

果蔬红外辐射干燥动力学的影响因素综述 Influence Factors of Kinetics of Infrared Radiation Drying for Fruits and Vegetables

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关键词: 红外辐射 干燥速率 动力学 光谱

摘要: 综合分析了影响果蔬红外辐射干燥动力学的内在因素和外在因素,并阐述了物料在干燥过程中脱水量与各种支配因素的关系,探讨了物料内部水分的迁移、扩散过程,研究了湿物料的传热传质特性,在寻求干燥规律的基础上提出了红外辐射加热技术在果蔬脱水过程中的进一步研究方向。 The mechanism of infrared radiation drying was introduced, and the intrinsic and external factors influencing infrared radiation drying kinetics for fruits and vegetables were synthetically analyzed. The relationships between dehydration and the controlling factors, including interior moisture removal and diffusion process of materials were discussed. Characteristics of heat and mass transfer in wet materials were investigated. Further research direction and development trends of infrared radiation drying for fruits and vegetables were presented based on seeking the regularities of drying.

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