

Title: Development of UV Detector for Space Applications

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Abstract: It is not unusual that space measurement is influenced by UV irradiation causing photoemission on delicate electronic components. Therefore information on UV irradiance is very useful. Particularly useful is non-delayed, immediate quantitative information (on a time scales of seconds) identifying unexpected variation in the irradiance of such electronic parts.

The goal was to construct a prototype, measure basic properties and discuss capabilities of a detector capable of continuous measurement of UV irradiance of a spacecraft, working on the principle of photoemission alone. We have successfully shown the capabilities of a prototype and established some of its key basic properties, e.g. their stability in cosmic environment.

Keywords: VUV, Faraday cup, UV detector, UV transmittance, solar wind