

# Prof. Lütfü DEMİR

## Personal Information

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## International Researcher IDs

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## Education Information

Doctorate, Ataturk University, Fen Fakültesi, Fizik, Turkey 1991 - 1994

## Foreign Languages

English, B1 Intermediate

## Dissertations

Doctorate, RFAMİD NÖROPEPTİDLERİNİN TEORİK KONFORMASYON ANALİZİ, Atatürk Üniversitesi, Fen Fakültesi, Fizik/Atom Ve Molekül, 2005

## Research Areas

Physics, Atomic and Molecular Physics, Natural Sciences

## Academic Titles / Tasks

Professor, Ataturk University, Fen Fakültesi, Fizik, 1989 - Continues

## Courses

Fizik I, Undergraduate, 2023 - 2024

Fizik II, Undergraduate, 2022 - 2023

Mekanik Laboratuvarı, Undergraduate, 2023 - 2024

Molekül Fiziği, Undergraduate, 2022 - 2023

Atom Fiziği, Undergraduate, 2023 - 2024

FizikII, Undergraduate, 2021 - 2022

Fizik II (Elektrik), Undergraduate, 2020 - 2021

Fizik I (Mekanik), Undergraduate, 2021 - 2022

Fizik I(mekanik), Undergraduate, 2021 - 2022

Molekül Fiziği, Undergraduate, 2020 - 2021

Atom Fiziği, Undergraduate, 2021 - 2022  
Fizik I (mekanik), Undergraduate, 2020 - 2021  
Fizik I, Undergraduate, 2020 - 2021  
İleri Atom ve Molekül Fiziği, Doctorate, 2012 - 2013  
Atom Fiziği Laboratuvarı, Undergraduate, 2009 - 2010  
Çekirdek Fiziği Laboratuvarı, Undergraduate, 2010 - 2011  
Fizik I (Mekanik), Undergraduate, 2009 - 2010  
Fizik I (Mekanik), Undergraduate, 2009 - 2010  
Optik, Undergraduate, 2009 - 2010

## Advising Theses

Demir L., Production, characterization, structural properties of boron-doped metal complexes and investigation of analysis by using "charge transfer" and "delocalization" phenomena's with artificial intelligence algorithms on nodejs platform, Doctorate, Ö.FIRAT(Student), 2021  
Demir L., Investigation of chemical effect on compton scattering in 3d-4d transition metal alloys and calculation of coherent / compton scattering differential cross section rates based on scattering angle, Doctorate, E.URTEKİN(Student), 2021  
Demir L., Investigation of chemical effects on K X-ray intensity ratios for nano ferrit alloys with transition metals and evaluation of radiation absorption capabilities of these alloys, Doctorate, U.PERİŞANOĞLU(Student), 2018  
Demir L., Determining of X-ray intensity ratios and valence electron structure of some 3D and 4D transition metal alloys having same chemical characteristics that are obtained by using sintering method under external magnetic field, Doctorate, M.UĞURLU(Student), 2018  
Demir L., Investigation of effects of annealing temperature, pressure and external magnetic field on x-ray intensity ratios and valence electron structure of shape memory nanoalloys, Doctorate, B.ALİM(Student), 2017  
Demir L., Calculation by the experimental, semi-experimental and theoretic method of effective atomic numbers and electron densities in  $FeNi_{1-x}$  alloys, Postgraduate, E.URTEKİN(Student), 2014  
Demir L., K shell X-ray intensity ratios of some transition metal alloys in external magnetic field and designation of effective atomic numbers for these alloys, Postgraduate, U.PERİŞANOĞLU(Student), 2014  
Demir L., Determination of valence electron density changing in accordance with various Co concentration in some transition metal alloys, Postgraduate, M.UĞURLU(Student), 2013  
Demir L., Determination of valence electron structures and k shell x-ray intensity ratios of transition metal alloys in external magnetic field, Postgraduate, B.ALİM(Student), 2012  
Demir L., Determination of valence electron configuration of transition metals with x-ray intensity ratios, investigation of behaviors of x-ray intensity ratios depended on annealing temperature and designation of effective atomic number and electron densities for alloys, Doctorate, İ.HAN(Student), 2009  
Demir L., Measurement of Ll, Lalfa, L beta, Lgamma X-Ray and Compton Scattering Differential Cross-Sections Some Elements in the atomic range 78-92, Postgraduate, İ.HAN(Student), 2005  
Demir L., Measurement of M and L subshell x-ray fluorescence cross-sections and some crystal of compton scattering differential cross-sections, Doctorate, M.ŞAHİN(Student), 2003  
Demir L., Bazı Elementlerin M Tabakası X-Işınlarının Üretim Tesir Kesiti ve Açılal Dağılımlarının Enerji Ayrımlı X-Işını Spektrometresi ile Ölçülmesi , Postgraduate, M.ŞAHİN(Student), 1998

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

- I. **An experimental study on chemical shifts and X-ray intensity ratios**  
Uğurlu M., AKKUŞ T., Akbulut O., DEMİR L., YILMAZ D.  
Applied Radiation and Isotopes, vol.198, 2023 (SCI-Expanded)
- II. **Precipitation-hardening stainless steels: Potential use radiation shielding materials**

Alim B., ÖZPOLAT Ö. F., ŞAKAR E., Han I., Arslan I., Singh V. P., DEMİR L.

RADIATION PHYSICS AND CHEMISTRY, vol.194, 2022 (SCI-Expanded)

- III. **Determination of L X-ray fluorescence cross-sections in the atomic range of elements  $57 \leq Z \leq 69$  in an external magnetic field**  
Ugurulu M., AKKUŞ T., DEMİR L.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1244, 2021 (SCI-Expanded)
- IV. **The coherent to Compton scattering differential cross section ratios of some fifth period elements in the external magnetic field**  
Ugurlu M., Akkus T., Demir L.  
Indian Journal of Physics, vol.94, no.11, pp.1699-1703, 2020 (SCI-Expanded)
- V. **Relative K X-ray intensity ratios of the first and second transition elements in the magnetic field**  
Ugurlu M., DEMİR L.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1203, 2020 (SCI-Expanded)
- VI. **K X-ray fluorescence parameters of some fourth period elements in a magnetic field**  
Ugurlu M., DEMİR L.  
SPECTROSCOPY LETTERS, vol.53, no.3, pp.163-171, 2020 (SCI-Expanded)
- VII. **Investigating photon interaction characteristics of Fe<sub>x</sub>Ni<sub>1-x</sub> alloys**  
Urtekin E., Perisanoglu U., Demir L., Ozturk A. E.  
Materials Chemistry and Physics, vol.242, 2020 (SCI-Expanded)
- VIII. **Examining alloying effect on K X ray intensity ratios and chemical shifts of the Zn, Mn and mixed spinel ferrites**  
Perişanoğlu U., Kavaz E., Urtekin E., Demir L.  
Applied Radiation and Isotopes, vol.156, 2020 (SCI-Expanded)
- IX. **The magnetic field effect of K X-ray fluorescence parameters of elements in the range  $39 \leq Z \leq 48$**   
Ugurlu M., AKKUŞ T., DEMİR L.  
CANADIAN JOURNAL OF PHYSICS, vol.98, no.2, pp.217-221, 2020 (SCI-Expanded)
- X. **The effect of external magnetic field on the coherent to Compton scattering differential cross section ratios of elements in the range  $20 \leq Z \leq 32$**   
DEMİR L., Ugurlu M.  
CANADIAN JOURNAL OF PHYSICS, vol.98, no.1, pp.107-110, 2020 (SCI-Expanded)
- XI. **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)
- XII. **The relationship between the external magnetic field and K X-ray intensity ratios of immiscible MoxAg1-x alloys**  
UĞURLU M., Alim B., DEMİR L.  
RADIATION PHYSICS AND CHEMISTRY, vol.165, 2019 (SCI-Expanded)
- XIII. **Variation of coherent to Compton scattering differential cross-section ratios of some lanthanides with the external magnetic field at 59.54 keV**  
AKKUŞ T., UĞURLU M., DEMİR L.  
RESULTS IN PHYSICS, vol.13, 2019 (SCI-Expanded)
- XIV. **Investigating XRF parameters and valance electronic structure of the Co, Ni, and Cu spinel ferrites**  
DEMİR L., PERİŞANOĞLU U., ŞAHİN M.  
CERAMICS INTERNATIONAL, vol.45, no.6, pp.7748-7753, 2019 (SCI-Expanded)
- XV. **Alloying effect on K shell X-ray fluorescence cross-sections and yields in Ti-Ni based shape memory alloys**  
Alim B., Han I., DEMİR L.  
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.11, no.2, pp.150-156, 2018 (SCI-Expanded)
- XVI. **Investigation of alloying effects on XRF parameters of 3d transition metals in Permendur49, Kovar**

**and Ti50Co50 alloys**

Alim B., Ugurlu M., Han I., DEMİR L.

JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.11, no.2, pp.144-149, 2018 (SCI-Expanded)

- XVII. Delocalization and charge transfer studies of PERMENDUR49, KOVAR and Ti50Co50 alloys from relative K X-ray intensity ratios**  
Ugurlu M., Alim B., Han I., DEMİR L.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.695, pp.2619-2627, 2017 (SCI-Expanded)
- XVIII. Effect of external magnetic field on the K beta/K alpha X-ray intensity ratios of  $Ti_xNi_{1-x}$  alloys excited by 59.54 and 22.69 keV photons**  
Perisanoglu U., Alim B., Ugurlu M., DEMİR L.  
APPLIED RADIATION AND ISOTOPES, vol.115, pp.183-189, 2016 (SCI-Expanded)
- XIX. Effect of external magnetic field on valence-electron structures of Fe and Ni in Invar, Permalloy and the other Fe-Ni alloys by using K beta-to-K alpha X-ray intensity ratios**  
Alim B., Han I., DEMİR L.  
APPLIED RADIATION AND ISOTOPES, vol.112, pp.5-12, 2016 (SCI-Expanded)
- XX. A study of K shell X-ray intensity ratios of  $Ni_xCr_{1-x}$  alloys in external magnetic field and determination of effective atomic numbers of these alloys**  
Perisanoglu U., DEMİR L.  
RADIATION PHYSICS AND CHEMISTRY, vol.110, pp.119-125, 2015 (SCI-Expanded)
- XXI. Determination of effective atomic numbers for 3d transition metal alloys with a new semi-empirical approach**  
HAN İ., AYGÜN M., DEMİR L., ŞAHİN Y.  
ANNALS OF NUCLEAR ENERGY, vol.39, no.1, pp.56-61, 2012 (SCI-Expanded)
- XXII. Angular Distribution of Fluorescent L X-Rays and Compton-Scattering Photons**  
HAN İ., DEMİR L.  
SPECTROSCOPY LETTERS, vol.44, no.2, pp.95-102, 2011 (SCI-Expanded)
- XXIII. A study on the mean free path and half value layer at various alloys for different photon energies**  
HAN İ., AYGÜN M., DEMİR L., Narmanli E.  
JOURNAL OF X-RAY SCIENCE AND TECHNOLOGY, vol.19, no.4, pp.501-508, 2011 (SCI-Expanded)
- XXIV. Angular dependence of L-3-subshell X-ray emission following photoionisation**  
HAN İ., DEMİR L.  
JOURNAL OF X-RAY SCIENCE AND TECHNOLOGY, vol.19, no.1, pp.13-21, 2011 (SCI-Expanded)
- XXV. Alloying effect on K to L shell vacancy transfer probabilities in 3d transition metals**  
HAN İ., DEMİR L.  
RADIATION PHYSICS AND CHEMISTRY, vol.79, no.12, pp.1174-1179, 2010 (SCI-Expanded)
- XXVI. Relative K x-ray intensity studies on valence-electron structure of Ti and Co in  $Ti_xCo_{1-x}$  alloys**  
HAN İ., DEMİR L.  
PHYSICAL REVIEW A, vol.82, no.4, 2010 (SCI-Expanded)
- XXVII. Charge transfer and delocalization studies from K beta-to-K alpha intensity ratios in  $CoxCu_{1-x}$  alloys**  
HAN İ., DEMİR L.  
ANNALS OF NUCLEAR ENERGY, vol.37, no.6, pp.822-826, 2010 (SCI-Expanded)
- XXVIII. Measurement of L alpha, L beta and Total L X-ray fluorescence cross-sections for some elements with  $40 \leq Z \leq 53$**   
HAN İ., PORİKLİ S., ŞAHİN M., DEMİR L.  
RADIATION PHYSICS AND CHEMISTRY, vol.79, no.4, pp.393-396, 2010 (SCI-Expanded)
- XXIX. Effect of annealing treatment on K to K intensity ratios of 3d transition metal alloys**  
HAN İ., DEMİR L.  
Physical Review A, vol.81, pp.1-5, 2010 (SCI-Expanded)
- XXX. Studies on effective atomic numbers, electron densities and mass attenuation coefficients in Au alloys**  
HAN İ., DEMİR L.

JOURNAL OF X-RAY SCIENCE AND TECHNOLOGY, vol.18, no.1, pp.39-46, 2010 (SCI-Expanded)

- XXXI. **Valence-electron configuration of Fe, Cr, and Ni in binary and ternary alloys from K beta-to-K alpha x-ray intensity ratios**  
HAN İ., DEMİR L.  
Physical Review A, vol.68, pp.1035-1039, 2010 (SCI-Expanded)
- XXXII. **Studies on effective atomic numbers, electron densities from mass attenuation coefficients in  $Ti_xCo_{1-x}$  and  $CoxCu_{1-x}$  alloys**  
Han I., Demir L.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.267, pp.3505-3510, 2009 (SCI-Expanded)
- XXXIII. **Determination of mass attenuation coefficients, effective atomic and electron numbers for some natural minerals**  
HAN İ., DEMİR L., ŞAHİN M.  
RADIATION PHYSICS AND CHEMISTRY, vol.78, no.9, pp.760-764, 2009 (SCI-Expanded)
- XXXIV. **Mass attenuation coefficients, effective atomic numbers and electron densities of undoped and differently doped GaAs and InP crystals**  
DEMİR L., HAN İ.  
ANNALS OF NUCLEAR ENERGY, vol.36, no.7, pp.869-873, 2009 (SCI-Expanded)
- XXXV. **The polarization of X-rays and magnetic photoionization cross-sections for L-3 sub-shell**  
HAN İ., ŞAHİN M., DEMİR L.  
APPLIED RADIATION AND ISOTOPES, vol.67, no.6, pp.1027-1032, 2009 (SCI-Expanded)
- XXXVI. **Mass attenuation coefficients, effective atomic and electron numbers of Ti and Ni alloys**  
Han I., Demir L.  
RADIATION MEASUREMENTS, vol.44, no.3, pp.289-294, 2009 (SCI-Expanded)
- XXXVII. **Determination of mass attenuation coefficients, effective atomic and electron numbers for Cr, Fe and Ni alloys at different energies**  
HAN İ., DEMİR L.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.267, no.1, pp.3-8, 2009 (SCI-Expanded)
- XXXVIII. **Nondestructive analysis of the gold quarter liras**  
Çakır C., Gürol A., Demir L., Şahin Y.  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.279, no.1, pp.345-348, 2009 (SCI-Expanded)
- XXXIX. **Angular variations of K and L X-ray fluorescence cross sections for some lanthanides**  
HAN İ., ŞAHİN M., DEMİR L.  
CANADIAN JOURNAL OF PHYSICS, vol.86, no.2, pp.361-367, 2008 (SCI-Expanded)
- XL. **Measurement of L X-ray fluorescence cross sections and relative intensities for some elements in the atomic range  $78 \leq Z \leq 92$**   
DEMİR L., HAN İ., ŞAHİN M. H.  
JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA, vol.162, no.1, pp.44-48, 2008 (SCI-Expanded)
- XLI. **Measurements of L X-ray production cross sections, L subshell fluorescence yields and K to L shell vacancy transfer probabilities**  
HAN İ., DEMİR L., AĞBABA M.  
RADIATION PHYSICS AND CHEMISTRY, vol.76, no.10, pp.1551-1559, 2007 (SCI-Expanded)
- XLII. **Measurement of K X-ray fluorescence cross-sections, fluorescence yields and intensity ratios for some elements in the atomic range  $22 \leq Z \leq 68$**   
HAN İ., ŞAHİN M., DEMİR L., ŞAHİN Y.  
APPLIED RADIATION AND ISOTOPES, vol.65, no.6, pp.669-675, 2007 (SCI-Expanded)
- XLIII. **F-10 Determination of K to L Vacancy Transfer Probabilities**  
HAN İ., DEMİR F., DEMİR L., budak G., ŞAHİN Y.  
Powder Diffraction, vol.22, pp.183, 2007 (SCI-Expanded)

- XLIV. **F-4 Effect of X-ray Tube Power On Intensities of  $K\alpha$  X-Rays of Trace Elements from Samples Obtained by Using Different Sample Preparation Methods in WDXRF Spectrometer**  
DEMİR F., HAN İ., budak G., DEMİR L., GÜROL A., KARABULUT A.  
Powder Diffraction, vol.22, pp.187, 2007 (SCI-Expanded)
- XLV. **Measurement of K X-ray fluorescence cross-sections and yields for 5.96 keV photons**  
ŞAHİN M., Demir L., Budak G.  
APPLIED RADIATION AND ISOTOPES, vol.63, no.1, pp.141-145, 2005 (SCI-Expanded)
- XLVI. **Measurement of  $L\alpha$ ,  $L\beta$  and  $L\gamma$  X-ray fluorescence cross-sections in Hg, Tl, Pb and Bi for the exciting photons of 16.90-59.54keV energy**  
BAŞTUĞ A., YALÇIN P., DEMİR L., Şahin Y.  
Journal of Quantitative Spectroscopy and Radiative Transfer, vol.84, no.3, pp.271-279, 2004 (SCI-Expanded)
- XLVII. **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)
- XLVIII. **Angular dependence of  $L\alpha$ ,  $L\beta$  and  $L\gamma$  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)
- XLIX. **Angular dependence of L X-ray differential cross-section for In, Sn, Sb, and Te at 5.96 keV**  
Demir L., Sahin M., Sahin Y.  
JOURNAL OF TRACE AND MICROPROBE TECHNIQUES, vol.21, no.4, pp.593-599, 2003 (SCI-Expanded)
- L. **Conformational analysis of Pol-RFamide II (Glu(1)-Trp(2)-Leu(3)-Lys(4)-Gly(5)-Arg(6)-Phe(7)-NH<sub>2</sub>) heptapeptide**  
Demir L., Godjaev N.  
TURKISH JOURNAL OF CHEMISTRY, vol.26, no.6, pp.825-831, 2002 (SCI-Expanded)
- LI. **Calculation of multi-center integrals for the region of moderate and weak overlap**  
KARABULUT A., budak G., DEMİR L., NABİYEYEV N., ŞAHİN Y.  
TURKISH JOURNAL OF CHEMISTRY, vol.25, no.4, pp.405-418, 2001 (SCI-Expanded)
- LII. **Measurement of angular dependence of photon-induced differential cross-sections of M X-rays from Pt, Au and Hg at 5.96 keV**  
Demir L., Sahin M., Sogut O., Sahin Y.  
RADIATION PHYSICS AND CHEMISTRY, vol.59, no.4, pp.355-359, 2000 (SCI-Expanded)
- LIII. **L-subshell fluorescence cross sections and L-subshell fluorescence yields in elements  $68 \leq Z \leq 92$  by 59.5 keV photons**  
ŞAHİN M., DEMİR L., SÖĞÜT Ö., Ertugrul M., İÇELLİ O.  
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, vol.33, no.1, pp.93-98, 2000 (SCI-Expanded)
- LIV. **K alpha and K beta X-ray fluorescence cross-sections in the atomic region  $26 \leq Z \leq 42$  excited by 59.5 keV photons**  
Karabulut A., Budak G., Demir L., Sahin Y.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.155, no.4, pp.369-372, 1999 (SCI-Expanded)
- LV. **Measurement of K alpha and K beta fluorescence cross sections for elements in the range  $44 \leq Z \leq 68$  at 59.5 keV**  
Budak G., Karabulut A., Demir L., Sahin Y.  
PHYSICAL REVIEW A, vol.60, no.3, pp.2015-2017, 1999 (SCI-Expanded)
- LVI. **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)
- LVII. **Conformational analysis of linear peptide (Glu(1)-Leu(2)-Leu(3)-Gly(4)-Gly(5)-Arg(6)-**

### **Phe(7)NH(2))**

Demir L., Karabulut A., Budak G., Sahin Y., Sefteroglu N.

TURKISH JOURNAL OF CHEMISTRY, vol.23, no.3, pp.257-262, 1999 (SCI-Expanded)

**LVIII. Experimental studies on the coherent scattering of 59.5 keV gamma-rays by Fe, Zn and Nb**

Erzeneoglu S. Z., Demir L., Sahin Y.

PHYSICA SCRIPTA, vol.56, no.1, pp.89-91, 1997 (SCI-Expanded)

**LIX. Conformational analysis of the sea anemone and sea pansies neuropeptide Antho-RFamide (Glu(1)-Gly(2)-Arg(3)-Phe(4)-NH<sub>2</sub>) by molecular-mechanics calculations**

DEMİR L., Sefteroğlu N., budak G., KARABULUT A., ŞAHİN Y.

NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA D-CONDENSED MATTER ATOMIC MOLECULAR AND CHEMICAL PHYSICS FLUIDS PLASMAS BIOPHYSICS, vol.19, no.6, pp.827-833, 1997 (SCI-Expanded)

**LX. Monte Carlo calculations of XRF intensities in annular arrangements of radioactive source, sample, cylindrical collimator and detector**

Budak C., Karabulut A., Demir L., Sahin Y.

APPLIED SPECTROSCOPY REVIEWS, vol.31, no.3, pp.321-332, 1996 (SCI-Expanded)

### **Articles Published in Other Journals**

**I. Studies on mass attenuation coefficient, mass energy absorption coefficient, and kerma for Fe alloys at photon energies of 17.44 to 51.70 keV**

YILMAZ D., Sahin Y., DEMİR L.

TURKISH JOURNAL OF PHYSICS, vol.39, no.1, pp.81-90, 2015 (ESCI)

**II. X Ray Intensity Ratios for Elements from 22 Z 40**

KÜÇÜKÖNDER A., ŞAHİN Y., DEMİR L., BÜYÜKKASAP E.

Turkish Journal of Physics, vol.18, pp.1068-1072, 2014 (Scopus)

**III. X-ray Fluorescence in some medium-Z elements excited by 59.5 keV photons**

Demir L.

Fizika, vol.16, no.2, pp.628-632, 2010 (Peer-Reviewed Journal)

**IV. Kacal, The Change of Compton Scattering Depending on Tendency of crystals**

Demir L.

Balkan Physics Letters , vol.18, no.1, pp.1-6, 2010 (Peer-Reviewed Journal)

**V. X ray Fluorescence in some medium Z elements excited by 59 5 keV photons Volume XVI Issue2 2010 Pages 628 632**

HAN İ., DEMİR L.

Fizika, vol.16, pp.628-632, 2010 (Peer-Reviewed Journal)

**VI. Measurement of M XRF cross sections using photoionization**

Demir L.

Balkan Physics Letters , vol.15, no.1, pp.1-8, 2009 (Peer-Reviewed Journal)

**VII. Computation of Overlap Kinetic and Nuclear Attraction Integrals by a Novel Method**

KARABULUT A., BUDAK G., DEMİR L., NS N., ŞAHİN Y.

Turkish Journal of PHYSICS, vol.25, no.3, pp.237-247, 2001 (Scopus)

**VIII. X-Ray Intensity Ratios for Elements from 20- Z-40.**

Küçükönder A., Şahin Y., Demir L.

Turkish Journal of Physics , vol.18, no.1, pp.1068-1072, 1994 (Scopus)

### **Books & Book Chapters**

**I. Maxwell Denklemleri ve Elektromanyetik Dalgalar**

Demir L.

## Refereed Congress / Symposium Publications in Proceedings

- I. **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
- II. **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
- III. **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
- IV. **Determination of Gamma Photon Protection Capability of Ni77Fe14Cu5Mo4 : 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
- V. **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
- VI. **DETERMINATION OF EFFECTS OF METAL CONCENTRATION AND INCIDENT ENERGY ON PHOTON ATTENUATION PARAMETERS OF 157PH AND 17-7PH STAINLESS STEELS**  
ALIM B., UĞURLU M., DEMİR L.  
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- VII. **Magnetic Field Effect on Coherent to Incoherent Scattering Differential Cross-Section Ratios of Micro-structure 3d Ferromagnetic Transition Elements at 59.54 keV**  
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- VIII. **The effect of External Magnetic Field on Incoherent Differential Scattering Cross-Sections for elements with  $20 \leq Z \leq 68$  at 59,54 keV**  
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- XXII. **X ışını Spektroskopisi ile Bazı 3d Geçiş Metal Alaşımlarında K Tabakası X ışını Tesir Kesitlerinin Belirlenmesi**  
ALIM B., HAN İ., DEMİR L.  
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- XXIII. **K Shell Fluorescence Parameters for Chromium Iron and Nickel Alloys**  
ALIM B., HAN İ., NARMANLI HAN E., DEMİR L.  
Turkish Physical Society 29th International Physics Congress (TFD 29), 5 - 08 September 2012

**XXIV. K Shell Fluorescence Yields in Alloys,**

Han İ., Demir L., Narmanlı E.

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**XXV. Influence of Alloy Composition on K to L Shell Vacancy transfer probabilities**

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## Supported Projects

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

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

Demir L., Project Supported by Higher Education Institutions, Alaşımlarda X-Işını Şiddet Oranlarının XRF Sistemleri ile Ölçülmesi, 2009 - 2011

Demir L., Project Supported by Higher Education Institutions, XRF Parametrelerinin Sıcaklığa Bağlı Davranışlarının Geçiş Metallerin de İncelenmesi, 2008 - 2009

## Metrics

Publication: 96

Citation (WoS): 828

Citation (Scopus): 866

H-Index (WoS): 16

H-Index (Scopus): 15

## Awards

Demir L., TURKISH PHYSICAL SOCIETY HONOUR AWARD, 2021 Yılı Türk Fizik Derneği, September 2021

Demir L., Determination of Photon Armouring Parameters of AISI 304 Stainless Steel, 1. International Conference On Advanced Engineering Technologies (Icadet 2017) Bayburt Üniversitesi , Engineering Faculty , September 2017

Demir L., Fen Bilimleri Alanı Makale Dalında Üçüncülük Ödülü, Atatürk Üniversitesi , April 2011

## Non Academic Experience

ATATÜRK ÜNİVERSİTESİ

ELAZIĞ LİSESİ