Laboratory Experiments: Characterization of new flat detector and its dome and degradation process in TSI radiometer

Alberto Remesal Oliva [Alberto.RemesalOliva@pmodwrc.ch] and Wolfgang Finsterle, Physikalisch-Metorologisches Observatorium / World Radiation Center (PMOD/WRC), Davos Dorf, Switzerland

Here we can find an overview of the experiment performed to study the degradation process in TSI radiometers due UV radiation. An UV lamp (deuterium source) in vacuum hitting directly a sample of the coating used in different radiometers [1]. After every hour of exposition, we analyze the changes in the absorptivity of the coating. As well, we will explain all the improvements achieved with the new geometry on our detectors and the methodology followed, measuring reflectance and transmittance of the detector and analyzing the gain factor of the dome.

[1] Walter, B., P-L. Levesque, G. Kopp, B. Andersen, I. Beck, W. Finsterle, M. Gyo, K. Heuerman, S. Koller, N. Mingard, A. Remesal Oliva, D. Pfiffner, R. Soder, M. Spescha, M. Suter, and W. Schmutz, The CLARA/NORSAT-1 solar absolute radiometer: instrument design, characterization and calibration, *Metrologia*, 54, 5, 674 (2017).