

## Assoc. Prof. Erdem ŞAKAR

### Personal Information

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**Address:** Atatürk Üniversitesi Fen Fakültesi Fizik Bölümü

### International Researcher IDs

ScholarID: Q\_7DfH4AAAAJ

ORCID: 0000-0002-1359-4464

Publons / Web Of Science ResearcherID: AAQ-6965-2020

ScopusID: 57188668211

Yoksis Researcher ID: 38524

### Education Information

Doctorate, Ataturk University, Fen Bilimleri, Fizik, Turkey 2012 - 2017

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Education Management and Planning, Crystal 14, Regensburg University, 2017

Education Management and Planning, IRAF ile veri analizi, Tübitak Ulusal Gözlemevi, 2011

### Dissertations

Doctorate, Bazı gazların compton profillerine basınç etkisi, Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Fizik / Genel Fizik, 2017

Postgraduate, Seçilmiş yıldız kümelerinde değişen yıldızlar, Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Fizik / Genel Fizik, 2012

### Research Areas

Physics, Atomic and Molecular Physics, Theory of Atoms and Molecules, Atomic Spectra and Photon Interactions, Molecular Properties and Interactions with Photon, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electronic structure of bulk material, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Ataturk University, Fen Fakültesi, Fizik, 2021 - Continues

Assistant Professor, Ataturk University, Fen Fakültesi, Fizik, 2019 - Continues

## Courses

RADYASYON SAYAÇLARI VE ÖLÇÜM TEKNİKLERİ, Postgraduate, 2023 - 2024, 2020 - 2021

Fizik, Undergraduate, 2023 - 2024, 2020 - 2021

Işık ve Uygulamaları, Undergraduate, 2022 - 2023

XRS'de Pik Analiz Teknikleri, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

Klasik Mekanik, Undergraduate, 2021 - 2022

Modern Fizik, Undergraduate, 2021 - 2022

Fizik II Laboratuvarı, Undergraduate, 2021 - 2022

Fizik II, Undergraduate, 2021 - 2022

Fizik II, Undergraduate, 2021 - 2022

Işık Ölçümü: Photometry, Undergraduate, 2021 - 2022

Elektromanyetik Teori, Undergraduate, 2021 - 2022

Atom Fiziği Laboratuvarı, Undergraduate, 2021 - 2022

RADYASYON SAYAÇLARI VE ÖLÇÜM TEKNİKLERİ, Postgraduate, 2021 - 2022

Optik, Undergraduate, 2020 - 2021

RADYASYON SAYAÇLARI VE ÖLÇÜM TEKNİKLERİ, Postgraduate, 2020 - 2021

Fizik, Undergraduate, 2020 - 2021

Fizik, Undergraduate, 2020 - 2021

Klasik Mekanik, Undergraduate, 2018 - 2019

Bilgisayar Programlama, Undergraduate, 2018 - 2019

Temel Fizik, Undergraduate, 2017 - 2018

Genel Fizik I, Undergraduate, 2017 - 2018

Bilgisayar, Undergraduate, 2017 - 2018

## Advising Theses

Şakar E., SİNTERLEME TEKNİĞİYLE ÜRETİLEN Ni<sub>3</sub>Al TABANLI SÜPERALAŞIMLARIN YAPISAL PARAMETRELERİNİN VE  $\gamma$ -IŞINI SOĞURMA YETENEKLERİNİN ARAŞTIRILMASI, Postgraduate, M.DURDAĞ(Student), 2024

## Jury Memberships

Post Graduate, Mehmet Topal Yüksek Lisans Tez Savunması , Ağrı İbrahim Çeçen Üniversitesi, May, 2019

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

- I. **Determination of the molecular structure and spectroscopic properties of capsaicin**  
Çınar M., Alım B., Alım Z., Şakar E.  
RADIATION PHYSICS AND CHEMISTRY, vol.208, pp.110879, 2023 (SCI-Expanded)
- II. **An extensive survey on radiation protection features of novel hafnium iron-borophosphate glasses: Experimental and theoretical study**  
ŞAKAR E., Alım B., Ertap H., Karabulut M.  
Progress in Nuclear Energy, vol.160, 2023 (SCI-Expanded)
- III. **Fabrication, characterization of neutron and proton shielding investigation of tungsten oxide dispersed-ultra high Mw polyethylene**

Sayyed M. I., Taki M. M., Abdalsalam A. H., Mhareb M. H. A., Alajerami Y. S., Şakar E., Aygün B., Kaky K. M.  
CHEMICAL PHYSICS, vol.548, 2021 (SCI-Expanded)

- IV. **Characterization of gamma-ray and neutron radiation absorption properties of synthesized quinoline derivatives and their genotoxic potential**  
Alaylar B., Aygün B., Turhan K., Karadayı G., Şakar E., Singh V., Sayyed M., Pelit E., Karabulut A., Güllüce M., et al.  
Radiation Physics and Chemistry, vol.184, 2021 (SCI-Expanded)
- V. **Development of new heavy concretes containing chrome-ore for nuclear radiation shielding applications**  
Aygün B., Sakar E., Agar O., Sayyed M. I., Karabulut A., Singh V. P.  
PROGRESS IN NUCLEAR ENERGY, vol.133, 2021 (SCI-Expanded)
- VI. **Development of SiO<sub>2</sub> based doped with LiF, Cr<sub>2</sub>O<sub>3</sub>, CoO<sub>4</sub> and B<sub>2</sub>O<sub>3</sub> glasses for gamma and fast neutron shielding**  
Aygün B., Şakar E., Karabulut A., Alım B., Sayyed M., Singh V. P., Yıldız Yorgun N., Özpolat Ö. F.  
RADIOCHIMICA ACTA, vol.109, no.2, pp.143-151, 2021 (SCI-Expanded)
- VII. **Determination of radioprotective and genotoxic properties of sulfamide derivatives**  
Aygün B., Alaylar B., Akıncıoğlu A., Alım B., Kocaman E. T., Karadayı M., Abu Al-Sayyed M. I., Aksu S., Sakar E., Özpolat Ö. F., et al.  
RADIOCHIMICA ACTA, vol.109, no.12, pp.891-904, 2021 (SCI-Expanded)
- VIII. **Experimental and Monte Carlo simulation study on potential new composite materials to moderate neutron-gamma radiation**  
Aygün B., Şakar E., Singh V. P., Sayyed M. I., Korkut T., Karabulut A.  
Progress in Nuclear Energy, vol.130, 2020 (SCI-Expanded)
- IX. **Assessment of gamma-ray attenuation features for La<sup>+3</sup> co-doped zinc borotellurite glasses**  
Rammah Y., ÖZPOLAT Ö. F., Alım B., ŞAKAR E., El-Mallahwany R., El-Agawany F.  
Radiation Physics and Chemistry, vol.176, 2020 (SCI-Expanded)
- X. **Investigation of neutron and gamma radiation protective characteristics of synthesized quinoline derivatives**  
AYGÜN B., Alaylar B., TURHAN K., ŞAKAR E., KARADAYI M., Abu Al-Sayyed I., Pelit E., GÜLLÜCE M., KARABULUT A., TURGUT Z., et al.  
INTERNATIONAL JOURNAL OF RADIATION BIOLOGY, vol.96, no.11, pp.1423-1434, 2020 (SCI-Expanded)
- XI. **Development and production of metal oxide doped glasses for gamma ray and fast neutron shielding**  
Aygün B., ŞAKAR E., CİNAN E., Yorgun N. Y., Sayyed M., Agar O., KARABULUT A.  
RADIATION PHYSICS AND CHEMISTRY, vol.174, 2020 (SCI-Expanded)
- XII. **Determination of photon-shielding features and build-up factors of nickel-silver alloys**  
ŞAKAR E.  
RADIATION PHYSICS AND CHEMISTRY, vol.172, 2020 (SCI-Expanded)
- XIII. **MoO<sub>3</sub> reinforced Ultra high molecular weight PE for neutrons shielding applications**  
Sayyed M., Abdalsalam A. H., Taki M. M., Mhareb M. H. A., ALİM B., Baltakesmez A., ŞAKAR E.  
RADIATION PHYSICS AND CHEMISTRY, vol.172, 2020 (SCI-Expanded)
- XIV. **Phy-X/ZEXTRA: a software for robust calculation of effective atomic numbers for photon, electron, proton, alpha particle, and carbon ion interactions**  
Özpolat Ö. F., Alım B., Şakar E., Büyükyıldız M., Kurudirek M.  
RADIATION AND ENVIRONMENTAL BIOPHYSICS, vol.59, no.2, pp.321-329, 2020 (SCI-Expanded)
- XV. **Investigation of gamma ray attenuation features of bismuth oxide nano powder reinforced high-density polyethylene matrix composites**  
Abdalsalam A. H., Şakar E., Kaky K. M., Mhareb M., Sakar B., Sayyed M., Gürol A.  
RADIATION PHYSICS AND CHEMISTRY, vol.168, 2020 (SCI-Expanded)
- XVI. **Theoretical and experimental validation gamma shielding properties of B<sub>2</sub>O<sub>3</sub>-ZnO-MgO-Bi<sub>2</sub>O<sub>3</sub> glass system**  
Kaky K. M., Sayyed M. I., Khammas A., Kumar A., Şakar E., Abdalsalam A. H., Ceviz Şakar B., Alım B., Mhareb M. H. A.  
MATERIALS CHEMISTRY AND PHYSICS, vol.242, 2020 (SCI-Expanded)

- XVII. Phy-X / PSD: Development of a user friendly online software for calculation of parameters relevant to radiation shielding and dosimetry**  
Şakar E., Özpolat Ö. F., Alim B., Sayyed M., Kurudirek M.  
Radiation Physics and Chemistry, vol.166, 2020 (SCI-Expanded)
- XVIII. Modified halloysite minerals for radiation shielding purposes**  
Mansour A., Sayyed M., Mahmoud K. A., ŞAKAR E., Kovaleva E. G.  
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.13, no.1, pp.94-101, 2020 (SCI-Expanded)
- XIX. Evaluation the gamma, charged particle and fast neutron shielding performances of some important AISI-coded stainless steels: Part II**  
ALIM B., ŞAKAR E., HAN İ., Sayyed M.  
RADIATION PHYSICS AND CHEMISTRY, vol.166, 2020 (SCI-Expanded)
- XX. Structural, optical, thermal, mechanical, morphological & radiation shielding parameters of Pr<sup>3+</sup> doped ZAIFB glass systems**  
Vighnesh K., RAMYA B., NİMİTHA S., WAGH A., Sayyed M., ŞAKAR E., Yakout H., Dahshan A., Kamath S. D.  
OPTICAL MATERIALS, vol.99, 2020 (SCI-Expanded)
- XXI. Bi<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub>-ZnO-BaO-Li<sub>2</sub>O glass system for gamma ray shielding applications**  
SAYYED M. I., TEKİN H. O., TAKI M., MHAREB M., AĞAR O., ŞAKAR E., KAKY K.  
OPTİK, vol.201, 2020 (SCI-Expanded)
- XXII. Experimental investigation of radiation shielding performances of some important AISI-coded stainless steels: Part I**  
ALIM B., ŞAKAR E., Baltakesmez A., HAN İ., Sayyed M., DEMİR L.  
RADIATION PHYSICS AND CHEMISTRY, vol.166, 2020 (SCI-Expanded)
- XXIII. Phy-X/ZeXTRa: a software for robust calculation of effective atomic numbers for photon, electron, proton, alpha particle, and carbon ion interactions**  
Özpolat Ö. F., Alim B., Şakar E., Büyükyıldız M., Kurudirek M.  
Radiation And Environmental Biophysics, vol.59, pp.321-329, 2020 (SCI-Expanded)
- XXIV. Effect of heat treatment temperature to the crystal growth and optical performance of Mn<sub>3</sub>O<sub>4</sub> doped alpha-Zn<sub>2</sub>SiO<sub>4</sub> based glass-ceramics**  
Zaid M. H. M., MATORİ K. A., Ab Aziz S. H., KAMARİ H. M., FEN Y. W., YAAKOB Y., Sa'at N. K., GÜROL A., ŞAKAR E.  
RESULTS IN PHYSICS, vol.15, 2019 (SCI-Expanded)
- XXV. Simulation studies for gamma ray shielding properties of Halloysite nanotubes using MCNP-5 code**  
Abu El-Soad A. M., SAYYED M., Mahmoud K. A., ŞAKAR E., Kovaleva E. G.  
APPLIED RADIATION AND ISOTOPES, vol.154, 2019 (SCI-Expanded)
- XXVI. Physical, mechanical and gamma-ray shielding properties of highly transparent ZnO-MoO<sub>3</sub>-TeO<sub>2</sub> glasses**  
Ersundu M. C., Ersundu A. E., Gedikoğlu N., Şakar E., Büyükyıldız M., Kurudirek M.  
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.524, 2019 (SCI-Expanded)
- XXVII. Influence of RE oxides (Eu<sup>3+</sup>, Sm<sup>3+</sup>, Nd<sup>3+</sup>) on gamma radiation shielding properties of lead fluoroborate glasses**  
Wagh A., Sayyed M. I., Askin A., Özpolat Ö. F., Şakar E., Lakshminarayana G., Kamath S. D.  
SOLID STATE SCIENCES, vol.96, 2019 (SCI-Expanded)
- XXVIII. X-ray photoelectron spectroscopy (XPS) and gamma-ray shielding investigation of boro-silicate glasses contained alkali/alkaline modifier**  
Kaky K. M., ŞAKAR E., Akbaba U., KASAPOĞLU A. E., Sayyed M. I., GÜR E., Baki S. O., Mahdi M. A.  
RESULTS IN PHYSICS, vol.14, 2019 (SCI-Expanded)
- XXIX. Boro-silicate glasses co-doped Er<sup>3+</sup>/Yb<sup>3+</sup> for optical amplifier and gamma radiation shielding applications**  
HASSİB M. D., Kaky K. M., KUMAR A., Akar E., SAYYED M., Baki S. O., Mahdi M. A.  
PHYSICA B-CONDENSED MATTER, vol.567, pp.37-44, 2019 (SCI-Expanded)
- XXX. A study of gamma attenuation property of UHMWPE/Bi<sub>2</sub>O<sub>3</sub> nanocomposites**  
Abdalsalam A. H., SAYYED M., Hussein T. A., ŞAKAR E., Mhareb M. H. A., Sakar B., Alim B., Kaky K. M.

- CHEMICAL PHYSICS, vol.523, pp.92-98, 2019 (SCI-Expanded)
- XXXI. **Leaded brass alloys for gamma-ray shielding applications**  
Şakar E., Buyukyildiz M., Alim B., Sakar B., Kurudirek M.  
RADIATION PHYSICS AND CHEMISTRY, vol.159, pp.64-69, 2019 (SCI-Expanded)
- XXXII. **Gamma radiation shielding investigations for selected germanate glasses**  
Sayyed M. I., Kaky K. M., ŞAKAR E., Akbaba U., Taki M. M., Agar O.  
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.512, pp.33-40, 2019 (SCI-Expanded)
- XXXIII. **Investigations on the physical, structural, optical and photoluminescence behavior of Er<sup>3+</sup> ions in lithium zinc fluoroborate glass system**  
Prabhu N. S., Hegde V., SAYYED M. I., ŞAKAR E., Kamath S. D.  
INFRARED PHYSICS & TECHNOLOGY, vol.98, pp.7-15, 2019 (SCI-Expanded)
- XXXIV. **New high temperature resistant heavy concretes for fast neutron and gamma radiation shielding**  
AYGÜN B., ŞAKAR E., KORKUT T., SAYYED M., KARABULUT A.  
RADIOCHIMICA ACTA, vol.107, no.4, pp.359-367, 2019 (SCI-Expanded)
- XXXV. **Fabrication of Ni, Cr, W reinforced new high alloyed stainless steels for radiation shielding applications**  
Aygun B., ŞAKAR E., Korkut T., Sayyed M. I., KARABULUT A., Zaid M. H. M.  
RESULTS IN PHYSICS, vol.12, pp.1-6, 2019 (SCI-Expanded)
- XXXVI. **Gamma and neutron radiation effect on Compton profile of the multi-walled carbon nanotubes**  
Şakar E., Akbaba U., Zukowski E., Gürol A.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.437, pp.20-26, 2018 (SCI-Expanded)
- XXXVII. **The heavy metal oxide glasses within the WO<sub>3</sub>-MoO<sub>3</sub>-TeO<sub>2</sub> system to investigate the shielding properties of radiation applications**  
ERSUNDU A. E., Buyukyildiz M., Ersundu M. C., ŞAKAR E., KURUDİREK M.  
PROGRESS IN NUCLEAR ENERGY, vol.104, pp.280-287, 2018 (SCI-Expanded)
- XXXVIII. **Experimental K X-ray intensity ratios of some heavy elements**  
ŞAKAR E., GÜROL A., Bastug A.  
RADIATION PHYSICS AND CHEMISTRY, vol.131, pp.105-107, 2017 (SCI-Expanded)
- XXXIX. **In situ determination of radioisotopes in certain spring waters and Spring Mud in Erzurum, Turkey**  
Akbaba U., ŞAKAR E., Sahin Y., GÜROL A.  
Asian Journal of Chemistry, vol.28, no.6, pp.1393-1396, 2016 (SCI-Expanded)
- XL. **Differential inelastic scattering cross-section of silicon and gallium arsenide semiconductor crystals**  
Kabil H., ŞAKAR E., Meral A., ŞAHİN M., GÜROL A.  
Asian Journal of Chemistry, vol.28, no.6, pp.1389-1392, 2016 (SCI-Expanded)
- XLI. **X-ray fluorescence analysis of archaeological artefacts from Bozcaada (Tenedos), Turkey**  
Gürol A., Tavukcu A. Y., Sakar E., Tavukcu Z. A., Basaran C., Baştuğ A.  
POST-MEDIEVAL ARCHAEOLOGY, vol.50, no.2, pp.412-419, 2016 (AHCI)

## Articles Published in Other Journals

- I. **TiB<sub>2</sub> Thin Film Coated Glass and High Speed Steel (HSS) in Applications of Radiation Shielding Technology**  
BÜYÜKYILDIZ M., TURAN A., TAVŞANOĞLU T., ŞAKAR E., KURUDİREK M.  
JOURNAL of INNOVATIVE SCIENCE and ENGINEERING (JISE), vol.4, no.2, pp.84-95, 2020 (Peer-Reviewed Journal)
- II. **Compton Scattering Measurements of Ar and O<sub>2</sub> Using 59.54 keV Gamma-rays**  
Şakar E., Gürol A.  
Türk Doğa ve Fen Dergisi, vol.9, no.1, pp.19-23, 2020 (Peer-Reviewed Journal)
- III. **Investigation of the Protective Capacities of Precipitation-Hardening Stainless Steels in terms of Charged and un-Charged Particle Radiation**

ŞAKAR E.

İĞDIR ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, vol.10, no.1, pp.190-201, 2020 (Peer-Reviewed Journal)

**IV. Neutron and Gamma Radiation Dose Transmission Measurements for New Refractory Heavy Concrete Samples Including MgO-Cr<sub>2</sub>O<sub>3</sub>-Fe<sub>2</sub>O<sub>3</sub>**

AYGÜN B., ŞAKAR E., KARABULUT A.

International Journal of Scientific Engineering Research, 2019 (Peer-Reviewed Journal)

**V. Improving Heavy Concrete Shielding Materials against Fast Neutron Radiation Leaks with Experimental and Monte Carlo Simulation (Geant4) Code**

AYGÜN B., MEHRNEJAD R., ŞAKAR E., ÜNVAR S., KORKUT T., KARABULUT A., DURAK R.

International Journal of Scientific Engineering Research, vol.9, pp.107-111, 2018 (Peer-Reviewed Journal)

**VI. Variation of Compton Profiles of N<sub>2</sub> with Increasing Pressures**

ŞAKAR E., GÜROL A., YÜCEL O.

Sinop Uni J Nat Sci, vol.1, no.2, pp.2-8, 2016 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

**I. Photon Shielding Capability of Nicosel: Glass Sealing Alloy**

Alım B., Şakar E., Han İ.

5. International Conference on Life and Engineering Sciences (ICOLES 2022), Antalya, Turkey, 19 - 22 May 2022

**II. Determination of Radiation Shielding Properties of Co-Based Heavy Metal Alloy**

ŞAKAR E.

4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE PHYSICS, Ağrı, Turkey, 19 - 22 June 2019

**III. Investigation of the Dependence on Photon Energy of the Effective Conductivity of YTZP Ceramic for Biomedical Applications**

ALIM B., ŞAKAR E., HAN İ.

3rd International Conference on Advanced Engineering Technologies (ICADET'19), 19 - 21 September 2019

**IV. Measurements of Lx-ray production cross-section and ...**

CİNAN E., EKİNCİ N., ŞAKAR E., KURUCU Y., ÖZDEMİR Y.

3rd international conference materials science and technology, 17 - 19 September 2018

**V. Neutron and Gamma Radiation Absorption Capacity by Monte Carlo Simulation GEANT4 Code**

AYGÜN B., ŞAKAR E., KORKUT T., KARABULUT A., SAYYED M.

4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES, 19 - 22 June 2019

**VI. Research of Pharmaceutical Active Ingredients Neutron and Gamma Radiation Absorption Capacity by Monte Carlo Simulation GEANT4 Code**

AYGÜN B., ŞAKAR E., SAYYED M., KARABULUT A.

4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES, 19 - 22 June 2019

**VII. Gamma Ray Shielding Competence of borosilicate glasses doped with heavy metal oxides**

SAYYED M., ŞAKAR E., AYGÜN B.

4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES, 19 - 22 June 2019

**VIII. Neutron and Gamma Radiation Dose Transmission Measurements for New Refractory Heavy Concrete Samples Including MgO-Cr<sub>2</sub>O<sub>3</sub>-Fe<sub>2</sub>O<sub>3</sub>**

AYGÜN B., ŞAKAR E., KORKUT T., KARABULUT A.

4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES, 19 - 22 June 2019

**IX. Calculation of Mass Stopping Powers and Ranges of Heavy Particle Radiations of Ni<sub>77</sub>Fe<sub>14</sub>Cu<sub>5</sub>Mo<sub>4</sub>: A Magnetic Shielding Alloy**

ALIM B., ŞAKAR E., HAN İ.

4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE (ICANAS 2019), 19 - 22 June 2019

**X. Investigation of the Effect of Molybdenum Oxide on Oxychloride Glasses by Energy-Based Effective**

**Electron Density, Effective and Equivalent Atomic Numbers and Radiation Shielding Parameters**

ÖZPOLAT Ö. F., ŞAKAR E., ALIM B., DEMİR L.

ICANAS, Turkey, 19 - 22 June 2019

- XI. **Analysis of Eu-152 X-Ray Fluorescence Transition Spectrum Radioactive Source with Artificial Intelligence Algorithm on NodeJS Platform**  
ÖZPOLAT Ö. F., ALIM B., ŞAKAR E., YAVUZ U., DEMİR L.  
4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE (ICANAS 2019), 19 - 22 June 2019
- XII. **Experimental and Theoretical Analysis of the Electron Momentum Distributions of Cu<sub>0.6</sub>Zn<sub>0.4</sub> and Cu<sub>0.58</sub>Zn<sub>0.4</sub>Pb<sub>0.02</sub> Alloys**  
ŞAKAR E., ALIM B., ÖZPOLAT Ö. F., GÜROL A.  
4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE (ICANAS 2019), 19 - 22 June 2019
- XIII. **Determination of Gamma Photon Protection Capability of Ni<sub>77</sub>Fe<sub>14</sub>Cu<sub>5</sub>Mo<sub>4</sub> : A Magnetic Shielding Alloy**  
ALIM B., ŞAKAR E., ÖZPOLAT Ö. F., DEMİR L.  
4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE (ICANAS 2019), 19 - 22 June 2019
- XIV. **CALCULATION OF STOPPING POWER AND RANGE OF HEAVY IONS RADIATION OF W-BASED HEAVY ALLOYS**  
ŞAKAR E., ALIM B.  
MAS EUROPEANINTERNATIONALCONGRESSON MATHEMATICSENGINEERING-NATURAL MEDICAL SCIENCES-V, 2 - 05 May 2019
- XV. **DETERMINATION OF PHOTON INTERACTION PARAMETERS OF Dy<sub>3</sub> DOPEDDIAMAGNETIC GLASSES**  
ŞAKAR E.  
MAS EUROPEANINTERNATIONALCONGRESSON MATHEMATICSENGINEERING-NATURAL MEDICAL SCIENCES-V, Erzurum, Turkey, 2 - 05 May 2019
- XVI. **DETERMINATION OF EFFECTIVE ATOMIC NUMBERS OF Dy<sub>3</sub> DOPED ZINC SODIUM BISMUTH BORATE GLASSES WITH HEAVY IONS AND PHOTON RADIATION**  
ÖZPOLAT Ö. F., ŞAKAR E., ALIM B.  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURALMEDICAL SCIENCES-V, 2 - 05 May 2019
- XVII. **DETERMINATION OF EFFECTIVE CONDUCTIVITIES, EFFECTIVE ATOMIC AND ELECTRON NUMBERS OF NEXTEL CERAMICS**  
ALIM B., ŞAKAR E., HAN İ.  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURALMEDICAL SCIENCES-V, 2 - 05 May 2019
- XVIII. **INVESTIGATION OF HALF VALUE LAYER, MEAN FREE PATH AND EFFECTIVE ELECTRON DENSITY OF Ni-DOPED BISMUTH BORATE GLASSES**  
ÖZPOLAT Ö. F., ALIM B., ŞAKAR E.  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURALMEDICAL SCIENCES-V, 2 - 05 May 2019
- XIX. **DEVELOPMENT OF GAMMA AND NEUTRON RADIATION SHIELDING PROPERTIES OF POLYMER MATRIX COMPOSITES, PMC**  
AYGÜN B., ŞAKAR E., KORKUT T., KARABULUT A.  
4th INTERNATIONAL CONGRESS ON VOCATIONAL AND TECHNICAL SCIENCES, 7 - 09 December 2018
- XX. **PRODUCTION OF NEW REFRACTORY BRICKS WITH SHIELDING GAMMA AND NEUTRON RADIATION**  
AYGÜN B., ŞAKAR E., ÜNVAR S., KORKUT T., KARABULUT A.  
INTERNATIONAL CONGRESS ON MULTIDISCIPLINARY STUDIES, 6 - 07 November 2018
- XXI. **Measurements L X-ray Production Cross-Sections and Intensity Ratios for Tm<sub>2</sub>O<sub>3</sub> Compound Depending on the Temperature**

CİNAN E., LEVET A., EKİNCİ N., ŞAKAR E., KURUCU Y., ÖZDEMİR Y.

3rd International Conference on Material Science and Technology in Cappadocia (IMSTEC'18), Nevşehir, Turkey, 17 - 19 September 2018, pp.353-359

- XXII. **EFFECT OF THE TEMPERATURE VARIATION ON L X-RAY INTENSITY RATIOS AND L X-RAY PRODUCTION CROSS-SECTIONS OF PR6011COMPOUND**  
Cinan E., Levet A., Ekinci N., Şakar E., Kurucu Y., Özdemir Y.  
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## Activities in Scientific Journals

Journal of Anatolian Physics and Astronomy, Assistant Editor/Section Editor, 2021 - Continues

## Scientific Refereeing

RADIATION PHYSICS AND CHEMISTRY, SCI Journal, November 2022

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RADIATION PHYSICS AND CHEMISTRY, National Scientific Refreed Journal, July 2022

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Eastern Anatolian Journal of Science, Other Journals, December 2020

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## Tasks In Event Organizations

Kalecik S., Sarıtaş S., Kılıç D., Ünver Y., Nişancı B., Toraman E., Ömeroğlu M. A., Orak T., Taş S., Levet A., et al., 1st International Symposium On Recent Advances In Fundamental And Applied Sciences (Isfas-2021), Scientific Congress, Erzurum, Turkey, Eylül 2021

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## Metrics

Publication: 95

Citation (WoS): 2156

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H-Index (WoS): 25

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### **Congress and Symposium Activities**

ICANAS 2019 4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL & APPLIED SCIENCES, Attendee, Ağrı, Turkey, 2019

MAS 5. ULUSLARARASI MATEMATİK-MÜHENDİSLİK-FEN VE SAĞLIK BİLİMLERİ KONGRES, Attendee, Erzurum, Turkey, 2019

ISCBPU 6, Attendee, Muğla, Turkey, 2008

### **Non Academic Experience**

Business Establishment Private, Global Vizyon Yurt Dışı Eğitim Danışmanlığı Erzurum Şubesi

Global Vizyon Yurt Dışı Eğitim Danışmanlığı