

## Res. Asst. PhD ERDİ CAN AYTAR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAU-5925-2021

ScopusID: 57219414682

Yoksis Researcher ID: 333494

### Education Information

Doctorate, Ondokuz Mayıs University, Lisansüstü Eğitim Enstitüsü, Biyoloji Anabilim Dalı, Turkey 2019 - 2024

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Biyoloji (YI) (Tezli), Turkey 2013 - 2016

Undergraduate, Aydın Adnan Menderes University, Fen-Edebiyat Fakültesi, Biyoloji Bölümü, Turkey 2009 - 2013

### Dissertations

Postgraduate, Suillus luteus (L.) Roussel makromantarının antioksidan aktivitesi ve sitotoksik etkisinin belirlenmesi, Gazi University, Fen Bilimleri Enstitüsü, Biyoloji (YI) (Tezli), 2016

### Research Areas

Health Sciences, Natural Sciences

### Academic Titles / Tasks

Research Assistant, Usak University, ZİRAAT FAKÜLTESİ, Bahçe Bitkileri Bölümü, 2023 - Continues

Research Assistant, Ondokuz Mayıs University, Fen-Edebiyat Fakültesi, Biyoloji Bölümü, 2021 - 2023

### Courses

Bitki Fizyolojisi Laboratuvarı, Undergraduate, 2022 - 2023

Botanik Laboratuvarı-Ziraat Fakültesi, Undergraduate, 2022 - 2023

Genel Biyoloji Botanik Laboratuvarı, Undergraduate, 2022 - 2023

Herbaryum Teknikleri, Undergraduate, 2022 - 2023

Moleküler Biyoloji Laboratuvarı, Undergraduate, 2022 - 2023

Bitki Anatomisi Laboratuvarı, Undergraduate, 2022 - 2023

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

- I. **Chemical Characterization of the Seed Coats of Orchids from the Subfamily Orchidaceae: A Micromorphological Approach Using FT-IR Spectroscopy**  
Erdi Can Aytar C., Durmaz A., BASILI T., Sentürk B., Harzli İ., Cökmez B., Kömpe Y. Ö.  
Biology Bulletin, vol.51, no.6, pp.1556-1567, 2024 (SCI-Expanded)
- II. **Antimicrobial activity and molecular docking analysis of *Salsola kali* : investigating potent biological interactions and chemical composition**  
AYTAR E. C., AYDIN B., Torunoğlu E. I., Durmaz A.  
JOURNAL OF HERBAL MEDICINE, vol.48, 2024 (SCI-Expanded)
- III. **Molecular docking analysis of *Salvia sclarea* flower extracts evaluated for protein target affinity based on different extraction methods**  
Torunoglu E. I., AYTAR E. C., Durmaz A.  
FOOD SCIENCE & NUTRITION, vol.12, no.11, pp.8990-9006, 2024 (SCI-Expanded)
- IV. **Antioxidant and anti-urease activities of Cardamine bulbifera: Insights from molecular docking and density functional theory studies**  
Torunoğlu E. İ., AYTAR E. C., AYDIN B., Durmaz A.  
European Journal of Integrative Medicine, vol.71, 2024 (SCI-Expanded)
- V. **Antioxidant Effects and Fatty Acid Analysis of *Leucojum aestivum* Seed Coat Extracts**  
Uysal D. İ., Çolak E., AYTAR E. C., Durmaz A., Şentürk B., Torunoğlu E. İ., Kömpe Y. Ö.  
Periodica Polytechnica Chemical Engineering, vol.68, no.3, pp.409-418, 2024 (SCI-Expanded)
- VI. **Investigation of Chemical Composition, Antioxidant Properties, and Molecular Docking in Different Roasting Stages of Coffee Beans**  
AYTAR E. C., AYDIN B.  
FOOD AND BIOPROCESS TECHNOLOGY, 2024 (SCI-Expanded)
- VII. **Comparison of Seed Morphology and Seed Coat Chemistry in *Ophrys* (Orchidaceae) Species**  
Aytar E. C., Deniz İ. G., İncedere D., Kömpe Y. Ö., Basılı T., Harzli İ., Durmaz A.  
ACS OMEGA, vol.9, no.31, pp.33773-33788, 2024 (SCI-Expanded)
- VIII. **Antioxidant and Antimicrobial Properties of *Stachys maritima* via Quantum Dots and Molecular Docking**  
Aytar E. C., Aydın B.  
CHEMISTRY AND BIODIVERSITY, vol.15, no.5, pp.1-11, 2024 (SCI-Expanded)
- IX. **Phytochemical Analysis of *Anacamptis coriophora* Plant Cultivated Using Ex Vitro Symbiotic Propagation**  
AYTAR E. C., Harzli I., Özdener Kömpe Y.  
Chemistry and Biodiversity, vol.20, no.12, 2023 (SCI-Expanded)
- X. **Effect of different substrates on in vitro symbiotic seed germination for soilless production of *Anacamptis laxiflora* orchid**  
AYTAR E. C., Kömpe Y. Ö.  
Acta Botanica Croatica, vol.82, no.2, pp.101-108, 2023 (SCI-Expanded)
- XI. **From seed to flowering tuberous orchid using *ex vitro* symbiotic seed germination: A breakthrough study with *Anacamptis sancta***  
DENİZ İ. G., Kömpe Y. Ö., Harzli I., AYTAR E. C., Mutlu V. A., Uysal D. İ.  
RHIZOSPHERE, vol.24, 2022 (SCI-Expanded)
- XII. **Cytotoxic sesquiterpene coumarins from the roots of *heptaptera cilicica***  
TOSUN F., AYTAR E. C., Beutler J. A., Wilson J. A., Miski M.  
Records of Natural Products, vol.15, no.6, pp.529-536, 2021 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Bioactive Compounds of *Plantago arenaria* and Their Effects on SH-SY5Y Cells: Phenolic Content and Docking Analysis**

SARI Z. B., Sarı M. E., Torunoğlu E. İ., DEMİREL G., AYDIN B., AYTAR E. C.

CHEMISTRY AFRICA-A JOURNAL OF THE TUNISIAN CHEMICAL SOCIETY, vol.7, no.9, pp.4741-4755, 2024 (ESCI)

- II. **Chemical Composition and Antioxidant Potential of Aristolochia maurorum Above-ground Extract: Phenolic and Phytochemical Analysis**  
Torunoğlu E. İ., AYTAR E. C., Durmaz A., AYDIN B., ÇOLAK A. M.  
ISPEC Journal of Agricultural Sciences, 2024 (Peer-Reviewed Journal)
- III. **A study of docking and dereplication of extracts from Tradescantia pallida and their in vitro cytotoxic activities to control dengue mosquitoes**  
Cabral F. V., fernandes C. C., da Siva M. M., Squarisi I. S., Ribeiro A. B., Tavares D. C., AYTAR E. C., Miranda M. L. D.  
Mediterranean Journal of Chemistry, 2024 (Peer-Reviewed Journal)
- IV. **Cultivation of Serapias orientalis Plant Using Symbiotic Methods and Investigation of Bioactive Compounds**  
AYTAR E. C., ÖZDENER KÖMPE Y.  
ACS Agricultural Science & Technology, vol.4, pp.424-431, 2024 (ESCI)
- V. **Phenolic And Antioxidant Profile: Ftir And Lc-Ms Analyses of Serapias Orientalis**  
AYTAR E. C., ÖZDENER KÖMPE Y.  
ANKARA UNIVERSİTESİ ECZACILIK FAKULTESİ DERGİSİ, 2024 (Scopus)
- VI. **A Class of Plant hormones with Different Properties and Special Aspects: Strigolactones [en] Farklı Özellikleri ve Özel Yönleri ile Bir Bitki Hormonları Grubu: Strigolaktonlar [tr]**  
Durmaz Ö., Durmaz A., AYTAR E. C., ÖZDENER KÖMPE Y.  
Black Sea Journal of Engineering and Science, 2023 (Peer-Reviewed Journal)
- VII. **Orkidelerin Geleneksel Kullanımları, Fitokimyasal İçerikleri ve Biyolojik Aktiviteleri**  
AYTAR E. C., ÖZDENER KÖMPE Y.  
Black Sea Journal of Engineering and Science, vol.4, no.3, 2021 (Peer-Reviewed Journal)
- VIII. **Antioxidant and Antimicrobial Activities of Armillaria mellea and Macrolepiota procera Extracts**  
AYTAR E. C., AKATA I., AÇIK L.  
MANTAR DERGİSİ, vol.11, no.2, pp.121-128, 2020 (Peer-Reviewed Journal)
- IX. **ANTIOXIDANT, ANTIMICROBIAL AND ANTI-PROLIFERATIVE ACTIVITY OF SUILLUS LUTEUS (L.) ROUSSEL EXTRACTS**  
AYTAR E. C., AKATA I., AÇIK L.  
ANKARA UNIVERSİTESİ ECZACILIK FAKULTESİ DERGİSİ, vol.44, no.3, pp.373-387, 2020 (Scopus)
- X. **Cytotoxic and Apoptotic Activities of Rhizopogon roseolus (Corda) Th.Fr. Extracts**  
AYTAR E. C., ÖZMEN A.  
INTERNATIONAL JOURNAL OF SECONDARY METABOLITE, vol.7, no.1, pp.54-62, 2020 (Scopus)

## Books & Book Chapters

- I. **Theoretical Foundations of Soil Ecology and Land Resources**  
AYTAR E. C., Durmaz A., Torunoğlu E. İ., AYDIN B., ÇOLAK A. M.  
in: Ecological Aspects of Soil and Land Preservation, , Editor, IGI Global, pp.1-29, 2024
- II. **Sensor Based on Semiconductor**  
Durmaz A., KAHYAOĞLU İ. M., AYTAR E. C., KARAKUŞ S.  
in: Handbook of Semiconductors: Fundamentals to Emerging Applications, Gupta Ram, Editor, CRC Press Taylor and Francis, pp.273-288, 2024
- III. **Nanotechnology and Cancer Therapy Strategies**  
YILMAZOĞLU E., AYTAR E. C., KARAKUŞ S.  
in: Interdisciplinary Cancer Research, Rezaei Nima, Editor, Springer, pp.1-19, 2024
- IV. **Need for Biodiversity Conservation and Conservation Strategies**  
Durmaz A., Torunoğlu E. İ., AYDIN B., AYTAR E. C.  
in: Biodiversity Loss Assessment for Ecosystem Protection, Rathoure Ashok K, Editor, IGI Global, pp.167-187, 2024

V. **Nanostructured Biomaterials in Drug Delivery**

KAHYAOĞLU İ. M., AYTAR E. C., Durmaz A., KARAKUŞ S.

in: Engineered Biomaterials Synthesis and Applications, Sonali Sundram, Rishabha Malviya, Editor, Springer, pp.233-259, 2023

**Refereed Congress / Symposium Publications in Proceedings**

- I. **Exploring The Pharmacological Power of Heliotropium sibiricum Extract: Molecular Docking and Biological Assessment**  
Durmaz A., AYTAR E. C., AYDIN B., Torunoğlu E. İ.  
Cukurova 13th International Scientific Researches Conference, Adana, Turkey, 1 - 02 September 2024
- II. **Comparative Analysis of Antioxidant Activity and Phenolic Compounds in Different Coffee Preparations**  
AYTAR E. C., Durmaz A., Torunoğlu E. İ.  
X-International European Conference on Interdisciplinary Scientific Research, Zürich, Switzerland, 27 - 29 August 2024
- III. **The Use of Halophytic Plants in Saline Agricultural Areas and Their Impact on Bioremediation in Such Environments**  
Durmaz A., AYTAR E. C.  
ISPEC 13th INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCES AND RURAL DEVELOPMENT, Uşak, Turkey, 28 - 29 November 2023
- IV. **Seed and Protocorm Morphology of Serapias orientalis, and Aminoacid Analysis of Aerial Part**  
AYTAR E. C., ÖZDENER KÖMPE Y.  
ISPEC 13th INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCES AND RURAL DEVELOPMENT, Uşak, Turkey, 28 - 29 November 2023
- V. **Aristolochia bodamae Plant's Antioxidant Activity and Bioactive Compound Content**  
Durmaz A., AYTAR E. C.  
ISPEC 13th INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCES AND RURAL DEVELOPMENT, Uşak, Turkey, 28 - 29 November 2023
- VI. **Analysis of the chemical composition of Leucojum aestivum L. seed coats**  
İNCEDERE UYSAL D., AYTAR E. C., ÖZDENER KÖMPE Y.  
6th International Eurasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 11 - 13 October 2023
- VII. **Sustainable cultivation of Anacamptis coriophora plant in Turkey: Antioxidant properties**  
HARZLI I., AYTAR E. C., ÖZDENER KÖMPE Y.  
6th International Eurasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 11 - 13 October 2023
- VIII. **Ex vitro Symbiotic Germination of Gymnadenia conopsea Seeds**  
AYTAR E. C., ŞEHİRLİ H., HARZLI I., ÖZDENER KÖMPE Y.  
3 rd International Congress on Plant Biology, Rize, Turkey, 21 - 23 September 2022
- IX. **Ex vitro Symbiotic Germination of Endemic Dactylorhiza osmanica subsp.osmanica**  
ŞEHİRLİ H., AYTAR E. C., Çökmez B., AKIN MUTLU V., ŞENTÜRK B., ÖZDENER KÖMPE Y.  
3 rd International Congress on Plant Biology, Rize, Turkey, 21 - 23 September 2022
- X. **Sideritis trojana ve Sideritis athoa (Lamiaceae)'nın Biyolojik Aktivitelerinin Karşılaştırılması.**  
AYDIN B., YILMAZ E., AYTAR E. C., AÇIK L.  
Ulusal Botanik/Bitki Bilimi Kongresi, Antalya, Turkey, 24 October 2014
- XI. **Suillus luteus Yenilebilen Mantarın Antimikrobial, Antioksidan ve Antikanser Etkilerinin Belirlenmesi**  
AYTAR E. C., AYDIN B., AÇIK L.  
Ulusal Botanik Kongresi, Antalya, Turkey, 24 October 2014
- XII. **OP-22 Novel Sesquiterpene Coumarin Ethers from The Dichloromethane Extract of The Roots of Heptaptera cılıcıca**  
MİSKİ M., TOSUN F., AYTAR E. C., DURAN A.

## Supported Projects

AYTAR E. C., Project Supported by Higher Education Institutions, BAZI ORKİDE TÜRLERİNİN TOHUMDAN ÇİMLENDİRİLMESİ VE FİTOKİMYASAL ÖZELLİKLERİNİN BELİRLENMESİ, 2022 - Continues

Aytar E. C., Torunoğlu E. İ., Aydın B., Durmaz A., Avcı B., Project Supported by Higher Education Institutions, Cardamine pratensis Bitkisinin Anti-Aging Potansiyelinin İn Vitro Belirlenmesi, 2024 - 2025

AYTAR E. C., TUBITAK Project, Serapias vomeracea (Orchidaceae) 'in tohumdan üretilen fidelerin fitokimyasal içeriklerinin belirlenmesi, 2022 - 2023

Chemical and Ecological Study of Some Turkish Coasts Benthic Invertebrates, 2016 - 2016

## Scientific Refereeing

SCIENTIA HORTICULTURAE AN INTERNATIONAL JOURNAL, SCI Journal, May 2024

Journal of Faculty of Pharmacy of Ankara University, Other Indexed Journal, May 2024

CHEMISTRY AND BIODIVERSITY, National Scientific Refreed Journal, May 2024

INTERNATIONAL JOURNAL OF SECONDARY METABOLITE, Other Indexed Journal, April 2024

## Metrics

Publication: 39

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H-Index (Scopus): 3