Link to Research Activity

Makoto Shimoyamada

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Education

Ph.D. Graduate School of Agriculture, Tohoku University, 1991
M.S. Graduate School of Agriculture, Tohoku University, 1988
B.S. Faculty of Agriculture, Tohoku University, 1986

Employment

University of Shizuoka, School of Food and Nutritional Sciences, Professor, 2014-present
Miyagi University, School of Food, Agricultural and Environmental Sciences, Professor, 2009-2014
Miyagi University, School of Food, Agricultural and Environmental Sciences, Associate Professor, 2005-2009
Gifu University, Faculty of Agriculture, Associate Professor, 2002-2005
Gifu University, Faculty of Agriculture, Research Assistant, 1991-2002

Current Research Interest

1. Characterization and utilization of denaturation behavior of food proteins under thermal treatment
2. Improvement of soymilk processing

Books

Ono, T., Shimoyamada, M. and K. Muramoto. 大豆の機能と科学 (Function and Chemistry of Soybean). Asakura Publishing Co. Ltd, 2012.

Shimoyamada, M. et al. Effects of heating temperature and cooling rate on denaturation of soymilk protein In “Chemistry, Texture, and Flavor of Soy”. American Chemical Society, 2010.

Journal articles

Shimoyamada, M., Itabashi, Y., Sugimoto, I., Kanauchi, M., Ishida, M., Tsuzuki, K., Egusa, S. and Honda, Y. Characterization of soymilk prepared by Ohmic heating and the effects of voltage applied. *Food Sci. Technol. Res.,* 21, 439-444, 2015.

Morita, K., Shimoyamada, M. and Nakajima, M. Effects of Freeze-thaw Treatment on the Characteristics of Soymilk and Formulated Tofu Curd. *Food Sci. Technol. Res.*, 21, 125-128, 2015.

Shimoyamada, M., Mogami, S., Tsuzuki, K., and Honda, Y. Characterization of soymilk prepared by milling and pressing at high temperature. *J. Food Process. Preserv.*, 38, 830-836, 2014.

Morita, K. and Shimoyamada, M. Proposal of mechanism of the freeze-thaw fractionation of 7S and 11S globulins in soymilk. *Food Chemistry,* 140, 39-43, 2013.

Suzuki, Y., Kanauchi, M., Ishido, T., Morita, A., Shimoyamada, M., and Tsubota, Y. Prediction of bitterness of sake ~Relationship between hydrophobicity of sake and bitterness. *日本醸造協会誌 (J. Brew. Soc. Jpn.)*, 107, 923-930, 2012.

Han, X., Nagano, H., Phromraksa, P., Tsuji, M., Shimoyamada, M., Kasuya, S., Suzuki, T., Khamboonruang, C.: Hydrolysis of soybean 7S and 11S globulins using *Bacillus subtilis*. *Food Sci. Technol. Res.,* 18, 651-657, 2012.

Kanauchi, M., Shimoyamada, M. Y. Shimaoka and Yoshizawa, K. Purification and characterization of nitrite oxidase from *Pichia angusta* Y-11393. *日本醸造協会誌 (J. Brew. Soc. Jpn.)*, 107, 529-537, 2012.

Nagano, H., Hori, M., Kasuya, S. and Shimoyamada, M. Effect of temperature on bread baked in stone oven. 日本家政学会誌, 62, 659-663, 2011.

Kijima, N., Endo, S., Saito, M., Konno, S. and Shimoyamada, M. Properties of Mechanically Defatted Soybean Flour and Preparation of Soymilk from the Flour. *日本食品保蔵科学会誌 (Food Preserv. Sci.),* 37, 69-73, 2011.

Shimoyamada, M., Kusaka, K., Mogami, S., Tsuzuki, K., Honda, Y., and Asao, H.: Effect of Baking Temperature on the Characteristics of Stone Oven Bread. *Food Sci. Technol. Res.*, 16, 505-508, 2010.

Hori, M., Nagano, H., Akusawa, S, Shimoyamada, M. and Yoshida, K. Characterization of bread from wheat in Gifu Prefecture. *日本調理科学会誌 (J. Cookery Sci. Jpn.)*, 43, 31-37, 2010.