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C2Po1B-07 [14]: Development of a cryogenic device for peeling fruits

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A novel fruit peeling method based on cryogenic treatment is proposed. And a corresponding cryogenic equipment has been developed. The principle of cryogenic peeling is that the expansion coefficient of fruit and peel is different at low temperature. Compared with the conventional chemical peeling methods, cryogenic treatment peeling is a treatment method that does not contaminate foods. For the developed cryogenic device, the walnut is treated with a lowest temperature of 80 K and a daily throughput of 10 tons. This paper will introduce the treatment process, cooling/rewarming method and corresponding experimental results of the developed cryogenic treatment equipment.

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