



BUĞRA YILDIZ

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International Researcher IDs

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Publons / Web Of Science ResearcherID: M-5522-2018

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Learning Knowledge

Doctorate 2010 - 2016	Hacettepe University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği A.B.D., Turkey
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Postgraduate 2008 - 2010	Hacettepe University, Fen Bilimleri, Fizik Mühendisliği, Turkey
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Undergraduate 2003 - 2008	Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği, Turkey
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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

Academic Titles / Tasks

Assistant Professor 2023 - Continues	Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü
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Research Assistant 2008 - 2023	Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü
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Researcher 2014 - 2018	CERN, CMS
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Supported Projects

1. Şimşek T., YILDIZ B., TUBITAK Project, Yüksek Isıtma Verimine Sahip Oto-Kontrol Manyetik Hipertermi Özellikli Manyetik Nanomalzemelerin Sentezi Ve Karakterizasyonu, 2023 - 2026
2. BOZ M., ÇILDIROĞLU 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
3. Cankoçak K., Yıldız B., Project Supported by Other Official Institutions, LHC-CMS Deneyinde Faz Iı Yenileme Çalışmaları Ve Standart Model Ötesi Yeni Parçacıkların Aranması, 2014 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

1. **The spin effects on electronic, optical and mechanical properties of new ferromagnetic chalcopyrite: $YMnS_2$**
YILDIZ B., Erkisi A., SÜRÜCÜ G.
Materials Chemistry and Physics, vol.284, 2022 (SCI-Expanded)
2. **A single step synthesis by mechanical alloying and characterization of nanostructured Fe_2B 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 (SCI-Expanded)
3. **The investigation of electronic nature and mechanical properties under spin effects for new half-metallic ferromagnetic chalcogenides Ag_3CrX_4 ($X = S, Se, \text{ and } Te$)**
Erkisi A., YILDIZ B., Wang X., Isik M., Ozcan Y., Surucu G.
Journal of Magnetism and Magnetic Materials, vol.519, 2021 (SCI-Expanded)
4. **The investigation of electronic, anisotropic elastic and lattice dynamical properties of MAB phase nanolaminated ternary borides: M_2AlB_2 ($M=Mn, Fe \text{ and } Co$) under spin effects**
Surucu G., YILDIZ B., Erkisi A., Wang X., Surucu O.
Journal of Alloys and Compounds, vol.838, 2020 (SCI-Expanded)
5. **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, vol.100, no.17, pp.2183-2204, 2020 (SCI-Expanded)
6. **First principles study on new half-metallic ferromagnetic ternary zinc-based sulfide and telluride (Zn_3VS_4 and Zn_3VTe_4)**
ERKİŞİ A., YILDIZ B., DEMİR K., SÜRÜCÜ G.
MATERIALS RESEARCH EXPRESS, vol.6, no.7, 2019 (SCI-Expanded)

Articles Published in Other Journals

1. **Standard Model Background Analysis for Single Lepton Channel**
YILDIZ B., BOZ M.
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.23, pp.37-42, 2023 (Peer-Reviewed Journal)
2. **Yeni Ferromanyetik Gümüş Bazlı Sulfo-spinelin (AgV_2S_4) Elektronik Davranışı ve Optik Özellikleri**
YILDIZ B., ERKİŞİ A.
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.13, no.3, pp.541-549, 2022 (Peer-Reviewed Journal)
3. **Ab-initio Calculations; Mechanical and Electronic Properties of New M_4As_3Co ($M: Al, Ga$) Compounds**
YILDIZ B., ERKİŞİ A.
SULEYMAN DEMIREL UNIVERSITESI FEN-EDEBIYAT FAKULTESI SOSYAL BILIMLER DERGISI, vol.1, no.16, pp.86-

95, 2021 (Peer-Reviewed Journal)

4. **[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 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

1. **STRUCTURAL AND ELASTIC FEATURES OF Al₄As₃Mn MATERIAL**
YILDIZ B., ERKİŞİ A.
TURKISH PHYSICAL SOCIETY 39th INTERNATIONAL PHYSICS CONGRESS, Turkey, 31 August - 04 September 2023
2. **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
3. **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
4. **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
5. **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
6. **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 35th International Physics Congress, TPS 2019, Konacik-Bodrum, Turkey, 4 - 08 September 2019, vol.2178
7. **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

Courses

Physics 1, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Physics, Undergraduate, 2023 - 2024, 2022 - 2023

Physics 2, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Physics, Undergraduate, 2022 - 2023

Fizik 2, Undergraduate, 2020 - 2021

İş Sağlığı ve Güvenliği 1, Undergraduate, 2020 - 2021

Physics 2, Undergraduate, 2019 - 2020

Physics, Undergraduate, 2019 - 2020, 2018 - 2019