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The TROPOMI instrument on Sentinel 5 Precursor

Andreas Richter
(IUP)

Abstract

On October 13, 2017, the first atmospheric COPERNICUS satellite was successfully launched into orbit. The Sentinel 5 precursor (S5P) satellite carries the TROPOMI instrument, which is a nadir viewing UV/VIS/NIR spectrometer with heritage from the GOME, SCIAMACHY, and OMI instruments. With daily global coverage and an unprecedented spatial resolution of 3.5 x 7 (7 x 7) km^2, depending on wavelength range, and a spectral coverage enabling retrievals of many trace gases including O_3, SO_2, NO_2, H_2O, BrO, IO, HCHO, CHOCHO, CO, CH_4 as well as cloud and aerosol properties, this instrument has the potential to make important contributions to many studies on atmospheric chemistry in the coming years.

In this presentation, a brief introduction is given to the TROPOMI instrument and the S5P satellite. The S5P project is introduced, the time schedule for satellite operation, data dissemination and data access are discussed and the plans for data usage and validation at IUP are outlined. As first light for S5P is foreseen for January 2018, no real measurements can be shown at this point.