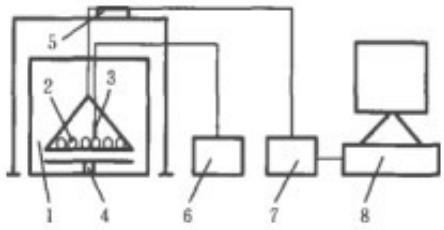
Study on Pressing and Drying Technology of Baizilian

Absrtact: The best method for drying and pressing lily flowers was selected by using simple drying, microwave drying equipment, pressing drying and oven drying. The results showed that microwave drying was the fastest, followed by pressing drying, oven drying and simple drying. According to the quality and drying time of dried flowers, the best drying method of lily petals is microwave drying, 40 s each time, five times.

Key words: Baizilian microwave drying; embossing; drying; Technology



Embossing is a process in which plant materials are dehydrated, preserved, pressed and dried scientifically to produce flat flowers by physical and chemical methods. The basic drying process of embossing materials includes pressing, water diffusion in plant, water diffusion in medium and drying. The main methods of embossing drying are simple embossing method (weight embossing method and sample clamping embossing method), silica gel drying method, pressing drying method, constant temperature box drying method, microwave drying method, vacuum drying method, vacuum freeze drying method and composite drying method.

Baizilian is a single cotyledon perennial bulbous herbal flower, which is one of the oldest South African flowers planted in European courtyards. Baizilian has terminal umbels and hundreds of florets, most of which belong to the rare blue-purple system. Because of the fast withering of vase and short ornamental period, dry flower suppression has great application value and broad development prospects.

In this experiment, four methods, simple drying, microwave drying, pressing drying and oven drying, were used to dry and press Lily flowers. The purpose was to screen the best method for drying and pressing Lily flowers, improve the utilization rate of embossing materials, provide high quality and rich color embossing materials for the production of embossing works, and create embossing materials with ornamental value and economic value as one. Body

embossing works.

Temperature affects the drying effect and quality of flowers. If the temperature is too high and the drying speed is too fast, the embossing materials will be damaged or even wrinkled. When the water content of flowers is high, the high temperature easily causes the rapid expansion of protoplasts in the tissues of flowers, leading to cell rupture and loss of internal logistics, thus causing changes in the morphology of flowers. High temperature also easily causes the decomposition and coking of sugar and other organic substances in embossed flowers, thus affecting the quality of dried flowers.

In the simple drying method, the drying speed of flowers is related to the water content of flowers and the pressure. The water content of flowers is too large and the drying time is longer. The drying speed of flowers is slower when the pressure is too large, but the damage of flowers is also greater.

In this study, the simplified drying method lasted for up to 5 days, oven drying method for 51 minutes at 80 C, and microwave drying method for the least time. Temperature and drying time are the decisive factors affecting the drying effect of flowers in ironing drying, microwave drying and oven drying methods. Therefore, the best way to study the drying effect of flowers is to select the same batch of flowers, and to avoid picking flowers in rainy weather.