

# Prof. Gönül BAŞAR

## Personal Information

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## International Researcher IDs

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Publons / Web Of Science ResearcherID: AAD-2788-2020

Yoksis Researcher ID: 10568

## Education Information

Doctorate, Istanbul University, Faculty Of Science, Fizik -Aton Ve Molekül Fiziği, Turkey 1987 - 1994

Postgraduate, Istanbul University, Faculty Of Science, Fizik Matematik, Turkey 1985 - 1987

Undergraduate, Istanbul University, Faculty Of Science, Fizik Matematik, Turkey 1981 - 1985

## Foreign Languages

German, B2 Upper Intermediate

English, B2 Upper Intermediate

## Dissertations

Doctorate, Laser spektroskopisi ve interferens spektroskopisi ile Rhenium ve Platin elementlerinin izotop kaymalarının ve hiper ince yapı ayrılmalarının incelenmesi, Istanbul University, Faculty of Science, Fizik, 1994

Postgraduate, İyonize ortamda yayılan elektromagnetik dalga yörüngelerinin hesaplanması, Istanbul University, Faculty of Science, Fizik, 1987

## Research Areas

Physics, Atomic and Molecular Physics, Atomic Spectra and Photon Interactions, Natural Sciences

## Academic Titles / Tasks

Professor, Istanbul University, Faculty of Science, Department of Physics, 2004 - Continues

Associate Professor, Istanbul University, Faculty of Science, Department of Physics, 1998 - 2004

Assistant Professor, Istanbul University, Faculty of Science, Department of Physics, 1995 - 1998

Research Assistant, Istanbul University, Faculty of Science, Department of Physics, 1986 - 1995

## Academic and Administrative Experience

İstanbul Üniversitesi, Faculty of Science, Fizik, 2007 - Continues

İstanbul Üniversitesi, Faculty of Science, Fizik, 2008 - 2011

İstanbul Üniversitesi, Faculty of Science, 2007 - 2009

## Courses

İleri Fizik Uygulamaları, Undergraduate, 2017 - 2018, 2016 - 2017

Laser Spektroskopi, Doctorate, 2017 - 2018, 2016 - 2017

Atom Fiziğinde Hesaplama Yöntemleri I, Postgraduate, 2018 - 2019, 2017 - 2018

Titreşimler ve Akışkanlar Mekaniği, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Optik spektroskopi, Postgraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Aşırı İnce Yapı, Postgraduate, 2017 - 2018, 2016 - 2017

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

Uzmanlık Alan Dersi, Postgraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Atom ve Molekül Fiziği Lab, Undergraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011

Laser Spejktroskopisi ve Uygulamaları, Doctorate, 2012 - 2013

Fizik Lab I, Undergraduate, 2012 - 2013, 2011 - 2012

İleri Fizik Uygulamaları, Undergraduate, 2012 - 2013, 2011 - 2012

Atomlarda Aşırı İnce Yapı, Postgraduate, 2012 - 2013

Atom Fiziğinde Hesaplama Yöntemleri I, Postgraduate, 2012 - 2013

Fizik II, Undergraduate, 2011 - 2012

Optik Spektroskopi, Postgraduate, 2012 - 2013

Termodinamik ve İstatistik Mekanik Lab, Undergraduate, 2012 - 2013

## Advising Theses

BAŞAR G., Vanadyum elementinin Arışı İnce Yapısının Laser Sektorskopik Metodlarla incelenmesi, Postgraduate, D.BİNGÖL(Student), 2017

Başar G., Ho I ve Ho II'nin mor ötesi bölgede spektral çizgilerinin sınıflandırılması ve aşırı ince yapılarının incelenmesi, Doctorate, N.Jaber(Student), 2016

BAŞAR G., Atomik vanadyumun 3d34s4p konfigürasyonunda aşırı ince yapısının incelenmesi, Postgraduate, B.Yapıcı(Student), 2013

Başar G., Lantan I ve Vanadiun I Elementlerinin Aşırı ince Yapılarının İncelenmesi, Doctorate, F.Güzelçimen(Student), 2012

Başar G., Nb I elementinin aşırı ince yapısının incelenmesi, Doctorate, A.Er(Student), 2010

BAŞAR G., Preeclampsia Hastalığının Raman Cımbızlama Yöntemiyle İncelenmesi, Postgraduate, Ş.Şeninak(Student), 2010

BAŞAR G., Raman Cımbızlama Spektrometresi Kullanılarak Tekil Biyolojik Hücrelerdeki Farklılıkların Çok Değişkenli Analiz Yöntemi ile Saptanması, Postgraduate, U.Parlatan(Student), 2010

BAŞAR G., Manganez I elementinin tek konfigürasyonlarındaki ince ve aşırı ince yapılarının incelenmesi, Postgraduate, F.Güzelçimen(Student), 2007

BAŞAR G., Lantan elementinin ince ve aşırı ince yapısının incelenmesi, Postgraduate, A.Er(Student), 2006

BAŞAR G., Kr elementinin ince ve aşırı ince yapısının incelenmesi, Postgraduate, S.KAMAL(Student), 2005

Başar G., Manganez I ve skandiyum I elementlerinin ince yapı ve aşırı ince yapılarının incelenmesi, Doctorate, İ.Kanat(Student), 2003

## Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, February,

2021

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, January, 2021

Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, December, 2020

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

- I. **Hyperfine Structure Investigation of Singly Ionized Thulium in Fourier-transform Spectra**  
Kebapcı T. Y., Parlatan Ş., Sert S., Kanat Öztürk İ., Başar G., Şahin T., Bilir S., Ferber R., Tamanis M., Kröger S.  
ASTROPHYSICAL JOURNAL, vol.970, pp.1-12, 2024 (SCI-Expanded)
- II. **Line identification of atomic and ionic spectra of Holmium in the near infrared spectral range from 700 nm to 1750 nm**  
Zengin M., Kın Barka S., Kanat Öztürk İ., Klincare I., Kröger S., Başar G.  
SPECTROCHIMICA ACTA - PART B: ATOMIC SPECTROSCOPY, vol.217, pp.1-17, 2024 (SCI-Expanded)
- III. **Line identification of atomic and ionic spectra of Holmium in the near infrared spectral range from 700 nm to 1750 nm**  
Zengin M., Barka S. K., ÖZTÜRK İ., Klincare I., Kröger S., BAŞAR G.  
Spectrochimica Acta - Part B Atomic Spectroscopy, vol.217, 2024 (SCI-Expanded)
- IV. **New energy levels of atomic holmium discovered by laser spectroscopy in the near infrared spectral range**  
Barka S. K., Başar G., Kröger S., BAŞAR G.  
Spectrochimica Acta - Part B Atomic Spectroscopy, vol.216, 2024 (SCI-Expanded)
- V. **A perturbed energy level of the holmium atom**  
Windholz L., Başar G., Kröger S., BAŞAR G.  
Spectrochimica Acta - Part B Atomic Spectroscopy, vol.214, 2024 (SCI-Expanded)
- VI. **Comparison of theory and experiment for radiative characteristics in neutral thulium**  
Bondarev A. I., Tamanis M., Ferber R., BAŞAR G., Kröger S., Kozlov M. G., Fritzsche S.  
Physical Review A, vol.109, no.1, 2024 (SCI-Expanded)
- VII. **New even parity fine structure energy levels of atomic vanadium**  
Başar G., Erdoğan H., Bingöl D., Kanat Öztürk İ., Güzelçimen F., Kröger S., Windholz L., Pickering J., Başar G.  
SPECTROCHIMICA ACTA - PART B: ATOMIC SPECTROSCOPY, vol.207, pp.1-8, 2023 (SCI-Expanded)
- VIII. **Experimental investigation of the hyperfine structure of Tm I with Fourier transform spectroscopy, part A: In the visible wavelength range (400-700 nm)**  
Parlatan Ş., Öztürk İ., BAŞAR G., Başar G., Ferber R., Kröger S.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.287, 2022 (SCI-Expanded)
- IX. **Experimental investigation of the hyperfine structure of Tm I with Fourier transform spectroscopy part b: In the NIR wavelength range from 700 nm to 2250 nm**  
Kebapcı T. Y., Sert S., Parlatan Ş., Öztürk İ., BAŞAR G., Başar G., Tamanis M., Kröger S.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.287, 2022 (SCI-Expanded)
- X. **Revised Energy Levels of Atomic Lanthanum Considering Hyperfine Structure**  
Guzelcimen F., Windholz L., Basar G., Kroeger S.  
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.258, no.2, 2022 (SCI-Expanded)
- XI. **New even-parity energy levels of the neutral Lanthanum atom derived from difficult to interpret measurements**  
Windholz L., Binder T., Gamper B., Sobolewski L. M., Gueney C., Faisal M., Kwela J., Basar G., Kroeger S.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.273, 2021 (SCI-Expanded)
- XII. **New energy levels of atomic lanthanum with small total angular momentum quantum number discovered by laser spectroscopic methods in the near IR**  
Ozturk İ., Başar G., BAŞAR G., Ozdalgi B., Bingol D., GÜZELÇİMEN F., Windholz L., Kroger S.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.253, 2020 (SCI-Expanded)
- XIII. **Laser spectroscopic investigation of atomic holmium in the wavelength range from 780 nm to 830**

**nm: Hyperfine structure measurements and a new energy level**

Başar G., Başar G., Özdalgıç B., Kanat Öztürk İ., Güzelçimen F., Bingöl D., Kröger S.

JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.243, 2020 (SCI-Expanded)

- XIV. **Hyperfine Structure Analysis of Atomic Holmium in an FT Spectrum in the Visible Spectral Range**  
Ozdalgıç B., Basar G., Kroeger S.  
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.244, no.2, 2019 (SCI-Expanded)
- XV. **Line Identification of Atomic and Ionic Spectra of Holmium in the Visible Spectral Range. I. Spectrum of Ho I**  
Ozdalgıç B., Guzelcimen F., Ozturk I. K., Kroeger S., Kruzins A., Tamanis M., Ferber R., Basar G.  
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.240, no.2, 2019 (SCI-Expanded)
- XVI. **Line Identification of Atomic and Ionic Spectra of Holmium in the Visible Spectral Range. II. Spectrum of Ho II and Ho III**  
Ozdalgıç B., Başar G., Güzelçimen F., Ozturk İ., Ak T., Bilir S., Tamanis M., Ferber R., Kroeger S.  
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.240, 2019 (SCI-Expanded)
- XVII. **Sorting of micron-sized particles using holographic optical Raman tweezers in aqueous medium**  
Parlatan U., Basar G., Başar G.  
JOURNAL OF MODERN OPTICS, vol.66, no.2, pp.228-234, 2019 (SCI-Expanded)
- XVIII. **Hyperfine structure measurements of neutral vanadium by inter-modulated laser-induced fluorescence spectroscopy in the wavelength range from 800 nm to 830 nm**  
Basar G., Guzelcimen F., Ozturk İ., Bingol D., Kroger S., Basar G.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.219, pp.1-6, 2018 (SCI-Expanded)
- XIX. **New energy levels of atomic niobium (Nb I) discovered by laser-spectroscopic investigations**  
Kroger S., Windholz L., Basar G., Basar G.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.212, pp.24-31, 2018 (SCI-Expanded)
- XX. **Revised energy energy levels of singly ionized lanthanum**  
Guzelcimen F., Tonka M., Uddin Z., Bhatti N. A., Windholz L., Kroeger S., Basar G.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.211, pp.188-199, 2018 (SCI-Expanded)
- XXI. **Hyperfine structure measurements of neutral vanadium by laser-induced fluorescence spectroscopy in the wavelength range from 750 nm to 860 nm**  
Basar G., Guzelcimen F., Ozturk I. K., Er A., Bingol D., Kroeger S., Basar G.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.202, pp.193-199, 2017 (SCI-Expanded)
- XXII. **Line Identification of Atomic and Ionic Spectra of Holmium in the Near-UV. Part I. Spectrum of Ho I**  
Al-Labady N., Ozdalgıç B., Er A., Guzelcimen F., Ozturk I. K., Kroeger S., Kruzins A., Tamanis M., Ferber R., Basar G.  
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.228, no.2, 2017 (SCI-Expanded)
- XXIII. **Line Identification of Atomic and Ionic Spectra of Holmium in the Near-UV. II. Spectra of HoII and HoIII**  
Başar G., Al-Labady N., Ozdalgıç B., Güzelçimen F., Er A., Ozturk İ., Ak T., Bilir S., Tamanis M., Ferber R., et al.  
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.228, 2017 (SCI-Expanded)
- XXIV. **New even and odd parity fine structure levels of La I discovered by means of laser-induced fluorescence spectroscopy**  
Basar G., Gamper B., Guzelcimen F., Ozturk I. K., Binder T., Basar G., Kroger S., Windholz L.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER, vol.187, pp.505-510, 2017 (SCI-Expanded)
- XXV. **HIGH-RESOLUTION FOURIER TRANSFORM SPECTROSCOPY OF Nb I IN THE NEAR-INFRARED**  
Er A., Guzelcimen F., Basar G., Ozturk İ., Tamanis M., Ferber R., Kroeger S.  
ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.221, no.1, 2015 (SCI-Expanded)
- XXVI. **Investigation of the hyperfine structure of weak atomic Vanadium lines by means of Fourier transform spectroscopy**  
Guzelcimen F., Er A., Öztürk İ., Başar G., KROEGER S., TAMANIS M., FERBER R.  
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.48, no.11, 2015 (SCI-Expanded)
- XXVII. **Parametric study of the fine and hyperfine structure for the even parity configurations of atomic niobium**

- Dembczynski J., Elantkowska M., Ruczkowski J., Öztürk İ., Er A., Güzelçimen F., Başar G., Kroger S.  
 JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.48, 2015 (SCI-Expanded)
- XXVIII. **New energy levels of atomic niobium by laser induced fluorescence spectroscopy in the near infrared**  
 Ozturk İ., Basar G., Er A., Guzelcimen F., Basar G., Kroger S.  
 JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.48, no.1, 2015 (SCI-Expanded)
- XXIX. **Transition probabilities of neutral scandium**  
 Öztürk İ., Celik G., Gokce Y., ATALAY B., Guzelcimen F., Er A., Başar G., Kröger S.  
 CANADIAN JOURNAL OF PHYSICS, vol.92, no.11, pp.1425-1429, 2014 (SCI-Expanded)
- XXX. **HYPERFINE STRUCTURE CONSTANTS OF ENERGETICALLY HIGH-LYING LEVELS OF ODD PARITY OF ATOMIC VANADIUM**  
 Güzelçimen F., Yapici B., Demir G., Er A., Ozturk İ., Başar G., Kroeger S., Tamanis M., Ferber R., Docenko D., et al.  
 ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.214, 2014 (SCI-Expanded)
- XXXI. **HIGH-RESOLUTION FOURIER TRANSFORM SPECTROSCOPY OF LANTHANUM IN Ar DISCHARGE IN THE NEAR-INFRARED**  
 Guzelcimen F., Basar G., Tamanis M., Kruzins A., Ferber R., Windholz L., Kroeger S.  
 ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES, vol.208, no.2, 2013 (SCI-Expanded)
- XXXII. **Hyperfine structure investigations of atomic niobium with optogalvanic and laser-induced fluorescence spectroscopy in the near-infrared wavelength range**  
 Başar G., Başar G., Ozturk İ., Er A., Güzelçimen F., Kroeger S.  
 ASTRONOMY & ASTROPHYSICS, 2013 (SCI-Expanded)
- XXXIII. **New energy levels and hyperfine structure measurements of neutral lanthanum by laser-induced fluorescence spectroscopy**  
 Guzelcimen F., Siddiqui I., Başar G., Kroeger S., Windholz L.  
 JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.45, no.13, 2012 (SCI-Expanded)
- XXXIV. **Hyperfine structure of the 3d(3)4s4p (6)G multiplet of atomic vanadium**  
 Güzelçimen F., Başar G., Ozturk İ., Kroeger S., Ferber R., Jarmola A., Tamanis M., Başar G.  
 JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.44, 2011 (SCI-Expanded)
- XXXV. **Hyperfine structure study of atomic niobium with enhanced sensitivity of Fourier transform spectroscopy**  
 Er A., Öztürk İ., Başar G., Kroeger S., Jarmola A., Ferber R., Tamanis M.  
 JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.44, 2011 (SCI-Expanded)
- XXXVI. **Hyperfine structure measurements of neutral niobium with Fourier transform spectroscopy**  
 Kroeger S., ER A., Ozturk İ., BAŞAR G., Jarmola A., Ferber R., Tamanis M., Zacs L.  
 ASTRONOMY & ASTROPHYSICS, vol.516, 2010 (SCI-Expanded)
- XXXVII. **Hyperfine structure investigation of Os-187 atomic levels via optical-optical double resonance**  
 Başar G., Basar G., Kroeger S., Guthoehrlein G. H.  
 JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.43, no.7, 2010 (SCI-Expanded)
- XXXVIII. **Studies on kyotorphin and D-kyotorphin in aqueous solution by Raman spectroscopy**  
 Akyuz S., Basar G., Başar G., Kin S., Kroeger S.  
 JOURNAL OF MOLECULAR STRUCTURE, vol.924, pp.42-46, 2009 (SCI-Expanded)
- XXXIX. **High resolution measurements of the hyperfine structure of atomic Lanthanum for energetically low lying levels of odd parity**  
 Basar G., Basar G., Kroeger S.  
 OPTICS COMMUNICATIONS, vol.282, no.4, pp.562-567, 2009 (SCI-Expanded)
- XL. **High-resolution laser spectroscopy of the hyperfine structure of high-lying levels of NbI**  
 Basar G., Basar G., Bayram S. B., Kroeger S.  
 PHYSICA SCRIPTA, vol.78, no.1, 2008 (SCI-Expanded)
- XLI. **Vibrational spectroscopic study of two dimensional polymer compounds of pyrazinamide**  
 Akyüz S., Andreeva L., Minceva-Sukarova B., Basar G.  
 JOURNAL OF MOLECULAR STRUCTURE, vol.834, pp.399-402, 2007 (SCI-Expanded)

- XLII. **Hyperfine structure investigation of ScI, part II: theoretical studies of the odd configurations**  
Oeztuerk İ., Acar F. G., Basar G., Basar G., Kroeger S.  
PHYSICA SCRIPTA, vol.75, no.5, pp.624-629, 2007 (SCI-Expanded)
- XLIII. **Experimental hyperfine structure investigation of atomic La**  
Basar G., Basar G., Er A., Kroeger S.  
PHYSICA SCRIPTA, vol.75, no.4, pp.572-576, 2007 (SCI-Expanded)
- XLIV. **Fine and hyperfine structure in the atomic spectrum of niobium**  
Kroeger S., Ozturk İ., Acar F. G., Basar G., Basar G., Wyart J. -  
EUROPEAN PHYSICAL JOURNAL D, vol.41, no.1, pp.61-70, 2007 (SCI-Expanded)
- XLV. **Hyperfine structure investigation of Mn I - Part II: Theoretical studies of the odd configurations**  
Acar F., Basar G., Basar G., Ozturk I., Kroger S.  
PHYSICA SCRIPTA, vol.71, no.3, pp.245-250, 2005 (SCI-Expanded)
- XLVI. **Hyperfine structure of high lying levels of TmI**  
Basar G., Basar G., Ozturk I., Acar F., Kroger S.  
PHYSICA SCRIPTA, vol.71, no.2, pp.159-162, 2005 (SCI-Expanded)
- XLVII. **Experimental investigation of the hyperfine structure and theoretical studies of the even configurations of Sc I**  
Basar G., Basar G., Acar F., Ozturk I., Kroger S.  
PHYSICA SCRIPTA, vol.69, no.3, pp.189-195, 2004 (SCI-Expanded)
- XLVIII. **Hyperfine structure investigations of MnI - Part I: Experimental and theoretical studies of the hyperfine structure in the even configurations**  
Basar G., Basar G., ACAR G., Ozturk I., KROGER S.  
PHYSICA SCRIPTA, vol.67, no.6, pp.476-484, 2003 (SCI-Expanded)
- XLIX. **Hyperfine structure and isotope shift of osmium I**  
Kroger S., Basar G., Baier A., Guthohrlein G.  
PHYSICA SCRIPTA, vol.65, no.1, pp.56-68, 2002 (SCI-Expanded)
- L. **Parametric investigation of the isotope shift in odd configurations of Ne I**  
Basar G., Basar G., Buttgenbach S., Kroger S., Kronfeldt H.  
ZEITSCHRIFT FUR PHYSIK D-ATOMS MOLECULES AND CLUSTERS, vol.39, no.4, pp.283-289, 1997 (SCI-Expanded)
- LI. **FT-IR and laser Raman spectroscopic investigation of transition metal halide complexes of benzidine**  
Akyuz S., Bulat T., Ozel A., Basar G.  
Vibrational Spectroscopy, vol.14, no.1, pp.151-154, 1997 (SCI-Expanded)
- LII. **Isotope Shift Investigations in the Configurations  $5d\ 9nl$  and  $5d\ 8nl\ n'l'$  of Pt I**  
Başar G., Kronfeldt H. D.  
Physica Scripta, vol.51, pp.227-232, 1995 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Revised Energy levels of Atomic Holmium Considering Hyperfine Structure in Fourier Transform Spectra**  
Başar G., Zengin M.  
THE 14TH INTERNATIONAL COLLOQUIUM ON ATOMIC SPECTRA AND OSCILLATOR STRENGTHS FOR ASTROPHYSICAL AND LABORATORY PLASMAS (ASOS14), Paris, France, 10 - 14 July 2023, pp.15
- II. **Classification of New Atomic Lines of Thulium in the Visible Region using FT Spectroscopy**  
Parlatan Ş., Kanat Öztürk İ., Başar G., Başar G., Tamanis M., Ferber R., Kroger .  
17th International Young Scientist conference Developments in Optics and Communications 2021, Riga, Latvia, 15 - 16 April 2021, pp.1
- III. **Classification of Spectral Lines of the Holmium in the Near Infrared**  
KANAT ÖZTÜRK İ., Ashiba S., GÜZELÇİMEN F., Özdağlıç B., Kröger S., BAŞAR G.  
TFD34, Muğla, Turkey, 5 - 09 September 2018, pp.1

- IV. **Line Identification of Atomic Holmium**  
Özdalğıç B., KANAT ÖZTÜRK İ., GÜZELÇİMEN F., Kröger S., BAŞAR G.  
TFD34, Muğla, Turkey, 5 - 09 September 2018, pp.1
- V. **Line Classification of Atomic Holmium by means of Fourier Transform Spectroscopy from 317 to 400 nm**  
BAŞAR G., Al-Labady N., GÜZELÇİMEN F., OZTURK I. K., ER A., Özdalğıç B., AK T., BİLİR S., Kröger S., Tamanis M., et al.  
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.565
- VI. **Hyperfine Structure of Atomic Holmium by Fourier Transform Spectroscopy in the UV Spectral Range**  
BAŞAR G., Al-Labady N., KANAT ÖZTÜRK İ., GÜZELÇİMEN F., Özdalğıç B., Kröger S., Kruzins A., Tamanis M., Ferber R.  
TFD33, Muğla, Turkey, 6 - 10 September 2017, pp.1
- VII. **Laser Spectroscopic Measurements of Atomic Vanadium in the Red Wavelength Range**  
Başar G., BAŞAR G., GÜZELÇİMEN F., KANAT ÖZTÜRK İ., ER A., Bingöl D., Kröger S.  
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.563
- VIII. **"Line Classification of Ho II and Ho III by means of Fourier Transform Spectroscopy from 317 to 400 nm**  
BAŞAR G., Al-Labady N., GÜZELÇİMEN F., OZTURK I. K., ER A., Özdalğıç B., AK T., BİLİR S., Kröger S., Tamanis M., et al.  
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.565
- IX. **The Hyperfine Structure Investigation of V I Lines with Doppler-Reduced Laser Spectroscopic Method**  
BAŞAR G., KANAT ÖZTÜRK İ., GÜZELÇİMEN F., Bingöl D., Kröger S., Başar G.  
Conference of the European Group on Atomic Systems (EGAS49), Durham, United Kingdom, 17 - 21 July 2017, pp.1
- X. **Inter Modulated Laser-Induced Fluorescence Spectroscopy Measurements of Vanadium-Neon Plasma**  
BİNGÖL D., BAŞAR G., KANAT ÖZTÜRK İ., GÜZELÇİMEN F., Kröger S., BAŞAR G.  
Turkish Physical Society 32th International Physics Congress, Muğla, Turkey, 6 - 09 September 2016, pp.277
- XI. **Hyperfine Structure Investigation of Vanadium by Using Saturation Absorption Spectroscopy**  
BİNGÖL D., BAŞAR G., KANAT ÖZTÜRK İ., GÜZELÇİMEN F., Kröger S., BAŞAR G.  
Turkish Physical Society 32th International Physics Congress, Muğla, Turkey, 6 - 09 September 2016, pp.276
- XII. **Investigation of Hyperfine Structure of Atomic Holmium**  
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BAŞAR G., Project Supported by Higher Education Institutions, Laser Spektroskopik Yöntemlerde Genişlemiş Atomik Spektral Çizgilerin Doyma Etkilerinin Araştırılması, 2019 - 2023

TONKA M., WINDHOLZ L., BHATTI N. A., UDDİN Z., KRÖGER S., BAŞAR G., Project Supported by Higher Education Institutions, Improved Energy Levels of Singly Ionized Lanthanum, 2017 - 2018

GÜZELÇİMEN F., BAŞAR G., BAŞAR G., KRÖGER S., ER A., KANAT ÖZTÜRK İ., Project Supported by Higher Education Institutions, Holmiyum Elementinin Kırmızı Spektral Bölgedeki Aşırı İnce Yapısının İncelenmesi, 2015 - 2017

BAŞAR G., Project Supported by Higher Education Institutions, Niobium elementinin aşırı ince yapısının incelenmesi, 2013 - 2016

BAŞAR G., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, III-V Tipi İki Diod Laser ile Fark Frekans Temelli Kızılötesi Laser Kaynağı Yapımı ve Bu Kaynakla çok bileşenli Gaz Tespiti, 1999 - 2000

## Memberships / Tasks in Scientific Organizations

Türk Fizik Derneği, Member, 2012 - Continues

## Metrics

Publication: 151

Citation (WoS): 438

Citation (Scopus): 445

H-Index (WoS): 14

H-Index (Scopus): 14

## Congress and Symposium Activities

Turkish Physical Society 34 International Physics Congress, Attendee, Turkey, 2018  
Conference of the European Group on Atomic Systems (EGAS49), Attendee, United Kingdom, 2017  
Turkish Physical Society 32th International Physics Congress, Attendee, Turkey, 2016  
12th European Conference on Atoms Molecules and Photons (ECAMP12), Attendee, Germany, 2016  
9th International Physics Conference of the Balkan Physical Union, Attendee, Turkey, 2015  
International Conference on Atomic and Molecular Data and Their Applications ICAMDATA, Attendee, Germany, 2014  
Turkish Physical Society 31th International Physics Congress, Attendee, Turkey, 2014  
46th Conference Of The European Group on Atomic Systems (EGAS 46), Attendee, France, 2014  
Turkish Physical Society 30th International Physics Conference, Attendee, Turkey, 2013  
11th International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas (ASOS 11), Attendee, Belgium, 2013  
11th EUROPEAN CONFERENCE ON ATOMS, MOLECULES AND PHOTONS (ECAMP11), Attendee, Aarhus, Denmark, 2013  
8th International Conference on Atomic and Molecular Data and Their Applications National Institute of Standards and Technology (NIST), Attendee, Washington, D.C. Gaithersburg, United States Of America, 2012  
44th Conference of the European Group on Atomic Systems, Attendee, Isparta, Sweden, 2012  
44th EGAS Conference, Attendee, Göteborg, Sweden, 2012  
43rd Congress of the European Group on Atomic Systems (EGAS), Attendee, Fribourg, Switzerland, 2011  
Turkish Physical Society 27th International Physics Conference, Attendee, İstanbul, Turkey, 2010  
22nd International Conference on Raman Spectroscopy (ICORS), Attendee, Boston, United States Of America, 2010  
10th European Conference on Atoms Molecules and Photons ECAMP X, Attendee, Salamanca, Spain, 2010  
Turkish Physical Society 26th International Physics Conference, Attendee, Bodrum/Muğla, Turkey, 2009  
5th International Conference on Advanced Vibrational Spectroscopy, Attendee, Melbourne, Australia, 2009  
41st EGAS Conference, European Group for Atomic Spectroscopy, Attendee, Gdansk, Poland, 2009  
XXIX European Congress on Molecular Spectroscopy, Attendee, Opatija, Croatia, 2008  
40th EGAS Conference, European Group for Atomic Spectroscopy, Attendee, Graz, Austria, 2008  
62nd International Symposium on Molecular Spectroscopy, Attendee, Columbus, United States Of America, 2007  
9th European Conference on Atoms Molecules and Photons (ECAMP), Attendee, Girit, Greece, 2007  
XXVIII European Congress on Molecular Spectroscopy, Attendee, İstanbul, Turkey, 2006  
38th EGAS Conference, European Group for Atomic Spectroscopy, Attendee, Napoli, Italy, 2006  
37th EGAS Conference, European Group for Atomic Spectroscopy, Attendee, Dublin, Ireland, 2005  
8th EPS Conference on Atomic and Molecular Physics (ECAMP), Attendee, Ren, France, 2004  
35th European Group for Atomic Spectroscopy (EGAS) Conference, Attendee, Brüksel, Belgium, 2003  
34nd European Group for Atomic Spectroscopy (EGAS) Conference, Attendee, Sofya, Bulgaria, 2002  
The Seventh European Conference on Atomic and Molecular Physics (ECAMP) VII, Attendee, Berlin, Germany, 2001  
32nd European Group for Atomic Spectroscopy (EGAS) Conference, Attendee, Vilnius, Lithuania, 2000  
10. Norddeutscher Lasertag, Attendee, Hamburg, Germany, 1999  
31st European Group for Atomic Spectroscopy (EGAS) Conference, Attendee, Marsilya, France, 1999  
International Symposium on Lasers, Atomic and Molecular Physics (LAMP), Attendee, İstanbul, Turkey, 1997  
28th European Group for Atomic Spectroscopy (EGAS) Conference, Attendee, Graz, Austria, 1996  
5th European Conference on Atomic and Molecular Physics (ECAMP), Attendee, Edinburg, United Kingdom, 1995  
Der Deutschen Physikalischen Gesellschaft (DPG) Physikertagung FA-Atomphysik, Attendee, Hamburg, Germany, 1994  
XXVI. European Group for Atomic Spectroscopy (EGAS) Conference, Attendee, Barselona, Turkey, 1994  
Der Deutschen Physikalischen Gesellschaft (DPG) Physikertagung FA-Atomphysik, Attendee, Berlin, Germany, 1993  
XXV. European Group for Atomic Spectroscopy (EGAS) Conference, Attendee, Caen, France, 1993  
Der Deutschen Physikalischen Gesellschaft (DPG) Physikertagung FA-Atomphysik, Attendee, Hannover, Germany, 1992

## Awards

BAŞAR G., Nazım Terzioğlu Ödülü, Nazım Terzioğlu ailesi, November 1998