Observation of Oxygenated Volatile Organic Compounds

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Global simultaneous observations of Glyoxal, CHOCHO, and Formaldehyde, HCHO, retrieved from the measurements made by the satellite instruments GOME and SCIA-MACHY are reported. They have been compared with ground based measurements made using MAXDOAS instruments at different locations. The global pattern of the distribution of CHOCHO is similar to that of HCHO. High values are obtained over areas with large biogenic isoprene emissions (central Africa, parts of South America, the South-Eastern US and Indonesia) and with the exception of biomass burning and to lesser extent polluted urban areas low values elsewhere. The main focus of this study is the interpretation of annual and seasonal variation for both trace gases.