

Accepted Manuscript

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

Hiroyuki Nakamoto, Daisuke Nishikubo, Futoshi Kobayashi



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.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

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

2

3 Hiroyuki NAKAMOTO*, Daisuke NISHIKUBO, Futoshi KOBAYASHI

4 Graduate School of System Informatics, Kobe University, Kobe 657-8501, Japan

5 * Corresponding author. Address: Graduate School of System Informatics, Kobe University, Kobe
6 657-8501, Japan. Tel: +81 78 803 6669.

7 E-mail address: nakamoto@panda.kobe-u.ac.jp (H. Nakamoto)

8

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.

17

18

Download English Version:

<https://daneshyari.com/en/article/6664753>

Download Persian Version:

<https://daneshyari.com/article/6664753>

[Daneshyari.com](https://daneshyari.com)