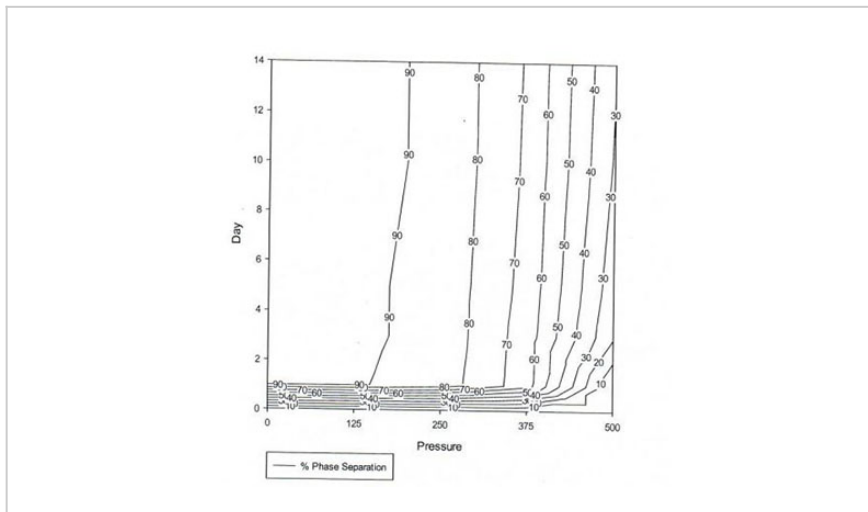


Stabilization of Carrageenan-free Chocolate Milk

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Phase Separation of HJP Milk (0-500 MPa)

Technology Summary

The subject invention uses high-pressure jet processing (HJP) to increase casein-cocoa interactions which stabilizes cocoa particles in chocolate skim milk. The subject invention has the potential to be used as an alternative processing method for the stabilization of cocoa particles in commercially available chocolate milk. Kappa-carrageenan is currently used in the food industry to stabilize these particles; however kappa-carrageenan as a food ingredient has been under scrutiny due to studies suggesting adverse health effects. Experimentation by the researchers has shown the HJP under the right conditions can lead to the prevention of any phase separation of chocolate milk during a fourteen day evaluation period while stored at 4°C.

Application & Market Utility

This invention offers stabilized dairy-based dispersions (e.g. chocolate milk, ice cream) without kappa-carrageenan. Prevents phase separation over 14 day shelf-life. Fits current market trend for clean label food products (chocolate milk w/ just cocoa and milk ingredients only). Has use in the organic foods market.

Next Steps

Seeking research collaboration and licensing opportunities.

TECHNOLOGY READINESS LEVEL

4-7

Seeking

Investment | Licensing | Research

Keywords

- Chocolate
- High Pressure Jet
- Milk
- Carrageenan

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