Study of Cosmic Ray intensity modulation in IGY

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Observation of Cosmic Ray Mesons had been started by the time of IGY by I.P.C.R at Itabashi, Tokyo using the Standard Meson Monitor. Also Observation of Cosmic Ray Mesons had been started by the time of IGY by I.P.C.R. at Mt. Norikura Observatory of University of Tokyo. BF3 counters for Neutron Monitor and Geiger-Muller counters for Meson Monitor are fabricated at the laboratory. All electronic circuits are assembled using GT-tubes. Recording circuits, scaling circuit and automatic count recorder, were designed and assembled in the laboratory.

Using the recorded counting rates, detailed statistical analysis was performed on the modulation mechanisms of the cosmic rays in the interplanetary space. Data from about 40 stations around the earth, compiled at the World Data Center C2 for Cosmic Rays, have been used in this analysis to study the world wide variation and the anisotropy of the cosmic ray intensities.

Analyzed results were reported mainly at the Earth Storm Symposium and International Conference on Cosmic Rays held jointly at Kyoto in 1961. Most of these results were obtained by ground based observations, the deduced picture of the physical conditions in the interplanetary space have been confirmed later by the in situ observations by space probes and satellites.