# Accepted Manuscript

Title: Microstructure analysis of high pressure induced gelatinization of maize starch in the presence of hydrocolloids

Authors: A.Schneider Teixeira, L. Deladino, M.A. García, N.E. Zaritzky, P.D. Sanz, A.D. Molina-García

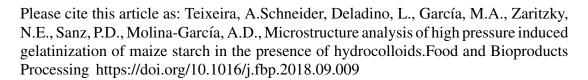
PII: S0960-3085(18)30679-5

DOI: https://doi.org/10.1016/j.fbp.2018.09.009

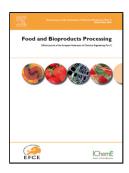
Reference: FBP 996

To appear in: Food and Bioproducts Processing

Received date: 7-12-2017 Revised date: 10-7-2018 Accepted date: 24-9-2018



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

Microstructure analysis of high pressure induced gelatinization of maize starch in the presence of hydrocolloids.

A. Schneider Teixeira<sup>1</sup>, L. Deladino\*<sup>1</sup>, M.A. García<sup>1</sup>, N.E. Zaritzky<sup>1,2</sup>, P.D. Sanz<sup>3</sup>, A. D. Molina-García<sup>3</sup>

- Centro de Investigación y Desarrollo en Criotecnología de los Alimentos (CIDCA),
  CONICET, Fac. Cs. Exactas (UNLP), 47 y 116, La Plata (1900), Argentina.
- (2) Facultad de Ingeniería. Universidad Nacional de La Plata. Argentina
- (3) Instituto Ciencia y Tecnología de Alimentos y Nutrición (ICTAN), Spanish National Research Council (CSIC), José Antonio Novais 10, 28040, Madrid, Spain.

### Highlights

- Gelatinization of maize starch granule under high hydrostatic pressure was studied.
- Gelatinization degree increased accordingly with the intensity of the HHP treatment.
- Hydrocolloids presence did not affect gelatinization temperature.
- A-type and B-type crystallization patterns coexist, denoting a partial gelatinization.
- The formation of V-crystalline complex would be favored by gums under pressure.

#### **Abstract**

The effect of High Hydrostatic Pressure (HHP) treatment on maize starch granules was

<sup>\*</sup>loredeladino@gmail.com

## Download English Version:

# https://daneshyari.com/en/article/11032583

Download Persian Version:

https://daneshyari.com/article/11032583

<u>Daneshyari.com</u>