

Kacie K.H.Y. Ho
College of Tropical Agriculture and Human Resources
Department of Human Nutrition, Food and Animal Sciences
FTE Distribution: 60% I; 40% R; 0% E

Education

<u>Degree</u>	<u>University</u>	<u>Major</u>
PhD	Purdue University	Food Science- <i>Specialization in Processing and Technology</i>
Bachelors	University of Hawaii at Manoa	Food Science

Professional Appointments

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Associate Professor	University of Hawaii	2024-Present
Assistant Professor	University of Hawaii	2018-2024
Postdoctoral Research Scholar	North Carolina State University.	2017-2018
Postdoctoral Teaching Scholar	Wageningen University	2017-2017
Visiting Research Scientist	Wageningen University.	2015-2016

Courses Taught

Course Number and Title (credits)

FSHN 381 Experimental Foods (3)
FSHN 381L Experimental Foods Laboratory (1)
FSHN 445 Food Quality Control (3)
FSHN 494 Food Science Capstone (3)
FSHN 607 Advanced Food Science I (3)

Publications (reverse chronological order)

Book Chapters

Schröder, Anja, Corstens, Meinou N., Ho, Kacie K.H.Y., Schroën, Karin, & Berton-Carabin, Claire C. (2018). Pickering Emulsions. *Emulsion-based Systems for Delivery of Food Active Compounds: Formation, Application, Health and Safety*, 29-67.

Refereed Journal Publications

Shu, Chang, Yusufali, Zahra, Ho, Kacie K.H.Y., Sun, Xiuxiu. (2024). Nanoencapsulated cinnamaldehyde@ β -cyclodextrin inclusion complexes as a sustained release strategy for postharvest rambutan preservation. *Food Hydrocolloids*, 110724
<https://doi.org/10.1016/j.foodhyd.2024.110724>

Kim, Woojeong, Zia, Mohammad Bin, Ho, Kacie K.H.Y., Selomulya, C. (2024). Effects of

- polyphenols from *Tasmania lanceolata* on structural, emulsifying, and antioxidant properties of pea protein. *Food Chemistry*, 141589. <https://doi.org/10.1016/j.foodchem.2024.141589>
- Lee, Dongyoung, Ho, Kacie K.H.Y., Li, Yong., Jun, Soojin. Impact of supercooling storage on physical and chemical properties of yellowfin tuna (*Thunnus albacares*). *Journal of Food Engineering*. In press. <https://doi.org/10.1016/j.jfoodeng.2023.111818>
- Lee, Inae, So, Heejin, Kim Jungyoon, Auh, Joong-Hyuck, Wall, Marisa M., Li, Yong, Ho, Kacie K.H.Y., Jun, Soojin. Selective detection of *Escherichia coli* K12 and *Staphylococcus aureus* in mixed bacterial communities using a single-walled carbon nanotube (SWCNT)-functionalized electrochemical immunosensor with dielectrophoretic concentration. *Nanomaterials*, 13(5), 985. <https://doi.org/10.3390/nano13060985>
- Pereira, Garinn M., Jun, Soojin, Li, Qing X., Wall, Marisa M., Ho, Kacie K.H.Y. (2023). Formation and physical characterization of soy protein-isoflavone dispersions and emulsions. *LWT Food Science & Technology*- 176 (114513). <https://doi.org/10.1016/j.lwt.2023.114513>
- Li, Guangle, Cao, Zhenle, Ho, Kacie K.H.Y., Zuo, Yi Y. (2022). Quantitative determination of the hydrophobicity of nanoparticles. *Analytical Chemistry*, 94(4), 2078-2086. <https://doi.org/10.1021/acs.analchem.1c04172>
- Ho, Kacie K.H.Y. and Redan, Benjamin W. (2021). Impact of thermal processing on the nutrients, phytochemicals, and metal contaminants in edible algae. *Critical Reviews in Food Science and Nutrition*, 62(2), 508-526. <https://doi.org/10.1080/10408398.2020.1821598>
- Li,Guangle, Ho, Kacie K.H.Y., Zuo, Yi Y. (2021). Relative dye adsorption method for determining the hydrophobicity of nanoparticles. *The Journal of Physical Chemistry C*, 126(1), 832-837. <https://doi.org/10.1021/acs.jpcc.1c09610>
- Laurora, Alice, Bingham, J.P., Poojary, Maheasha M., Wall, Marisa M., Ho, Kacie K.H.Y. (2021). Carotenoid composition and bioaccessibility of papaya cultivars from Hawaii. *Journal of Food Composition and Analysis*, 101, 103984. <https://doi.org/10.1016/j.jfca.2021.103984>
- Jun, Shawn, Chun, Cherisse, Ho, Kacie, Li, Yong. (2021). Design and evaluation of a microfluidic insulator-based dielectrophoresis (DEP) retention device to separate bacteria from tap water. *Water*, 13(12), 1678. <https://doi.org/10.3390/w13121678>
- Ho, Kacie K.H.Y., Redan, Benjamin W. (2020). Impact of thermal processing on the nutrients, phytochemicals, and metal contaminants in edible algae. *Critical Reviews in Food Science and Nutrition*, 1-19. <https://doi.org/10.1080/10408398.2020.1821598>
- Ho, Kacie K.H.Y., Ferruzzi, Mario G., Wightman, JoLynne. (2020). Potential health benefits of

- (poly)phenols derived from fruit and 100% fruit juice. *Nutrition Reviews*, 78(2), 145-174. <https://doi.org/10.1093/nutrit/nuz041>
- Li, Min, Ho, Kacie K.H.Y., Hayes, Micaela, & Ferruzzi, Mario G. (2019) The roles of food processing in translation of dietary guidance for whole grains, fruits, and vegetables. *Annual Review of Food Science and Technology*, 10, 569-596. <https://doi.org/10.1146/annurev-food-032818-121330>
- Ho, Kacie K.H.Y., Haufe, Thomas C., Ferruzzi, Mario G., Neilson, Andrew P. (2018). Production and polyphenolic composition of tea. *Nutrition Today*, 53(6), 268-278. <https://doi.org/10.1097/NT.0000000000000304>
- Haufe, Thomas C., Ho, Kacie K.H.Y., Ferruzzi, Mario G., & Neilson, Andrew P. (2018). Potential Health Effects of Tea. *Nutrition Today*, 53(5), 213-228. <https://doi.org/10.1097/NT.0000000000000294>
- Ho, Kacie K.H.Y., Schroën, Karin, San Martín-Gonzalez, M. Fernanda, Berton-Carabin, Claire C. (2018). Synergistic and antagonistic effects of plant and dairy protein blends on the physicochemical stability of lycopene-loaded emulsions. *Food Hydrocolloids*. <https://doi.org/10.1016/j.foodhyd.2018.02.033>
- Ho, Kacie K.H.Y., Schroën, Karin, San Martín-Gonzalez, M. Fernanda, Berton-Carabin, Claire C. (2016). Physicochemical stability of lycopene-loaded emulsions stabilized by plant or dairy proteins. *Food Structure*, 12, 34-42. <http://dx.doi.org/10.1016/j.foostr.2016.12.001>
- Ho, Kacie K.H.Y., Ferruzzi, Mario G., Liceaga, Andrea M., San Martin-Gonzalez, M. Fernanda. (2015). Microwave-assisted extraction of lycopene in tomato peels: effect of extraction conditions on all-*trans* and *cis*-isomer yields. *LWT-Food Science and Technology*, 62(1), 160-168. <http://dx.doi.org/10.1016/j.lwt.2014.12.061>

Leadership Roles (Committees, Boards, Advisory, etc.)

Professional Roles

Associate Editor. 2025-Present. Journal of Food Science.
 Editorial Board Member. 2024-2025. Journal of Food Science.
 President. 2022-Present. Institute of Food Technologists-Hawaii Section.
 President. 2022-2023. Multistate Research Project Nutrient Bioavailability-Phytochemicals and Beyond Cohort.
 Secretary. 2021-2022. Multistate Research Project Nutrient Bioavailability-Phytochemicals and Beyond Cohort.
 Treasurer. 2019-2022. Institute of Food Technologists-Hawaii Section.
 Secretary-Treasurer. 2018-2021. American Oil Chemists' Society Health & Nutrition Division.
 Newsletter Editor. 2018-2021. American Oil Chemists' Society Health & Nutrition Division.
 Lifetime Member, 2013-Present. Phi Tau Sigma (Food Science Honorary)
 Review Board Member. 2013-2016. Institute of Food Technologists Higher Education Review

University/College/Departmental Roles

Curriculum Committee Chair. 2024-Present HNFAS Departmental Committee
 HNFAS Curriculum Committee Member. 2020-2024. HNFAS Departmental Committee
 Committee Member. 2021-2023. CTAHR Strategic Planning Working Group
 Chair. 2021-2023. HNFAS Strategic Planning Committee
 Instructional Committee Chair. 2022-2023. CTAHR Faculty Senate
 Instructional Committee Member. 2020-2023. CTAHR Faculty Senate
 Committee Member. 2019-Present. HNFAS Space Committee
 Committee Member. 2019-Present. HNFAS Research and Extension Committee
 Committee Member. 2019-2020. CTAHR Research Day Committee
 Committee Member. 2019. Board of Regents Willard Wilson Award Committee
 Committee Member. 2019. CTAHR Student Research Symposium Committee

Graduate Students

<u>Category</u> (Career)	<u>Current Number of Students</u>	<u>Number Graduated</u>
<i>Chair</i> of Master's Committees	4	5
<i>Chair</i> of PhD Committees	0	0
Member of Master's Committees	4	9
Member of PhD Committees	0	4

Grant Support

Source of Grant: Hawaii Departemnt of Agriculture, Specialty Crop Block Grant Year of the
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Total Dollar Value (Your share of the grant value): \$31,315

Dates of Grant: 05/23-05/2025

Role (PI, CoPI): PI

Title of Grant: Empowering Underrepresented Graduate Students with Advanced Research
 Training in Food Science.

Source of Grant: USDA-NIFA

Total Dollar Value (Your share of the grant value): \$246,000 (\$246,000)

Dates of Grant: 10/22-09/26

Role (PI, CoPI): PI

Title of Grant: Leveraging tropical commodities for a high quality and nutritious food supply

Source of Grant: USDA-ARS

Total Dollar Value (Your share of the grant value): \$35,000 for Year 1 (renewed annually)

Dates of Grant: 10/23-09/27

Role (PI, CoPI): PI

Title of Grant: Enhanced bacterial viability of freeze-dried probiotics using supercooling
 pretreatment

Source of Grant: USDA SBIR Phase I

Total Dollar Value (Your share of the grant value): \$25,000 (\$25,000)

Dates of Grant: 10/21-02/22

Role (PI, CoPI): PI

Title of Grant: Electric and magnetic field-based supercooling technology to ensure the freshness in the food supply chain

Source of Grant: USDA-NIFA-AFRI

Total Dollar Value (Your share of the grant value): \$500,000

Dates of Grant: 01/21-12/23

Role (PI, CoPI): CoPI

Title of Grant: Enhancing local pork marketing for Oahu hog producers

Source of Grant: Hawaii Department of Agriculture

Total Dollar Value (Your share of the grant value): \$165,935 (\$165,935)

Dates of Grant: 11/20-08/21

Role (PI, CoPI): PI

Title of Grant: Nanobubble technology applications in aquaculture, aquaponics, hydroponics, environment, food and food safety

Source of Grant: CTAHR Team Science

Total Dollar Value (Your share of the grant value): \$80,000

Dates of Grant: 10/19-09/21

Role (PI, CoPI): CoPI

Title of Grant: Optimizing local food nutrient density through agriculture and food processing practices and enhancing public awareness on nutrient value in local food

Source of Grant: CTAHR Team Science

Total Dollar Value (Your share of the grant value): \$36,618 (\$19,627)

Dates of Grant: 10/19-09/21

Role (PI, CoPI): (Multi) PI

Title of Grant: Postharvest technology and nutrition studies for Hawaii specialty crops and fruits

Source of Grant: USDA-ARS

Total Dollar Value (Your share of the grant value): \$131,389 (\$131,389)

Dates of Grant: 10/18-09/23

Role (PI, CoPI): PI

Presentations at Conferences

Title: Leveraging plant proteins and polyphenols for enhanced functionality of emulsion-based foods (Invited Oral)

Authors: Kacie K.H.Y. Ho*

Name of Conference: American Chemical Society Fall 2024 Meeting & Exposition

Location: Denver, Colorado, USA

Date of Presentation: August 18-22, 2024

Title: Catechin concentration influences the non-adsorbed fraction, physical, and chemical stability of pea protein oil-in-water emulsions (Oral)

Authors (put an asterisk on the presenter): Vital de Sousa Jr., Wanderley, Bingham, Jon-Paul,

Wall, Marisa M., Ho, Kacie K.H.Y.*

Name of Conference: International Society for Nutraceuticals and Functional Foods 15th International Conference and Exhibition

Location: Sheraton Princess Kaiulani Hotel, Honolulu, HI, USA

Date of Presentation: December 10-13, 2023

Title: Carotenoid and mineral content of watercress (*Nasturtium floridanum*): Effects of processing, on-farm collection, and comparisons with *Nasturtium officinale* R. Br. (Poster)

Authors (put an asterisk on the presenter): Nakamura, Taryn T., Ho, Kacie K.H.Y.

Name of Conference: International Society for Nutraceuticals and Functional Foods 15th International Conference and Exhibition

Location: Sheraton Princess Kaiulani Hotel, Honolulu, HI, USA

Date of Presentation: December 10-13, 2023

Title: Development of Pickering emulsions stabilized by pea protein isolate particles: Responsiveness to protein concentration and induced heating. (Poster)

Authors (put an asterisk on the presenter): Vital de Sousa Jr., Wanderley*, Ho, Kacie K.H.Y.

Name of Conference: 2023 American Oil Chemists' Society Annual Meeting

Location: Colorado Convention Center, Denver, CO, USA

Date of Presentation: April 30-May 3, 2023

Title: Arsenic and nutrient composition across different edible seaweeds from Hawaii (Poster)

Authors (put an asterisk on the presenter): Kim, Samuel*, Conklin, Sean, Redan, Benjamin W., Ho, Kacie K.H.Y.

Name of Conference: American Society for Nutrition's 2022 Live Online Virtual Meeting

Location: Online <https://doi.org/10.1093/cdn/nzac077.020>

Date of Presentation: June 14-16, 2022

Title: Nutrient content and carotenoid bioaccessibility of underutilized taro varieties from Hawaii (Poster)

Authors (put an asterisk on the presenter): Senga, Kento*, Bingham, Jon-Paul, Wall, Marisa M. Ho, Kacie K.H.Y.

Name of Conference: 2022 American Oil Chemists' Society Annual Meeting.

Location: Online

Date of Presentation: May 1-4, 2022

Title: Development of soy-isoflavone Pickering-particles for oil-in-water (O/W) emulsion stability (Poster)

Authors (put an asterisk on the presenter): Pereira, Garinn M.* & Ho, Kacie K.H.Y.

Name of Conference: 2021 Institute of Food Technologists Annual Meeting

Location: Online

Date of Presentation: July 19-21, 2021

Title: Stability of Soy Protein-isoflavone Particles and Pickering Emulsions (Oral)

Authors (put an asterisk on the presenter): Pereira, Garinn M.* & Ho, Kacie K.H.Y.

Name of Conference: 2021 American Oil Chemists' Society Annual Meeting

Location: Online <https://doi.org/10.21748/am21.408>

Date of Presentation: May 7, 2021

Title: Nutritional and phytochemical analysis of different colored taro varieties in Hawaii

Authors (put an asterisk on the presenter): Senga, Kento* & Ho, Kacie K.H.Y.

Name of Conference: 2021 American Oil Chemists' Society Annual Meeting

Location: Online <https://doi.org/10.21748/am21.537>

Date of Presentation: May 3-14, 2021

Title: Composition and carotenoid bioaccessibility of papaya (*C. papaya*) cultivars from Hawaii (Poster)

Authors (put an asterisk on the presenter): Laurora, Alice, Bingham, J.P., Poojary, Mahesha, M., Ho, Kacie K.H.Y.*

Name of Conference: 2021 Leading Emerging and Diverse Scientists Summit

Location: Online

Date of Presentation: February 18, 2021

Title: Varietal differences in carotenoid composition and their bioaccessibility from papaya (*C. papaya*) cultivars in Hawaii (Oral)

Authors (put an asterisk on the presenter): Laurora, Alice*, Bingham, J.P., Poojary, Mahesha, M., Ho, Kacie K.H.Y.

Name of Conference: 2020 American Oil Chemists's Society Annual Meeting

Location: Online

Date of Presentation: April 26-29, 2020

Other Presentations

Title: Effect of cooking methodology on culinary quinoa (*Chenopodium quinoa*) for saponin reduction.

Authors (put an asterisk on the presenter): Liu, Bobby* & Ho, Kacie K.H.Y.

Type of Presentation: Poster for the 2025 Biomedical Sciences & Health Disparities Symposium

Location: John A. Burns School of Medicine, University of Hawai'i, Honolulu, HI

Date of Presentation: April 11, 2025

Title: Effects of ultrasonication on germination and bioactive compound content of radish microgreens.

Authors (put an asterisk on the presenter): Nakamura, Taryn T.*, Ho, Kacie K.H.Y.

Type of Presentation: Poster Presentation for the 2025 CTAHR Showcase and Research Symposium (HNFAS Departmental Award Winner for MS Category)

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of Presentation: April 4, 2025

Title: Stabilizing kavalactone dispersions utilizing common emulsifiers (physical and chemical stability)

Authors (put an asterisk on the presenter): Williams, Stryder K.*, Ho, Kacie K.H.Y.

Type of Presentation: Oral presentation for the 2024 Undergraduate Showcase at the University of Hawaii at Manoa

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of Presentation: May 3, 2024

Title: Stabilizing kavalactone dispersions using common emulsifiers (small molecule surfactants and lecithin). (Poster)

Authors (put an asterisk on the presenter): Williams, Stryder K*, Ho, Kacie K.H.Y.

Type of presentation: Poster for the 2023 Summer Undergraduate Research Experience Symposium.

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of presentation: August 4, 2023.

Title: Effects of Ultrasonication on Germination and Bioactive Compound Content of Radish Microgreens

Authors (put an asterisk on the presenter): Nakamura, Taryn* & Ho, Kacie K.H.Y.

Type of Presentation: Oral Presentation for the 2024 CTAHR Showcase & Research Symposium (20-minute Oral Presentation Merit Award)

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of Presentation: April 2024

Title: Impact of Cooking Methods on Bioactive Compounds in Hawaiian Seaweed.

Authors (put an asterisk on the presenter): Xie, Dongjun* & Ho, Kacie K.H.Y.

Type of Presentation: Poster Presentation for the 2024 CTAHR Showcase & Research Symposium (Best Poster in the MS Category)

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of Presentation: April 2024

Title: Impact of Cooking Methods on Bioactive Compounds in Hawaiian Seaweed.

Authors (put an asterisk on the presenter): Xie, Dongjun* & Ho, Kacie K.H.Y.

Type of Presentation: Poster Presentation for the 23rd East-West Center International Graduate Student Conference

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of Presentation: February 15-17, 2024

Title: Phytochemical composition and bioaccessibility of Hawaii commodities.

Authors (put an asterisk on the presenter): Ho, Kacie K.H.Y.*

Type of presentation: Annual Multistate W4002: Nutrient Bioavailability—Phytonutrients and Beyond Meeting.

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of presentation: May 25, 2023.

Title: Stabilizing kavalactone dispersions using common emulsifiers (Poster)

Authors (put an asterisk on the presenter): Williams, Stryder K*, Ho, Kacie K.H.Y.

Type of presentation: Poster for the 2023 Biomedical Sciences & Health Disparities Symposium

Location: John A. Burns School of Medicine, University of Hawai'i at Mānoa, Honolulu, HI

Date of presentation: April 21, 2023.

Title: The effect of pre-harvest treatment on phenolic content in mamaki (*Pipturus albidus*) leaves

Authors (put an asterisk on the presenter): Kennedy, Taylor-Jane*, Vital de Sousa Jr, Wanderley, Ahmad, Amjad, Ho, Kacie K.H.Y.

Type of presentation: Poster for the 2022 Summer Undergraduate Research Experience Symposium

Location: University of Hawai'i at Mānoa, Honolulu, HI

Date of presentation: July 29, 2022

Title: Phytochemical composition and bioaccessibility of Hawaii commodities.

Authors (put an asterisk on the presenter): Ho, Kacie K.H.Y.*

Type of presentation: Annual Multistate W4002: Nutrient Bioavailability—Phytonutrients and Beyond Meeting

Location: Online (Zoom) Hosted by the University of Illinois Urbana-Champaign

Date of presentation: March 7, 2022

Title: Assessing written communication skills across food science courses with a common rubric.

Authors (put an asterisk on the presenter): Ho, Kacie K.H.Y.*, Jun, Soojin, Li, Yong.

Type of presentation: Poster for Assessment for Curricular Improvement Poster Exhibit and the University of Hawai'i at Mānoa

Location: Online <https://scholarspace.manoa.hawaii.edu/items/47f11ce4-1b2a-464f-adad-87bc4fd9ac65>

Date of Presentation: April 9, 2021

Title: Taro: Field to Plate A Virtual Field Day

Authors (put an asterisk on the presenter): Uyeda, Jensen*, Ho, Kacie K.H.Y.*, Esquivel Monica*

Type of Presentation: Oral Presentation/Digital Workshop

Location: Online (<https://youtu.be/9Rm1vsYpgx0>)

Date of Presentation: September 24, 2020

Title: Food Science from Hainan to Hawaii

Authors (put an asterisk on the presenter): Ho, Kacie K.H.Y.*

Type of Presentation: Oral Presentation for the Hawaii Institute of Food Technologists

Location: Honolulu, HI

Date of Presentation: November 15, 2018