

## Asst. Prof. AYŞE DEMİRBAŞ

### Personal Information

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### International Researcher IDs

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### Education Information

Post Doctorate, Cornell University, Dept of Human Centered Design, FRSC Fiber Science Program, United States Of America 2025 - Continues

Post Doctorate, Erciyes University, Eczacılık Fakültesi, Analytical chemistry , Turkey 2018 - 2019

Doctorate, University of Florida, College Of Agricultural And Life Science, Agricultural And Biological Engineering , United States Of America 2012 - 2016

Undergraduate, Fırat University, Faculty of Fisheries, Turkey 2005 - 2009

### Certificates, Courses and Trainings

Vocational Training, Uygulamalı Hücre Kültürü Eğitimi, Atatürk University, 2024

Entrepreneurship, TÜBİTAK - BİGG Girişimcilik Eğitimi, Karadeniz Teknik Üniversitesi, 2023

Entrepreneurship, Dijital Patika Ön Kuluçka Programı, Türk Alman Üniversitesi-Recep Tayyip Erdoğan Üniversitesi, 2023

Education Management and Planning, Avrupa Birliği Horizon 2020 Programı Proje Yazma Eğitimi, Sabancı Üniversitesi-Recep Tayyip Erdoğan Üniversitesi, 2020

Entrepreneurship, 1512 Tübitak Girişimcilik Destek Programı (BİGG), İstanbul Teknik Üniversitesi, 2018

### Dissertations

Doctorate, Red Cabbage Extract as a Natural Antioxidant with Application to Packaged Fresh Tilapia and Enhancement of Silver and Iron Nanoparticles , University of Florida, College Of Agricultural And Life Sciences, Agricultural And Biological Engineering, 2016

### Research Areas

Agricultural Sciences, Seafood, Seafood Processing Technologies, Food Engineering, Food Technology, Food Biotechnology, Food Packaging, Life Sciences, Biotechnology, Biosensor, Chemistry, Analytical Chemistry, Food Analysis, Natural Sciences, Engineering and Technology

## Courses

Gıda Kodeksi ve Uygulamaları, Undergraduate, 2021 - 2022  
Gıda Paketleme Sanayisinde Nanoteknoloji, Postgraduate, 2020 - 2021  
Antioksidanlar ve gıda uyulamaları, Postgraduate, 2020 - 2021  
Su ürünleri ekonomisi ve pazarlama, Undergraduate, 2020 - 2021

## Advising Theses

Demirbaş A., GÖKKUŞAĞI ALABALIĞI (*Oncorhynchus mykiss*) DERİSİNDEN ELDE EDİLEN JELATİN EKSTRAKTI KULLANILARAK YEŞİL KİMYA YÖNTEMİ İLE ORGANİK-İNORGANİK HİBRİT NANOYAPILARIN SENTEZLENMESİ VE SENTEZ MEKANİZMASININ İNCELENMESİ VE ANTİMİKROBİYAL ÖZELLİKLERİ, Postgraduate, Ö.FARUK(Student), 2024

## Jury Memberships

Doctorate, Doctorate, Erciyes Üniversitesi, January, 2023

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Innovative chitosan-silver nanoparticles: Green synthesis, antimicrobial properties, and migration assessment for food packaging**  
Demirbaş A., Karşlı B.  
FOOD CHEMISTRY, vol.467, pp.1-9, 2025 (SCI-Expanded)
- II. **Bio-synthesis of graphene oxide-decorated silver nanocomposites using *Usnea antarctica* and *Umbilicaria antarctica* from Antarctic Peninsula and evaluation of their antimicrobial activities**  
Koca F. D., Demirbaş A., Halıcı M. G., Öçsoy İ.  
Rendiconti Lincei, vol.35, no.2, pp.513-522, 2024 (SCI-Expanded)
- III. **Formation of *Umbilicaria decussata* (Antarctic and Turkey) Extracts Based Nanoflowers with Their Peroxidase Mimic, Dye Degradation and Antimicrobial Properties**  
DEMİRBAŞ A., Karşlı B., Dadi S., ARABACI N., KOCA F. D., Halıcı M., Ocsoy I.  
CHEMISTRY & BIODIVERSITY, vol.20, no.8, 2023 (SCI-Expanded)
- IV. **Facile Synthesis of Hybrid Nanoflowers Using Glycine and Phenylalanine and Investigation of Their Catalytic Activity**  
DEMİRBAŞ A., Karşlı B., Ocsoy I.  
CHEMISTRY & BIODIVERSITY, vol.20, no.8, 2023 (SCI-Expanded)
- V. **Synthesis of *Axinyssa digitata* Extract Directed Hybrid Nanoflower and Investigation of Its Antimicrobial Activity**  
Karşlı B., Uras I., Konuklugil B., DEMİRBAŞ A.  
IEEE TRANSACTIONS ON NANOBIOSCIENCE, vol.22, no.3, pp.523-528, 2023 (SCI-Expanded)
- VI. **Parazoanthus axinellae extract incorporated hybrid nanostructure and its potential antimicrobial activity**  
Konuklugil B., Uras İ. S., Karşlı B., Demirbaş A.  
CHEMISTRY AND BIODIVERSITY, vol.20, no.9, 2023 (SCI-Expanded)
- VII. **Organic-Inorganic Nanocomposites of *Aspergillus terreus* Extract and Its Compounds with Antimicrobial Properties**  
Uras I., Karşlı B., Konuklugil B., Ocsoy I., DEMİRBAŞ A.  
SUSTAINABILITY, vol.15, no.5, 2023 (SCI-Expanded)
- VIII. ***Usnea antarctica* (James Ross Island, Antarctica) and *Usnea subfloridana* (Uludag, Turkey)**

**Incorporated Hybrid Nanoflowers with Their Intrinsic Catalytic and Antimicrobial Activities**

Demirbaş A., Karşlı B., Dadi S., Koca F. D., Halici M. G., Öçsoy İ.

CHEMISTRYSELECT, vol.7, no.43, 2022 (SCI-Expanded)

- IX. **Synthesis of taurine-Cu-3(PO<sub>4</sub>)(2) hybrid nanoflower and their peroxidase-mimic and antimicrobial properties**  
Yılmaz S. G., DEMİRBAŞ A., Karaagac Z., Dadi S., Celik C., Yusufbeyoglu S., ILDIZ N., Mandal A. K., ÇİMEN B., ÖÇSOY İ.  
JOURNAL OF BIOTECHNOLOGY, vol.343, pp.96-101, 2022 (SCI-Expanded)
- X. **Investigation of ellagic acid rich-berry extracts directed silver nanoparticles synthesis and their antimicrobial properties with potential mechanisms towards Enterococcus faecalis and Candida albicans**  
Ekrikaya S., Yılmaz E., Çelik Ç., Demirbuğa S., İldiz N., Demirbaş A., Öçsoy İ.  
Journal Of Biotechnology, vol.341, pp.155-162, 2021 (SCI-Expanded)
- XI. **Comparison Study of Synthesized Red (or Blood) Orange Peels and Juice Extract-Nanoflowers and Their Antimicrobial Properties on Fish Pathogen (Yersinia ruckeri)**  
DEMİRBAŞ A.  
INDIAN JOURNAL OF MICROBIOLOGY, vol.61, no.3, pp.324-330, 2021 (SCI-Expanded)
- XII. **Heavy metal concentration levels and biometric analysis of Liocarcinus depurator from different locations on the western Black Sea coast of Turkey**  
Demirbaş A., Gözler A. M., Baytaşoğlu H., Kaya C.  
ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.193, no.6, 2021 (SCI-Expanded)
- XIII. **Green synthesis of silver nanoparticles using aqueous extracts of three Sideritis species from Turkey and evaluations bioactivity potentials**  
Ceylan R., DEMİRBAŞ A., ÖÇSOY İ., Aktumsek A.  
SUSTAINABLE CHEMISTRY AND PHARMACY, vol.21, 2021 (SCI-Expanded)
- XIV. **One step preparation of stable gold nanoparticle using red cabbage extracts under UV light and its catalytic activity**  
Unal I. S., Demirbas A., Onal I., ILDIZ N., ÖÇSOY İ.  
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY B-BIOLOGY, vol.204, 2020 (SCI-Expanded)
- XV. **Preparation of biocompatible and stable iron oxide nanoparticles using anthocyanin integrated hydrothermal method and their antimicrobial and antioxidant properties**  
Demirbas A., Kislakci E., Karaagac Z., Onal I., ILDIZ N., ÖÇSOY İ.  
MATERIALS RESEARCH EXPRESS, vol.6, no.12, 2019 (SCI-Expanded)
- XVI. **Synthesis of Long-Term Stable Gold Nanoparticles Benefiting from Red Raspberry (Rubus idaeus), Strawberry (Fragaria ananassa), and Blackberry (Rubus fruticosus) Extracts-Gold Ion Complexation and Investigation of Reaction Conditions**  
Demirbas A., Buyukbezirci K., Celik C., Kislakci E., Karaagac Z., Gokturk E., KATI A., ÇİMEN B., YILMAZ V., ÖÇSOY İ.  
ACS OMEGA, vol.4, no.20, pp.18637-18644, 2019 (SCI-Expanded)
- XVII. **Biosynthesis of silver nanoparticles and their versatile antimicrobial properties**  
SOME S., SEN I. K., MANDAL A., ASLAN T., ÜSTÜN Y., Yılmaz E. S., KATI A., Demirbas A., MANDAL A. K., ÖÇSOY İ.  
MATERIALS RESEARCH EXPRESS, vol.6, no.1, 2019 (SCI-Expanded)
- XVIII. **Cryoconcentration of flavonoid extract for enhanced biophotovoltaics and pH sensitive thin films**  
Demirbas A., Groszman K., PAZMINO-HERNANDEZ M., VANEGAS D. C., WELT B., Hondred J. A., Garland N. T., Claussen J. C., MCLAMORE E. S.  
BIOTECHNOLOGY PROGRESS, vol.34, no.1, pp.206-217, 2018 (SCI-Expanded)
- XIX. **Formation of functional nanobiocatalysts with a novel and encouraging immobilization approach and their versatile bioanalytical applications**  
Celik C., Tasdemir D., Demirbas A., KATI A., Gul O. T., ÇİMEN B., ÖÇSOY İ.  
RSC ADVANCES, vol.8, no.45, pp.25298-25303, 2018 (SCI-Expanded)
- XX. **Anthocyanins-rich berry extracts directed formation of Ag NPs with the investigation of their antioxidant and antimicrobial activities**  
Demirbas A., YILMAZ V., ILDIZ N., Baldemir A., ÖÇSOY İ.

JOURNAL OF MOLECULAR LIQUIDS, vol.248, pp.1044-1049, 2017 (SCI-Expanded)

- XXI. **Formation of Matricaria chamomilla extract-incorporated Ag nanoparticles and size-dependent enhanced antimicrobial property**

Dogru E., Demirbas A., Altinsoy B., DUMAN F., ÖÇSOY İ.

JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY B-BIOLOGY, vol.174, pp.78-83, 2017 (SCI-Expanded)

- XXII. **Green synthesis with incorporated hydrothermal approaches for silver nanoparticles formation and enhanced antimicrobial activity against bacterial and fungal pathogens**

ÖÇSOY İ., Demirbas A., MCLAMORE E. S., Altinsoy B., ILDIZ N., Baldemir A.

JOURNAL OF MOLECULAR LIQUIDS, vol.238, pp.263-269, 2017 (SCI-Expanded)

- XXIII. **Biosynthesis of red cabbage extract directed Ag NPs and their effect on the loss of antioxidant activity**

Demirbas A., Welt B. A., Öçsoy I.

MATERIALS LETTERS, vol.179, pp.20-23, 2016 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Comparison Study of Morphologic Structures of Synthesized Hybrid Nanoflowers Using Goldenberry / Cape gooseberry (*Physalis peruviana*) and Their Antimicrobial Activity on Food Pathogens**

Demirbaş A.

JOURNAL OF ANATOLIAN ENVIRONMENTAL AND ANIMAL SCIENCES, vol.6, no.2, pp.157-161, 2021 (Peer-Reviewed Journal)

- II. **Designing New Multifunctional Food Pads Using Red Cabbage (*Brassica oleracea*) Extract**

Demirbaş A.

JOURNAL OF ANATOLIAN ENVIRONMENTAL AND ANIMAL SCIENCES, vol.5, no.3, pp.419-424, 2020 (Peer-Reviewed Journal)

- III. **Antimicrobial and catalytic activity of citrus fruits peels mediated nano-flowers**

Demirbaş A.

J. Biol. Macromol., vol.20, no.2, pp.41-51, 2020 (Peer-Reviewed Journal)

- IV. **Red Cabbage Extracts as Inhibitors of Lipid Oxidation in Fresh Minced Tilapia (Nile perch) During Refrigerated Storage**

Demirbaş A.

Turkish Journal of Agriculture - Food Science and Technology (TURJAF), vol.8, no.1, pp.81-88, 2020 (Peer-Reviewed Journal)

- V. **Effect of Red Cabbage Extract on Minced Nile Perch Fish Patties Vacuum Packaged in High and Low Oxygen Barrier Films**

DEMİRBAŞ A., yağız y., boz z., welt b. a., McLamore E. S., marshall m., pelletier w.

Journal of Applied Packaging Research, vol.9, pp.35-46, 2016 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Synthesis of Metallic and Metal Oxide Nanomaterials**

Demirbaş A., Karaytug T., Arabacı İstifli N., Yilmaz E. S., Ocsoy I.

in: Green Synthesis of Nanomaterials for Bioenergy Applications, Neha Srivastava, Manish Srivastava, P. K. Mishra, Vijai Kumar Gupta, Editor, John Wiley & Sons, West Sussex, UK, New Jersey, pp.99-123, 2020

- II. **Nanomaterials for Enzyme Immobilization**

Arabacı İstifli N., Karaytug T., Demirbaş A., Ocsoy I., Kati A.

in: Green Synthesis of Nanomaterials for Bioenergy Applications, Neha Srivastava, Manish Srivastava, P. K. Mishra, Vijai Kumar Gupta, Editor, John Wiley & Sons, West Sussex, UK, New Jersey, pp.165-190, 2020

## Refereed Congress / Symposium Publications in Proceedings

- I. **BIOSYNTHESIS OF FUMARIA CAPREOLATA EXTRACT NANOFLOWERS**  
DEMİRBAŞ A.  
VI-INTERNATIONAL EUROPEAN CONFERENCE ON INTERDISCIPLINARY SCIENTIFIC RESEARCH, Bükreş, Romania, 26 - 27 August 2022
- II. **BIOSYNTHESIS OF GOLD NANOPARTICLES UNDER UV LIGHT**  
DEMİRBAŞ A.  
VI-INTERNATIONAL EUROPEAN CONFERENCE ON INTERDISCIPLINARY SCIENTIFIC RESEARCH, Bükreş, Romania, 26 - 27 August 2022
- III. **Biosynthesis Of Silver Nanoparticles Under Uv Light**  
DEMİRBAŞ A.  
2. INTERNATIONAL MEDITERRANEAN SCIENTIFIC RESEARCH AND INNOVATION CONGRESS, Girne, Cyprus (Kktc), 30 - 31 July 2022
- IV. **BIOSYNTHESIS OF NANOFLOWERS USING FUMARIA PARVIFLORA EXTRACT**  
DEMİRBAŞ A.  
2. INTERNATIONAL MEDITERRANEAN SCIENTIFIC RESEARCH AND INNOVATION CONGRESS, Girne, Cyprus (Kktc), 30 - 31 July 2022
- V. **EUPHORBIA RIGIDA EXTRACT GUIDED SILVER NANOPARTICLES AND THEIR ANTIMICROBIAL PROPERTIES**  
DEMİRBAŞ A.  
9. INTERNATIONAL GAP SUMMIT SCIENTIFIC RESEARCH CONGRESS, Adıyaman, Turkey, 1 - 03 July 2022
- VI. **ARBUTUS ANDRACHNE EXTRACT GUIDED SILVER NANOPARTICLES AND THEIR ANTIMICROBIAL PROPERTIES**  
DEMİRBAŞ A.  
9. INTERNATIONAL GAP SUMMIT SCIENTIFIC RESEARCH CONGRESS, Adıyaman, Turkey, 1 - 03 July 2022
- VII. **Synthesis and Characterization of Flower Shaped Magnetic Nanostructures From Amino Acids (Glycin and Phenilalanin)**  
DEMİRBAŞ A., KARSLI B.  
6th International Zeugma Conference on Scientific Researches, Gaziantep, Turkey, 19 - 20 June 2021, pp.156-160
- VIII. **SYNTHESIS OF COPPER(II) SULFATE PENTAHYDRATE (CUSO<sub>4</sub>·5H<sub>2</sub>O) HYBRID ORGANIC-INORGANIC NANOFLOWERS USING TANGERINE (CITRUS RETICULATA L. VAR.) AND EVALUATION OF ITS PEROXIDASE MIMIC ACTIVITIES**  
DEMİRBAŞ A.  
6th INTERNATIONAL ZEUGMA CONFERENCE ON SCIENTIFIC RESEARCHES, Turkey, 19 - 20 June 2021
- IX. **EVALUATION OF EXTRACTION CONDITIONS OF PUMPKIN PULP (CUCURBITA MAXIMA)**  
DEMİRBAŞ A.  
2ND INTERNATIONAL CONFERENCE ON GASTRONOMY, NUTRITION AND DIETETICS, Turkey, 19 - 20 June 2021
- X. **ZENGİN BESİN KAYNAKLARI İLE KURUTULMUŞ BALKABAĞI PESTİLİ**  
DEMİRBAŞ A.  
GANUD 2ND INTERNATIONAL CONFERENCE ON GASTRONOMY, NUTRITION AND DIETETICS, Gaziantep, Turkey, 19 - 20 June 2021
- XI. **Çilek Ekstresinden Tek Basamakta Sentezlenen Gümüş Nanopartiküllerin Antimikrobiyal Özelliklerinin Endodontik Patojenler Üzerine Etkisi**  
Yılmaz E., DEMİRBAŞ A., Celik C., Ildiz N., Demirbuga S., Ocsoy I.  
ERDIS 2020, Kayseri, Turkey, 26 February - 29 May 2020, pp.160-161
- XII. **Preparation of Ag@GO nanocomposite using the Antarctic endemic lichenized fungus Umbilicaria antarctica extract and investigation of its antimicrobial properties.**  
HALICI M. G., KOCA F. D., ÖÇSOY İ., DEMİRBAŞ A.  
Nanotechnology and Nanomaterials (NANO-2019), Lviv, Ukraine, 27 - 30 September 2019
- XIII. **Biosynthesis of Ag@GO nanocomposite using the colchicine and evaluation of its antimicrobial**

**properties.**

DEMİRBAŞ A., ÖÇSOY İ., Koca F. D., Halici M. G.

Nanotechnology and Nanomaterials (NANO-2019), Lviv, Ukraine, 27 - 30 August 2019

- XIV. **Synthesis of Orange Peel Extract Nanoflowers and Its Antimicrobial Properties on Bacterial Fish Pathogen (*Yersinia ruckeri*)**  
DEMİRBAŞ A.  
5 th ICNES (International Congress on Natural and Engineering Sciences), İstanbul, Turkey, 27 - 30 August 2019
- XV. **Antimicrobial and Peroxidase-mimicking Activity of Nano-flowers Synthesized Using Sweet Lemon and Lemon peels**  
DEMİRBAŞ A.  
5 th International Agriculture Congress, İstanbul, Turkey, 21 - 24 August 2019
- XVI. **Çiçek Şekli Hibrid Nano Yapıların Standard Bitki Molekülleri ile Sentezlenmesi ve Antimikrobiyal, Peroksidaz Benzeri Aktivitelerinin İncelenmesi**  
DEMİRBAŞ A.  
3rd INTERNATIONAL MEDITERRANEAN SCIENCE AND ENGINEERING CONGRESS, Turkey, 24 - 26 October 2018
- XVII. **Synthesis of mannanase hybrid nanocomposite and investigation of its stain removal performance.**  
ÖÇSOY İ., YILMAZ V., ÇİMEN B., DEMİRBAŞ A.  
3rd International Mediterranean Science and Engineering Congress (IMSEC), 24 - 26 October 2018
- XVIII. **Synthesis of Mannase Hybrid Nanocomposite and Investigation of Its Stain Removal Performance**  
ÖÇSOY İ., YILMAZ V., ÇİMEN B., DEMİRBAŞ A.  
3rd International Mediterranean Science and Engineering Congress (IMSEC 2018), 24 - 26 October 2018
- XIX. **Çiçek Şekli Hibrid Nano Yapıların Standard Bitki Molekülleri ile Sentezlenmesi ve Antimikrobiyal, Peroksidaz Benzeri Aktivitelerinin İncelenmesi**  
DEMİRBAŞ A.  
3rd International Mediterranean Science and Engineering Congress (IMSEC 2018), Adana, Turkey, 24 - 26 October 2018, pp.1-5
- XX. **Green synthesis of Silver Nanoparticles using Berries ((Strawberry (*Fragaria vesca*), Raspberry (*Rubus idaeus*), Blackberry (*Rubus fruticosus*)) and evaluation of their antimicrobial activity**  
DEMİRBAŞ A.  
2nd International Mediterranean Science Engineering Congress, Adana, Turkey, 25 - 27 October 2017, pp.21
- XXI. **Green Synthesis of Ag NPs Using Extract of Red Cabbage (*Brassica oleracea* var. *capitata*) and Their Effect on Antioxidant Activity**  
DEMİRBAŞ A., ÖÇSOY İ., WELT B. A.  
NANOTR-13 13th Nanoscience and Nanotechnology Conference, 22 October 2017 - 25 January 2018
- XXII. **Effect of Red Cabbage Extract on Minced Nile Perch Fish Patties Vacuum Packaged in High and Low Oxygen Barrier Films**  
DEMİRBAŞ A.  
2nd International Mediterranean Science Engineering Congress, Adana, Turkey, 25 - 27 October 2017, pp.22
- XXIII. **DETERMINATION OF QUALITY AND SHELF-LIFE EXTENSION OF REFRIGERATED MINCED TILAPIA (NILE PERCH) USING RED CABBAGE (BRASSICA OLERACEA) EXTRACTS**  
DEMİRBAŞ A., WELT B. A., Marshall M.  
INESEC 2017 INTERNATIONAL ENGINEERING CONFERENCE (IEC), 19 - 21 October 2017
- XXIV. **Matricaria chamomilla extract mediated synthesis of silver nanoparticle and its antibacterial activity**  
DEMİRBAŞ A., DOĞRU E., ALTINSOY B., DUMAN F., ÖÇSOY İ.  
INESEC 2017 INTERNATIONAL ENGINEERING CONFERENCE (IEC), 19 - 21 October 2017

## **Other Publications**

- Red Cabbage Extract as a Natural Antioxidant with Application to Packaged Fresh Tilapia and Enhancement of Silver and Iron Nanoparticles**

DEMİRBAŞ A.  
Other, pp.1-99, 2016

## Supported Projects

Demirbaş A., TUBITAK Project, Fabrication, Optimization, Characterization and Application to Fish Meat as a Food Model of Gelatin (from fish waste) nanofibers encapsulated with Bergamot oil (Citrus bergamia Risso) /Cyclodextrin Inclusion Complexes, 2025 - 2026

Demirbaş A., Karşlı B., Akçay Teker Z., Örük Ö., Maalej A., Maleej H., Project Supported by Higher Education Institutions, Development of nanofilms containing antioxidant "rutin"-based silver nanoparticles using gelatin derived from fish waste; study of their efficacy, characterization and application in fish flesh as a model., 2024 - 2025

Demirbaş A., Akçay Teker Z., Karşlı B., TUBITAK Project, Producing domestic protein powder and gelatin from fish skin and bones in a zero-waste manner, 2024 - 2025

Kutrup B., Duman Erbaş E., Çelik Uzun S., Demirbaş A., Altuntaş H., Project Supported by Higher Education Institutions, Aronia melonocarpa aracılı metalik nanopartikül biyosentezinin model organizma Galleria mellonella larvalarında in vivo antibakteriyel ilaç etkinliğinin belirlenmesi, 2023 - 2025

Demirbaş A., Maalej A., Project Supported by Public Organizations in Other Countries, Thermotolerant cyanobacteria: a promising source of bioactive molecules for cosmetic and pharmaceutical applications., 2023 - 2024

Demirbaş A., Karşlı B., TUBITAK Project, Liman Yengecinden (Liocarcinus Depurator) Elde Edilen Kitosan ile Antimikrobiyal Nanofilm Sentezlenmesi ve Gıda Üzerinde Migrasyonun Araştırılması, 2022 - 2023

DEMİRBAŞ A., KARSLI B., Project Supported by Higher Education Institutions, Liocarcinus depurator kullanılarak metalik nanokompozitlerin sentezlenmesi antimikrobiyal antifungal antioksidant ve katalitik aktivitelerinin incelenmesi, 2020 - 2023

DEMİRBAŞ A., ÖÇSOY İ., KARSLI B., Project Supported by Higher Education Institutions, Aminoasitlerden (Glisin, Fenilalanin) çiçek şekilli manyetik nanoyapıların sentezlenmesi katalitik aktivitesinin ve endüstriyel boyaların giderilmesi amacı ile kullanılabilirliğinin araştırılması, 2020 - 2021

Demirbaş A., Oral M., Baytaşoğlu H., TUBITAK Project, Temiz Deniz, Temiz Dünya!, 2019 - 2020

Demirbaş A., Yılmaz E., Satıcıoğlu İ. B., Öçsoy İ., Koca F. D., Çimen B., Demirezen Yılmaz D., Project Supported by Higher Education Institutions, Kolşisin ve hirudin etken maddeleri ile hibrit nanomalzemelerin sentezlenmesi katalitik aktivite ve balık patojenlerine karşı antimikrobiyal özelliklerinin belirlenmesi, 2018 - 2020

Demirbaş A., Öçsoy İ., Katı A., Taşdemir D., Öçsoy M., İldız N., Kılıç A., Çimen B., Yılmaz V., Çelik Ç., Project Supported by Higher Education Institutions, Nanoflower Sentezi ile Enzim Enkapülasyonu ve Performansta Yüksek Bitki Ekstresi Katkılı Granüle Enzim Oluşturulması, 2018 - 2020

DEMİRBAŞ A., KAÇAR Z. Z., Project Supported by Higher Education Institutions, Kırmızı lahana Brassica oleracea var capitata L ekstraktı kullanılarak metalik çiçek şekilli hibrid nano yapıların sentezlenmesi mikrobiyal katalitik aktivitelerinin incelenmesi ve bu yapıların pH indikatör fonksiyonu yüklenmiş absorban pede uygulanması, 2018 - 2020

Demirbaş A., TUBITAK Project, Synthesis of Polydopamine and Some Hybrid Metallic Nanostructures with Antibiotics as Model Drugs and Investigation of Their Antibacterial Properties, 2019 - 2019

Demirbaş A., Öçsoy İ., İldız N., Ülgen A., Çelik Ç., Taşdemir D., Öçsoy M., Yılmaz V., Project Supported by Higher Education Institutions, Model Protein Enzim ve Bitki Ekstresi Bileşenlerinden Çiçek Benzeri Şekilli Hibrit Nano Yapıların Sentezlenmesi ve Organik Çözücülere Yüksek Sıcaklıklara Dayanıklılığının Araştırılması ve Antimikrobiyal Antioksidan Özelliklerinin İncelenmesi, 2018 - 2019

Demirbaş A., Çimen B., Çimen L., Project Supported by Higher Education Institutions, TAURİN TEMELLİ ORGANİKİNOGRNAİK HİBRİD NANO YAPILARIN SENTEZLENMESİ VE ANTİOKSİDAN VE ENZİM BENZERİ AKTİVİTELERİNİN İNCELENMESİ, 2018 - 2019

DEMİRBAŞ A., ER A., KAÇAR Z. Z., Project Supported by Higher Education Institutions, Çiçek şekilli hibrid nano yapıların standard bitki molekülleri ile sentezlenmesi ve bunların antimikrobiyal, peroksidaz benzeri aktivitelerinin incelenmesi, 2018 - 2018

## Patent

Demirbaş A., Çok Fonksiyonlu Bir Gıda Pedi, Patent, CHAPTER A Human Needs, The Invention Registration Number: 2020/16794 , Standard Registration, 2022

Demirbaş A., Zengin besin içeriğine sahip bir balkabağı pestili., Utility Model, CHAPTER A Human Needs, The Invention Registration Number: TR 2019 09465 Y , Standard Registration, 2021

## Student Project

R & D Project, TÜBİTAK-2209-A: Çay atıkları özütleri kullanılarak sentezlenen gümüş nanoparçacıkların antimikrobiyal etkisinin balık yetiştiriciliği sektöründe rastlanan balık hastalıklarına antibiyotik kullanmadan alternatif bir çözüm sunma üzerine katkı sağlayacağı yönünde çalışmalar yapmaktır., Recep Tayyip Erdogan University, Su Ürünleri Fakültesi, Su Ürünleri Avlama ve İşleme Teknolojisi Bölümü, Turkey, 2023 - 2024

R & D Project, TÜBİTAK 2209-A: Şekerci Boyası (Phytolacca Americana) Bitkisinden Elde Edilen Özüt ile Gümüş Nanoparçacıklar Sentezlenip Morfolojik Yapılarının ve Fotokatalitik Aktivitelerinin İncelenmesi, Recep Tayyip Erdogan University, Su Ürünleri Fakültesi, Su Ürünleri Avlama ve İşleme Teknolojisi Bölümü, Turkey, 2023 - 2024

## Metrics

Publication: 55

Citation (WoS): 350

Citation (Scopus): 371

H-Index (WoS): 10

H-Index (Scopus): 10

## Congress and Symposium Activities

5 th ICNES (International Congress on Natural and Engineering Sciences), Attendee, Turkey, 2019

Nanotechnology and Nanomaterials (NANO 2019), Attendee, Ukraine, 2019

3rd International Mediterranean Science and Engineering Congress (IMSEC 2018), Attendee, Adana, Turkey, 2018

NanoTR 13, Attendee, Antalya, Turkey, 2017

2nd International Mediterranean Science and Engineering Congress (IMSEC 2017), Attendee, Adana, Turkey, 2017

The International Engineering Conference (IEC 2017), Attendee, Turkey, 2017

Institute of Food Technologists (IFT 2016), Attendee, Illinois, United States Of America, 2016

## Scholarships

National Postdoctoral Research Scholarship Programme, TUBITAK, 2025 - Continues

National Postdoctoral Research Scholarship Programme, TUBITAK, 2018 - 2019

YLSY - Yurtdışı Dil Eğitimi ve Lisansüstü Eğitim, Ministry of Education, 2010 - 2016