

Accepted Manuscript

Title: Intensification of degumming of crude soybean oil using ultrasound in combination with oxidizing agents

Authors: Nishant S. More, Parag R. Gogate

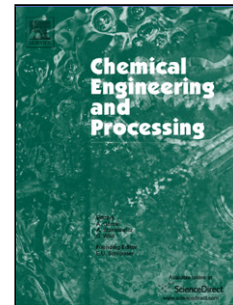
PII: S0255-2701(18)30048-5
DOI: <https://doi.org/10.1016/j.cep.2018.04.008>
Reference: CEP 7250

To appear in: *Chemical Engineering and Processing*

Received date: 14-1-2018
Revised date: 10-3-2018
Accepted date: 8-4-2018

Please cite this article as: More NS, Gogate PR, Intensification of degumming of crude soybean oil using ultrasound in combination with oxidizing agents, *Chemical Engineering and Processing - Process Intensification* (2018), <https://doi.org/10.1016/j.cep.2018.04.008>

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.



1 Intensification of degumming of crude soybean oil using ultrasound in combination with
 2 oxidizing agents

3
 4
 5 Nishant S. More and Parag R. Gogate*

6
 7 Chemical Engineering Department,
 8 Institute of Chemical Technology,
 9 Matunga, Mumbai – 400 019, India

10 *Corresponding author

11 Tel.: +91 22 33612024, Fax: +91 22 33611020;

12 E-mail address: pr.gogate@ictmumbai.edu.in

13 Graphical Abstract

14 Comparison of different degumming approaches based on ultrasound in terms of the extent
 15 of degumming, synergistic factor and cavitation yield

Approaches	Extent of degumming (%)	Synergistic index (<i>F</i>)	Cavitation Yield (mg/J)
Only US Horn	86.25	-	7.95×10^{-5}
US + H ₂ O ₂ (200 PPM)	94.15	1.78	5.17×10^{-4}
US + KPS (2.0 gm/L)	95.1	1.92	5.22×10^{-4}
US + PMS (2.0 gm/L)	95.55	1.98	5.24×10^{-4}
US +Fenton (at 1.0 g/L FeSO ₄ + 200 ppm H ₂ O ₂)	94.4	2.11	5.23×10^{-4}

Download English Version:

<https://daneshyari.com/en/article/7088571>

Download Persian Version:

<https://daneshyari.com/article/7088571>

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