

## Assoc. Prof. BERNA DALKIRAN

### Personal Information

**Email:** bdalkiran@ankara.edu.tr

**Other Email:** bernadalkiran@gmail.com

**Web:** <https://avesis.ankara.edu.tr/bdalkiran>



### International Researcher IDs

ScholarID: LCHgLaQAAAAJ

ORCID: 0000-0002-9972-5970

Publons / Web Of Science ResearcherID: AFA-9905-2022

ScopusID: 36620161500

### Education Information

Doctorate, Ankara University, Fen Fakültesi, Kimya Bölümü, Turkey 2009 - 2015

Postgraduate, Ankara University, Fen Fakültesi, Kimya Bölümü, Turkey 2007 - 2009

Undergraduate, Ankara University, Fen Fakültesi, Kimya Bölümü, Turkey 2003 - 2007

### Foreign Languages

English, C1 Advanced

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Associate Professor, Ankara University, Fen Fakültesi, Kimya Bölümü, 2021 - Continues

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

- I. **Electrosynthesis of toluidine blue on Fe<sub>3</sub>O<sub>4</sub> nanoparticles modified electrodes in a deep eutectic solvent for the electrochemical determination of neurotransmitter epinephrine**  
Uysal İ., DALKIRAN B., ATAKOL O.  
MICROCHEMICAL JOURNAL, vol.199, 2024 (SCI-Expanded)
- II. **Facile fabrication of NaOH nanorods on pencil graphite electrode for simultaneous electrochemical detection of natural antioxidants by deep eutectic solvent**  
Dalkıran B., Bekirođlu Ataş H.  
ELECTROCHIMICA ACTA, vol.474, 2024 (SCI-Expanded)
- III. **Poly(safranine T)-deep eutectic solvent/copper oxide nanoparticle-carbon nanotube nanocomposite modified electrode and its application to the simultaneous determination of hydroquinone and catechol**

Dalkiran B., Brett C. M.

MICROCHEMICAL JOURNAL, vol.179, 2022 (SCI-Expanded)

- IV. **Polyphenazine and polytriphenylmethane redox polymer/nanomaterial-based electrochemical sensors and biosensors: a review**  
Dalkiran B., Brett C. M. A.  
Microchimica Acta, vol.188, no.5, 2021 (SCI-Expanded)
- V. **A novel nanostructured poly(thionine)-deep eutectic solvent/CuO nanoparticle film-modified disposable pencil graphite electrode for determination of acetaminophen in the presence of ascorbic acid**  
Dalkiran B., Brett C. M. A.  
ANALYTICAL AND BIOANALYTICAL CHEMISTRY, vol.413, no.4, pp.1149-1157, 2021 (SCI-Expanded)
- VI. **Disposable biosensors based on platinum nanoparticle-modified screen-printed carbon electrodes for the determination of biogenic amines**  
Dalkiran B., KAÇAR SELVİ C., Can E., Erden P. E., Kilic E.  
Monatshefte fur Chemie, vol.151, no.12, pp.1773-1783, 2020 (SCI-Expanded)
- VII. **Electrochemical synthesis and characterization of poly(thionine)-deep eutectic solvent/carbon nanotube-modified electrodes and application to electrochemical sensing**  
Dalkiran B., Fernandes I. P. G., David M., Brett C. M. A.  
MICROCHIMICA ACTA, vol.187, no.11, 2020 (SCI-Expanded)
- VIII. **Amperometric determination of heavy metal using an HRP inhibition biosensor based on ITO nanoparticles-ruthenium (III) hexamine trichloride composite: Central composite design optimization**  
Dalkiran B.  
Bioelectrochemistry, vol.135, 2020 (SCI-Expanded)
- IX. **Amperometric biogenic amine biosensors based on Prussian blue, indium tin oxide nanoparticles and diamine oxidase- or monoamine oxidase-modified electrodes**  
KAÇAR SELVİ C., Erden P. E., Dalkiran B., İNAL E. K., Kilic E.  
Analytical and Bioanalytical Chemistry, vol.412, no.8, pp.1933-1946, 2020 (SCI-Expanded)
- X. **Disposable Amperometric Biosensor Based on Poly-L-lysine and Fe<sub>3</sub>O<sub>4</sub> NPs-chitosan Composite for the Detection of Tyramine in Cheese**  
Dalkiran B., Erden P. E., KAÇAR SELVİ C., Kilic E.  
Electroanalysis, vol.31, no.7, pp.1324-1333, 2019 (SCI-Expanded)
- XI. **Effect of hexaammineruthenium chloride and/or horseradish peroxidase on the performance of hydrogen peroxide (bio)sensors: a comparative study**  
Ozdemir D. S., KAÇAR SELVİ C., Dalkiran B., KÜÇÜKKOLBAŞI S., Erden P. E., Kilic E.  
Journal of Materials Science, vol.54, no.7, pp.5381-5398, 2019 (SCI-Expanded)
- XII. **Chromate-selective electrodes prepared by using calix[4]arenes for the speciation of Cr(VI) and Cr(III)**  
Dalkiran B., Kormalı Ertürün H. E., Demirel Özel A., Canel E., Özkınalı S., Kilic E.  
Ionics, vol.23, no.9, pp.2509-2519, 2017 (SCI-Expanded)
- XIII. **Amperometric biosensors based on carboxylated multiwalled carbon nanotubes-metal oxide nanoparticles-7,7,8,8-tetracyanoquinodimethane composite for the determination of xanthine**  
Dalkiran B., Erden P. E., Kilic E.  
Talanta, vol.167, pp.286-295, 2017 (SCI-Expanded)
- XIV. **Graphene and tricobalt tetraoxide nanoparticles based biosensor for electrochemical glutamate sensing**  
Dalkiran B., Erden P. E., Kilic E.  
Artificial Cells, Nanomedicine and Biotechnology, vol.45, no.2, pp.340-348, 2017 (SCI-Expanded)
- XV. **Electrochemical biosensing of galactose based on carbon materials: graphene versus multi-walled carbon nanotubes**  
Dalkiran B., Erden P. E., Kilic E.

Analytical and Bioanalytical Chemistry, vol.408, no.16, pp.4329-4339, 2016 (SCI-Expanded)

- XVI. **Dual functional graphene derivative-based electrochemical platforms for detection of the TP53 gene with single nucleotide polymorphism selectivity in biological samples**  
Esteban-Fernandez de Avila B., Araque E., Campuzano S., Pedrero M., Dalkiran B., Barderas R., Villalonga R., Kilic E., Pingarron J. M.  
Analytical Chemistry, vol.87, no.4, pp.2290-2298, 2015 (SCI-Expanded)
- XVII. **An amperometric hydrogen peroxide biosensor based on Co<sub>3</sub>O<sub>4</sub> nanoparticles and multiwalled carbon nanotube modified glassy carbon electrode**  
KAÇAR SELVİ C., Dalkiran B., Erden P. E., Kilic E.  
Applied Surface Science, vol.311, pp.139-146, 2014 (SCI-Expanded)
- XVIII. **Amperometric xanthine biosensors based on chitosan-Co<sub>3</sub>O<sub>4</sub>-multiwall carbon nanotube modified glassy carbon electrode**  
Dalkiran B., KAÇAR SELVİ C., Erden P. E., Kilic E.  
Sensors and Actuators, B: Chemical, vol.200, pp.83-91, 2014 (SCI-Expanded)
- XIX. **A novel lariat crown compound as ionophore for construction of a mercury(II)-selective electrode**  
Dalkiran B., Özel A., Parlayan S., Canel E., Ocak Ü., Kılıç E.  
Monatshefte für Chemie, vol.141, no.8, pp.829-839, 2010 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Tryptamine Biosensor Based on Amino-Functionalized Multiwalled Carbon Nanotubes, Tin Oxide Nanoparticles and Diamine Oxidase**  
Kaçar Selvi C., Dalkiran B.  
Düzce Üniversitesi Bilim ve Teknoloji Dergisi, vol.8, pp.631-641, 2019 (Peer-Reviewed Journal)
- II. **The Effect of Various Multiwalled Carbon Nanotubes on the Performance of Xanthine Biosensors**  
Kaçar Selvi C., Dalkiran B., Erden P. E., Kılıç E.  
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.22, pp.832-839, 2018 (Peer-Reviewed Journal)
- III. **Electrochemical xanthine biosensor based on zinc oxide nanoparticles- multiwalled carbon nanotubes-1,4-benzoquinone composite**  
Dalkiran B., KAÇAR SELVİ C., Erden P. E., Kılıç E.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.5, no.1, pp.317-332, 2018 (Scopus)
- IV. **CONSTRUCTION OF AN ELECTROCHEMICAL XANTHINE BIOSENSOR BASED ON GRAPHENE/COBALT OXIDE NANOPARTICLES/CHITOSAN COMPOSITE FOR FISH FRESHNESS DETECTION**  
Dalkiran B., Erden P. E., Kılıç E.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.4, pp.23-44, 2017 (Peer-Reviewed Journal)

## Supported Projects

- Dalkiran B., Atakol O., TUBITAK Project, Preparation of nanomaterial-based electrochemical sensors based on electropolymerization of amino acids in deep eutectic solvent, 2024 - 2024
- Dalkiran B., Atakol O., Project Supported by Higher Education Institutions, Derin ötektik çözücü varlığında amino asitlerin elektropolimerizasyonuna dayanan nanomalzeme temelli elektrokimyasal sensörlerin hazırlanması, 2022 - 2024
- Dalkiran B., Atakol O., Project Supported by Higher Education Institutions, Development of Nanomaterials-Based Electrochemical Sensors and Biosensors and Their Applications, 2021 - 2022
- Uysal I., Dalkiran B., Atakol O., Project Supported by Higher Education Institutions, 2. Determination and Investigation of Electrochemical Behavior of Various Species Using Modified Solid Electrodes, 2021 - 2022
- Dalkiran B., Brett C. M., TUBITAK Project, Nanomaterial Modified Electrodes Based on Redox Polymers Synthesized in Deep Eutectic Solvents for Voltammetric and Amperometric Analysis, 2020 - 2021
- Dalkiran B., Erden P. E., Kaçar Selvi C., Kenar A., Anlı R. E., Kılıç E., TUBITAK Project, Development of Disposable

Amperometric Biosensor Array for the Simultaneous Determination of Biogenic Amines in Food Samples., 2017 - 2019  
Dalkıran B., Kaçar Selvi C., Erden P. E., Kılıç E., Project Supported by Higher Education Institutions, Çeşitli Modifikasyon Yöntemleriyle Yeni Amperometrik Enzim Elektrotlar Hazırlanması, 2014 - 2015  
Dalkıran B., Kaçar Selvi C., Kılıç E., Project Supported by Higher Education Institutions, 4. Development of Modified Amperometric Enzyme Electrodes for Determination Some Species, 2013 - 2014  
Karakuş E., Zeybek B., Demirel Özel A., Koyuncu Zeybek D., Kılıç E., Pekyardımcı Ş., TUBITAK Project, Development of Amperometric and Potentiometric Biosensors for Species, 2007 - 2009

## **Metrics**

Publication: 46

Citation (WoS): 469

Citation (Scopus): 534

H-Index (WoS): 13

H-Index (Scopus): 13