

Optimal configuration of lab-scale photobioreactors for the growth of microalgae

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Aim of the present work is to look into the various configurations of photobioreactor (PBR), and to find the best/optimal configuration for the growth of microalgae. Initially, simple configurations (without recycling of air/gas) of PBR, such as bubble column (BCR) and airlift reactors (ALR) are investigated, in order to find the best configuration. Then the above study is extended to incorporate the recycle streams of air/gas streams to the above said two reactors. The other process conditions remain same while finding out the best configuration of PBR. Finally, this study is expected to give the optimal configuration of PBR out of several available for the growth of microalgae.