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SMILES L2 products for diurnal variable species

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Submm limb sounder (SMILES is now operating on the international space station (ISS/JEM). The SMILES has 4K cooled SIS mixer to detect stratosphere/mesosphere, and it has extremely high sensitivity on the trace species, especially diurnal variable species, such as, O3 in mesosphere, ClO, HO2, and BrO. This paper reports current status on the SMILES operational products for the diurnal variable species and their verification.

Keywords: DIurnal variation, trace species, stratosphere, mesosphere, International Space Station, submm