### Accepted Manuscript

Title: Lignocellulosic Hydrolysate Inhibitors Selectively Inhibit/Deactivate Cellulase Performance

Author: Sizwe I. Mhlongo Riaan Den Haan Marinda Viljoen-Bloom Willem H. van Zyl



PII: DOI: Reference:	S0141-0229(15)30031-4 http://dx.doi.org/doi:10.1016/j.enzmictec.2015.07.005 EMT 8787
To appear in:	Enzyme and Microbial Technology
Received date:	27-5-2015

 Revised date:
 27-3-2015

 Revised date:
 1-7-2015

 Accepted date:
 23-7-2015

Please cite this article as: Mhlongo Sizwe I, Haan Riaan Den, Viljoen-Bloom Marinda, van Zyl Willem H.Lignocellulosic Hydrolysate Inhibitors Selectively Inhibit/Deactivate Cellulase Performance.*Enzyme and Microbial Technology* http://dx.doi.org/10.1016/j.enzmictec.2015.07.005

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 proof before it is published in its final 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.

## ACCEPTED MANUSCRIPT

#### Lignocellulosic Hydrolysate Inhibitors Selectively Inhibit/Deactivate Cellulase

#### Performance

Sizwe I Mhlongo<sup>a</sup>,

mhlongo.sizwe8@gmail.com

Riaan Den Haan<sup>b</sup>,

rdenhaan@uwc.ac.za

Marinda Viljoen-Bloom<sup>a</sup>,

mv4@sun.ac.za

Willem H van Zyl<sup>a†</sup>

† Corresponding author Tel.: +27 21 808 5854; Fax: +27 21 808 5846

E-mail address: whvz@sun.ac.za (W.H. van Zyl)

<sup>a</sup>Department of Microbiology, University of Stellenbosch, Stellenbosch 7600, South Africa

<sup>b</sup>Department of Biotechnology, University of the Western Cape, Bellville, 7530, South Africa

Highlights

- Impact of biomass-derived inhibitors on recombinant cellulases was examined.
- Tannic acid strongly inhibited cellulases, non-dependent on time or concentration.
- Weak acids (acetic and formic acid) strongly inhibited BGL1 but not CBH1 and EG2.

Download English Version:

# https://daneshyari.com/en/article/6488242

Download Persian Version:

https://daneshyari.com/article/6488242

Daneshyari.com