



## **Analysis of GOME instrument stability using 11 years of in-flight calibration data**

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Since 1995 the Global Ozone Monitoring Experiment (GOME) onboard the second European Remote Sensing satellite measures radiance and irradiance spectra in the ultraviolet and visible wavelength range. Now, for the first time the fully homogeneous dataset of the most important in-flight calibration parameters obtained from a complete level 0-to-1 reprocessing in 2006 has been investigated thoroughly in order to analyse the long-term stability and performance of the instrument. The study comprises also a degradation analysis by means of the daily solar measurements. In channels 1 and 2 the intensity decreased by 40-90% during the mission. Spectral calibration as a function of instrument temperature as well as the calibration of the detector properties will be presented. The influence of the South Atlantic Anomaly region on the dark current has been investigated. The dark signal and the pixel-to-pixel gain significantly increased during the mission and have to be properly monitored. Nevertheless, after more than 12 years in orbit GOME data provide an important contribution to the global climate monitoring.