

Monitoring of Night Sky UV Radiation by One-pixel Detector

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The night time UV radiation composed of airglow, starlight, and zodiacal light act as a background for detection of the Extensive Air Shower (EAS) fluorescence induced by Ultra-High Energy Cosmic Rays (UHECR). To monitor this background, we have developed the one-pixel instrument that provides the absolute intensities within the spectral range 300 - 480 nm in the one second temporal resolution. The instrument is designed to be unpretending, resistant, and to operate in full automatic mode. Therefore it could be placed in various locations and provide long-term measurements. The first results from four such instruments demonstrate that the data might be useful not only for the high-energy astrophysics purposes but also for the studies of the airglow dynamics.

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