



"Gh. Asachi" Technical University of Iasi, Romania

***ICEEM/03 – ENVIRONMENTAL ENGINEERING
SECTION***

Environmental Pollution and Monitoring

**DETERMINATION OF SOME ESSENTIAL ELEMENTS
IN DIFFERENT TYPES OF ROMANIAN FLORAL AND
NON-FLORAL BEE HONEYS AND PROPOLIS**

**Simona Dobrinas^{*1}, Alina Soceanu¹, Semaghiul Birghila¹,
Marius Belc²**

*¹Department of Chemistry, Ovidius University of Constanta, 124 Mamaia Blvd,
900527 Constanta, Romania; ²Department of Physics, Ovidius University of Constanta, 124
Mamaia Blvd, 900527 Constanta, Romania*

Abstract

The aim was to study the content of iron, manganese, magnesium and zinc in honey from different sources (sun flower, conifers, multifloral, mountain flowers, pine tree forest, acacia and linden tree) in fourteen regions of Romania and in two commercial samples, respectively in propolis collected from three regions. The chemical composition of bee products varies with the surrounding environment (plants, soil and water contamination), which reflects the nutrition value of honey and propolis. The investigated minerals were determined by flame atomic absorption spectrometry and were observed significant differences in the amount of Fe, Mn, Mg and Zn from honey and propolis according to their sources.

Keywords: bee honey, Fe, Mn, Mg, Zn, FAAS, honey, propolis

* Author to whom all correspondence should be addressed: e-mail: asoceanu@univ-ovidius.ro