COMPARATIVE EVALUATION OF THE MEDIA PERFORMANCES IN FIXED-BED BIOFILM REACTORS

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ABSTRACT

The present study investigated on two different media performances such as Broken Granite Stones and Corrugated Pall Rings in Upflow Aerated Submerged Fixed-Bed Biofilm Reactors (UASFBRs). The two were installed as fixed-beds in two UASFBRs. Influent COD of dairy wastewater was an average of 1250 mg/L is applied at 24, 18 and 12 hours of HRT in progression continuously in both reactors. Performance of Corrugated Pall Ring media shows a highest COD removal efficiency than that of Granite Stone media. The results imply that fixed-bed media porosity play a more significant role than the specific surface area in performance of wastewater treatment through UASFBBRs.

KEYWORDS: Media, Bioflim reactors, COD.