

Application of Nonlinear Model to Optimize the Coagulant Dose in Drinking Water Treatment

Authors : M. Derraz, M.Farhaoui

Abstract : In the water treatment processes, the determination of the optimal dose of the coagulant is an issue of particular concern. Coagulant dosing is correlated to raw water quality which depends on some parameters (turbidity, ph, temperature, conductivity...). The objective of this study is to provide water treatment operators with a tool that enables to predict and replace, sometimes, the manual method (jar testing) used in this plant to predict the optimum coagulant dose. The model is constructed using actual process data for a water treatment plant located in the middle of Morocco (Meknes).

Keywords : coagulation process, aluminum sulfate, model, coagulant dose

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020