

CO₂ removal from LFG using alkaline polyester wastewater

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In this study alkaline wastewater obtained from polyester industry is used to remove CO₂ from Landfill Gas (LFG). Polyester industry wastewater has extremely high alkalinity. We don't need to add any artificial agents to increase the alkalinity of the wastewater. Due to high pH and alkalinity the wastewater absorb large amount of CO₂ from LFG. The experiment is successful. The alkaline wastewater is neutralized after some time. Different parameters like CO₂ loading, change in pH, change in conductivity, CO₂ reaction rate etc are measured. Artificial salts are added to alkaline wastewater to see if we can obtain carbonates from the solution.