Research Areas

- Novel food processing techniques: ohmic heating, selective far infrared (FIR) heating, pulsed UV light treatment and high pressure processing.
- Nanotechnology, carbon nanotubes (CNT) application: CNTs can be applied not only to special surface treatment but also biosensing in food industries, i.e. CNT modified electrode.
- Biosensors: SPR biosensor for detection of pathogens such as *Salmonella* and *Listeria* in eggs, meat, juice, and milk. Fiber optic fluorescence based biosensors will be applied to monitor pathogens in food and health sectors.
- FTIR spectroscopy: Measurement of sugars and sweeteners in dairy and other liquid type foods, kavalactones in kava juices, and microbial detection in liquid foods.
- Food packaging: Development of retort pouches for beef products to be value added.

Selected Recent Publications

- Jun Wang, **Soojin Jun**, and Qing X Li, 2009, Rapid Analysis of Melamine Content in Powdered and Liquid Milk Using Fourier Transform Infrared Spectroscopy, Food Science and Biotechnology (In Press)