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International Researcher IDs

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Publons / Web Of Science ResearcherID: F-7342-2010

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Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği, Turkey 2006 - 2012

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Gıda Mühendisliği, Turkey 2003 - 2006

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, Turkey 1999 - 2003

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Biyosensör uygulamaları için peptid-ligandların geliştirilmesi, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Gıda Mühendisliği (Dr), 2012

Postgraduate, Sulardaki Escherichia coli'nin tayini için paramanyetik küreler kullanarak immunolojik analiz yönteminin geliştirilmesi, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Gıda Mühendisliği (YI) (Tezli), 2006

Research Areas

Food Engineering, Food Science, Food Biochemistry, Food Technology, Food Biotechnology, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, 2013 - 2018

Advising Theses

DUDAK ŞEKER F. C., Sortaz A enzimine karşı inhibitör peptitlerin geliştirilmesi, Postgraduate, M.KÖKSAL(Student), 2017

DUDAK ŞEKER F. C., Süne zararının tespiti için florometrik yöntem geliştirilmesi, Postgraduate, B.ZEYNEP(Student), 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Impact of a real food matrix and in vitro digestion on properties and acute toxicity of polystyrene microparticles**
Mısırlı N. S., Pimtong W., Sillapaprayoon S., Chantho V., Saenmuangchin R., Aueviriyavit S., Dudak F. C.
NanoImpact, vol.32, 2023 (SCI-Expanded)
- II. **Effect of real food matrix on the behavior and toxicity of TiO₂ nanoparticles**
Ersoz N., Canga E. M., Yildirim-Elikoglu S., Oz H., DUDAK ŞEKER F. C.
JOURNAL OF NANOPARTICLE RESEARCH, vol.24, no.10, 2022 (SCI-Expanded)
- III. **Improved digestive stability of probiotics encapsulated within poly(vinyl alcohol)/cellulose acetate hybrid fibers**
Canga E. M., DUDAK ŞEKER F. C.
CARBOHYDRATE POLYMERS, vol.264, 2021 (SCI-Expanded)
- IV. **The interaction between beta-Lactoglobulin and allyl-isothiocyanate**
Ersoz N., DUDAK ŞEKER F. C.
FOOD BIOSCIENCE, vol.36, 2020 (SCI-Expanded)
- V. **Development of a green fluorescence protein (GFP)-based bioassay for detection of antibiotics and its application in milk**
KARAÇAĞLAR N. N., TOPCU A., DUDAK ŞEKER F. C., BOYACI İ. H.
JOURNAL OF FOOD SCIENCE, vol.85, no.2, pp.500-509, 2020 (SCI-Expanded)
- VI. **Characterization of cellulose acetate/gum Arabic fibers loaded with extract of Viburnum opulus L. fruit**
Canga E. M., DUDAK ŞEKER F. C.
LWT-FOOD SCIENCE AND TECHNOLOGY, vol.110, pp.247-254, 2019 (SCI-Expanded)
- VII. **Development of a peptide substrate for detection of sunn pest damage in wheat flour**
Hancerliogullari B. Z., KÖKSEL H., DUDAK ŞEKER F. C.
JOURNAL OF THE SCIENCE OF FOOD AND AGRICULTURE, vol.98, no.15, pp.5677-5682, 2018 (SCI-Expanded)
- VIII. **Development and characterisation of a novel peptide inhibitor of plasmin**
Ersoz N., DUDAK ŞEKER F. C.
INTERNATIONAL DAIRY JOURNAL, vol.71, pp.82-88, 2017 (SCI-Expanded)
- IX. **Peptide-Based Surface Plasmon Resonance Biosensor for Detection of Staphylococcal Enterotoxin B**
DUDAK F. C., BOYACI İ. H.
FOOD ANALYTICAL METHODS, vol.7, no.2, pp.506-511, 2014 (SCI-Expanded)
- X. **The investigation of the secondary structure propensities and free-energy landscapes of peptide ligands by replica exchange molecular dynamics simulations**
Demir K., Kilic N., DUDAK F. C., BOYACI İ. H., YAŞAR F.
MOLECULAR SIMULATION, vol.40, no.13, pp.1015-1025, 2014 (SCI-Expanded)
- XI. **Glucose determination based on a two component self-assembled monolayer functionalized surfaceenhanced Raman spectroscopy (SERS) probe**
Torul H., Ciftci H., Dudak F. C., Adiguzel Y., KÜLAH H., BOYACI İ. H., Tamer U.
ANALYTICAL METHODS, vol.6, no.14, pp.5097-5104, 2014 (SCI-Expanded)
- XII. **SERS-based direct and sandwich assay methods for mir-21 detection**
GÜVEN B., Dudak F. C., BOYACI İ. H., Tamer U., Ozsoz M.
ANALYST, vol.139, no.5, pp.1141-1147, 2014 (SCI-Expanded)
- XIII. **Attomole Sensitivity of Staphylococcal Enterotoxin B Detection Using an Aptamer-Modified Surface-Enhanced Raman Scattering Probe**
Temur E., Zengin A., BOYACI İ. H., Dudak F. C., Torul H., Tamer U.

- ANALYTICAL CHEMISTRY, vol.84, no.24, pp.10600-10606, 2012 (SCI-Expanded)
- XIV. **Comparison of sensing strategies in SPR biosensor for rapid and sensitive enumeration of bacteria**
Torun O., BOYACI İ. H., Temur E., TAMER U.
BIOSENSORS & BIOELECTRONICS, vol.37, no.1, pp.53-60, 2012 (SCI-Expanded)
- XV. **The Discovery of Small-Molecule Mimicking Peptides through Phage Display**
DUDAK ŞEKER F. C., BOYACI İ. H., Orner B. P.
MOLECULES, vol.16, no.1, pp.774-789, 2011 (SCI-Expanded)
- XVI. **MULTIPLEX DETECTION OF ESCHERICHIA COLI AND SALMONELLA ENTERITIDIS BY USING QUANTUM DOT-LABELED ANTIBODIES**
DUDAK ŞEKER F. C., BOYACI İ. H.
JOURNAL OF RAPID METHODS AND AUTOMATION IN MICROBIOLOGY, vol.17, no.3, pp.315-327, 2009 (SCI-Expanded)
- XVII. **Thermodynamic analysis of the interaction between 3-aminophenylboronic acid and monosaccharides for development of biosensor**
Torun O., DUDAK ŞEKER F. C., Bas D., TAMER U., BOYACI İ. H.
SENSORS AND ACTUATORS B-CHEMICAL, vol.140, no.2, pp.597-602, 2009 (SCI-Expanded)
- XVIII. **Determination of viable Escherichia coli using antibody-coated paramagnetic beads with fluorescence detection**
DUDAK ŞEKER F. C., BOYACI İ. H., Jurkevica A., Hossain M., Aquilar Z., Halsall H. B., Seliskar C. J., Heineman W. R.
ANALYTICAL AND BIOANALYTICAL CHEMISTRY, vol.393, no.3, pp.949-956, 2009 (SCI-Expanded)
- XIX. **Enumeration of immunomagnetically captured Escherichia coli in water samples using quantum dot-labeled antibodies**
DUDAK ŞEKER F. C., BOYACI İ. H.
JOURNAL OF RAPID METHODS AND AUTOMATION IN MICROBIOLOGY, vol.16, no.2, pp.122-131, 2008 (SCI-Expanded)
- XX. **Modeling and optimization IV: Investigation of reaction kinetics and kinetic constants using a program in which artificial neural network (ANN) was integrated**
Bas D., DUDAK ŞEKER F. C., Boyaci I. H.
JOURNAL OF FOOD ENGINEERING, vol.79, no.4, pp.1152-1158, 2007 (SCI-Expanded)
- XXI. **Modeling and optimization III: Reaction rate estimation using artificial neural network (ANN) without a kinetic model**
Bas D., DUDAK ŞEKER F. C., Boyaci I. H.
JOURNAL OF FOOD ENGINEERING, vol.79, no.2, pp.622-628, 2007 (SCI-Expanded)
- XXII. **Development of an immunosensor based on surface plasmon resonance for enumeration of Escherichia coli in water samples**
DUDAK ŞEKER F. C., Boyaci I. H.
FOOD RESEARCH INTERNATIONAL, vol.40, no.7, pp.803-807, 2007 (SCI-Expanded)
- XXIII. **ANYL 156-Bead-based immunoassay for determination of Escherichia coli in water with fluorescence detection**
Jurkevica A., DUDAK ŞEKER F. C., BOYACI İ. H., Halsall H. B., Seliskar C. J., Heineman W. R.
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, vol.232, 2006 (SCI-Expanded)

Articles Published in Other Journals

- I. **RESVERATROL YÜKLÜ SELÜLOZ ASETAT LİFLERİNİN KARAKTERİZASYONU**
DUDAK ŞEKER F. C.
GIDA, vol.44, no.5, pp.810-818, 2019 (Peer-Reviewed Journal)
- II. **Nano sized structures for the detection of food components and contaminants**
DUDAK ŞEKER F. C., BAŞ D., BAŞARAN AKGÜL N., TAMER U., BOYACI İ. H.
Frontiers in Bioscience, vol.3, no.1, pp.1109, 2011 (Scopus)

- III. **Rapid and label free bacteria detection by surface plasmon resonance SPR biosensors**
DUDAK ŞEKER F. C., BOYACI İ. H.
Biotechnology Journal, vol.4, no.7, pp.1003-1011, 2009 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Phage-displayed inhibitor peptides against Sortase A: A novel antibiotic molecules**
Ersoz N., DUDAK ŞEKER F. C.
256th National Meeting and Exposition of the American-Chemical-Society (ACS) - Nanoscience, Nanotechnology and Beyond, Massachusetts, United States Of America, 19 - 23 August 2018, vol.256
- II. **Gıda Bulaşanlarının tayininde nanomateryallerin kullanımı**
DUDAK ŞEKER F. C.
6. Gıda Güvenliği Kongresi, Turkey, 3 - 04 May 2018
- III. **Different Perspective Towards Interaction Between b-Lactoglobulin and AITC**
ERSÖZ N., DUDAK ŞEKER F. C.
International Eurasian Conference on Biological and Chemical Sciences, 26 - 27 April 2018
- IV. **Bioanalysis system for the determination of antimicrobial in foods**
YAZĞAN N. N., DUDAK ŞEKER F. C., BOYACI İ. H., TOPCU A.
International Conference on RAW MATERIALS TO PROCESSED FOODS, 11 - 13 April 2018
- V. **IMPROVING PEPTIDE SUBSTRATE FOR DETECTION OF SUNN PEST DAMAGE**
Hançerlioğulları B. Z., DUDAK ŞEKER F. C.
9th INTERNATIONAL CONGRESS FLOUR-BREAD '17, 25 - 27 October 2017
- VI. **Selection of peptidic inhibitors against sortase A by using phage display library**
Koksal M., Ersoz N., DUDAK ŞEKER F. C.
254th National Meeting and Exposition of the American-Chemical-Society (ACS) on Chemistry's Impact on the Global Economy, Washington, Kiribati, 20 - 24 August 2017, vol.254
- VII. **Gıda enzimlerine karşı inhibitör geliştirilmesi**
Hançerlioğulları B. Z., DUDAK ŞEKER F. C.
Uluslararası Taşköprü Pompeiopolis Bilim Kültür Sanat Araştırmaları Sempozyumu, Turkey, 10 - 12 April 2017
- VIII. **Organofosfat hidrolaz enzimi ile pestisit tayini**
Hançerlioğulları B. Z., DUDAK ŞEKER F. C.
Uluslararası Taşköprü Pompeiopolis Bilim Kültür Sanat Araştırmaları Sempozyumu, Turkey, 10 - 12 April 2017
- IX. **Peynir altı suyu proteinlerinin yenilebilir ambalajlarda kullanılması**
Hançerlioğulları B. Z., DUDAK ŞEKER F. C.
Uluslararası Taşköprü Pompeiopolis Bilim Kültür Sanat Araştırmaları Sempozyumu, Turkey, 10 - 12 April 2017
- X. **Development of peptide inhibitors against plasmin by using phage display library**
Ersöz N., DUDAK ŞEKER F. C.
International Conference on Food Chemistry and Technology, 16 - 18 November 2015
- XI. **Analysis of interactions between peptide ligands and SEB**
DUDAK ŞEKER F. C., ACAR SOYKUT E., BOYACI İ. H.
239th American Chemical Society (ACS) National Meeting Exposition, 21 - 25 March 2010
- XII. **Interaction of SEB with phage displayed peptides**
ACAR SOYKUT E., DUDAK ŞEKER F. C., BOYACI İ. H.
34th FEBS Congress Life's Molecular Interactions, 4 - 09 July 2009
- XIII. **Thermodynamics of binding of peptide-ligands to SEB**
DUDAK ŞEKER F. C., ACAR SOYKUT E., BOYACI İ. H.
34th FEBS Congress Life's Molecular Interactions, 4 - 09 July 2009
- XIV. **A novel peptide-ligand for staphylococcal enterotoxin B**
DUDAK ŞEKER F. C., ACAR SOYKUT E., BOYACI İ. H.
PepCon-2009 The Dedicated Event for Protein/Peptide Professionals, 2 - 04 April 2009

- XV. **ANYL 148-Multiplexed bacteria detection by coupling immunomagnetic separation with quantum dot labeling**
DUDAK ŞEKER F. C., BOYACI İ. H.
235th American-Chemical-Society National Meeting, Louisiana, United States Of America, 6 - 10 April 2008, vol.235
- XVI. **İletken nanopartiküller kullanılarak bakteri tayini**
DUDAK ŞEKER F. C., BOYACI İ. H.
XV. Biyoteknoloji Kongresi, Turkey, 28 - 31 October 2007
- XVII. **Development of an immunosensor based on surface plasmon resonance for the detection of Escherichia coli in water samples**
DUDAK ŞEKER F. C., BOYACI İ. H.
PITTCON 2007, 58th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, 25 February - 02 March 2007
- XVIII. **ANYL 156-Bead-based immunoassay for determination of Escherichia coli in water with fluorescence detection**
Jurkevica A., DUDAK ŞEKER F. C., BOYACI İ. H., Halsall B., Seliskar C., Heineman W.
ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, 10 - 14 September 2006, vol.232
- XIX. **Development of a fluorometric immunoassay for the determination of Escherichia coli using paramagnetic beads**
DUDAK ŞEKER F. C., BOYACI İ. H.
International Summer School on Molecular Imaging, 4 - 08 September 2006
- XX. **Yapay Sinir Ağlarının Gıda Alanında Kullanılması**
BAŞ D., Kılıç K., DUDAK ŞEKER F. C., BOYACI İ. H.
Türkiye 9. Gıda Kongresi, Turkey, 24 - 26 May 2006
- XXI. **Sulardaki Escherichia coli'nin hızlı tayini için paramanyetik küreler kullanılarak florometrik analiz yönteminin geliştirilmesi**
DUDAK ŞEKER F. C., BOYACI İ. H., Heineman W., Halsall B., Seliskar C.
Türkiye 9. Gıda Kongresi, Turkey, 24 - 26 May 2006

Supported Projects

DUDAK ŞEKER F. C., ÖZ H., Project Supported by Higher Education Institutions, Histamine Spesifik Peptit Ligandların Geliştirilmesi, 2019 - 2021

DUDAK ŞEKER F. C., ÖZ H., Çanga E. M., Project Supported by Higher Education Institutions, Histamine Spesifik Bağlanan Fajların Seçilmesi ve Bağlanma Özelliklerinin İncelenmesi, 2018 - 2019

DUDAK ŞEKER F. C., TUBITAK Project, Süne Proteazına Karşı Yeni Bir Substrat Geliştirilmesi, 2016 - 2017

DUDAK ŞEKER F. C., Ersöz N., Project Supported by Higher Education Institutions, Plazmine karşı geliştirilen peptit inhibitörlerinin karakterizasyonu, 2015 - 2016

DUDAK ŞEKER F. C., Project Supported by Higher Education Institutions, Akademik Performans İndeks (API) sisteminin kurulması, 2013 - 2015

DUDAK ŞEKER F. C., TUBITAK Project, FAJ GÖSTERİM YÖNTEMİ İLE PROTEAZA KARŞI PEPTİD İNHİBİTÖRLERİN GELİŞTİRİLMESİ, 2013 - 2014

Metrics

Publication: 47

Citation (WoS): 319

Citation (Scopus): 119

H-Index (WoS): 11

H-Index (Scopus): 5