

PM10 CONCENTRATIONS AND LEAD ISOTOPE VARIATIONS OF PM10 IN THE TOWN OF KOZANI , WEST MACEDONIA , HELLAS

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ABSTRACT

This study is to present measurements on concentration of particles suspended in the air , of a aerodynamic diameter less than 10 μm (PM10), considered as the inhalable fraction. The measurements were carried out in a central part of the town of Kozani , West Macedonia , in a period of one year . Some statistical results are given , and a first evaluation of the air quality in the area of interest is estimated according to the international standards. Lead isotopic analyses of air filters under certain meteorological conditions in the area of Kozani show different values compared to the isotopic lignite Pb analyses sampled at the lignite mines of the area , but also in comparison to Pb analyses of cultivations in soil originating from the reclamation of old abandoned lignite-mines . However , these isotopic Pb analyses point to a contribution of other air polluting sources except the lignite combustion in the nearby electric power plants .

Keywords : Suspended particles , air , PM10 , concentrations, Pb isotopes, Kozani .