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Jasneet Grewal, Razi Ahmad, S.K. Khare

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Development of cellulase-nanoconjugates with enhanced ionic liquid and thermal stability for *in situ* lignocellulose saccharification

Jasneet Grewal[a], Razi Ahmad[a], S.K. Khare[a]*

[a] Enzyme and Microbial Biochemistry Laboratory, Department of Chemistry, Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016, India

*Corresponding author

Prof. S. K. Khare

Enzyme and Microbial Biochemistry Laboratory

Department of Chemistry

Indian Institute of Technology Delhi

Hauz Khas, New Delhi 110016, India

Tel. +91 112659 6533, fax + 91 11 2658 1102

e-mail: skkhare@chemistry.iitd.ac.in

skhare@rocketmail.com

Abstract

The present work aimed to improve catalytic efficiency of *Trichoderma reesei* cellulase for enhanced saccharification. The cellulase was immobilized on two nanomatrices i.e. magnetic and silica nanoparticles with immobilization efficiency of 85% and 76% respectively. The nanobioconjugates exhibited increase in V_{max}, temperature optimum, pH and thermal stability