



The 3D – distribution of formaldehyde in the Milano area, Po-valley, Italy

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Formaldehyde has been measured within the framework of the FORMAT project in the Italian Po valley during the summer months at several ground based locations in the north, the south and the central metropolitan area of Milano using Hantzsch continuous monitors. Ground based measurements were combined with airborne investigations with a microlight aircraft as a mobile research platform. Two campaigns were performed in July / August 2002 and September / October 2003. Ground based measurements show a pronounced diurnal variation with slightly higher maximum values north of Milano than in the south. Highest values were observed in the municipal location with a significant drop in the August holiday season. Airborne results are in the horizontal distribution in low elevation in good agreement with the ground based results. The vertical distribution of formaldehyde is strongly dependent on the transport and local meteorology. Possible sources will be discussed as well as the contribution of the planetary boundary layer concentration to the total vertical formaldehyde column.