

EDITORIAL NOTE ON WATER TOXICOLOGY

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DESCRIPTION

Water is an essential component of life on Earth. Water is required for the development and structure of cell composition, as well as the movement of nutrients into cells and body metabolism. Water impurities disrupt the mechanism's propensity, resulting in long- and short-term illnesses. Regular study results in the discovery of some processes/ technologies for removing contaminants from water.

This includes easily understandable principles and capabilities of the technology. It also covers several significant hybrid technologies as well as some potential innovations that will be released in the next years. Fresh water is a well-known truth that it is an essential component of our health. Fresh water supplies throughout the world are under jeopardy as a result of technological advancements and industrial expansion. Water pollution happens when undesired items enter the water, altering its quality and posing a threat to the environment and human health. According to the World Health Organization (WHO), water borne illness causes 80% of all diseases. Drinking water in a number of nations does not satisfy WHO guidelines. One-sixth of the world's population lives in areas where freshwater is inaccessible, and roughly 3.1% of fatalities are caused by unsanitary and poor-quality water.

Water pollution is caused by the release of residential and industrial pollutant wastes, discharge from water tanks, marine dumping, radioactive waste, and atmospheric deposition, among other things. Various heavy metals wastes and industrial waste discharged into water bodies can build up in lakes and rivers, posing a health risk to humans and animals. Immune suppression, reproductive failure, and acute poisoning are all caused by chemicals found in industrial waste. Cholera, typhoid fever, and other infectious illnesses such as gastroenteritis, diarrhoea, vomiting, skin, and renal problems are all spread by contaminated water.

Source

sewage water Industrial waste, population expansion, and other factors have all contributed to the fast rise of the population. Chemicals used in agricultural fields (pesticides), polyethylene and plastic bags The management system is ineffective. Domestic sewage discharges account for 75 to 80 percent of water contamination, with waste mostly coming from businesses such as sugar, textiles, electroplating, pesticides, pulp and paper contaminating the water.

The nature of the geological materials through which groundwater travels and the quality of the groundwater sources determine the types and amounts of these impurities. The colour, odour, turbidity, and taste of the water may all be used to identify some of the contaminants. However, most contaminants are difficult to detect, necessitating testing to determine whether or not water is polluted.

The presence of living organisms such as algae, bacteria, protozoa, and viruses causes biological impurity in water. In water, various microorganisms can produce different issues. Organic, inorganic, biological, and radiological impurities are examples of different types of impurities. The chemical parameter of water can be used to measure organic pollution. Organic materials can include impurities that can cause significant health issues such as cancer, hormone disturbances, and nervous system disorders. Radioactive contaminated material might come from soils or rocks that the water passes through, as well as industrial waste.