



Comparison of limb cloud top height retrievals from SCIAMACHY and MIPAS

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Global cloud top heights (CTH) using SCIAMACHY limb measurements are calculated. Knowledge of the effective CTH is an important input parameter for limb trace gas retrievals to extend the detection limit towards the troposphere. Use of CTH information reduces the error above clouds significantly as was shown in theoretical studies. A threshold method has been designed to determine CTH of tropospheric clouds. Furthermore polar stratospheric clouds and noctilucent clouds can be detected with this method. The height resolution with about 3.3 km is coarse due to the SCIAMACHY limb scanning concept and its vertical field of view. This study will compare limb CTH of SCIAMACHY with independent limb measurements from MIPAS, which is also on-board the ENVISAT satellite. MIPAS uses a similar colour index strategy in a different wavelength range in the mid infrared (Spang et al., 2004).