

## **Assoc. Prof. HACER GÜMÜŞ**

### **Personal Information**

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### **International Researcher IDs**

ORCID: 0000-0002-6486-0515

Publons / Web Of Science ResearcherID: F-7589-2018

Yoksis Researcher ID: 242554

### **Education Information**

Doctorate, Sakarya University, Institute Of Science, Fizik (Dr), Turkey 2009 - 2013

Postgraduate, Kocaeli University, Fen Bilimleri Enstitüsü, Fizik, Turkey 2005 - 2008

Undergraduate, Kocaeli University, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey 2001 - 2005

### **Foreign Languages**

English, B2 Upper Intermediate

### **Dissertations**

Doctorate, Bazı piridin ve pirimidin bileşiklerinin geometrik, elektronik ve spektroskopik özelliklerinin teorik olarak incelenmesi, Sakarya Üniversitesi, Fen Bilimleri Enstitüsü, Fizik (Dr), 2013

Postgraduate, Flurbiprofen molekülü ve metal komplekslerinin deneyel ve teorik incelenmesi, Kocaeli University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü, 2008

### **Research Areas**

Analytical Chemistry, Physics, Atomic and Molecular Physics, Atomic and Molecular Interactions, Natural Sciences

### **Academic Titles / Tasks**

Associate Professor, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar ve Ulaştırma Teknolojileri, 2021 - Continues

Assistant Professor, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar ve Ulaştırma Teknolojileri, 2018 - 2021

Assistant Professor, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar ve Ulaştırma Teknolojileri, 2016 - 2018

## **Academic and Administrative Experience**

Bölüm Kalite Komisyonu Başkanı, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2023 - Continues

Birim Kalite Komisyonu Üyesi, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2022 - Continues

Curriculum Preparation Committee Member, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2022 - Continues

Exam Program Preparation Commission Member, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2022 - Continues

Head of Department, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2021 - Continues

Bölüm Akademik Teşvik Değerlendirme Komisyonu Başkanı, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2019 - Continues

Meslek Yüksekokulu Yönetim Kurulu Üyesi, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2016 - Continues

Meslek Yüksekokulu Kurulu Üyesi, Kocaeli University, Gölcük Meslek Yüksekokulu, Motorlu Araçlar Ve Ulaştırma Teknolojileri, 2016 - Continues

Head of Department, Kocaeli University, Gölcük Meslek Yüksekokulu, Pazarlama Ve Reklamcılık Bölümü, 2016 - 2020

## **Courses**

ELEKTRİK BİLGİSİ, Associate Degree, 2022 - 2023

KARIYER PLANLAMA, Associate Degree, 2022 - 2023

OTOMOTİV ELEKTRONİĞİ, Associate Degree, 2022 - 2023

MESLEKİ İNGİLİZCE II, Associate Degree, 2022 - 2023

BİLGİSAYAR KULLANIMI, Associate Degree, 2022 - 2023

MESLEKİ İNGİLİZCE II, Associate Degree, 2022 - 2023

KARIYER PLANLAMA, Associate Degree, 2022 - 2023

BİLGİSAYAR KULLANIMI, Associate Degree, 2022 - 2023

MUKAVEMET, Associate Degree, 2022 - 2023

OTOMOTİV ELEKTRİĞİ, Associate Degree, 2022 - 2023

FİZİK, Associate Degree, 2022 - 2023

mesleki ingilizce, Associate Degree, 2021 - 2022

mesleki ingilizce I, Associate Degree, 2021 - 2022

MÜHENDİSLİK BİLİMİ I, Associate Degree, 2021 - 2022

FİZİK, Associate Degree, 2021 - 2022

FİZİK, Associate Degree, 2021 - 2022

mesleki ingilizce I, Associate Degree, 2021 - 2022

MUKAVEMET, Associate Degree, 2018 - 2019

MATEMATİK, Associate Degree, 2017 - 2018

mesleki ingilizce, Associate Degree, 2017 - 2018

bilgisayar, Associate Degree, 2017 - 2018

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

- I. Structural and Spectroscopic Characterization of 3-[4-(Trifluoromethyl)Phenyl]-3a,4,8,8a-Tetrahydro-6H-[1,3]Dioxepino[5,6-d][1,2]Oxazole Compound: An Experimental and Density Functional Theory Study

GÜMÜŞ H., TEKİN N., KARA Y. S.

JOURNAL OF APPLIED SPECTROSCOPY, vol.89, no.6, pp.1150-1157, 2023 (SCI-Expanded)

- II. **DFT and Molecular Docking Study of 1-(2'-Thiophen)-2-propen-1-one-3-(2,3,5-trichlorophenyl) (TTCP) Molecule as Antiviral to Covid-19 Main Protease**  
İPEK C., GÜMÜŞ H., Simsek M., Tosun M.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.48, no.1, pp.1031-1040, 2023 (SCI-Expanded)
- III. **Conformational, spectroscopic, electric and electronic investigations on 5-nitropyridine-2-hydrazino-3-carbonitrile-6-methyl-4-(methoxymethyl) (molecule 2): Molecular docking study**  
Gumus H.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1211, 2020 (SCI-Expanded)
- IV. **Spectroscopic (Vibrational and NMR) Characterizations and Molecular Docking Analysis of Zn(II), Cd(II) and Hg(II) Complexes with Alkyl-Aryl Dithiocarbamates**  
GÜMÜŞ H.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.45, no.6, pp.4929-4937, 2020 (SCI-Expanded)
- V. **A Theoretical Study on Structural, Spectroscopic, Electronic and Nonlinear Optical Properties of 1-[*E*-{[4-(Morpholin-4-Yl)Phenyl]Imino}Methyl]Naphthalen-2-Ol**  
Gumus H., Tamer O., Avci D., Atalay Y., TARCAN E.  
BRAZILIAN JOURNAL OF PHYSICS, vol.46, no.5, pp.471-480, 2016 (SCI-Expanded)
- VI. **Density functional theory calculations on conformational, spectroscopic and electrical properties of 3-(2,3-dimethoxyphenyl)-1-(pyridin-2-yl)prop-2-en-1-one: a potential nonlinear optical material**  
Gumus H., Tamer O., Avci D., Atalay Y.  
INDIAN JOURNAL OF PHYSICS, vol.90, no.1, pp.79-89, 2016 (SCI-Expanded)
- VII. **A theoretical study on 2-chloro-5-(2-hydroxyethyl)-4-methoxy-6-methylpyrimidine by DFT/ab initio calculations**  
Gumus H., Tamer O., Avci D., Atalay Y.  
MATERIALS SCIENCE-POLAND, vol.33, no.2, pp.369-380, 2015 (SCI-Expanded)
- VIII. **Theoretical Investigations on Nonlinear Optical and Spectroscopic Properties of 6-(3,3,4,4,4-Pentafluoro-2-hydroxy-1-butenyl)-2,4-pyrimidinedione: An Efficient NLO Material**  
Gumus H., Tamer O., Avci D., TARCAN E., Atalay Y.  
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY A, vol.88, no.13, pp.2348-2358, 2014 (SCI-Expanded)
- IX. **Effects of donor-acceptor groups on the structural and electronic properties of 4-(methoxymethyl)-6-methyl-5-nitro-2-oxo-1, 2-dihydropyridine-3-carbonitrile**  
Gumus H., Tamer O., Avci D., Atalay Y.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.132, pp.183-190, 2014 (SCI-Expanded)
- X. **Quantum chemical calculations on the geometrical, conformational, spectroscopic and nonlinear optical parameters of 5-(2-Chloroethyl)-2,4-dichloro-6-methylpyrimidine**  
Gumus H., Tamer O., Avci D., Atalay Y.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.129, pp.219-226, 2014 (SCI-Expanded)
- XI. **Theoretical Investigation of 6-(3,3,4,4,4-Pentafluoro-2-Hydroxy-1-Butenyl)-2,4-Dimethoxy-Pyrimidine Molecule**  
Pir H., Gunay N., Avci D., Tamer O., TARCAN E., Atalay Y.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.39, no.7, pp.5799-5814, 2014 (SCI-Expanded)
- XII. **Theoretical investigation of 5-(2-Acetoxyethyl)-6-methylpyrimidin-2, 4-dione: Conformational study, NBO and NLO analysis, molecular structure and NMR spectra**  
Pir H., Gunay N., Tamer O., Avci D., Atalay Y.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.112, pp.331-342, 2013 (SCI-Expanded)
- XIII. **Quantum chemical computational studies on bis-thiourea zinc acetate**  
Pir H., Gunay N., Tamer O., Avci D., TARCAN E., Atalay Y.  
MATERIALS SCIENCE-POLAND, vol.31, no.3, pp.357-371, 2013 (SCI-Expanded)
- XIV. **NLO and NBO Analysis of Sarcosine-Maleic Acid by Using HF and B3LYP Calculations**

- Gunay N., Pir H., Avci D., Atalay Y.  
JOURNAL OF CHEMISTRY, 2013 (SCI-Expanded)
- XV. Quantum chemical computational studies on bisthiourea zinc chloride  
Pir H., Gunay N., Avci D., Atalay Y.  
INDIAN JOURNAL OF PHYSICS, vol.86, no.12, pp.1049-1063, 2012 (SCI-Expanded)
- XVI. Study of the solvent effects on the molecular structure and C=O stretching vibrations of flurbiprofen  
TEKİN N., Pir H., Sagdinc S.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.98, pp.122-131, 2012 (SCI-Expanded)
- XVII. Molecular structure, vibrational spectra, NLO and NBO analysis of bis(8-oxy-1-methylquinolinium) hydroiodide  
Pir H., Gunay N., Avci D., Atalay Y.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.96, pp.916-924, 2012 (SCI-Expanded)
- XVIII. Spectroscopic and DFT studies of flurbiprofen as dimer and its Cu(II) and Hg(II) complexes  
Sagdinc S., Pir H.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.73, no.1, pp.181-194, 2009 (SCI-Expanded)

### Articles Published in Other Journals

- I. Benzothiazole-derived Compound with Antitumor Activity: Molecular Structure Determination Using Density Functional Theory (Dft) Method  
Hacer G.  
10.29328/journal.apb.1001023, vol.8, no.1, pp.1-7, 2024 (Peer-Reviewed Journal)
- II. Molecular Docking Study of the Benzylidene-bis- (4-Hydroxycoumarin) Derivatives as Antiviral to Coronavirus COVID-19  
İpek C., Gümüş H.  
SYSTEMATIC REVIEWS IN PHARMACY, vol.15, no.2, pp.1-7, 2024 (Peer-Reviewed Journal)
- III. Computational Analysis of Density Functional Theory (DFT method), Thermodynamic Investigations and Molecular Docking Studies on 1-(2'-Thiophen)-3- (2,3,5-trichlorophenyl)-2-propen-1-one  
Gümüş H., İpek C.  
SYSTEMATIC REVIEWS IN PHARMACY, vol.15, no.1, pp.24-28, 2024 (Peer-Reviewed Journal)
- IV. 2- (2-hidroksi-5-metoksi-3-nitrobenziliden)-N-metilhidrazin-1-karbotioamid Molekülünün Kuantum Kimyasal Karakterizasyonu  
GÜMÜŞ H.  
Muş Alparslan Üniversitesi Fen Bilimleri Dergisi, vol.7, no.1, pp.611-620, 2019 (Peer-Reviewed Journal)
- V. Nikotinamid İçeren Çinko (II) Kompleksinin Moleküler Özellikleri ve Titreşim Spektrumu  
Gümüş H.  
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.9, no.2, pp.254-261, 2019 (Peer-Reviewed Journal)
- VI. Theoretical calculations of LASO molecule by using DFT/B3LYP and DFT/HSEH1PBE levels  
GÜMÜŞ H.  
Sakarya University Journal of Science, pp.1, 2018 (Peer-Reviewed Journal)
- VII. 3-hydroxy-4-hydroxyiminomethyl-5-hydroxymethyl-1,2-dimethylpyridinium iodide molekülünün geometrik yapısının incelenmesi  
GÜMÜŞ H., ATALAY Y.  
SAÜ Fen Bilimleri Enstitüsü Dergisi, vol.21, no.3, pp.564-571, 2017 (Peer-Reviewed Journal)
- VIII. 4 Metoksimetil 1 6 Dimetil 2 Okso 1 2 Dihidropiridin 3 Karbonitril Molekülünün Teorik Olarak İncelenmesi

- GÜMÜŞ H., TAMER Ö., AVCI D., ATALAY Y.  
 SAÜ Fen Bilimleri Enstitüsü Dergisi, vol.19, no.3, pp.303-311, 2015 (Peer-Reviewed Journal)
- IX. A THEORETICAL STUDY ON 5 CHLORO 8 HYDROXYQUINOLINIUM NITRATE  
 GÜMÜŞ H., ATALAY Y., GÜNAY N., AVCI D., BAŞOĞLU A.  
 BALKAN PHYSICS LETTERS, vol.19, pp.350-361, 2011 (Peer-Reviewed Journal)
- X. A THEORETICAL STUDY ON 5 4 CHLOROPHENYL 1H TETRAZOLE  
 GÜMÜŞ H., GÜNAY N., ESMER K., TARCAN E., ATALAY Y.  
 BALKAN PHYSICS LETTERS, vol.19, pp.341-349, 2011 (Peer-Reviewed Journal)
- XI. L ASPARAGINYUM PİKRAT MOLEKÜLÜNÜN SPEKTROSKOPİK ÖZELLİKLERİNİN TEORİK OLARAK İNCELENMESİ  
 GÜNAY N., GÜMÜŞ H., ATALAY Y.  
 SAU Fen Edebiyat Dergisi, 2011 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. YENİ BİR ANTİ COVID-19 MOLEKÜLÜN MOLEKÜLER GEOMETRİK YAPI, TİTREŞİM SPEKTRUMU VE MOLEKÜLER YERLEŞTİRME ÜZERİNE DFT HESAPLAMALARI  
 GÜMÜŞ H.  
 in: Fen Bilimleri ve Matematik Alanında Yeni Trendler, Prof. Dr. Hüsnüye SAĞLIKER, Editor, Duvar yayınları, pp.179-194, 2022
- II. SPECTRAL AND MOLECULAR STRUCTURE STUDIES OF 2-(2-(3-NITROPHENYL)HYDRAZONO)-5,5-DIMETHYL CYCLOHEXANE-1,3-DIONE MOLECULE  
 Gümüş H.  
 in: fen bilimleri ve matematikte akademik araştırmalar, prof. dr. zeki yıldırım, Editor, gece kitapevi, Ankara, pp.71-90, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. DELVING INTO (E)-1,4-BIS(3,4-DIMETHOXYPHENYL)BUT-1-ENE LIGAND: SPECTROSCOPIC (FT-IR AND NMR) STUDIES BY DFT METHODS  
 Gümüş H.  
 EU 5th INTERNATIONAL CONFERENCE ON HEALTH, ENGINEERING AND APPLIED SCIENCES, Rome, Italy, 13 - 16 June 2024, pp.15-25
- II. MODELING AND MOLECULAR STRUCTURE DETERMINATION OF FLAVAN-CONTAINING COMPOUND  
 Gümüş H.  
 EU 5th INTERNATIONAL CONFERENCE ON HEALTH, ENGINEERING AND APPLIED SCIENCES, Rome, Italy, 13 - 16 June 2024, pp.1-10
- III. KUMARİN TÜREVİ BİLEŞİĞİN SPEKTROSKOPİK YÖNTEMLERLE DEĞERLENDİRİLMESİ  
 Gümüş H.  
 European Conferences 4. Uluslararası Sosyal ve Beşeri Bilimler Kongresi, Paris, France, 12 - 14 April 2024, pp.1-9
- IV. ANTİTÜMÖR AKTİVİTESİNE SAHİP BENZOTİYAZOL İÇEREN BİLEŞİĞİN DFT YÖNTEMİYLE MOLEKÜLER YAPI TAYİNİ  
 Gümüş H.  
 European Conferences 4. Uluslararası Sosyal ve Beşeri Bilimler Kongresi, Paris, France, 12 - 14 April 2024, pp.1-10
- V. DFT HESAPLAMALARINA DAYALI CİVA, KADMİYUM VE ÇINKO METAL KOMPLEKSLERİNİN MOLEKÜLER YAPILARININ VE SPEKTROSKOPİK ÖZELLİKLERİNİN İNCELENMESİ  
 Gümüş H.  
 AKDENİZ 11. ULUSLARARASI UYGULAMALI BİLİMLER KONGRESİ, Mersin, Turkey, 23 - 25 February 2024, pp.203-211

- VI. **ANTİVİRAL ÖZELLİĞE SAHİP NİTROPİRİDİN TÜREVLİ BİLEŞİĞİN MOLEKÜLER YERLEŞTİRME (DOCKİNG) YÖNTEMİYLE İNCELENMESİ**  
Gümüş H.  
AKDENİZ 11. ULUSLARARASI UYGULAMALI BİLİMLER KONGRESİ, Mersin, Turkey, 23 - 25 February 2024, pp.194-202
- VII. **ORBITAL ENERGY MODELLING WITH DFT METHOD**  
GÜMÜŞ H., İPEK C., ŞAHİN Ç.  
The 2nd World Energy Storage Conference (WESC-2022) Medeniyet University, İstanbul, Türkiye, İstanbul, Turkey, 18 December 2022
- VIII. **THERMO-PHYSICAL INVESTIGATIONS OF DITHYMOQUINONE MOLECULE BY USING DENSITY FUNCTIONAL THEORY (DFT)**  
İPEK C., GÜMÜŞ H., ŞAHİN Ç.  
The 2nd World Energy Storage Conference (WESC-2022) Medeniyet University, İstanbul, Türkiye, İstanbul, Turkey, 18 December 2022
- IX. **DFT AND MOLECULAR DOCKING STUDIES ON A NOVEL COMPOUND FOR THEIR POTENTIAL USE AGAINST SARS-COV-2**  
GÜMÜŞ H.  
ABANT 1ST INTERNATIONAL CONFERENCE ON CURRENT SCIENTIFIC RESEARCHES, 1 - 04 December 2022, pp.17-23
- X. **DİTİMOKİNON ((4AR,8AS)-2,6-DİİZOPROPİL-4A,8A-DİMETİL-4A,4B,8A,8BTETRAHİDROBİFENİLEN-1,4,5,8-TETRAON) MOLEKÜLÜNÜN DFT (B3LYP VE HSEH1PBE) METODU İLE GEOMETRİK, SPEKTROSKOPİK VE ELEKTRONİK ÖZELLİKLERİNİN TAYİNİ**  
GÜMÜŞ H.  
ABANT 1ST INTERNATIONAL CONFERENCE ON CURRENT SCIENTIFIC RESEARCHES, 01 December 2022, pp.9-16
- XI. **6-Methylpyrimidine-2-Chloro-5-(2-Hydroxyethyl)-4-Methoxy Molekülünün Moleküller Yerleştirme Hesaplamaları**  
GÜMÜŞ H.  
1.Uluslararası Sosyal ve Teknik Bilimler Sempozyumu USTEK'2022, 12 - 13 September 2022, pp.104-109
- XII. **Moleküller Yerleştirme Yöntemini Kullanan Yeni Bir Tiyofen Türevi Üzerinde Teorik Hesaplamalı Bir Çalışma**  
GÜMÜŞ H.  
1.Uluslararası Sosyal ve Teknik Bilimler Sempozyumu USTEK'2022, 12 September 2022, pp.110-114
- XIII. **Spectroscopic investigations (IR and NMR) by DFT method of 3,3'-(2,5-Dimethoxybenzylidene)-bis-[4-hydroxycoumarin]**  
GÜMÜŞ H.  
INTERNATIONAL CONFERENCES ON SCIENCE AND TECHNOLOGY in Budva, MONTENEGRO, 07 September 2022, pp.67-74
- XIV. **Molecular docking study of the benzylidene-bis-(4-hydroxycoumarin) derivatives as antiviral to coronavirus COVID-19**  
İPEK C., GÜMÜŞ H.  
8th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG-2021) July 14-16, 2021 / TURKEY, Elazığ, Turkey, 14 - 16 July 2021, pp.21-29
- XV. **Computational analysis (DFT method), thermodynamic investigations and molecular docking studies on 1-(2'-Thiophen)-3-(2,3,5-trichlorophenyl)-2-propen-1-one**  
GÜMÜŞ H., İPEK C.  
8th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG-2021) July 14-16, 2021 / TURKEY, Elazığ, Turkey, 14 - 16 July 2021, pp.31-36
- XVI. **Molecular docking and DFT calculations of antiviral molecules proposed for COVID-19 treatment: a computational modeling**  
GÜMÜŞ H., şimşek m.  
8th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG-2021) July

- 14-16, 2021 / TURKEY, Elazığ, Turkey, 14 - 16 July 2021, pp.66-72
- XVII. INVESTIGATION OF ANTIVIRAL PYRIMIDINE DERIVATIVE AS COVID-19 DRUG WITH MOLECULAR DOCKING AND DFT CALCULATIONS  
GÜMÜŞ H., İPEK C.  
1st INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN FUNDAMENTAL AND APPLIED SCIENCES (ISFAS-2021), Erzurum, Turkey, 10 - 12 September 2021, vol.1
- XVIII. SEARCH POTENTIAL ANTIVIRAL CANDIDATE FOR TREATMENT OF COVID-19 BASED ON MOLECULAR DOCKING AND DFT CALCULATIONS  
İPEK C., GÜMÜŞ H., şimşek m.  
1st INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN FUNDAMENTAL AND APPLIED SCIENCES (ISFAS-2021), Erzurum, Turkey, 10 - 12 September 2021, vol.1, pp.334-342
- XIX. 1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021)  
GÜMÜŞ H.  
1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021), Erzurum, Turkey, 10 - 12 September 2021, vol.1, pp.462-468
- XX. DFT AND MOLECULAR DOCKING STUDIES OF 1-(PYRIDIN-2-YL)PROP-2-EN-1-ONE-3-(2,3-DIMETHOXYPHENYL) AS ANTIVIRAL TO COVID-19 MAIN PROTEASE  
GÜMÜŞ H., şimşek m.  
1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021), Erzurum, Turkey, 10 - 12 September 2021, vol.1, pp.469-476
- XXI. 2-(2-hidroksi-5-metoksi-3-nitrobenziliden)-N-metilhidrazin-1-karbotioamidmolekülünün kuantum kimyasal hesaplamalar ile yapılan teorik hesaplamaları  
GÜMÜŞ H.  
International Conference on Data science and Applications, 4 - 07 October 2018
- XXII. 6-Amino-3-Metil-4-Piridin-4-il-2,4-Dihydropyrano (2,3-c) Pirazol5-KarbonitrilMolekülünün Moleküler Yapı Çalışmaları  
GÜMÜŞ H.  
International Conference on Data science and Applications, 4 - 07 October 2018
- XXIII. 1,2-(tetrazol-1-yl)etan üzerine teorik bir çalışma  
GÜMÜŞ H.  
multicongress adana 2018 - 2. Uluslararası Multidisipliner Çalışmaları, 4 - 05 May 2018
- XXIV. BTPCA MOLEKÜLÜNÜN DFT METODU KULLANILARAK YAPILAN TEORİK HESAPLAMALARI  
GÜMÜŞ H.  
multicongress adana 2018 - 2. Uluslararası Multidisipliner Çalışmaları, 4 - 05 May 2018
- XXV. 2- (2- (3-nitrofenil) hidrazono) -5,5-dimetilsikloheksan-1,3-dion molekülünün spektroskopik analizi  
GÜMÜŞ H.  
IV. ULUSLARARASI MULTİDİSİPLİNER ÇALIŞMALARI SEMPOZYUMU, 27 - 28 April 2018
- XXVI. Molecular structure, electrical properties and molecular electrostatic potential energy calculations of [(C<sub>6</sub>H<sub>5</sub>N(et)CS<sub>2</sub>)Hg(C<sub>6</sub>H<sub>5</sub>N(butyl)CS<sub>2</sub>)] molecule  
GÜMÜŞ H.  
IV. ULUSLARARASI MULTİDİSİPLİNER ÇALIŞMALARI SEMPOZYUMU, 27 - 28 April 2018
- XXVII. Molecular Structure and Vibrational Spectra of L-Arginine Semi-Oxalate (LASO) by Density Functional Theory (DFT) Calculations  
GÜMÜŞ H.  
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, 6 - 10 September 2017, pp.253
- XXVIII. Quantum chemical calculations on the geometrical, conformational,spectroscopic and nonlinear optical parameters of 2-hydrazino-6-methyl-4-(methoxymethyl)-5-nitropyridine-3-carbonitrile  
GÜMÜŞ H.  
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, 6 - 10 September 2017, pp.259
- XXIX. NİKOTİNAMİD İÇEREN ÇINKO (II) KOMPLEKSİNİN (C<sub>6</sub>H<sub>11</sub>N<sub>2</sub>)[ZnBr<sub>3</sub>(C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O)] (1a) YAPISAL, SPEKTROSKOPİK VE ELEKTRONİK ÖZELLİKLERİ ÜZERİNE TEORİK BİR ÇALIŞMA

- GÜMÜŞ H.  
XV. ULUSAL SPEKTROSKOPİ KONGRESİ, Yalova, Turkey, 17 - 19 May 2017
- XXX. 1-[(E)-{[4-(MORFOLİN-4-YL)FENİL]İMİNO}METİL]NAPHTHALEN-2-OL (MPIMN) MOLEKÜLÜNÜN YAPISAL, SPEKTROSKOPİK, ELEKTRONİK VE LİNEER OLМАYAN OPTİK ÖZELLİKLERİNİN TEORİK OLARAK İNCELENMESİ  
GÜMÜŞ H.  
XV. ULUSAL SPEKTROSKOPİ KONGRESİ, Turkey, 17 - 19 May 2017
- XXXI. DENSITY FUNCTIONAL THEORY CALCULATIONS ON CONFORMATIONAL SPECTROSCOPIC AND ELECTRICAL PROPERTIES OF DMPP MOLECULE  
GÜMÜŞ H.  
Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, 6 - 09 September 2016
- XXXII. THEORETICAL INVESTIGATION OF MPABA MOLECULE BY DFT CALCULATIONS  
GÜMÜŞ H.  
Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, 6 - 09 September 2016
- XXXIII. Theoretical Investigation of Bis Thiourea Zinc Acetate Btza IR and Raman Spectra Conformational Nbo and Nlo Analysis  
GÜMÜŞ H., GÜNEY N., TARCAN E., ATALAY Y.  
29. Uluslararası Fizik Kongresi, 5 - 08 September 2012, pp.81
- XXXIV. A Theoretical Study on 6 3 3 4 4 4 Pentafluoro 2 Hidroksi 1 Butenyl 2 4 Pyrimidinedione  
GÜMÜŞ H., GÜNEY N., TARCAN E., ATALAY Y.  
29. Uluslararası Fizik Kongresi, 5 - 08 September 2012, pp.431
- XXXV. The Studies of Solvent Effect on Molecular Structure and C O Stretching Vibrations of Flurbiprofen  
GÜNEŞDOĞDU SAĞDINÇ S., GÜMÜŞ H., TEKİN N.  
28. Uluslararası Fizik Kongresi, 6 - 09 September 2011, pp.473
- XXXVI. A quantum chemical studies on the Bisthiourea Zinc Chloride BTZC  
GÜMÜŞ H., GÜNEY N., AVCI D., ATALAY Y.  
XII. Ulusal Spektroskopı Kongresi, Turkey, 18 May 2011, pp.18-22
- XXXVII. A Theoretical Study on Quinoline 2 Carboxylic Acid Quinolinium 2 Carboxylate  
GÜMÜŞ H., GÜNEY N., TARCAN E., ATALAY Y.  
9. Uluslararası Kimyasal Fizik Kongresi, 14 - 16 October 2010, pp.107
- XXXVIII. A Theoretical Study on 5 4 Chlorophenyl 1H Tetrazole  
GÜMÜŞ H., GÜNEY N., ESMER K., TARCAN E., ATALAY Y.  
27. Uluslararası Fizik Kongresi, 14 - 17 September 2010, pp.486
- XXXIX. A Theoretical Study on 5 Chloro 8 Hydroxyquinolinium Nitrate  
GÜMÜŞ H., GÜNEY N., AVCI D., BAŞOĞLU A.  
27. Uluslararası Fizik Kongresi, 14 - 17 September 2010, pp.487
- XL. Flurbiprofen Molekülünün Cu II ve Hg II Komplekslerinin Yapısının Deneysel ve Teorik İncelenmesi  
GÜMÜŞ H., GÜNEŞDOĞDU SAĞDINÇ S.  
25. Uluslararası Fizik Kongresi, 25 - 29 August 2008, pp.71
- XLI. Flurbiprofen Molekülünün Titreşim Spektrumları ve Moleküller Yapısının İncelenmesi  
GÜMÜŞ H., GÜNEŞDOĞDU SAĞDINÇ S.  
X. Ulusal Spektroskopı Kongresi, Turkey, 04 July 2007, pp.77

## Supported Projects

GÜMÜŞ H., ŞAHİN Ç., İPEK C., Project Supported by Higher Education Institutions, Bazı Kumarin Türevlerinin Sentezi Spektroskopik Özelliklerinin Deneysel ve Teorik Olarak İncelenmesi, 2024 - Continues

## **Scientific Refereeing**

APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, Journal Indexed in SCI-E, February 2021  
SN APPLIED SCIENCES, Journal Indexed in SCI-E, July 2020

## **Metrics**

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Citation (WoS): 359

Citation (Scopus): 366

H-Index (WoS): 9

H-Index (Scopus): 8

## **Congress and Symposium Activities**

I. International Social and Technical Sciences Symposium USTEK'22, Attendee, Konya, Turkey, 2022

I. International Social and Technical Sciences Symposium USTEK'22, Attendee, Konya, Turkey, 2022

5th INTERNATIONAL CONFERENCES ON SCIENCE AND TECHNOLOGY, Attendee, Budva, Montenegro, 2022

1st INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN FUNDAMENTAL AND APPLIED SCIENCES (ISFAS-2021),  
Attendee, Erzurum, Turkey, 2021

1st INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN FUNDAMENTAL AND APPLIED SCIENCES (ISFAS-2021),  
Attendee, Erzurum, Turkey, 2021

1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021) , Attendee, Erzurum, Turkey, 2021

1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021) , Attendee, Erzurum, Turkey, 2021

8th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG-2021) July 14-16,  
2021 / TURKEY, Attendee, Elazığ, Turkey, 2021

8th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG-2021) , Attendee,  
Elazığ, Turkey, 2021

8th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG-2021) July 14-16,  
2021 / TURKEY, Attendee, Elazığ, Turkey, 2021

international conference on data science and applications, Attendee, Yalova, Turkey, 2018

2. uluslararası multidisipliner çalışmaları kongresi, Attendee, Adana, Turkey, 2018

IV. International Symposium on Multidisciplinary Studies (ISMS) , Attendee, Paris, France, 2018

Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2017

XV. ULUSAL SPEKTROSKOPİ KONGRESİ, Attendee, Yalova, Turkey, 2017

Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2016

29. Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2012

28. Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2011

XII. Ulusal Spektroskopı Kongresi, Attendee, Antalya, Turkey, 2011

9. Uluslararası Kimyasal Fizik Kongresi, Attendee, İzmir, Turkey, 2010

27. Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2010

25. Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2008

X. Ulusal Spektroskopı Kongresi, Attendee, İzmir, Turkey, 2007