

ABSTRACT

For the evaluation of potentially harmful effects on human health of the trace elements like Ni, Zn, Cu and Pb in wastewater, vegetables and milk samples of industrial city 'Gujranwala' measured by Atomic Absorption Spectroscopy. The method used for the sample preparation was wet digestion and drying ashing methods. Sampling was done from specific sites in and around the city for three months. The concentration of Ni, Zn, Cu and Pb varies from area to area. The concentration of Ni, Zn, Cu and Pb were higher than the WHO standards. The concentration of Ni, Zn, Cu and Pb in mgL^{-1} ranges 0.48-13.21, 3.45-19.25, 0.45-14.49 and 5.54-12.69 respectively. The overall level of heavy metals was found above the permissible limits fixed by WHO. The results were found in agreement with the certified values within experimental error. The poor planned sewerage system of Gujranwala also an important factor in this prospective. The major polluting sources of the city such as automobile, manmade activities, soil and road dust, metallic corrosion and industrial activities have been indicated. The environmental impacts of pollutants on water and food quality of an industrial and non-industrial city are briefly discussed in the light of their adverse effects on human health.