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International Researcher IDs

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Publons / Web Of Science ResearcherID: LZF-4744-2025

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Education Information

Doctorate, Ondokuz Mayıs University, Turkey 2011 - 2015

Postgraduate, Turkey 2007 - 2010

Undergraduate, Ondokuz Mayıs University, Turkey 2003 - 2006

Associate Degree, Hacettepe University, Sağlık Hizmetleri Meslek Yüksekokulu, Turkey 2000 - 2002

Foreign Languages

English

Dissertations

Doctorate, Protonlar için bazı biyolojik materyallerde durdurma gücü ve doz hesaplamaları, Ondokuz Mayıs University, 2015

Postgraduate, WO3 ince filmlerinin üretilmesi, yapısal ve elektriksel karakterizasyonu, 2010

Research Areas

Natural Sciences

Academic Titles / Tasks

Associate Professor, Hatay Mustafa Kemal University, Fen Edebiyat Fakültesi, Fizik, 2007 - Continues

Courses

OPTİK VE DALGALAR LABORATUVARI, Undergraduate, 2019-2020

ELEKTRONİK LABORATUVARI II, Undergraduate, 2019-2020, 2018-2019
BİYOFİZİK LABORATUVARI, Undergraduate, 2019-2020, 2018-2019
BİYOFİZİK, Undergraduate, 2019-2020, 2018-2019
MODERN FİZİK LABORATUVARI II, Undergraduate, 2019-2020
NÜKLEER FİZİK, Undergraduate, 2018-2019

Advising Theses

USTA M., Ölümcül Yüksekten Düşmeler: İki Vaka Çalışması, Postgraduate, Ş.KARADABAN(Student), 2024
USTA M., Akkuyu Nükleer Güç Santrali İncelemesi, Postgraduate, A.HÜZMELİ(Student), 2023
USTA M., Alfa parçacıkları için su, parafin ve beton malzemelerde durdurma gücü ve menzil hesaplamaları, Postgraduate, S.ESKİOCAK(Student), 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **The relationship between ceramic additives among structural, morphological, shielding, and stopping power features of BN/ZnFe metal matrix materials**
USTA M., KARAHAN İ. H.
Progress in Nuclear Energy, vol.175, 2024 (SCI-Expanded)
- II. **A study on the textural and radiation attenuation properties of nickel-cobalt-boron-based metal matrix materials**
USTA M., KARAHAN İ. H.
Radiation Physics and Chemistry, vol.204, 2023 (SCI-Expanded)
- III. **Irradiated rGO electrode-based high-performance supercapacitors: Boosting effect of GO/rGO mixed nanosheets on electrochemical performance**
KARAMAN O., KARİPER İ. A., Korkmaz S., Karimi-Maleh H., USTA M., KARAMAN C.
Fuel, vol.328, 2022 (SCI-Expanded)
- IV. **Effect of current density on structural and radiation shielding characteristics of NiCoB/hBN composites**
USTA M., KARAHAN İ. H.
Radiation Physics and Chemistry, vol.194, 2022 (SCI-Expanded)
- V. **Continuous slowing-down approximation ranges of biological materials for 0.05–10 MeV alpha particles by using different approach methods**
USTA M.
Applied Radiation and Isotopes, vol.178, 2021 (SCI-Expanded)
- VI. **The effect of the ceramic amount on the radiation shielding properties of metal-matrix composite coatings**
USTA M., TOZAR A.
Radiation Physics and Chemistry, vol.177, 2020 (SCI-Expanded)
- VII. **Radioactive rays shielding film: coating on amorphous glass**
KARİPER İ. A., Meydaneri Tezel F., USTA M.
Optical and Quantum Electronics, vol.52, no.10, 2020 (SCI-Expanded)
- VIII. **Use of Gaussian-type functions for flux-based dose calculations in carbon ion therapy**
USTA M., AYDIN G.
Radiation and Environmental Biophysics, vol.59, no.3, pp.511-522, 2020 (SCI-Expanded)
- IX. **Stopping power and dose calculations with analytical and Monte Carlo methods for protons and prompt gamma range verification**
USTA M., Tufan M. Ç., AYDIN G., Bozkurt A.
Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and

Associated Equipment, vol.897, pp.106-113, 2018 (SCI-Expanded)

- X. **Measurement of energy transitions for the decay radiations of ^{75}Ge and ^{69}Ge in a high purity germanium detector**
AYDIN G., USTA M., Oktay A.
Results in Physics, vol.9, pp.692-697, 2018 (SCI-Expanded)
- XI. **Stopping power and range calculations in human tissues by using the Hartree-Fock-Roothaan wave functions**
USTA M., Tufan M. Ç.
Radiation Physics and Chemistry, vol.140, pp.43-50, 2017 (SCI-Expanded)
- XII. **Effects of annealing on morphological, structural and electrical properties of thermally evaporated WO₃ thin films**
USTA M., Kahraman S., Bayansal F., Çetinkara H. A.
Superlattices and Microstructures, vol.52, no.2, pp.326-335, 2012 (SCI-Expanded)

Articles Published in Other Journals

- I. **Energy Loss and Range Calculations for Alpha Particles in B-100 Bone and C-552 Air-Equivalent Plastic Materials**
Usta M.
Süleyman Demirel Üniversitesi Fen Edebiyat Fakültesi Fen Dergisi, vol.19, no.2, pp.175-183, 2024 (Peer-Reviewed Journal)
- II. **Quantitative Analysis for RBS and PIXE Spectrums of Thin $\text{Cu}_2\text{ZnSnS}_4$ (CZTS) Films**
Usta M.
Süleyman Demirel Üniversitesi Fen Edebiyat Fakültesi Fen Dergisi, vol.16, no.1, pp.107-120, 2021 (Peer-Reviewed Journal)
- III. **İnce $\text{Cu}_2\text{ZnSnS}_4$ (CZTS) filmin RBS spektrumundan enerji kaybı analizi**
USTA M.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.8, pp.61-68, 2019 (Peer-Reviewed Journal)
- IV. **A Study on The Stopping Power of $Z=2-54$ Elements for Protons Using Effective-Charge Approximation**
USTA M.
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.12, no.3, pp.1307-1314, 2019 (Peer-Reviewed Journal)
- V. **Energy loss analysis from RBS spectrum of thin $\text{Cu}_2\text{ZnSnS}_4$ (CZTS) film**
Usta M.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.8, no.XII. International Conference on Nuclear Structure Properties (NSP 2019) Özel Sayı, pp.61-68, 2019 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **KARBON İYON TERAPİDE DERİ VE LENF DOKULARI İÇİN DURDURMA GÜCÜ, MENZİL, DOZ HESAPLAMALARI VE IN-VİVO DOZ DOĞRULAMA**
USTA M.
in: TEORİDEN UYGULAMAYA FİZİK VE MATEMATİK ALANINDA AKADEMİK ÇALIŞMALAR-II, ORHAN ELİF, SEVEN ELANUR, Editor, İKSAD, Ankara, pp.63-76, 2022
- II. **$Z=1-20$ ELEMENTLER İÇİN SIYRILMA UZAKLIĞI, ETKİN YÜK, ETKİN ORTALAMA UYARILMA ENERJİSİ VE POTANSİYEL ENERJİ FONKSİYONLARININ BELİRLENMESİ**
USTA M.
in: TEORİDEN UYGULAMAYA FİZİK VE MATEMATİK ALANINDA AKADEMİK ÇALIŞMALAR - II, ORHAN ELİF, SEVEN ELANUR, Editor, İKSAD, Ankara, pp.53-62, 2022

III. Energy Loss and CSDA Range Calculations of A-150 Tissue Equivalent Plastic and Mylar for Alpha Particle and Protons

USTA M.

in: Research & Reviews in Science and Mathematics - I, AKGÜL Hasan, DAYANGAÇ Alpaslan, Editor, Gece Kitaplığı, Ankara, pp.153-167, 2021

Refereed Congress / Symposium Publications in Proceedings

I. KARBON İYONLARI İÇİN KARACİĞER VE PANKREAS DOKULARINDA DURDURMA GÜCÜ, MENZİL VE DOZ HESAPLAMALARI

USTA M.

5. BİLSEL INTERNATIONAL AHLAT SCIENTIFIC RESEARCHES CONGRESS, 14 December 2024, pp.1059

II. PROTONLAR İÇİN Z=21-40 ELEMENTLERDE ELEKTRONİK POTANSİYEL ENERJİ FONKSİYONU, SIYRILMA UZAKLIĞI, ETKİN ORTALAMA UYARILMA ENERJİSİ VE ETKİN YÜK HESAPLAMALARI

USTA M.

5. BİLSEL INTERNATIONAL AHLAT SCIENTIFIC RESEARCHES CONGRESS, 14 - 15 December 2024, pp.1060

III. Karbon iyon terapide akı tabanlı doz ölçümleri için analitik durdurma gücünün geçerliliği

USTA M.

11th International Conference on Luminescence and ESR Dosimetry, Gaziantep, Turkey, 5 - 07 September 2018

IV. Elektronlar için suyun durdurma gücü, etkin yük ve ortalama uyarılma enerjisi üzerine dalgafonksiyonlarının etkisi

USTA M.

3. Uluslararası Mesleki ve Teknik Bilimler Kongresi, Gaziantep, Turkey, 21 - 22 June 2018, vol.1, pp.291-296

Supported Projects

AYDIN G., USTA M., Project Supported by Higher Education Institutions, Proton ve Karbon İyon Terapide Analitik ve Monte Carlo Yöntemleri ile Durdurma Gücü, Menzil ve Doz Hesaplamaları, 2018 - 2020

AYDIN G., USTA M., Yaşar S., İnce B., Project Supported by Higher Education Institutions, Fotoaktivasyon Yöntemiyle Germanyum Elementi Ürünlerinin Deneysel Analizi, 2015 - 2017

USTA M., KAHRAMAN S., ÇETİNKARA H. A., Project Supported by Higher Education Institutions, Katı Oksit Yakıt Hücrelerinin Mekanik Karakterizasyonu, 2008 - 2011

USTA M., ÇETİNKARA H. A., Project Supported by Higher Education Institutions, Metal Oksit İnce Film Yapıların Üretilmesi ve Elektriksel Karakterizasyonu, 2009 - 2010

Metrics

Publication: 24

Citation (Scopus): 106

H-Index (Scopus): 5