

Thermal Plasma and Solar Wind Interactions in the Mars Ionosphere

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The structure and dynamics of the Mars ionosphere are believed to be strongly dependent on the nature, magnitude, and topology of its magnetic field. Due to the weak magnetic field on Mars, the Mars ionosphere and upper atmosphere interact directly with the solar wind and this results in significant outflows of keV ion beams and lower-energy 'pick-up' ions. The Thermal Plasma Analyzer (TPA) instrument on Nozomi will study the structure of ion drifts on Mars and its Plasma outflows and associated atmospheric loss processes.