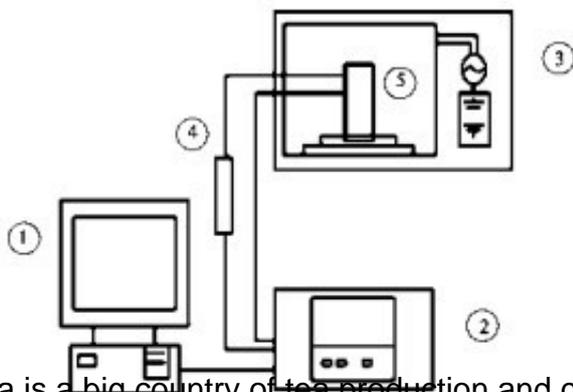


# Study on the microwave vacuum drying characteristics and dynamics of Green Tea

Abstract: using microwave vacuum drying method and drying Green Tea, different [microwave drying equipment](#), vacuum and load capacity under the condition of drying curve and drying rate curves, the drying characteristics, drying process Green Tea mathematical model is studied.

Research shows that: with the increase of microwave power, drying rate Green Tea tea is also increasing. The vacuum degree is higher, the greater the drying rate. The less load, the greater the drying rate. The drying process is mainly divided into two stages of acceleration and deceleration, no obvious stage of constant rate of drying. Quantifying various factors on the drying rate, establishes the page mathematical model, provide a theoretical basis for the production of Green Tea.

Keywords: [Green Tea microwave drying](#); microwave vacuum; dynamics; research



China is a big country of tea production and consumption, Green Tea tea in China as one of the main crops, the annual output of nearly 150 thousand T, accounting for 1 / 4 of total tea consumption. Green Tea in fresh tea leaves as raw material, after fixing, rolling, drying and other tea making process produced. The drying process on the Green Tea after brewing tea, leaf color, Green Tea aroma quality factors is of decisive significance, is the most important link in the process of Green Tea.

Microwave vacuum drying technology is the drying technology of microwave drying and vacuum drying combined with heat transfer characteristics, drying speed, high efficiency, low energy consumption, uniform heating, good controllability. Microwave vacuum drying process does not produce harmful gas, liquid, safe and healthy working environment, can achieve large-scale automatic production. In addition, the plant materials heat easily decomposed components

maintained in a higher rate of microwave vacuum drying under.

Microwave vacuum drying also has disinfection and sterilization effect, can effectively prolong the shelf life of plant materials.

This paper uses microwave vacuum drying method and drying Green Tea, drying characteristics of microwave vacuum drying methods Green Tea, establishes the dynamic model Green Tea microwave vacuum drying. Through the study on the drying characteristics, get the optimum parameters of manufacturing excellent Green Tea Green Tea, improve the level of drying process optimization, Green Tea dry, trial mass production for senior Green Tea scale and microwave vacuum dryer Green Tea for the future to provide a theoretical basis for.