Abstract

A number of beverages viz. hard drink, soft drink, packet juice, tea are being used around the globe having different chemical compositions. Organoleptic Systems are being used for a variety of detection tasks from checking quality of food products to medicinal diagnosis by detecting chemical compositions. The entire organoleptic system, from sample delivery stage to classification stage, is usually optimized to a particular problem domain in order to provide suitable sensing performance. The optimization of sample preparation, signal processing, feature extraction, classifier are as important as choice of sensors within the array in enhancing the performance of the organoleptic system because presence of irrelevant features increases the dimensionality of the search space, which can do reverse effect on the accuracy of the Pattern Recognition (PARC) techniques. Tea in present world is the most popular beverage having enormous global marketing. Various researchers have made a number of efforts to correlate tea quality with its chemical composition which led to many humanoid errors and may vary from person to person. This problem can be solved by using an instrument called "Electronic Tongue (i-tongue)". It is developed to reduce human sensory test panels, get accurate measurement of taste, prepare optimized development time and cost. This system analyses liquid including an array of non-specific chemical sensors with partial specificity for different component in liquid samples and appropriate pattern recognition capable
of recognizing the qualitative and quantitative composition of sample and complex solutions. A number of attempts have been performed using sensor array and electrochemical techniques such as Cyclic Voltammetry, Potentiometry and Conductivity to classify different types of tea.

References

- X. Wang, H. R. Zhang, C. J. Zhang "Signals Recognition Of Electronic Nose
Survey on Tea Discriminator


Index Terms

Computer Science
Applied Sciences

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PARC Electronic Tongue i-tongue Pattern Recognition Potentiometry Voltammetry Conductivity.