



Review of fluoride removal technology from wastewater environment

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ABSTRACT

Industrial production is the main reason for excessive fluoride content in wastewater, and it is necessary to adopt economical and effective fluoride removal methods. Therefore, be aware of the existing form of fluorine and the formation mechanism of fluoride pollution, and based on the water purification agents, environmental functions, and material innovation, this overview focuses on the defluoridation mechanism, the advantages and disadvantages of precipitation and coagulation, adsorption, electrochemical technology, and membrane separation technology. In the actual process of treating fluoride-containing wastewater, appropriate methods should be adopted according to the different characteristics of the wastewater. This review describes the research progress of fluoride removal methods for fluoride-containing wastewater at home and abroad in recent years, further analyzes the advantages and technical bottlenecks of these methods, and looks ahead at the major development trends in the future to provide a reference for further research on treatment technology of wastewater with a high fluoride content.

Keywords: Fluoride-containing wastewater; Precipitation; Adsorption; Electrochemical technology; Membrane separation

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