



## Height-resolved stable Carbon Isotope Ratios of VOC sampled aboard a Zeppelin

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Volatile organic compounds (VOC) play an important role in atmospheric chemistry. The determination of their isotopic composition by gas chromatography / isotope ratio mass spectroscopy (GC/IRMS) provides additional constrains on sources and removal processes of VOC in the atmosphere. Here we present first results from  $\delta^{13}\text{C}$  measurements of VOC, which were sampled aboard a Zeppelin NT within the scope of the TRACKS campaign in summer 2007. Several flights above rural and urban terrain in southern Germany at altitudes between 250 m and 1000 m have been performed. Up to eight whole air samples per flight were taken with a custom made automated sampler and analyzed offline. The  $\delta^{13}\text{C}$  values of several nonoxygenated and oxygenated VOC were determined, which showed significant variations between different source regions, but only little dependency on height.