

Prof. EBRU AKTAN

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International Researcher IDs

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Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Dr), Turkey 2001 - 2008

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), Turkey 1998 - 2001

Undergraduate, Hacettepe University, Eğitim Fakültesi, Ortaöğretim Fen Ve Matematik Alanlar Eğitimi Bölümü, Turkey 1993 - 1997

Foreign Languages

German, C2 Mastery

Certificates, Courses and Trainings

Other, Moleküler Dinamik Çalıştayı, Tobb Ekonomi Ve Teknoloji Üniversitesi, 2011

Other, 6. Hesaplamalı Kimya Çalıştayı, Ulusal Yüksek Başarımlı Hesaplama Merkezi, İstanbul Teknik Üniversitesi, 2011

Other, Moleküler Dinamik Çalıştayı, Tobb Ekonomi Ve Teknoloji Üniversitesi, 2010

Other, 4. Hesaplamalı Kimya Çalıştayı, Ulusal Yüksek Başarımlı Hesaplama Merkezi, İstanbul Teknik Üniversitesi, 2009

Dissertations

Doctorate, Heterosiklik Bileşen İçeren Yeni Dispers Azo Boyarmaddelerinin Sentezi ve Yapılarının Aydınlatılması, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Dr), 2008

Postgraduate, N,N'-xx-Difenil-N'xx,N'xx'xx-bis(sübstüüefenil)-C,C'xx-p-fenilen Diformazanların Sentezi, Yapılarının Aydınlatılması ve Farklı Çözücüler İçinde Absorpsiyon Spektrumlarının İncelenmesi, Gazi University, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), 2001

Research Areas

Organic Chemistry

Academic Titles / Tasks

Professor, Gazi University, Fen Fakültesi, Kimya, 2021 - Continues
Associate Professor, Gazi University, Fen Fakültesi, Kimya, 2018 - 2021
Research Assistant, Gazi University, Fen Fakültesi, Kimya, 1998 - 2018

Academic and Administrative Experience

Erasmus Coordinator, Gazi University, Fen Fakültesi, Kimya, 2016 - 2017

Courses

Stereokimya, Undergraduate, 2023 - 2024
Heterocyclic Compounds Chemistry, Undergraduate, 2020 - 2021
Organic Chemistry 2, Undergraduate, 2020 - 2021
Genel Kimya, Undergraduate, 2017 - 2018
Organik Kimya Laboratuvarı 1, Undergraduate, 2017 - 2018
Organik Kimyaya Giriş, Undergraduate, 2017 - 2018
Organik Kimya 1, Undergraduate, 2017 - 2018
Organik Kimya, Undergraduate, 2017 - 2018
Stereokimya 2, Postgraduate, 2017 - 2018
Stereokimya 1, Postgraduate, 2017 - 2018

Advising Theses

Aktan E., DETERMINATION OF INTERACTION MECHANISMS OF ORGANIC CHROMOPHORES WITH VARIOUS ANIONS BY EXPERIMENTAL AND THEORETICAL METHODS, Postgraduate, Z.Gizem(Student), 2022
AKTAN E., Synthesis Of Coumarin Based Dyes, Experimental And Theoretical Investigation Of Their Photophysical Properties, Postgraduate, B.Berna(Student), 2021

Jury Memberships

Appointment to Academic Staff-Professorship, Appointment to Academic Staff-Professorship, Kafkas Üniversitesi, August, 2023
Doctoral Examination, Doctoral Examination, Ankara Üniversitesi, July, 2023
Post Graduate, Post Graduate, Hacettepe Üniversitesi, June, 2023
Doctoral Examination, Doctoral Examination, Ankara Üniversitesi, January, 2023
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Hacettepe Üniversitesi, January, 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Novel push-pull organic dyes bearing Indan-2-one/Inden-1-ylidene and coumarin: Synthesis and photophysical properties**
Ozbek B. B., AKTAN E., SEFEROĞLU Z.
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY, vol.432, 2022 (SCI-Expanded)
- II. **Copper(II) sulfonamide complexes having enzyme inhibition activities on carbonic anhydrase I:**

synthesis, characterization and inhibition studies

Uzun D., Balaban Gündüzalp A., Parlakgumus G., Özdemir Özmen Ü., Özbek N., Aktan E.

JOURNAL OF THE IRANIAN CHEMICAL SOCIETY, vol.19, no.1, pp.55-69, 2022 (SCI-Expanded)

- III. **The association of like-charged ions in tunable protic pyrazolium salts**
Ozdemir M. C., AKTAN E., ŞAHİN O.
JOURNAL OF MOLECULAR STRUCTURE, vol.1242, 2021 (SCI-Expanded)
- IV. **Indole based push-pull dyes bearing azo and dimethine: Synthesis, spectroscopic, NLO, anion affinity properties and thermal characterization**
Keles E., Yahya M., Aktan E., Aydinler B., Seferoğlu N., Barsella A., Seferoğlu Z.
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY, vol.402, 2020 (SCI-Expanded)
- V. **1-Aryl-3,5-dimethylpyrazolium based tunable protic ionic liquids (TPILs)**
Ozdemir M. C., Ozgun B., AKTAN E.
JOURNAL OF MOLECULAR STRUCTURE, vol.1180, pp.564-572, 2019 (SCI-Expanded)
- VI. **Combined spectroscopic, XRD crystal structure and DFT studies on 2-(ethylthio)pyrimidine-4,6-diamine**
AKTAN E., Babur B., SEFEROĞLU N., ÇATIKKAŞ B., KAYNAK F. B., SEFEROĞLU Z.
JOURNAL OF MOLECULAR STRUCTURE, vol.1145, pp.152-159, 2017 (SCI-Expanded)
- VII. **Hetarylazopyrazolone Dyes Based on Benzothiazole and Benzimidazole Ring Systems: Synthesis, Spectroscopic Investigation, and Computational Study**
AKTAN E., Uyar T.
JOURNAL OF CHEMISTRY, vol.2017, 2017 (SCI-Expanded)
- VIII. **Structural, physicochemical characterization, theoretical studies of carboxamides and their Cu(II), Zn(II) complexes having antibacterial activities against E. coli**
AKTAN E., BALABAN GÜNDÜZALP A., ÖZDEMİR ÖZMEN Ü.
JOURNAL OF MOLECULAR STRUCTURE, vol.1128, pp.775-784, 2017 (SCI-Expanded)
- IX. **Vibrational and electronic investigations, NLO, FMO analysis on a hetarylazoindole disperse dye by density functional theory**
ÇATIKKAŞ B., AKTAN E., Yalcin E.
JOURNAL OF MOLECULAR STRUCTURE, vol.1117, pp.218-226, 2016 (SCI-Expanded)
- X. **Synthesis, molecular structure and computational study of (Z)-2-((E)-4-nitrobenzylidene)hydrazone)-1,2-diphenylethan-1-one**
ELMACI G., AKTAN E., SEFEROĞLU N., HÖKELEK T., SEFEROĞLU Z.
JOURNAL OF MOLECULAR STRUCTURE, vol.1099, pp.83-91, 2015 (SCI-Expanded)
- XI. **Phenylazoindole dyes 3: Determination of azo-hydrazone tautomers of new phenylazoindole dyes in solution and solid state**
Babur B., SEFEROĞLU N., AKTAN E., HÖKELEK T., ŞAHİN E., SEFEROĞLU Z.
JOURNAL OF MOLECULAR STRUCTURE, vol.1081, pp.175-181, 2015 (SCI-Expanded)
- XII. **Characterization, antibacterial, anticarbonic anhydrase II isoenzyme, anticancer, electrochemical and computational studies of sulfonic acid hydrazide derivative and its Cu(II) complex**
ÖZDEMİR ÖZMEN Ü., AKTAN E., İlbiz F., BALABAN GÜNDÜZALP A., ÖZBEK N., SARI M., ÇELİK Ö., SAYDAM S.
INORGANICA CHIMICA ACTA, vol.423, pp.194-203, 2014 (SCI-Expanded)
- XIII. **Phenylazoindole dyes 2: The molecular structure characterizations of new phenylazo indoles derived from 1,2-dimethylindole**
Babur B., SEFEROĞLU N., AKTAN E., HÖKELEK T., ŞAHİN E., SEFEROĞLU Z.
DYES AND PIGMENTS, vol.103, pp.62-70, 2014 (SCI-Expanded)
- XIV. **Synthesis, characterization and theoretical study of new hetarylazopyrazolone dyes and investigation of their absorption spectra**
AKTAN E., Ertan N., Uyar T.
JOURNAL OF MOLECULAR STRUCTURE, vol.1060, pp.215-222, 2014 (SCI-Expanded)
- XV. **Infrared and Raman spectra, DFT investigation of the tautomerism, conformational equilibrium, structure and vibrational assignment of 1-(2-benzothiazolyl)-3-methyl pyrazol-5-one**

- AKTAN E., ÇATIKKAŞ B.
VIBRATIONAL SPECTROSCOPY, vol.67, pp.92-100, 2013 (SCI-Expanded)
- XVI. **DFT, FT-Raman, FTIR, NMR, and UV-Vis studies of a hetarylazo indole dye**
ÇATIKKAŞ B., AKTAN E., SEFEROĞLU Z.
INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY, vol.113, no.5, pp.683-689, 2013 (SCI-Expanded)
- XVII. **The synthesis, characterisation and molecular structure of a new hetarylazoindole dye studied by X-ray diffraction, spectral analysis and density functional theory calculation**
AKTAN E., SEFEROĞLU Z., HÖKELEK T., ŞAHİN E.
COLORATION TECHNOLOGY, vol.128, no.5, pp.371-377, 2012 (SCI-Expanded)
- XVIII. **Synthesis and Characterization of Novel Mn(II), Co(III), Ni(II) and Cd(II) Complexes from 4-(2-nitrophenylazo)-1H-pyrazole-3,5-diamine**
Esener H., ADIGÜZEL R., Ergin Z., AKTAN E., TURAN N., ŞEKERCİ M.
ADVANCED SCIENCE LETTERS, vol.4, pp.3669-3675, 2011 (SCI-Expanded)
- XIX. **Synthesis and structure of a novel hetarylazoindole dye studied by X-ray diffraction, FT-IR, FT-Raman, UV-vis, NMR spectra and DFT calculations**
AKTAN E., Babur B., SEFEROĞLU Z., HÖKELEK T., Sahin E.
JOURNAL OF MOLECULAR STRUCTURE, vol.1002, pp.113-120, 2011 (SCI-Expanded)
- XX. **Synthesis and Characterization of Ni(II) and Cd(II) Complexes of 4-(4-Nitrophenylazo)-1H-pyrazole-3,5-diamine and 4-(4-Methylphenylazo)-1H-pyrazole-3,5-diamine**
ADIGÜZEL R., Esener H., Ergin Z., AKTAN E., TURAN N., ŞEKERCİ M.
ASIAN JOURNAL OF CHEMISTRY, vol.23, no.6, pp.2795-2800, 2011 (SCI-Expanded)
- XXI. **Synthesis and Characterization of Novel Ni(II), Cu(II) and Cd(II) Complexes of 4-(2-Chlorophenylazo)-1H-pyrazole-3,5-diamine**
ADIGÜZEL R., Esener H., Ergin Z., AKTAN E., ŞEKERCİ M.
ASIAN JOURNAL OF CHEMISTRY, vol.23, no.4, pp.1846-1850, 2011 (SCI-Expanded)
- XXII. **Spectral characterisation and computational studies of some novel phenylazoindol-2-one dyes**
SEFEROĞLU Z., AKTAN E., Ertan N.
COLORATION TECHNOLOGY, vol.125, no.6, pp.342-351, 2009 (SCI-Expanded)

Articles Published in Other Journals

- I. **Theoretical Study of The Structure and Tautomerism of An Asymmetric Diimine Schiff Base, Preparation and Characterization of Its Modified Electrode**
UZUN D., AKTAN E., ÖZDEMİR Ö., HASDEMİR E.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.30, no.4, pp.124-138, 2017 (ESCI)
- II. **DFT studies and vibrational spectra of 2,2-phenyldiazenyl propanedinitrile**
AKTAN E., ÇATIKKAŞ B.
Azerbaijan Journal of Physics Fizika, vol.16, pp.614-615, 2010 (Non Peer-Reviewed Journal)

Books & Book Chapters

- I. **Ekler**
Tümtürk H., Menzek A., Tunçeli A., Aktan E., Sevin Düz F., Ünal H. İ., Yekeler H., Kıran İ., Aksu M. L., Pulat M., et al.
in: Genel Kimya Öğrenciler İçin Problem Çözümleri, Recai İnam, Serpil Aksoy, Editor, Palme Yayıncılık, Ankara, pp.300-320, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. **A new hybrid compound with potential biological activity consisting of the combination of Sulfamethoxazole and Anthracene: Synthesis, Characterization and Theoretical Calculations**
İbrahimova N., Özdemir Özmen Ü., Çete S., Akin Anakök D., Aktan E., Balaban Gündüzalp A.
4th International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2022), Ankara, Turkey, 14 - 16 December 2022, pp.155
- II. **Eco-friendly sulfonylhydrazone synthesis with potential bioactivities and theoretical calculations**
Mesiyeve L., Özdemir Özmen Ü., Balaban Gündüzalp A., Aktan E.
International Conference on Engineering Sciences November 11-12, 2022 / Baku Azerbaijan Technical University, Baku, Azerbaijan, 11 - 12 November 2022, pp.377-385
- III. **Environmentally friendly Anthracenebased Sulfonylhydrazone for use in biosensor preparation: Synthesis, Characterization and Computational Studies**
Güler H., ÇETE S., ÖZDEMİR ÖZMEN Ü., BALABAN GÜNDÜZALP A., AKIN ANAKÖK D., AKTAN E.
4th International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2022), 14 December 2022
- IV. **Synthesis, characterization and theoretical calculation of Schiff base derived from sulfoxazole (sulfa drug) and 1-pyrenecarboxaldehyde**
Çakır S., Balaban Gündüzalp A., Aktan E., Özdemir Özmen Ü.
3rd International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2021) , Ankara, Turkey, 15 - 17 December 2021, pp.80
- V. **Schiff base; (E)-4-((1-(5-chloro-2-hydroxyphenyl)ethylidene)amino)-N-(5-methylisoxazol-3-yl)benzenesulfonamide synthesis, characterization and computational studies**
Çakır S., Balaban Gündüzalp A., Özdemir Özmen Ü., Aktan E.
3rd International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2021) , Ankara, Turkey, 15 - 17 December 2021, pp.81
- VI. **Structural and theoretical studies of novel hydrazone dyes with triazin and indolinon moieties**
TAŞ Z. G., AKTAN E., SEFEROĞLU Z.
4th International Eurasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 24 November 2021
- VII. **Experimental and theoretical studies of novel hydrazone dyes**
TAŞ Z. G., AKTAN E., SEFEROĞLU Z.
4th International Eurasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 24 November 2021
- VIII. **Potential Bioactive sulfonyl hydrazone: Synthesis by one-pot method and theoretical calculations**
ÇETE S., ÖZDEMİR ÖZMEN Ü., AKIN ANAKÖK D., AKTAN E., ustaoglu e.
4.International Eurasian Conference on Biological and Chemical Sciences, 16 January 2021
- IX. **Synthesis, characterization and theoretical studies of sulfonyl hydrazone compound containing ferrocene bygreen chemistry method**
ÇETE S., ÖZDEMİR ÖZMEN Ü., AKTAN E., AKIN ANAKÖK D., ustaoglu e.
4. International Eurasian Conference on Biological and Chemical Sciences, 15 January 2021
- X. **Experimental and theoretical studies of a potential sulfa drug with pyrene moiety"**
Aktan E., Özdemir Özmen Ü., Balaban Gündüzalp A.
2nd International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2020), Gaziantep, Turkey, 7 - 09 October 2020, pp.340
- XI. **Theoretical investigation of the tautomeric equilibrium and absorption spectra of 2-((3-methyl-4-(phenyldiazenyl)-1H-pyrazol-5-yl)diazenyl)-1H-indene-1,3(2H)-dione derivatives**
Aktan E.
2nd International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2020), Gaziantep, Turkey, 7 - 09 October 2020, pp.341
- XII. **Pirazon Disazo Boyar Maddesinin Moleküler Yapısı, Tautomerleşmesi ve Absorpsiyon Spektrumlarının Kuramsal İncelenmesi**
Aktan E.
1. Ulusal BAŞKENT Disiplinler Arası Bilimsel Çalışmalar Kongresi, Ankara, Turkey, 15 - 17 May 2020, pp.16-17
- XIII. **Synthesis of coumarin-based dyes, experimental and theoretical investigation of their photophysical**

properties

ÖZBEK B. B., AKTAN E.

3rd International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2020), March 19-20, 2020 Ankara, Turkey, Turkey, 18 - 19 March 2020, pp.310

- XIV. **A Novel Series Of Indole-Based Colorimetric Chemosensors**
Çakmaz D., Keleş E., YAHYA M., PUTRA A. U., SEFEROĞLU Z., AKTAN E., SEFEROĞLU N.
10th EurAsian Meeting on Heterocyclic Chemistry, Milano Matittima-Cervia, Ravenna, Italy, 15 - 19 September 2019
- XV. **Pyrazolium based Ionic Liquids: Crystal Structures and Theoretical Calculations**
ÖZDEMİR M., AKTAN E., ŞAHİN E.
International Euroasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 26 - 27 April 2018, pp.1357
- XVI. **Experimental and Theoretical Studies of Potent Bioactive 2-Hydroxy-1-naphthaldehyde propanesulfonylhydrazide,**
AKTAN E., ÖZDEMİR ÖZMEN Ü.
1st International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), 26 - 27 April 2018
- XVII. **Characterization of an Environment-friendly Chemical,**
Aktan E., Özdemir Özmen Ü., Sarı M.
ECOLOGY 2017 INTERNATIONAL SYMPOSIUM, Kayseri, Turkey, 11 - 13 May 2017, pp.1-2
- XVIII. **Theoretical studies on thiophene carboxamide and its Cu II and Zn II complexes**
AKTAN E., BALABAN GÜNDÜZALP A., ÖZDEMİR ÖZMEN Ü.
2nd International Conference on New Trends in Chemistry, Zagreb, Croatia, 19 - 22 April 2016
- XIX. **Theoretical studies on thiophene carboxamide and its Cu II Zn II complexes**
AKTAN E., BALABAN GÜNDÜZALP A., ÖZDEMİR ÖZMEN Ü.
All in One Conference, 2nd International Conference on New Trends in Chemistry, 19 - 22 April 2016
- XX. **Theoretical investigation on structural and electronic properties of furan carboxamide and its metal complexes**
AKTAN E., BALABAN GÜNDÜZALP A., ÖZDEMİR ÖZMEN Ü.
All in One Conference, 2nd International Conference on New Trends in Chemistry, 19 - 22 April 2016
- XXI. **Bütan Sülfonil Hidrazit İle Cu(II) Kompleksinin Sentezi, Antibakteriyel Aktiviteleri Ve Teorik Hesaplamaları**
AKTAN E., ÖZDEMİR ÖZMEN Ü., İlbiz F., BALABAN GÜNDÜZALP A., ÖZBEK N., SAYDAM S.
2. İlaç Kimyası, Üretimi, Teknolojisi ve Standardizasyonu kongresi Antalya, Turkey, 21 - 23 March 2014
- XXII. **Benzaldehit-4-Nitro-2-(2-okso-1,2-difeniletilden)hidrazon bileşiğinin sentezi, karakterizasyonu ve yapısal özelliklerinin teorik hesaplamalarla belirlenmesi**
Elmacı G., Aktan E., Seferoğlu N., Hökelek T., Şahin E., Seferoğlu Z.
III. ULUSAL ANORGANİK KİMYA KONGRESİ, Çanakkale, Turkey, 19 - 22 May 2011, pp.1

Supported Projects

Seferoğlu Z., Aktan E., TUBITAK Project, Donör-Akseptör-pi-Donör (D-A-pi-D) Sistemine Sahip Floresan Disiyanometilenvinil-1,3-Dikumarin Bileşiklerinin Sentezi, Fotofiziksel, NLO ve Kemosensor Özelliklerinin İncelenmesi, 2020 - 2022

AKTAN E., Project Supported by Higher Education Institutions, Kumarin Temelli Boyarmaddelerin Sentezi, Fotofiziksel Özelliklerinin Deneyssel ve Teorik Olarak İncelenmesi, 2019 - 2021

Aktan E., Seferoğlu N., TUBITAK Project, Yeni Fonksiyonel Boyarmaddelerin Fotofiziksel, NLO (Doğrusal Olmayan Optik) ve Kemosensör Özelliklerinin Deneyssel ve Teorik Yöntemlerle Araştırılması, 2017 - 2020

Scientific Refereeing

Project Supported by Higher Education Institutions, BAP Other, Gazi University, Turkey, August 2023
Project Supported by Higher Education Institutions, BAP Research Project, Gazi University, Turkey, August 2023
Project Supported by Higher Education Institutions, BAP MSc, Gazi University, Turkey, June 2023
JOURNAL OF MOLECULAR STRUCTURE, Journal Indexed in SCI-E, April 2023
Project Supported by Higher Education Institutions, BAP PhD, Gazi University, Turkey, April 2023
Project Supported by Higher Education Institutions, BAP Research Project, Gazi University, Turkey, March 2023
JOURNAL OF MOLECULAR STRUCTURE, Journal Indexed in SCI-E, November 2022
FIBERS AND POLYMERS, Journal Indexed in SCI-E, June 2022
Project Supported by Higher Education Institutions, BAP Research Project, Gazi University, Turkey, June 2022
Project Supported by Higher Education Institutions, BAP Research Project, Gazi University, Turkey, June 2022
Project Supported by Other Official Institutions, Gazi University, Turkey, February 2022
BOR DERGİSİ, National Scientific Refreed Journal, August 2021
CHEMICO-BIOLOGICAL INTERACTIONS, Journal Indexed in SCI-E, June 2021
BOR DERGİSİ, National Scientific Refreed Journal, May 2021
GAZI UNIVERSITY JOURNAL OF SCIENCE, National Scientific Refreed Journal, January 2021
GAZI UNIVERSITY JOURNAL OF SCIENCE, National Scientific Refreed Journal, April 2020

Tasks In Event Organizations

Aktan E., 6th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2023), Scientific Congress, Ankara, Turkey, Kasım 2023
Aktan E., 5th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2022), Scientific Congress, Ankara, Turkey, Kasım 2022
Aktan E., 4th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2021) , Scientific Congress, Turkey, Kasım 2021

Metrics

Publication: 49
Citation (WoS): 238
Citation (Scopus): 235
H-Index (WoS): 10
H-Index (Scopus): 10