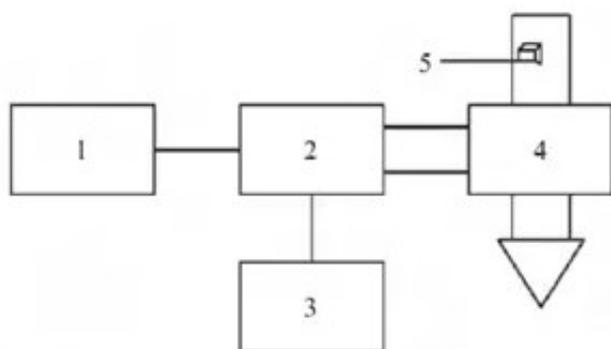


Study on Flavoring Substances of Dried Prunes in Different Drying Methods



Abstract: The gas-mass spectrometry method was used to study the flavor substances of dried plumage processed by different drying methods. Six organic acid components, 16 ester components and 10 aldehyde components in plum dried vegetables of [microwave drying equipment](#) were identified. , 5 alcohol components, 6 ketone components, 4 heterocyclic components, 6 hydrocarbon components, 3 organic acid components and 15 ester components in freeze-dried dried prunes 7 aldehyde components, 4 alcohol components, 5 ketone components, 2 heterocyclic components and 10 hydrocarbon components.

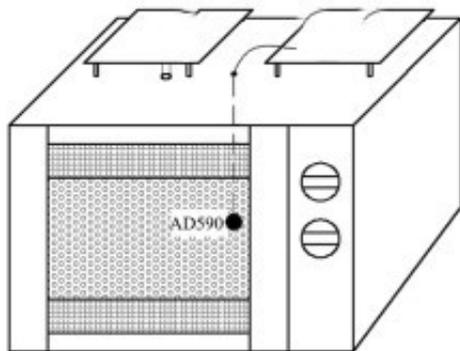
The results showed that the ester contents of microwave and freeze-dried dried plums were 45.28% and 28.9%, respectively. During the microwave drying process, the esterification reaction and oxidation reaction of plum dried vegetables were carried out, the browning of the product was serious, and the product color and rehydration were poor. Freeze-dried dried prunes preferably retain heat-sensitive nutrients and flavor substances, and the product has good color and rehydration.

Key words: [dried plum dried microwave](#); flavor substance; gas chromatography-mass spectrometry; esterification

Mei Cai refers to a kind of flavored vegetables made by the process of pickling and then desalting the large mustard. Mei Cai is rich in dietary fiber and has health functions such as digestion and stomach, blood fat reduction and blood pressure lowering. The pickled plums are golden in color, fragrant and fragrant, and can be processed into a variety of dishes. Among them, the meat is the most famous.

The mineral elements and amino acids in the plum vegetables are rich in content. Among them, potassium, calcium, magnesium, phosphorus and other elements play an important role in human metabolism, blood pressure and bones. Amino acids are important umami substances and are important substances in the flavor of plum vegetables. One. With the improvement of people's living standards and the increasing concern for health, consumers are increasingly demanding the quality of plum vegetables. Therefore, in order to improve the production process of plum vegetables, it is necessary to detect the flavor components of plum vegetables

to facilitate Good guidance on the production of plum vegetables.



Schematic diagram of microwave drying temperature control system

The dried plum vegetables are called dried plums. The main drying methods are hot air drying, microwave drying and freeze drying. The hot air drying products are of poor quality. The high quality plum vegetables are mainly microwave drying and freeze drying.

Headspace-gas chromatography-mass spectrometry (HS-GC-MS) is a commonly used method for the determination of food flavors in recent years. This method uses headspace injection with less interference and easy spectral analysis. It has been applied to the detection of flavor substances in beer. The detection of flavor substances in mustard and kimchi is also applied to the detection of the main aromatic components in different apple varieties. The use of HS-GC-MS to detect the flavor of microwave dried and freeze-dried dried prunes can help to understand the flavor composition and product quality control of plum vegetables.