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G. Gayathri, G. Srinikethan



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Crude glycerol as a cost-effective carbon source for the production of

Cellulose by *K.saccharivorans*

G.Gayathri*, G.Srinikethan

Department of Chemical engineering, National Institute of Technology Karnataka,

Surathkal, Mangalore-575025, India

*Corresponding author: gaya30105@gmail.com

Abstract

Bacterial cellulose (BC) has been gaining attention due to its widespread applications in various domains such as food, medical, paper industries etc. The culture medium required for the production of cellulose by bacteria generally needs a high amount of carbon and nitrogen source. Hence using a cost-effective carbon source could be a feasible option so as to reduce the production cost and make the process economical overall. Crude glycerol is a by-product generated in large quantities from the biodiesel industry worldwide every year. This form of glycerol also has very low commercial value due to the huge amount of impurities present in it, making the purification and disposal process expensive. Therefore in the current study, we attempted to replace the carbon source in the production medium using crude glycerol and produced bacterial cellulose using novel strain *K.saccharivorans*. The BC pellicle synthesized

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