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## Kazuya Murakami, Ph.D.

Food Engineering laboratory

Phone: +81-54-264-5525

School of Food and Nutritional Sciences

E-mail: [murakami@u-shizuoka-ken.ac.jp](mailto:murakami@u-shizuoka-ken.ac.jp)

University of Shizuoka

52-1 Yada, Suruga-ku, Shizuoka-shi, 422-8526 Japan

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### Personal Information

Date of Birth: April 13, 1991

Nationality: Japanese

### Work Experience

2021.10 – present

Research Assistant Professor, School of Food and Nutritional Sciences,  
University of Shizuoka

2021.03 – 2021.09

Research Assistant, Faculty of Science & Technology, Meijo University

2019.04 – 2021.02

Nippon Steel Co., Ltd., Tokyo

Member, Process Engineering Department, Equipment Division

2017.04 – 2019.03

Nippon Steel & Sumitomo Metal Co., Ltd., Tokyo

Member, Process Engineering Department, Equipment Division

### Education

2020.10 – 2021.09

Ph.D., Department of Materials Process Engineering, Nagoya University

2015.04 – 2017.03

M.S., Department of Chemical Engineering, Nagoya University

2010.04 – 2015.03

B.A., Department of Chemistry and Biotechnology, Nagoya University

## Publications

1. M. Honda, **K. Murakami**, Y. Zhang, M. Goto, High-efficiency lycopene isomerization with subcritical ethyl acetate in a continuous-flow reactor, *J. Supercritical Fluids*, **178**, **2021**.
2. **K. Murakami**, M. Honda, Wahyudiono, H. Kanda, M. Goto, Improved Storage Stability of Lycopene Z-Isomers Utilizing Edible Media and Antioxidants to Promote Practical Applications, *ACS Food Science & Technology*, *in press*, **2021**.
3. Y. Zhang, **K. Murakami**, M. Goto, M. Honda, Continuous Production of Z-Isomer-Rich  $\beta$ -Carotene Nanosuspensions Utilizing Subcritical Fluid and a Swirl-Type Mixer, *ACS Food Science & Technology*, *in press*, **2021**.
4. M. Honda, **K. Murakami**, K. Ichihashi, W. Takada, M. Goto, Enriched (Z)-lycopene in tomato extract via co-extraction of tomatoes and foodstuffs containing Z-isomerization-accelerating compounds, *Catalysts*, **11(4)** **2021**.
5. M. Honda, **K. Murakami**, Y. Osawa, Y. Kawashima, K. Hirasawa, I. Kuroda, Z-Isomers of Astaxanthin Exhibit Greater Bioavailability and Tissue Accumulation Efficiency than the All- E-Isomer, *J. Agric. Food Chem.*, **69(11)** 3489-3495 **2021**.
6. H. Kanda, R. Hoshino, **K. Murakami**, Wahyudiono, Q. Zheng, M. Goto, Lipid extraction from microalgae covered with biomineralized cell walls using liquefied dimethyl ether, *Fuel*, **262**, **2020**.
7. N. Yamamoto, **K. Murakami**, C. Kimthet, Wahyudiono, S. Onwona-agyeman, H. Kanda, M. Goto, Lipids from *Vitellaria paradoxa* gaertn seeds by supercritical CO<sub>2</sub>: Extraction and optimization of parameters by response surface methodology, *Engineering Journal* **22(5)**, 31-44, **2018**.
8. **K. Murakami**, M. Honda, R. Takemura, T. Fukaya, Wahyudiono, H. Kanda, M. Goto, Effect of thermal treatment and light irradiation on the stability of lycopene with high Z-isomers content, *Food Chem.*, **250**, 253-258, **2018**.
9. M. Honda, Y. Watanabe, **K. Murakami**, N.N. Hoang, Wahyudiono, H. Kanda, M. Goto, Enhanced Lycopene Extraction from Gac (*Momordica cochinchinensis* Spreng.) by the Z-Isomerization Induced with Microwave Irradiation Pre-Treatment, *Eur. J. Lipid Sci. Technol.*, **120(2)**, 1700293-1700293, **2018**.

## Kazuya Murakami, Ph.D.

10. M. Honda, Y. Watanabe, **K. Murakami**, R. Takemura, T. Fukaya, Wahyudiono, H. Kanda, M. Goto, Thermal isomerization pre-treatment to improve lycopene extraction from tomato pulp, *LWT - Food Sci. Technol.*, *86*, 69-75, **2017**.
11. **K. Murakami**, M. Honda, Wahyudiono, H. Kanda, M. Goto, Thermal isomerization of (all-E)-lycopene and separation of the Z-isomers by using a low boiling solvent: Dimethyl ether, *Sep. Sci. Technol.*, *52*, 2573-2582, **2017**.
12. **K. Murakami**, M. Honda, R. Takemura, T. Fukaya, M. Kubota, Wahyudiono, H. Kanda, M. Goto, The thermal Z-isomerization-induced change in solubility and physical properties of (all-E)-lycopene, *Biochem. Biophys. Res. Commun.*, *491*(2), 317-322, **2017**.
13. M. Honda, **K. Murakami**, Y. Watanabe, T. Higashiura, T. Fukaya, Wahyudiono, H. Kanda, M. Goto, The E/Z isomer ratio of lycopene in foods and effect of heating with edible oils and fats on isomerization of (all-E)-lycopene, *Eur. J. Lipid Sci. Technol.*, *119*(8), 1600389-1600389, **2017**.
14. R. Hoshino, Masaki Ogawa, **K. Murakami**, Wahyudiono, H. Kanda, M. Goto, Extraction of lipids from wet *Arthrospira platensis* by liquefied dimethyl ether, *Solvent Extr. Res. Dev.*, *24*(1), 47-60, **2017**.
15. R. Hoshino, K. Murakami, Wahyudiono, S. Machmudah, Y. Okita, E. Ohashi, H. Kanda, M. Goto, Economical wet extraction of lipid from labyrinthula *Aurantiochytrium limacinum* by using liquefied dimethyl ether, *Engineering Journal*, *20*(4), 145-153, **2016**.