れいめい衛星観測による磁気嵐中の降込電子に関する考察

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The study of precipitating electrons observed by Reimei satellite during magnetic storm

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Reimei satellite observed the particle precipitation in an auroral zone, with a polar orbit of an altitude of approximately 620km. When a magnetic storm occurs in the magnetosphere, Reimei satellite observed complex structures of precipitating electrons in a wide range of magnetic latitudes. The space-time distribution of these precipitating electrons is not quantitatively examined. We examined structure distributions of precipitating electrons during magnetic storm. We discuss the generation mechanism of such precipitating electrons, baced on characteristics of field-aligned currents and acceleration region.