

The Effect of the Frying Processing on the Crispiness of Fried Food and Frying Oil Quality

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The major quality requirement of fried food is its sensory aspects including special flavor and crispiness. To improving the crispiness of fried food, normally higher temperature is applied. Normally, the higher frying temperature, the crispier of the fried food, the higher oil uptake. Higher temperature may also accelerate of oxidation and degradation of frying oil. This is the major concern of frying oil food safety.

To solve this conflict and to find the balance between frying temperature and frying oil quality, the simulation the industrial frying of flour chips was conducted in this study. Different frying temperature need different frying duration to obtain the same water content. The advantage and disadvantage of “high frying temperature and shorter frying time” or “the lower frying temperature and longer frying time” will be compared. The presentation will also explain how to optimize the frying parameters to obtain better crispiness of the fried food and slower degradation rate of frying oil.

The frying oil uptake during frying and the microstructure of the fried food with different frying parameters will also be applied to explain how the frying parameters affecting the fried food quality.