

## **Distribution of As and Cd in *Verbascum Euphraticum* L. Plants on Pb-Zn Mining Area in Akdagmadeni, Yozgat, Turkey**

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The study area is located in Akdagmadeni where 104 km East of Yozgat city and geologically lies within igneous and metamorphic rocks of Akdag Massive. There are several skarn type Pb, Zn deposits which formed by regional contact metamorphism. Soil and plant samples were collected from both mineralized and unmineralized areas. The plant *Verbascum euphraticum* L. were examined. Analysis were carried out by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) method. As and Cd values of the soil samples were found to be in the range of (*V. euphraticum*) 56.9-2.5 mg kg<sup>-1</sup>; 73.25- 0.48 mg kg<sup>-1</sup>, respectively. Translocation factor changed from 0.1 to 4.38. Enrichment coefficient of most plant samples were higher than 1. It is seen that the As and Cd distribution in the plants is compatible with As and Cd distribution in the soils. This shows that plants are directly absorbing these elements from the soil. It was concluded that the shoots and roots of *V. euphraticum* can be used as both biomonitor for environmental pollution and indicator.

**Keywords:** Akdag Massive, Contact Metamorphism, shoots, roots, *V. euphraticum*.