

Public Abstract

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Title:An Integrative Approach to Study the Safety Issues of Food Products Imported from China

The role of China as one source of U.S. food imports is becoming more and more important, but in recent years there have been several serious incidents about safety issues of food imported from China. This dissertation aims at finding solution for this problem from two different approaches: scientific and behavioral. In the scientific approach, surface enhanced Raman spectroscopy (SERS) coupled with two types of nanosubstrates was used to detect various chemical contaminants in real food matrices. The results showed that SERS has great potential in first-line food safety defense as a rapid, reliable, and accurate method. In the behavioral approach, we modeled food safety practices among Chinese in the United States and surveyed effects of technology advancement on Chinese food exporters's beliefs of business ethics. Among the various findings, the most important one was that the compliance with business ethics standards cannot be improved by technology advancement solely. This dissertation highlights the importance of connecting scientific research with behavioral intervention programs.