عنوان مقاله:

The study of coagulation process in medium turbidity removal from driknking water

محل انتشار:

مجله آرشیو علوم بهداشتی, دوره 3, شماره 4 (سال: 1393)

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

Background & Aims of the Study: Colloidal impurities are one of the naturalcontaminants in surface water that cause turbidity and color. Turbidity in spite ofcreate undesirable appearance, can be a haven for disinfection of microorganisms.This study aimed to evaluate the effectiveness of various coagulants in removingaverage turbidity of water and also their impact on the electrical conductivity andalkalinity.Materials & Methods: The study was conducted as tentative - interfere researchin a laboratory scale. Experiments were carried out based on various parametersincluding different turbidity (50,100 and 200 NTU) and different concentrations ofcoagulants (5, 10, 15, 20, 25 and 30 mg/L). Supernatant of samples were takenafter Jar test to measuring of turbidity, conductivity and alkalinity. The settlingcharacteristics of the floc were record by observing as descriptive terms such aspoor, fair, good and excellent.Results: Results showed that all coagulants materials in whole used levels be ableto completely remove of the initial turbidity (with the exception of Ferrous sulfatecoagulant). On the other hand, with increasing concentrations of coagulants, theelectrical conductivity increased and alkalinity decreased. Also, the highest andthe lowest increase of electrical conductivity and TDS obtained in ferric chlorideand poly aluminum chloride coagulants respectively. Conclusions: The result showed that poly aluminum chloride was best coagulant for turbidity removal and in spite of .fine floc, sedimentation rate is good

کلمات کلیدی:

CoagulantTurbidityElectrical conductivityAlkalinityDrinking water

لینک ثابت مقاله در پایگاه سیویلیکا: