

The Ultraviolet Albedo of Ganymede

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A large set of ultraviolet images of Ganymede have been acquired with the Hubble Space Telescope over the last 15 years. These images have been used almost exclusively to study Ganymede's stunning auroral emissions (Feldman et al. 2000; Eviatar et al. 2001; McGrath et al. 2004; Saur et al. 2011; McGrath et al. 2013), and even the most basic information about Ganymede's UV albedo has yet to be gleaned from these data. We will present a first-cut analysis of both disk-averaged and spatially-resolved UV albedos of Ganymede, with focus on the spatially-resolved Lyman-alpha albedo, which has never been considered previously for this satellite. Ganymede's visibly bright regions are known to be rich in water ice, while the visibly dark regions seem to be more carbonaceous (Carlson et al., 1996). At Lyman-alpha, these two species should also have very different albedo values.

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