



## **The ozone generation in a plume of forest fire**

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The regions in which ozone concentration generation was founded during the boreal forest burning in Siberia, has been defined coming out from TROICA 5, 7 (Transcontinental Observations in the Chemistry of the Atmosphere).

The ozone measurements were carried out by Dasibi RS and Dasibi AH with accuracy 1-3 ppb. The seven events of ozone generations in the forest fire plumes were recorded. In the areas where  $\tilde{N}I_2$  was above 350 ppm, approximately from 12% to 50% of ozone underground values exceeding has been shown.

The forest fire areas were founded by satellite technologies and were visualizing by ArcInfo 9.0 GIS system. Also aerosol and cases of temperature inversion near the forest fire investigating area were examined.

The backward trajectory analysis by NOAA hysplit 4.7 on 100, 500, 1000 m agl displayed that the ozone increasing was caused by its generation during biomass combustion with significant  $CO_2$  emission.

This emitting ozone, products of combustion can affect on greenhouse gases concentration in Siberia and transporting through the Pacific and influence on  $CO_2$  distribution in the North America.

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