

ICP-OES ELEMENTAL VARIATION ON BOTTLED DRINKING WATER

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The work describes ICP-OES elemental variation (Be, B, Al, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Mo, Ag, Cd, Sb, Ba, Sn, and Pb) in bottled drinking water.

The concentration of several inorganic metals is a limiting factor for drinking water quality, owing to their negative health consequences. Chronic diseases and the geologic environment have a connection. The geochemical environment is, without a doubt, a substantial contributor to serious health problems. Many people have suffered disease because of these heavy elements that are concentrated in drinking water in the past 20 years, which has prompted extensive research on the link between drinking water and chronic disease. The chemistry of drinking water is often identified as a contributing factor to a variety of diseases. This fact necessitates its supervision and oversight. In Saudi Arabia's Al Qassim province, the Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) facility is being utilized to quantify nineteen components in commercially bottled drinking water. A fully quantitative method was applied to check the concentration of nineteen elements (Be, B, Al, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Mo, Ag, Cd, Sb, Ba, Sn, and Pb) on the bottled water samples. The aim of the work is to check the quality of the samples under investigation.

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