

COAGULANT AIDS FOR CHAO-PHYA RIVER WATER



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Abstract



This study deals with the applications of various chemicals in conjunction with alum, the normal coagulant used in removal of suspended particles. Three types of clay were experimented with, namely, Kaolinite, Laterite, and Fuller's earth. It is found that Kaolinite is the best of all. It has a wider range of application and not very sensitive to the change in pH. Larger flocs are formed in less time. All three of them, Kaolinite reduce dosage of alum for economic, in any case, improve the coagulating power of alum.

In order that experimental study can be carried out effectively, an instrument based on the principles of light absorption due to turbidity has been constructed and its accuracy compared with that of Jackson candle Turbidimeter. Within the range of experiment, the instrument is found to behave satisfactorily although some doubts are cast on its accuracy when flocs are relatively large. Correction for this would be an expensive process and time consuming. It is decided to use this instrument and verify the readings by Jackson candle Turbidimeter.

Experimental study indicates a marked increase in alkalinity of the treated water. Further investigation into the change in characteristics of treated water is therefore suggested. Initial turbidity may influence the dosage of coagulation and coagulant aids and a special investigation into its effect would be of great interest.



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TABLE OF CONTENT

Page

Title Page

Approval Page

Abstract

Acknowledgement

Table of Content



Introduction	1
Theoretical	3
Basic Mechanism of Coagulation	3
Properties of Colloids	3
Instability and Stability Factors	4
Nature of Zeta Potential	5
Coagulation of Colloids	8
Chemical Coagulant	12
Polyelectrolytes	13
Mechanism of Polyelectrolyte Section	16
Mechano-Chemical Effect	18
Data of Water Analysis	22
Experimental Study	33
Flocculation Measuring Apparatus	33
Jackson Candle Turbidimeter	33
Turbidity Standard	34
Procedure	37
Discussion	60
Conclusion	66
Suggestion for Further Study	67
Bibliography	69