In this work we studied the pollution level with heavy metals of water from Ialomita River, Dambovita area. Different samples of surface water, collected at points with industrial sources of pollution, successive three months, were measured with an Avanta Atomic Absorption Spectrometer (AAS)

We identified and determined the concentration of Cd, Co, Cu, Zn, Mn, Cr, and Fe with an instrumental error less than 1% for most of the elements analyzed.

Together with AAS analysis, Total Dissolved Solids (TDS) measurements were performed at the sampling sites by means of Hach CO150 conductometer. The monthly TDS migratory forms were determined.

[2]. National standards STAS 4706 for surface waters, quality categories and conditions.