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Education Information

Doctorate, Istanbul University, Fen Bilimleri Enstitüsü, Moleküler Biyoloji Ve Genetik (Dr), Turkey 2013 - 2022

Undergraduate, Anadolu University, İşletme Fakültesi, İşletme Bölümü, Turkey 2010 - 2017

Postgraduate, Istanbul University, Fen Bilimleri Enstitüsü, Moleküler Biyoloji Ve Genetik (YI) (Tezli), Turkey 2010 - 2012

Undergraduate, Zonguldak Bülent Ecevit University, Fen-Edebiyat Fakültesi, Biyoloji Bölümü, Turkey 2005 - 2010

Dissertations

Postgraduate, Mısır içeren gıda ve yem çeşitlerinde genetiği değiştirilmiş organizmalarla ilgili genetik analizler, Istanbul University, Fen Bilimleri Enstitüsü, Moleküler Biyoloji Ve Genetik (YI) (Tezli), 2012

Academic Titles / Tasks

Research Assistant, Istanbul Kultur University, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2014 - Continues

Courses

BİTKİ BİYOTEKNOLOJİSİNE GİRİŞ, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

GENEL BİYOLOJİ II LABORATUVARI, Undergraduate, 2022 - 2023

BİTİRME PROJESİ II, Undergraduate, 2022 - 2023

REKOMBİNANT DNA TEKNOLOJİSİ UYGULAMALARI, Undergraduate, 2022 - 2023, 2020 - 2021

GENETİK LABORATUVARI, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

GENEL BİYOLOJİ I LABORATUVARI, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

MOLEKÜLER MİKROBİYOLOJİ, Undergraduate, 2022 - 2023, 2021 - 2022

BİTİRME PROJESİ I, Undergraduate, 2022 - 2023

GENETİK, Undergraduate, 2022 - 2023

BİTKİ DOKU KÜLTÜRÜ, Undergraduate, 2021 - 2022

MOLEKÜLER MİKROBİYOLOJİ LABORATUVARI, Undergraduate, 2021 - 2022, 2020 - 2021

ORGANİK KİMYA LABORATUVARI, Undergraduate, 2020 - 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigation of Tos17 LTR retrotransposon movements in rice (*Oryza sativa* L.) under nickel and boron stress**
MERİÇ S., AYAN A., Gunduz B., Ozpirincci C., Celik O., ATAK Ç.
CEREAL RESEARCH COMMUNICATIONS, 2024 (SCI-Expanded)
- II. **Profile-based proteomic investigation of unintended effects on transgenic and gamma radiation induced mutant soybean plants**
MERİÇ S., AYAN A., ATAK Ç., ARI Ş.
GENETIC RESOURCES AND CROP EVOLUTION, vol.70, no.7, pp.2077-2095, 2023 (SCI-Expanded)
- III. **BABA pre-treatment before drought stress revealed tolerance related proteomic alterations in rice**
Yalcin H. M., Maytalman S., Ihvan Y. F., Gumus T., MERİÇ S., AYAN A., Atak C.
FEBS OPEN BIO, pp.323, 2022 (SCI-Expanded)
- IV. **Comparison of tolerance related proteomic profiles of two drought tolerant tomato mutants improved by gamma radiation**
Celik O., AYAN A., MERİÇ S., Atak C.
JOURNAL OF BIOTECHNOLOGY, vol.330, pp.35-44, 2021 (SCI-Expanded)
- V. **Genome organization changes in GM and non-GM soybean [*Glycine max*(L.) Merr.] under salinity stress by retro-transposition events**
Sahin O., Karlik E., MERİÇ S., ARI Ş., Gozukirmizi N.
GENETIC RESOURCES AND CROP EVOLUTION, vol.67, no.6, pp.1551-1566, 2020 (SCI-Expanded)
- VI. **Raman Spectroscopic and Chemometric Investigation of Lipid-Protein Ratio Contents of Soybean Mutants**
ÖĞRÜÇ İLDİZ G., ÇELİK Ö., ATAK Ç., YILMAZ A., Kabuk H. N., Kaygisiz E., AYAN A., MERİÇ S., Fausto R.
APPLIED SPECTROSCOPY, vol.74, no.1, pp.34-41, 2020 (SCI-Expanded)
- VII. **Epigenetic analysis of *WRKY* transcription factor genes in salt stressed rice (*Oryza sativa* L.) plants**
ÇELİK Ö., MERİÇ S., AYAN A., ATAK Ç.
ENVIRONMENTAL AND EXPERIMENTAL BOTANY, vol.159, pp.121-131, 2019 (SCI-Expanded)
- VIII. **GMO Analysis Methods for Food: From Today to Tomorrow**
Cakir O., MERİÇ S., ARI Ş.
FOOD SAFETY: INNOVATIVE ANALYTICAL TOOLS FOR SAFETY ASSESSMENT, pp.123-178, 2017 (SCI-Expanded)
- IX. **Detection of genetically modified organisms in soy products sold in Turkish market**
Mandaci M., ÇAKIR Ö., TURGUT KARA N., Meric S., ARI Ş.
FOOD SCIENCE AND TECHNOLOGY, no.4, pp.717-722, 2014 (SCI-Expanded)
- X. **Detection of genetically modified maize and soybean in feed samples**
Merik S., ÇAKIR O., TURGUT KARA N., ARI Ş.
GENETICS AND MOLECULAR RESEARCH, no.1, pp.1160-1168, 2014 (SCI-Expanded)

Books & Book Chapters

- I. **Stress Memory and Priming Applications in Plants: Potential for Breeders**
Gümüş T., Aydın T., Gündüz B., Meriç S., Ayan A., Atak Ç.
in: Recent Trends in Plant Breeding and Genetic Improvement, Mohamed A. El-Esawi, Editor, IntechOpen, London, pp.71-94, 2023
- II. **Transgenic Plants in Heat Stress Adaptation: Present Achievements and Prospects**
Ayan A., Meriç S., Gümüş T., Atak Ç.
in: Abiotic Stress in Plants - Adaptations to Climate Change, Manuel Oliveira, Anabela A. Fernandes Silva, Editor, IntechOpen, London, pp.123-153, 2023
- III. **Plant Abiotic Stress Factors – Current Challenges of Last Decades and Future Threats**

Gümüş T., Meriç S., Ayan A., Atak Ç.

in: Plant Abiotic Stress Responses and Tolerance Mechanisms, Saddam Hussain, Editor, IntechOpen, London, pp.1-27, 2023

- IV. **Current Strategies and Future of Mutation Breeding in Soybean Improvement**
Ayan A., Meriç S., Gümüş T., Atak Ç.
in: Soybean - Recent Advances in Research and Applications, Takuji Ohyama, Editor, IntechOpen, London, pp.137-158, 2022
- V. **Next Generation of Transgenic Plants: From Farming to Pharming**
Atak Ç., Ayan A., Meriç S., Gümüş T.
in: Genetically Modified Plants and Beyond, Idah Sithole Niang, Editor, IntechOpen, London, pp.49-81, 2022
- VI. **Heavy Metal Stress-Responsive Phyto-miRNAs**
Çelik Ö., Ayan A., Meriç S., Atak Ç.
in: Cellular and Molecular Phytotoxicity of Heavy Metals, Mohammad Faisal, Quaiser Saquib, Abdulrahman A. Alatar, Abdulaziz A. Al-Khedhairy, Editor, Springer Nature, Berlin, pp.137-155, 2021
- VII. **Plant-based Vaccines: The Future of Preventive Healthcare?**
Ayan A., Meriç S., Gümüş T.
in: Botany Recent Advances and Applications, Bimal Kumar Ghimire, Editor, IntechOpen, London, pp.57-91, 2021
- VIII. **Molecular Abiotic Stress Tolerant Strategies: From Genetic Engineering to Genome Editing Era**
Ayan A., Meriç S., Atak Ç.
in: Abiotic Stress in Plants, Shah Fahad, Editor, IntechOpen, London, pp.91-126, 2020
- IX. **Biotic stress-tolerant plants through small RNA technology**
Çelik Ö., Meriç S., Ayan A., Atak Ç.
in: Plant Small RNA: Biogenesis, Regulation and Application, Praveen Guleria, Vineet Kumar, Editor, Academic Press, Massachusetts, pp.435-468, 2020
- X. **GMO analysis methods in Food: From Today To Tomorrow**
ÇAKIR Ö., MERİÇ S., ARI Ş.
in: Food Safety: Innovative Analytical Tools for Safety Assessment, Umile Gianfranco Spizzirri, Giuseppe Cirillo, Editor, Scrivener Publishing LLC, pp.123-163, 2017
- XI. **Detection of Genetically Modified Organisms in Feeds**
ÇAKIR Ö., MERİÇ S., ARI Ş.
in: Genetically Modified Organisms in Food: Production, Safety and Public Health, Ronald R Watson, Victor R. Preedy, Editor, Academic Press Elsevier Science, pp.207-222, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. **Expression Analysis of Salinity-associated miRNAs in Gamma-induced Salinity Tolerant Rice (*Oryza sativa*) Mutants**
İMECE B., GÜMÜŞ T., MERİÇ S., AYAN A., ATAK Ç.
6th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2023) October 11-13, 2023. www.EurasianBioChem.org, Turkey, 11 October 2023
- II. **Proteomic Evaluation of Multiple Abiotic Stress Tolerant Soybean Mutants**
AYAN A., MERİÇ S., GÜMÜŞ T., ÇELİK Ö., ATAK Ç.
V. BALKAN AGRICULTURAL CONGRESS, Edirne, Turkey, 20 - 22 September 2023
- III. **Retrotransposon-based genotyping on local rice (*Oryza sativa*) varieties through IRAP**
Koyak M., GÜMÜŞ T., MERİÇ S., AYAN A.
4th International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2022), Ankara, Turkey, 14 - 16 December 2022, pp.220
- IV. **RNA Sequencing Analysis of Salt and Drought Tolerance in Gamma-induced Soybean (*Glycine max* L. Merr.) Mutants**
AYAN A., MERİÇ S., GÜMÜŞ T., ÇELİK Ö., ATAK Ç.

IV. Balkan Agricultural Congress, Edirne, Turkey, 31 August - 02 September 2022, pp.283

- V. **Induction of Hairy Root Cultures of *Calendula Officinalis* L. by *Agrobacterium rhizogenes* Mediated Genetic Transformation and Production of Secondary Metabolites**
MERİÇ S., GÜMÜŞ T., AYAN A., ATAK Ç.
Third International Green Biotechnology Congress 2021, Sarajevo, Bosnia And Herzegovina, 30 September - 02 October 2021
- VI. **Induction of Hairy Root Cultures of *Calendula Officinalis* L. by *Agrobacterium rhizogenes* Mediated Genetic Transformation and Production of Secondary Metabolites**
AYDIN T., MERİÇ S., GÜMÜŞ T., AYAN A., ATAK Ç.
III. International Green Biotechnology Congress-, Sarajevo, Bosnia And Herzegovina, 30 September - 02 October 2021, pp.41
- VII. **ROS Scavenging Differences of Tomato Cultivars Under Salt Stress,**
GÜMÜŞ T., ÇELİK Ö., AYAN A., MERİÇ S., ATAK Ç., GÜMÜŞ T.
II. International Green Biotechnology Congress, 9 - 11 September 2019
- VIII. **Optimization of Tissue Culture Media Inducing Essential Oil Production of Levander (*Lavandula angustifolia*)**
MERİÇ S., AYAN A., ATAK Ç.
II. International Green Biotechnology Congress, 9 - 11 September 2019
- IX. **ROS Scavenging Differences of Tomato Cultivars Under Salt Stress**
GÜMÜŞ T., ÇELİK Ö., AYAN A., MERİÇ S., ATAK Ç.
II. International Green Biotechnology Congress-, İstanbul, Turkey, 9 - 11 September 2019
- X. **Composition Analysis of Soybean Salt-Resistant Mutants by Raman Spectroscopy and Chemometrics**
ÖĞRÜÇ İLDİZ G., ÇELİK Ö., ATAK Ç., YILMAZ A., Kabuk H. N., Kaygisiz E., AYAN A., MERİÇ S., Fausto R.
Analytical and Bionalytical Methods Conference, San-Francisco, Costa Rica, 29 April - 01 May 2019
- XI. **Lipid/Protein Ratio Contents of Soybean Mutants: A Raman Spectroscopic and Chemometrics Investigation**
ÖĞRÜÇ İLDİZ G., ÇELİK Ö., ATAK Ç., YILMAZ A., Kabuk H., Kaygisiz E., AYAN A., MERİÇ S., Rui F.
XXXIV EUROPEAN CONGRESS ON MOLECULAR SPECTROSCOPY, Coimbra, Portugal, 19 - 24 August 2018
- XII. **Genomic Analysis of Feeder Soybean Seeds Under Salinity Stress**
Şahin O., MERİÇ S., Gürle D., ARI Ş.
International Green Biotechnology Congress, 11 - 13 September 2017, pp.93
- XIII. **Investigation of Tos-17 transposon mobility in salt stressed rice (*Oryza sativa* L.) plants by IRAP method**
MERİÇ S., ÇELİK Ö., AYAN A., Gunduz B., ATAK Ç.
European Biotechnology Congress, Dubrovnik, Croatia, 25 - 27 May 2017
- XIV. **Inducing salt tolerance in rice (*Oryza sativa* L.) varieties by gamma radiation**
AYAN A., ÇELİK Ö., MERİÇ S., ATAK Ç.
European Biotechnology Congress, Dubrovnik, Croatia, 25 - 27 May 2017
- XV. **Two-dimensional protein profiles of drought tolerant tomato (*Solanum lycopersicum*) mutants improved by gamma radiation**
AYAN A., ÇELİK Ö., MERİÇ S., Topcuoglu B., ATAK Ç.
European Biotechnology Congress, Dubrovnik, Croatia, 25 - 27 May 2017
- XVI. **Magnetic field induced production of anti-cancer agent vincristine from Madagascar Periwinkle (*Catharanthus roseus*) plant**
ÇELİK Ö., MERİÇ S., AYAN A., Tas M., Avcilar C., ATAK Ç.
European Biotechnology Congress, Dubrovnik, Croatia, 25 - 27 May 2017
- XVII. **Investigation of horizontal gene transfer (HGT) from genetically modified plants to bacteria**
Ozbilgic R., MERİÇ S., Sahin O., Tombul N., ARI Ş.
41st FEBS Congress on Molecular and Systems Biology for a Better Life, Kusadasi, Turkey, 3 - 08 September 2016, pp.333-334

Metrics

Publication: 38

Citation (WoS): 26

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