

## Asst. Prof. HANDAN SARAÇ

### Personal Information

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### International Researcher IDs

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### Courses

Genel Mikrobiyoloji, Associate Degree, 2018 - 2019

Diksiyon, Associate Degree, 2018 - 2019

Bitki Fizyolojisi, Associate Degree, 2018 - 2019

Genel Mikrobiyoloji, Associate Degree, 2019 - 2020

Sağlıklı Beslenme, Associate Degree, 2018 - 2019

Botanik, Associate Degree, 2019 - 2020

Biyoteknoloji, Associate Degree, 2018 - 2019

Fitoterapi, Associate Degree, 2019 - 2020

Parfüm Bitkileri Değerlendirme Teknolojisi, Associate Degree, 2019 - 2020

Diksiyon, Associate Degree, 2018 - 2019

Staj (30 İş Günü), Associate Degree, 2018 - 2019

Sistem Analizi ve Tasarımı, Associate Degree, 2017 - 2018

Genetiği Değiştirilmiş Bitki Üretimi, Associate Degree, 2018 - 2019

Beslenme Biyokimyası, Associate Degree, 2017 - 2018

Fitoterapi, Associate Degree, 2018 - 2019

Bitki Fizyolojisi, Associate Degree, 2018 - 2019

Beslenme Biyokimyası, Associate Degree, 2017 - 2018

Belirsiz, Associate Degree, 2016 - 2017

Davranış Bilimleri, Associate Degree, 2016 - 2017

Davranış Bilimleri, Associate Degree, 2016 - 2017

Genetiği Değiştirilmiş Bitki Üretimi, Associate Degree, 2017 - 2018

Belirsiz, Associate Degree, 2016 - 2017

Proje Yönetimi, Associate Degree, 2016 - 2017

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

- I. **Application of chemometric modeling for ionic liquid-based ultrasonic-assisted dispersive liquid-liquid microextraction: Analysis of fosetyl-aluminum in fruit and vegetable samples**  
Haq H. U., ELİK A., DURUKAN H., SARAÇ H., DEMİRBAŞ A., Boczkaj G., GÜRSOY N., ALTUNAY N.  
Journal of Food Composition and Analysis, vol.124, 2023 (SCI-Expanded)
- II. **Application of levulinic acid-based natural deep eutectic solvents for extraction and determination of deltamethrin in food samples**  
ELİK A., DURUKAN H., SARAÇ H., DEMİRBAŞ A., ALTUNAY N.  
SUSTAINABLE CHEMISTRY AND PHARMACY, vol.30, 2022 (SCI-Expanded)

- III. **Vortex assisted magnetic ionic liquid based dispersive liquid-liquid microextraction approach for determination of metribuzin in some plant samples with UV-Vis spectrophotometer**  
ELİK A., SARAÇ H., DURUKAN H., DEMİRBAŞ A., ALTUNAY N.  
MICROCHEMICAL JOURNAL, vol.181, 2022 (SCI-Expanded)

## Articles Published in Other Journals

- I. **The Effect of Nettle (*Urtica dioica* L.), Carob (*Ceratonia siliqua* L.), and Chaste (*Vitex agnus-castus* L.) Plants on Fertility in *Caenorhabditis elegans***  
SARAC H., OZPINAR H.  
Kahramanmaraş Sütçü İmam Üniversitesi Tarım ve Doğa Dergisi, vol.27, no.4, pp.758-766, 2024 (ESCI)
- II. **Evaluation of Bioactivity of Ethanol and Water Extracts and Determination of Nutrient Concentrations of Laurel (*Laurus nobilis*) Plants Grown in İzmir Province**  
Daştan T., Saraç H., Durna Dastan S., Demirbas A.  
Cumhuriyet Science Journal, vol.45, no.2, pp.201-209, 2024 (Peer-Reviewed Journal)
- III. **Antioxidant Activity Properties of Extract of Turmeric (*Curcuma longa* L.) Plant**  
SARAÇ H., TÜZÜN B.  
Turkish Computational and Theoretical Chemistry, vol.8, no.2, pp.19-27, 2023 (Scopus)
- IV. **Could *Zingiber officinale* plant be effective against Omicron BA.2.75 of SARS-CoV-2?**  
SARAÇ H., DEMİRBAŞ A., TÜZÜN B.  
Turkish Computational and Theoretical Chemistry, vol.7, no.3, pp.42-56, 2023 (Scopus)
- V. **Determination of The Yield and Yield Parameters of Demre Sivrisi, Dogal Sarı Sivri and Dogal Carliston (*Capsicum annum* L.) Pepper Varieties Grown By Fertigation Method in Greenhouse Conditions Ve Verim Parametrelerinin Belirlenmesi**  
Demirbaş A., Durukan H., Öztük M., Saraç H.  
Turkish Journal of Agriculture - Food Science and Technology, vol.10, no.sp1, pp.2876-2881, 2022 (Peer-Reviewed Journal)
- VI. **The Effects of Different Organic and Inorganic Fertilizer Applications on Yield and Improvement of Maize Plant**  
Durukan H., Duran Z., Saraç H., Demirbaş A.  
Turkish Journal of Agriculture - Food Science and Technology, vol.10, no.sp1, pp.2835-2840, 2022 (Peer-Reviewed Journal)
- VII. **Determination of Some Nutrient Concentrations and Antioxidant Enzyme Activities of Acacia Plant Leaves (*Robinia pseudoacacia* L.) Collected from Sivas and Tokat İllelerinin Belirlenmesi**  
Saraç H., Durukan H., Demirbaş A.  
Akademik Ziraat Dergisi, vol.11, no.2, pp.311-318, 2022 (Peer-Reviewed Journal)
- VIII. **Önemli Tıbbi Bitkilerden Biri Olan *Achillea millefolium* L. (Civanperçemi) Bitkisinin Besin Elementi Konsantrasyonları ve Antioksidan Aktivitesi**  
SARAÇ H., DURUKAN H., DEMİRBAŞ A.  
Turkish Journal of Agriculture - Food Science and Technology, vol.9, no.3, pp.590-594, 2021 (Peer-Reviewed Journal)
- IX. **Farklı Dozlarda Vermikompost Uygulamasının Mısır Bitkisinin Verimine ve Besin Elementleri Alımına Etkisi**  
DURUKAN H., SARAÇ H., DEMİRBAŞ A.  
Ziraat Fakültesi Dergisi, pp.45-51, 2020 (Peer-Reviewed Journal)
- X. **Evaluation of nutrients and biological activities of kenger (*Gundellia tournefortii* L.) seeds cultivated in sivas province**  
SARAÇ H., DEMİRBAŞ A., DURNA DAŞTAN S., ATAŞ M., ÇEVİK Ö., ERUYGUR N.  
Turkish journal of agriculture-food science and technology, vol.7, pp.52-58, 2019 (Peer-Reviewed Journal)
- XI. **Determination of the effects of food preservatives benzoic acid and sodium nitrate on lifespan,**

## **fertility and physical growth in *Caenorhabditis elegans***

Saraç H., Sari M.

Journal of Survey in Fisheries Sciences , vol.6, pp.49-63, 2019 (Scopus)

- XII. **Kırmızı Gelincik (Fam: Papaveraceae, *Glaucium grandiflorum* Boiss.&Huet var. *grandiflorum*) Bitkisinin Farklı Özütlerinin Besin Elementi İçeriğinin ve In Vitro Antiproliferatif Etkilerinin Değerlendirilmesi**  
SARAÇ H., DAŞTAN T., DURUKAN H., DURNA DAŞTAN S., DEMİRBAŞ A., KARAKÖY T.  
Isparta Uygulamalı Bilimler Üniversitesi Ziraat Fakültesi Dergisi, pp.417-428, 2018 (Peer-Reviewed Journal)
- XIII. **Madımak (*Polygonum cognatum* Meissn.) Bitki Özütlerinin Besin Elementleri ve In Vitro Antikanserojen Aktiviteleri Yönünden Değerlendirilmesi**  
SARAÇ H., DAŞTAN T., DEMİRBAŞ A., DURNA DAŞTAN S., KARAKÖY T., DURUKAN H.  
Isparta Uygulamalı Bilimler Üniversitesi Ziraat Fakültesi Dergisi, pp.340-347, 2018 (Peer-Reviewed Journal)
- XIV. **Determination of the Nutritional Element Concentrations of Evelik Plant (*Rumex crispus* L.)**  
DAŞTAN T., SARAÇ H.  
Cumhuriyet Science Journal, vol.39, no.4, pp.1020-1024, 2018 (Peer-Reviewed Journal)
- XV. **THE EFFECTS OF DIFFERENT NITROGEN DOSES ON YIELD AND NUTRIENT UPTAKE OF ROCKET (*ERUCA SATIVA*) PLANT**  
YÖRÜK V., DURUKAN H., SARAÇ H., DEMİRBAŞ A., KARAKÖY T.  
SCIENTIFIC PAPERS-SERIES B-HORTICULTURE, vol.62, pp.359-365, 2018 (ESCI)
- XVI. **Sivas Ekolojik Koşullarında Yetiştirilen Yonca Çeşitlerinin Bazı Agronomik ve Kalite Özelliklerinin İncelenmesi**  
KARAKÖY T., SARAÇ H.  
Türk Tarım ve Doğa Bilimleri Dergisi, vol.5, no.4, pp.620-627, 2018 (Peer-Reviewed Journal)

## **Books & Book Chapters**

- I. **Epigenetics and Obesity**  
Saraç H.  
in: Epigenetics Beyond the Genetics and Medicine, Sevgi Durna Daştan, Nazan Yurtcu, Editor, Nova science publishers, New York, pp.165-175, 2022
- II. **BIOACTIVE COMPONENTS AND BIOLOGICAL ACTIVITIES OF THE CARDAMOM (*Elettaria cardamomum* L.) PLANT**  
Saraç H.  
in: RESEARCH & REVIEWS IN SCIENCE AND MATHEMATICS, AKGÜL HASAN, KÜTÜK MURAT, Editor, Gece Publishing, Ankara, pp.91-108, 2021
- III. **DETERMINATION OF SOME NUTRIENT CONCENTRATIONS AND ANTIOXIDANT ENZYME ACTIVITIES OF NATURALLY GROWN SPINACH (*Spinacia oleracea* L.) PLANT IN FIELD CONDITIONS**  
SARAÇ H., DURUKAN H., DEMİRBAŞ A.  
in: Mathematics and Natural Sciences Research and Theory, Karapınar Rıdvan, Editor, Livre de Lyon, Lyon, pp.33-42, 2021
- IV. **NUTRIENT CONCENTRATIONS OF SOME MEDICINAL AND AROMATIC PLANTS CONSUMED AS FUNCTIONAL FOOD**  
SARAÇ H., DURUKAN H., DEMİRBAŞ A.  
in: Research & Reviews in Science and Mathematics- II, AKGÜL HASAN, AKSOY AHMET, Editor, Gece Kitaplığı, Ankara, pp.34-46, 2021

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **DETERMINATION OF THE ACTIVITIES OF HORSE CHESTNUT (*Aesculus hippocastanum* L.) EXTRACT**

## AGAINST LIVER CANCER PROTEINS

SARAÇ H., TÜZÜN B.

International Antalya Scientific Research and Innovative Studies Congress, 18 - 21 December 2021

- II. **ACTIVITIES OF DANDELION (*Taraxacum officinale*) EXTRACT AGAINST BREAST CANCER PROTEINS**  
DURUKAN H., TÜZÜN B., SARAÇ H., DEMİRBAŞ A.  
International Antalya Scientific Research and Innovative Studies Congress, 18 - 21 December 2021
- III. **Activities of *Mentha pulegium* extract against breast cancer proteins**  
SARAÇ H., TÜZÜN B.  
1st International Conference on Applied Engineering and Natural Sciences, Konya, Turkey, 1 - 03 November 2021
- IV. **In vitro Cytotoxic Activities of Different Extracts of *Glaucium grandiflorum* Boiss.&Huet var. *grandiflorum* Plants**  
SARAÇ H., DAŞTAN T., KAYA Ş., DURNA DAŞTAN S., ÇEVİK Ö.  
Webinar on Life Sciences (International congress on life sciences), United States Of America, 26 - 28 January 2021
- V. **İzmir İlinde Park ve Bahçelerde Süs Bitkisi Olarak Yetiştirilen Defne (*Laurus nobilis*) Bitkisinin Etanol ve Su Özütlerinin Biyoaktivitelerinin Değerlendirilmesi ve Besin Elementi İçeriği**  
DAŞTAN T., SARAÇ H., DURNA DAŞTAN S., DEMİRBAŞ A.  
TARLA BİTKİLERİ KONGRESİ, Antalya, Turkey, 28 - 31 October 2019
- VI. **The application of different organic material and mineral matter in tomato plant**  
Saraç H., Durukan H., Demirbaş A.  
2nd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2019), Ankara, Turkey, 28 - 29 June 2019, pp.1238-1243
- VII. **The Effects Of Different Cadmium Doses On Yield And Nutrient Uptake Of *Stevia rebaudiana* Plant**  
Saraç H., Demirbaş A.  
International Black Sea Coastline Countries Symposium, Batumi, Georgia, 2 - 05 May 2019, pp.134-141
- VIII. **DETERMINATION OF THE EFFECTS OF FOOD PRESERVATIVES BENZOIC ACID AND SODIUM NITRATE ON LIFESPAN, FERTILITY AND PHYSICAL GROWTH IN *Caenorhabditis elegans***  
Saraç H., Sari M.  
INTERNATIONAL BLACK SEA COASTLINE COUNTRIES SYMPOSIUM May 2-5, 2019 Batumi - GEORGIA, Batumi, Georgia, 2 - 05 May 2019, pp.34-35
- IX. **Nutrient Composition And In Vitro Anti-Carcinogenic Activity Of Knotweed (*Polygonum Cognatum* Meissn.) Plant Extracts**  
SARAÇ H., DAŞTAN T., DURUKAN H., DURNA DAŞTAN S., DEMİRBAŞ A., KARAKÖY T.  
The 1st International Congress On Agricultural Structures And Irrigation, 10 - 13 August 2018
- X. **Nutrient Composition and In Vitro Anti-Proliferative Effects of Different Extracts of Red Poppy (Fam: *Papaveraceae*, *Glaucium Grandiflorum* Boiss.&Huet Var. *Grandiflorum*) Plants**  
Saraç H., Daştan T., Durukan H., Durna Daştan S., Demirbaş A.  
THE 1st INTERNATIONAL CONGRESS ON AGRICULTURAL STRUCTURES AND IRRIGATION, Antalya, Turkey, 26 - 28 September 2018, pp.678
- XI. **Determination of Nutrient Element Content of Evelik (*Rumex* sp.) Plant**  
Daştan T., Saraç H.  
ESER ANALİZ KONGRESİ ESAN 2018(iTAC2018), Sivas, Turkey, 20 - 23 June 2018, pp.93

## Supported Projects

Durna Daştan S., Durna Y. M., Saraç H., Karan T., Baral İ., Yurtcu N., EU Supported Other Project, Emerging Approaches in Epigenetics, 2022 - 2023

Sari M., Saraç H., Project Supported by Higher Education Institutions, *Pseudomonas putida* NRRL B 13 Suşu Tarafından Benzoik Asidin Biyolojik Yıkımını Sağlayan Enzimleri Kodlayan Plazmitlerin Stabiliteilerinin Belirlenmesi F 366 nolu Cumhuriyet Üniversitesi Bilimsel Araştırma Projesi, 2012 - 2013

## **Metrics**

Publication: 36

Citation (WoS): 1

Citation (Scopus): 11

H-Index (WoS): 1

H-Index (Scopus): 3