

Accepted Manuscript

Title: Multi-scale structural changes in lintnerized starches from three coloured potatoes

Authors: Liping Yang, Yuesheng Xia, Yuchen Tao, Huihui Geng, Yanyan Ding, Yibin Zhou



PII: S0144-8617(18)30155-3
DOI: <https://doi.org/10.1016/j.carbpol.2018.02.017>
Reference: CARP 13279

To appear in:

Received date: 16-11-2017
Revised date: 5-2-2018
Accepted date: 6-2-2018

Please cite this article as: Yang, Liping., Xia, Yuesheng., Tao, Yuchen., Geng, Huihui., Ding, Yanyan., & Zhou, Yibin., Multi-scale structural changes in lintnerized starches from three coloured potatoes. *Carbohydrate Polymers* <https://doi.org/10.1016/j.carbpol.2018.02.017>

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.

Multi-scale structural changes in lintnerized starches from three coloured potatoes

Liping Yang, Yuesheng Xia, Yuchen Tao, Huihui Geng, Yanyan Ding,
Yibin Zhou*

*Anhui Engineering Laboratory of Agricultural Products Processing, Anhui
Agricultural University, 130 Chang Jiang West Road, Hefei 230036, China*

* Corresponding author: Prof. Yibin Zhou

Tel.: +86 13095515977

E-mail address: zhouyibin@ahau.edu.cn

Highlights

- Three lintnerized potato starches were prepared from three potato cultivars.
- Three kinds of potato starch showed different susceptibilities to acid hydrolysis.
- The showed markedly different HPAEC chromatograms.
- The three lintners retained B-type crystal, but relative crystallinity increased.
- The starch multi-scale structures changed significantly during the lintnerization.

Abstract

Three kinds of potato starch were treated with 2.2 N HCl at 35 °C for 40 days, and their susceptibility to acid hydrolysis and the resulting structural changes were

Download English Version:

<https://daneshyari.com/en/article/7783412>

Download Persian Version:

<https://daneshyari.com/article/7783412>

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