

IFSH Seminar Series

Thursday, February 5, 2015

1:00PM – 2:00 PM

Room 100, Moffett Campus

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“Shedding Light on Food Safety, Quality and Nutrition: Applications of Pulsed Light Processing”

Biosketch

Dr. Kathiravan Krishnamurthy is an assistant professor at the Department of Food Science and Nutrition of the Illinois Institute of Technology. His research focuses on the application of novel food processing technologies for ensuring food safety. Dr. Krishnamurthy is an internationally acclaimed researcher in pulsed light processing, a novel food processing technology. Other research interests of Dr. Krishnamurthy include thermal processing, heat transfer, modeling, and simulation. Dr. Krishnamurthy is an editorial board member of three international journals and had been widely cited in various biographical citations.

Abstract

Pulsed light refers to the application of short duration, high intensity pulses in the wavelength range of 100 to 1100 nm (UV-light to near infrared). Pulsed UV light is 20,000 times more intense than that of sunlight and believed to be more effective and rapid in inactivating microorganisms than continuous UV-light. Pulsed light is very effective in inactivating myriad microorganisms, including spores, within a relatively short period of time. Pulsed light is recently used for inactivation of various food allergens. Other interesting applications of pulsed light include vitamin D enrichment and enhancing the quality of foods. This presentation will provide an overview of the technology and highlight a few applications.