

Assoc. Prof. CANSU EKİN BONACINA

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAG-4434-2019

ScopusID: 56899084300

Yoksis Researcher ID: 177765

Education Information

Doctorate, University of Massachusetts Amherst, United States Of America 2012 - 2017

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği (YI) (Tezli), Turkey 2010 - 2012

Undergraduate, Ankara University, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, Turkey 2006 - 2010

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, UTILIZATION OF NATURAL EMULSIFIERS AND THEIR DERIVATIVES TO FORMULATE EMULSION-BASED DELIVERY SYSTEMS FOR HYDROPHOBIC NUTRACEUTICALS, University of Massachusetts Amherst, 2017

Postgraduate, Presleme ve çözgen ekstraksiyonu ile elde edilen fındık yağlarının sterol ve mumsu madde bileşimlerinin karşılaştırılması, Ankara University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği (YI) (Tezli), 2012

Research Areas

Food Engineering

Academic Titles / Tasks

Assistant Professor, Ankara University, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, 2019 - Continues

Lecturer, Hitit University, Rectorate, 2017 - 2019

Research Assistant, University of Massachusetts Amherst, 2014 - 2017

Research Assistant, Manisa Celal Bayar University, Faculty Of Engineering, Department Of Food Engineering, 2011 - 2012

Academic and Administrative Experience

Ankara University, 2019 - Continues

Courses

Gıda Emülsiyonları, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Food Biochemistry, Undergraduate, 2021 - 2022

PRINCIPLES OF NUTRITION , Undergraduate, 2021 - 2022

Advising Theses

Bonacina C. E., Omega-3 nanoemülsiyonu ilavesinin kefirin oksidatif stabilitesine etkisi, Postgraduate, G.ERPEK(Student), 2022

Bonacina C. E., Gıda emülsiyonlarının 3-kloropropan-1,2-diol esterlerinin sitotoksitesisi üzerine etkisi, Postgraduate, A.NUR(Student), 2022

Bonacina C. E., Beyaz, yeşil ve siyah çay özütlerinin ayçiçek yağının oksidatif stabilitesi üzerine etkisi, Postgraduate, T.TEKİN(Student), 2021

BONACINA C. E., Fındık yağı nanoemülsiyonu oluşumu ve fiziksel kararlılığı, Postgraduate, S.SEÇİL(Student), 2021

Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, December, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, December, 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Improving the stability of olive leaf extract through nanophytosomal encapsulation: optimization of the preparation conditions, characterization and evaluation of the release kinetics**
Keskin S. M., BASTIOĞLU A. Z., Sirinyildiz D. D., BONACINA C. E., YORULMAZ A.
JOURNAL OF FOOD MEASUREMENT AND CHARACTERIZATION, vol.18, no.1, pp.299-312, 2024 (SCI-Expanded)
- II. **Infrared spectroscopy-based rapid determination of adulteration in commercial sheep's milk cheese via n-hexane and ethanolic extraction**
Menevseoglu A., Gumus-Bonacina C. E., Gunes N., AYVAZ H., Dogan M. A.
International Dairy Journal, vol.138, 2023 (SCI-Expanded)
- III. **Oxidative stability of high oleic palm and hazelnut skin oil blends**
AKPINAR M., Bauer Estrada K., TEKİN A., Quintanilla-Carvajal M. X., BONACINA C. E.
JOURNAL OF THE AMERICAN OIL CHEMISTS SOCIETY, vol.99, no.12, pp.1127-1135, 2022 (SCI-Expanded)
- IV. **Role of Solid Fat Content in Oxidative Stability of Low-Moisture Cracker Systems**
Thanh Phuong Vu T. P. V., BONACINA C. E., Corradini M. G., He L., McClements D. J., Decker E. A.
ANTIOXIDANTS, vol.11, no.11, 2022 (SCI-Expanded)
- V. **Formation and physical stability of hazelnut oil nanoemulsions: Comparison of a synthetic surfactant and a natural emulsifier**
Sahin S. S., Akpinar A. N., BONACINA C. E.
JOURNAL OF SURFACTANTS AND DETERGENTS, vol.25, no.6, pp.799-811, 2022 (SCI-Expanded)
- VI. **Separation of squalene from olive oil deodorizer distillate using short-path molecular distillation**
Cetinbas S., Gumus-Bonacina C. E., TEKİN A.
JAACS, Journal of the American Oil Chemists' Society, vol.99, no.2, pp.175-179, 2022 (SCI-Expanded)
- VII. **Yogurts supplemented with lipid emulsions rich in omega-3 fatty acids: New insights into the fortification, microencapsulation, quality properties, and health-promoting effects**

Gumus C. E., Gharibzahedi S. M. T.

Trends in Food Science and Technology, vol.110, pp.267-279, 2021 (SCI-Expanded)

- VIII. **Oxidation in Low Moisture Foods as a Function of Surface Lipids and Fat Content**
BONACINA C. E., Decker E. A.
FOODS, vol.10, no.4, 2021 (SCI-Expanded)
- IX. **In vitro digestion of edible nanostructured lipid carriers: Impact of a Candelilla wax gelator on performance**
Sislioglu K., Gumus C. E., Koo C. K. W., KARABULUT İ., McClements D. J.
Food Research International, vol.140, 2021 (SCI-Expanded)
- X. **The effect of strain and spatial Bi distribution on the band alignment of GaAsBi single quantum well structure**
Gunes M., DÖNMEZ Ö., BONACINA C. E., Erol A., Alghamdi H., Alhassan S., Alhassni A., Alotaibi S., Schmidbauer M., Galeti H. V. A., et al.
PHYSICA B-CONDENSED MATTER, vol.602, 2021 (SCI-Expanded)
- XI. **The Efficacy of Nanoemulsion-Based Delivery to Improve Vitamin D Absorption: Comparison of In Vitro and In Vivo Studies**
Kadappan A. S., Guo C., Gumus C. E., Bessey A., Wood R. J., McClements D. J., Liu Z.
Molecular Nutrition and Food Research, vol.62, no.4, 2018 (SCI-Expanded)
- XII. **Improvements in the formation and stability of fish oil-in-water nanoemulsions using carrier oils: MCT, thyme oil, & lemon oil**
Walker R. M., Gumus C. E., Decker E. A., McClements D. J.
Journal of Food Engineering, vol.211, pp.60-68, 2017 (SCI-Expanded)
- XIII. **Impact of legume protein type and location on lipid oxidation in fish oil-in-water emulsions: Lentil, pea, and faba bean proteins**
Gumus C. E., Decker E. A., McClements D. J.
Food Research International, vol.100, pp.175-185, 2017 (SCI-Expanded)
- XIV. **Gastrointestinal fate of emulsion-based ω -3 oil delivery systems stabilized by plant proteins: Lentil, pea, and faba bean proteins**
Gumus C. E., Decker E. A., McClements D. J.
Journal of Food Engineering, vol.207, pp.90-98, 2017 (SCI-Expanded)
- XV. **Formation and Stability of ω -3 Oil Emulsion-Based Delivery Systems Using Plant Proteins as Emulsifiers: Lentil, Pea, and Faba Bean Proteins**
Gumus C. E., Decker E. A., McClements D. J.
Food Biophysics, vol.12, no.2, pp.186-197, 2017 (SCI-Expanded)
- XVI. **Differentiation of Mechanically and Chemically Extracted Hazelnut Oils Based on their Sterol and Wax Profiles**
Gumus C. E., YORULMAZ A., TEKİN A.
JAOCS, Journal of the American Oil Chemists' Society, vol.93, no.12, pp.1625-1635, 2016 (SCI-Expanded)
- XVII. **Lutein-enriched emulsion-based delivery systems: Impact of Maillard conjugation on physicochemical stability and gastrointestinal fate**
Gumus C. E., Davidov-Pardo G., McClements D. J.
Food Hydrocolloids, vol.60, pp.38-49, 2016 (SCI-Expanded)
- XVIII. **Natural emulsifiers — Biosurfactants, phospholipids, biopolymers, and colloidal particles: Molecular and physicochemical basis of functional performance**
McClements D. J., Gumus C. E.
Advances in Colloid and Interface Science, vol.234, pp.3-26, 2016 (SCI-Expanded)
- XIX. **Lutein-enriched emulsion-based delivery systems: Influence of pH and temperature on physical and chemical stability**
Davidov-Pardo G., Gumus C. E., McClements D. J.
Food Chemistry, vol.196, pp.821-827, 2016 (SCI-Expanded)

Articles Published in Other Journals

- I. **A review on recent advances of plant mucilages and their applications in food industry: Extraction, functional properties and health benefits**
Cakmak H., Ilyasoglu-Buyukkestelli H., Sogut E., Ozyurt V. H., Gumus-Bonacina C. E., Simsek S.
Food Hydrocolloids for Health, vol.3, 2023 (Scopus)
- II. **YEŞİL ÇAY EKSTRAKTININ AYÇİÇEK, SOYA VE FINDIK YAĞINDA DOĞAL ANTİOKSİDAN OLARAK KULLANIMININ OKSİDATİF STABİLİTE ÜZERİNE ETKİSİNİN KİNETİK VE TERMODİNAMİK ÇALIŞMALARLA DEĞERLENDİRİLMESİ**
BONACINA C. E.
GIDA, vol.47, no.3, pp.502-517, 2022 (Peer-Reviewed Journal)
- III. **3D Food Printing With Improved Functional Properties: A Review**
ÇAKMAK H., GÜMÜŞ C. E.
International Journal of 3D Printing Technologies and Digital Industry, vol.4, no.2, pp.178-192, 2020 (Peer-Reviewed Journal)
- IV. **Plant-based proteins: An alternative to synthetic emulsifiers**
BONACINA C. E.
International News on Fats, Oils and Related Materials, vol.29, no.5, pp.14-16, 2018 (Scopus)

Books & Book Chapters

- I. **FATS AND OILS TECHNOLOGY**
Bonacina C. E., Tekin A.
in: FOOD - Science, Technology and Engineering, Ertan Anlı; Pınar Şanlıbaba, Editor, Nobel Yayınevi, Ankara, pp.533-556, 2022
- II. **HAM YAĞ ELDE ETME YÖNTEMLERİ**
BONACINA C. E.
in: ENDÜSTRİYEL GIDA ÜRETİM TEKNİKLERİ, DOÇ. DR. PINAR ŞANLIBABA, DR. YALÇIN GÜLER, Editor, NOBEL AKADEMİK YAYINCILIK, Ankara, pp.506-521, 2022
- III. **Gıda ve Sürdürülebilirlik**
BONACINA C. E.
in: Gıda Felsefesi , Doğan, Murat, Editor, Nobel Akademik Yayıncılık, Ankara, pp.141-158, 2021
- IV. **Hazelnut Oil Chemistry and Technology**
BONACINA C. E., TEKİN A.
in: Oil Crops: Growth, Uses, and Toxicity, de Jesús Perea Flores, María; Camacho Diaz, Brenda Hildeliza; Quintanilla Carvajal, María Ximena, Editor, Nova Science Publishers, pp.147-174, 2021

Refereed Congress / Symposium Publications in Proceedings

- I. **Çemen Otu Tohumu Müsilajının Fonksiyonel Özellikleri ve Potansiyel Uygulamaları**
DERE S., ULUTAŞ F. N., BONACINA C. E.
Türkiye 14. Gıda Kongresi, 19 - 21 October 2022
- II. **Evaluation of Vibrational Spectroscopy Techniques (NIR, MIR, Raman) combined with Chemometrics in Detecting Adulteration of Essential Oils**
MENEVŞEOĞLU A., GÜMÜŞ C. E.
2021 AOCS Annual Meeting & Expo, 3 - 14 May 2021
- III. **Yemeklik Bitkisel Yağların D Vitamini ile Zenginleştirilmesi**
GÜMÜŞ C. E.
Türkiye 13. Gıda Kongresi, Turkey, 21 - 23 October 2020

IV. Potential of Emulsion-based Delivery Systems to Enhance Vitamin D Bioavailability

GÜMÜŞ C. E., ULUATA S.

14th Euro Fed Lipid Congress and Expo, 20 - 23 October 2019

V. Influence of Legume Proteins on the Lipid Oxidation of Omega-3 Emulsions

GÜMÜŞ C. E., Decker E. A., McClements D. J.

2017 AOCS Annual Meeting, 30 April - 03 May 2017

VI. Clean Label, Natural Emulsifiers

GÜMÜŞ C. E., McClements D. J.

2017 AOCS Annual Meeting, 30 April - 03 May 2017

Supported Projects

Bonacina C. E., Çakmak H., Project Supported by Higher Education Institutions, Keten Tohumu Müsilajının Püskürtmeli Kurutucuda Enkapsülasyonu, 2021 - 2023

Tekin A., Bonacina C. E., Akpınar M., Universities of Other Countries Supported Project, Effect of different drying techniques on physical stability, in vitro digestion and lipid oxidation of microencapsulated Hazelnut Skin Oil and High Oleic Palm Oil blend, 2021 - 2023

Bonacina C. E., Tekin A., TUBITAK Project, Gıda Emülsiyonlarının 3-Kloropropan-1,2-Diol ve Glisidil Esterlerinin Salınımı Üzerine Etkisi ve Bu Maddelerin Emilimlerinin Azaltılmasına Yönelik Stratejilerin Geliştirilmesi, 2019 - 2023

Bonacina C. E., Project Supported by Higher Education Institutions, Emülgatör seçiminin Fındık Yağı Nanoemülsiyonlarının oluşumu ve Stabilitesi üzerine etkisinin araştırılması, 2021 - 2022

Metrics

Publication: 35

Citation (WoS): 878

Citation (Scopus): 961

H-Index (WoS): 9

H-Index (Scopus): 9