

"Gheorghe Asachi" Technical University of Iasi, Romania



## CHARGED AIRBORNE PARTICLES AS INDICATORS OF ATMOSPHERIC POLLUTION AND THEIR RELATION WITH LOCAL POPULATION HEALTH IN THREE ROMANIAN CITIES

Liliana Sachelarie<sup>1</sup>, Mihaela Păpușa Vasiliu<sup>1</sup>, Laura Ecaterina Dârțu<sup>1\*</sup>, Oana Maria Darabă<sup>1</sup>, Maria Pușa Farcaș<sup>2</sup>

<sup>1</sup>Apollonia University of Iași, Muzicii Street, no. 2, 700399, Iași, România <sup>2</sup>University of Oradea, Universității Street, no. 1, 410087, Oradea, România

## **Abstract**

Electrically charged particles of air pollutants show the degree of atmospheric pollution they being consistent with some chemical indicators of air pollution. This study analyses these indicators of atmospheric pollution (EIAP) present in various zones around the cities of Iasi, Bacau and Piatra Neamt and correlate them with the incidence of some diseases amongst the population. The results show that certain values of electrical indicators of atmospheric pollution point to a higher incidence of diseases, especially to respiratory and cardiovascular diseases. Higher concentrations of electrically charged particles relate to higher degree of atmospheric air pollution and to higher incidence of disease in local population.

Keywords: air ionization, electrical indicators, environmental pollution

Received: March, 2015; Revised final: October, 2015; Accepted: October, 2015; Published in final edited form: February, 2019

\_

<sup>\*</sup>Author to whom all correspondence should be addressed: e-mail: laura\_ekaa@yahoo.com; Phone: +40742766813