

## Comparison of storm-time electron dynamics observed by Arase/ERG and POES missions

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Precipitation of energetic electrons from the outer radiation belt (ORB) affects significantly the ionosphere and the upper atmosphere at middle to high latitudes. The precipitations result from effective acceleration and scattering of ORB electrons due to intense substorm and wave activity. The dynamics of electrons during magnetic storms on the late declining phase of the current 24th solar cycle (the years 2017 –2019) was investigated using experimental data acquired from joint Taiwan-Japan Arase/ERG mission, the high-apogee spacecraft of low inclination, and by a fleet of low-Earth' s orbit sun-synchronous NOAA POES satellites. The fluxes of precipitating electrons measured by POES at low heights and high latitudes are compared with those measured in the heart of ORB by Arase/ERG satellite in order to determine the electron sources and losses at different stages of magnetic storms.

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