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International Researcher IDs

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Publons / Web Of Science ResearcherID: ABD-2343-2020

ScopusID: 56374132900

Yoksis Researcher ID: 29434

Education Information

Doctorate, Canakkale Onsekiz Mart University, Lisansüstü Eğitim Enstitüsü, Kimya A.B.D. / Analitik Kimya Bilim Dalı, Turkey 2013 - 2019

Postgraduate, Canakkale Onsekiz Mart University, Lisansüstü Eğitim Enstitüsü, Kimya A.B.D. / Organik Kimya Bilim Dalı, Turkey 2011 - 2013

Undergraduate, Sakarya University, Fen Edebiyat Fakültesi, Kimya Bölümü, Turkey 2006 - 2010

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

Education Management and Planning, Thermo Scientific FT-IR, Thermo Scientific, 2013

Education Management and Planning, Thermo Scientific UV-VIS Spectrophotometer, Thermo Scientific, 2012

Education Management and Planning, Thermo Scientific Fluorescence Spectrophotometer, Thermo Scientific, 2012

Education Management and Planning, Thermo Scientific HPLC, Thermo Scientific, 2012

Occupational Health and Safety, TSE - OHSAS (İşçi sağlığı, İş Güvenliği) Sertifikası, TSE, 2009

Dissertations

Doctorate, Metal Nanoparçacık Modifiye Kalem Grafit Elektrot Kullanılarak Akışa Enjeksiyon Analizde Sensör ve Biyosensör Uygulamaları, Canakkale Onsekiz Mart University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2019

Postgraduate, Boradiaza-s-indasen ve Tetraazasiklododekan İkilisinden Oluşan Yeni Supramoleküler Yapıların Tasarımı, Sentezi ve Özellikleri , Canakkale Onsekiz Mart University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, 2013

Research Areas

Chemistry, Analytical Chemistry, Electromagnetic Methods, Sensors, Organic Spectroscopy, Natural Sciences

Academic Titles / Tasks

Associate Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Kimya, 2022 - Continues

Research Assistant PhD, Canakkale Onsekiz Mart University, Fen Fakültesi, Kimya, 2019 - 2022

Research Assistant, Canakkale Onsekiz Mart University, Fen Fakültesi, Kimya, 2011 - 2019

Courses

Analitik Kimya Laboratuvarı II, Undergraduate, 2022 - 2023

Lisans Tezi, Undergraduate, 2022 - 2023

Analitik Kimya I, Undergraduate, 2023 - 2024

Analitik Voltametri, Undergraduate, 2023 - 2024, 2021 - 2022

Analitik Kimya, Undergraduate, 2022 - 2023, 2021 - 2022

Elektroanalitik Yöntemler, Undergraduate, 2021 - 2022

Analitik Kimya Laboratuvarı I, Undergraduate, 2022 - 2023, 2019 - 2020

Kimya, Undergraduate, 2022 - 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Simple, sensitive, and cost-effective voltammetric determination of salbutamol at a pencil graphite electrode modified with Nafion and functionalized multi-walled carbon nanotubes**
Giray Dilgin D., Vural K., Karakaya S., Dilgin Y.
Monatshefte für Chemie, vol.155, no.2, pp.143-153, 2024 (SCI-Expanded)
- II. **Disposable and Sensitive Electrochemical Determination of Molnupiravir at a Pencil Graphite Electrode (PGE) by Differential Pulse Voltammetry (DPV)**
Karakaya S., Dilgin Y.
ANALYTICAL LETTERS, vol.57, no.5, pp.783-796, 2024 (SCI-Expanded)
- III. **The application of multi-walled carbon nanotubes modified pencil graphite electrode for voltammetric determination of favipiravir used in COVID-19 treatment**
Karakaya S., Dilgin Y.
MONATSHEFTE FÜR CHEMIE, vol.154, pp.729-739, 2023 (SCI-Expanded)
- IV. **Sensitive Amperometric Detection of Hydroxylamine at Electropolymerized Curcumin Film Coated Pencil Graphite Electrode**
Güneş M., Hanbeyoğlu A., Karakaya S., Yaman M., Dilgin Y.
CHEMISTRYSELECT, vol.8, no.e202204104, pp.1-11, 2023 (SCI-Expanded)
- V. **Voltammetric determination of Molnupiravir used in treatment of the COVID-19 at magnetite nanoparticle modified carbon paste electrode**
Vural K., Karakaya S., Giray Dilgin D., Gökçel H. İ., Dilgin Y.
MICROCHEMICAL JOURNAL, vol.184, pp.1-8, 2023 (SCI-Expanded)
- VI. **Highly Sensitive Square Wave Voltammetric Determination of Sunset Yellow at a functionalized-MWCNTs/poly(Alizarin Red-S) Composite Modified Electrode**
Gunes M., KARAKAYA S., DİLGİN Y.
ELECTROANALYSIS, vol.34, no.10, pp.1644-1655, 2022 (SCI-Expanded)
- VII. **Flow-Injection Amperometric Determination of Glucose Using Nickel Oxide-Cobalt (II,III) Oxide and**

Nickel Oxide-Copper Nanoparticle Modified Pencil Graphite Electrodes

AYAZ S., KARAKAYA S., EMİR G., Usaklıgil N., GİRAY DİLGİN D., DİLGİN Y.

ANALYTICAL LETTERS, vol.55, no.13, pp.2046-2057, 2022 (SCI-Expanded)

- VIII. **Electrocatalytic oxidation and flow injection analysis of formaldehyde at binary metal oxides (Co₃O₄-NiO and CuO-Co₃O₄) modified pencil graphite electrodes**
EMİR G., KARAKAYA S., Ayaz S., Dilgin D. G., DİLGİN Y.
Monatshefte fur Chemie, vol.152, no.12, pp.1491-1503, 2021 (SCI-Expanded)
- IX. **Sensitive Voltammetric Determination of Oxymetazoline Hydrochloride at a Disposable Electrode**
Güneş M., Karakaya S., Kocağa T., Yıldırım F., Dilgin Y.
Monatshefte Fur Chemie, vol.152, no.12, pp.1505-1513, 2021 (SCI-Expanded)
- X. **A Novel Sensitive and Selective Amperometric Detection Platform for the Vanillin Content in Real Samples**
Karakaya S., Kaya İ.
ELECTROANALYSIS, vol.33, no.6, pp.1615-1622, 2021 (SCI-Expanded)
- XI. **Sensitive Electrochemical Determination of Trifluralin at a Disposable Pencil Graphite Electrode**
Gege U., Karakaya S., Dilgin Y.
ELECTROANALYSIS, vol.33, no.6, pp.1547-1556, 2021 (SCI-Expanded)
- XII. **An electrochemical detection platform for selective and sensitive voltammetric determination of quercetin dosage in a food supplement by poly(9-(2-(pyren-1-yeethyl)-9h-carbazole) coated indium tin oxide electrode**
KARAKAYA S., KAYA İ.
POLYMER, vol.212, 2021 (SCI-Expanded)
- XIII. **Pyrocatechol violet modified graphite pencil electrode for flow injection amperometric determination of sulfide**
Emir G., KARAKAYA S., DİLGİN Y.
Journal of Electrochemical Science and Technology, vol.11, no.3, pp.248-256, 2020 (SCI-Expanded)
- XIV. **Ultrasensitive voltammetric detection of an antimalarial drug (amodiaquine) at a disposable and low cost electrode**
KARAKAYA S., Kartal B., DİLGİN Y.
MONATSHEFTE FUR CHEMIE, vol.151, no.7, pp.1019-1026, 2020 (SCI-Expanded)
- XV. **Development of an interference-minimized amperometric-FIA glucose biosensor at a pyrocatechol violet/glucose dehydrogenase-modified graphite pencil electrode**
Guenes M., KARAKAYA S., DİLGİN Y.
CHEMICAL PAPERS, vol.74, no.6, pp.1923-1936, 2020 (SCI-Expanded)
- XVI. **A novel enzyme-free FI-amperometric glucose biosensor at Cu nanoparticles modified graphite pencil electrode**
Ayaz S., KARAKAYA S., Emir G., GİRAY DİLGİN D., DİLGİN Y.
Microchemical Journal, vol.154, 2020 (SCI-Expanded)
- XVII. **Development and application of a sensitive, disposable and low-cost electrochemical sensing platform for an antimalarial drug: amodiaquine based on poly(calcein)-modified pencil graphite electrode**
Karakaya S., Kartal B., Dilgin Y.
INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY, pp.1-14, 2020 (SCI-Expanded)
- XVIII. **Development of an amperometric hydrazine sensor at a disposable poly(alizarin red S) modified pencil graphite electrode**
KARAKAYA S.
MONATSHEFTE FUR CHEMIE, vol.150, no.11, pp.1911-1920, 2019 (SCI-Expanded)
- XIX. **Sensitive and Rapid Flow Injection Amperometric Hydrazine Sensor using an Electrodeposited Gold Nanoparticle Graphite Pencil Electrode**
TEOMAN I., KARAKAYA S., DİLGİN Y.
ANALYTICAL LETTERS, vol.52, no.13, pp.2041-2056, 2019 (SCI-Expanded)

- XX. **Minimization of Interferences in Flow Injection Amperometric Glucose Biosensor Based on Oxidation of Enzymatically-produced H₂O₂**
KARAKAYA S., DİLGİN Y.
ELECTROANALYSIS, vol.31, no.7, pp.1373-1380, 2019 (SCI-Expanded)
- XXI. **Low-cost determination of cetirizine by square wave voltammetry in a disposable electrode**
KARAKAYA S., GİRAY DİLGİN D.
MONATSCHEFTE FÜR CHEMIE, vol.150, no.6, pp.1003-1010, 2019 (SCI-Expanded)
- XXII. **Sensitive Flow-Injection Electrochemical Determination of Hydrogen Peroxide at a Palladium Nanoparticle-Modified Pencil Graphite Electrode**
KARAKAYA S., DİLGİN Y.
ANALYTICAL LETTERS, vol.52, no.6, pp.998-1017, 2019 (SCI-Expanded)
- XXIII. **Flow Injection Amperometric Analysis of H₂O₂ at Platinum Nanoparticles Modified Pencil Graphite Electrode**
KARAKAYA S., DİLGİN Y.
ELECTROANALYSIS, vol.29, no.6, pp.1626-1634, 2017 (SCI-Expanded)
- XXIV. **Differential pulse voltammetric determination of acyclovir in pharmaceutical preparations using a pencil graphite electrode**
GİRAY DİLGİN D., KARAKAYA S.
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.63, pp.570-576, 2016 (SCI-Expanded)
- XXV. **A novel dual channel responsive zinc(II) probe**
KARAKAYA S., ALGI F.
TETRAHEDRON LETTERS, vol.55, no.40, pp.5555-5559, 2014 (SCI-Expanded)

Articles Published in Other Journals

- I. **Low Cost, Sensitive and Selective Chronoamperometric Determination of Vanillin at a Disposable Poly(Eriochrome Black T)/Pencil Graphite Electrode**
Karakaya* S.
Akademik Gıda, vol.18, pp.1-11, 2020 (Peer-Reviewed Journal)
- II. **SYNTHESIS OF CYCLEN BODIPY DYAD AND ITS METAL COMPLEXES:EVALUATION OF ANION RECOGNITION FEATURES**
Algi* F., Karakaya S.
Mugla Journal of Science and Technology, vol.5, no.1, pp.69-99, 2019 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Chapter 7 - Quantum dots-based photoelectrochemical sensors and biosensors**
Dilgin Y., Karakaya S., Giray Dilgin D.
in: Electroanalytical Applications of Quantum Dot-Based Biosensors - Micro and Nano Technologies, Bengi Uslu, Editor, Elsevier Science, Oxford/Amsterdam , Oxford, pp.209-269, 2021

Refereed Congress / Symposium Publications in Proceedings

- I. **DETERMINATION OF HYDROXYLAMINE AT POLY-CURCUMIN-MODIFIED PENCIL GRAPHITE ELECTRODE**
Güneş M., Hanbeyoğlu A., Karakaya S., Yaman M., Dilgin Y.
12th AGEAN ANALYTICAL CHEMISTRY CONGRESS, İstanbul, Turkey, 19 - 22 October 2023, pp.220

- II. **AN APPLICATION TO ELECTROCHEMICAL DETERMINATION OF COVID-19 DRUG: FAVIPIRAVIR AT PENCIL GRAPHITE ELECTRODE BOOSTED WITH FUNCTIONALIZED-CARBON NANOTUBES (Oral Presentation)**
Karakaya S., Dilgin Y.
12th AGEAN ANALYTICAL CHEMISTRY CONGRESS, İstanbul, Turkey, 19 - 22 October 2023, pp.39-40
- III. **ELECTROCHEMICAL SENSORS FOR DETERMINATION OF ENVIRONMENTALLY IMPORTANT COMPOUNDS USING DISPOSABLE PENCIL GRAPHITE ELECTRODES**
Dilgin Y., Ayaz S., Emir G., Karakaya S., Giray Dilgin D.
22nd International Scientific Conference "EcoBalt 2021", Riga, Latvia, 21 - 23 October 2021, pp.39
- IV. **Chemically modified disposable electrodes as amperometric sensors and biosensors in flow injection analysis (Oral Presentation)**
Ayaz S., Emir G., Giray Dilgin D., Karakaya S., Dilgin Y.
3rd International Congress on Analytical and Bioanalytical Chemistry, Elazığ, Turkey, 22 - 26 March 2021, pp.25
- V. **Cyclic Voltammetric Detection of a Food Dye: Sunset Yellow at Ni Nanoparticles Decorated Graphite Pencil Electrode (Oral Presentation)**
Karakaya* S.
International Conference on Research in Natural and Engineering Sciences (ICRNES 2020), 14 - 15 November 2020, pp.18-19
- VI. **SENSITIVE VOLTAMMETRIC DETERMINATION OF QUERCETIN AT POLY(ALIZARIN RED S) COATED PENCIL LEAD ELECTRODE (Oral Presentation)**
Karakaya* S.
VAN INTERNATIONAL APPLIED SCIENCES CONGRESS, Van, Turkey, 24 - 25 July 2020, pp.33-34
- VII. **Flow Injection Amperometric Detection of Formaldehyde at Bimetal Nanoparticles Modified Pencil Graphite Electrodes (Oral Presentation)**
Giray Dilgin D., Emir G., Ayaz S., Karakaya* S., Dilgin Y.
2nd International Congress on Analytical and Bioanalytical Chemistry (2nd ICABC 2020), Antalya, Turkey, 11 - 14 March 2020, pp.82
- VIII. **Sensitive Differential Pulse Voltammetric Determination of an Antimalarial Drug: Amodiaquine at a Disposable Poly-Calcein Modified Pencil Graphite Electrode (Oral Presentation)**
Karakaya S., Kartal* B., Dilgin Y.
2nd International Congress on Analytical and Bioanalytical Chemistry (2nd ICABC 2020), Antalya, Turkey, 11 - 14 March 2020, pp.83
- IX. **An Enzyme Free Flow Injection Amperometric Glucose Biosensor Using a Cu Nanoparticle Modified Pencil Graphite Electrode (Oral Presentation)**
AYAZ* S., EMİR G., KARAKAYA S., GİRAY DİLGİN D., DİLGİN Y.
4th International Congress on Biosensors, Çanakkale, Turkey, 8 - 11 July 2019, pp.109
- X. **A Non-Enzymatic Flow Injection Analysis of Glucose at A Nickel Nanoparticle Modified Pencil Graphite Electrode**
EMİR* G., AYAZ S., KARTAL B., KARAKAYA S., DİLGİN Y.
4th International Congress on Biosensors, Çanakkale, Turkey, 8 - 11 July 2019, pp.161
- XI. **Reduction of Interferences of Ascorbic Acid, Uric Acid and Dopamine in Flow Injection Amperometric Glucose Biosensor at a Pt Nanoparticle Modified Pencil Graphite Electrode**
KARAKAYA S., DİLGİN Y.
1st International Congress on Analytical and Bioanalytical Chemistry (1st ICABC 2019), Antalya, Turkey, 27 - 30 March 2019, pp.200
- XII. **Electrochemical Determination of H₂O₂ in Flow Injection Analysis System with Using Platinum Nanoparticles Modified Pencil Graphite Electrode**
KARAKAYA S., DİLGİN Y.
10th Aegean Analytical Chemistry Days, Çanakkale, Turkey, 29 September - 02 October 2016, pp.306
- XIII. **Altın Nanoparçacık Modifiye Kalem Grafit Elektrot Kullanılarak H₂O₂'in Akışa Enjeksiyon Analiz Sisteminde Elektrokimyasal Tayini (Sözlü Bildiri)**

KARAKAYA S., DİLGİN Y.

8. ULUSAL ANALİTİK KİMYA KONGRESİ, Isparta, Turkey, 30 May - 03 June 2016, pp.26

XIV. Kalem Grafit Elektrot ile Acyclovir'in Voltammetrik Tayini

GİRAY DİLGİN D., KARAKAYA S.

8. ULUSAL ANALİTİK KİMYA KONGRESİ, Isparta, Turkey, 30 May - 03 June 2016, pp.71

XV. Synthesis and Applications of A New Luminescent Macromolecular Material

BİLMEZ M., KARAKAYA S., ALGI F.

The Third Joint Meeting of Working Groups WG1, WG2 and WG3 and the 4th Management Committee Meeting of COST Action CM1006, Nürnberg, Germany, 12 - 15 April 2014, pp.54

XVI. A New Dual Channel Imaging Probe

KARAKAYA S., ALGI F.

The Third Joint Meeting of Working Groups WG1, WG2 and WG3 and the 4th Management Committee Meeting of COST Action CM1006, Nürnberg, Germany, 12 - 15 April 2014, pp.82

XVII. Syntheses of Metal Complexes of BODIPY-DOTA Dyads

KARAKAYA S., ALGI F.

IUPAC 44th World Chemistry Congress, İstanbul, Turkey, 12 - 16 August 2013, pp.804

XVIII. Synthesis and Properties of a Novel Luminescent Supramolecular Material

BİLMEZ M., KARAKAYA S., ALGI F.

IUPAC 44th World Chemistry Congress, İstanbul, Turkey, 12 - 16 August 2013, pp.823

XIX. Synthesis and Properties of Novel BODIPY-DOTA Dyads

KARAKAYA S., ALGI F.

The second Joint Meeting of Working Groups WG1, WG2 and WG3 and the 4th Management Committee Meeting of COST Action CM1006: European f-Element Chemistry, Dublin, Ireland, 15 - 18 April 2013, pp.66

XX. Synthesis and Properties of BODIPY-DOTA Dyads

KARAKAYA S., ALGI F.

The first Joint Meeting of Working Groups WG1, WG2 and WG3 and the 3rd Management Committee Meeting of COST Action CM1006: European f-Element Chemistry, Tarragona, Spain, 2 - 04 April 2012, pp.80

Supported Projects

Karakaya S., Dilgin Y., Project Supported by Higher Education Institutions, Modifiye Edilmiş Kalem Grafit Elektrot ile COVID19'un Tedavisinde Kullanılan Favipiravirin Duyar Voltammetrik Tayini, 2022 - 2024

Karakaya S., Dilgin Y., TUBİTAK Project, Covid 19 Tedavisinde Yeni İlaç Olarak Kullanılan Molnupiravir'in Elektrokimyasal Davranışının İncelenmesi ve Voltammetrik Tayini, 2022 - 2024

GİRAY DİLGİN D., DİLGİN Y., KARAKAYA S., Vural K., Project Supported by Higher Education Institutions, Karbon Nanotüp Modifiye Kalem Grafit Elektrot Kullanılarak Salbütamolün Elektrokimyasal Davranışının İncelenmesi ve Hassas Voltammetrik Tayini, 2022 - 2024

GİRAY DİLGİN D., DİLGİN Y., KARAKAYA S., Emir G., Ayaz S., Project Supported by Higher Education Institutions, Bimetal Nanoparçacık Modifiye Tek Kullanımlı Elektrotla Formaldehitin Akışa Enjeksiyon Analizi, 2019 - 2021

KARAKAYA S., KARTAL B., DİLGİN Y., Project Supported by Higher Education Institutions, Modifiye Edilmiş Kalem Grafit Elektrot ile Antimarial İlaç Amodiakinin Tayinine Yönelik Bir Elektrokimyasal Sensörün Tasarlanması ve Uygulaması, 2019 - 2020

EU Supported Other Project, Synthesis Properties and Applications of Novel Supramolecular Constructs For Lanthanide Metals , "European Science Foundation (ESF) European Cooperation in Science and Technology (COST)- Türkiye Bilimsel ve Teknolojik Araştırma Kurumu (TÜBİTAK), 2012 - 2015

Activities in Scientific Journals

American Journal of Applied Chemistry (AJAC) , Editor, 2022 - Continues

Scientific Refereeing

ELECTROCHEMISTRY COMMUNICATIONS, SCI Journal, November 2023

MICROCHIMICA ACTA, SCI Journal, April 2021

ANALYTICAL LETTERS, SCI Journal, April 2021

Microchimica Acta, SCI Journal, June 2020

Analytical Letters, SCI Journal, September 2019

Microchimica Acta, SCI Journal, May 2019

Electroanalysis, SCI Journal, January 2018

Electroanalysis, SCI Journal, September 2017

Tasks In Event Organizations

Öztürk Ö. F., Karakaya S., 10th Aegean Analytical Chemistry Days, Scientific Congress, Çanakkale, Turkey, Ekim 2016

Ay M., Öztürk Ö. F., Güngör T., Karakaya S., KARACAN E., TERCAN YAVAŞOĞLU M., 27. Ulusal Kimya Kongresi, Scientific Congress, Çanakkale, Turkey, Ağustos 2015

Metrics

Publication: 49

Citation (WoS): 193

Citation (Scopus): 258

H-Index (WoS): 8

H-Index (Scopus): 10

Scholarships

2211/E -TÜBİTAK Yurt içi Doktora Bursiyerliği, TUBİTAK, 2013 - 2017

2210-TÜBİTAK Yurt içi Yüksek Lisans Bursiyerliği, TUBİTAK, 2011 - 2013

Awards

Karakaya S., YÖK Akademik Teşvik Ödülü, Yüksek Öğretim Kurumu (Yök), February 2022

Karakaya S., YÖK Akademik Teşvik Ödülü, Yüksek Öğretim Kurumu (Yök), February 2021

Karakaya S., YÖK Akademik Teşvik Ödülü, Yüksek Öğretim Kurumu (Yök), February 2020

Karakaya S., YÖK Akademik Teşvik Ödülü, Yüksek Öğretim Kurumu (Yök), February 2019

Karakaya S., YÖK Akademik Teşvik Ödülü, Yüksek Öğretim Kurumu (Yök), February 2017

Karakaya S., YÖK Akademik Teşvik Ödülü , Yüksek Öğretim Kurumu (Yök), February 2016