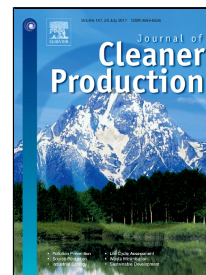


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Removal of ammonium and orthophosphates from reject water generated during dewatering of digested sewage sludge in municipal wastewater treatment plant using adsorption and membrane contactor system

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Abstract

Recently the treatment of reject waters generated during dewatering of digested sewage sludge has become a matter of a concern in wastewater treatment plants. The problem of reject waters is that the concentration of ammonia and orthophosphates is relatively high compared to influent composition. In traditional treatment approach, side-streams are recycled to the main wastewater stream, sometimes causing its temporary overcharging. This study comes up with a novel two-step method of treatment real reject water. To this end, a membrane contactor system with a vacuum sweep mode for its ammonia removal efficiency was examined. In the second step, a new biocomposite, eggshells modified with ferric and zirconium oxide, as an

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