

Hydroxyl Airglow Emissions measured by the SCIAMACHY Instrument

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The Envisat SCIAMACHY instrument covers nearly all vibrational transitions of mesospheric OH($v \leq 9$) - from the UV/visible into the near infrared region - with a spectral resolution of 0.2-1.5nm. OH emissions measured in the limb viewing mode are analysed by means of an OH non-LTE model utilizing different collisional relaxation schemes, such as a 'sudden death' and a 'cascade' model. Highly excited OH vibrational states are used to derive chemical heating rates directly from SCIAMACHY limb emissions. In combination with ozone measurements made by other instruments on Envisat, preliminary profiles of atomic oxygen and hydrogen in the mesopause region will be derived.