



Urban ozone and NO_x concentrations measured with a DOAS system in Spain

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Remote sensing techniques for urban pollution measurements can avoid the problems of surface effects and local influences; a DOAS system has been installed in the San Amaro Campus of the University of Burgos during the last months of 2002, and is in operation from spring 2003. This instrument is able to evaluate the concentration of different trace species simultaneously using the differential optical absorption spectroscopy. Two optical paths have been installed in the DOAS system, and both are controlled with the same main unit, and so only one analyzer system studies the light; a multiplexor device interchanges the optical fibre between the two paths. The concentrations and standard deviations of a wide number of pollutants, along with light levels in the system are stored in the central unit computer. Analysis of ozone and NO_x, and the relations with the local meteorological situation obtained with the weather station installed with the system have been performed and the influence of other related pollutants has been also studied.