Accepted Manuscript

Title: Conceptual design of integrated production of arabinoxylan products using bioethanol pinch analysis

Authors: Elias Martinez-Hernandez, Alice Tibessart, Grant M.

Campbell

PII: S0960-3085(18)30032-4

DOI: https://doi.org/10.1016/j.fbp.2018.08.005

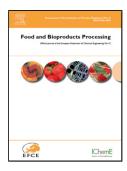
Reference: FBP 981

To appear in: Food and Bioproducts Processing

Received date: 25-2-2018 Revised date: 24-7-2018 Accepted date: 6-8-2018

Please cite this article as: Martinez-Hernandez, Elias, Tibessart, Alice, Campbell, Grant M., Conceptual design of integrated production of arabinoxylan products using bioethanol pinch analysis. Food and Bioproducts Processing https://doi.org/10.1016/j.fbp.2018.08.005

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.



Conceptual design of integrated production of arabinoxylan products using

bioethanol pinch analysis

Elias Martinez-Hernandez^{a,b*1}, Alice Tibessart^c, Grant M. Campbell^d

^aDepartment of Engineering Science, University of Oxford, Oxford, OX1 3PJ, UK

^b Biomass Conversion Division, Mexican Institute of Petroleum, Mexico City, Mexico

^cChimie Paris Tech, École Nationale Supérieure de Chimie de Paris, Paris, F75231, France

^dSchool of Applied Sciences, University of Huddersfield, Huddersfield, HD1 3DH, UK

*Corresponding author. Email: eliasiq2008@gmail.com

Highlights

• Retrofitting biorefineries using mass pinch analysis

• Pinch analysis method combined with LP for designing bioethanol networks

Wheat-based biorefinery retrofitted to co-produce arabinoxylan (AX) and arabinoxylan oligosaccharides (AXOS)

Bioethanol network with purifier reduces fresh bioethanol use by 95%

Abstract

This paper presents the application of mass pinch analysis for integration of bioethanol

streams in biorefineries. A new case study is presented, comprising a wheat-based

1

Download English Version:

https://daneshyari.com/en/article/8946502

Download Persian Version:

https://daneshyari.com/article/8946502

<u>Daneshyari.com</u>