

Coagulation/flocculation of anaerobically treated palm oil mill effluent (AnPOME): A review

Abstract

Inefficiency of palm oil mill effluent (POME) treatment cause considerable environmental problems including from aesthetic point of view and inhibits the growth of the desirable aquatic biota necessary for surface water self-purification. Due to its low operating cost, anaerobic digestion of palm oil mill effluent (POME) is widely accepted by the managers, yet the colour of treated effluent (AnPOME) turned to dark brown. In this paper, the colourants in the AnPOME and its possible treatments have been reviewed with greater emphasis was put on coagulation/flocculation method. Application of anionic polymer as pre-treatment for integrated system has been shown to be necessary for sustainable AnPOME treatment including its sludge disposal. © Springer Science+Business Media New York 2013.