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| • 計畫中文名稱 | 高分子聚合物對三鹵甲烷生成前質的影響 | | |
| • 計畫英文名稱 | Evaluation of Polyelectrolytes for Removing Organics Matter | | |
| • 主管機關 | 行政院國家科學委員會 | • 計畫編號 | NSC91-2211-E038-001 |
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| • 研究人員 | 張怡怡; 蔣本基 Chang, E E; Chiang, Pen-Chi | | |
| • 中文關鍵字 | 加強混凝; 高分子聚合物; 聚丙烯醯胺; 聚氯化己二烯二甲基胺; 對羥基苯甲酸; 單寧酸; 腐植酸; 三鹵甲烷生成 | | |
| • 英文關鍵字 | Enhance coagulation; Polymer; Polyacryamide; Diallyldimethyl ammonium chloride; Hydroxybenzoic acid; Tannic acid; Humic acid; Trichloromethane | | |
| • 中文摘要 | 利用高分子聚合物加強混凝去除水中之三鹵甲烷有機前質的研究結果，顯示 p-DADMAC 之添加有助於腐植酸及單寧酸之去除並降低混凝劑的使用量。與未加高分子聚合物的混凝程序相比較，應用高分子聚合物爲助凝劑時，雖然隨著顆粒與凝絮間的連結性強化下，濁度有增加的傾向，但其有助於起初漂浮的凝絮凝集而沉降。此外，藉由處理後水中之濁度與總有機碳之線性關係可知，沈降爲總有機碳去除之主要機制。 | | |
| • 英文摘要 | The results of this investigation reveal that enhanced coagulation with polymer, p-DADMAC, was found to be very effective for removing high-molecular-weight THM precursors humic acids and tannic acids, and markedly reduced the alum dosages required for turbidity removal. Like the removal of organic precursors, THM formation was reduced by p-DADMAC addition. Comparing with the experimental data without polymers in coagulation process, although turbidity increased with increasing on enhancing the effectiveness of linkage between particles and flocs contributed by p-DADMAC, which helped the primarily unsettled flocs to agglomerate and precipitate. In addition, a linear relationship between turbidity and total organic carbon (TOC) removal was observed and suggested (precipitation) be the predominant mechanism for TOC removal in high turbidity water. | | |