

TITLE :

Suzaku observations of charge exchange emission from solar system objects

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ABSTRACT :

Charge exchange spectroscopy in astrophysics is useful for determining neutral densities in tenuous planetary and cometary atmospheres, and measuring chemical compositions of solar wind and magnetospheric ions. Good energy response and low instrumental background of X-ray CCDs make the Japanese X-ray astronomy satellite Suzaku ideal for the charge exchange diagnostic. Astrophysical considerations for interpreting the Suzaku data of solar system objects including comets, Earth, Mars and Jupiter are reviewed.