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Voyager 1 at the Edge of Interstellar Space; an Overview

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Abstract: On August 25, 2012, Voyager 1 entered a new region at the outer boundary of the heliosphere in which the intensity of low energy ions and anomalous cosmic rays abruptly decreased, galactic cosmic ray electrons and nuclei abruptly increased, and the magnetic field strength simultaneously increased. Voyager 1 had crossed into a region in which the ions from within the heliosphere were depleted, resulting in the compression of the spiral magnetic field from the sun. The heliospheric ions and anomalous cosmic rays escape outward along the compressed field and low energy galactic cosmic rays stream inward, providing the first observation of the local interstellar cosmic ray spectra at low energies. The Voyager 1 observations from this new region near the edge of interstellar space will be discussed.

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Not available.