

# Accepted Manuscript

Food texture evaluation using logistic regression model and magnetic food texture sensor

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PII: S0260-8774(17)30475-2

DOI: [10.1016/j.jfoodeng.2017.11.008](https://doi.org/10.1016/j.jfoodeng.2017.11.008)

Reference: JFOE 9068

To appear in: *Journal of Food Engineering*

Received Date: 28 May 2017

Revised Date: 8 October 2017

Accepted Date: 9 November 2017

Please cite this article as: Nakamoto, H., Nishikubo, D., Kobayashi, F., Food texture evaluation using logistic regression model and magnetic food texture sensor, *Journal of Food Engineering* (2017), doi: 10.1016/j.jfoodeng.2017.11.008.

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9 Abstract

10 A food texture evaluation method using a magnetic food texture sensor is proposed for the  
11 visualization of food texture. The food texture sensor measures two time-series waves, one of force  
12 and one of vibration, during fracture of a food sample. Twenty profiles were extracted from the two  
13 waves. The evaluation method selected the profiles to use in the logistic model and determined the  
14 coefficients of the model based on the results of sensory tests. Laboratory experiments confirmed  
15 that the logistic model evaluated the food textures as radar charts. In addition, the model can  
16 potentially evaluate the food textures of unknown foods.

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