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Application of Remote Sensing Technique in the Monitoring of Anthropogenic Emissions

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APPLICATION OF REMOTE SENSING TECHNIQUE IN THE MONITORING OF ANTHROPOGENIC EMISSIONS.

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Nowadays, several terrestrial remote sensing instruments are used for measuring pollutant emissions. At CEAM, we have been using COSPEC (Correlation Spectrometer) to measure levels of two of the most abundant atmospheric pollutants: SO_2, and more recently, NO_2. The reason we continue to use the COSPEC to take our measurements is its great spatial and temporal resolution. Moreover, the latest improvements made on the COSPEC allow us to measure emissions from any type of source either point (like the chimney of a power-plant) or diffuse (like an urban plume). In addition, the development of new software that refers measurements to geographical coordinates in real time allows us to measure almost everywhere.

In this work, we describe one application of this acquisition system based on the SO_2 and NO_2 measurements taken with a COSPEC in the area surrounding of a power-plant at the north-east of Spain. These data show the SO_2/NO_2 ratio characteristics under both a synoptic meteorological situation and a local wind regime situation.

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