

VALIDATION OF ISS/JEM/SMILES L2 DATA BY USING SCISAT-1/ACE

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SMILES (Superconducting Submillimeter-Wave Limb-Emission Sounder) is an instrument to monitor global distributions of the stratospheric trace gases such as O₃, HCl, ClO, HO₂, HNO₃, and BrO. It was attached to the Japanese Experiment Module (JEM) on the International Space Station (ISS) and it has been taking data since mid-Oct, 2009.

In this study, we investigated the consistency between SMILES and the Atmospheric Chemistry Experiment (ACE), a satellite mission on board the Canadian satellite SCISAT-1. In addition, we investigated the consistency between SMILES and the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on board ESA's ENVISAT satellite. As a whole, good agreements have been obtained within the acceptable errors of the instruments.

