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International Researcher IDs

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Publons / Web Of Science ResearcherID: HNQ-7355-2023

ScopusID: 57218582752

Education Information

Doctorate, University of Massachusetts Amherst, College of Natural Sciences, Food Science, United States Of America
2019 - 2023

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Food Engineering, Turkey 2014
- 2018

Certificates, Courses and Trainings

Other, Current research in food science webinar series 3: oil foams: from design to applications, Elsevier, 2024

Other, Working with mice in research settings, CITI Program, 2023

Other, Working with the IACUC - Investigators, staff and students, CITI Program, 2023

Other, Physical science responsible conduct of research, CITI Program, 2023

Other, Lipidomics minimal reporting checklist, American Oil Chemists` Society, 2023

Other, New sample preparation tips and tricks for the extraction of polar analytes, Phenomenex, 2022

Other, Emerging microbial approaches to produce sustainable and functional fats for food applications, American Oil
Chemists` Society, 2022

Other, Five basic chromatography tools for LC or LC-MS method development, Phenomenex, 2022

Other, Fall back to basics: Chemistry, LC systems, MS systems, informatics, service, Waters Corporation, 2022

Other, Tips and tricks for troubleshooting common HPLC/UHPLC challenges, American Oil Chemists` Society, 2022

Other, Decrypting liquid chromatography variation: Achieving reproducibility in results, Phenomenex, 2021

Other, Surface science online course, Kruss, 2020

Other, English for academic purposes, Ohio University, 2019

Other, BRC FOOD V.7 global food safety, FDE R&D Food Engineering Services , 2018

Dissertations

Doctorate, Analysis of antioxidant synergism and its mechanisms in different food systems, University of Massachusetts
Amherst, College of Natural Sciences, Food Science, 2023

Research Areas

Food Engineering, Food Science, Food Chemistry

Academic Titles / Tasks

Lecturer PhD, Middle East Technical University, Faculty Of Engineering, Department Of Food Engineering, 2024 - Continues

Researcher, University of Massachusetts Amherst, College of Natural Sciences, Food Science, 2023 - 2024

Research Assistant, University of Massachusetts Amherst, College of Natural Sciences, Food Science, 2019 - 2023

Courses

Food and Health, Undergraduate, 2024 - 2025

Food Chemistry, Undergraduate, 2024 - 2025

Jury Memberships

Award, Edwin N. Frankel Best Paper Award, American Oil Chemists` Society, September, 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A machine learning-guided modeling approach to the kinetics of α -tocopherol and myricetin synergism in bulk oil oxidation**
Parra-Escudero C., Bayram I., Decker E. A., Singh S., Corvalan C., Lu J.
FOOD CHEMISTRY, vol.463, no.4, pp.1-7, 2024 (SCI-Expanded)
- II. **A strategy to minimize the chlorophyll content in the phenolic extract of sugar beet leaves: Can this extract work as a natural antioxidant in vegetable oils?**
Ebrahimi P., Bayram I., Mihaylova D., Lante A.
FOOD AND BIOPROCESS TECHNOLOGY, vol.2024, pp.1-14, 2024 (SCI-Expanded)
- III. **Antioxidant and prooxidant activity of acid-hydrolyzed phenolic extracts of sugar beet leaves in oil-in-water emulsions**
Ebrahimi P., Bayram I., Lante A., Decker E. A.
JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, 2024 (SCI-Expanded)
- IV. **Acid-hydrolyzed phenolic extract of parsley (*Petroselinum crispum* L.) leaves inhibits lipid oxidation in soybean oil-in-water emulsions**
Ebrahimi P., Bayram I., Lante A., Decker E. A.
FOOD RESEARCH INTERNATIONAL, vol.187, 2024 (SCI-Expanded)
- V. **Analysis of the mechanism of antioxidant synergism between α -tocopherol and myricetin in bulk oil**
Bayram I., Decker E. A.
JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, vol.101, no.5, pp.477-492, 2024 (SCI-Expanded)
- VI. **Mathematical Modeling of Alpha-Tocopherol Early Degradation Kinetics to Predict the Shelf-Life of Bulk Oils**
Bayram I., Parra-Escudero C., Decker E. A., Lu J.
JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol.72, no.9, pp.4939-4946, 2024 (SCI-Expanded)
- VII. **Oxidative stability of emulsions made with self-extracted oil from euryhaline microalgae *Spirulina* and *Scenedesmus***
Kaur M., Bhatia S., Bayram I., Decker E. A., Phutela U. G.
ALGAL RESEARCH-BIOMASS BIOFUELS AND BIOPRODUCTS, vol.75, 2023 (SCI-Expanded)

- VIII. **Synergistic Mechanisms of Interactions between Myricetin or Taxifolin with α -Tocopherol in Oil-in-Water Emulsions**
 Bayram İ., Laze A., Decker E. A.
 JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol.71, no.24, pp.9490-9500, 2023 (SCI-Expanded)
- IX. **Underlying mechanisms of synergistic antioxidant interactions during lipid oxidation**
 Bayram İ., Decker E. A.
 TRENDS IN FOOD SCIENCE & TECHNOLOGY, vol.133, pp.219-230, 2023 (SCI-Expanded)
- X. **Enzymatic Modification of Lecithin for Improved Antioxidant Activity in Combination with Tocopherol in Emulsions and Bulk Oil**
 Culler M. D., Bayram İ., Decker E. A.
 JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol.70, no.41, pp.13404-13412, 2022 (SCI-Expanded)
- XI. **Determination of antioxidant synergism between tocopherols and myricetin in bulk oil.**
 Bayram İ., Decker E. A.
 JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, pp.120, 2022 (SCI-Expanded)
- XII. **Enzymatic modification of lecithin for improved antioxidant activity in combination with tocopherol in emulsions and bulk oil.**
 Culler M., Decker E. A., Bayram İ.
 JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, pp.126, 2022 (SCI-Expanded)
- XIII. **Improvement of stability and bioaccessibility of β -carotene by curcumin in pea protein isolate-based complexes-stabilized emulsions: Effect of protein complexation by pectin and small molecular surfactants**
 Guo Q., Bayram İ., Shu X., Su J., Liao W., Wang Y., Gao Y.
 FOOD CHEMISTRY, vol.367, 2022 (SCI-Expanded)
- XIV. **Why Does Lipid Oxidation in Foods Continue to Be Such a Challenge?**
 Decker E.
 JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, pp.6, 2021 (SCI-Expanded)
- XV. **Ability of Sodium Dodecyl Sulfate (SDS) Micelles to Increase the Antioxidant Activity of α -Tocopherol**
 Inchingolo R., Bayram İ., ULUATA S., Kiralan S. S., Rodriguez-Estrada M. T., McClements D. J., Decker E. A.
 JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, vol.69, no.20, pp.5702-5708, 2021 (SCI-Expanded)
- XVI. **Fabrication and characterization of curcumin-loaded pea protein isolate-surfactant complexes at neutral pH**
 Guo Q., Bayram İ., Zhang W., Su J., Shu X., Yuan F., Mao L., Gao Y.
 FOOD HYDROCOLLOIDS, vol.111, 2021 (SCI-Expanded)
- XVII. **Development of pea flour based active films produced through different homogenization methods and their effects on lipid oxidation**
 YILDIZ E., Bayram İ., Sumnu G., ŞAHİN S., Ibis O. I.
 FOOD HYDROCOLLOIDS, 2021 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Optimization of phenolic extracts of sugar beet leaves with minimal chlorophyll content using response surface methodology (RSM) to enhance the oxidative stability of different oils**
 Ebrahimi P., Bayram I., Mihaylova D., Decker E. A., Lante A.
 22nd IUFoST World Congress 2024 of Food Science and Technology, Rimini, Italy, 8 - 12 September 2024, pp.1
- II. **Modeling the kinetics of antioxidant loss and antioxidant capacity loss to predict the lag phase of bulk oils during storage**
 Bayram I., Parra-Escudero C., Cantele C., Lu J., Decker E. A.
 5th International Symposium on Lipid Oxidation and Antioxidants, Bologna, Italy, 8 - 10 July 2024, pp.1
- III. **Exploring the synergistic effect of α -tocopherol and myricetin on lipid oxidation: a novel approach**

to predicting shelf-life

Parra-Escudero C., Bayram I., Decker E. A., Lu J.

5th International Symposium on Lipid Oxidation and Antioxidants, Bologna, Italy, 8 - 10 July 2024, pp.1

- IV. **Impact of the acid-hydrolyzed phenolic extracts of parsley (*Petroselinum crispum* L.) leaves on soybean oil-in-water emulsions**
Bayram I., Ebrahimi P., Lante A., Decker E. A.
5th International Symposium on Lipid Oxidation and Antioxidants, Bologna, Italy, 8 - 10 July 2024, pp.1
- V. **Early shelf-life prediction of soybean oil using computational modeling of tocopherol depletion kinetics during lipid oxidation**
Bayram I., Parra-Escudero C., Decker E. A., Lu J.
2024 AOCS Annual Meeting & Expo, Montreal, Canada, 28 April - 03 May 2024, pp.1
- VI. **Determination of antioxidant capacity as a tool for mathematical modeling to predict the lipid oxidation lag phase**
Cantele C., Bayram I., Parra-Escudero C., Lu J., Cardenia V., Decker E. A.
2024 AOCS Annual Meeting & Expo, Montreal, Canada, 28 April - 01 May 2024, pp.1
- VII. **Inhibition of lipid oxidation in soybean oil-in-water emulsions and bulk oil using acid hydrolyzed extracts of sugar beet leaves**
Ebrahimi P., Bayram I., Lante A., Decker E. A.
19th Food Colloids Conference - Using colloid science to find new sustainable solutions in food, Thessaloniki, Greece, 14 - 18 April 2024, pp.1
- VIII. **Predicting the lag phase of lipid oxidation to decrease food waste**
Decker E. A., Bayram I.
Food Analytics Conference, Kobenhavn, Denmark, 15 November 2023, pp.1
- IX. **Mechanisms of synergistic antioxidant interactions between α -tocopherol and myricetin in bulk oil and emulsions**
Bayram I., Laze A., Decker E. A.
IFT First Annual Meeting & Expo, Illinois, United States Of America, 16 - 19 July 2023, pp.1
- X. **Analysis of antioxidant synergism and its mechanisms between alpha-tocopherol and myricetin in stripped soybean oil-in-water emulsions at different pH values**
Bayram I., Laze A., Decker E. A.
2023 AOCS Annual Meeting & Expo, Colorado, United States Of America, 30 April - 03 May 2023, pp.1
- XI. **Enzymatic modification of lecithin for improved antioxidant activity in combination with tocopherol in emulsions and bulk oil**
Culler M., Bayram I., Decker E. A.
2022 AOCS Annual Meeting & Expo, Georgia, United States Of America, 1 - 05 May 2022, pp.126
- XII. **Modeling the kinetics of tocopherol degradation during the lag phase to predict shelf-life**
Lu J., Bayram I., Decker E. A.
2022 AOCS Annual Meeting & Expo, Georgia, United States Of America, 1 - 05 May 2022, pp.111
- XIII. **Determination of antioxidant synergism between tocopherols and myricetin in bulk oil**
Bayram I., Decker E. A.
2022 AOCS Annual Meeting & Expo , Georgia, United States Of America, 1 - 05 May 2022, pp.120
- XIV. **Gallic acid incorporated pea flour films as an edible and active food packaging**
Yıldız E., Bayram İ., Şümnü S. G., Şahin S.
15TH INTERNATIONAL HYDROCOLLOIDS CONFERENCE-FOOD2020, Melbourne, Australia, 2 - 05 March 2020

Scientific Refereeing

JOURNAL OF FOOD MEASUREMENT AND CHARACTERIZATION, SCI Journal, February 2024

JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, SCI Journal, December 2023

JOURNAL OF THE AMERICAN OIL CHEMISTS' SOCIETY, SCI Journal, November 2023

JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, SCI Journal, November 2023

JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, SCI Journal, October 2023

JOURNAL OF KING SAUD UNIVERSITY - SCIENCE, SCI Journal, February 2023

Metrics

Publication: 33

Citation (WoS): 195

Citation (Scopus): 208

H-Index (WoS): 6

H-Index (Scopus): 6

Scholarships

College of Natural Sciences (CNS)- NIH SF 424 (R&R) Grant Fellowship, University, 2021 - 2023

Fulbright Doctoral Scholarship, Fulbright Program, 2019 - 2021

Awards

2023 Hultin Competition Award, University Of Massachusetts Amherst, April 2023

2023 Manuchehr (Manny) Eijadi Award, American Oil Chemists' Society, March 2023

2023 Honored Student Award , American Oil Chemists' Society, January 2023

Manley Graduate Scholarship, University Of Massachusetts Amherst, September 2022

Love of Learning Award, The Honor Society Of Phi Kappa Phi , September 2022

IFT Feeding Tomorrow - Institute for Thermal Processing Specialists Ph.D. Degree Award, Institute Of Food Technologists, August 2022

Graduate Scholarship, Northeast Section Of The Institute Of Food Technologists, May 2022

2022 Lipid Oxidation and Quality (LOQ) ePoster Pitch Competition Winner Award, American Oil Chemists` Society, April 2022

2022 Lipid Oxidation and Quality (LOQ) Student Travel Grant, American Oil Chemists` Society, February 2022