

Freezing and Frozen Storage of Food

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Abstract

Freezing and frozen storage has been commonly used as a preservation method for foods and cells. The advantage of this technique derives mainly from the exposure to low temperature, not from the ice formation. Formation of ice often results in physical damage such as textural changes, adding to the freeze-concentration effect on the unfrozen matrix that causes changes in pH, ionic strength and viscosity of the unfrozen matrix. Cryoprotective agents (CPA) consisting of saccharides such as glucose, sucrose and trehalose are used to protect food or cell from freeze injury. In the current study, the effect of freezing and frozen storage on the physicochemical properties and antioxidant activity of several foods is discussed.

Host: Dr. Leong Lai Peng
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Time: 11am-12pm
Venue: Executive Classroom
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About the speaker



Dr Siow Lee Fong is a Senior Lecturer in the Food Science and Technology course at Monash University Malaysia and has been awarded a Pro-Vice Chancellor's Award for Excellence in Teaching eight times.

She is a graduate from Universiti Sains Malaysia (BSc) and University of Otago (Masters & PhD). Her PhD studies investigated the cryostability of large unilamellar vesicles as model membranes and cryoprotective agents. More recently Dr Siow's research has focused on food processing, microencapsulation and food product development. She is a past winner of the National Starch Food Innovation Award (New Zealand, 2006) and has published 15 papers in the areas of frozen food chemistry, the influence of processing on antioxidant activity and thermal analysis.

All Are Welcome !