

THE USE OF SOLAR CELLS FOR GLOBAL SOLAR RADIATION MEASUREMENT

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Abstract: *The measurement of solar radiation can use thermal and photovoltaic sensors. This paper aims to establish a match between measurements performed with a pyranometer having a thermocouple matrix as sensor (thermal sensor) and a sensor based on a Si solar cell. The measurements were performed in Niagara Falls, USA in the summer of 2005. The temperature and the spectral response were taken into consideration as correction factors. The temperature coefficient for the short circuit current was also determined.*

Keywords: *solar cells, pyranometer, global solar radiation*

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