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Latitudinal variation of UV reflectivity of Venus: VEX/VMC data analyses

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We examined a latitudinal variability of ultraviolet reflectivity of Venus using images obtained by the Venus Monitoring Camera (VMC) on board the Venus Express spacecraft. The Venus Express is orbiting around Venus, and the VMC observed a reflection of sunlight at 365 nm wavelength. To analyze the VMC images, we calculated a solar incidence angle and emission angle for each pixel of the image. Since the intensity of reflected light depends on the solar incidence angle and emission angle, we selected pixels which were observed in the same conditions. Our analysis indicated that the uv reflectivity increases with latitude on the Venus' southern hemisphere.

Keywords: Venus, atmosphere