

## 反应与分离

### Comparison of Dissolved Air Flotation and Sedimentation in Treatment of Typical North China Source Water

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收稿日期 修回日期 网络版发布日期 接受日期

**摘要** The treatment of typical north China water by dissolved air flotation (DAF) and sedimentation process was examined. A pilot plant with a water treatment capacity of 120 m<sup>3</sup>/d constructed in the Jieyuan Water Treatment Plant (JWTP) of Tianjin, China, was utilized for the comparison of the two processes. The results show that during the pilot test, DAF process can remove particles and organic mater more efficiently than sedimentation process. The removal rate for turbidity by DAF process is 5.5% higher than that by sedimentation in normal turbidity period, and 40% higher in low turbidity period, it is 5%~10% higher for removals of algae, total organic carbon (TOC), trihalomethane formation potential (THMFP) and bacteria in all periods. The removal rates for turbidity, TOC, THMFP, algae and bacteria by DAF process can reach 95%, 30%, 20%, 94% and 97% respectively. From the results of the pilot test, it can be concluded that DAF is a feasible clarification process, especially for source water with low turbidity and high algal blooming.

**关键词** [dissolved air flotation, sedimentation, turbidity, specific UV absorpion, total organic carbon, algae, trihalomethane](#)

分类号

**DOI:**

对应的英文版文章: [206441](#)

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