ÁP DỤNG QUÁ TRÌNH OZON HOÁ LÀM GIẢM HÀM LƯỢNG CÁC CHẤT HỮU CƠ KHÓ PHÂN HUỶ TRONG XỬ LÝ NƯỚC RỈ RÁC BÃI CHÔN LẤP CHẤT THẢI RẮN

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TÓM TẮT:

Landfill leachate pollution has had much significant impacts on surface water, underground water and public health. The application of ozonation process can have much efficiency for organic components in wastewater from landfill in Da Mai commune Thai Nguyen City. It's pre-treatment was sand filter system, then the ozonation process with the change of pH of landfill leachate and time for ozone reaction. Research results showed that: The suspended solids decreased significantly (to reach optimum performance is 94.2%; SS reduced from: 0.52 g/l to 0.03 g/l); non-biodegradable organics (through the target COD) was reduced in part, optimal performance is 15.2%; COD decreased from 2903.6 mg/l to 2462.0 mg/l) after 20 minutes. At pH = 7 processing performance achieved optimal (COD decreased from 2743.6 mg/l to 1528.8 mg/l, equivalent output is 44.3%; SS decreased from: 0.05 g/l to 0 g/l, output is100%). After 50 minutes and pH adjusted to 7, the processor performance is optimized, namely: COD decreased from 2973.8 mg/l to 1027.6 mg/l, performance is 65.4%; SS reduced from 0.04 g/l down to 0 mg/l, 100% efficiency. Thus, the optimal performance achieves at pH = 7 and the value of aeration time is 50 minutes.