عنوان مقاله:

Comparative study of leachate treatment by coagulation-flocculation process using iron-based coagulants: A case study on Souk-Ahras city

محل انتشار:

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خلاصه مقاله:

The objective of this study was to evaluate the coagulation-flocculation process inthe clarification of leachate from the landfill Technical Center of Souk-Ahras cityusing three coagulants based on iron: ferrous sulfate FeSO۴.۷H۲O; ferrous chlorideFeCl۲.۴H۲O and ferric chloride FeCl۳. The influence of some parameters namelypH leachate, dose and nature of coagulant and nature of flocculant was studied.The best treatment efficiency was obtained at ۲۰ % of FeCl۳ giving a turbidity of۴.۰۹ NTU with pH adjustment of the raw leachate at acidic pH (۳.۵ ± ۰.۲) beforecoagulant addition and at a basic pH (۷.۵ ± ۰.۲) after addition of coagulant. Theiron valence and the nature of anion at which is linked, played a determinant rolein the clarification of leachate. The treatments made with ferric chloride in thepresence of a flocculant have proved that the starch was more efficient than limegiving abatement rates of ۹۹ % for COD and ۸۵ % for BOD۵.

کلمات کلیدی:

Coagulation-Flocculation, Leachate, Iron, Starch, Lime

لینک ثابت مقاله در پایگاه سیویلیکا: