



## INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

"KEY ELEMENTS FOR A SUSTAINABLE WORLD: ENERGY, WATER AND CLIMATE CHANGE"

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### **Study of Viability of Use of a Natural Polymer (TANFLOC) in Substitution to Aluminum Sulphate in the Water Treatment for Human Consumption**

L. A. Coral<sup>a</sup>, R. Bergamasco R<sup>b</sup>, F. J. Bassetti<sup>c</sup>

*a. Departamento de Engenharia Sanitária e Ambiental-UFSC, Florianópolis-SC, [lucila\\_coral@yahoo.com.br](mailto:lucila_coral@yahoo.com.br)*

*b. Departamento de Engenharia Química-UEM, Maringá-PR, Brasil  
[rosangela@deq.uem.br](mailto:rosangela@deq.uem.br)*

*c. Departamento de Química e Biologia-UTFPR, Curitiba-PR, Brasil.  
[bassetti@utfpr.edu.br](mailto:bassetti@utfpr.edu.br)*

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#### **Abstract**

This study aimed to demonstrate the technical viability of one natural polymer in substitution to the aluminum sulphate as coagulation and flocculation agent in the water treatment for consumption. Focusing in comparing the efficiency, basic physical-chemical parameters such as pH, turbidity, alkalinity, settling solids and organic matter were analyzed, and then measured after jar test, utilizing coagulant concentrations pre-established between 10 and 60 mg.L<sup>-1</sup>, in interval of 10 mg. The results obtained in the finish of the experiment, indicates that the natural coagulant had shown more efficiency in regards to pH and alkalinity parameters and got results very near regarding the other parameters analyzed. The preliminary results proof that the natural polymer utilized (Tanfloc) can be a potential substitute of the aluminum sulphate for the water treatment.

*Keywords: Natural polymer, Water treatment, Superficial water.*

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