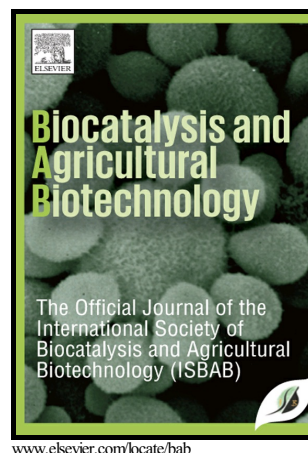


Author's Accepted Manuscript

Tannases: Production, Properties, Applications

Amitabh Aharwar, Dharmendra Kumar Parihar



PII: S1878-8181(18)30194-4
DOI: <https://doi.org/10.1016/j.bcab.2018.07.005>
Reference: BCAB803

To appear in: *Biocatalysis and Agricultural Biotechnology*

Received date: 2 March 2018

Revised date: 14 June 2018

Accepted date: 3 July 2018

Cite this article as: Amitabh Aharwar and Dharmendra Kumar Parihar, Tannases: Production, Properties, Applications, *Biocatalysis and Agricultural Biotechnology*, <https://doi.org/10.1016/j.bcab.2018.07.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Tannases: Production, Properties, Applications

Amitabh Aharwar, Dharmendra Kumar Parihar*

Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur 495009, Chhattisgarh,
India.

*Corresponding author . Contact number: +91-9977170733, Fax Number: +91-07752-260146.

parihardkp@rediffmail.com

Abstract

Microbial tannases are industrially important enzymes belong to the family of esterases which catalyze the generation of gallic acid and glucose by the degradation of polyphenolic compounds such as tannins. In spite of wastewater treatment and gallic acid production, tannases have wide application in the processing of food, beverage and animal feed. For tannase production, tannins containing low-value agro-industrial wastes are being extensively used in industries. Downstream processing of tannase through conventional methods is cheaper, but have lower purification fold of tannase, whereas advanced methods like ion exchange and size exclusion chromatography provide high purification. Tannases have a vast molecular weight range 31-310 kDa, furthermore, they have much stability to work in broad ranges of pH (3-10) and temperature (30-70°C). An overview of production, downstream processing, properties, applications and recent advances of tannase is discussed in this review.

Key words: Tannase, Characterization, Solid State Fermentation, Purification, Application.

Download English Version:

<https://daneshyari.com/en/article/8405977>

Download Persian Version:

<https://daneshyari.com/article/8405977>

[Daneshyari.com](https://daneshyari.com)