Device for Odor Removal in Drinking Water: Treatment of Organic Micro-Polluted Drinking Water with Electro-Oxidation Enhanced by Microporous Aeration

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Ensuring the safety of drinking water is a basic livelihood issue. Frequent occurrences of water odor accidents in recent years have attracted increasing public attention to organic micro-pollution and micro algae toxin of drinking water. In this study, electro-oxidation enhanced by microporous aeration (EOMA) was utilized for treatment of organic micro-polluted drinking water. Microporous aeration could enhance the turbulence of reaction solution and thus increase the removal efficiency by about one time than the single electro-oxidation.Tests showed that EOMA could be used for effective treatment of actual organ micro-polluted drinking water.Also the device demonstrated good performance in removing drinking water pollution by odor substances (mainly 2-methylisoborneol)resulting from algae growth.The technological achievement has greatly interested the technical authority of the Qiandao Lake Water Diversion Project", a major water conservancy construction project of Zhejiang Province, and a cooperation agreement was signed for field-testing of EOMA device.

Awards Won: