

Accepted Manuscript

How high pressure pre-treatments affect the function and structure of hen egg-white lysozyme

Alline Artigiani Lima Tribst, Mariana Abrahão Bueno de Morais, Carolina Yumi Tominaga, Andrey Fabricio Ziem Nascimento, Mário Tyago Murakami, Marcelo Cristianini



PII: S1466-8564(17)31335-8
DOI: <https://doi.org/10.1016/j.ifset.2018.02.008>
Reference: INNFOO 1928

To appear in: *Innovative Food Science and Emerging Technologies*

Received date: 23 November 2017
Revised date: 18 January 2018
Accepted date: 7 February 2018

Please cite this article as: Alline Artigiani Lima Tribst, Mariana Abrahão Bueno de Morais, Carolina Yumi Tominaga, Andrey Fabricio Ziem Nascimento, Mário Tyago Murakami, Marcelo Cristianini , How high pressure pre-treatments affect the function and structure of hen egg-white lysozyme. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Innfoo(2017), <https://doi.org/10.1016/j.ifset.2018.02.008>

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.

How high pressure pre-treatments affect the function and structure of hen egg-white lysozyme

Alline Artigiani Lima Tribst^{1*}, Mariana Abrahão Bueno de Moraes^{2*}, Carolina Yumi Tominaga¹, Andrey Fabricio Ziem Nascimento³, Mário Tyago Murakami², Marcelo Cristianini⁴

* Both authors have contributed equally.

¹ Center for Food Studies, University of Campinas (UNICAMP), Campinas, S.P, Brazil.

² Brazilian Bioethanol Science and Technology Laboratory, National Center for Research in Energy and Materials, Campinas, SP, Brazil.

³ Brazilian Synchrotron Light Laboratory, National Center for Research in Energy and Materials, Campinas, SP, Brazil

⁴ Department of Food Technology, School of Food Engineering, University of Campinas (UNICAMP), Campinas, S.P, Brazil.

¹Corresponding author:

Address Albert Einstein, 291, Campinas, Postal code: 13083-852, Campinas, SP, Brazil, **Phone No.** +55 19 3521-2176; **Fax No.** +55 19 3521-7320. **E-mail** tribst@unicamp.br (Alline Artigiani Lima Tribst)

Abstract

A comparative study between high pressure homogenization (HPH, 40-120 MPa) and high pressure processing (HPP, 300-600 MPa) with respect to their effects on lysozyme structure and functionality was carried out. The results showed that high pressure processing induced: (i) activity increase in the presence of NaCl (≤ 0.6 M), especially for samples processed by HPH (up to 6 times at pH 4.5), (ii) thermal resistance reduction up to 34 and 40% for HPP and HPH, respectively, (iii) higher resistance to low pH, with consequent activity

Download English Version:

<https://daneshyari.com/en/article/8415454>

Download Persian Version:

<https://daneshyari.com/article/8415454>

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