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First generation Moon based CR experiments

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Abstract content

The Moon based observation of cosmic rays must be part of the complete program at the forefront of the space science and technology of the set of Moon based observatories that will operate on the Moon in the next few decades. When compared with the cost of a dedicated vehicle and its launch, the installation of CR experiments on the Moon, in a suitable equipped location, compensates for the cost of the Earth to Moon transportation. It will be discussed what could be obtained by installing on the Moon the experiments selected in the last two decades but never flown because of the shortage of flight occasions and of spacecrafts. Their evolution could constitute the 'first generation Moon based CR experiments'. Examples of these experiments and their possible adaptation to the Moon location are given for several important thematic of the CR research, such as the measurement of the flux of very high Z CR, of a large number of isotopes and of rare CR components, the hunt for antinuclei and the chemical composition at knee.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 5 (HE part 2), pages 1105-1108

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