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International Researcher IDs

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Education Information

Post Doctorate, Heinrich Heine Universitaet Düsseldorf, Mathematics and Natural Sciences, Chemistry/Biochemistry, Germany 2021 - 2022

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Biyomühendislik, Turkey 2014 - 2018

Postgraduate, Van Yüzüncü Yıl University, Fen Fakültesi, Biyoloji/Zooloji, Turkey 2009 - 2012

Undergraduate, Marmara University, Ataturk Faculty Of Education, Biyoloji Öğretmenliği, Turkey 2000 - 2005

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

Entrepreneurship, TÜBİTAK 1512 BİGG 1. Aşama Uygulayıcı Kuruluş Eğitimi, YILDIZ TEKNOPARK, 2020

Entrepreneurship, İnovasyonda Kadın " 5. Girişimcilik Kampı", KADEM- TÜBİTAK-BİLİŞİM VADİSİ-TOBB ETÜ, 2020

Entrepreneurship, Entrepreneurship and Innovation within Life Sciences, Smile Incubator, Lund/SWEDEN, 2020

Vocational Training, Protein Expression in Mammalian Cell Lines, Ecozyme AB (Biotechnology company, Sweden), 2019

Vocational Course, PCR ürünü klonlama, plazmit izolasyonu, Agaroz jel elektroforezi, BLAST a giriş, Biyoakademi (Ankara), 2017

Vocational Course, Yaşam Bilimleriyle Uğraşanlar için Temel Biyoistatistik, Biyoakademi (Ankara), 2017

Vocational Training, Proteomics Bioinformatics workshop (Entry level), Acıbadem Mehmet Ali Aydınlar Üniversitesi, 2016

Vocational Training, Ökaryotik tek hücreliler üzerine moleküler tekniklerle klonlama çalışmaları, Smith College, 2011

Dissertations

Doctorate, Investigation of Nicotinamide Adenine Dinucleotide Phosphate Dependent Formate Dehydrogenase Enzymes, Yildiz Technical University, Fen Bilimleri Enstitüsü, Biyomühendislik, 2018

Postgraduate, Pleuronema (Protista, Ciliophora) Türleri üzerine Morfolojik ve Taksonomik Araştırmalar, Van Yüzüncü

Research Areas

Biotechnology, Protein Engineering, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Van Yüzüncü Yil University, Fen Fakültesi, Biyoloji Bölümü, 2023 - Continues

Research Assistant PhD, Van Yüzüncü Yil University, Fen Fakültesi, Biyoloji Bölümü, 2018 - 2023

Research Assistant, Van Yüzüncü Yil University, Fen Fakültesi, Biyoloji Bölümü, 2009 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Identification of redox activators for continuous reactivation of glyoxal oxidase from *Trametes versicolor* in a two-enzyme reaction cascade**
Alpdağtaş S., Jankowski N., Urlacher V. B., Koschorreck K.
Scientific Reports, vol.14, no.1, 2024 (SCI-Expanded)
- II. **The challenges of using NAD(+)-dependent formate dehydrogenases for CO₂ conversion**
Alpdağtaş S., Turunen O., Valjakka J., Binay B.
CRITICAL REVIEWS IN BIOTECHNOLOGY, vol.42, no.6, pp.953-972, 2022 (SCI-Expanded)
- III. **Functional role of crosslinking in alginate scaffold for drug delivery and tissue engineering: A review**
Aguero L., Alpdağtaş S., İlhan E., Zaldivar-Silva D., Gündüz O.
EUROPEAN POLYMER JOURNAL, vol.160, 2021 (SCI-Expanded)
- IV. **Nadp+-dependent formate dehydrogenase: a review**
Alpdağtaş S., Binay B.
Biocatalysis and Biotransformation, vol.39, pp.260-268, 2021 (SCI-Expanded)
- V. **Tailoring of recombinant FDH: effect of histidine tag location on solubility and catalytic properties of *Chaetomium thermophilum* formate dehydrogenase (CtFDH)**
Esen H., Alpdağtaş S., Cakar M. M., Binay B.
PREPARATIVE BIOCHEMISTRY & BIOTECHNOLOGY, vol.49, no.5, pp.529-534, 2019 (SCI-Expanded)
- VI. **DMSO tolerant NAD(P)H recycler enzyme from a pathogenic bacterium, *Burkholderia dolosa* PC543: effect of N-/C-terminal His Tag extension on protein solubility and activity**
Alpdağtaş S., Celik A., Ertan F., Binay B.
ENGINEERING IN LIFE SCIENCES, vol.18, no.12, pp.893-903, 2018 (SCI-Expanded)
- VII. **Discovery of an acidic, thermostable and highly NADP(+) dependent formate dehydrogenase from *Lactobacillus buchneri* NRRL B-30929**
Alpdağtaş S., YÜCEL S., Kapkac H. A., LİU S., Binay B.
BIOTECHNOLOGY LETTERS, vol.40, no.7, pp.1135-1147, 2018 (SCI-Expanded)
- VIII. **Investigation of ischemia modified albumin, oxidant and antioxidant markers in acute myocardial infarction**
Hazini A., Cemek M., İŞILDAK İ., Alpdağtaş S., Onul A., Senel U., Kocaman T., Dur A., Iraz M., Uyarel H.
POSTEPY W KARDIOLOGII INTERWENCYJNEJ, vol.11, no.4, pp.298-303, 2015 (SCI-Expanded)
- IX. **Prevention of cyclophosphamide-induced hemorrhagic cystitis by resveratrol: a comparative experimental study with mesna**
Keles I., Bozkurt M. F., Cemek M., Karalar M., Hazini A., Alpdağtaş S., Keles H., Yildiz T., Ceylan C., Buyukokuroglu M. E.

INTERNATIONAL UROLOGY AND NEPHROLOGY, vol.46, no.12, pp.2301-2310, 2014 (SCI-Expanded)

X. **Effects of food color additives on antioxidant functions and bioelement contents of liver kidney and brain tissues in rats**

Cemek M., Büyükkuroğlu M. E., Sertkaya F., Alpdağtaş S., Hazini A., Önül A., Göneş S.

Journal Of Food And Nutrition Research, vol.2, no.10, pp.686-691, 2014 (SCI-Expanded)

Articles Published in Other Journals

I. **Copper-radical oxidases: A diverse group of biocatalysts with distinct properties and a broad range of biotechnological applications**

Koschorreck K., Alpdağtaş S., Urlacher V. B.

Engineering Microbiology, vol.2, no.3, pp.100037, 2022 (Scopus)

II. **Combating COVID-19 with tissue engineering: a review**

Aydin A., Cebi G., Demirtas Z. E., Erkus H., Kucukay A., Ok M., Sakalli L., Alpdağtaş S., Gündüz O., Üstündağ C. B.

EMERGENT MATERIALS, vol.4, pp.329-349, 2021 (ESCI)

III. **Evaluation of current diagnostic methods for COVID-19**

Alpdağtaş S., İlhan E., Uysal E., Şengör M., Üstündağ C. B., Gündüz O.

APL BIOENGINEERING, vol.4, no.4, 2020 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

I. **Significance of his tail position for recombinant protein production.**

ALPDAĞTAŞ S., BİNAY B., YÜCEL S.

4. ULUSLARARASI MÜHENDSİLİK MİMARLIK VE TASARIM KONGRESİ, 23 - 24 April 2019

II. **Enzyme Based Diagnosis of Trichomonas-Caused Vaginitis**

Özaktaş T., Alpdağtaş S.

4th International Congress on Engineering, Architecture and Design , İstanbul, Turkey, 23 - 24 April 2019, pp.215

III. **Production of Engineered Formate dehydrogenase for CO2 Reduction**

Çakar M. M., Duraksoy B. B., ALPDAĞTAŞ S., Turner N., AKTAŞ F., BİNAY B.

1st EBAT, 26 - 30 October 2018

IV. **Production of Engineered Formate dehydrogenase for CO2 Reduction**

ÇAKAR M. M., DURAKSOY B. B., Alpdağtaş S., TURNER N. J., AKTAŞ F., BİNAY B.

1st EBAT Congress, Antalya, Turkey, 27 - 30 October 2018, pp.24

V. **Polyhistidine Tag Effect on Solubility and Activity of Chaetomium thermophilum Formate Dehydrogenase (CtFDH)**

ESEN H., Alpdağtaş S., ÇAKAR M. M., BİNAY B.

1st EBAT Congress, Antalya, Turkey, 27 - 30 October 2018, pp.24

VI. **Engineering and large-scale producing of formate dehydrogenase for CO2 reduction**

ÇAKAR M. M., DURAKSOY B. B., Alpdağtaş S., TURNER N. J., WOODLEY J., BİNAY B.

6th Novel Enzymes, Darmstadt, Germany, 9 - 12 September 2018, pp.7

VII. **A novel NADPH regenerator for industrial biocatalysis**

Alpdağtaş S., YÜCEL S., KAPKAÇ H. A., LİU S., BİNAY B.

Multistep enzyme catalyzed processes congress, Trondheim, Norway, 19 - 22 March 2018, pp.33

VIII. **Akut Mide Mukoza Hasarı Üzerine Okra (Abelmoschus Esculentus L.)'Nın Anti-Ülser Etkisinin Araştırılması**

CEMEK M., ORTAÇ D., KARACA T., BÜYÜKKUROĞLU M. E., ÖZDEMİR Z. Ö., KOCAMAN T., ALPDAĞTAŞ S., KARAMAN E., KONUK H. B.

7.Ulusal Veteriner Biyokimya ve Klinik Biyokimya Kongresi, Turkey, 28 - 30 May 2015

IX. **Domateste Bulunan Pestisit Kalıntılarının Giderilmesinde Doğal ve Kimyasal Çözücülerin Etkinliğinin**

Araştırılması

RASOLONJATOVO M. A., CEMEK M., SENEL U., KOCAMAN T., GÖNEŞ S., Alpdağtaş S., ORTAÇ D., KONUK H. B., KARAMAN E.

7.Ulusal Veteriner Biyokimya ve Klinik Biyokimya Kongresi, Samsun, Turkey, 28 - 30 May 2015, pp.215

- X. **Investigation of anti-ulcerogen effect of okra (*Abelmoschus esculentus* L.) on acute gastric mucosal damage**
CEMEK M., ORTAÇ D., KARACA T., BUYUKOKUROGLU M. E., ÖZDEMİR Z., KOCAMAN T., Alpdağtaş S., KARAMAN E., KONUK H. B.
7.Ulusal Veteriner Biyokimya ve Klinik Biyokimya Kongresi, Samsun, Turkey, 28 - 30 May 2015, pp.232
- XI. **Investigation of ischemia modified albumin oxidant and antioxidant markers in acute myocardial infarction**
HAZİNİ A., CEMEK M., ISILDAK I., Alpdağtaş S., ÖNÜL A., DUR A., IRAZ M., UYAREL H.
International BIO ENG?14 , Bioengineering Coference Proceeding, İstanbul, Turkey, 27 - 29 November 2014
- XII. **Effects of Food Color Additives on Antioxidant Functions and Bioelement Contents of Liver Kidney and Brain Tissues in Rats**
CEMEK M., BUYUKOKUROGLU M. E., SERTKAYA F., Alpdağtaş S., HAZİNİ A., ÖNÜL A., GÖNEŞ S.
Bioengineering Conference Proceeding. , International BIO ENG?14, İstanbul, Turkey, 27 - 29 November 2014
- XIII. **Siklofosfamidin İndüklediği Hemorajik Sistitin Resveratrol Tarafından Önlenmesi Mesna ile Karşılaştırmalı bir çalışma**
KELES I., BOZKURT M. F., CEMEK M., KARALAR M., HAZINI A., Alpdağtaş S., KELES H., YILDIZ T., CEYLAN C., BUYUKOKUROGLU M. E.
XXIII. Ulusal Üroloji Kongresi, Antalya, Turkey, 16 - 19 October 2014, pp.59
- XIV. **Pleuronema coronatum (Protista, Ciliophora, Pleuronematida) Üzerine Morfolojik ve Taksonomik Araştırmalar**
Alpdağtaş S., ŞENLER N. G., Yıldız İ.
22. Ulusal Biyoloji Kongresi, Eskişehir, Turkey, 23 - 27 June 2014, pp.1116
- XV. **Honey and propolis based wound dressing A promising biomaterial for skin wound healing**
HAZİNİ A., CEMEK M., SARI İ., ÖNÜL A., ONAT D., ALPDAĞTAŞ S.
International Symposium on Sustainable Development ISSD 2014. , Biotechnology for Sustainable Development , Sarajevo, Bosnia and Herzegovina, 15 - 18 May 2014
- XVI. **Cardiac markers and ischemia modified albumin on acute myocardial infarction**
CEMEK M., HAZINI A., ÖNÜL A., ISILDAK I., ONAT D., SARI İ., Alpdağtaş S., GÖNEŞ S.
International Symposium on Sustainable Development ISSD 2014 , Biotechnology for Sustainable Development , Sarajevo, Bosnia and Herzegovina, Sarajevo, Bosnia And Herzegovina, 15 - 18 May 2014, pp.121
- XVII. **Katı Atıklardaki Ağır metaller ve Biyoremediasyonu**
Ocak S., ATİK N., Alpdağtaş S.
International Conference of Ecosystems(ICE), Tiran, Albania, 4 - 06 June 2011

Supported Projects

Alpdağtaş S., TUBITAK Project, Linker mühendisliği ile aktif lizostafin varyantlarının tasarlanması ve biyofilm degradasyonu için lizostafin gömülü polihidroksibütirat biyomateryalinin geliştirilmesi, 2024 - 2026

Alpdağtaş S., EU Supported Other Project, COST CA21162-COZYME, Establishing a Pan-European Network on Computational Redesign of Enzymes, 2022 - 2026

Alpdağtaş S., TUBITAK Project, Pilot scale biomaterial production and application to textile product, 2024 - 2025

Alpdağtaş S., Project Supported by Other Official Institutions, Waste to Rainbow European Union's Horizon Europe, SoTecIn Factory Phase I ,Subgrantee, 2024 - 2024

Alpdağtaş S., KOSGEB, Processing of agricultural wastes with biotechnological processes and development of biodegradable and biofunctional biomaterials, 2023 - 2024

Alpdağtaş S., TUBITAK Project, Biodesign and Biofabrication, 2021 - 2023

Üstündağ C. B., Alpdağtaş S., TUBITAK Project, Production of Personalized Eardrum Patch Containing Microneedle by Digital Light Processing Method (TymPatch), , 2021 - 2023

Binay B., Alpdağtaş S., TUBITAK Project, İndirgeyici Aminasyon Aktivitesi Arttırılmış, İmmobilize Mutant L-Alanin Dehidrogenazla Alpha-Keto Asitlerden Yapay Amino Asitlerin Tek Basamakta Enzimatik Asimetrik Sentezi., 2020 - 2023

Alpdağtaş S., TUBITAK Project, Exploitation of novel fungal oxidases for added-value products, 2021 - 2022

Yücel S., Alpdağtaş S., Project Supported by Higher Education Institutions, NADP Bağımlı Format Dehidrojenaz Enzimlerinin Araştırılması., 2018 - 2019

Şenler N. G., Alpdağtaş S., Project Supported by Higher Education Institutions, Pleuronema Protista Ciliophora Cinsi Üzerine Morfolojik ve Taksonomik Araştırmalar, 2010 - 2013

Metrics

Publication: 30

Citation (WoS): 176

Citation (Scopus): 41

H-Index (WoS): 8

H-Index (Scopus): 4

Congress and Symposium Activities

Polyhistidine Tag Effect on Solubility and Activity of Chaetomium thermophilum Formate Dehydrogenase (CtFDH), Attendee, Antalya, Turkey, 2018

Production of Engineered Formate dehydrogenase for CO2 reduction, Attendee, Antalya, Turkey, 2018

Engineering and large-scale producing of formate dehydrogenase for CO2 reduction, Attendee, Darmstadt, Germany, 2018

A novel NADPH regenerator for industrial biocatalysis, Attendee, --Seçiniz--, Norway, 2018

Akut Mide Mukoza Hasarı Üzerine Okra (Abelmoschus Esculentus L.)'Nın Anti-Ülser Etkisinin Araştırılması, Attendee, Samsun, Turkey, 2015

Domateste Bulunan Pestisit Kalıntılarının Giderilmesinde Doğal ve Kimyasal Çözücülerin Etkinliğinin Araştırılması, Attendee, Samsun, Turkey, 2015

Effects of Food Color Additives on Antioxidant Functions and Bioelement Contents of Liver, Kidney and Brain Tissues in Rats, Attendee, İstanbul, Turkey, 2014

Investigation of ischemia modified albumin, oxidant and antioxidant markers in acute myocardial infarction, Attendee, İstanbul, Turkey, 2014

Siklofosamidin İndüklediği Hemorajik Sistitin Resveratrol Tarafından Önlenmesi: Mesna ile Karşılaştırmalı bir çalışma, Attendee, Antalya, Turkey, 2014

Pleuronema coronatum (Protista, Ciliophora, Pleuronematida) Üzerine Morfolojik ve Taksonomik Araştırmalar, Attendee, Eskişehir, Turkey, 2014

Cardiac markers and ischemia modified albumin on acute myocardial infarction, Attendee, Sarajevo, Bosnia And Herzegovina, 2014

Honey and propolis based wound dressing: A promising biomaterial for skin wound healing, Attendee, Sarajevo, Bosnia And Herzegovina, 2014

Katı Atıklardaki Ağır metaller ve Biyoremediasyonu, Attendee, Tiranë, Albania, 2011

Otoantikolar ve Otoimmün hastalıklar, Attendee, İstanbul, Turkey, 2003

Scholarships

2219 DOKTORA SONRASI YURTDIŞI ARAŞTIRMA BURSU, TUBITAK, 2020 - Continues

ERASMUS STAJ BURSUSU, University, 2019 - Continues

YÖK YURTDIŐI YÜKSEK LİSANS ARAŐTIRMA BURSUSU, YOK, 2011 - Continues

FARABI YURTIŐI YÜKSEK LİSANS ARAŐTIRMA BURSUSU, University, 2010 - Continues

Non Academic Experience

Technology Development Zone, Van Teknokent, Bio4life Biotech R&D INC.

BİO4LİFE BİYOTEKNOLOJİ VE ARGE AŐ. (Spin off)

HEINRICH HEINE DUSSELDORF UNİVERSİTAT (Düsseldorf/ALMANYA)

ECOZYME AB (Lund, İSVEŐ)

SMITH COLLEGE (Massachussets/USA)

KARADENİZ TEKNİK ÜNV (Trabzon /Türkiye)