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Arsenic Removal from Ground Water by Treatment and Remediation Methods

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Arsenic contamination in ground water contamination is a serious problem as it is acute toxic. Ground water of many parts of the world are being contaminated by arsenic. Therefore, the development of arsenic treatment and remediation technologies is required urgently. The physical (ion exchange, reverse osmosis, electrokinetics, adsorption), chemical (coagulation and sedimentation, lime softening, oxidation) and biological (bacterial oxidation, phytoremediation) treatment methods are available for the removal of arsenic from the ground water. The units developed and used at commercial scale include different kinds of filters, bucket type units, fill and draw, kalshi etc. The remediation methods discussed include air oxidation, reactive barriers, utilization of deeper aquifers and sanitary protected dug wells. But still no technology is available which can be used for the removal of arsenic from the ground water at economic, efficient and commercial levels affordable in the developing and under developed countries (especially Bangladesh, India and other effected countries). Further improvements are required to develop fast, efficient and economic arsenic removal technologies.