

عنوان مقاله:

Investigating Textural and Physical Properties of Microwave-Baked Cupcake

محل انتشار:

مجله علوم و فناوری کشاورزی، دوره 20، شماره 2 (سال: 1396)

تعداد صفحات اصل مقاله: 12

نویسندگان:

S. Soleimanifard - *Department of Food Science and Technology, College of Agriculture, Isfahan University of Technology, Isfahan, Islamic Republic of Iran*

M. Shahedi - *Department of Food Science and Technology, College of Agriculture, Isfahan University of Technology, Isfahan, Islamic Republic of Iran*

Z. Emam-Djomeh - *Transfer Phenomena Laboratory, Department of Food Science and Technology, Faculty of Agricultural Engineering and Technology, University of Tehran, Karaj, Islamic Republic of Iran*

Gholam Reza Askari - *Transfer Phenomena Laboratory, Department of Food Science and Technology, Faculty of Agricultural Engineering and Technology, University of Tehran, Karaj, Islamic Republic of Iran*

خلاصه مقاله:

Since the microwave technology is well considered in food processing due to the speed and mechanism, in this study, cupcake was baked at different levels of MicroWave (MW) power (150, 300, 450 and 600W) and the effects of different kinds of operational time (3.5, 5, 8, 16 minutes) and power on physical properties (density, porosity, colour and height) and textural properties (crispness, hardness, cohesiveness, springiness, resilience, gumminess and chewiness) of cupcake were investigated. Results showed that the MW baking time to obtain desirable baking properties was affected by MW power. The obtained results showed that the total differences in colour from the reference batter (ΔE) and colour intensity increased with increasing of MW power. Moreover, the MW cupcake baked at a power of 600W had the least hardness, density, chewiness, gumminess values, the shortest baking time, and the highest values of cohesiveness, resilience, porosity, height, and browning index. Also, it had the highest cohesiveness, resilience, porosity, height and browning index, compared to the other powers. Therefore, the best operational power for desirable quality obtained during baking was 600W.

کلمات کلیدی:

Colour, Cupcake texture, Hardness, Operational power, Porosity

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1826162>



