



## **Three years of global carbon monoxide, methane and carbon dioxide columns retrieved from SCIAMACHY on ENVISAT**

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Carbon monoxide (CO) is an important air pollutant and methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>) are the two most important atmospheric greenhouse gases and contribute to global climate change. SCIAMACHY on ENVISAT is - because of its near-infrared nadir observations of reflected sunlight - the first and currently only satellite instrument that can measure the vertical columns of these gases with nearly equal sensitivity at all altitude levels down to the Earth's surface. Using the latest version of our scientific retrieval algorithm (WFM-DOAS) we have generated consistent new data sets of all three gases covering the years 2003-2005 (version 1.0 CH<sub>4</sub> and CO<sub>2</sub> and version 0.6 CO). We summarize the retrieval algorithm improvements and present an overview about the data sets which are used or planned to be used for the GMES atmosphere projects PROMOTE and GEMS.