Prof. MELİKE BOR

Personal Information

Office Phone: +90 232 311 2433
Email: melike.bor@ege.edu.tr
Web: https://avesis.ege.edu.tr/melike.bor
Address: Ege Üniversitesi Fen Fakültesi Biyoloji Bölümü 35100 Bornova İzmir

Education Information

Doctorate, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (Dr) (Tezli), Turkey 1996 - 2002
Post Graduate, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (Yl) (Tezli), Turkey 1994 - 1996
Under Graduate, Ege Üniversitesi, Fen Fakültesi, Biyoloji Bölümü, Turkey 1989 - 1993

Research Areas

Life Sciences, Plant Biology, Plant Physiology, Biochemistry, Plant Biochemistry, Biotechnology, Plant Biotechnology, Molecular Biology and Genetics, Plant Molecular Genetics, Natural Sciences

Academic Titles / Tasks

Professor, Ege Üniversitesi, Fen Fakültesi, Biyoloji Bölümü, 2015 - Continues
Associate Professor, Ege Üniversitesi, Fen Fakültesi, Biyoloji Bölümü, 2010 - 2015
Assistant Professor, Ege Üniversitesi, Fen Fakültesi, Biyoloji Bölümü, 2006 - 2010
Research Assistant, Ege Üniversitesi, Fen Fakültesi, Biyoloji Bölümü, 2001 - 2006
Research Assistant, Ege Üniversitesi, Fen Bilimleri Enstitüsü, 1994 - 2001

Professional Experience

Deputy Director of the Center, Ege University, Rektörlük, Çevre Sorunları Uygulama ve Araştırma Merkezi, 2018 - Continues
Deputy Head of Department, Ege Üniversitesi, Fen Fakültesi, Biyoloji Bölümü, 2016 - 2018
Deputy Director of the Center, Ege Üniversitesi, Ege Matal, 2017 - 2017

Advising Theses

Bor M., Tuz Stresi Koşullarında Fotorespirasyon ve GABA yolu arasındaki ilişkinin incelenmesi, Post Graduate, M.KAHRAMAN(Student), 2019
Bor M., Brassica napus bitkisinin büyüme ve gelişim süreçleri üzerinde glikosinolat hidroliz ürünlerinin etkilerinin incelenmesi, Post Graduate, G.SEVİM(Student), 2019
Bor M., Tuz stresinin farklı gelişim dönemlerindeki buğday bitkilerinin amino asit profili üzerindeki etkilerinin belirlenmesi, Post Graduate, H.ŞAHİN(Student), 2019
BOR M., Kuraklık stresine verilen yanıtlarla ilgili sinyal iletim süreçlerinde gamma amino bütirik asitin (GABA) rolü, Post Graduate, A.PELVAN(Student), 2015

BOR M., Ağır metal stresi ile gamma-amino bütirik asit (gaba) etkileşiminin incelenmesi, Post Graduate, Z.AKCAN(Student), 2014
BOR M., Tütün bitkisinde harpin ile indüklenen biyotik stresin gama aminobütirik asit (Gaba)yoluyla ilişkisinin belirlenmesi, Post Graduate, G.DİMLİOĞLU(Student), 2014
BOR M., Türk toplumunda HBB genindeki polimorfizmlerin sıklığının araştırılması, Post Graduate, D.YILDIZ(Student), 2012
BOR M., Tütün bitkisinde abiyotik stres koşullarında mitokondri proteomunun incelenmesi, Post Graduate, L.SOYLU(Student), 2012
BOR M., Bitkilerde kök senesensinde antioksidan savunma sisteminin rolünün incelenmesi, Post Graduate, Ç.KERA(Student), 2012
BOR M., Domates bitkisinde glisin betain uygulamasının soğuk toleransı ile ilgili genlerin belirimi üzerine etkileri, Post Graduate, T.KARABUDAK(Student), 2011
BOR M., Tütün bitkisinde GABA-stres ilişkisinin belirlenmesi, Post Graduate, N.AKÇAY(Student), 2010
BOR M., Türkiye populasyonunda 16 Y-STR lokusunun (DYS456, DYS389I, DYS390, DYS389II, DYS458, DYS19, DYS385a/b, DYS393, DYS391, DYS439, DYS635, DYS392, Y GATA H4, DYS437, DYS438, DYS448) polimorfizmleri ve bunların adli alanda kullanımı, Doctorate, A.ÖZKORKMAZ(Student), 2009

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **N-acyl homoserine lactone-mediated modulation of plant growth and defense against Pseudoperonospora cubensis in cucumber (Cucumis sativus L.).**
  Pazarlar S., Cetinkaya N., Bor M., Kara R.
  Journal of experimental botany, 2020 (Journal Indexed in SCI Expanded)
- **The involvement of gamma-aminobutyric acid shunt in the endoplasmic reticulum stress response of Arabidopsis thaliana.**
  Ozgur R., Uzilday B., Bor M., Turkan I.
  Journal of plant physiology, vol.253, pp.153250, 2020 (Journal Indexed in SCI Expanded)
- **Is there a room for GABA in ROS and RNS signalling?**
  Bor M., Türkan I.
  ENVIRONMENTAL AND EXPERIMENTAL BOTANY, vol.161, pp.67-73, 2019 (Journal Indexed in SCI)
- **Association between radionuclides (Po-210 and Pb-210) and antioxidant enzymes in oak (Quercus coccifera) and mastic tree (Pistacia lentiscus)**
  Gorgun A. U. , Aslan E., Kul M., Ilhan S., Dimlioglu G., Bor M., Ozdemir F.
  JOURNAL OF ENVIRONMENTAL RADIOACTIVITY, vol.174, pp.71-77, 2017 (Journal Indexed in SCI)
- **Ozone triggers different defence mechanisms against powdery mildew (Blumeria graminis DC. Speer f. sp tritici) in susceptible and resistant wheat genotypes**
  PAZARLAR S., ÇETİNKAYA N., BOR M., Ozdemir F.
  FUNCTIONAL PLANT BIOLOGY, vol.44, pp.1016-1028, 2017 (Journal Indexed in SCI)
- **Arabidopsis NATA1 Acetylates Putrescine and Decreases Defense-Related Hydrogen Peroxide Accumulation**
  Lou Y., Bor M., Yan J., Preuss A. S. , Jander G.
  PLANT PHYSIOLOGY, vol.171, pp.1443-1455, 2016 (Journal Indexed in SCI)
- **Histone acetylation influences the transcriptional activation of POX in Beta vulgaris L. and Beta maritima L. under salt stress**
  Yolcu S., Ozdemir F., Guler A., Bor M.
  PLANT PHYSIOLOGY AND BIOCHEMISTRY, vol.100, pp.37-46, 2016 (Journal Indexed in SCI)
- **Zinc induced activation of GABA-shunt in tobacco (Nicotiana tabaccum L.)**
  Das Z. A. , Dimlioglu G., Bor M., Ozdemir F.
  ENVIRONMENTAL AND EXPERIMENTAL BOTANY, vol.122, pp.78-84, 2016 (Journal Indexed in SCI)
- **The impact of GABA in harpin-elicited biotic stress responses in Nicotiana tabaccum**

DİMLİOĞLU G., Das Z. A. , BOR M., Özdemir F., TÜRKAN İ.
JOURNAL OF PLANT PHYSIOLOGY, vol.188, pp.51-57, 2015 (Journal Indexed in SCI)

- **Contribution of trehalose biosynthetic pathway to drought stress tolerance of Capparis ovata Desf**
Ilhan S., Ozdemir F., Bor M.
PLANT BIOLOGY, vol.17, pp.402-407, 2015 (Journal Indexed in SCI)
- **Interspecific diversity in root antioxidative enzyme activities reflect root turnover strategies and preferred habitats in wetland graminoids**
Yucel C. K. , Bor M., Ryser P.
ECOLOGY AND EVOLUTION, vol.4, pp.831-840, 2014 (Journal Indexed in SCI)
- **Glycine betaine protects tomato (Solanum lycopersicum) plants at low temperature by inducing fatty acid desaturase7 and lipoxygenase gene expression**
Karabudak T., Bor M., Ozdemir F., Turkan I.
MOLECULAR BIOLOGY REPORTS, vol.41, pp.1401-1410, 2014 (Journal Indexed in SCI)
- **Combined effects of salt stress and cucurbit downy mildew (Pseudoperospora cubensis Berk. and Curt. Rostov.) infection on growth, physiological traits and antioxidant activity in cucumber (Cucumis sativus L.) seedlings**
Nostar O., Ozdemir F., Bor M., Turkan I., Tosun N.
PHYSIOLOGICAL AND MOLECULAR PLANT PATHOLOGY, vol.83, pp.84-92, 2013 (Journal Indexed in SCI)
- **Gamma-amino butyric acid, glutamate dehydrogenase and glutamate decarboxylase levels in phylogenetically divergent plants**
Seher Y., Filiz O., Melike B.
PLANT SYSTEMATICS AND EVOLUTION, vol.299, pp.403-412, 2013 (Journal Indexed in SCI)
- **Contribution of Gamma amino butyric acid (GABA) to salt stress responses of Nicotiana sylvestris CMSII mutant and wild type plants**
Akcay N., Bor M., Karabudak T., Ozdemir F., Turkan I.
JOURNAL OF PLANT PHYSIOLOGY, vol.169, pp.452-458, 2012 (Journal Indexed in SCI)
- **Identification and Characterization of the Glucosinolate-Myrosinase System in Caper (Capparis ovata Desf.)**
Bor M., Ozkur O., Ozdemir F., Turkan I.
PLANT MOLECULAR BIOLOGY REPORTER, vol.27, pp.518-525, 2009 (Journal Indexed in SCI)
- **Physiochemical and antioxidant responses of the perennial xerophyte Capparis ovata Desf. to drought**
Ozkur O., Ozdemir F., Bor M., Turkan I.
ENVIRONMENTAL AND EXPERIMENTAL BOTANY, vol.66, pp.487-492, 2009 (Journal Indexed in SCI)
- **Comparative effects of drought, salt, heavy metal and heat stresses on gamma-aminobutryric acid levels of sesame (Sesamum indicum L.)**
BOR M., SECKIN B., Ozgur R., YILMAZ Ö., ÖZDEMİR F., TÜRKAN İ.
ACTA PHYSIOLOGIAE PLANTARUM, vol.31, pp.655-659, 2009 (Journal Indexed in SCI)
- **Response of the cherry rootstock to water stress induced in vitro**
Sivritepe N., Erturk U., Yerlikaya C., Turkan I., Bor M., Ozdemir F.
BIOLOGIA PLANTARUM, vol.52, pp.573-576, 2008 (Journal Indexed in SCI)
- **Mitochondrial respiratory pathways modulate nitrate sensing and nitrogen-dependent regulation of plant architecture in Nicotiana sylvestris**
PELLNY T. K. , VAN AKEN O., DUTILLEUL C., WOLFF T., GROTEN K., Bor M., DE PAEPE R., REYSS A., VAN BREUSEGEM F., NOCTOR G., et al.
PLANT JOURNAL, vol.54, pp.976-992, 2008 (Journal Indexed in SCI)
- **NaCl pre-treatments mediate salt adaptation in melon plants through antioxidative system**
Sivritepe N., Sivritepe H. O. , Tuerkan I., bor M., Oezdemir F.
SEED SCIENCE AND TECHNOLOGY, vol.36, pp.360-370, 2008 (Journal Indexed in SCI)
- **Responses of the cherry rootstock to salinity in vitro**
ERTURK U., SIVRITEPE N., YERLIKAYA C., Bor M., OZDEMIR F., Turkan I.

- BIOLOGIA PLANTARUM, vol.51, pp.597-600, 2007 (Journal Indexed in SCI)
- **The effect of salt stress on lipid peroxidation, antioxidative enzymes and proline content of sesame cultivars**
  KOCA H., Bor M., Özdemir F., Turkan I.
  ENVIRONMENTAL AND EXPERIMENTAL BOTANY, vol.60, pp.344-351, 2007 (Journal Indexed in SCI)
- **Differential responses of lipid peroxidation and antioxidants in the leaves of drought-tolerant P-acutifolius Gray and drought-sensitive P-vulgaris L. subjected to polyethylene glycol mediated water stress**
  Turkan I., Bor M., OZDEMIR F., KOCA H.
  PLANT SCIENCE, vol.168, pp.223-231, 2005 (Journal Indexed in SCI)
- **Effects of 24-epibrassinolide on seed germination, seedling growth, lipid peroxidation, proline content and antioxidative system of rice (Oryza sativa L.) under salinity stress**
  Özdemir F., Bor M., DEMIRAL T., Turkan I.
  PLANT GROWTH REGULATION, vol.42, pp.203-211, 2004 (Journal Indexed in SCI)
- **The effect of salt stress on lipid peroxidation and antioxidants in leaves of sugar beet Beta vulgaris L. and wild beet Beta maritima L.**
  Bor M., OZDEMIR F., Turkan I.
  PLANT SCIENCE, vol.164, pp.77-84, 2003 (Journal Indexed in SCI)

Books & Book Chapters

- **The Role of Proline, Glycinebetaine, and Trehalose in Stress-Responsive Gene Expression**
  Kahraman M., Sevim G., Bor M.
  in: Osmoprotectant-Mediated Abiotic Stress Tolerance in Plants, Mohammad Anwar Hossain,Vinay Kumar,David Burritt,Masayuki Fujita,Pirjo Mäkelä, Editor, Springer, London/Berlin , Geneve, pp.241-256, 2019
- **Biyotik Etkileşimler**
  BOR M., SEKMEN A. H.
  in: Bitki Fizyolojisi ve Gelişimi (6. Baskıdan Çeviri), "Türkan İ.", Editor, Palme Yayınevi, Ankara, pp.693-729, 2019
- **Abiyotik ve Biyotik Streslere Dayanıklılıkta Transgenik Bitkiler**
  BOR M., SEKMEN A. H. , ÖZGÜR UZİLDAY R., UZİLDAY B., TÜRKAN İ.
  in: Bitki Biyoteknolojisine Güncel Yaklaşımlar, "Çiftçi-Özden Y." ve "Uncuoğlu-Altınkut A.", Editor, Palme, Ankara, pp.151-169, 2019
- **Manipulating Metabolic Pathways for Development of Salt-Tolerant Crops.**
  BOR M., Özdemir F.
  in: Salinity Responses and Tolerance in Plants, Vinay Kumar, Shabir Hussain Wani, Penna Suprasanna, Lam-Son Phan Tran, Editor, Springer, Cham, pp.235-256, 2018
- **Current Concepts about Salinity and Salinity Tolerance in Plants**
  SEKMEN ESEN A. H. , BOR M., ÖZDEMİR F., TÜRKAN İ.
  in: Climate Change and Plant Abiotic Stress Tolerance, N. Tuteja and S. S. Gill, Editor, Wiley-VCH Verlag GmbH Co. KGaA, Weinheim, Germany, 2013

Supported Projects

BOR M., KAHRAMAN M., Project Supported by Higher Education Institutions, TUZ STRESİ KOŞULLARINDA FOTOREPİRASYON VE GABA YOLU ARASINDAKİ İLİŞKİNİN İNCELENMESİ, 2018 - 2020
BOR M., SEVİM G., Project Supported by Higher Education Institutions, BRASSİCA NAPUS BİTKİSİNİN BÜYÜME VE GELİŞİ SÜREÇLERİ ÜZERİNDE GLİKOSİNOLAT HİDROLİZ ÜRÜNLERİNİN ETKİLERİNİN İNCELENMESİ, 2018 - 2020
BOR M., ŞAHİN H., Project Supported by Higher Education Institutions, TUZ STRESİNİN FARKLI GELİŞİM DÖNEMLERİNDEKİ BUĞDAY BİTKİLERİNİN AMİNO ASİT PROFİLİ ÜZERİNDEKİ ETKİLERİNİN BELİRLENMESİ, 2017 -

2019
BOR M., Project Supported by Higher Education Institutions, KURAKLIK STRESİNE VERİLEN YANITLARLA İLGİLİ SİNYAL İLETİM SÜREÇLERİNDE GAMMA AMİNO BÜTİRİK ASİTİN (GABA)ROLÜ, 2014 - 2016
BOR M., Project Supported by Higher Education Institutions, TÜTÜN BİTKİSİNDE HARPİN İLE İNDÜKLENEN BİYOTİK STRESİN GAMMA-AMİNO BÜTİRİK ASİT (GABA) YOLUYLA İLİŞKİSİNİN BELİRLENMESİ, 2012 - 2015
BOR M., Project Supported by Higher Education Institutions, AĞIR METAL STRESİ İLE GAMMA-AMİNO BÜTİRİK ASİT (GABA) ETKİLEŞİMİNİN İNCELENMESİ, 2012 - 2015
BOR M., Project Supported by Higher Education Institutions, MİROSİNAZ ENZİMİNİN CAPPARİS OVATA BİTKİSİNDEN SAFLAŞTIRILMASI VE MOLEKÜLER DÜZEYDE KARAKTERİZASYONU, 2011 - 2015
BOR M., Project Supported by Higher Education Institutions, BİTKİLERDE KÖK SENESENSİNDE ANTİOKSİDAN SAVUNMA SİSTEMİNİN ROLÜNÜN İNCELENMESİ, 2011 - 2013
BOR M., Project Supported by Higher Education Institutions, TÜTÜN BİTKİSİNDE ABİYOTİK STRES KOŞULLARINDA MİTOKONDRİ PROTEOMUNUN İNCELENMESİ, 2011 - 2013
BOR M., Project Supported by Higher Education Institutions, DOMATES BİTKİSİNDE, GLİSİN BETAİN UYGULAMASININ SOĞUK TOLERANSI İLE İLGİLİ GENLERİN BELİRİMİ ÜZERİNDEKİ ETKİLERİ, 2010 - 2012
BOR M., Project Supported by Higher Education Institutions, TÜTÜN BİTKİSİNDE GAMMA AMİNO BUTRİK ASİT STRES İLİŞKİSİNİN BELİRLENMESİ., 2009 - 2011
BOR M., Project Supported by Higher Education Institutions, TÜRKIYE POPULASYONUNDA 16 Y-STR LOKUSUNUN POLIMORFIZMLERI VE BUNLARIN ADLI ALANDA KULLANIMI, 2008 - 2010
BOR M., Project Supported by Higher Education Institutions, CAPPARİS BİTKİSİNDE MİROSİNAZ-GLİKOSİNOLAT SİSTEMİNİN MOLEKÜLER DÜZEYDE İNCELENMESİ., 2005 - 2009
BOR M., Project Supported by Higher Education Institutions, BOR VE TUZ STRESLERININ ÜLKEMIZDE YETIŞTIRILEN BAZI ŞEKER PANCARI ÇEŞITLERINDE VE YABANI PANCAR BETA LOMATOGONA L'DA.BÜYÜME VE ANTIOKSIDATIF SAVUNMA SISTEMI ÜZERINDE ETKILERININ ARAŞTIRILMASI, 2002 - 2006
BOR M., Project Supported by Higher Education Institutions, FARKLI PANCAR GENOTİPLERİNDE TUZ STRESİNE BAĞLI OLARAK ANTİOKSİDANT DÜZEY.DEĞİŞİMLERİN ARŞ, 2000 - 2003

Activities in Scientific Journals

Bmc Plant Biology, Editor, 2019 - Continues
Turkish Journal Of Botany, Editor, 2014 - 2015

Citations

Total Citations (WOS):1520
h-index (WOS):13

Scholarships

Visiting Scientist 1 Yıl Boyce Thompson Research Institute USA, Fulbright Program, 2013 - Continues
Visiting Researcher 2 Ay Swedish University of Agricultural Sciences İsveç, Official Institutions of Foreign Countries, 2009 - Continues
Visiting Scientist 6 Ay Rothamsted Research Institute Harpenden İngiltere, TUBITAK, 2004 - Continues
Staj 2 Ay ATO-DLO Wageningen Hollanda, European Commission, 1994 - Continues