

Res. Asst. PhD BUĞRA YILDIZ

Personal Information

Email: bugrayildiz@hacettepe.edu.tr

Web: <https://avesis.hacettepe.edu.tr/bugrayildiz>

Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği A.B.D., Turkey 2010 - 2016

Postgraduate, Hacettepe Üniversitesi, Fen Bilimleri, Fizik Mühendisliği, Turkey 2008 - 2010

Undergraduate, Hacettepe Üniversitesi, Mühendislik Fakültesi, Fizik Mühendisliği, Turkey 2003 - 2008

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, CMS deneyinde tek lepton kanalında süpersimetri arayışları, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2016

Postgraduate, Kuantum dolaşıklık ve eşevresizlik, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2010

Research Areas

Physics, Quantum Mechanics, Fields Theory and Relativity, Basic Particles and Areas, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences

Academic Titles / Tasks

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2008 - Continues

Courses

Physics 2, Undergraduate, 2020 - 2021

Fizik 2, Undergraduate, 2020 - 2021

Physics 1, Undergraduate, 2019 - 2020

İş Sağlığı ve Güvenliği 1, Undergraduate, 2020 - 2021

Physics 2, Undergraduate, 2019 - 2020

Physics, Undergraduate, 2018 - 2019, 2019 - 2020

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **A single step synthesis by mechanical alloying and characterization of nanostructured Fe₂B of high magnetic moment**
ŞİMŞEK T., Avar B., Şimşek T., YILDIZ B., Chattopadhyay A. K. , ÖZCAN Ş.
Ceramics International, vol.47, pp.26119-26124, 2021 (Journal Indexed in SCI)
- II. **The investigation of electronic nature and mechanical properties under spin effects for new half-metallic ferromagnetic chalcogenides Ag₃CrX₄ (X = S, Se, and Te)**
Erkisi A., YILDIZ B., Wang X., Isik M., Ozcan Y., Surucu G.
Journal of Magnetism and Magnetic Materials, vol.519, 2021 (Journal Indexed in SCI)
- III. **The investigation of electronic, anisotropic elastic and lattice dynamical properties of MAB phase nanolaminated ternary borides: M₂AlB₂ (M=Mn, Fe and Co) under spin effects**
Surucu G., YILDIZ B., Erkisi A., Wang X., Surucu O.
Journal of Alloys and Compounds, vol.838, 2020 (Journal Indexed in SCI)
- IV. **First-principles studies of Tin+1SiN_n (n = 1, 2, 3) MAX phase**
Surucu G., Gullu H. H. , Candan A., YILDIZ B., Erkisi A.
Philosophical Magazine, 2020 (Journal Indexed in SCI)
- V. **First principles study on new half-metallic ferromagnetic ternary zinc-based sulfide and telluride (Zn₃VS₄ and Zn₃VT_e4)**
ERKİŞİ A., YILDIZ B., DEMİR K., SÜRÜCÜ G.
MATERIALS RESEARCH EXPRESS, vol.6, no.7, 2019 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Ab-initio Calculations; Mechanical and Electronic Properties of New M₄As₃Co (M: Al, Ga) Compounds**
Yıldız B., Erkişi A.
Süleyman Demirel University Faculty of Arts and Sciences Journal of Science, vol.1, no.16, pp.86-95, 2021 (National Refreed University Journal)
- II. **[The Theoretical Investigation on Electronic Behavior and Mechanical Properties of Ferromagnet Silver-Based Telluride: Ag₃FeTe₄]**
ERKİŞİ A., YILDIZ B.
Karaelmas Science and Engineering Journal, vol.10, no.2, pp.202-212, 2020 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **MECHANICAL and ELECTRONIC PROPERTIES of NEW Al₄Sb₃Co COMPOUND**
Yıldız B., Erkişi A.
TURKISH PHYSICAL SOCIETY 37th INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 1 - 05 September 2021, pp.106
- II. **INVESTIGATION of MECHANICAL PROPERTIES and the ELECTRONIC and MAGNETIC BEHAVIOR of SILVER-BASED FERRITE CHALCOGENIDES Ag₃FeCh₄ (Ch = S and Se)**
YILDIZ B., SÜRÜCÜ G., ERKİŞİ A.
TURKISH PHYSICAL SOCIETY 36th INTERNATIONAL PHYSICS CONGRESS, 04 September 2020
- III. **THERMAL AND GROUND STATE ENTANGLEMENT OF ISING SPIN CHAIN WITH THE PRESENCE OF MAGNETIC FIELD**
YILDIZ B., Gündüç Y.
ULUSLARARASI BİLİM, TEKNOLOJİ VE SOSYAL BİLİMLERDE GÜNCEL GELİŞMELER SEMPOZYUMU, 20 - 22 December 2019, vol.2

IV. An ab initio Study of Cr and Mn Doped MAX Phase TiMSiB

YILDIZ B., ERKİŞİ A., SÜRÜCÜ G.

2019 3rd International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Ankara, Turkey, Turkey, 11 - 13 October 2019

V. The mechanical and electronic properties of spinel oxides VX₂O₄ (X = Mn and Fe) by first principle calculations

YILDIZ B., ERKİŞİ A., SÜRÜCÜ G.

Turkish Physical Society 35.nd International Physics Congress, Bodrum, Turkey, Turkey, 4 - 08 September 2019

VI. Investigation of Electronic, Magnetic and Mechanical Properties of Ternary MAB Phase

Cr₂AlB₂Compound: An Ab-Initio

YILDIZ B., SÜRÜCÜ G., ERKİŞİ A.

6.International Congress on Mathematics, Engineering and Natural Sciences, Adana, Turkey, 8 - 10 March 2019, pp.152

Supported Projects

BOZ M., ÇILDIRIÖĞLU H. Ö. , ŞEN S., GÜMÜŞ M. K. , YILDIZ B., AĞARAS M. N. , ÖZŞİMŞEK Ö. M. , Project Supported by Higher Education Institutions, CERN-LHC-CMS Projesi Çerçevesinde Hacettepe-CERN Bilimsel İşbirliğine İlk Adım, 2015 - 2018

YILDIZ B., ŞEN S., Project Supported by Other Official Institutions, LHC CMS deneyinde Faz II yenileme çalışmaları ve Standart Model ötesi yeni parçacıkların aranması, 2014 - 2017