

A review on recent upper atmosphere atomic oxygen measurements

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Atomic oxygen is a key player in upper mesosphere and lower thermosphere chemistry, energy balance, and vertical as well as global coupling. In recent years, a few new global datasets of this species have been presented. They are based on airglow measurements from low earth orbit satellites. Surprisingly, the atomic oxygen abundance differs by 30-50% for similar atmospheric conditions. This paper gives an overview on the various atomic oxygen datasets available so far and presents most recent results obtained from measurements of the SCIAMACHY instrument on Envisat. Differences between the datasets are discussed.

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