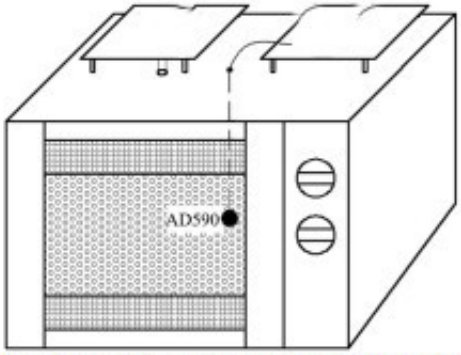
Current Status and Countermeasures of Tea Drying Technology

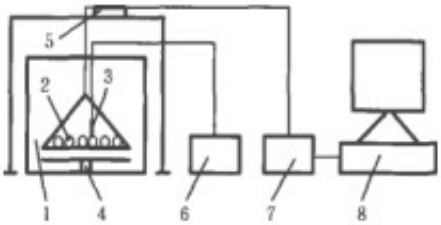


Schematic diagram of microwave drying temperature control system

[Abstract] Drying is a very important process in the process of tea processing, which directly affects the sensory and quality of tea. The principle of microwave drying equipment application is the action of heat and force. After the water dispersion is lost, the physical properties and endogenous components change rapidly, forming the unique sensory quality of the tea. The article mainly analyzes the principles and characteristics of various drying technologies for tea in China, points out the status of tea drying technology and its application, and explores countermeasures and prospects for reference by relevant personnel.

[Keywords] tea microwave drying; drying technology; development; prospect

Drying is a very important process in the initial processing of tea. While removing excess water, tea leaves produce different sensory qualities. In recent years, China's economy has continued to develop, more and more tea consumers, and its health awareness has gradually increased, making the processing technology of tea gradually develop in the direction of green, environmental protection, low carbon and energy saving, which has made up for the past tradition. Defects in cleaning of coal and wood energy.



To ensure that the active ingredients of tea are preserved to the maximum extent during processing, it is necessary to study and study more effective drying on the basis of the application of traditional drying techniques by using effective drying techniques for other agricultural products such as vegetables. technology.

The microwave technology microwave used for microwave drying mainly refers to the electromagnetic wave with a wavelength of 1 mm~1 m and a frequency range of 3×102~3×105 MHz. When drying, there is a microwave radiation on the dry material, so the polarity of the water in the material is It will rotate due to the increasing microwave frequency, and various materials will generate frictional heat. No matter whether the surface or the internal temperature rises, a large amount of water molecules will overflow from the material to achieve the drying effect.

Compared with other drying technologies, microwave drying technology has a fast heating rate, high thermal efficiency, uniform heating, and no need to heat up the environment. Automatic control is convenient and convenient for continuous production. In the past, the initial drying method used in tea usually produced better tea color, and many of them were grayish green and blue. The microwave drying technology itself has the effect of green preservation. These qualities are well needed for green tea and oolong tea processing. The main points of the study.

For example, some scholars have compared the traditional drying technology with microwave technology in their works. It is found that microwave technology is more uniform in the treatment of blade heat than traditional methods, so the processed green tea components retain a lot and reduce the aroma. The loss of green tea after the microwave treatment is significantly reduced. Comparing the effects of microwave and traditional drying techniques on the biochemical factors of bar-shaped green tea, it was found that the microwave treatment of strip green tea soluble sugar, tea polyphenols, caffeine and water extracts was higher in a short time, and more sensory appeared. It is a chestnut type, and the microwave drying method is more fragrant.