

Treatment of wastewater by using separation of ice crystal

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A number of remediation technologies that exist for wastewater treatment face challenges such as energy consumption rate secondary pollution and high cost of operation. Freeze concentration can be applied to reduce volumes of wastewater by crystallization of ice. Separation of concentrated impurity was achieved through partial melting of ice. The crystal purity obtained during crystallization was related with process conditions such as temperature, cooling rate and melt concentrations. In this study, by controlling the ice crystal production process using addition and refining, it is possible to treat the toxic wastewater.