



## **Oberservation of high frequency waves at dipolarization fronts**

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For the first time, we observe high-frequency broadband electrostatic waves at the magnetotail dipolarization front (DF). These waves, having frequencies extending from the electron cyclotron frequency,  $f_{ce}$ , up to the electron plasma frequency,  $f_{pe}$ , contribute  $\sim 10\%$  to the total energy dissipation at the DF. The generation of these waves may be attributed to electron beams, which are observed at the DF as well.