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Batch Method Treatment of Landfill Leachate using Charcoal Composite

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Abstract : Landfill leachate can affected the environment by contaminating groundwater and surface water. The composition of landfill leachate is complex, with high concentration of pollutants and chemical variation. Degradation of chemical oxygen demand (COD) and color was investigated by adsorption batch method using mixture of charcoal-graphite-Co-polyvinyl chloride (PVC). In batch studies for adsorbents pellet and powder form of the charcoal mixture were used. The effectiveness of the treatments were compared and evaluated by percentage of colorand COD removal and results indicated that pellet and powder in batch method removed 26 and 33% of color respectively, while pellet and powder in batch method removed 21 and 27% of COD respectively.

Key words: Landfill leachate, batch method, treatment, charcoal.

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