

COMBINATION OF OZONE AND CERAMIC RASCHIG RING TO IMPROVE EFFICIENCY OF TREATMENT OF LANDFILL LEACHATE

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TÓM TẮT:

The combination with ozone/ceramic raschig ring (O₃/CRR), with three strips of surface area of the ceramic raschig ring is 356, 539 and 728 m²/m³) at a concentration of O₃ is 2.882 g Hr⁻¹ studied to improve performance of landfill leachate treatment in Nam Son site, Soc Son, Hanoi city, Vietnam. Volume of landfill leachate used for each pilot lot is 1 L. The combination of ozone and the ceramic raschig ring for landfill leachate treatment has improved significantly treating performance. In experiment with the ceramic raschig ring, surface contacting area is 728 m²/m³, performance of treatment of colour, COD and TOC has increased comparison with experiment without the ceramic raschig ring is 8, 16 and 7 % respectively. The amount of residual O₃ after treating in the experiment available the ceramic raschig ring (728 m²/m³ of surface area) is also much lower than the experiment without the ceramic raschig ring. Average amount residual O₃ corresponding the experiment with and without the ceramic raschig ring is 0.632 and 1.639 g respectively after 100 min of treatment. At experimental conditions available the ceramic raschig ring (728 m²/m³ of surface area), the content of O₃ identified uses 4.812 Kg O₃/Kg COD.

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