

Calibration and Error Analysis of Performance Test Equipments for Sun Sensor

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In order to measure the accuracy of sun sensor, a performance test equipment which consists of solar simulator, 3-axis rotary table and auto-collimator is needed and should be calibrated to get a reliable and more accurate data. Solar simulator should be aligned with rotary table as parallel as possible and the measurement error and resolution for rotary table after a specific 3-directional rotation should be analyzed and calibrated. We briefly introduce the calibration result of the equipment for sun sensor performance test in the paper. Also, we measured the internal misalignment of sun sensor with the rotary table alignment method. Finally the accuracy of sun sensor under 1 AMO sun light was calculated from the measured data.