



Photonics applications in the Environment

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ABSTRACT

Our activity in this field concerns the application of laser spectroscopic methods in detecting several gases in the atmosphere. The goal is to develop the necessary sensitive techniques for gas traces remote sensing. In particular, in the framework of the European LIFE program-“CLIMAMED”, we develop and apply sensitive techniques for gas traces remote sensing (e.g LIDAR) especially for greenhouse gases (GHGs) such as CO₂, CH₄ and N₂O emitted from agricultural activities. In-situ real time measurements are important in order to assist scientists, public authorities and policy makers in collecting, quantifying, evaluating, mapping, and reporting spatial data for GHGs emissions from the Mediterranean agricultural sector. Devices can be installed permanently at individual fields or group of fields.