

Lect. SARA BANU AKKAŞ

Personal Information

Email: bakkas@metu.edu.tr

Web: <https://avesis.metu.edu.tr/bakkas>

International Researcher IDs

ORCID: 0000-0001-8328-1896

Publons / Web Of Science ResearcherID: A-8072-2016

ScopusID: 16067895600

Yoksis Researcher ID: 167941

Education Information

Doctorate, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, Turkey 2003 - 2009

Postgraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, Turkey 2001 - 2003

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, Turkey 1998 - 2001

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, The Effect of Ecotoxicants on the Aquatic Food Web and Prey-Predator Relationships, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2009

Postgraduate, Molecular Investigation of the Effects of Antioxidants on Rat Brain Tissues, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2003

Academic Titles / Tasks

Expert, Middle East Technical University, Graduate School of Natural and Applied Sciences, 2010 - Continues

Research Assistant, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biyoloji (YI) (Tezli), 2001 - 2008

Published journal articles indexed by SCI, SSCI, and AHCI

- I. Ionizing Radiation Induces Structural and Functional Damage on the Molecules of Rat Brain Homogenate Membranes: A Fourier Transform Infrared (FT-IR) Spectroscopic Study**
Demir P., AKKAŞ S. B., Severcan M., Zorlu F., Severcan F.
APPLIED SPECTROSCOPY, vol.69, no.1, pp.154-164, 2015 (SCI-Expanded)
- II. Impacts of salinity and fish-exuded kairomone on the survival and macromolecular profile of *Daphnia pulex***

- Bezirci G., AKKAŞ S. B., Rinke K., YILDIRIM F., Kalaylioglu Z. I., Severcan F., BEKLİOĞLU M.
ECOTOXICOLOGY, vol.21, no.2, pp.601-614, 2012 (SCI-Expanded)
- III. **Toward a protein profile of the zooplankton *Daphnia pulex* exposed to the pesticide cypermethrin, using ATR-FTIR spectroscopy as a novel method**
AKKAŞ S. B., Severcan M., BEKLİOĞLU M., Severcan F.
AMINO ACIDS, vol.41, 2011 (SCI-Expanded)
- IV. **Effects of 4-nonylphenol, fish predation and food availability on survival and life history traits of *Daphnia magna* straus**
BEKLİOĞLU M., AKKAŞ S. B., Ozcan H. E., Bezirci G., Togan I.
ECOTOXICOLOGY, vol.19, no.5, pp.901-910, 2010 (SCI-Expanded)
- V. **Molecular approach to the chemical characterization of fish-exuded kairomone: a Fourier transform infrared spectroscopic study**
AKKAŞ S. B., Kepenek A. O., BEKLİOĞLU M., Severcan F.
AQUATIC SCIENCES, vol.72, no.1, pp.71-83, 2010 (SCI-Expanded)
- VI. **Melatonin affects the order, dynamics and hydration of brain membrane lipids**
Akkas S. B., Inci S., Zorlu F., Severcan F.
JOURNAL OF MOLECULAR STRUCTURE, vol.834, pp.207-215, 2007 (SCI-Expanded)
- VII. **Effects of lipoic acid supplementation on rat brain tissue: An FTIR spectroscopic and neural network study**
Akkas S. B., Severcan M., Yilmaz O., Severcan F.
FOOD CHEMISTRY, vol.105, no.3, pp.1281-1288, 2007 (SCI-Expanded)

Books & Book Chapters

- I. **Methodological approaches from experimental to computational analysis in vibrational spectroscopy and microspectroscopy**
SEVERCAN F., AKKAŞ S. B., TÜRKER S., Yücel R.
in: Vibrational Spectroscopy in Diagnosis and Screening, F. Severcan, P.I. Haris , Editor, IOS Press , pp.12-52, 2012
- II. **Diagnosis and screening of aquatic environments by vibrational spectroscopy**
AKKAŞ S. B., SEVERCAN F.
in: Vibrational Spectroscopy in Diagnosis and Screening, F. Severcan, P.I. Haris, Editor, IOS Press , pp.321-349, 2012

Refereed Congress / Symposium Publications in Proceedings

- I. **A Novel Approach to Aquatic Ecotoxicology Applications of FTIR Spectroscopy**
AKKAŞ S. B., ÇAKMAK G., BEKLİOĞLU YERLİ M., SEVERCAN F.
FT-IR Meeting in Berlin 2013: FT-IR Spectroscopy in Microbiological and Medical Diagnostics, 24 - 25 October 2013
- II. **Toward a protein profile of the zooplankton *Daphnia pulex* exposed to the pesticide cypermethrin using ATR FTIR spectroscopy as a novel method**
AKKAŞ S. B., Severcan M., BEKLİOĞLU YERLİ M., SEVERCAN F.
12th International Congress on Amino Acids, Peptides and Proteins (ICAAP 2011), 1 - 05 August 2011
- III. **Applications of FTIR spectroscopy in aquatic sciences**
AKKAŞ S. B., ÇAKMAK G., SEVERCAN F.
International Conference on Recent Frontiers in Applied Spectroscopy (ICORFAS-2010), 22 - 24 September 2010
- IV. **Tuzluluğun ve balık avlanma baskısının *Daphnia pulex* in hayatta kalma oranı ve yaşam döngüsü parametreleri üzerindeki etkileri**
Bezirci G., AKKAŞ S. B., YILDIRIM F., SEVERCAN F., BEKLİOĞLU YERLİ M.

- III. Ulusal Limnoloji Sempozyumu, Turkey, 27 - 29 August 2008
- V. **Impact of pesticide Cypermethrin and fish kairomone on the life history traits of Daphnia pulex**
AKKAŞ S. B., Bezirci G., BEKLİOĞLU YERLİ M.
5th Symposium for European Freshwater Sciences (SEFS 5), 8 - 13 July 2007
- VI. **Effects of salinity and fish predation on Daphnia pulex life history traits**
Bezirci G., AKKAŞ S. B., BEKLİOĞLU YERLİ M., YILDIRIM F.
5th Symposium for European Freshwater Sciences (SEFS 5), 8 - 13 July 2007
- VII. **Sipermetrin ve balık sinyalinin Daphnia pulex in morfolojik ve populasyon parametreleri üzerindeki etkileri**
AKKAŞ S. B., Ülkü Nihan T., BEKLİOĞLU YERLİ M.
XVIII. Ulusal Biyoloji Kongresi, Turkey, 26 - 30 June 2006
- VIII. **Impact of pesticide and fish kairomone on the life history traits of Daphnia using molecular and ecological approaches**
AKKAŞ S. B., BEKLİOĞLU YERLİ M., SEVERCAN F.
VII. International Symposium on Cladocera (Cladocera-2005), 3 - 09 September 2005
- IX. **An FTIR investigation of the effect of radiation and the possible protective effect of melatonin on rat brain crude membrane**
Akkas S., Kok F., Demircioglu F., Inci S., Zorlu F., Severcan F.
49th Annual Meeting of the Biophysical-Society, California, United States Of America, 12 - 16 February 2005, vol.88
- X. **The effect of lipoic acid and vitamin E on rat brain: An FTIR spectroscopic approach**
Akkas S., Yilmaz O., Severcan F.
49th Annual Meeting of the Biophysical-Society, California, United States Of America, 12 - 16 February 2005, vol.88
- XI. **An FTIR investigation of the effects of melatonin on rat brain crude membrane**
Akkas S., Zorlu F., Severcan F.
48th Annual Meeting of the Biophysical Society, Maryland, United States Of America, 14 - 18 February 2004, vol.86
- XII. **Balık sinyalinin Fourier Transform Infrared spektroskopi tekniği ile araştırılması**
AKKAŞ S. B., TÜRKER S., Zorlu P., BEKLİOĞLU YERLİ M., SEVERCAN F.
XVI. Ulusal Biyoloji Kongresi, Turkey, 4 - 07 September 2002

Supported Projects

Akgül Şişli E., Turgut Ecevit A., Yorgun İ., Çomu T., Özdemir Z., Akkaş S. B., Horizon Europe Project, ENRICH-TOGETHER (Enriching the Green and Blue Transition Research and Training Network by Working Together), 2023 - 2028
Akkaş S. B., Eryılmaz A., Şentürk E., Koç İ., Demircan H. Ö., İşler Baykal I., H2020 Project, StART: Science through ART, 2019 - 2019

Metrics

Publication: 21
Citation (WoS): 185
Citation (Scopus): 156
H-Index (WoS): 6
H-Index (Scopus): 6

Non Academic Experience

Centre for Biospectroscopy, School of Chemistry, Monash University, Australia
Lancaster Environment Centre (LEC), Lancaster University, UK

TROYKA Makina Gıda İnşaat Mühendislik Enerji Çevre Bilişim Araştırma Geliştirme Danışmanlık Sanayi ve Pazarlama
Limited Şirketi, Ankara, Türkiye
Donald Bren School of Environmental Science & Management, University of California, Santa Barbara, USA
Biyofizik ABD, Tıp Fakültesi, Ankara Üniversitesi, Ankara, Türkiye