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## DETERMINATION OF HEAVY METAL CONTENT IN ASHES OF DIFFERENT WOODS OF KOSOVO

Albana R. Mehmeti, Albert Maxhuni, Musaj Paçarizi, Ismet Hashani

<sup>1</sup>*University of Prishtina “Hasan Prishtina”, Faculty of natural and mathematical sciences,  
Department of Chemistry, Republic of Kosovo;*

\*Corresponding Author Albert Maxhuni, [maxhuni580@hotmail.com](mailto:maxhuni580@hotmail.com); [albana.mehmeti@uni-pr.edu](mailto:albana.mehmeti@uni-pr.edu);

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### ABSTRACT

Throughout winter many houses and residential buildings in Kosovo use wood for heating. The main purpose of the research is to know what is being accumulated within these living spaces, specifically which (heavy) metal?! In this research in order to determine the (heavy) metal content in wood ash, we have collected ashes of 9 different woods burned at home fireplaces throughout winter season. *Fraxinus ornus*, *Quercus cerris*, *Quercus petraea*, *Acer campestre*, *Populus tremula*, *Carpinus orientalis* and three additional *Quercus petraea* samples collected in three different months of burning: january, february, march. For determination we have chosen AAS as a method. Our results depending on the type of wood, show presence of all metals intended for determination, in different levels of concentration: Fe, Zn, Cu, Pb, Cd, Ni. Iron is in higher concentration in all types of wood, then comes zinc specifically in ashes of *Populus tremula* and *Acer campestre*. Copper is also found in different levels of concentration and in higher concentration in *Quercus cerris* same as nickel. Lead and cadmium are found in lower level of concentrations. *Quercus cerris* has little higher concentration of lead, and lower concentrations in the samples of *Quercus petraea*; january, february, and march. All our results are converted to mg/kg and afterwards shown in histograms. Also, other parameters, like LOI (1-4%), pH (11-13), EC (3.34 – 15.5), and total alkalinity (301.95 – 427mg/L) are also different depending on the type of wood.

**Key words:** wood, metal, AAS, pollution, toxicity.