

APPARATUS AND METHOD FOR ANAEROBIC TREATMENT OF WASTEWATER

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Abstract

The present invention relates to an apparatus and method for anaerobic treatment of wastewater. The apparatus comprises an upflow anaerobic reactor having an enclosed vessel with a top and a bottom, an influent liquid conduit located near the bottom of the vessel and an effluent liquid conduit located near the top of the vessel thereby establishing a flow direction through the vessel from the influent conduit to the effluent conduit. The vessel comprises a plurality of compartments, each of the plurality of compartments includes a plurality of carriers to which microorganisms are attached to each of the plurality of carriers, and wherein the plurality of carriers in an uppermost compartment having a diameter smaller than the diameter of the plurality of carriers in a lowermost compartment. The apparatus also comprises a recirculation line for re-circulating at least a portion of the wastewater back into the apparatus.

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