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## ***A. hippocastanum* L. AND *T. cordata* MILL. AS BIOMONITORING PLANTS FOR AIR POLLUTION IN URBAN AREAS. A CASE STUDY: CITY OF CLUJ-NAPOCA**

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### **Abstract**

Air quality became a concern of highest priority in cities and town agglomerations, worldwide. Professional environmental monitoring strategies are prerequisites for supplying appropriate programmes destined to maintain air quality. Due to their capacity of bioaccumulation, tree species may be used as biomonitoring agents within programmes of monitoring air quality in urban spaces. The present study aims to emphasize the ability of *A. hippocastanum* L., and *T. cordata* Mill. leaves to be used as biomonitoring agents of air pollution with Cu, Pb, Zn, Cd. Atomic Absorption Spectrometry was used for quantification of the heavy metals from leave matrices. The statistic software package IBM-SPPS Statistics was used for statistical analyzes. The results show that *A. hippocastanum* L. leaves may be considered as a useful tool for biomonitoring Cu pollution and *T. cordata* Mill. leaves, for biomonitoring Pb, Cd, and Zn, pollution, in conditions of air pollution with Pb, and alarming air Cu concentrations. Gasoline/Diesel exhausts and abrasion of tires and brake linings are supposed to be the major sources of Cu, Pb, Zn, Cd air pollution in considered urban area.

*Key words:* cluster analysis, correlation, leaves, traffic

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