

ABSTRACT

DETERMINATION OF HEAVY METALS IN AZAP LAKE'S SEDIMENT AND WATER

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The most significant problem in our life is environmental pollution. It is the most probably threatening in our ecosystems. Environmental problem which can lead to ill urbanization and industrialization affects negatively in hydrophilous stage. Recently, scientific research continues quickly in hydrophilus stage.

For this study, it has examined some factors to cause water pollution and using parameter to be identified the quality of water in a lake of Azap in Aydın-Söke.

In the different time interval, it has determined variable features in lake of azap in different 5 stations. It has taken five times water and sediment between September 2013- May 2014 two months periods in every station.

Taking sediment examples have done heavy metal analysis (Fe, Al, Mn, Cr, Co, Cd, Cu, Ni, Ba, Pb, Zn, B). As to water examples have done Ph, temperature, conductivity, total hardness, alkanite, and heavy metal (Fe, Al, Mn, Cr, Co, Cd, Cu, Ni, Ba, Pb, Zn, B) Heavy metal analyses were analysed with ICP-OES test device. Ph, temperature and conductivity were investigated with Ph meter. Other analysis which are total hardness and alkanite were tested with titrimetric method. When heavy metal molalities are looked in the water and sediment examples, Fe, B and Al are detected higher than other heavy metals. Generally, Cr, Co, Cd and Pb are not analysed in water examples. As for that sediment example; Pb is not analysed.

Key Words: Azap Lake, Water, Sediments, Heavy Metal, ICP-OES