

## Prof. Elif AKALIN

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-5626-0026

Publons / Web Of Science ResearcherID: AAD-2783-2020

ScopusID: 35344447500

Yoksis Researcher ID: 46357

### Education Information

Doctorate, Istanbul University, Institute of Graduate Studies In Sciences, Fizik, Turkey 1998 - 2002

Postgraduate, Istanbul University, Institute of Graduate Studies In Sciences, Fizik, Turkey 1995 - 1998

Undergraduate, Bogazici University, Faculty Of Arts And Sciences, Physics, Turkey 1989 - 1994

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Serbest ve Kompleks Yapıdaki Diaminobenzen Moleküllerinin Teorik ve Deneysel Kırmızıaltı Spektroskopisi ile İncelenmesi, Istanbul University, Faculty of Science, Fizik, 2002

Postgraduate, Anilin ve Dötere-Anilin Moleküllerinin Titreşim Frekans ve Kiplerinin Hesaplanması, Istanbul University, Faculty of Science, Fizik, 1998

### Research Areas

Physics, Atomic and Molecular Physics, Atomic and Molecular Interactions, Molecular Properties and Interactions with Photon, Natural Sciences

### Academic Titles / Tasks

Professor, Istanbul University, Faculty of Science, Department of Physics, 2014 - Continues

Associate Professor, Istanbul University, Faculty of Science, Department of Physics, 2010 - 2014

Assistant Professor, Istanbul University, Faculty of Science, Department of Physics, 2003 - 2010

### Academic and Administrative Experience

Vice Dean, Istanbul University, Faculty Of Science, Department Of Physics, 2020 - Continues  
İstanbul Üniversitesi, Bap İhale Komisyonu, 2018 - Continues  
İstanbul Üniversitesi, Faculty of Science, 2016 - 2018  
İstanbul Üniversitesi, Bap Yaklaşık Maliyet Komisyonu, 2013 - 2015  
İstanbul Üniversitesi, Bap Yaklaşık Maliyet Komisyonu, 2012 - 2013  
İstanbul Üniversitesi, Bap Yaklaşık Maliyet Komisyonu, 2011 - 2012  
İstanbul Üniversitesi, Bap Yaklaşık Maliyet Komisyonu, 2010 - 2011

## Courses

Physics II Electricity and Magnetism, Undergraduate, 2021 - 2022  
Physics I - Mechanics, Undergraduate, 2020 - 2021  
Physics II, Undergraduate, 2019 - 2020, 2018 - 2019  
İleri Fizik, Undergraduate, 2020 - 2021  
Physics I Mechanics , Undergraduate, 2020 - 2021  
Modern Kırmızıaltı ve Raman Spektroskopisi, Postgraduate, 2019 - 2020  
Atom ve Molekül Fiziği, Undergraduate, 2019 - 2020  
MOLEKÜLER SİMETRİ VE GRUP TEORİ, Postgraduate, 2020 - 2021  
Physics I, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018  
Reading and Translation in Science II, Undergraduate, 2017 - 2018, 2016 - 2017  
Reading and Translation in Science I, Undergraduate, 2018 - 2019, 2017 - 2018  
Physics II, Undergraduate, 2017 - 2018, 2016 - 2017  
Titreşimler ve Akışkanlar Mekaniği, Undergraduate, 2018 - 2019  
Modern Kırmızıaltı ve Raman Spektroskopisi, Postgraduate, 2017 - 2018, 2016 - 2017  
Moleküler Simetri ve Grup Teori, Postgraduate, 2017 - 2018  
Molekül Fiziği, Undergraduate, 2013 - 2014  
General Physics, Undergraduate, 2014 - 2015  
Spektral Analiz Yöntemleri, Undergraduate, 2013 - 2014  
General Physics, Undergraduate, 2014 - 2015  
Modern Kırmızıaltı ve Raman Spektroskopisi, Postgraduate, 2013 - 2014  
Moleküler Biyolojide Spektral Analiz, Postgraduate, 2013 - 2014  
İleri Fizik Uygulamaları, Undergraduate, 2013 - 2014  
İleri Fizik Uygulamaları, Undergraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005  
Modern Infrared ve Raman Spektroskopisi, Postgraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009  
Molekül Fiziği, Undergraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009  
Spektral Analiz Yöntemleri, Undergraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009  
Moleküler Simetri ve Grup Teori, Postgraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010  
Fizik I, Undergraduate, 2011 - 2012, 2010 - 2011, 2009 - 2010  
Genel Fizik, Undergraduate, 2008 - 2009, 2007 - 2008, 2006 - 2007  
Molekül Fiziği I, Postgraduate, 2008 - 2009  
Fizik IV, Undergraduate, 2007 - 2008, 2006 - 2007, 2005 - 2006  
Spektral Analiz Yöntemleri, Undergraduate, 2007 - 2008, 2006 - 2007  
Genel Fizik II, Undergraduate, 2004 - 2005  
Genel Fizik I, Undergraduate, 2005 - 2006, 2004 - 2005  
Genel Fizik I, Undergraduate, 2005 - 2006, 2004 - 2005  
Genel Fizik II, Undergraduate, 2004 - 2005

## Advising Theses

- Akalın E., Etiyonamide Molekülünün Kuantum Mekaniksel Hesaplama Yöntemleri ve Kırmızıaltı ve Raman Spektroskopisi ile Titreşimsel Analizi, Postgraduate, M.Kalınca(Student), 2020
- Akalın E., Milrinone Molekülünün ve Tautomerlerinin Deneysel ve Kuantum Kimyasal Hesaplama Yöntemleriyle Titreşim Kip ve Dalgasayılarının Analizi, Postgraduate, Ü.Kalınca(Student), 2019
- AKALIN E., 4-Aminopirimidin Molekülünün ve Kararlı Dimerlerinin Yapısal ve Titreşimsel Analizi, Postgraduate, E.Öztürk(Student), 2014
- AKALIN E., Fenilendiamin Moleküllerinin (PARA-, META- ve ORTO-) ve H<sub>2</sub>O Komplekslerinin ab initio ve Yoğunluk Fonksiyon Teorisi ile Titreşimsel Analizi, Postgraduate, D.Bulanık(Student), 2010

## Jury Memberships

- Associate Professor Exam, Doçentlik Sınav Jürisi, Üniversiteler Arası Kurul, August, 2017
- Associate Professor Exam, Doçentlik Sınav Jürisi, Üniversiteler Arası Kurul, December, 2015
- Associate Professor Exam, Doçentlik Sınav Jürisi, Üniversiteler Arası Kurul, June, 2015
- Doctoral Examination, Doktora Yeterlilik Jürisi, İstanbul Üniversitesi, January, 2013
- Post Graduate, Tez Savunma Jürisi, İstanbul Üniversitesi, December, 2012
- Post Graduate, Tez Savunma Jürisi, İstanbul Üniversitesi, December, 2012
- Post Graduate, Tez Savunma Jürisi, İstanbul Üniversitesi, September, 2012
- Post Graduate, Tez Savunma Jürisi, İstanbul Üniversitesi, January, 2012
- Post Graduate, Tez Savunma Jürisi, İstanbul Kültür Üniversitesi, June, 2010
- Post Graduate, Tez Savunma Jürisi, İstanbul Üniversitesi, June, 2010
- Post Graduate, Tez Savunma Jürisi, İstanbul Üniversitesi, June, 2010
- Post Graduate, Tez Savunma Jürisi, İstanbul Üniversitesi, July, 2006

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

- I. **Vibrational Spectroscopic and Molecular Docking Studies of Amrinone, a Cardiotonic Inotropic Drug**  
Çelik S., Akyüz S., Özel A., Akalın E.  
OPTICS AND SPECTROSCOPY, vol.130, no.2, pp.215-227, 2022 (SCI-Expanded)
- II. **Molecular Modeling, Dimer Calculations, Vibrational Spectra, and Molecular Docking Studies of 5-Chlorouracil**  
Akalın E., Çelik S., Akyüz S.  
JOURNAL OF APPLIED SPECTROSCOPY, vol.86, pp.975-985, 2020 (SCI-Expanded)
- III. **Raman and AFM studies on nominally undoped, p- and n-type GaAsBi alloys**  
Erol A., Akalın E., Kara K., Aslan M., Bahrami-Yekta V., Lewis R. B., Tiedje T.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.722, pp.339-343, 2017 (SCI-Expanded)
- IV. **Thermal annealing effects on optical and structural properties of GaBiAs epilayers: Origin of the thermal annealing-induced redshift in GaBiAs**  
Donmez Ö., Kara K., Erol A., Akalın E., Makhloufi H., Arnoult A., Fontaine C.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.686, pp.976-981, 2016 (SCI-Expanded)
- V. **Investigation of Adsorption of 5-Fluorouracil and 5-Bromouracil onto Sepiolite and Loughlinitite: An IR Spectroscopic Study**  
Akyüz S., Akyuz T., Akalın E.  
ASIAN JOURNAL OF CHEMISTRY, vol.26, pp.4875-4878, 2014 (SCI-Expanded)
- VI. **Bismuth-induced effects on optical, lattice vibrational, and structural properties of bulk GaAsBi alloys**  
Sarcan F., Donmez Ö., Kara K., Erol A., Akalın E., Arıkan M. C., Makhloufi H., Arnoult A., Fontaine C.

NANOSCALE RESEARCH LETTERS, vol.9, 2014 (SCI-Expanded)

VII. **Ab initio and Raman study of medium range ordering in GeSe<sub>2</sub> glass**

Holomb R., Mitsa V., Akalin E., Akyuz S., Sichka M.

JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.373, pp.51-56, 2013 (SCI-Expanded)

VIII. **New ring-like models and ab initio DFT study of the medium-range structures, energy and electronic properties of GeSe<sub>2</sub> glass**

Holomb R., Mitsa V., Akyuz S., Akalin E.

PHILOSOPHICAL MAGAZINE, vol.93, pp.2549-2562, 2013 (SCI-Expanded)

IX. **Excitation energy-dependent nature of Raman scattering spectrum in GaInNAs/GaAs quantum well structures**

Erol A., Akalin E., Sarcan F., Donmez Ö., Akyuz S., Arıkan C. M. , Puustinen J., Guina M.

NANOSCALE RESEARCH LETTERS, vol.7, 2012 (SCI-Expanded)

X. **Experimental and theoretical vibrational spectroscopic investigation of Zn(II) halide complexes of 3-aminopyridine and 3-chloropyridine**

Akalin E., Akyuz S.

JOURNAL OF MOLECULAR STRUCTURE, vol.993, pp.390-396, 2011 (SCI-Expanded)

XI. **FT-IR and Raman spectroscopic and DFT theoretical investigations on Zn(II) halide complexes of 2-aminopyrimidine**

Akalin E., Akyuz S.

VIBRATIONAL SPECTROSCOPY, vol.53, pp.140-145, 2010 (SCI-Expanded)

XII. **Interaction of Isoniazid with Al(OH)(3): A DFT Study**

Akalin E., Akyuz S., Akyuz T.

ASIAN JOURNAL OF CHEMISTRY, vol.22, pp.4111-4116, 2010 (SCI-Expanded)

XIII. **Adsorption of isoniazid onto sepiolite-palygorskite group of clays: An IR study**

Akyuz S., Akyuz T., Akalin E.

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.75, pp.1304-1307, 2010 (SCI-Expanded)

XIV. **Vibrational study on Zn(Pyrimidine)(2)Cl-2, Pyrimidine-Al(OH)(3) and Pyrimidine-(Al(OH)(3))(2) complexes**

Akalin E., Akyuz S.

VIBRATIONAL SPECTROSCOPY, vol.48, pp.233-237, 2008 (SCI-Expanded)

XV. **Vibrational structure of free and hydrogen bonded complexes of isoniazid: FT-IR, FT-Raman and DFT study**

Akalin E., Akyüz S.

JOURNAL OF MOLECULAR STRUCTURE, vol.834, pp.492-497, 2007 (SCI-Expanded)

XVI. **Adsorption and interaction of 5-fluorouracil with montmorillonite and saponite by FT-IR spectroscopy**

Akalin E., Akyüz S., Akyüz T.

JOURNAL OF MOLECULAR STRUCTURE, vol.834, pp.477-481, 2007 (SCI-Expanded)

XVII. **Infrared and Raman spectroscopic study of 4-aminopyrimidine tetracyanonickelate complexes**

Akyüz S., Akyüz T., Akkaya Y., Akalin E.

JOURNAL OF MOLECULAR STRUCTURE, vol.834, pp.403-407, 2007 (SCI-Expanded)

XVIII. **Vibrational analysis of free and hydrogen bonded complexes of nicotinamide and picolinamide**

Akalin E., Akyüz S.

VIBRATIONAL SPECTROSCOPY, vol.42, pp.333-340, 2006 (SCI-Expanded)

XIX. **Vibrational analysis of isonicotinamide**

Akalin E., Yılmaz A., Akyüz S.

JOURNAL OF MOLECULAR STRUCTURE, vol.744, pp.881-886, 2005 (SCI-Expanded)

XX. **Structure and vibrational spectra of benzidine**

Akalin E., Akyuz S.

JOURNAL OF MOLECULAR STRUCTURE, vol.651, pp.571-577, 2003 (SCI-Expanded)

- XXI. **Experimental and theoretical study of the vibrational spectra of paraphenylenediamine transition metal (II) complexes**  
Akalin E., Akyüz S.  
JOURNAL OF MOLECULAR STRUCTURE, vol.563, pp.579-586, 2001 (SCI-Expanded)
- XXII. **Theoretical study of IR spectra of paraphenylenediamine**  
Akalin E., AKYUZ S.  
VIBRATIONAL SPECTROSCOPY, vol.22, pp.3-10, 2000 (SCI-Expanded)
- XXIII. **Calculation and analysis of IR spectrum of 2-aminopyridine**  
Buyukmurat Y., Akalin E., Ozel A., Akyüz S.  
JOURNAL OF MOLECULAR STRUCTURE, vol.482, pp.579-584, 1999 (SCI-Expanded)
- XXIV. **Force field and IR intensity calculations of aniline and transition metal(II) aniline complexes**  
Akalin E., Akyuz S.  
JOURNAL OF MOLECULAR STRUCTURE, vol.482, pp.175-181, 1999 (SCI-Expanded)

### Articles Published in Other Journals

- I. **SPECTROSCOPIC STUDIES OF MEDIUM RANGE ORDERING IN g-GeSe 2 : THEORY AND EXPERIMENT**  
Holomb R., Mitsa V., Akalin E., Akyüz S., Sichka M.  
Uzhhorod University Scientific Herald. Series Physics, no.32, pp.18-23, 2012 (Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Structure and Vibrational Analysis of 5-Chlorouracil and its Dimers**  
AKALIN E., ÇELİK S., AKYÜZ S.  
2nd International Conference on Innovations in Natural Science and Engineering (ICINSE 2018), Kiev, Ukraine, 7 - 10 September 2018, pp.1
- II. **Anharmonic DFT study of the vibrational wavenumbers of 5Chlorouracil**  
AKALIN E., AKYÜZ S.  
The 25 th Colloquium on High-Resolution Molecular Spectroscopy HRMS 2017, Helsinki, Finland, 20 - 25 August 2017, pp.45
- III. **IDENTIFICATION OF GAS BUBBLES IN GLASS PRODUCTS BY MICRO RAMAN SPECTROSCOPY**  
Yurdatapan H., ÖZEL A., AKALIN E., Oran M., Ökten A.  
Balkan Fizik Birliđi 9. Uluslararası Fizik Konferansı, İstanbul, Turkey, 24 - 27 August 2015, pp.5
- IV. **An investigation of Bismuth-related effects on GaAsBi/GaAs epilayers**  
AKALIN E., EROL A., Arıkan Ç. M. , KARA K., Aslan M., Lewis R., Tiedje T.  
5th International Workshop on Bismuth Containing Semiconductors, Cork, Ireland, 21 - 23 July 2014, pp.1
- V. **Investigation of GaBiAs Alloy Using Raman spectroscopy**  
AKALIN E., EROL A., SARCAN F., ARIKAN M. Ç. , Fontaine C.  
Novel Gain Materials And Devices Based On III-V-N/Bi Compounds, İstanbul, Turkey, 24 - 26 September 2013, pp.47
- VI. **Theoretical conformational analysis and vibrational spectral investigations of an anticancer drug, anastrozole**  
AKALIN E., Tommasini M., Akyüz S.  
Shedding New Light on Disease (SPEC 2012), Thailand, 1 - 04 November 2012, pp.2
- VII. **Structural and Vibrational Study on Amrinone Dimers and Amrinone-H<sub>2</sub>O Complexes**  
Atak B., Akalin E., Akyüz S., Çelik S.  
31th European Congress on Molecular Spectroscopy (EUCMOS 2012), Cluj-Napoca, Romania, 3 - 07 September 2012, pp.29
- VIII. **USING INFRARED AND RAMAN SPECTROSCOPY TECHNIQUES IN ANALYSIS OF Ga<sub>1-x</sub>In<sub>x</sub>NyAs<sub>1-y</sub>**

## **/GaAs QUANTUM WELL STRUCTURES**

AKALIN E., EROL A., Sarcan F., DÖNMEZ Ö., Arıkan Ç. M. , Puustinnen J., Guina M.

Türk Fizik Derneği 29. Uluslararası Fizik Kongresi, Turkey, 1 - 04 September 2012, pp.3

- IX. **Characterization of as-grown and annealed modulation doped Ga<sub>1-x</sub>In<sub>x</sub>NyAs<sub>1-y</sub> /GaAs quantum well structures using Infrared spectroscopy and Raman scattering techniques**  
AKALIN E., EROL A., Akyüz S., Arıkan Ç. M. , Puustinnen J., Guina M.  
International Conference on Superlattices, Nanostructures, and Nanodevices (ICSNN 2012), Germany, 1 - 04 July 2012, pp.348
- X. **Vibrational Analysis of Hydrogen Bonded Complexes of Phenylenediamine Molecules**  
AKALIN E., Bulanık D., Akyüz S.  
Türk Fizik Derneği 28. Uluslararası Fizik Kongresi, Turkey, 1 - 04 September 2011, pp.409
- XI. **Investigation of adsorption of 5-flouro and 5-bromo uracils onto sepiolite and loughlinitite: An IR spectroscopic study**  
AKALIN E., Akyüz S.  
Colloquium Spectroscopicum Internationale XXXVII, Rio De Janeiro, Brazil, 28 August - 02 September 2011
- XII. **Spectroscopic (FTIR and Raman) analysis and vibrational study on amrinone using DFT (B3LYP) calculations**  
Atak B., Akalın E., Akyüz S., Çelik S.  
Colloquium Spectroscopicum Internationale XXXVII, Rio-De-Janeiro, Brazil, 28 August - 02 September 2011, pp.40
- XIII. **Experimental and Theoretical Vibrational Spectroscopic Investigation of Zn(II) Halide Complexes of Pyridine Derivatives**  
AKALIN E., Akyüz S.  
30th European Congress on Molecular Spectroscopy, Italy, 1 - 04 August 2010, pp.213
- XIV. **FT-IR and Raman Spectroscopic and DFT Theoretical Investigations on Zn(II) Halide Complexes of 2-Aminopyrimidine**  
AKALIN E., Akyüz S.  
Vth International Conference on Advanced Vibrational Spectroscopy, Australia, 1 - 04 July 2009, pp.146
- XV. **Adsorption of Isoniazid onto Sepiolite-Palygorskite Group of Clays: An IR and DFT Study**  
AKALIN E., Akyüz S., Akyüz T.  
XXIX European Congress on Molecular Spectroscopy, Croatia, 1 - 04 August 2008, pp.330
- XVI. **Vibrational Study on Zinc Halide Pyrimidine Complexes: FT-IR and DFT Calculations**  
AKALIN E., Akyüz S.  
IVth international Conference on Advanced Vibrational Spectroscopy, Greece, 1 - 04 June 2007, pp.265
- XVII. **Theoretical Studies of Molecular and Vibrational Spectra of free and Hydrogen Bonded Complexes of Sulfanilamide**  
Öğrünç Ildız G., Akalın E., Özel A., Akyüz S.  
XXVIII European Congress on Molecular Spectroscopy, İstanbul, Turkey, 1 - 04 September 2006, pp.1
- XVIII. **Vibrational Structure of Free and Hydrogen Bonded Complexes of Isoniazid: FT-IR, FT-Raman and DFT Calculations**  
AKALIN E., Akyüz S.  
XXVIII European Congress on Molecular Spectroscopy, Turkey, 1 - 04 September 2006, pp.251
- XIX. **Infrared And Raman Spectroscopic Study Of 4-Aminopyrimidine Tetracyanonickelate Complexes**  
Akyüz S., Akyüz T., AKKAYA Y., AKALIN E.  
XXVIII European Congress on Molecular Spectroscopy, Turkey, 1 - 04 September 2006, pp.204
- XX. **Temperature Dependent Vibrational Spectroscopic Study of Montmorillonite From the Republic of Macedonia: I. Interaction of 2-Aminopyrimidine with Montmorillonite**  
Akyüz S., Minceva Sukarova B., Andreeva L., Najdoski M., AKALIN E.  
XXVIII European Congress on Molecular Spectroscopy, Turkey, 1 - 04 September 2006, pp.239
- XXI. **Adsorption and interaction of 5-fluorouracil with montmorillonite and saponite by FT-IR spectroscopy**  
AKALIN E., Akyüz S., Akyüz T.

- XXVIII European Congress on Molecular Spectroscopy, Turkey, 1 - 04 September 2006, pp.234
- XXII. **FT-IR and Raman Spectroscopic Study of 4-aminopyrimidine Tetracyanonickelate Complexes**  
Akyüz S., Akyüz T., Büyükmurat (Akkaya) Y., AKALIN E.  
XXVIII European Congress on Molecular Spectroscopy, Turkey, 1 - 04 September 2006, pp.204
- XXIII. **Vibrational Analysis of Free and Hydrogen Bonded Complexes of Nicotinamide and Picolinamide**  
AKALIN E., Akyüz S.  
IIIrd International Conference on Advanced Vibrational Spectroscopy, United States Of America, 1 - 04 August 2005, pp.279
- XXIV. **Vibrational Analysis of Isonicotinamide**  
AKALIN E., YILMAZ A., Akyüz S.  
XXVIIth European Congress on Molecular Spectroscopy, Poland, 1 - 04 September 2004, pp.360
- XXV. **Structure and Vibrational Spectra of Benzidine**  
AKALIN E., Akyüz S.  
XXVIth European Congress on Molecular Spectroscopy, France, 1 - 04 September 2002, pp.286
- XXVI. **FT-IR Spectroscopic Studies on Phenylenediamine Cadmium (II) Tetracyanommetallate Clathrate Hosts**  
Akyüz S., AKALIN E., Andreeva L., Minceva Sukarova B.  
VIIIth International Seminar on Inclusion Compounds (ISIC-8), Poland, 1 - 04 September 2001, pp.0-1
- XXVII. **Vibrational Spectra of Free and Coordinated Aromatic Amines**  
AKALIN E., Akyüz S.  
International School of Crystallography: Strength From Weakness, Italy, 1 - 04 May 2001, pp.319
- XXVIII. **Experimental and Theoretical Study of the Vibrational Spectra of Paraphenylenediamine Transition Metal(II) Complexes**  
AKALIN E., Akyüz S.  
XXV European Congress on Molecular Spectroscopy, Portugal, 1 - 04 August 2000
- XXIX. **Calculation and Analysis of IR Spectra of 2-Aminopyridine**  
AKKAYA Y., AKALIN E., ÖZEL A., AKYÜZ S.  
XXIV European Congress on Molecular Spectroscopy, Czech Republic, 1 - 04 August 1998, pp.69
- XXX. **Force Field and IR Intensity Calculations of Aniline and Transition Metal(II) Aniline Complexes**  
AKALIN E., Akyüz S.  
XXIV European Congress on Molecular Spectroscopy, Czech Republic, 1 - 04 August 1998
- XXXI. **Normal Coordinate Analysis of Aniline**  
Akalin E., Balci K., Akyüz S.  
International Symposium on Lasers, Atomic and Molecular Physics, İstanbul, Turkey, 16 - 20 September 1997, no.36, pp.36

## Supported Projects

EROL A., PERÇİN ÖZKORUCUKLU S., KURUOĞLU F., AKALIN E., CEVHER E., AK T., ULUTAŞ H. K., GÜL A., SIRMA EKMEKÇİ S., DÖNMEZ Ö., et al., Project Supported by Higher Education Institutions, İstanbul Üniversitesi Araştırma Laboratuvarları Sürekliliği Araştırma Desteği, 2018 - 2021

AKALIN E., AKYÜZ S., Project Supported by Higher Education Institutions, Anharmonic DFT study of the vibrational wavenumbers of 5Chlorouracil, 2017 - 2019

EROL A., SARCAN F., KURUOĞLU F., ÇOKDUYGULULAR E., ÇETİNKAYA Ç., DÖNMEZ Ö., NUTKU F., KARA K., AKALIN E., Project Supported by Higher Education Institutions, Characterization of temperature dependent operation of a GaInNAsbased RCEPD designed for 1.3 um, 2018 - 2018

EROL A., KARA K., SARCAN F., DÖNMEZ Ö., NUTKU F., YILDIRIM S., MUTLU S., KURUOĞLU F., AKALIN E., Project Supported by Higher Education Institutions, GaInNAs ve GaAsBi yarıiletkenleri ve bunlara dayalı geliştirilen aygıtların karakterizasyonu, 2017 - 2018

KINACI B., EROL A., DÖNMEZ Ö., AKALIN E., Project Supported by Higher Education Institutions, Yeni nesil çok eklemli güneş hücrelerinin tasarım ve karakterizasyonu, 2015 - 2018

EROL A., SARCAN F., ULUTAŞ D., AKALIN E., BALKAN N., Project Supported by Higher Education Institutions, Optik haberleşme için dikey kaviteli p-i-n dedektör, 2015 - 2018

GEZER M., TAŞ F., SAYLAN S., AKALIN E., ÖZEL A., Project Supported by Higher Education Institutions, Ulusal Kırmızı Altı ve Raman Spektroskopisi Veritabanı ve Ulusal Yazılımı Geliştirilmesi, 2014 - 2018

DÖNMEZ Ö., KARA K., EROL A., AKALIN E., Project Supported by Higher Education Institutions, Yarıkarakarlı örgü uyumsuz alaşımlara ısı işlem etkisinin spektroskopik yöntemlerle belirlenmesi, 2016 - 2017

DÖNMEZ Ö., EROL A., YILDIRIM S., AKALIN E., SARCAN F., NUTKU F., KARA K., KINACI B., Project Supported by Higher Education Institutions, Modülasyon katkılı GaBiAs kuantum kuyulu yapıların optik ve elektrik transport özelliklerinin incelenmesi, 2015 - 2017

AKALIN E., Project Supported by Higher Education Institutions, Bazı Halojen-uracillerin Kil Yüzeylere Tutunmasının İncelenmesi, 2015 - 2016

AKALIN E., Project Supported by Higher Education Institutions, Investigation of the vibrational properties of GaAsBi/GaAs epilayers by using Raman Spectroscopy, 2014 - 2016

YILDIRIM S., DÖNMEZ Ö., EROL A., YAKUT Ş., SARCAN F., ULUTAŞ D., AKALIN E., Project Supported by Higher Education Institutions, Uyumsuz Yarıiletken Alaşımların Optoelektronik Davranışlarının İncelenmesi, 2014 - 2016

AKALIN E., Project Supported by Other Private Institutions, Raman Spektroskopisi Yöntemi ile Cam Ürünlerinde Habbe Analizi, 2014 - 2015

AKALIN E., Project Supported by Higher Education Institutions, Using Raman spectroscopy to Investigate GaBiAs alloys, 2013 - 2014

AKALIN E., Project Supported by Higher Education Institutions, 4-Aminopirimidin Molekülünün ve Kararlı Dimerlerinin Yapısal ve Titreşimsel Analizi, 2013 - 2014

AKALIN E., KANAT ÖZTÜRK İ., DÖNMEZ Ö., KARA KOÇ K., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, İLERİ LİTOGRAFIK YÖNTEMLER LABORATUVARLARI, 2013 - 2013

AKALIN E., Project Supported by Higher Education Institutions, FT-IR and Raman Spectroscopic and DFT Theoretical Investigations on Zn(II) Halide Complexes of 2-Aminopyrimidine, 2011 - 2013

AKALIN E., TUBITAK Project, Atmosfere Yollanan Gazları Kontrol Eden Girişim Filtrelerinin Geliştirilmesi için Yüksek Kırmızı İndisli Nano Yapılı Amorf Tabaka Oluşumunun, DFT Hesaplamaları, IR ve Raman Spektroskopik İncelenmesi, 2010 - 2013

AKALIN E., Project Supported by Higher Education Institutions, KANSER TEDAVİSİNDE KULLANILAN BAZI MOLEKÜLLERİN DENEYSEL VE TEORİK TİTREŞİM SPEKTRUMLARININ VE TEORİK KONFORMASYONLARININ ANALİZİ, 2009 - 2013

AKALIN E., Project Supported by Higher Education Institutions, Theoretical conformational analysis and vibrational spectral investigations of an anticancer drug, anastrozole, 2012 - 2012

AKALIN E., Project Supported by Higher Education Institutions, Investigation of adsorption of 5-fluoro and 5-bromo uracils onto sepiolite and loughlinitite: An IR spectroscopic study, 2011 - 2011

AKALIN E., Project Supported by Higher Education Institutions, Experimental and Theoretical Vibrational Spectroscopic Investigation of Zn(II) Halide Complexes of Pyridine Derivatives, 2010 - 2010

AKALIN E., Project Supported by Higher Education Institutions, Electronic and Vibrational Structure of Rubrene and Tetracene, 2008 - 2010

BALCI K., AKKAYA Y., AKALIN E., Project Supported by Higher Education Institutions, Dopamine, protease, cholinesterase ve cyclooxygenase grubu bazı enzim inhibitörlerinin yapı-fonksiyon ilişkisinin teorik ve deneysel spektroskopik yöntemler ile incelenmesi, 2007 - 2010

AKALIN E., Project Supported by Higher Education Institutions, FT-IR and Raman Spectroscopic and DFT Theoretical Investigations on Zn(II) Halide Complexes of 2-Aminopyrimidine, 2009 - 2009

AKALIN E., Project Supported by Higher Education Institutions, Vibrational spectroscopic study of two dimensional polymer compounds of pyrazinamide, 2007 - 2009

AKALIN E., Project Supported by Higher Education Institutions, Nötron aktivasyon analizi ile tarihi sikkelerin incelenmesi, 2007 - 2009

AKALIN E., Project Supported by Higher Education Institutions, Vibrational analysis of free and hydrogen bonded complexes of nicotinamide and picolinamide, 2007 - 2009

AKALIN E., Project Supported by Higher Education Institutions, Adsorption of Isoniazid onto Sepiolite-Palygorskite

Group of Clays: An IR and DFT Study, 2008 - 2008

## Activities in Scientific Journals

Journal of Spectroscopy and Dynamics, Editor, 2010 - 2013

## Scientific Refereeing

JOURNAL OF MOLECULAR STRUCTURE, SCI Journal, May 2020

Spectrochimica Acta A, SCI Journal, March 2013

Spectrochimica Acta A, SCI Journal, January 2013

Spectrochimica Acta A, SCI Journal, December 2011

Balkan Physics Letters, Other journals, November 2011

Journal of Molecular Structure, SCI Journal, July 2011

Spectrochimica Acta A, SCI Journal, June 2011

Balkan Physics Letters, Other journals, February 2011

## Tasks In Event Organizations

Akalm E., EUCMOS 2006, Scientific Congress, İstanbul, Turkey, Eylül 2006

## Metrics

Publication: 56

Citation (WoS): 413

Citation (Scopus): 423

H-Index (WoS): 13

H-Index (Scopus): 13

## Congress and Symposium Activities

5th International Workshop on Bismuth-Containing Semiconductors  
The 25 th Colloquium on High-Resolution Molecular Spectroscopy HRMS 2017, Attendee, Helsinki, Finland, 2017

5th International Workshop on Bismuth-Containing Semiconductors, Attendee, Cork, Ireland, 2014

Spec 2012 - Shedding New Light on Disease, Attendee, Thailand, 2012

Türk Fizik Derneği, 29. Uluslararası Fizik Kongresi, Attendee, Turkey, 2012

International Conference on Superlattices, Nanostructures and Nanodevices (ICSNN2012), Attendee, Germany, 2012

Türk Fizik Derneği 28. Uluslararası Fizik Kongresi, Attendee, Turkey, 2011

Colloquium Spectroscopicum Internationale XXXVII, Attendee, Brazil, 2011

30th European Congress on Molecular Spectroscopy, Attendee, Italy, 2010

Vth International Conference on Advanced Vibrational Spectroscopy (ICAVS-5), Attendee, Australia, 2009

XXIX European Congress on Molecular Spectroscopy, Attendee, Turkey, 2008

IVth international Conference on Advanced Vibrational Spectroscopy (ICAVS-4), Attendee, Greece, 2007

XXVIII European Congress on Molecular Spectroscopy, Attendee, Turkey, 2006

IIIrd International Conference on Advanced Vibrational Spectroscopy (ICAVS-3), Attendee, United States Of America, 2005

XXVIIth European Congress on Molecular Spectroscopy, Attendee, Poland, 2004

XXVIth European Congress on Molecular Spectroscopy, Attendee, France, 2002  
VIIIth International Seminar on Inclusion Compounds (ISIC-8), Attendee, Poland, 2001  
International School of Crystallography: Strength From Weakness, Attendee, Erice, Italy, 2001  
XXV European Congress on Molecular Spectroscopy, Attendee, Coimbra, Portugal, 2000  
XXIV European Congress on Molecular Spectroscopy, Attendee, Prag, Czech Republic, 1998  
International Symposium on Lasers, Atomic and Molecular Physics, Attendee, Istanbul, Turkey, 1997

## **Awards**

AKALIN E., Prof. Dr. Nazım Terziođlu Ödülü, İstanbul Üniversitesi, April 2007