ENDEMIC EFFECTS OF FLUORIDE ON HUMAN HEALTH AND ANALYTICAL STRATEGIES FOR ITS REMEDIATION

Shahabuddin MEMON, Muhammad Shareef SHAIKH, Imam Bakhsh SOLANGI, and M. I. BHANGER

National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro-76080 / Pakistan

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The toxic ions contamination in drinking water is hazardous to human health as well as to the aquatic life. Among the most hazardous contaminants, the fluoride ion has major effects in terms of dental and skeletal fluorosis. The fluoride ion demonstrates versatile nature, as its concentration in optimum dose (0.5 to 1.0 mg L⁻¹) in drinking water is beneficial to health and excess concentration (> 1.0 mg L⁻¹) causes serious health effects on human being. The long-term intake of excess of fluoride through food and beverages may be one of the causes of dental and skeletal fluorosis. Ground water is the major source of drinking water in rural areas and in some urban parts of Pakistan; it is contaminated with excess of fluoride ion (> 1.5 mg L⁻¹), which is a great concern to the public health [1-4]. Herein, different strategies for the removal of fluoride from drinking water will be discussed. The study will contribute towards the remediation of fluoride polluted areas as well as in the field of analytical and environmental science.

REFERENCES