Asst. Prof. SİBEL YILDIRIM

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Publons / Web Of Science ResearcherID: NOF-3868-2025
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Education

Doctorate, Manisa Celal Bayar University, Turkey 2012 - 2020
Postgraduate, Manisa Celal Bayar University, Turkey 2010 - 2012
Undergraduate, Manisa Celal Bayar University, Turkey 2006 - 2010

Foreign Languages

English

Dissertations

Doctorate, Bazı iyonik sıvıların spektroskopik ve elektronik özelliklerinin deneysel ve teorik olarak incelenmesi, Manisa Celal Bayar University, 2020
Postgraduate, 3,4-piridinedikarboksilik asit molekülünün yapı parametrelerinin ve titreşimsel özelliklerinin teorik olarak incelenmesi, 2012

Research Areas

Avesis Research Areas: Physics, Natural Sciences
WoS Research Areas: Natural Sciences (Sci), Physics
Scopus Research Areas: Atomic and Molecular Physics, and Optics, Spectroscopy

Academic Positions

Assistant Professor, Manisa Celal Bayar University, Mühendislik Ve Doğa Bilimleri Fakültesi, Fizik, 2024 - Present

Articles

I. **Effect of anion and methylation on the interionic interactions and reactivity of 1-butyl-2,3-dimethyl**

imidazolium-based ionic liquids
Bilgili S., BARDAK F., ATAÇ A.
Journal of Molecular Liquids, vol.392, 2023 (SCI-Expanded, Scopus)

II. **Investigation of the interionic interactions and spectroscopic features of 1-Octyl-3-methylimidazolium chloride, tetrafluoroborate, and hexafluorophosphate ionic liquids: An experimental survey and DFT modeling**
Bilgili S., BARDAK F., KÖSE E., ATAÇ A.
Journal of Molecular Structure, vol.1261, 2022 (SCI-Expanded, Scopus)

III. **Anionic dependency of electronic and nonlinear optical properties of ionic liquids**
BARDAK F., BARDAK C., KARACA Ç., KÖSE E., Bilgili S., ATAÇ A.
Journal of Molecular Liquids, vol.345, 2022 (SCI-Expanded, Scopus)

IV. **Theoretical and experimental investigation of the spectroscopic features of and interionic interactions in 1-hexyl-3-methylimidazolium chloride, 1-hexyl-3-methylimidazolium tetrafluoroborate and 1-hexyl-3-methylimidazolium hexafluorophosphate ionic liquids**
Bilgili S., ATAÇ A., BARDAK F.
Journal of Molecular Liquids, vol.301, 2020 (SCI-Expanded, Scopus)

V. **Conformational, electronic, and spectroscopic characterization of isophthalic acid (monomer and dimer structures) experimentally and by DFT**
BARDAK F., KARACA Ç., Bilgili S., ATAÇ A., Mavis T., Asiri A., Karabacak M., KÖSE E.
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.165, pp.33-46, 2016 (SCI-Expanded, Scopus)

VI. **Molecular structure, spectroscopic characterization, HOMO and LUMO analysis of 3,3′-diaminobenzidine with DFT quantum chemical calculations**
Karabacak M., Bilgili S., ATAÇ A.
Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, vol.150, pp.83-93, 2015 (SCI-Expanded, Scopus)

VII. **Spectral investigation and theoretical study of zwitterionic and neutral forms of quinolinic acid**
Karabacak M., Sinha L., Prasad O., Bilgili S., Sachan A. K., Asiri A., ATAÇ A.
Journal of Molecular Structure, vol.1095, pp.100-111, 2015 (SCI-Expanded, Scopus)

VIII. **Molecular structure investigation of neutral, dimer and anion forms of 3,4-pyridinedicarboxylic acid: A combined experimental and theoretical study**
Karabacak M., Bilgili S., ATAÇ A.
Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, vol.135, pp.270-282, 2015 (SCI-Expanded, Scopus)

IX. **Theoretical study on molecular structure and vibrational analysis included FT-IR, FT-Raman and UV techniques of 2,4,5-trimethylbenzoic acid (monomer and dimer structures)**
Karabacak M., Bilgili S., ATAÇ A.
Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, vol.134, pp.598-607, 2015 (SCI-Expanded, Scopus)

X. **Molecular structure, spectroscopic characterization (FT-IR, FT-Raman, UV and NMR), HOMO and LUMO analysis of 3-ethynylthiophene with DFT quantum chemical calculations**
Karabacak M., Bilgili S., Mavis T., ESKİCİ M., ATAÇ A.
Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, vol.115, pp.709-718, 2013 (SCI-Expanded, Scopus)

Papers Presented at Peer-Reviewed Scientific Conferences

I. **1-Butyl-2,3-dimethylimidazolium katyonlu iyonik sıvılardaanyon etkileri spektroskopik ve elektronik özellikleri üzerine bir çalışma**
BARDAK F., BİLGİLİ S., ATAÇ A.

Adim Fizik Günleri VII, Aydın, Turkey, 23 - 25 May 2018

II. **"Oktil zincirine sahip imidazol içeren bazı iyonik sıvılarınyapıları üzerinde anyon etkilerinin, spektroskopik ve elektronik özelliklerinin araştırılması**
BİLGİLİ S., ATAÇ A., BARDAK F.
AdimFizik Günleri VII, Aydın, Turkey, 23 - 25 May 2018

III. **Investigation of the interactions of Raloxifene with the estrogen receptor alpha ER(α) via quantum mechanics methods and molecular docking**
BARDAK F., BİLGİLİ S., ATAÇ A.
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, 6 - 10 September 2017, (Summary Text)

IV. **The investigation of the anion effect on the structure, spectroscopic and electronic features of some pyrrolidinium based ionic liquids**
ATAÇ A., BİLGİLİ S., BARDAK F.
TFD 33 - Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, 6 - 10 September 2017, (Summary Text)

V. **Investigation of the interactions of Tamoxifen with the estrogen receptor alpha via quantum mechanics methods and molecular docking**
BARDAK F., BİLGİLİ S., ATAÇ A.
The 3rd International Turkish Congress on Molecular Spectroscopy, 26 - 29 August 2017, (Summary Text)

VI. **The exploring of the anion effect on the structure, spectroscopic and electronic features of some imidazolium based ionic liquids**
ATAÇ A., BİLGİLİ S., BARDAK F.
The 3rd International Turkish Congress on Molecular Spectroscopy, 26 - 29 August 2017, (Summary Text)

VII. **Spectral and Electronic Features of 2 bromo ethylbenzene**
KARABACAK M., BİLGİLİ S., ATAÇ A.
XIIIth International Conference on Molecular Spectroscopy, Wroclaw, Poland, 9 - 13 September 2015, (Summary Text)

VIII. **Spectroscopic and molecular structure investigation of neutral dimer and anion forms of 3 4 pyridinedicarboxylic acid A combined experimental FT IR FT Raman NMR UV spectra and theoretical study**
ÇİPİLOĞLU M. A., BİLGİLİ S., KARABACAK M., ATAÇ A.
Molecular Modeling in Chemistry and Biochemistry, Cluj, Romania, 13 - 15 November 2014, (Summary Text)

IX. **The spectroscopic FT IR FT Raman NMR and UV Vis and quantum chemical studies DFT approach of 3 4 difluoroaniline**
ATAÇ A., KÖSE E., KARABACAK M., ÇİPİLOĞLU M. A., BİLGİLİ S.
Molecular Modeling in Chemistry and Biochemistry, Cluj, Romania, 13 - 15 November 2014, (Summary Text)

X. **İyonik sıvılarda zincir uzunluğunun moleküler titreşimler ve elektronik yapı üzerine etkisinin teorik incelenmesi 1 alkil 3 metilimidazolyum triflorometansulfonatların durumu**
BARDAK F., BİLGİLİ S., ATAÇ A., KARABACAK M.
ADIM FİZİK GÜNLERİ-III, Isparta, Turkey, 17 - 18 April 2014

XI. **Molecular Structure Spectroscopic characterization FTIR FT Raman UV and NMR HOMO and LUMO Analysis of 3 3Diaminobenzidene with DFT Quantum Chemical Calculations**
ATAÇ A., BİLGİLİ S., KARABACAK M.
International Turkish Congress on Molecular Spectroscopy, İstanbul, Turkey, 15 - 20 September 2013, (Summary Text)

XII. **Theoretical study on molecular structure and vibrational analysis included FT IR and FT Raman techniques of 2 4 5 trimethylbenzoic acid using density functional theory**
KARABACAK M., BİLGİLİ S., ATAÇ A.
XIIth International Conference on Molecular Spectroscopy, Krakow, Poland, 8 - 12 September 2013, (Summary Text)

XIII. **An investigation of structural spectroscopic by FTIR FT RAMAN and NMR techniques and thermodynamically features of 5 chloro 2 methoxyaniline by quantum chemical calculations**
BİLGİLİ S., ATAÇ A., KARABACAK M.

30th International Physics Congress, İstanbul, Turkey, 2 - 05 September 2013, (Summary Text)

XIV. **Spectroscopic FT IR AND FT Raman Analysis and Theoretical Investigation of 2 4 Pyridinedicarboxylic Acid with Density Functional Theory**
TUĞBA M., ATAÇ A., BİLGİLİ S.
29th International Physics Congress, BODRUM, Turkey, 5 - 08 September 2012, (Summary Text)

XV. **FT IR FT Raman Spectral Investigation and Theoretical Study Of 2 3 Pyridinedi Carboxylic Acid**
BİLGİLİ S., ATAÇ A., TUĞBA M., KARABACAK M.
29th International Physics Congress, Muğla/Bodrum, Turkey, 5 - 08 September 2012, (Summary Text)

XVI. **Spectroscopic NMR UV FT IR and FT Raman analysis and theoretical investigation of 2 ethynylpyridine with density functional theory**
MAVİŞ T., ATAÇ A., BİLGİLİ S., ESKİCİ M., KARABACAK M.
8th Nanoscience and Nanotechnology Congress, Ankara, Turkey, 25 - 29 June 2012

XVII. **Determination of structural and vibrational spectroscopic properties of 3 ethynylthiophene using FT IR FT Raman UV and NMR experimental techniques combined DFT quantum chemical calculations**
BİLGİLİ S., ATAÇ A., MAVİŞ T., ESKİCİ M., KARABACAK M.
8th Nanoscience and Nanotechnology Congress, Ankara, Turkey, 25 - 29 June 2012

XVIII. **Synthesis Experimental And Theoretical Ft Ir Spectroscopic Analysis Of Nicotinic Acid N Oxide Metal Iı Halide Complexes**
TUĞBA M., ATAÇ A., BİLGİLİ S., KARABACAK M.
28th international Physics Congress, BODRUM, Turkey, 6 - 09 September 2011, (Summary Text)

XIX. **Synthesis Spectroscopic and Theoretical Study on Some Metal II Halide Complexes of 3 4 Pyridinedicarboxylic Acid**
BİLGİLİ S., ATAÇ A., TUĞBA M., KARABACAK M.
28th international Physics Congress, BODRUM, Turkey, 6 - 09 September 2011, (Summary Text)

XX. **Synthesıs and Vıbratıonal Spectroscopıc Study on Metal II Halıde Complexes of 3 4 Pyrıdınedıcarboxylıc Acıd**
ATAÇ A., BİLGİLİ S., KURT M.
Advances In Applied Physics & Materials Science Congress, KEMER, Turkey, 12 - 15 May 2011, (Summary Text)

Funded Projects

ATAÇ A., YILDIRIM S., BARDAK F., Project Supported by Higher Education Institutions, Östrojen Reseptör İnhibitörlerinin Elektronik Yapı Ve Biyoaktif Doğasının Kuantum Mekanik Yöntemler Ve Moleküler Kenetleme Kullanılarak İncelenmesi., 2017 - 2020

ATAÇ A., YILDIRIM S., BARDAK F., Project Supported by Higher Education Institutions, BAP Research Project, Bazı İyonik Sıvıların, Ft-Ir, Ft-Raman, Nmr ve Uv Teknikleri Kullanılarak Spektroskopik ve Elektronik Özelliklerinin Deneysel ve Teorik Olarak İncelenmesi, 2015 - 2018

ATAÇ A., KÖSE E., YILDIRIM S., KARACA Ç., MAVİŞ T., Project Supported by Higher Education Institutions, BAP Research Project, Bazı Moleküllerin Spektroskopik Özelliklerinin ve Moleküler Yapı Analizinin Deneysel ve Density Functional Theory (Yoğunluk Fonksiyon Teorisi) Yardımıyla Teorik Olarak İncelenmesi ve Komplekslerinin Deneysel Olarak Sentezlenmesi, 2012 - 2014

Metrics

Publication: 30
Citation (WoS): 187
Citation (Scopus): 197
H-Index (WoS): 8

H-Index (Scopus): 8