Suzaku observation of Jupiter coordinated with Hisaki

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ABSTRACT

We observed Jupiter with the X-ray astronomy satellite Suzaku for 140 ksec from 15 to 21 April, 2014. These observations were coordinated with Hisaki, in order to study Jupiter's aurora and radiation belts, and to examine particle acclerations/transportation in the Jupiter system. From the Suzaku data, we detected X-ray emission from Jupiter. The X-ray luminosity was 1.9×10^{16} erg s⁻¹ and 2.7×10^{15} erg s⁻¹ in 0.2–1 and 1–5 keV, respectively. Its X-ray spectra were fitted with thermal bremsstrahlung, power-law and 3 Gaussian model. We discuss X-ray characteristics of Jupiter in 2014 compared to the past Suzaku observation in 2006.