

## **Prof. Yakup KURUCU**

### **Personal Information**

**Office Phone:** [+90 0442 231 4158](tel:+9004422314158)

**Web:** [https://Ataturk Univ. Fen Fak. Fizik Bölümü](https://Ataturk.Univ.Fen.Fak.Fizik.Bolumu)

### **International Researcher IDs**

ScholarID: 3iaEjlUAAAAJ

ORCID: 0000-0003-1735-8300

ScopusID: 6603367475

Yoksis Researcher ID: 1186

### **Education Information**

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, Turkey 1990 - 1994

### **Foreign Languages**

English, B2 Upper Intermediate

### **Dissertations**

Doctorate, 59.5keV Gama Fotonları İçin Atom Başına inkoherent Saçılma Diferansiyel Tesir Kesitinin Saçılma Açısı ve Atom Numarasına Göre Değişimi., Ataturk Üniversitesi, Fen Fakültesi, Fizik/Atom Ve Molekül Fiziği, 1994

Postgraduate, 59.5keV Gama Işınları Kullanılarak Al, Sn ve Ta'da Atom Başına Toplam Compton Saçılması Diferansiyel Tesir Kesitlerinin Farklı Açılarda Ölçülmesi., Ataturk Üniversitesi, Fen Fakültesi, Fizik/Atom Ve Molekül Fiziği, 1990

### **Research Areas**

Natural Sciences

### **Academic Titles / Tasks**

Professor, Ataturk University, Fen Fakültesi, Fizik, 2004 - Continues

### **Academic and Administrative Experience**

Scientific Award Committee Member, Ataturk University, Fen Fakültesi, Fizik, 2022 - Continues

Member of Department FEDEK Commission, Ataturk University, Fen Fakültesi, Fizik, 2022 - Continues

Head of Unit Accreditation Board, Ataturk University, Fen Fakültesi, Fizik, 2022 - Continues

Performans Değerlendirme Komisyonu Başkanı, Ataturk University, Fen Fakültesi, Fizik, 2022 - Continues

Bölüm Akademik Teşvik Değerlendirme Komisyonu Başkanı, Ataturk University, Fen Fakültesi, Fizik, 2017 - Continues

Head of Department, Ataturk University, Fen Fakültesi, Fizik, 2017 - Continues

## Courses

Electricity and Magnetism, Undergraduate, 2023 - 2024, 2022 - 2023

Physics Lab., Undergraduate, 2023 - 2024, 2022 - 2023

Physics-II, Undergraduate, 2023 - 2024, 2022 - 2023

Laboratory Experience-I, Postgraduate, 2023 - 2024

Laboratory Experience-I, Postgraduate, 2023 - 2024

Mechanical, Undergraduate, 2023 - 2024

Fizik-I, Undergraduate, 2023 - 2024

Nuclear Physics Laboratory, Undergraduate, 2022 - 2023

## Jury Memberships

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ataturk Üniversitesi, June, 2022

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Kocaeli Üniversitesi, April, 2022

Associate Professor Exam, Associate Professor Exam, Kocaeli Üniversitesi, March, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ataturk Üniversitesi, January, 2022

Associate Professor Exam, Associate Professor Exam, Karadeniz Teknik Üniversitesi, October, 2021

Associate Professor Exam, Associate Professor Exam, Karamanoğlu Mehmetbey Üniversitesi, October, 2021

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ataturk Üniversitesi, March, 2021

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ataturk Üniversitesi, January, 2021

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ataturk Üniversitesi, October, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ataturk Üniversitesi, June, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ataturk Üniversitesi, May, 2020

Associate Professor Exam, Associate Professor Exam, Kırşehir Ahi Evran Üniversitesi, May, 2020

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

### I. An alternative approach for determining the effective atomic number of some compounds: Monte Carlo study

Özşahin M., Kalecik S., Toker O., Kurucu Y., İçelli O.

Radiation Physics and Chemistry, vol.215, 2024 (SCI-Expanded)

### II. An investigation on compatibility of experimental effective atomic numbers of some Fe -Ni alloys with those predicted by MCNP

Kalecik S., Yılmaz D., Kurucu Y., Gürol A., Toker O., İçelli O.

RADIATION PHYSICS AND CHEMISTRY, vol.202, pp.1-12, 2023 (SCI-Expanded)

### III. Effective atomic numbers and number, energy and dose albedos of different colored thermoplastic materials

Yılmaz D., Kurucu Y., Gürol A.

RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.178, no.3-4, pp.325-334, 2023 (SCI-Expanded)

### IV. Synthesis and characterization of waste CRT glasses through physical, optical and structural properties: A comprehensive study on recycling

Kurtuluş R., Kavas T., KAVAZ E., Tekin H., KURUCU Y.

Optik, vol.248, 2021 (SCI-Expanded)

- V. **Determination of the effect of temperature on relative L X-ray intensity ratio of gadolinium, dysprosium and erbium**  
CİNAN E., ERTUĞRUL M., AYGÜN B., Sayyed M., KURUCU Y., ÖZDEMİR Y.  
RADIATION PHYSICS AND CHEMISTRY, vol.183, 2021 (SCI-Expanded)
- VI. **Synthesis of CuO-graphene nanocomposite material and the effect of gamma radiation on CuO-graphene/p-Si junction diode**  
Orhan Z., Cinan E., Çaldırın Z., Kurucu Y., Daş E.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.31, no.15, pp.12715-12724, 2020 (SCI-Expanded)
- VII. **Investigation of some nuclear engineering materials in terms of gamma ray buildup factors at experimental energies used in nuclear physics experiments**  
Kurudirek M., Kurucu Y.  
Radiation Effects and Defects in Solids, vol.175, pp.640-656, 2020 (SCI-Expanded)
- VIII. **Estimation of energy absorption buildup factors of some human tissues at energies relevant to brachytherapy and external beam radiotherapy**  
KURUDİREK M., KURUCU Y.  
INTERNATIONAL JOURNAL OF RADIATION BIOLOGY, vol.95, no.12, pp.1685-1695, 2019 (SCI-Expanded)
- IX. **Comparisons of an external magnetic field effect and chemical effect on X-ray K beta/K alpha intensity ratio and line-shape of some Chromium compounds**  
Porikli S., Kurucu Y.  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.289, no.3, pp.739-750, 2011 (SCI-Expanded)
- X. **Determination of Chemical Effect on the K beta(1)/K alpha, K beta(2)/K alpha, K beta(2)/K beta(1) and K beta/K alpha X-Ray Intensity Ratios of 4d Transition Metals**  
Porikli S., Han I., YALÇIN P., KURUCU Y.  
SPECTROSCOPY LETTERS, vol.44, no.1, pp.38-46, 2011 (SCI-Expanded)
- XI. **Effects of the external magnetic field and chemical combination on K beta/K alpha X-ray intensity ratios of some nickel and cobalt compounds**  
Porikli S., KURUCU Y.  
APPLIED RADIATION AND ISOTOPES, vol.66, no.10, pp.1381-1386, 2008 (SCI-Expanded)
- XII. **Measurement of relative L X-ray intensity ratio following radioactive decay and photoionization**  
YALÇIN P., Porikli S., KURUCU Y., ŞAHİN Y.  
PHYSICS LETTERS B, vol.663, no.3, pp.186-190, 2008 (SCI-Expanded)
- XIII. **Variation of Kβ/ Kα X-ray intensity ratio and lineshape with the effects of external magnetic field and chemical combination**  
PORIKLI S., Demir D., KURUCU Y.  
European Physical Journal D, vol.47, no.3, pp.315-323, 2008 (SCI-Expanded)
- XIV. **Effect of an external magnetic field on the K alpha and K beta x-ray emission lines of the 3d transition metals**  
Porikli S., KURUCU Y.  
INSTRUMENTATION SCIENCE & TECHNOLOGY, vol.36, no.4, pp.341-354, 2008 (SCI-Expanded)
- XV. **The efficiency determination for Si(Li) detector in the 3-723 keV energy range**  
YALÇIN P., Sueluen A., BAŞTUĞ A., KURUCU Y., ŞAHİN Y.  
CANADIAN JOURNAL OF ANALYTICAL SCIENCES AND SPECTROSCOPY, vol.50, no.3, pp.108-115, 2005 (SCI-Expanded)
- XVI. **Emission probabilities of K X- and gamma-rays following Cr-51 and Ga-67 decay**  
YALÇIN P., Kurucu Y.  
APPLIED RADIATION AND ISOTOPES, vol.62, no.1, pp.63-67, 2005 (SCI-Expanded)
- XVII. **Incoherent scattering cross-sections for elements with 23 <= Z <= 51 at 59.5 keV photon energy**  
Kurucu Y.  
JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA, vol.142, no.1, pp.39-43, 2005 (SCI-Expanded)

- XVIII. **Measurement of angular dependencies of M X-ray differential cross sections and production cross sections using 5.96 keV photons**  
ŞAHİN M., Demir L., Kurucu Y.  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.261, no.2, pp.415-419, 2004 (SCI-Expanded)
- XIX. **Angular dependence of L<sub>1</sub>, L<sub>α</sub>, L<sub>β</sub> and L<sub>γ</sub> X-ray differential and fluorescence cross-sections for Er, Ta, W, Au, Hg and Tl**  
DEMİR L., ŞAHİN M. H., KURUCU Y., KARABULUT A., ŞAHİN Y.  
Radiation Physics and Chemistry, vol.67, no.5, pp.605-612, 2003 (SCI-Expanded)
- XX. **Determination of the coating thicknesses due to the scattered radiation in energy dispersive X-ray fluorescence spectrometry**  
EKİNCİ N., KURUCU Y., ÖZ E., ŞAHİN Y.  
Radiation Measurements, vol.35, no.3, pp.223-227, 2002 (SCI-Expanded)
- XXI. **Incoherent scattering of 241[Am] gamma photons**  
YALÇIN P., EKİNCİ N., KURUCU Y.  
Spectrochimica Acta - Part B Atomic Spectroscopy, vol.57, no.4, pp.791-796, 2002 (SCI-Expanded)
- XXII. **Incoherent scattering functions for some elements with 23 <= Z <= 81**  
YALÇIN P., Kurucu Y., Sahin Y.  
X-RAY SPECTROMETRY, vol.31, no.1, pp.100-102, 2002 (SCI-Expanded)
- XXIII. **Measurement of foil and cable thicknesses by a transmission method**  
EKİNCİ N., ÖZ E., KURUCU Y., ŞAHİN Y.  
Instrumentation Science and Technology, vol.29, no.5, pp.415-421, 2001 (SCI-Expanded)
- XXIV. **Measurement of sample thickness by an intensity ratio method**  
EKİNCİ N., ÖZ E., KURUCU Y., ŞAHİN Y.  
Instrumentation Science and Technology, vol.29, no.2, pp.145-151, 2001 (SCI-Expanded)
- XXV. **Measurement of the incoherent scattering functions**  
YALÇIN P., KURUCU Y., İÇELİ O., ERZENEĞLU S. Z., ŞAHİN Y.  
Radiation Physics and Chemistry, vol.58, no.4, pp.325-329, 2000 (SCI-Expanded)
- XXVI. **Experimental studies on atomic form factors at 2 216 Å 1 photon momentum transfer**  
ERZENEĞLU S. Z., İÇELİ O., YALÇIN P., KURUCU Y., ŞAHİN M.  
JOURNAL OF TRACE AND MICROPROBE TECHNIQUES, vol.18, pp.361-367, 2000 (SCI-Expanded)
- XXVII. **Experimental studies on atomic form factors at 2.216 angstrom(-1) photon momentum transfer**  
Erzeneoglu S., Iceli O., Yalcin P., Kurucu Y., Sahin M.  
JOURNAL OF TRACE AND MICROPROBE TECHNIQUES, vol.18, no.3, pp.361-367, 2000 (SCI-Expanded)
- XXVIII. **Incoherent scattering functions of 59.5 keV gamma rays by Ti, Ni, Zr, In, Au and Pb**  
Kurucu Y., Demir L., Sahin Y.  
PHYSICA SCRIPTA, vol.59, no.2, pp.118-121, 1999 (SCI-Expanded)
- XXIX. **Measurement of the Compton and Coherent Scattering Differential Cross-Sections**  
KURUCU Y., ERZENEĞLU S., DURAK R., Şahin Y.  
Turkish Journal of Physics, vol.22, no.8, pp.783-788, 1998 (SCI-Expanded)
- XXX. **Incoherent differential scattering cross-sections of 59.5 keV photons in In, Au and Pb**  
KURUCU Y., DURAK R., ERZENEĞLU S. Z., ŞAHİN Y.  
Journal of Trace and Microprobe Techniques, vol.16, no.3, pp.293-300, 1998 (SCI-Expanded)
- XXXI. **Incoherent scattering of 59.5 keV gamma rays by Fe, Zn and Nb**  
Erzeneoglu S. Z., Kurucu Y., Sahin Y.  
PHYSICA SCRIPTA, vol.57, no.4, pp.503-505, 1998 (SCI-Expanded)
- XXXII. **Coherent scattering of 59.5 keV γ-rays by Ti, Ni, Zr and in through angles from 36° to 135°**  
ERZENEĞLU S. Z., DURAK R., KURUCU Y., ŞAHİN Y.  
Applied Spectroscopy Reviews, vol.33, pp.175-187, 1998 (SCI-Expanded)
- XXXIII. **Incoherent differential scattering cross-sections of 59.5 keV photons in In, An and Pb**  
Kurucu Y., Durak R., Erzeneoglu S., Sahin Y.  
JOURNAL OF TRACE AND MICROPROBE TECHNIQUES, vol.16, no.3, pp.293-300, 1998 (SCI-Expanded)

- XXXIV. **Measurement of photon-induced K X-ray production cross-sections for some elements with  $40 \leq Z \leq 70$  at 122 keV**  
 DURAK R., ERZENEGLU S. Z., KURUCU Y., ŞAHİN Y.  
*RADIATION PHYSICS AND CHEMISTRY*, vol.51, no.1, pp.45-48, 1998 (SCI-Expanded)
- XXXV. **Scattering of 59.5 keV  $\gamma$ -rays by Ti, Ni and Zr**  
 KURUCU Y., ERZENEGLU S. Z., DURAK R., ŞAHİN Y.  
*Applied Spectroscopy Reviews*, vol.33, pp.167-174, 1998 (SCI-Expanded)
- XXXVI. **Natural background in Ge(Li) spectrometers**  
 DURAK R., ERZENEGLU S. Z., KURUCU Y., ŞAHİN Y.  
*INSTRUMENTATION SCIENCE & TECHNOLOGY*, vol.25, no.4, pp.335-343, 1997 (SCI-Expanded)
- XXXVII. **Scattering contribution of fluorescent radiation to XRF intensity in Ge(Li) detectors**  
 DURAK R., KURUCU Y., ERZENEGLU S. Z., ERTUĞRUL M., ŞAHİN Y.  
*Physica Scripta*, vol.55, no.5, pp.547-549, 1997 (SCI-Expanded)
- XXXVIII. **Measurement of M shell X-ray production cross sections and fluorescence yields for the elements in the atomic range  $70 \leq Z \leq 92$  at 5.96 keV**  
 ERTUĞRUL M., TIRAŞOĞLU E., KURUCU Y., ERZENEGLU S. Z., DURAK R., ŞAHİN Y.  
*Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms*, vol.108, pp.18-22, 1996 (SCI-Expanded)
- XXXIX. **Coherent scattering of 59.5 keV photons by Au and Pb**  
 ERZENEGLU S. Z., KURUCU Y., DURAK R., ŞAHİN Y.  
*Physica Scripta*, vol.54, no.2, pp.153-155, 1996 (SCI-Expanded)
- XL. **Measurements of atomic form factors at 4.283-A-1 photon-momentum transfer**  
 ERZENEGLU S. Z., KURUCU Y., DURAK R., AHİN Y.  
*Physical Review A*, vol.51, no.6, pp.4628-4630, 1995 (SCI-Expanded)
- XLI. **ANALYSIS OF BINARY-SYSTEMS WITH RAYLEIGH AND COMPTON SCATTERED PHOTONS**  
 Ertugrul M., ŞAHİN Y.  
*APPLIED SPECTROSCOPY REVIEWS*, vol.30, no.1-2, pp.1-11, 1995 (SCI-Expanded)
- XLII. **Incoherent scattering of 59.5 keV gamma-rays by light, medium and heavy elements**  
 KURUCU Y., ERZENEGLU S. Z., ŞAHİN Y., Durak R.  
*Il Nuovo Cimento D*, vol.16, no.6, pp.555-559, 1994 (SCI-Expanded)
- XLIII. **Peak area determination and energy dependence of gamma- and X-ray peak tailing**  
 ŞAHİN Y., DURAK R., KURUCU Y., ERZENEGLU S. Z.  
*Journal of Radioanalytical and Nuclear Chemistry Articles*, vol.177, no.2, pp.403-413, 1994 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Albedo Numbers of Ag72Cu28 Alloy Etched by Hydrofluoric Acid**  
 Kalecik S., Pathman A. F., Yilmaz D., Kurucu Y.  
*International Journal of Scientific and Engineering Research*, vol.13, no.12, pp.23-26, 2022 (Peer-Reviewed Journal)
- II. **Compton scattering for elements with  $20 \leq Z \leq 68$  in the external magnetic field**  
 Kurucu Y.  
*Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi*, vol.14, no.2, pp.575-581, 2021 (Peer-Reviewed Journal)
- III. **Chemical Effects on X ray Emission Spectrum of some Mn and Fe compounds**  
 DURDAĞI S., YILMAZ D., KURUCU Y.  
*Balkan Physics Letters*, 2008 (Peer-Reviewed Journal)
- IV. **Measurements of The Compton and Coherent Scattering Differential Cross Sections**  
 KURUCU Y., ERZENEGLU S. Z., DURAK R., ŞAHİN Y.  
*Tr. J. Phys.*, vol.22, no.8, pp.783-788, 1998 (Peer-Reviewed Journal)
- V. **Coherent Scattering of 59.5 keV Gamma Rays by W Through Angles from 36 to 135**

## Books & Book Chapters

- I. **Atom Fiziği**  
Kurucu Y., Şahin Y.  
Atatürk Üniversitesi Yayınevi, Erzurum, 2020
- II. **Determination of Chemical State and External 3 Magnetic Field Effect on the Energy Shifts and 4 X-ray Intensity Ratios of Yttrium and 5 its Compounds**  
Kurucu Y.  
in: Radioisotopes, Dr. N. Singh, Editor, Indiana University Bloomington Libraries: MPS Processing Order Requests: Master Vendor List , Allahabad, pp.89-114, 2010

## Refereed Congress / Symposium Publications in Proceedings

- I. **Effective Atomic Numbers of Some Thermoplastic Materials For 59.54 KeV Gamma Rays**  
Kalecik S., Yılmaz D., Gürol A., Kurucu Y.  
1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS 2021), Erzurum, Turkey, 10 - 12 September 2021
- II. **INVESTIGATION OF THE USABILITIES AS NUCLEAR SHIELDING MATERIAL OF ALUCHROM AND CHROMALOY RESISTANCE ALLOYS**  
DEMİR L., KURUCU Y., ALIM B.  
II. INTERNATIONAL TURKISH WORLD ENGINEERING AND SCIENCE CONGRESS (ITWESC 2019), Antalya, Turkey, 7 - 10 November 2019, vol.1, pp.95-107
- III. **ALUCHROM VE CHROMALOY DİRENÇ ALAŞIMLARININ NÜKLEER ZIRH MALZEMESİ OLARAK KULLANILABİLİRLİKLERİNİN ARAŞTIRILMASI**  
DEMİR L., KURUCU Y., ALIM B.  
II. Uluslararası Türk Dünyası Mühendislik ve Fen Bilimleri Kongresi, 7 - 10 November 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. **Photon interaction parameters of InGaN thin films.**  
KAVAZ E., EKİNCİ N., kundakçı M., KURUCU Y., GÜRBULAK B.  
2nd international congress on semiconductor materials and devices, 28 - 30 August 2018
- VI. **Effect of the temparature variation of Lx-ray...**  
CİNAN E., EKİNCİ N., ŞAKAR E., KURUCU Y., ÖZDEMİR Y.  
3rd international conference materials sciences and technology, 17 - 19 September 2018
- VII. **Measurements L X-ray Production Cross-Sections and Intensity Ratios for Tm203 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
- VIII. **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.  
3rd International Conference on Material Science and Technology in Cappadocia (IMSTEC'18), Nevşehir, Turkey, 17 - 19 September 2018, pp.657-661
- IX. **The importance of Er and boron compounds for radiation shielding in nuclear power plants.**  
CİNAN E., KAVAZ E., KURUCU Y., EKİNCİ N., ÖZDEMİR Y.

TFD34, 5 - 09 September 2018

- X. **The importance of erbium and boron compounds for radiation shielding in nuclear power plants**  
Levet A., Köç Bakacak P., Cinan E., Kavaz E., Kurucu Y., Ekinci N., Özdemir Y.  
TFD34, Muğla, Turkey, 5 - 09 September 2018, pp.408
- XI. **Determination of gamma ray shielding parameters for some lead compounds**  
Levet A., Cinan E., Kavaz E., Köç Bakacak P., Kurucu Y., Ekinci N., Özdemir Y.  
TFD34, Muğla, Turkey, 5 - 09 September 2018
- XII. **Magnetic Field Effect on Coherent to Incoherent Scattering Differential Cross-Section Ratios of Micro-structure 3d Ferromagnetic Transition Elements at 59.54 keV**  
ALIM B., UĞURLU M., KURUCU Y., DEMİR L.  
Turkish Physical Society 33rd International Physics Congress (TPS33), Bodrum/Muğla, Muğla, Turkey, 6 - 10 September 2017
- XIII. **Determination of Photon Absorption Parameters of Ti-Ni Based Shape Memory Alloys at 59.54 keV**  
ALIM B., UĞURLU M., KURUCU Y., DEMİR L.  
Turkish Physical Society 33rd International Physics Congress (TPS33), Bodrum/Muğla, Muğla, Turkey, 6 - 10 September 2017
- XIV. **Magnetic Field Effect on K-shell X-ray Intensity Ratios of Soft Magnetic Fe-Ni alloys**  
ALIM B., UĞURLU M., KURUCU Y., DEMİR L.  
Turkish Physical Society 33rd International Physics Congress (TPS33), Bodrum/Muğla, Muğla, Turkey, 6 - 10 September 2017
- XV. **The effect of External Magnetic Field on Incoherent Differential Scattering Cross-Sections for elements with  $20 \leq Z \leq 68$  at 59,54 keV**  
ALIM B., UĞURLU M., KURUCU Y., DEMİR L.  
Turkish Physical Society 33rd International Physics Congress (TPS33), Bodrum/Muğla, Muğla, Turkey, 6 - 10 September 2017
- XVI. **The effect of external magnetic field on incoherent scattering cross-sections ..**  
ALIM B., KURUCU Y., DEMİR L.  
TPS 33, 6 - 10 September 2017
- XVII. **The effect of external magnetic field on incoherent differential scattering cross-sections for elements wits  $20 \leq Z \leq 68$  at 59,54keV photon energy.**  
ALIM B., KURUCU Y., DEMİR L.  
Turkis phisical society 33rd indernational physics congress(TPS33), Turkey, 6 - 10 September 2017
- XVIII. **The Effect of External Magnetic Field on Incoherent differential Scattering Cross-Sections for Elements with  $20 \leq Z \leq 68$  at 59,54 keV Photon Energy**  
ALIM B., UĞURLU M., KURUCU Y., DEMİR L.  
Turkish Physical Society 33rd International Physics Congress (TPS 33), 6 - 10 September 2017

## Supported Projects

KURUCU Y., YILMAZ D., PATHMAN A. F., Project Supported by Higher Education Institutions, Bor esası cam yapılarının radyasyon zırhlama ve albedo parametrelerinin deneysel ve MCNPX simülasyonu ile belirlenmesi yapı analizlerinin yapılması, 2023 - Continues

KURUCU Y., ÖZDOĞAN A., KALECİK S., Project Supported by Higher Education Institutions, Radyo-opak olmayan protetik kaplama malzemesi geliştirilebilmesinin bir yolu: Dişlerdeki mine ve dentin tabakalarının ve çeşitli kaplama malzemelerinin radyasyon soğurma parametrelerinin simülasyon ve deneysel olarak belirlenmesi., 2022 - Continues

AYDOĞAN Ş., KURUCU Y., ORHAN Z., YILDIRIM F., SAĞLAM M., ÖZAKIN O., Project Supported by Higher Education Institutions, FİZİK BÖLÜMÜ ARGE POTANSİYELİNİN İYİLEŞTİRİLMESİ İÇİN ÇALIŞMALAR Titanyum Dioksit Molibden Sülfür ve Karbon Tabanlı Nanomalzemelerin Üretimi ve Aygit Performanslarının Araştırılması, 2021 - Continues

YILMAZ D., KURUCU Y., GÜZELDİR B., Project Supported by Higher Education Institutions, Fizik Bölümü lisansüstü laboratuvarlarının temel ihtiyaçlarının karşılanması için çalışmalar Farklı bor bileşikleri ile katkılendirilmiş Bi<sub>2</sub>O<sub>3</sub>TeO<sub>2</sub> ve

Bi2O3SeO2 cam kompozitlerin üretilmesi ve radyasyon zırhlama özelliklerinin incelenmesi Çeşitli enerjilerde gama radyasyonuna maruz bırakılmış CdTe ve ZnTe ince filmlerin karakterizasyonu, 2020 - 2021

KURUCU Y., YILMAZ D., GÜROL A., Project Supported by Higher Education Institutions, Bazı İkili Alaşımların Compton Profile Ölçümleri ve Yük Transferlerinin Belirlenmesi, 2019 - 2021

KURUCU Y., GÜZELDİR B., AYDOĞAN Ş., BİBER M., ÇALDIRAN Z., BALTAKESMEZ A., Project Supported by Higher Education Institutions, Fizik Bölümü Nanoaygit laboratuvarının ARGE potansiyelinin iyileştirilmesi için çalışmalar Beyaz polimer ışık yayan diyon WPLED ve Yüzey Plazmon Etkisi Gösteren Metal Nanoparçacıkların P3HTPCBM Aktif Tabakaya Katkılanmasıyla Elde Edilen Hibrit Organik Güneş Pillerinin Fabrikasyonu, 2019 - 2021

Güzeldir B., Baltakesmez A., Kurucu Y., Aydoğan Ş., Çaldıran Z., Biber M., Project Supported by Higher Education Institutions, Fizik Bölümü Nano-aygit laboratuvarının AR-GE potansiyelinin iyileştirilmesi için çalışmalar Beyaz polimer ışık yayan diyon (WPLED) ve Yüzey Plazmon Etkisi Gösteren Metal Nanoparçacıkların P3HT:PCBM Aktif Tabakaya Katkılanmasıyla Elde Edilen Hibrit Organik Güneş Pillerinin Fabrikasyonu, 2019 - 2021

DEMİR L., ALIM B., KURUCU Y., ŞANLI M., ÖZPOLAT Ö. F., UĞURLU M., URTEKİN E., Project Supported by Higher Education Institutions, Geçiş Metal Alaşımlarında Compton saçılmasına ve Kb/Ka X-ışını şiddet oranlarına kimyasal etkinin araştırılması, 2019 - 2021

BOYDAŞ E., YILMAZ D., GÜROL A., KURUCU Y., TATLISU R., Project Supported by Higher Education Institutions, WDXRF sistemi kullanılarak Numune Kalınlığına bağlı olarak Compton ve Koherent saçılma Piklerindeki Değişimlerin İncelenmesi, 2018 - 2019

GÜROL A., KURUCU Y., YILMAZ D., ŞAKAR E., GÜRBULAK B., FİDAN M., Project Supported by Higher Education Institutions, Fizik Bölümünün Ar-Ge ve İnnovasyon Potansiyelinin Geliştirilmesi, 2018 - 2019

DEMİR L., ALIM B., KURUCU Y., Project Supported by Higher Education Institutions, DIŞ MANYETİK ALANDA GEÇİŞ METAL ALAŞIMLARININ K TABAKASI VALENS ELEKTRON YAPILARININ ARAŞTIRILMASI, 2015 - 2017

KURUCU Y., ALIM B., DEMİR L., Project Supported by Higher Education Institutions, DIŞ MANYETİK ALANDA İNKOHERENT SAÇILMA TESİR KESİTİ ÖLÇÜMLERİ, 2015 - 2017

KURUCU Y., TUBITAK Project, EDXRF ve WDXRF sistemleri ile K ve L tabakasına ait pik enerji değişimleri, pik genişliği(FWHM) ve şiddet oranı değerleri üzerine kimyasal etkilerin incelenmesi ve EDXRF sisteminde farklı manyetik alan değerlerinin bağ yapısı üzerine etkilerinin incelenmesi., 2006 - 2009

## Activities in Scientific Journals

Journal of Anatolian Physics and Astronomy, First Editor, 2021 - Continues  
Erzincan Üniversitesi Fen Bilimleri Dergisi, Publication Committee Member, 2016 - Continues

## Memberships / Tasks in Scientific Organizations

Türk Fizik Derneği, Member, 1990 - Continues, Turkey

## Metrics

Publication: 73  
Citation (WoS): 348  
Citation (Scopus): 377  
H-Index (WoS): 11  
H-Index (Scopus): 12