



DOAS retrieval of Glyoxal from space

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Glyoxal (CHOCHO) has recently been demonstrated to be a novel indicator for fast VOC chemistry. In contrast to Formaldehyde (HCHO), direct emissions of CHOCHO are not a major source even in very large cities. CHOCHO has characteristic absorption bands in the blue spectral range, allowing remote sensing by DOAS. Ground based direct measurements of Glyoxal have been successfully performed e.g. in Mexico City. From space, the detection of enhanced Glyoxal column densities has recently been reported over Africa and Hong Kong.

Here we discuss the potential of the detection of Glyoxal from the satellite instrument SCIAMACHY. Sensitivity studies on fit parameters, cloud influence and possible spectral interferences are performed. First results show enhanced CHOCHO levels indicating photochemical hotspots during tropical biomass burning events and over heavily populated areas mainly in Eastern Asia.