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Education Information

Doctorate, Ondokuz Mayıs University, Fen Bilimleri Enstits, Fizik (Dr), Turkey 2019 - 2020

Postgraduate, Ondokuz Mayıs University, Fen Bilimleri Enstits, Fizik (YI) (Tezli), Turkey 2012 - 2016

Undergraduate, Fırat University, Fen-Edebiyat Fakltesi, Fizik Pr., Turkey 1996 - 2002

Dissertations

Postgraduate, Schiff bazı molekllerinin enerjik ve morfolojik zelliklerinin deneysel ve kuramsal yntemlerle incelenmesi, Ondokuz Mayıs University, Fen Bilimleri Enstits, Fizik (YI) (Tezli), 2016

Research Areas

Atmospheric Sciences and Meteorological Engineering, Environmental Engineering, Atomic and Molecular Physics, Electromagnetism, Acoustics, Heat Transfer, Classical Mechanics and Fluid Dynamics, Natural Sciences

Academic Titles / Tasks

Lecturer, Ondokuz Mayıs University, Fen-Edebiyat Fakltesi, Fizik Blm, 2003 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigation of the effect of natural convection cooling caused by the chimney effect on the improved solar thermoelectric system**
Blbl H., Atalay T., Yakut Y., zbektař S., Kysal Y.
APPLIED THERMAL ENGINEERING, vol.263, 2025 (SCI-Expanded)
- II. **Benzimidazole derivatives as a new scaffold of anticancer agents: Synthesis, optical properties, crystal structure and DFT calculations**
Zouaghi M. O., Bensalah D., Hassen S., Arfaoui Y., Mansour L., zdemir N., Blbl H., GRBZ N., ZDEMİR İ., Hamdi N.
HELIYON, vol.10, no.12, 2024 (SCI-Expanded)
- III. **Evaluation of energy efficiency of thermoelectric energy generator system with heat pipes, solar tracker, Fresnel lens and nano-particle fluids**

Köysal Y., Yakut Y., Özbektaş S., Bülbül H., Atalay T., Şahin F.

APPLIED THERMAL ENGINEERING, vol.246, 2024 (SCI-Expanded)

- IV. **Characterization of the synthesized diaqua-bis(indazole-κN2)bis (nitrate-κO)zinc(II) complex and DFT calculations**
Kucuk C., Celik S., Yurdakul S., Özdemir N., Bülbül H.
JOURNAL OF MOLECULAR STRUCTURE, vol.1304, 2024 (SCI-Expanded)
- V. **Synthesis, crystal structure, spectroscopy and quantum chemical investigations of hexahydroquinoline molecule**
Bülbül H., Cetin G., Köysal Y., ŞİMŞEK R., Yildirim S. O., Tanak H., Butcher R. J.
MOLECULAR PHYSICS, vol.122, no.18, 2024 (SCI-Expanded)
- VI. **Synthesis of palladium complexes containing benzimidazole core and their catalytic activities in direct arylation of heteroaromatic species**
Seker S., Ulu O. D., GÜRBÜZ N., Özdemir N., ÖZDEMİR İ., Bülbül H.
JOURNAL OF COORDINATION CHEMISTRY, vol.77, no.5-6, pp.434-447, 2024 (SCI-Expanded)
- VII. **Cu(I)-<i>N</i>-heterocyclic carbene complexes bearing a naphthyl substituent: synthesis, characterization, and antimicrobial activities**
Tokatlı A., Demir B., Kiliç N., Kurt Kızıldoğan A., Otur Ç., Kiliçarslan R., Karakaş H., Özdemir N., Bülbül H.
JOURNAL OF COORDINATION CHEMISTRY, vol.76, no.13-15, pp.1745-1762, 2023 (SCI-Expanded)
- VIII. **Crystal Structure, Computational Study and Hirshfeld Surface Analysis of 4-(4-Methoxyphenethyl)-5-(p-tolyl)-2,4-Dihydro-3H-1,2,4-Triazol-3-One, C₁₈H₁₉N₃O₂**
Bülbül H., Köysal Y., YILDIRIM S., ÜNLÜER BİRİNCİ D., SOYLU M. S., Butcher R. J.
JOURNAL OF CHEMICAL CRYSTALLOGRAPHY, vol.52, no.4, pp.440-449, 2022 (SCI-Expanded)
- IX. **Experimental and Thermal Analysis of Solar Thermoelectric System Performance Incorporated with Solar Tracker**
Atalay T., Yakut Y., Köysal Y., Özbektaş S., Bülbül H., Topaloglu B.
INTERNATIONAL JOURNAL OF PRECISION ENGINEERING AND MANUFACTURING-GREEN TECHNOLOGY, vol.9, no.2, pp.587-602, 2022 (SCI-Expanded)
- X. **Crystal structure and computational studies of (E)-1-(benzo[b]thiophen-3-yl)-N-(4-ethoxyphenyl)methanimine**
Bülbül H., Köysal Y., Doğan O. E., DEGE N., Ağar E.
CRYSTALLOGRAPHY REPORTS, vol.64, no.3, pp.403-406, 2019 (SCI-Expanded)
- XI. **Crystal structure of 3-(4-methoxyphenyl)-1-(4-methylphenyl)prop-2-en-1-one, C₁₇H₁₆O₂**
Köysal Y., Bülbül H., Ozdemir F., İLHAN İ. Ö., DEGE N.
ZEITSCHRIFT FÜR KRISTALLOGRAPHIE-NEW CRYSTAL STRUCTURES, vol.232, no.4, pp.593-594, 2017 (SCI-Expanded)
- XII. **Crystal structure of (E)-4-nitro-2-((2-phenoxy-phenylimino)methyl)phenol, C₁₉H₁₄N₂O₄**
Köysal Y., Bülbül H., Kantar E. N., Coskun E., Şahin S., DEGE N.
ZEITSCHRIFT FÜR KRISTALLOGRAPHIE-NEW CRYSTAL STRUCTURES, vol.232, no.1, pp.9-10, 2017 (SCI-Expanded)
- XIII. **Crystal structure of (E)-3-((naphthalen-1-ylimino) methyl)-4-nitrophenol, C₁₇H₁₂N₂O₃**
Bülbül H., Köysal Y., Macit M., Yaman R., DEGE N.
ZEITSCHRIFT FÜR KRISTALLOGRAPHIE-NEW CRYSTAL STRUCTURES, vol.232, no.1, pp.135-136, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Crystal structure and computational studies of N-((2-ethoxynaphthalen-1-yl)methylene)-4-fluoroaniline**
Atalay Ş., Macit M., Bülbül H.
European Journal of Chemistry, vol.12, no.4, pp.454-458, 2021 (Peer-Reviewed Journal)
- II. **(Z)-3-({[3-Methoxy-5-(trifluoromethyl)phenyl]imino}methyl)benzene-1,2-diol**

- Kanmazalp S. D., Doğan O. E., DEGE N., Ağar E., Bülbül H., Golenya I. A.
 ACTA CRYSTALLOGRAPHICA SECTION E-CRYSTALLOGRAPHIC COMMUNICATIONS, vol.75, pp.470-479, 2019 (ESCI)
- III. **2-[(E)-(3-Chloro-4-methylphenyl)imino]methyl]-4-(trifluoromethoxy)phenol**
 Atalay Ş., Gerçerer S., Meral S., Bülbül H.
 IUCR DATA, vol.2, no.12, pp.171725, 2017 (Peer-Reviewed Journal)
- IV. **(E)-2-[(5-Chloro-2-methoxyphenyl)imino]methyl]-4-nitrophenol**
 Öv Bodur G. S., YAVUZ M., DEGE N., BÜLBÜL H., AĞAR E.
 IUCR DATA, vol.2, no.2, pp.170177, 2017 (Peer-Reviewed Journal)
- V. **Crystal structure and computational studies of (3Z)-4-benzoyl-3-[(2,4-dinitrophenyl)hydrazinylidene]-5-phenylfuran-2(3H)-one**
 Köysal Y., Bülbül H., İLHAN İ. Ö., Akin N., DEGE N.
 ACTA CRYSTALLOGRAPHICA SECTION E-CRYSTALLOGRAPHIC COMMUNICATIONS, vol.72, pp.1852-1861, 2016 (ESCI)
- VI. **Crystal structure and computational study of 2,4-dichloro-N-[(E)-(5-nitrothiophen-2-yl)methylidene]aniline**
 Köysal Y., Bülbül H., Gumus S., Ağar E., SOYLU M. S.
 ACTA CRYSTALLOGRAPHICA SECTION E-CRYSTALLOGRAPHIC COMMUNICATIONS, vol.72, pp.1187-1193, 2016 (ESCI)
- VII. **Crystal Structure Spectroscopy SEM Analysis and Computational Studies of N 1 3 Dioxoisindolin 2yl benzamide**
 BÜLBÜL H., KÖYSAL Y., DEGE N., GÜMÜŞ UZUN S., AĞAR E., SALHA H.
 Journal of Crystallography, vol.2015, pp.1-6, 2015 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

- I. **Atmospheric Carbondioxide Sequestration By Algae**
 BAYTUT Ö., ÖZDEMİR A. E., BÜLBÜL H.
 "Cooperation of Climate Change and Green Deal Symposium" between 24-26 October 2022, Samsun, Turkey, 24 October 2022
- II. **X-ray crystallographic and computational studies of (E)-N'-(4-fluorobenzylidene)-1-(2-methoxyphenyl)-4,5-dihydro-1H-pyrazole-4-carbohydrazide**
 Noori NOORI S. A., ATALAY Ş., GEDİZ ERTÜRK A., BÜLBÜL H.
 International Marmara Sciences Congress, Kocaeli, Turkey, 10 December 2021
- III. **Crystal structure and computational study of C₁₁H₆Cl₂N₂O₂S**
 BÜLBÜL H., KÖYSAL Y., GÜMÜŞ S., AĞAR E., SOYLU M. S., ATALAY Ş.
 1. INTERNATIONAL TECHNOLOGICAL SCIENCES AND DESIGN SYMPOSIUM, Giresun, Turkey, 27 - 29 June 2018
- IV. **Computational and Structural Analysis of C₁₄H₁₂BrNO**
 ATALAY Ş., TOSYALI KARADAĞ A., BÜLBÜL H., GENÇ H.
 1. INTERNATIONAL TECHNOLOGICAL SCIENCES AND DESIGN SYMPOSIUM, Giresun, Turkey, 27 - 29 June 2018
- V. **SYNTHESIS, CRYSTAL STRUCTURE AND THEORETICAL CALCULATIONS OF C₁₄H₁₃N₃O**
 SAĞLIK E. A., ATALAY Ş., BÜLBÜL H., CEREN Ç., AĞAR E.
 Turkish Physical Society 34th International Physical Congress, BODRUM, Turkey, 5 - 09 September 2018
- VI. **Crystal Structure and Computational Study of C₁₅H₁₀N₂O₂S**
 ATALAY Ş., ERDEM T. K., BÜLBÜL H., AKDEMİR N., AĞAR E., ÖZİL M.
 International Conference on Physical Chemistry and Functional Materials(PCFM'18, Elazığ, Turkey, 19 - 21 June 2018
- VII. **XRD and Computational Studies of C₁₆H₁₂N₂O₂**
 ATALAY Ş., ERDEM T. K., BÜLBÜL H., AKDEMİR N., AĞAR E., KANTAR C.
 International Conference on Physical Chemistry and Functional Materials(PCFM'18), Elazığ, Turkey, 19 - 21 June 2018

VIII. Crystal Structure and Theoretical Calculations of C₁₆H₁₄F₃N₂O₂

ATALAY Ş., TOSYALI KARADAĞ A., BÜLBÜL H., AĞAR E.

International Conference on Physical Chemistry and Functional Materials(PCFM'18), Elazığ, Turkey, 19 - 21 June 2018

IX. X-Ray Crystallographic and Computational Studies of C₁₅H₁₂F₃N₃O₃

ATALAY Ş., TOSYALI KARADAĞ A., BÜLBÜL H., GENÇ H.

International Conference on Physical Chemistry and Functional Materials(PCFM'18), Elazığ, Turkey, 19 - 21 June 2018

X. Crystal Structure, Spectroscopy, SEM Analysis, and Computational Studies of C₁₇H₁₂N₂O₃

BÜLBÜL H., KÖYSAL Y., MACİT M., YAMAN R., DEGE N.

1. INTERNATIONAL TECHNOLOGICAL SCIENCES AND DESIGN SYMPOSIUM, 27 - 29 June 2018

XI. X-ray crystallographic and computational studies of (E)-2-(((4-bromophenyl)imino)methyl)-4,5-difluorophenol

ATALAY Ş., DURSUN M. E., BÜLBÜL H., AĞAR E., ŞAHİN S.

Turkish Physical Society 33rd International Physics Congress, BODRUM / MUĞLA, Turkey, 6 - 10 September 2017

XII. X-ray crystallographic studies of 2-[(E)-[(3-chloro-4-methylphenyl)imino]methyl]-4-(trifluoromethoxy)phenol

ATALAY Ş., GERÇEKER S., BÜLBÜL H., ALAMAN E., ALAMAN AĞAR A.

Turkish Physical Society 33rd International Physics Congress, BODRUM / MUĞLA, Turkey, 6 - 10 September 2017

XIII. Crystal Structure of 1Acetyl3 4methylphenyl 5phenyl4 5dihydro1Hpyrazole1

BÜLBÜL H., tınmaz f., DEGE N., İLHAN İ. Ö., SARIPINAR E.

9th International Physics Conference of the Balkan Physical Union, 24 - 27 August 2015

Supported Projects

Bülbül H., Project Supported by Higher Education Institutions, "9th International Physics Conference of the Balkan Physical Union, 2015 - 2015

Patent

Baytut Ö., Bülbül H., Özdemir A. E., Atmosferik karbon tutucu sistem, Patent, CHAPTER A Human Needs, The Invention Recourse Number: 2022/021647 , Standard Registration, 2022

Hakan B., Sıcak hava akışı ile mekanik enerjiyi elektrik enerjisine dönüştüren enerji üretim sistemi, Patent, CHAPTER H Electricity, 2022

Yavuz K., Hakan B., Rüzgâr enerjisi kullanılarak oluşturulan elektrik yüklerinin depolanması için bir sistem ve bu sistem ile elektrik enerjisi üretimi, Patent, CHAPTER H Electricity, 2022

Hakan B., Tahsin A., Yavuz K., Solar enerjiden sağlanan termal enerji ve doğal hava akışından sağlanan mekanik enerjinin dönüşümünün kullanıldığı hibrit elektrik enerjisi üretim sistemi, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, 2022

Awards

Bülbül H., Yakut Y., Atalay T., Köysal Y., ISIF 24, Isif, January 2024

Bülbül H., Özdemir A. E., Baytut Ö., Atmospheric Carbon Capture System, Isif 2023, January 2023

Bülbül H., Özdemir A. E., Köysal Y., Wind Energy and Static Electricity Based Renewable Energy Generator, Isif 2022, January 2022