



International Journal of Advanced Research in Biology, Ecology, Science and Technology (IJARBEST)

Vol. 2, Special Issue 8, February 2016 in association with

KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, VIRUDHUNAGAR

DEPARTMENT OF BIOTECHNOLOGY

ORGANIZES

DBT, NEW DELHI SPONSORED NATIONAL LEVEL CONFERENCE ON CONTEMPORARY TRENDS IN  
BIOENERGY AND GREEN TECHNOLOGY: CHALLENGES AND OPPORTUNITIES [ORA-2016]

(25-26<sup>TH</sup> FEBRUARY 2016)

# CELLULASE PRODUCTION FROM BAMBOO STEM BY *Cellulomonas fimi*

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## Abstract

The aim of present work is to produce cellulase from bamboo (*Bambusa balcooa*) stem by *Cellulomonas fimi* MTCC 24. The growth curve studies were carried out for *Cellulomonas fimi* with bamboo stem and cellulose extracted from bamboo stem. Based on the yield of biomass, non-nutritional parameters such as pH, substrate concentration, time, temperature, agitation speed and inoculum size were optimized for maximum cellulase activity. Cellulase produced from bamboo stem by *Cellulomonas fimi* MTCC 24 was employed for saccharification of commercial cellulose and sugar yield was calculated. Thus, bamboo (*Bambusa balcooa*) stem can be the potential substrate for the production of cellulase by *Cellulomonas fimi* MTCC 24.

**Keywords:** Cellulase, *Bambusa balcooa*, *Cellulomonas fimi*.

