

# DETERMINATION OF SEVERAL OPTIMAL CONDITIONS WITH TREATMENT OF ORGANIC COMPOUNDS OF LANDFILL LEACHATE IN VIETNAM BY COAGULATION PROCESS

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## TÓM TẮT:

This paper presents some experimental results of removals of COD and color from landfill leachate by using coagulation to determine the optimal reaction conditions. Three coagulants were used for research are PAC (polyaluminium chloride), aluminum sulfate ( $\text{Al}_2(\text{SO}_4)_3 \cdot 18\text{H}_2\text{O}$ ), and ferric sulfate ( $\text{Fe}_2(\text{SO}_4)_3 \cdot 7\text{H}_2\text{O}$ ). The results showed that the removals obtained from three types of coagulants showed a maximum of the concentration of coagulants are more than  $3,000 \text{ mg l}^{-1}$  under the pH region from 7 to 8. The results also indicated that the significant removals of COD and color were obtained at the concentration of  $1,500 \text{ mg l}^{-1}$  and that PAC was the most suitable coagulant for the treatment of landfill leachate in Vietnam. The removals of COD and color were approximately 30% and 70%, respectively.