

Effect of Aeration on Bacterial Cellulose (BC) Production by Gluconacetobacter xylinus DSM46604 in Batch Fermentation

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Abstract : The effect of aeration on bacterial cellulose (BC) production by *Gluconacetobacter xylinus* DSM46604 was studied in 5-L bioreactor. Four aeration rates were applied (0.3, 0.6, 1.0 and 1.5 vvm) in the fermentation media at constant agitation rate, 150 rpm. One vvm enhanced BC concentration (4.4 g/L) and productivity (0.44 g/L/day) while greater agitation rate (1.5 vvm) decreased BC concentration (4.0 g/L) and productivity (0.40 g/L/day).

Keywords : aeration, bacterial cellulose, fermentation, *gluconacetobacter xylinus*

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