

# Prof. ÇAĞRI ÇIRAK

## Personal Information

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## International Researcher IDs

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## Education Information

Doctorate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Fizik A.B.D., Turkey 2005 - 2009

Postgraduate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Fizik A.B.D., Turkey 2002 - 2005

Undergraduate, Suleyman Demirel University, Fen Edebiyat Fakültesi, Fizik, Turkey 1998 - 2002

## Foreign Languages

English, B2 Upper Intermediate

## Dissertations

Doctorate, Farklı ortam sıcaklıklarında ve farklı soğuk duvar sıcaklık etkileri altındaki sabit sıcaklık konfigürasyonunun, rejim halinden osilasyonlu marangoni konveksiyonuna geçiş üzerine deneyler., Süleyman Demirel Üniversitesi, Fen Bilimleri Enstitüsü, Fizik A.B.D., 2009

Postgraduate, Taramalı tünelleme elektron mikroskop yapımı ve temel bilimlere uygulamaları., Süleyman Demirel Üniversitesi, Fen Bilimleri Enstitüsü, Fizik A.B.D., 2005

## Research Areas

Physics, Atomic and Molecular Physics, Molecular Properties and Interactions with Photon, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences, Engineering and Technology

## Academic Titles / Tasks

Professor, Erzincan Binali Yıldırım University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2021 - Continues

Associate Professor, Erzincan Binali Yıldırım University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2015 - 2021

Assistant Professor, Erzincan Binali Yıldırım University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2009 - 2015

Assistant Professor, Texas Tech University, Nano Tech Center, Electrical Engineering, 2013 - 2013

Research Assistant, Suleyman Demirel University, Fen Edebiyat Fakültesi, Fizik, 2002 - 2009

## Academic and Administrative Experience

Vice Rector, Erzincan Binali Yildirim University, Rektörlük, 2022 - Continues

Chairman of the BAP Committee, Erzincan Binali Yildirim University, Rektörlük, 2022 - Continues

Head of Department, Erzincan Binali Yildirim University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2021 - Continues

Erzincan Üniversitesi, Fen Edebiyat Fakültesi, Fizik, 2010 - Continues

Director of The Institution, Erzincan Binali Yildirim University, Fen Bilimleri Enstitüsü, 2020 - 2022

BAP Scientific Commissioner, Erzincan Binali Yildirim University, Rektörlük, 2016 - 2022

Head of Department, Erzincan Binali Yildirim University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2010 - 2021

Head of Department, Erzincan Binali Yildirim University, Fen Bilimleri Enstitüsü, 2018 - 2020

Manager of Research and Application Center, Erzincan Binali Yildirim University, Rektörlük, Merkez Laboratuvarları, 2018 - 2020

Temel Bilimler Araştırma ve Uygulama Merkezi /Müdür Yardımcısı, Erzincan Binali Yildirim University, Rektörlük, Merkez Laboratuvarları, 2014 - 2018

## Advising Theses

Çırak Ç., ANODİK OKSİDASYON VE KİMYASAL BANYO TEKNİKLERİ İLE TiO<sub>2</sub>/ZnO NANOKOMPOZİTLERİN SENTEZLENMESİ VE FOTOKATALİTİK AKTİVİTELERİNİN İNCELENMESİ, Postgraduate, S.Kılıç(Student), 2018

Çırak Ç., Farklı konsantrasyonlarda sentezlenen TiO<sub>2</sub>/ZnO nanokompozit yapıların karakterizasyonu ve boya duyarlı güneş pili performanslarının incelenmesi, Postgraduate, Z.DEMİR(Student), 2018

DOĞAN S., ÇIRAK Ç., İki Noktalı Kırmızı Örümcek [Tetranychus urticae (Acari: Tetranychidae)] Ağının Yapısal Karakterizasyonu, Postgraduate, M.Çağlar(Student), 2017

Çırak Ç., TRİFLOROTİMİN BİYO-AJANININ MOLEKÜLER YAPISININ VE TİTREŞİM FREKANSLARININ İNCELENMESİ, Postgraduate, N.Koç(Student), 2016

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

- I. **Development of a novel hydrothermal process for surface modification of galvanized steel, characterization, and photocatalytic application**  
Zorlu R., ÖZDOKUR K. V., BARAN ACIMERT Ö., Demir Z., Çağlar B., ÇIRAK Ç., Koçak S.  
Surfaces and Interfaces, vol.51, 2024 (SCI-Expanded)
- II. **Detection performance of flower-like hydrothermally synthesized ZnO in silicon-type photodetector**  
EDEN Ç., KOÇYİĞİT A., AYDOĞAN Ş., ÇIRAK Ç., YILMAZ M.  
Physica Scripta, vol.99, no.6, 2024 (SCI-Expanded)
- III. **Optimizing the structural and photocatalytic performance of Ag-decorated ZnO/Zn(OH)<sub>2</sub> nanoparticles for RhB degradation**  
ERDOĞAN E., EDEN Ç., CANPOLAT N., ÇIRAK Ç., YILMAZ M.  
International Journal of Applied Ceramic Technology, vol.21, no.3, pp.2010-2023, 2024 (SCI-Expanded)
- IV. **Prussian blue modified magnetite decorated MW-CNT nanocomposite: synthesis, characterization and potential use as Photo-Fenton catalysts for phenol degradation**  
Gögen Y., KOÇAK Ç. C., Karabiberöğlü Ş., Polatdemir E., Aslaner H., Zorlu R., ÇAĞLAR B., ÇIRAK Ç., ÖZDOKUR K. V.  
Chemical Papers, vol.78, no.3, pp.1863-1874, 2024 (SCI-Expanded)
- V. **ZnO micro/nanorods: their performance in the photocatalytic degradation and photodiode**  
YILMAZ M., ÇIRAK Ç., CANPOLAT N., AYDOĞAN Ş.  
Applied Physics A: Materials Science and Processing, vol.129, no.3, 2023 (SCI-Expanded)
- VI. **Gold-Nanoparticles-Decorated ZrO<sub>2</sub>-CuO Nanocomposites: Synthesis, Characterization and A Novel Platform for Electrocatalytic Formaldehyde Oxidation**  
Özdokur K. V., Koçak Ç. C., Eden Ç., Demir Z., Çırak Ç., Yavuz E., Çağlar B.  
ChemistrySelect, vol.7, no.28, 2022 (SCI-Expanded)
- VII. **Bi<sub>2</sub>S<sub>3</sub> nanorods decorated on bentonite nanocomposite for enhanced visible-light-driven**

**photocatalytic performance towards degradation of organic dyes**

Çağlar B., Keleş Güner E., Ersoy S., Çağlar S., Özdemir A. O., Özdokur K. V., Doğan B., İçer F., Çırak Ç.  
Journal of Alloys and Compounds, vol.885, 2021 (SCI-Expanded)

- VIII. **WO<sub>3</sub> decorated TiO<sub>2</sub> nanotube array electrode: Preparation, characterization and superior photoelectrochemical performance for rhodamine B dye degradation**  
Davashoğlu İ. Ç., Özdokur K. V., Koçak S., Çırak Ç., Çağlar B., Bozkurt Çırak B., Nil Ertaş F.  
Journal of Molecular Structure, vol.1241, 2021 (SCI-Expanded)
- IX. **Application of BiFeO<sub>3</sub> and Au/BiFeO<sub>3</sub> decorated kaolinite nanocomposites as efficient photocatalyst for degradation of dye and electrocatalyst for oxygen reduction reaction**  
Çağlar B., Güner E., Özdokur K. V., Özdemir A. O., İçer F., Çağlar S., Doğan B., Beşer B. M., Çırak Ç., Tabak A., et al.  
Journal of Photochemistry and Photobiology A: Chemistry, vol.418, 2021 (SCI-Expanded)
- X. **A novel amperometric H<sub>2</sub>O<sub>2</sub> biosensor constructed by cross peroxidase entrapped on BiFeO<sub>3</sub> nanoparticles**  
Çağlar B., İçer F., Özdokur K. V., Çağlar S., Özdemir A. O., Keleş Güner E., Beşer B. M., Altay A., Çırak Ç., Doğan B., et al.  
Materials Chemistry and Physics, vol.262, 2021 (SCI-Expanded)
- XI. **Graphene/polyaniline nanocomposite as platinum-free counter electrode material for dye-sensitized solar cell: its fabrication and photovoltaic performance**  
Bayram O., Igman E., Güney H., Demir Z., YURTCAN M. T., ÇIRAK Ç., Hasar U. C., Simsek O.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.31, no.13, pp.10288-10297, 2020 (SCI-Expanded)
- XII. **Facile synthesis and enhanced photo-electrocatalytic performance of TiO<sub>2</sub> nanotube/g-C<sub>3</sub>N<sub>4</sub> composite catalyst by a novel synthesis approach**  
Öz dokur K. V., Bozkurt Çırak B., Eden Ç., Ahmad Boda M., Çırak Ç.  
Optik, vol.206, 2020 (SCI-Expanded)
- XIII. **The enhanced light harvesting performance of dye-sensitized solar cells based on ZnO nanorod-TiO<sub>2</sub> nanotube hybrid photoanodes**  
Bozkurt Çırak B., Eden Ç., Erdoğan Y., Demir Z., Öz dokur K. V., Çağlar B., Morkoç Karadeniz S., Kılınc T., Ercan Ekinci A., Çırak Ç.  
Optik, vol.203, 2020 (SCI-Expanded)
- XIV. **Effect of illumination intensity on the characteristics of Co/Congo Red/p-Si/Al hybrid photodiode**  
Kaçuş H., Çırak Ç., Aydoğan Ş.  
Applied Physics A: Materials Science and Processing, vol.126, no.2, 2020 (SCI-Expanded)
- XV. **Enhancement in photoelectrochemical ability via re-engineering the band gap of multi-podal titania nanotubes on functionalizing with copper oxide nano-cubes**  
Boda M. A., Shah M. A., Khan M., Çırak Ç.  
Applied Surface Science, vol.499, 2020 (SCI-Expanded)
- XVI. **Facile synthesis of hybrid ZnO nanostructures by combined electrodeposition and chemical bath deposition for improved performance of dye-sensitized solar cell**  
Boda M. A., Bozkurt Çırak B., Demir Z., Çırak Ç.  
MATERIALS LETTERS, vol.248, pp.143-145, 2019 (SCI-Expanded)
- XVII. **Molecular docking and vibrational spectroscopy studies of (E)-N'-hydroxy-1,3-diphenyl-4,5-dihydro-1H-pyrazole-5-carboximidamide**  
SERT Y., GÖKCE H., Chandra C., Mahendra M., Srikantamurthy N., ÇIRAK Ç.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1184, pp.79-91, 2019 (SCI-Expanded)
- XVIII. **Synthesis of TiO<sub>2</sub> nanotube/ZnO nanorod hybrid nanocomposite photoanodes for dye-sensitized solar cells**  
Bozkurt Çırak B., Demir Z., Eden Ç., Erdoğan Y., Çağlar B., Morkoç Karadeniz S., Kılınc T., Ekinci A. E., Çırak Ç.  
Journal of Materials Science: Materials in Electronics, vol.30, no.7, pp.6335-6341, 2019 (SCI-Expanded)
- XIX. **Synthesis and characterization of ZnO nanorice decorated TiO<sub>2</sub> nanotubes for enhanced photocatalytic activity**  
Bozkurt Çırak B., Çağlar B., Kılınc T., Morkoç Karadeniz S., Erdoğan Y., Kılınc S., Kahveci E., Ekinci A. E., Çırak Ç.

MATERIALS RESEARCH BULLETIN, vol.109, pp.160-167, 2019 (SCI-Expanded)

- XX. **Fabrication of TiO<sub>2</sub>/ZnO/Pt nanocomposite electrode with enhanced electrocatalytic activity for methanol oxidation**  
Özdokur K. V., Bozkurt Çirak B., Çağlar B., Çirak Ç., Morkoç Karadeniz S., Kılınç T., Erdogan Y., Ekinci A. E.  
VACUUM, vol.155, pp.242-248, 2018 (SCI-Expanded)
- XXI. **Experimental and Theoretical Spectral (FT-IR, Raman, NMR, UV-Vis and NLO) Analysis of a Potential Anti-Tumor Drug 1-Methyl-6-Nitro-1H-Benzimidazole**  
OTURAK H., Kinaytürk N. K., ÇIRAK Ç.  
SPECTROSCOPY AND SPECTRAL ANALYSIS, vol.38, no.6, pp.1963-1969, 2018 (SCI-Expanded)
- XXII. **Computational Studies on the Ground State Tautomer, Hydrogen Conformations and Vibrational Spectroscopic Analysis of Antitumor Agents: 3-Deazauracil and 6-Azaauracil**  
ÇIRAK Ç., Körözlü N., Sert Y., UCUN F.  
SPECTROSCOPY AND SPECTRAL ANALYSIS, vol.38, no.4, pp.1276-1282, 2018 (SCI-Expanded)
- XXIII. **Synthesis, Vibrational Spectra, and DFT Simulations of 3-bromo-2-methyl-5-(4-nitrophenyl)thiophene**  
Balakit A. A., Sert Y., ÇIRAK Ç., Smith K., Kariuki B. M., El-Hiti G. A.  
JOURNAL OF APPLIED SPECTROSCOPY, vol.84, no.5, pp.888-899, 2017 (SCI-Expanded)
- XXIV. **Synthesis, surface properties, crystal structure and dye sensitized solar cell performance of TiO<sub>2</sub> nanotube arrays anodized under different voltages**  
Bozkurt Çirak B., Karadeniz S. M., Kılınç T., Çağlar B., Ekinci A. E., Yelgin H., Kurekci M., Çirak Ç.  
Vacuum, vol.144, pp.183-189, 2017 (SCI-Expanded)
- XXV. **Structural characterization of the silk of two-spotted spider mite Tetranychus urticae Koch (Acari: Tetranychidae)**  
Doğan S., Çağlar M., Çağlar B., Çirak Ç., Zeytun E.  
Systematic and Applied Acarology, vol.22, no.4, pp.572-583, 2017 (SCI-Expanded)
- XXVI. **Structural, Morphological and Optical Properties of Well-Ordered CdO Nanostructures Synthesized by Easy-Economical Chemical Bath Deposition Technique**  
Karadeniz S. M., KILINÇ T., Çirak B. B., Sakaoğlu T. I., ÇIRAK Ç., ERTUĞRUL M., EKİNCİ A. E.  
SPECTROSCOPY AND SPECTRAL ANALYSIS, vol.36, no.6, pp.1998-2000, 2016 (SCI-Expanded)
- XXVII. **Investigation of Structural, Morphological, Optical, and Electrical Properties of Al Doped ZnO Thin Films Via Spin Coating Technique**  
YILMAZ M., Tatar D., SÖNMEZ E., ÇIRAK Ç., AYDOĞAN Ş., Gunturkun R.  
SYNTHESIS AND REACTIVITY IN INORGANIC METAL-ORGANIC AND NANO-METAL CHEMISTRY, vol.46, no.4, pp.489-494, 2016 (SCI-Expanded)
- XXVIII. **Hydrothermal growth of ZnO nanoparticles under different conditions**  
YILMAZ M., Cirak B., ÇIRAK Ç., AYDOĞAN Ş.  
PHILOSOPHICAL MAGAZINE LETTERS, vol.96, no.2, pp.45-51, 2016 (SCI-Expanded)
- XXIX. **A Comparative Study on Structural and Optical Properties of ZnO Micro-Nanorod Arrays Grown on Seed Layers Using Chemical Bath Deposition and Spin Coating Methods**  
Morkoç Karadeniz S., Bozkurt Çirak B., Kılınç T., Çirak Ç., İnal M., Turgut Z., Ekinci A. E., Ertuğrul M.  
MATERIALS SCIENCE-MEDZIAGOTYRA, vol.22, no.4, pp.476-480, 2016 (SCI-Expanded)
- XXX. **Theoretical and experimental investigations on vibrational and structural properties of tolazamide**  
Karakaya M., Sert Y., KUREKCI M., ESKİYURT B., ÇIRAK Ç.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1095, pp.87-95, 2015 (SCI-Expanded)
- XXXI. **Structural optimization and vibrational analysis of an antidiabetic drug: tolbutamide**  
Sert Y., Karakaya M., ÇIRAK Ç., ESKİYURT B., KUREKCI M.  
JOURNAL OF SULFUR CHEMISTRY, vol.36, no.4, pp.450-461, 2015 (SCI-Expanded)
- XXXII. **Monomer spectroscopic analysis and dimer interaction energies on N-(4-methoxybenzoyl)-2-methylbenzenesulfonamide by experimental and theoretical approaches**  
Karakaya M., Sert Y., SREENIVASA S., SUCHETAN P. A., ÇIRAK Ç.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.142, pp.169-177, 2015

- (SCI-Expanded)
- XXXIII. **FT-IR, Laser-Raman spectra and computational analysis of 5-Methyl-3-phenylisoxazole-4-carboxylic acid**  
Sert Y., Mahendra M., Keskinoglu S., Chandra C., Srikantamurthy N., Umesha K. B., ÇIRAK Ç.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.139, pp.145-155, 2015  
(SCI-Expanded)
- XXXIV. **Experimental and computational study on molecular structure and vibrational analysis of an antihyperglycemic biomolecule: Gliclazide**  
Karakaya M., KUREKCI M., ESKIYURT B., Sert Y., ÇIRAK Ç.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.135, pp.137-146, 2015  
(SCI-Expanded)
- XXXV. **Structural and spectroscopic analysis of 3-[(4-phenylpiperazin-1-yl)methyl]-5-(thiophen-2-yl)-2,3-dihydro-1,3,4-oxadiazole-2-thione with experimental (FT-IR, Laser-Raman) techniques and ab initio calculations**  
AL-OMARY F. A. M., Karakaya M., Sert Y., HARESS N. G., EL-EMAM A. A., ÇIRAK Ç.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1076, pp.664-672, 2014 (SCI-Expanded)
- XXXVI. **Vibrational frequency analysis, FT-IR, DFT and M06-2X studies on tert-Butyl N-(thiophen-2-yl) carbamate**  
Sert Y., SINGER L. M., FINDLATER M., Dogan H., Cirak G.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.128, pp.46-53, 2014 (SCI-Expanded)
- XXXVII. **Vibrational spectroscopy investigation using M06-2X and B3LYP methods analysis on the structure of 2-Trifluoromethyl-10H-benzo[4,5]-imidazo[1,2-a]pyrimidin-4-one**  
Sert Y., Mahendra M., Chandra C., Shivashankar K., Puttaraju K. B., Dogan H., ÇIRAK Ç., UCUN F.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.128, pp.109-118, 2014  
(SCI-Expanded)
- XXXVIII. **Experimental FT-IR, Laser-Raman and DFT spectroscopic analysis of 2,3,4,5,6-Pentafluoro-trans-cinnamic acid**  
Sert Y., Dogan H., NAVARRETE A., SOMANATHAN R., AGUIRRE G., ÇIRAK Ç.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.128, pp.119-126, 2014  
(SCI-Expanded)
- XXXIX. **Vibrational spectroscopy (FT-IR and Laser-Raman) investigation, and computational (M06-2X and B3LYP) analysis on the structure of 4-(3-fluorophenyl)-1-(propan-2-ylidene)-thiosemicarbazone**  
Sert Y., MIROSLAW B., ÇIRAK Ç., Dogan H., SZULCZYK D., STRUGA M.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.128, pp.91-99, 2014 (SCI-Expanded)
- XL. **Effect of intermolecular hydrogen bonding, vibrational analysis and molecular structure of a biomolecule: 5-Hydroxymethyluracil**  
ÇIRAK Ç., Sert Y., UCUN F.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.127, pp.41-46, 2014 (SCI-Expanded)
- XLI. **The biomolecule, 2-[(2-methoxyl)sulfanyl]-4-(2-methylpropyl)-6-oxo-1,6-dihydropyrimidine-5-carbonitrile: FT-IR, Laser-Raman spectra and DFT**  
Sert Y., EL-EMAM A. A., AL-DEEB O. A., AL-TURKISTANI A. A., UCUN F., ÇIRAK Ç.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.126, pp.86-97, 2014 (SCI-Expanded)
- XLII. **Use of vibrational spectroscopy to study 4-benzyl-3-(thiophen-2-yl)-4,5-dihydro-1H-1,2,4-triazole-5-thione: A combined theoretical and experimental approach**  
Sert Y., EL-EMAM A. A., AL-ABDULLAH E. S., AL-TAMIMI A. S., Cirak Ç., UCUN F.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.126, pp.280-290, 2014  
(SCI-Expanded)

- XLIII. **Experimental FT-IR, Laser-Raman and DFT spectroscopic analysis of a potential chemotherapeutic agent 6-(2-methylpropyl)-4-oxo-2-sulfanylidene-1,2,3,4-tetrahydropyrimidine-5-carbonitrile**  
Sert Y., AL-TURKISTANI A. A., AL-DEEB O. A., EL-EMAM A. A., UCUN F., ÇIRAK Ç.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.120, pp.97-105, 2014  
(SCI-Expanded)
- XLIV. **Synthesis, spectroscopic and theoretical studies of ethyl (2E)-3-amino-2-(((4-benzoyl-1,5-diphenyl-1H-pyrazol-3-yl)carbonyl)amino)carbonothioyl)but-2-enoate butanol solvate**  
Koca I., Sert Y., Gumus M., Kani I., ÇIRAK Ç.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.118, pp.816-827, 2014  
(SCI-Expanded)
- XLV. **SYNTHESIS, CHARACTERIZATION AND AB INITIO CALCULATIONS OF AMINOPHOSPHINE DERIVED FROM 4-BENZYLPIPERIDINE, ITS CHALCOGENIDE DERIVATIVES AND MOLYBDENUM(0) COMPLEX**  
SARIOZ O., ÇIRAK Ç., MURADOĞLU V., OZNERGİZ S.  
PHOSPHORUS SULFUR AND SILICON AND THE RELATED ELEMENTS, vol.189, no.3, pp.343-352, 2014 (SCI-Expanded)
- XLVI. **Effect of intermolecular hydrogen bonding, vibrational analysis and molecular structure of 4-chlorobenzothioamide**  
ÇIRAK Ç., Sert Y., UCUN F.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.113, pp.130-136, 2013  
(SCI-Expanded)
- XLVII. **Vibrational analysis of 4-chloro-3-nitrobenzonitrile by quantum chemical calculations**  
Sert Y., Çirak Ç., UCUN F.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.107, pp.248-255, 2013  
(SCI-Expanded)
- XLVIII. **Covalent grafting of pyridine-2-methanol into kaolinite layers**  
Çağlar B., Çirak Ç., Tabak A., Afsin B., Eren E.  
Journal of Molecular Structure, vol.1032, pp.12-22, 2013 (SCI-Expanded)
- XLIX. **Molecular structure and effects of intermolecular hydrogen bonding on the vibrational spectrum of trifluorothymine, an antitumor and antiviral agent**  
ÇIRAK Ç., KOC N.  
JOURNAL OF MOLECULAR MODELING, vol.18, no.9, pp.4453-4464, 2012 (SCI-Expanded)
- L. **Experimental and computational study on molecular structure and vibrational analysis of a modified biomolecule: 5-Bromo-2'-deoxyuridine**  
ÇIRAK Ç., Sert Y., UCUN F.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.92, pp.406-414, 2012  
(SCI-Expanded)
- LI. **Experimental and theoretical study on the structure and vibrational spectra of beta-2-aminopyridinium dihydrogenphosphate**  
ÇIRAK Ç., DEMİR S., UCUN F., ÇUBUK O.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.79, no.3, pp.529-532, 2011 (SCI-Expanded)
- LII. **Computational note on the ground state hydrogen conformations and vibrational analysis of 2, 3-, 4- and 5-dihydroxybenzaldehydes by density functional theory calculation**  
UCUN F., Sağlam A., ÇIRAK Ç.  
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.939, pp.139, 2010 (SCI-Expanded)
- LIII. **The spectral, structural and thermal characterizations of dimethyl sulphoxide, pyridine, ethanolamine and N-methyl formamide intercalated kaolinites**  
Çağlar B., Afsin B., Eren E., Tabak A., Çirak Ç., Çubuk O.  
Zeitschrift für Naturforschung - Section A Journal of Physical Sciences, vol.65, no.11, pp.1009-1019, 2010 (SCI-Expanded)
- LIV. **Silindirik Sabit Sıcaklık Konfigürasyonunda Farklı Soğuk Duvar Sıcaklık Etkisi Altında Kararlı Yüzey**

### **Gerilimli Akıştan Osilasyonlu Yüzey Gerilimli Akışa Geçişin Araştırılması.**

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KÖKSAL E., ÇIRAK Ç., POLAT M. F., Project Supported by Higher Education Institutions, Erzincan Üniversitesi, Temel Bilimler Uygulama ve Araştırma Merkezi (EÜTAM) Sarf Malzeme Altyapısının Oluşturulması, 2015 - 2018

DOĞAN S., ZEYTUN E., ÇAĞLAR M., ÇAĞLAR B., ÇIRAK Ç., DOĞAN S., Project Supported by Higher Education Institutions, İki noktalı kırmızı örümcek Tetranychus urticae Acari Tetranychidae ağının karakterizasyonu, 2016 - 2017

ÇIRAK Ç., KÖRÖZLÜ N., Project Supported by Higher Education Institutions, AM<sub>2</sub>Sb<sub>2</sub> (A=Ca, Sr, Ba, Eu, Yb; M=Zn, Cd) Tipi Bileşiklerin Elektronik, Örgü Dinamiği, Mekanik ve Termoelektrik Özelliklerinin Yüksek Basınç ve Sıcaklık Altında Davranışlarının Yoğunluk Fonksiyonel Teorisi (DFT) Kullanılarak İncelenmesi, 2015 - 2017

MORKOÇ KARADENİZ S., EKİNCİ A. E., KILINÇ T., TURGUT Z., İNAL M., ÇIRAK Ç., Project Supported by Higher Education Institutions, Ta<sub>2</sub>O<sub>5</sub>-WO<sub>3</sub>-V<sub>2</sub>O<sub>5</sub> Kompozit Elektrokromik Filmlerin Üretilmesi ve Elektrokromik Özelliklerinin Belirlenmesi, 2014 - 2017

ÇIRAK Ç., EKİNCİ A. E., MORKOÇ KARADENİZ S., ÇAĞLAR B., KÜREKÇİ M., BOZKURT ÇIRAK B., Project Supported by Higher Education Institutions, Güneş Pili Uygulamalarında Kullanılan Bazı Boyar Maddelerinin, TiO<sub>2</sub> Nanotüpler Üzerine Adsorpsiyonunun İncelenmesi, 2014 - 2016

ÇIRAK Ç., Project Supported by Higher Education Institutions, Modifiye Edilmiş Urasil Türevi Bazı Biyo- Ajanların Moleküler yapılarının ve Tiresim Frekanslarının Deneysel Ve Teorik Olarak Belirlenmesi, 2011 - 2012

## Activities in Scientific Journals

First Editor, 2019 - 2021

Erzincan Üniversitesi - Fen Bilimleri Enstitüsü Dergisi, Committee Member, 2015 - 2017

Süleyman Demirel Üniversitesi - Fen Dergisi (e-Dergi), Publication Committee Member, 2006 - 2009

## Memberships / Tasks in Scientific Organizations

I. Uluslararası Yer Altı Zenginlikleri ve Enerji Konferansı, Member, 2016 - 2016

## Scientific Refereeing

Journal of Sandwich Structures and Materials, National Scientific Refreed Journal, January 2018

Journal of Molecular Structure, National Scientific Refreed Journal, January 2018

Journal of Molecular Structure, National Scientific Refreed Journal, January 2017

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, January 2014

Makine Teknolojileri Elektronik Dergisi, National Scientific Refreed Journal, January 2014

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, SCI Journal, January 2014

Makine Teknolojileri Elektronik Dergisi, National Scientific Refreed Journal, January 2014

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, January 2014

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, SCI Journal, January 2014

Journal of Molecular Modeling, SCI Journal, January 2013

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, SCI Journal, January 2011

Makine Teknolojileri Elektronik Dergisi, National Scientific Refreed Journal, January 2010

## Metrics

Publication: 122

Citation (WoS): 420

Citation (Scopus): 684

H-Index (WoS): 11

H-Index (Scopus): 15

## **Non Academic Experience**

Texas Tech University