

Prof.Dr. İskender Atilla Reyhancan

Kişisel Bilgiler

İş Telefonu: [+90 212 285 7465](tel:+902122857465)

Fax Telefonu: [+90 212 285 3884](tel:+902122853884)

E-posta: iareyhancan@itu.edu.tr

Web: <https://avesis.itu.edu.tr/iareyhancan>

Uluslararası Araştırmacı ID'leri

ORCID: 0000-0002-4806-4826

Publons / Web Of Science ResearcherID: P-8539-2014

ScopusID: 6506674568

Yoksis Araştırmacı ID: 10502

Eğitim Bilgileri

Doktora, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), Türkiye 1994 - 1999

Yüksek Lisans, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, Türkiye 1991 - 1994

Lisans, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, Türkiye 1983 - 1987

Yabancı Diller

İngilizce

Yaptığı Tezler

Doktora, Nötron spektrometresi ile tomografi ve hacimsel malzemelerin tahribatsız analizi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), 1999

Yüksek Lisans, Bir Polarize Döteron Hedefin Polarizasyon Miktarının Ölçülmesi, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, 1994

Araştırma Alanları

Makina Mühendisliği, Enerji, Nükleer Enerji, Fizik, Nükleer Fizik, Genel Nükleer Tepkimeler, Nükleer mühendislik ve nükleer enerji çalışmaları, Özel nükleer tepkimeler, Parçacık fiziği ve nükleer fizikte deneysel yöntemler ve enstrümantasyon, Radyoaktif bozunum ve in-beam spektroskopi, Temel Bilimler, Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Prof.Dr., İstanbul Teknik Üniversitesi, Enerji Enstitüsü, Nükleer Araştırmalar, 2013 - Devam Ediyor

Doç.Dr., İstanbul Teknik Üniversitesi, Fen-Edebiyat, Fizik Mühendisliği, 2010 - 2013

Doç.Dr., Namık Kemal Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2009 - 2010

Akademik İdari Deneyim

Anabilim/Bilim Dalı Başkanı, İstanbul Teknik Üniversitesi, Enerji Enstitüsü, Nükleer Araştırmalar, 2015 - 2021

Fakülte Yönetim Kurulu Üyesi, İstanbul Teknik Üniversitesi, Enerji Enstitüsü, 2015 - 2021

Namık Kemal Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2009 - 2011

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Determination of boron content in Tinkal ore samples with Geant4 using MCLLS method**
Erbay O., Reyhancan İ. A.
Radiation Physics and Chemistry, cilt.212, 2023 (SCI-Expanded)
- II. **Measurements of epithermal neutron properties of ITU Triga Mark II research reactor**
Koyuncu Gürsu N., Erbay O., Reyhancan İ. A.
Applied Radiation and Isotopes, cilt.190, 2022 (SCI-Expanded)
- III. **Detection of explosive materials in dual-energy X-Ray security systems**
Yalcin O., Reyhancan İ. A.
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, cilt.1040, 2022 (SCI-Expanded)
- IV. **Dose evaluation of ^{142}Pr radioisotope by Monte Carlo method in eye brachytherapy**
Koyuncu N., Reyhancan İ. A.
RADIATION PHYSICS AND CHEMISTRY, cilt.177, 2020 (SCI-Expanded)
- V. **A portable fast neutron radiography system for non-destructive analysis of composite materials**
KAM E., Reyhancan İ. A., Biyik R.
Nukleonika, cilt.64, sa.3, ss.97-101, 2019 (SCI-Expanded)
- VI. **Measurements of activation cross sections by cyclic activation method for $(n,2n)$ reaction on Sm-144 isotope around 14 MeV neutron energy**
Reyhancan İ. A.
RADIOCHIMICA ACTA, cilt.107, sa.1, ss.33-37, 2019 (SCI-Expanded)
- VII. **Flexible neutron shielding composite material of EPDM rubber with boron trioxide: Mechanical, thermal investigations and neutron shielding tests**
Ozdemir T., Gungor A., Reyhancan İ. A.
RADIATION PHYSICS AND CHEMISTRY, cilt.131, ss.7-12, 2017 (SCI-Expanded)
- VIII. **A Monte Carlo Library Least Square approach in the Neutron Inelastic scattering and Thermal-capture Analysis (NISTA) process in bulk coal samples**
Reyhancan İ. A., EBRAHIMI A., Çolak Ü., Erduran M. N., ANGIN N.
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, cilt.843, ss.29-33, 2017 (SCI-Expanded)
- IX. **Cross sections of ground and isomeric states for (n,p) reaction on Sm-154 between 13.57 and 14.83 MeV neutrons**
Reyhancan İ. A.
APPLIED RADIATION AND ISOTOPES, cilt.113, ss.79-83, 2016 (SCI-Expanded)
- X. **Neutron shielding of EPDM rubber with boric acid: Mechanical, thermal properties and neutron absorption tests**
Ozdemir T., Akbay I. K., Uzun H., Reyhancan İ. A.
PROGRESS IN NUCLEAR ENERGY, cilt.89, ss.102-109, 2016 (SCI-Expanded)
- XI. **Properties of Heavyweight Concrete for Structural and Radiation Shielding Purposes**
Ozen S., SENGUL C., ERENOGLU T., Çolak Ü., REYHANCAN İ. A., TASDEMIR M. A.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, cilt.41, sa.4, ss.1573-1584, 2016 (SCI-Expanded)
- XII. **Cu-65 isomeric cross sections for (n,α) reaction using approximately 14 MeV neutrons**
DURUSOY A., Reyhancan İ. A., AKÇALI Ö.
APPLIED RADIATION AND ISOTOPES, cilt.99, ss.86-89, 2015 (SCI-Expanded)
- XIII. **Modification of the radial beam port of ITU TRIGA Mark II research reactor for BNCT applications**

- Akan Z., TÜRKMEN M., Çakır T., Reyhancan İ. A., Çolak Ü., OKKA M., KIZILTAS S.
APPLIED RADIATION AND ISOTOPES, cilt.99, ss.110-116, 2015 (SCI-Expanded)
- XIV. Measurements of isomeric cross sections for the (n,α) reaction on the Nd-142 isotope at approximately 14 MeV neutrons
Reyhancan I. A.
APPLIED RADIATION AND ISOTOPES, cilt.91, ss.44-48, 2014 (SCI-Expanded)
- XV. Measurements of Isomeric Cross Sections for (n,α) Reaction on Sm-144 Isotope for Neutrons Around 14 MeV
Reyhancan İ. A., DURUSOY A.
NUCLEAR SCIENCE AND ENGINEERING, cilt.174, sa.2, ss.202-207, 2013 (SCI-Expanded)
- XVI. Measurements and model calculations of isomeric cross section for (n,α) reaction on Ce-140 isotope around 14 MeV neutrons
Reyhancan I. A.
ANNALS OF NUCLEAR ENERGY, cilt.47, ss.81-84, 2012 (SCI-Expanded)
- XVII. Measurements and model calculations of activation cross sections for (n,p) reactions on Sm-152 isotope between 13.57 and 14.83 MeV neutrons
Reyhancan I. A.
APPLIED RADIATION AND ISOTOPES, cilt.70, sa.4, ss.765-769, 2012 (SCI-Expanded)
- XVIII. Measurements and model calculations of activation cross sections for Th-232(n,2n)231Th reaction between 13.57 and 14.83 MeV neutrons
Reyhancan I. A.
ANNALS OF NUCLEAR ENERGY, cilt.38, sa.11, ss.2359-2362, 2011 (SCI-Expanded)
- XIX. Newly developed semi empirical formulas for p at 17.9 MeV and p np at 22.3 MeV reaction cross sections
TEL E., AYDIN A., aydin g., kaplan a., YAVAŞ Ö., Reyhancan İ. A.
PRAMANA-JOURNAL OF PHYSICS, cilt.74, sa.6, ss.931-943, 2010 (SCI-Expanded)
- XX. Measurements and statistical model calculations of activation cross-sections for Mg-26(n,α)Ne-23 reaction between 13.6 and 14.9 MeV neutron energies
Elmah A., Reyhancan I. A.
ANNALS OF NUCLEAR ENERGY, cilt.35, sa.6, ss.1068-1072, 2008 (SCI-Expanded)
- XXI. Measurements of activation cross-sections for the F-19(n, α)N-16 reaction for neutrons with energies between 13 and 15 MeV
Durusoy A., Reyhancan I.
ANNALS OF NUCLEAR ENERGY, cilt.33, sa.2, ss.159-162, 2006 (SCI-Expanded)
- XXII. Cross-section measurements for the Mo-97 (n,p) Nb-97m reaction at the neutron energies from 13.6 to 14.9 MeV
Bostan M., GULTEKIN E., Reyhancan I.
ANNALS OF NUCLEAR ENERGY, cilt.30, sa.18, ss.1821-1828, 2003 (SCI-Expanded)
- XXIII. Measurements of isomeric cross sections for (n,2n) reaction on Ce-140, Nd-142 and Sm-144 isotopes around 14 MeV
Reyhancan I., BOSTAN M., DURUSOY A., ELMALI A., BAYKAL A. B., OZBIR Y.
ANNALS OF NUCLEAR ENERGY, cilt.30, sa.15, ss.1539-1547, 2003 (SCI-Expanded)
- XXIV. Measurements and statistical model calculations of activation cross sections for F-19(n,p)O-19 reaction between 13.6 and 14.9 MeV neutron energies
Reyhancan I.
ANNALS OF NUCLEAR ENERGY, cilt.30, sa.9, ss.1001-1007, 2003 (SCI-Expanded)
- XXV. O 16 n p N 16 reaction cross sections around 14 MeV
subaşı m., gültekin e., Reyhancan İ. A.
NUCLEAR SCIENCE AND ENGINEERING, cilt.135, sa.3, ss.260-266, 2000 (SCI-Expanded)
- XXVI. The polarized double cell target of the SMC
adams d., adeva b., ark e., arvidson a., badelek b., BALLINTIJN M., BARDIN G., BAUM G., BERGLUND P., BETEV L., et

- al.
 NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS
 DETECTORS AND ASSOCIATED EQUIPMENT, cilt.437, sa.1, ss.23-67, 1999 (SCI-Expanded)
- XXVII. A large Streamer Chamber muon tracking detector in a high-flux fixed-target application**
 adams d., adeva b., arık e., arvidson a., badelek b., BALLINTIJN M., BARDIN G., BAUM G., BERGLUND P., BETEV L., et al.
 NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS
 DETECTORS AND ASSOCIATED EQUIPMENT, cilt.435, sa.3, ss.354-374, 1999 (SCI-Expanded)
- XXVIII. n a reaction Cross section of ^{44}Ca ^{45}Sc ^{51}V Nuclei from 13.6 to 14.9 MeV Neutron Energies**
 subaşı m., ERDURAN M. N., BOSTAN İ. M., Reyhancan İ. A., gültekin e., tarcan g.
 NUCLEAR SCIENCE AND ENGINEERING, cilt.130, sa.2, ss.254-260, 1998 (SCI-Expanded)
- XXIX. Spin structure of the proton from polarized inclusive deep-inelastic muon-proton scattering**
 adams d., adeva b., arık e., arvidson a., badelek b., BALLINTIJN M., BARDIN G., BAUM G., BERGLUND P., BETEV L., et al.
 PHYSICAL REVIEW D, cilt.56, sa.9, ss.5330-5358, 1997 (SCI-Expanded)
- XXX. A line shape analysis for spin 1 NMR signals**
 dulya c., adams d., adeva b., arık e., Reyhancan İ. A.
 Nuclear Instruments and Methods in Physics Research - A, cilt.398, ss.109-125, 1997 (SCI-Expanded)
- XXXI. Polarisation of valence and non strange sea quarks in the nucleon from semi inclusive spin asymmetries**
 adeva b., arık e., arvidson a., badelek b., Reyhancan İ. A.
 PHYSICS LETTERS A, cilt.369, sa.1, ss.93-100, 1996 (SCI-Expanded)
- XXXII. Large enhancement of deuteron polarization with frequency modulated microwaves**
 adeva b., arık e., ahmad s., arvidson a., Reyhancan İ. A.
 Nuclear Instruments and Methods in Physics Research - A, cilt.372, sa.3, ss.339-343, 1996 (SCI-Expanded)
- XXXIII. A NEW MEASUREMENT OF THE SPIN DEPENDENT STRUCTURE FUNCTION $G_1 X$ OF THE DEUTERON**
 adams d., adeva b., arık e., arvidson a., Reyhancan İ. A.
 PHYSICS LETTERS A, cilt.357, ss.248-254, 1995 (SCI-Expanded)
- XXXIV. MEASUREMENT OF THE SPIN DEPENDENT STRUCTURE FUNCTION $G_1 X$ OF THE PROTON**
 adams d., arık e., arvidson a., badelek b., Reyhancan İ. A.
 PHYSICS LETTERS A, cilt.329, ss.399-406, 1994 (SCI-Expanded)
- XXXV. SPIN ASYMMETRY IN MUON PROTON DEEP INELASTIC SCATTERING ON A TRANSVERSELY POLARIZED TARGET**
 adams d., adeva b., arık e., arvidson a., Reyhancan İ. A.
 PHYSICS LETTERS A, cilt.336, sa.1, ss.125-130, 1994 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

- I. MCNP5 Element Library Least Squares Method for On line Coal Analysis
 REYHANCAN İ. A., untuc b., ERDURAN M. N.
 Journal o Nuclear Sciences, 2016 (Hakemli Dergi)
- II. ABSOLUTE YIELD DETERMINATION OF A 14 - MeV NEUTRON GENERATOR
 Reyhancan İ. A.
 ytü sigma, cilt.29, ss.1-10, 2011 (Hakemli Dergi)
- III. BAZI KISA YARI ÖMÜRLÜ ÇEKİRDEKLERİN YARILANMA SÜRELERİNİN BELİRLENMESİ
 Reyhancan İ. A.
 YTÜ SIGMA DERGİSİ, cilt.4, ss.78-84, 2003 (Hakemli Dergi)

Kitap & Kitap Bölümleri

- I. **Nükleer Kararsızlık**
ALĞIN E., REYHANCAN İ. A., AYDIN A., KAPLAN A., BOZKURT A., ÇAKIR M. A., KARA A., KAYIŞ TOPAKSU A., DEMİR B., TEL E., et al.
NÜKLEER FİZİK - İlkeler ve Uygulamalar, Abdullah Aydin, İsmail Hakkı Sarpün, Eyyup Tel, Abdullah Kaplan, Editör, Nobel Akademik Yayıncılık, Ankara, ss.65-91, 2018
- II. **Radyasyonun Madde İle Etkileşmesi**
ALĞIN E., REYHANCAN İ. A., AYDIN A., KAPLAN A., BOZKURT A., ÇAKIR M. A., KARA B., KAYIŞ TOPAKSU A., DEMİR B., TEL E., et al.
NÜKLEER FİZİK-İlkeler ve Uygulamalar, Abdullah Aydin, İsmail Hakkı Sarpün, Eyyüp Tel, Abdullah Kaplan, Editör, Nobel Akademik Yayıncılık, Ankara, ss.129-149, 2018
- III. **MonteCarlo Metodu ile Germanium Dedektörünün Simülasyonu Ve Verim Kalibrasyonu**
REYHANCAN İ. A.
Fen Bilimleri ve Matematik Temel Alanı Örnek Araştırmaları, Doç. Dr. Ali Yakar ve Doç. Dr. Hüseyin Topaklı, Editör, Nobel Akademik Yayıncılık, Ankara, ss.123-138, 2018
- IV. **14,5Mev Nötron Enerjisi Civarında (N,P) Reaksiyon Tesir Kesitleri İçin Yeni Bir YarıAmpirik Formül**
REYHANCAN İ. A.
Fen Bilimleri ve Matematik Temel Alanı Örnek Araştırmaları, Doç. Dr. Ali Yakar ve Doç. Dr. Hüseyin Topaklı, Editör, NOBEL AKADEMİK YAYINCILIK, Ankara, ss.139-158, 2018

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Eximation of Cherenkov Radiation in Plastic Scintillators**
Yılmaz H., Erbay O., Reyhancan İ. A.
TURKISH PHYSICAL SOCIETY 38 TH INTERNATIONAL PHYSICS CONGRESS,, Muğla, Türkiye, 31 Ağustos - 04 Eylül 2022, ss.354
- II. **Spent Fuel Investigation System at ITU Triga Mark II Reactor**
AKYÜREK T., REYHANCAN İ. A., kızıltaş s.
ANS Winter Meeting Expo 2018, 11 - 15 Kasım 2018
- III. **Neutron and Photon Dose Evaluation of the LINAC Therapy Room Using MCNP5 code**
KOYUNCU N., REYHANCAN İ. A.
Turkish Physical Society International Physical Congress, 5 - 09 Eylül 2018
- IV. **On-line coal analyzer with 14 MeV neutron generator**
ÇOLAK Ü., REYHANCAN İ. A., ERDURAN M. N.
XII Balkan Mineral Processing Congress, 1 - 03 Kasım 2017
- V. **Application of Library Least Square Method in Neutron Inelastic Scattering and Thermal Analysis**
ÇOLAK Ü., REYHANCAN İ. A., ERDURAN M. N., EBRAHIMI A., ANGIN N.
24. Conference on Accelerator Applications in Research and Industry, Fort Worth, Amerika Birleşik Devletleri, 30 Ekim - 04 Kasım 2016
- VI. **Application of library least square method in neutron inelastic scattering and thermal capture analysis**
ÇOLAK Ü., ebrahimi a., ERDURAN M. N., REYHANCAN İ. A., angın n.
24th International conference on the application of accelerators in research and industry, 30 Ekim - 04 Kasım 2016
- VII. **Physical mechanical and radiation properties of heavyweight concretes used for structural and radiation shielding purposes**
ÖZEN S., sengül c., ÇOLAK Ü., taşdemir m. a., REYHANCAN İ. A.
International Conference on Engineering and Natural Sciences, 24 - 28 Mayıs 2016
- VIII. **Physical Mechanical and Radiational Properties of Heavyweight Concretes Used for Structural and Radiation**

- ÖZEN S., SENGUL C., ÇOLAK Ü., TASDEMIR M. A., REYHANCAN İ. A.
International Conference on Engineering and Natural Sciences, Sarajevo, Bosna-Hersek, 24 - 28 Mayıs 2016,
ss.1968-1975
- IX. **Use of PFTNA for On Line Coal Analysis**
ÇOLAK Ü., ERDURAN M. N., REYHANCAN İ. A.
2015 ANS Winter Meeting and Nuclear Techno Expo, Washington, Amerika Birleşik Devletleri, 8 - 12 Kasım 2015,
cilt.113, ss.479-480
- X. **MCNP Simulation of a prototype for the on line coal analysis**
untuç b., angın n., REYHANCAN İ. A.
9th International Physics Conference of the Balkan Physical Union – BPU9, 24 - 27 Ağustos 2015, ss.313
- XI. **A prototype for the on line element analysis using nuclear techniques**
angın n., untuç b., REYHANCAN İ. A.
9th International Physics Conference of the Balkan Physical Union – BPU9, 24 - 27 Ağustos 2015, ss.55
- XII. **A Cyclic Irradiation Facility For Measuring Cross Sections For Fast Neutron Induced Reactions
Leading to Short-lived Radioisotopes**
REYHANCAN İ. A.
BPU-3 3rd General Conference of the Balkan Physical Union, 2 - 05 Eylül 1997

Desteklenen Projeler

Reyhancan İ. A., Yükseköğretim Kurumları Destekli Proje, Nükleer Teknikleri Kullanarak On-line Element Analizi İçin
Prototip Cihaz Tasarımı, 2014 - 2018
Reyhancan İ. A., Yükseköğretim Kurumları Destekli Proje, Düşük Seviye Alfa Spektrometresiyle Çeşitli Örneklerde
Radyoizotoplarının Tayin, 2011 - 2016

Bilimsel Dergilerdeki Faaliyetler

Journal of Nuclear Sciences, Editörler Kurulu Üyesi, 2015 - Devam Ediyor
Natural Science and Discovery, Editörler Kurulu Üyesi, 2015 - Devam Ediyor

Metrikler

Yayın: 54
Atıf (WoS): 556
Atıf (Scopus): 569
H-İndeks (WoS): 7
H-İndeks (Scopus): 7

Kongre ve Sempozyum Katılımı Faaliyetleri

İNERMA 2017, Katılımcı, İstanbul, Türkiye, 2017
VIII. ulusal nükleer bilimler ve teknolojileri kongresi, Katılımcı, Kayseri, Türkiye, 2003

Burslar

CERN Fellowship, TÜBİTAK, 1993 - Devam Ediyor

Akademi Dışı Deneyim

Türkiye Atom Enerjisi Kurumu
Türkiye Atom Enerjisi Kurumu
Türkiye Atom Enerjisi Kurumu
Avrupa Nükleer Araştırma Merkezi - CERN