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A comparison between atomic hydrogen abundance as measured by the SCIAMACHY/ENVISAT and SABER/TIMED instruments

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SCIAMACHY (Scanning Imaging Absorption Spectrometer for Atmospheric CHartographY) aboard ESA's satellite Envisat and SABER (Sounding of the Atmosphere using Broadband Emission Radiometry) on NASA's TIMED satellite both measure atomic hydrogen abundance in the upper mesosphere / lower thermosphere. Both datasets are derived from the measurement of vibrationally excited OH. Differences between the two datasets are discussed with respect to instrument characteristics, spectral ranges, rate constants within the forward model, and the spatiotemporal characteristics of the two measurements.