



Abstract

2010 (Vol. 2, Issue: 3)

Article Information:

Oxidative Stability and RheoloOxidative Stability and Rheological Properties of Oil-In-Water Emulsions with Walnut Oil

Co-Author's: Kremena Nikovska

Corresponding Author: Kremena Nikovska

Key words: Food emulsions, oxidation, protein emulsifiers, rheology, , ,

Vol. 2 , Issue: 3, Page No: 172-177

Submitted Date:

2010 April, 16

Accepted Date:

2010 May, 01

Published Date:

2010 May, 30

Abstract:

The oxidative stability of walnut oil and oil-in-water (O/W) emulsions with walnut oil stabilized by soy protein isolate (SI) and Whey Protein Isolate (W PI) was evaluated. The food emulsions were more stable than walnut oil, as indicated by measuring the formation of primary and secondary oxidation products. It was shown that the emulsions with WPI had a better oxidative stability than the emulsions with SI, probably due to the ability of whey proteins to inactivate peroxyl radicals. In addition, the basic rheological characteristics: apparent and plastic viscosities, yield stress, consistency coefficient, and flow behavior index of the evaluated O/W emulsions, were determined. The rheological behavior and flow curves were analyzed using a fitted power law and Herschel-Bulkley model. The emulsions with SI showed increased viscosity in comparison to WPI emulsions. Moreover, soy protein formed a continuous network, and emulsions were more stable to creaming.

[View Abstract](#)

[View PDF](#)

[View HTML](#)

Cite this Reference:

Kremena Nikovska, 2010. Oxidative Stability and RheoloOxidative Stability and Rheological Properties of Oil-In-Water Emulsions with Walnut Oil. *Advance Journal of Food Science and Technology*, 2(3): Page No: 172-177.

[Advertise with us](#)



ISSN (Online): 2042-4876
ISSN (Print): 2042-4868

[Submit an article](#)

Current Information

- Paper in Press
- Current Issue
- Archives
- Author's Comments

Sales & Services

- Subscribe / Renew
- Recommend to Library
- Reprints/Offprints
- Special Sale
- Customer Services

Contact Information

Executive Managing Editor
Email: admin@maxwellsci.com
Publishing Editor
Email: support@maxwellsci.com
Account Manager
Email: faisal@maxwellsci.com
Journal Editor
Email: admin@maxwellsci.com
Press Department
Email: press@maxwellsci.com