

## **A New Era of Water Quality Science for Food Industries**

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### **Summary**

Hydrogen dioxide is one of the simplest molecules but has a profound biological significance, and people are naturally enthusiastic to obtain good quality water in order to secure healthy and safety food life. Water contains various minerals and compounds at very low concentrations, which is an important factor determining distinctive property as drinks or food-materials. Although many studies to understand physicochemical characteristics have been performed, relationships between water properties and products of food industries are still unclear. Recent progress in mass spectrometry analysis has opened easy access to accumulate information about solutes in water and multivariate analysis of the data will provide fingerprints for individual aqueous samples. This approach is becoming increasingly realistic, since we can now have many cases of success in the bioscience field where the new powerful informatics methods have been used for various "omics research", e.g. genomics, transcriptomics, proteomics and metabolomics.