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Alternative Explanation of the Abundance Ratio of Secondary to Primary Galactic Cosmic-Ray Nuclei

Abstract content

The measured decrease of the abundance ratio of secondary to primary Galactic cosmic-ray nuclei is explained by the steep increase of the cosmic-ray parallel mean free path with magnetic rigidity that results from the weakly nonlinear transport theory of cosmic rays in the turbulent Galactic magnetic fields. Because the ratio of fluctuating to ordered magnetic fields in the Galaxy is large, this nonlinear transport theory has to be favored over the traditional quasi-linear theory. Our explanation provides an alternative to Galactic transport theories of cosmic rays with significant distributed stochastic acceleration.

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

Summary

Reference

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