

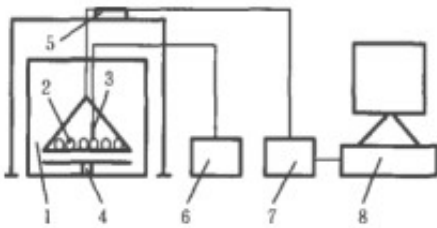
Effect of Microwave Drying on the Characteristics of Whole Powder of Ginger

Abstract: The effect of microwave drying conditions on the yield, sensory quality, bulk density and hydration capacity of ginger powder was studied in [microwave drying equipment](#). The results showed that the ginger powder obtained under 480 W and 20 min microwave drying conditions had high yield, good sensory quality, lowest bulk density and strong hydration ability.

Key words: [ginger microwave drying](#); ginger full powder characteristics

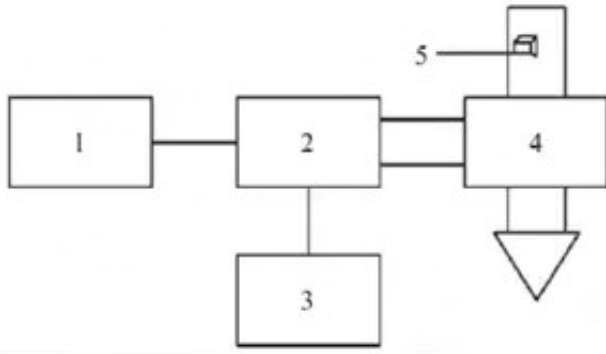
introduction

Ginger is a perennial herb of the family Zingiberaceae. Ginger (*Zingiber Officinale* Roscoe) has thick rhizomes and contains special ingredients such as volatile ginger oil and gingerol. Ginger has a special aroma and spicy flavor. It is not only one of the important condiments in people's daily life, but also a traditional Chinese herbal medicine. It is one of the important special products in China.



In addition, extracts such as ginger oil are also important spices in the food industry and are widely used in foods such as ice cream and candy. Ginger oral administration can cause vasodilation and central nervous system excitation, promote blood circulation, increase blood pressure, increase sweating, and regulate breathing, which is good for metabolism. Ginger can stimulate the nerve endings in the digestive tract, cause gastrointestinal motility, increase the secretion of saliva, gastric juice and intestinal digestive juice, and play a role in strengthening the spleen and strengthening the stomach, improving the body's disease resistance.

Ginger contains volatile ginger ketone and ginger phenol, which has the functions of promoting blood circulation, freezing, dehumidification and sweating. The extract can antagonize hepatitis B virus surface antigen (HBsAg), ginger and ketone and ginger ketene against various pathogens. It has a strong bactericidal effect; while gingerol and ginger ketene can kill 100% of snails or edulis, and can inhibit staphylococcus, vaginal trichomoniasis and dermatophytes.



In this experiment, the effect of microwave drying method on the characteristics of ginger whole powder was studied to explore the rapid drying method of ginger whole powder, which provided a reference for the large-scale preparation of ginger whole powder.

in conclusion

The best process for microwave drying ginger whole powder is raw material?cleaning?dicating?480 W, 20 min microwave drying?smashing and sieving?finished product. The ginger powder obtained under the microwave drying treatment condition has high yield, good sensory quality, lowest bulk density and strong hydration ability, and the final quality of the whole ginger powder is better.