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Altri autori (Persone)	SummersDanny
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	COVER; Title Page; Contents; Preface; Introduction; Section I: Historical Perspective; Space Weather: Affecting Technologies on Earth and in Space; Section II: Current State of Knowledge of Radiation Belts; SAMPEX: A Long-Serving Radiation Belt Sentinel; Large-Amplitude Whistler Waves and Electron Acceleration in the Earth's Radiation Belts: A Review of STEREO and Wind Observation; Classification of Pc1-2 Electromagnetic Ion Cyclotron Waves at Geosynchronous Orbit; The Role of Ultralow Frequency Waves in Radiation Belt Dynamics; Section III: Space Missions NASA's Radiation Belt Storm Probes Mission: From Concept to RealityThe Energization and Radiation in Geospace (ERG) Project; RESONANCE Project for Studies of Wave-Particle Interactions in the Inner Magnetosphere; Section IV: Modeling and Simulations; Global Structure of ULF Waves During the 24-26 September 1998 Geomagnetic Storm; ULF Wave-Driven Radial Diffusion Simulations of the Outer Radiation Belt; Nonlinear Radial Transport in the Earth's Radiation Belts; Section V: Radiation Belt Injections, Dropouts, and Magnetospheric Variability Time Scales for Localized Radiation Belt Injections to Become a Thin ShellRebuilding Process of the Outer Electron Radiation Belt: The Spacecraft Akebono Observations; The Shock Injection of 24 March

1991: Another Look; Outer Radiation Belt Flux Dropouts: Current Understanding and Unresolved Questions; Rapid Radiation Belt Losses Occurring During High-Speed Solar Wind Stream-Driven Storms: Importance of Energetic Electron Precip; Background Magnetospheric Variability as Inferred From Long Time Series of GOES Data; Section VI: Wave-Particle Interactions
Generation Processes of Whistler Mode Chorus Emissions: Current Status of Nonlinear Wave Growth Theory Aspects of Nonlinear Wave-Particle Interactions; Linear and Nonlinear Growth of Magnetospheric Whistler Mode Waves; High-Energy Electron Diffusion by Resonant Interactions With Whistler Mode Hiss; Recent Advances in Understanding the Diffuse Auroral Precipitation: The Role of Resonant Wave-Particle Interactions; Section VII: Energy Coupling in the Inner Magnetosphere; The Role of the Earth's Ring Current in Radiation Belt Dynamics; Ring Current Asymmetry and the Love-Gannon Relation The Importance of the Plasmasphere Boundary Layer for Understanding Inner Magnetosphere Dynamics The Role of Quiet Time Ionospheric Plasma in the Storm Time Inner Magnetosphere; Cold Ion Outflow as a Source of Plasma for the Magnetosphere; What Happens When the Geomagnetic Field Reverses?; Section VIII: Radiation Belts and Space Weather; What the Satellite Design Community Needs From the Radiation Belt Science Community; Storm Responses of Radiation Belts During Solar Cycle 23: HEO Satellite Observations
Colorado Student Space Weather Experiment: Differential Flux Measurements of Energetic Particles in a Highly Inclined Low Earth

Sommario/riassunto

Published by the American Geophysical Union as part of the Geophysical Monograph Series, Volume 199. Dynamics of the Earth's Radiation Belts and Inner Magnetosphere draws together current knowledge of the radiation belts prior to the launch of Radiation Belt Storm Probes (RPSP) and other imminent space missions, making this volume timely and unique. The volume will serve as a useful benchmark at this exciting and pivotal period in radiation belt research in advance of the new discoveries that the RPSP mission will surely bring. Highlights include the following: a review of

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Autore	Ju Yiwen
Titolo	Nanomineralogy
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2020
Descrizione fisica	1 online resource (350 p.)
Soggetti	Earth sciences, geography, environment, planning Research & information: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	In 2018, the International Symposium on Nanogeoscience was held in Guiyang, China. Scholars from around the globe gathered to discuss recent progress and development trends in various aspects of nanogeoscience, including nanomineralogy. Nanomineralogy, an important aspect of nanogeoscience, focuses on the composition, structure, and physical and chemical properties of nanoscale minerals and their interrelations with other Earth critical components. To give a sampling of the latest progress in nanomineralogy and related fields, we offer this Special Issue, which describes a full range of recent nanomineralogic achievements relating to everything from nanominerals and geochemistry, mineral nanostructures, and nanomineral deformation, to nanopores in oil and gas reservoirs, nanomineral deposits, and nanomineral material. Today, nanomineralogy faces a new strategic opportunity as well as a revolutionary challenge. We thus present this special nanomineralogy-focused issue of Minerals with the aim of encouraging our colleagues to familiarize themselves with current developments, trends, and directions in nanomineralogy, enabling an understanding of the potential of the field as a whole. We look forward to developing further scientific research and cooperation in nanomineralogy, hoping thereby to attract and guide young scholars to participate in this field.

