

MATERIALS AND STRUCTURES SYMPOSIUM (C2)  
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THE LABORATORY CALIBRATION OF A NOVEL SURFACE POTENTIAL MONITOR AT GEO

**Abstract**

A novel surface potential monitor (SPM) has been developed for a satellite at GEO in China. The SPM consisted of a surface charge detector head, an electrostatic voltmeter and associated control electronics. This novel SPM has been calibrated in a simulated space environment in our laboratory. This paper describes the calibration system which consists of a non-contact voltmeter and an electron beam current monitor. The calibration method is also given, with which the linearity error of SPM is proved less than 1.7