

A23A-3190:**Isoprene and their oxidation products in the rural atmosphere of the Amazon during the GoAmazon campaign**

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Abstract:

Atmospheric volatile organic compounds (VOCs) have key environmental and biological roles, and can affect atmospheric chemistry, secondary aerosol formation, and also regional climate. Observations at the T3 site in Manacapuru, Brazil during the GoAmazon campaign included measurements of VOCs in pristine to polluted air of the Amazon basin, depending upon the influences from the pollution plumes from the city of Manaus. The observational dataset using the Switchable Reagent Ion (SRI) ToF-MS will be presented to discuss isoprene oxidation processes in a wide spectrum of anthropogenic influences. The SRI capability was utilized to quantify ratios of Methyl Vinyl Ketone to Methacrolein in order to examine isoprene peroxy radical reaction pathways as a function of NO levels. A discussion about temporal variations in C5 multifunctional isoprene oxidation products, which is determined using the ToF technology, will be also presented in the same context.