

## Prof. Yasemin AKKAYA

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAD-3010-2020

Yoksis Researcher ID: 175409

### Education Information

Doctorate, Istanbul University, Institute of Graduate Studies In Sciences, Turkey 1994 - 2000

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Turkey 1990 - 1994

Undergraduate, Ankara University, Fen Fakültesi, Fizik Bölümü, Turkey 1983 - 1989

### Foreign Languages

English, B1 Intermediate

### Dissertations

Doctorate, 2, 3, VE 4-AMİNOPRİDİN MOLEKÜLLERİNİN TİTREŞİM FREKANSLARININ HESABI, Istanbul University, Institute of Graduate Studies In Sciences, Fizik, 2000

Postgraduate, DEMİR ALAŞIMLARINDA MARTENSİTE DÖNÜŞÜMLERİ İÇİN BÜYÜME OLAYININ İNCELENMESİ, Ankara University, Fen Bilimleri Enstitüsü, Fizik, 1994

### Research Areas

Physics, Atomic and Molecular Physics, Theory of Atoms and Molecules, Atomic Spectra and Photon Interactions, Atomic and Molecular Interactions, Natural Sciences

### Academic Titles / Tasks

Professor, Istanbul University, Faculty of Science, Department of Physics, 2015 - Continues

Associate Professor, Istanbul University, Faculty of Science, Department of Physics, 2007 - 2015

Assistant Professor, Istanbul University, Faculty of Science, Department of Physics, 2002 - 2007

Research Assistant PhD, Istanbul University, Faculty of Science, Department of Physics, 2000 - 2002

Research Assistant, Istanbul University, Faculty of Science, Department of Physics, 1992 - 2000

Research Assistant, Ankara University, Fen Fakültesi, Fizik, 1990 - 1992

## Academic and Administrative Experience

Head of Department, Istanbul University, Faculty Of Science, Department Of Physics, 2020 - Continues

## Courses

Atom ve Molekül Fiziği II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010

İleri Fizik Uygulamaları, Undergraduate, 2020 - 2021

İleri Molekül Fiziği II, Doctorate, 2020 - 2021

Atom ve Molekül Fiziği, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

İLERİ MOLEKÜL FİZİĞİ II, Doctorate, 2018 - 2019, 2017 - 2018

İLERİ FİZİK UYGULAMALARI I, Undergraduate, 2018 - 2019

BİLİMSEL ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ, Postgraduate, 2018 - 2019

Atom ve Molekül Fiziği II, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2013 - 2014

Atomic and Molecular Physics, Undergraduate, 2017 - 2018, 2016 - 2017

Moleküllerin Titreşimsel Kiplerinin Analizi, Postgraduate, 2016 - 2017

FİZİKTE ÖZEL KONULAR, Undergraduate, 2017 - 2018

FİZİKTE ÖZEL KONULAR, Undergraduate, 2016 - 2017

Moleküllerin Titreşimsel Kiplerinin Analizi, Postgraduate, 2013 - 2014, 2012 - 2013

Atom ve Molekül Fiziği Lab. (İ.Ö), Undergraduate, 2013 - 2014

Atom ve Molekül Fiziği Lab., Undergraduate, 2013 - 2014

Atom ve Molekül Fiziği II (İ.Ö), Undergraduate, 2013 - 2014

Atom ve Molekül Fiziği Lab. (İ.Ö), Undergraduate, 2012 - 2013

Atom ve Molekül Fiziği Lab., Undergraduate, 2012 - 2013, 2011 - 2012

İleri Fizik Uygulamaları, Undergraduate, 2012 - 2013

Moleküllerin Titreşimsel Kiplerinin Analizi, Postgraduate, 2011 - 2012, 2010 - 2011

Atom ve Molekül Fiziği II (İ.Ö), Undergraduate, 2012 - 2013

Fizik IV (İ.Ö), Undergraduate, 2010 - 2011

Fizik IV, Undergraduate, 2011 - 2012, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

İleri Molekül Fiziği II, Doctorate, 2011 - 2012

Molekül Fiziği II, Postgraduate, 2007 - 2008

Simetri ve Grup Teorisi, Postgraduate, 2007 - 2008

İleri Fizik Uygulamaları, Undergraduate, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004, 2002 - 2003

Kırmızı Altı ve Raman Spektroskopisi, Doctorate, 2007 - 2008

Fizik I, Undergraduate, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004, 2002 - 2003

Spektral Analiz Yöntemleri, Undergraduate, 2005 - 2006, 2004 - 2005

Fizik II, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003

## Advising Theses

AKKAYA Y., Bazı Potasyum Tutucu Diüretik Moleküller Üzerine Konformasyonel ve Titreşimsel Spektroskopik Analiz, Doctorate, Y.GÖREN(Student), 2016

AKKAYA Y., METOLAZONE MOLEKÜLÜNÜN YAPISAL PARAMETRELERİNİN VE TİTREŞİMSSEL ÖZELLİKLERİNİN DENEYSSEL VE TEORİK YÖNTEMLERLE ANALİZİ, Postgraduate, Y.ŞALE(Student), 2015

AKKAYA Y., FENAZOPİRİDİN MOLEKÜLÜNÜN KONFORMASYON ANALİZİ VE AB INITIO DFT YÖNTEMLERİ İLE TİTREŞİM FREKANS VE KIPLERİNİN İNCELENMESİ, Postgraduate, Y.GÖREN(Student), 2009

AKKAYA Y., 2-, 3- VE ASETİLPİRİDİN VE BENZER MOLEKÜLLERİN TİTREŞİMSSEL SPEKTRUMLARININ TEORİK VE DENEYSSEL YÖNTEMLERLE İNCELENMESİ, Doctorate, O.ÜNSALAN(Student), 2008

## Jury Memberships

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, January, 2021  
Associate Professor Exam, Associate Professor Exam, İstanbul Üniversitesi, October, 2019  
Appointment to Academic Staff-Professorship, Appointment Academic Staff, İstanbul Üniversitesi, April, 2019  
Associate Professor Exam, Associate Professor Exam, İstanbul Üniversitesi, March, 2019  
Associate Professor Exam, Associate Professor Exam, İstanbul Üniversitesi, October, 2018  
Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, İstanbul Üniversitesi, August, 2017  
Doctorate, Sefa Çelik Doktora Tez Savunma, İstanbul Üniversitesi, June, 2011  
Post Graduate, Aydan Akbay Yüksek Lisans Tez Savunması , İstanbul Üniversitesi , December, 2010  
Post Graduate, Uğur Parlatan Yüksek Lisans Tez Savunma, İstanbul Üniversitesi, June, 2010  
Post Graduate, Şeyma Şeninak Yüksek Lisans Tez Savunması, İstanbul Üniversitesi, June, 2010  
Doctorate, Gülce Öğrücü İldız Doktora Tez Savunma, İstanbul Üniversitesi, July, 2008

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

- I. **The effects of conformation and intermolecular hydrogen bonding on the structure and IR spectra of flutamide; a study based on the matrix isolation technique, ab initio and DFT calculations**  
ARMAN C., BALCI K., AKKAYA Y., Akyuz S., Reaves-Mckee T., Frankamp A., Coates J., Collier W., Ritzhaupt G., Klehm C., et al.  
Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, vol.292, 2023 (SCI-Expanded)
- II. **An investigation on the structure and group vibrations of balenine molecule by matrix isolation IR spectroscopy, DFT and MP2 based calculations**  
Balci K., Akkaya Y., Arman C., Goren Y., Akyuz S., Hacker A., Vleet H. V., Ritzhaupt G., Collier W.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.268, pp.120678-120701, 2022 (SCI-Expanded)
- III. **The effects of conformation and zwitterionic tautomerism on the structural and vibrational spectral data of anserine**  
Balci K., Akkaya Y., Akyuz S., Collier W. B., Stricker M. C., Stover D. D., Ritzhaupt G., Koch A., Klempeter E.  
VIBRATIONAL SPECTROSCOPY, vol.86, pp.277-289, 2016 (SCI-Expanded)
- IV. **A vibrational spectroscopy study on anserine and its aqueous solutions**  
Akkaya Y., Balci K., Goren Y., Akyüz S., Stricker M. C., Stover D. D., Ritzhaupt G., Collier W. B.  
Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, vol.149, pp.812-821, 2015 (SCI-Expanded)
- V. **A vibrational spectroscopy study on 3-aminophenylacetic acid by DFT calculations**  
Akkaya Y., Balci K., Goren Y., Akyuz S.  
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.147, pp.303-315, 2015 (SCI-Expanded)
- VI. **Vibrational Spectroscopic Investigation of Tetracyanopalladate Bridged Two Dimensional Coordination Polymer Compounds of Pyrimidine**  
Akkaya Y., Akyuz S., Akyuz T.  
ASIAN JOURNAL OF CHEMISTRY, vol.25, no.16, pp.9185-9188, 2013 (SCI-Expanded)
- VII. **A conformational analysis and vibrational spectroscopic investigation on 1,2-bis(o-carboxyphenoxy) ethane molecule**  
Balci K., Yapar G., Akkaya Y., Akyuz S., Koch A., Klempeter E.  
Vibrational Spectroscopy, vol.58, pp.27-43, 2012 (SCI-Expanded)
- VIII. **DFT and MP2 based quantum mechanical calculations and a theoretical vibrational spectroscopic investigation on roscovitine, a potential drug to treat cancers**  
Balci K., Akkaya Y., Akyuz S., Palavan-Unsal N.  
Journal of Raman Spectroscopy, vol.42, no.4, pp.719-732, 2011 (SCI-Expanded)

- IX. **An experimental and theoretical vibrational spectroscopic study on niflumic acid, a non-steroidal anti-inflammatory drug**  
Balci K., Akkaya Y., Akyuz S.  
Vibrational Spectroscopy, vol.53, no.2, pp.239-247, 2010 (SCI-Expanded)
- X. **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)
- XI. **Infrared and Raman spectra, ab initio calculations vibrational assignment of 4-aminosalicylic acid**  
Akkaya Y., AKYÜZ S.  
VIBRATIONAL SPECTROSCOPY, vol.42, no.2, pp.292-301, 2006 (SCI-Expanded)
- XII. **Infrared and Raman spectra, ab initio calculations, force field refinement and vibrational assignment of 3-aminophenol**  
Buyukmurat Y., Akyuz S.  
JOURNAL OF MOLECULAR STRUCTURE, vol.744, pp.921-928, 2005 (SCI-Expanded)
- XIII. **Theoretical and experimental studies of IR spectra of 4-aminopyridine metal(II) complexes**  
Buyukmurat Y., Akyuz S.  
JOURNAL OF MOLECULAR STRUCTURE, vol.651, pp.533-539, 2003 (SCI-Expanded)
- XIV. **Infrared-spectra and normal-coordinate analysis of quinoline and quinoline complexes**  
Ozel A., Buyukmurat Y., Akyuz S.  
Journal of Molecular Structure, pp.455-462, 2001 (SCI-Expanded)
- XV. **Theoretical and experimental IR spectra and assignments of 3-aminopyridine**  
Buyukmurat Y., Akyuz S.  
JOURNAL OF MOLECULAR STRUCTURE, vol.563, pp.545-550, 2001 (SCI-Expanded)
- XVI. **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)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **ANALYSIS OF THE STRUCTURAL AND VIBRATIONAL SPECTRAL DATA OF ANTICANCER DRUG FLUTAMIDE ON THE BASIS OF THE DFT AND HARTREE-FOCK CALCULATIONS**  
Arman C., Balci K., Akkaya Y., Akyüz S.  
TURKISH PHYSICAL SOCIETY 38 TH INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 31 August - 04 September 2022, pp.65
- II. **ANALYSIS OF THE STRUCTURAL AND VIBRATIONAL SPECTRAL DATA OF ANTICANCER DRUG FLUTAMIDE ON THE BASIS OF THE DFT AND HARTREE-FOCK CALCULATIONS**  
Arman C., Balci K., Akkaya Y., Akyüz S.  
TURKISH PHYSICAL SOCIETY 38 TH INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 31 August - 04 September 2022, pp.65
- III. **The effects of intermolecular interactions on the vibrational spectra of flutamide molecule: a study based on the experimental matrix FT-IR, FT-Raman, Dispersive Micro-Raman measurements and DFT calculations**  
Balci K., Arman C., Akkaya Y., Akyüz S., Collier W. B., Reaves-Mckee T. R., Frankamp A. H., Coates J. T., Ritzhaupt G.  
Turkish Physical Society 34th International Physics Congress, Muğla, Turkey, 5 - 09 September 2018, no.24, pp.459
- IV. **CALCULATIONS ON THE TOTALY SYMMETRIC BOND STRETCHING VIBRATIONS OF METHANE AND SOME POLYETHYLENE MOLECULES**  
ŞEN T. M., AKKAYA Y., BALCI K., GÖREN Y.  
Türk Fizik Derneği, 34. Uluslararası Fizik Kongresi, Muğla, Turkey, 4 - 10 September 2018, pp.59
- V. **A theoretical and experimental investigation on the effects of metal-ligand coordination on the structure and vibrational spectra of 4-aminopyrimidine molecule**

AKKAYA Y., BALCI K., AKYÜZ S.

'Türk Fizik Derneği 34.Uluslararası Fizik Kongresi', Muğla, Turkey, 4 - 10 September 2018, pp.57

- VI. **The Effects Of Polymerization On The Structure And Molecular Vibrations Of Phenazopyridine**  
Goren Y., Akkaya Y., Balcı K., Akyüz S.  
'Türk Fizik Derneği 34.Uluslararası Fizik Kongresi', Muğla, Turkey, 4 - 10 September 2018, pp.58
- VII. **An investigation on the dependencies of the structural and vibrational spectral properties of the aromatic azine molecules to the number of nitrogen atoms and their positions in the ring by using the Hartree-Fock and MP2 calculation methods**  
Aracı Ö., Balcı K., Akkaya Y.  
Turkish Physical Society 33rd International Physics Congress, Bodrum, Muğla, Turkey, 6 - 10 September 2017, no.8, pp.537
- VIII. **Determination of the electron-electron correlation on the structural and vibrational spectral data calculated for the cyclic oxazine molecules**  
Aslntaş S., Akkaya Y., Balcı K.  
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, no.3, pp.70
- IX. **A molecular modeling study on the structure and vibrational properties of the chemotherapy drug letrozole**  
Balcı K., Akkaya Y., Akyüz S., Collier W. B., Stover D. D., Ritzhaupt G., Stricker M. C.  
Türk Fizik Derneği, 33. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 10 September 2017, no.4, pp.535
- X. **A Density Functional Theory based study of the solvent effects on the experimental vibrational spectra of 4-aminopyrimidine**  
Akkaya Y., Balcı K., Akyüz S.  
Türk Fizik Derneği, 33. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 10 September 2017, pp.87
- XI. **A vibrational spectroscopy study on the chemotherapy drug flutamide by DFT calculations**  
Arman C., Balcı K., Akkaya Y., Akyüz S., Collier W. B.  
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, no.6, pp.536
- XII. **An Experimental and Theoretical Vibrational Spectroscopic Study on Zn(II) Halide Complexes of 4-Aminopyrimidine**  
Akkaya Y., Balcı K., Akyüz S.  
7th Cambridge Symposium on Nucleic Acids Chemistry and Biology, London, United Kingdom, 3 - 07 September 2017, no.3, pp.70
- XIII. **An investigation on the vibrational properties of neutral balenine by Matrix IR spectroscopy and DFT based calculations**  
Akkaya Y., Balcı K., Akyüz S.  
33rd European Congress on Molecular Spectroscopy (EUCMOS 2016), Szeged, Hungary, 30 July - 04 August 2016, no.1, pp.93
- XIV. **AN INTERPRETATION OF THE IR AND RAMAN SPECTRA OF LOMUSTINE MOLECULE BY DFT CALCULATIONS**  
Balcı K., Akkaya Y., Akyuz S., Collier W. B.  
9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 27 August 2015, no.17, pp.343
- XV. **A theoretical and experimental vibrational spectroscopic study on N tau-methyl histidine and its water complexes**  
Akkaya Y., Balcı K., Gören Y., Akyüz S.  
9th INTERNATIONAL PHYSICS CONFERENCE OF THE BALKAN PHYSICAL UNION-BPU9, İstanbul, Turkey, 24 - 27 August 2015, no.6, pp.334
- XVI. **THE ELUCIDATION OF THE STRUCTURE AND VIBRATIONAL PROPERTIES OF 4-HYDROXYCYCLOHEXANONE BY DFT CALCULATIONS, IR AND RAMAN SPECTROSCOPIC MEASUREMENTS**  
Balcı K., Akkaya Y., Akyüz S., Koch A., Kleinpeter E.  
TURKISH PHYSICAL SOCIETY 31 ST INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 21 - 24 July 2014, no.10,

pp.273

- XVII. **A VIBRATIONAL SPECTROSCOPIC INVESTIGATION ON METOLAZONE**  
Akkaya Y., Balcı K., Şale Y., Akyuz S.  
TURKISH PHYSICAL SOCIETY 31 ST INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 21 - 24 June 2014, no.2,  
pp.265
- XVIII. **Tautomeric Preference And Conformational Analysis Of Triamterene**  
Gören Y., Akkaya Y., Balcı K., Akyüz S.  
Turkish Physical Society 30th International Physics Congress, İstanbul, Turkey, 2 - 05 September 2013, no.34,  
pp.345
- XIX. **The Effects Of Hydrogen Bonding On The Structure And Vibrational Properties Of Difluoromethylornithine**  
Balcı K., Akkaya Y., Akyüz S., Unsal N. P.  
Turkish Physical Society 30th International Physics Congress, İstanbul, Turkey, 2 - 05 September 2013, pp.323
- XX. **Experimental And Heoretical Vibrational Spectroscopic Investigation Of Anserine And Balenine Dipeptides**  
AKKAYA Y., BALCI K., GÖREN Y., AKYÜZ S.  
Turkish Physical Society 30th International Physics Congress, İstanbul, Turkey, 2 - 05 September 2013, pp.312
- XXI. **An investigation on the structural and vibrational spectroscopic data of some biological active dipeptides**  
Akkaya Y., Balcı K., Gören Y., Akyüz S.  
SPEC 2012 - Shedding New Light on Disease, Chiang-Mai, Thailand, 11 - 16 November 2012, no.1, pp.1
- XXII. **An Investigation On The Structure And Vibrational Properties Of Difluoromethylornithine By Dft Calculations, Ir And Raman Spectroscopic Measurements**  
Balcı K., Akkaya Y., Akyüz S.  
Turkish Physical Society 29th International Physics Congress, Muğla, Turkey, 5 - 09 September 2012, no.13, pp.366
- XXIII. **An Investigation on the Conformational Structure and Vibrational Motions of Amiloride.**  
GÖREN Y., AKKAYA Y., AKYÜZ S.  
Turkish Physical Society 29th International Physics Congress, Turkey, 1 - 04 September 2012, pp.392
- XXIV. **A Vibrational Spectroscopic Study On Dansyl Fluoride Molecule By Ir And Raman Spectroscopic Measurements And Dft Calculations**  
Balcı K., Akkaya Y., Akyüz S.  
31st European Congress on Molecular Spectroscopy (EUCMOS 2012), Cluj-Napoca, Romania, 26 - 31 August 2012,  
no.5, pp.162
- XXV. **Conformational and Vibrational Spectroscopic Analysis of Amiloride Molecule**  
GÖREN Y., AKKAYA Y., AKYÜZ S.  
31st European Congress on Molecular Spectroscopy (EUCMOS 2012), Romania, 1 - 04 August 2012, pp.183
- XXVI. **Conformational and vibrational spectroscopic analysis of 3- and 4-Aminophenylacetic acid molecules**  
Akkaya Y., Balcı K., Gören Y., Akyüz S.  
28 th International Physics Congress, Muğla, Turkey, 6 - 09 September 2011, no.4, pp.412
- XXVII. **A Vibrational Spectroscopic Investigation On Ibuprofen And Its Solutions**  
Akbay A., Balcı K., Akkaya Y., Akyüz S.  
Turkish Physical Society 28th International Physics Congress, Muğla, Turkey, 6 - 09 September 2011, pp.410
- XXVIII. **A Conformational And Vibrational Spectroscopic Study On The Non-Steroidal Anti-Inflammatory Drug Piroxicam**  
Balcı K., Akkaya Y., Akyüz S.  
Turkish Physical Society 28th International Physics Congress, Muğla, Turkey, 6 - 09 September 2011, no.16, pp.425
- XXIX. **Vibrational spectroscopic analysis of L-anserine dipeptide**  
Akkaya Y., Balcı K., Akyüz S.  
Colloquium Spectroscopicum Internationale XXXVII, Rio-De-Janeiro, Brazil, 28 August - 02 September 2011, no.7,  
pp.1
- XXX. **Conformational Analysis And Ab-Initio, Dft Studies Of Phenazopyridine Molecule**

- Gören Y., Akkaya Y., Balcı K., Akyüz S.  
Turkish Physical Society 28th International Physics Congress, Muğla, Turkey, 6 - 09 September 2011, pp.151
- XXXI. **The Effects Of Dimerization On The Structure And Vibrational Spectral Data Of Ibuprofen Molecule, A Non-Steroidal Anti-Inflammatory Drug**  
Balcı K., Akbay A., Akkaya Y., Akyüz S.  
Colloquium Spectroscopicum Internationale XXXVII, Rio-De-Janeiro, Brazil, 28 August - 02 September 2011, no.6, pp.1
- XXXII. **A Theoretical And Experimental Vibrational Spectroscopic Study On Valine-Tyrosine And Its Water Complexes**  
Akkaya Y., Balcı K., Akyüz S.  
Colloquium Spectroscopicum Internationale XXXVII, Rio-De-Janeiro, Brazil, 28 August - 02 September 2011, no.11, pp.1
- XXXIII. **Studies on Valine-Tyrosine, antihypertensive dipeptide in Aqueous Solution by Raman Spectroscopy**  
Akkaya Y., Balcı K., Akyüz S.  
EUCMOS 2010, 30th European Congress of Molecular Spectroscopy, Florence, Italy, 29 August - 03 September 2010, no.51, pp.137
- XXXIV. **An Ir And Raman Spectroscopic Investigation On Alpha-Difluoromethyl-Ornithine (Dfmo), A Potential Target As Chemotherapeutic Acent**  
Balcı K., Akkaya Y., Akyüz S., Unsal N. P.  
30th European Congress on Molecular Spectroscopy (EUCMOS 2010), Florence, Italy, 29 August - 03 September 2010, no.38, pp.124
- XXXV. **Molecular Structure and Vibrational Characteristics of Phenazopyridine molecule: The IR, Raman and DFT studies**  
Akkaya Y., Balcı K., Gören Y., Akyüz S.  
5th International Conference on Advanced Vibrational Spectroscopy, Melbourne, Australia, 12 - 17 July 2009, no.132, pp.151
- XXXVI. **An experimental and theoretical IR and Raman spectroscopic study on isonicotinamide and its ZnCl<sub>2</sub> and ZnBr<sub>2</sub> complexes**  
Balcı K., Akkaya Y., Başar G., Akyüz S.  
5th International Conference on Advanced Vibrational Spectroscopy, Melbourne, Australia, 12 - 17 July 2009, no.128, pp.149
- XXXVII. **QUANTUM CHEMICAL CALCULATIONS AND VIBRATIONAL SPECTRAL INVESTIGATION OF ROSCOVITINE, A POTENTIAL DRUG TO TREAT CANCERS**  
Balcı K., Akkaya Y., Akyuz S., Palavan-Unsal N.  
5th International Conference on Advanced Vibrational Spectroscopy, Melbourne, Australia, 12 - 17 July 2009, no.9, pp.86
- XXXVIII. **IR and Raman and Density Functional Theory Studies on a Non-Steroidal Anti-Inflammatory Drug, Naproxen**  
Akkaya Y., Balcı K., Akyüz S.  
31th EUCMOS 2012 (European Conference on Molecular Spectroscopy, Pula, Croatia, 31 August - 05 September 2008, no.1, pp.219
- XXXIX. **A Theoretical Conformational Analysis And Vibrational Spectroscopic Investigation On Niflumic Acid**  
Balcı K., Akkaya Y., Akyüz S.  
XXIX European Congress on Molecular Spectroscopy (EUCMOS 2008), Pula, Croatia, 31 August - 05 September 2008, no.6, pp.41
- XL. **THE SPECTROSCOPIC (FT-IR AND RAMAN) AND THEORETICAL STUDIES OF 3-, AND 4-AMINOPHENYLACETIC ACID**  
AKKAYA Y., AKYÜZ S.  
4th international conference on advanced vibrational spectroscopy (icavs4), Greece, 1 - 04 June 2007, pp.246
- XLI. **Vibrational analysis of 4-aminophenylacetic acid**  
AKKAYA Y., Akyüz S.

- XXVIII European Congress on Molecular Spectroscopy, Turkey, 1 - 04 September 2006, pp.40
- XLII. **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
- XLIII. **Vibrational spectroscopy and theoretical studies on 2- and 3-acetylpyridine**  
ÜNSALAN O., AKKAYA Y., Akyüz S.  
XXVIII European Congress on Molecular Spectroscopy, Turkey, 1 - 04 September 2006, pp.30
- XLIV. **Infrared And Raman Spectra, Ab Initio Calculations Vibrational Assignment Of 4-Aminosalicylic Acid**  
AKKAYA Y., Akyüz S.  
IIIrd International Conference on Advanced Vibrational Spectroscopy, United States Of America, 1 - 04 August 2005, pp.67
- XLV. **Infrared And Raman Spectra, Ab Initio Calculations, Force Field Refinement And Vibrational Assignment Of 3-Aminophenol**  
AKKAYA Y., Akyüz S.  
XXVIIth European Congress on Molecular Spectroscopy, Poland, 1 - 04 September 2004, pp.371
- XLVI. **Theoretical And Experimental Studies Of Ir Spectra Of 4-Aminopyridine Metal(Ii) Complexes**  
AKKAYA Y., Akyüz S.  
XXVI European Congress on Molecular Spectroscopy, France, 1 - 04 September 2002, pp.251
- XLVII. **heoretical And Experimental Ir Spectra And Assignments Of 3-Aminopyridine**  
AKKAYA Y., Akyüz S.  
XXV European Congress on Molecular Spectroscopy, Portugal, 1 - 04 September 2002, pp.201
- XLVIII. **Infrared Spectra and Normal Coordinate Analysis of Quinoline and Quinoline Complexes**  
ÖZEL A., AKKAYA Y., AKYÜZ S.  
XXV European Congress on Molecular Spectroscopy, Portugal, 1 - 04 August 2000, pp.405
- XLIX. **Calculation And Analysis Of Ir Spectrum 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
- L. **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

## Supported Projects

AKKAYA Y., RİTZHAUPT G., BALCI K., RAND A., COLLIER W. B., AKYÜZ S., WHITE H. J., Project Supported by Higher Education Institutions, An investigation on the vibrational properties of neutral balenine by Matrix IR spectroscopy and DFT based calculations, 2016 - 2017

Balci K., Akkaya Y., Project Supported by Higher Education Institutions, An investigation on the vibrational properties of neutral balenine by Matrix IR spectroscopy and DFT based calculations, 2016 - 2017

AKKAYA Y., Project Supported by Higher Education Institutions, A Vibrational Spectroscopy Study on 3-aminophenylacetic Acid by DFT Calculations, 2015 - 2016

AKKAYA Y., Project Supported by Higher Education Institutions, Vibrational Spectroscopic Investigation of Tetracyanopalladate Bridged Two Dimensional Coordination Polymer Compounds of Pyrimidine, 2014 - 2016

AKKAYA Y., Project Supported by Higher Education Institutions, Bazı Potasyum Tutucu Diüretik Moleküller Üzerine Konformasyonel ve Titreşimsel Spektroskopik Analiz, 2012 - 2016

AKKAYA Y., Project Supported by Higher Education Institutions, A theoretical and experimental vibrational spectroscopic study on N tau-methyl histidine and its water complexes, 2015 - 2015

AKKAYA Y., Project Supported by Higher Education Institutions, METOLAZONE MOLEKÜLÜNÜN YAPISAL PARAMETRELERİNİN VE TİTREŞİMSEL ÖZELLİKLERİNİN DENEYSEL VE TEORİK YÖNTEMLERLE ANALİZİ, 2014 - 2015

AKKAYA Y., Project Supported by Higher Education Institutions, Studies on L-Anserine and L-Balenine in Aqueous Solution by FTIR and Raman Spectroscopy, 2014 - 2014



AKKAYA Y., BALCI K., Project Supported by Higher Education Institutions, BAZI BİYOLOJİK AKTİF MOLEKÜLLERİN KONFORMASYON ANALİZİ VE TİTREŞİM SPEKTRUMLARININ İNCELENMESİ, 2009 - 2013

AKKAYA Y., BALCI K., Project Supported by Higher Education Institutions, IR VE RAMAN SPEKTROSKOPİSİ YÖNTEMLERİ İLE MOLEKÜLER YAPILARIN İNCELENMESİ, 2008 - 2013

AKKAYA Y., Project Supported by Higher Education Institutions, Bazı biyolojik aktif dipeptidlerin yapısal ve titreşimsel spektroskopik verileri üzerine bir araştırma, 2012 - 2012

AKKAYA Y., TUBITAK Project, Moleküler Yapının Titreşimsel Spektroskopi Yöntemi ile İncelenmesi, 2011 - 2011

AKKAYA Y., Project Supported by Higher Education Institutions, Vibrational spectroscopic analysis of L-anserine dipeptide, 2011 - 2011

AKKAYA Y., Project Supported by Higher Education Institutions, Hyperconjugation in methyl-capped and adamantyl-capped polyynes, 2008 - 2011

AKKAYA Y., Project Supported by Higher Education Institutions, Studies on Valine-Tyrosine, antihypertensive dipeptide in Aqueous Solution by Raman Spectroscopy, 2010 - 2010

AKKAYA Y., Project Supported by Higher Education Institutions, Infrared and Raman spectra, ab initio calculations vibrational assignment of 4-aminosalicylic acid, 2007 - 2010

AKKAYA Y., Project Supported by Higher Education Institutions, Molecular Structure and Vibrational Characteristics of Phenazopyridine molecule: The IR, Raman and DFT studies, 2009 - 2009

AKKAYA Y., Project Supported by Higher Education Institutions, Fenazopridin Molekülünün Konformasyon Analizi ve Ab-İnitio DFT yöntemleri ile Titreşim Frekans ve Kiplerinin İncelenmesi, 2009 - 2009

AKKAYA Y., Project Supported by Higher Education Institutions, IR and Raman and Density Functional Theory Studies on a Non-Steroidal Anti-Inflammatory Drug, Naproxen, 2008 - 2008

## Scientific Refereeing

VIBRATIONAL SPECTROSCOPY, SCI Journal, April 2020

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, SCI Journal, April 2019

AIP Conference Proceedings, Other journals, November 2018

AIP Conference Proceedings, Other journals, November 2018

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, SCI Journal, June 2017

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, SCI Journal, January 2013

## Metrics

Publication: 66

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## Congress and Symposium Activities

Türk Fizik Derneği, 34. Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2018

Türk Fizik Derneği, 33. Uluslararası Fizik Kongresi, Attendee, --Seçiniz--, Turkey, 2017

7th Cambridge Symposium on Nucleic Acids Chemistry and Biology, Attendee, London, United Kingdom, 2017

Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, Bodrum , Türkiye, Attendee, --Seçiniz--, Turkey, 2016

MSSC2016, Ab initio Modelling in Solid State Chemistry, Attendee, London, United Kingdom, 2016

33rd European Congress on Molecular Spectroscopy (EUCMOS 2016), Attendee, Szeged, Hungary, 2016

SPEC 2012 - Shedding New Light on Disease, Attendee, Chiang Mai, Thailand, 2012

29th International Physics Congress, Attendee, Bodrum, Turkey, 2012  
28th International Physics Congress, Attendee, Bodrum, Turkey, 2011  
Colloquium Spectroscopicum Internationale 37, (CSIXXXVII), Attendee, Amacao de Búzios, Brazil, 2011  
14th ECSBM 2011 (European Conference on the Spectroscopy of Biological Molecules), Attendee, Coimbra, Portugal, 2011  
30th European Congress on Molecular Spectroscopy (EUCMOS 2010), Attendee, Florence, Italy, 2010  
27 th International Physics Congress, Attendee, İstanbul, Turkey, 2010  
International Conference on Advanced Vibrational Spectroscopy (ICAVS-5), Attendee, Melbourne, Australia, 2009  
XXIX European Congress on Molecular Spectroscopy, Attendee, Opatija, Croatia, 2008  
4th International Conference on Advanced Vibrational Spectroscopy, Attendee, Korfu, Greece, 2007  
The Fourth International Conference on Advanced Vibrational Spectroscopy (ICAVS-4), Attendee, Korfu, Greece, 2007  
The International Congress on Spectroscopic Methods for Conservation of Cultural Heritage, Attendee, İstanbul, Turkey, 2007  
XXVIII European Congress on Molecular Spectroscopy, Attendee, İstanbul, Turkey, 2006  
The Third International Conference on Advanced Vibrational Spectroscopy' (ICAVS-3), Attendee, Wisconsin, United States Of America, 2005  
XXVII European Congress on Molecular Spectroscopy, Attendee, Krakow, Poland, 2004  
XXVI European Congress on Molecular Spectroscopy, Attendee, Villeneuve d'Asq, France, 2002  
XXV European Congress on Molecular Spectroscopy, Attendee, Coimbra, Portugal, 2000  
XXIV European Congress on Molecular Spectroscopy, Attendee, Prag, Czech Republic, 1998