data more stable and lower momentum than previous presented ones. The new muon data are analyzed in the momentum range 1.5 to 100 GeV/c. We report more precise results of the muon measurements, especially the muon charge ratio about the zenith angle dependence and discuss with previous other experimental results near vertical or large zenith angular region.