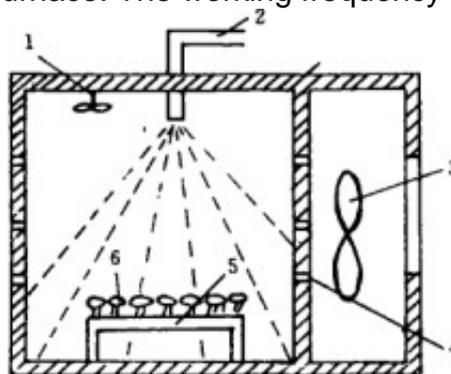


Experimental study on microwave drying of letinous edodes

The experiment of microwave drying *Lentinus edodes* was carried out, and the temperature characteristic, water loss characteristic and better drying *Lentinus edodes* were compared. The results showed that microwave drying *Lentinus edodes* was superior to hot air drying and far infrared drying. The mathematical model regression of microwave drying *Lentinus edodes* was carried out, and the key words of temperature distribution were analyzed theoretically. Microwave drying of foods, such as dried cocoa beans and tea leaves, has achieved good results. However, there are few reports on the temperature characteristics and water loss of materials during drying in China. The application of [microwave drying equipment](#) is beginning to rise, and little research has been done on its drying. Microwave drying was carried out to clarify the mechanism, law and technology of microwave drying of *Lentinus edodes*. Reference test equipment, method and index test equipment for future production were improved from WEG-600A type microwave test furnace. The working frequency was 2450MHz. It can work at



constant power or temperature.

When drying, a small temperature probe was inserted into the material to control the temperature. The improved working principle is as follows: the microwave enters the furnace cavity through the waveguide tube, the agitator makes the microwave distribute uniformly, and the materials are heated uniformly; the wet air is discharged by the fan through the outlet hole (through the material wind speed is 0.3-0.4m/s), the mushroom variety L856, the initial moisture content is about 980%. After selection (for easy comparison, make it possible to make the wet air discharged by the fan). Each time drying size is similar, the shape is neat) to remove the pedicle, and then evenly spread on the insulating container network, the load is 6-6.5 kg/m². In drying, every certain time, Fig. 1 microwave test box between the schematic diagram of perch structure quickly weighing, temperature measurement, until to reach a safe moisture content (13% wet stirrer 2. waveguide tube 3. fan base) after drying appearance quality using comprehensive addition. Right score method, and then please. Vitamin content was determined by 2,6-dichloroindophenol titration.

Table 1 Poetry Ordinance on Appearance Quality of Fragrant Mushroom (Full Score 40) Scoring Index Grade Weighted Value. Mushroom Cover Coloured with Yellow 4 Dark Yellow 2 Test

results and Analysis Microwave Drying of *Lentinus edodes* Loss of Water Characteristics as shown in Fig. 2a. Constant Power Drying of *Lentinus edodes* Loss of Water Process can be divided into acceleration, constant speed and drop. The moisture band of *Lentinus edodes* is about 900%~280% in the constant speed period, and (b) the drying process of *Lentinus edodes* is only two stages of constant speed and slow down when the material weight is 0.5kg and the temperature of the mushroom pleat junction is controlled.

The critical moisture content of *Lentinus edodes* was 2.2. The temperature characteristic of *Lentinus edodes* changed from the constant-speed period to the slow-down period was very fast at the surface of the material, but the temperature of the surrounding environment 5 mm away from the surface of the material increased slowly, which indicated that the material temperature would not rise during the high-temperature period of the drying process. Three stages, basic stability and re-heating, correspond to acceleration, constant speed and slow speed drying respectively. The drying of [Mushroom and microwave drying equipment](#) is dry and scorched.