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International Researcher IDs

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Publons / Web Of Science ResearcherID: J-4189-2015

ScopusID: 56432439800

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Education Information

Doctorate, Istanbul Technical University, Enerji Enstitüsü, Turkey 2010 - 2016

Postgraduate, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, Turkey 2007 - 2008

Undergraduate, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 2000 - 2005

Foreign Languages

English, C2 Mastery

Certificates, Courses and Trainings

Vocational Training, Training and Certification on Radiotracers and Column Scanning, International Atomic Energy Agency, 2022

Dissertations

Doctorate, THE EFFICIENCY CALIBRATION OF A GAMMA-RAY SPECTROMETER WITH A WELL-TYPE Ge DETECTOR IN THE 40-2000 keV ENERGY RANGE FOR LOW-LEVEL RADIOACTIVITY MEASUREMENTS, Istanbul Technical University, Enerji Enstitüsü, 2015

Postgraduate, THE EFFICIENCY CALIBRATION OF A GAMMA-RAY SPECTROMETER WITH A WELL-TYPE Ge DETECTOR IN THE 40-2000 keV ENERGY RANGE FOR LOW-LEVEL RADIOACTIVITY MEASUREMENTS, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2008

Research Areas

Water Pollution and Control, Soil and Groundwater Pollution and Control, Nuclear Energy, Composites, Cement and Concrete, Statistical Analysis and Applications, Nuclear physics, Nuclear Engineering and Nuclear Energy Studies, Radiochemical Methods, Trace Elements

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, Enerji Enstitüsü, Nükleer Araştırmalar, 2022 - Continues

Assistant Professor, Istanbul Bilgi University, Faculty Of Engineering And Natural Sciences, Department Of Energy Systems Engineering, 2016 - 2022

Research Assistant, Istanbul Bilgi University, Faculty Of Engineering, Department Of Energy Systems Engineering, 2011 - 2016

Expert, Ankara University, Nükleer Bilimler Enstitüsü, 2007 - 2010

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Effect of wildfire on soil element concentrations in Mediterranean Türkiye**
Esen A. N., Yushin N., Grozdov D., Yıldız C., Zinicovscaia I., Hacıyakupoğlu S., Erentürk S., Görüm T.
Journal of Radioanalytical and Nuclear Chemistry, vol.332, no.11, pp.4667-4676, 2023 (SCI-Expanded)
- II. **Assessment of different hazard indices around coal-fired power plants in Turkey**
Esen A. N., Hacıyakupoğlu S., Erentürk S.
Journal of Radioanalytical and Nuclear Chemistry, vol.329, no.2, pp.601-620, 2021 (SCI-Expanded)
- III. **Comparison of relative INAA and k₀-INAA using proficiency test materials at ITU TRIGA Mark II research reactor**
Esen A. N., Hacıyakupoğlu S., Erentürk S.
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.315, no.3, pp.677-683, 2018 (SCI-Expanded)
- IV. **Feasibility study of k(0)-INAA at the ITU TRIGA Mark II research reactor, Turkey**
Esen A. N., Hacıyakupoğlu S., Erentürk S., Kubesova M., Kucera J.
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.309, no.1, pp.179-184, 2016 (SCI-Expanded)
- V. **Instrumental neutron activation analysis of plant tissues and soils for biomonitoring in urban areas in Istanbul**
Esen A. N., Kubesova M., Hacıyakupoğlu S., Kucera J.
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.309, no.1, pp.373-382, 2016 (SCI-Expanded)
- VI. **Implementation of k(0)-INAA standardisation at ITU TRIGA Mark II research reactor, Turkey based on k(0)-IAEA software**
Esen A. N., Hacıyakupoğlu S.
RADIATION PHYSICS AND CHEMISTRY, vol.119, pp.282-286, 2016 (SCI-Expanded)
- VII. **Kinetic modeling of selenium (IV) adsorption for remediation of contaminated aquatic systems based on meso-scale experiments**
Hacıyakupoğlu S., ORUCOGLU E., Esen A. N., YUŞAN S., Erentürk S.
DESALINATION AND WATER TREATMENT, vol.56, no.5, pp.1208-1216, 2015 (SCI-Expanded)
- VIII. **Assessment of Environmental Risk from Coal Using Neutron Activation Analysis**
İleri R. K., Hacıyakupoğlu S., Esen A. N., Oruciglu E., Erenturk S.
ACTA PHYSICA POLONICA A, vol.127, no.4, pp.1010-1012, 2015 (SCI-Expanded)
- IX. **Determining distribution of heavy metal pollution in terms of ecological risk levels in soil of industrially intensive areas around Istanbul**
Hacıyakupoğlu S., Esen A. N., Erentürk S., OKKA M., GENÇELİ M., MERCİMEK M., GENÇELİ E., YUŞAN S., Filiz F. G., Olgen K., et al.
Toxicological and Environmental Chemistry, vol.97, no.1, pp.62-75, 2015 (SCI-Expanded)
- X. **Experimental parameters optimization of instrumental neutron activation analysis in order to determine selected elements in some industrial soils in Turkey**
Hacıyakupoğlu S., Esen A. N., ERENTURK S.
RADIATION PHYSICS AND CHEMISTRY, vol.101, pp.24-29, 2014 (SCI-Expanded)
- XI. **Measurements on the spectroscopic performance of CdZnTe coplanar grid detectors**
YÜCEL H., Uyar E., Esen A. N.

- APPLIED RADIATION AND ISOTOPES, vol.70, no.8, pp.1608-1615, 2012 (SCI-Expanded)
- XII. **Correction methodology for the spectral interfering gamma-rays overlapping to the analytical peaks used in the analysis of Th-232**
Yucel H., Kose E., Esen A. N., Bor D.
APPLIED RADIATION AND ISOTOPES, vol.69, no.6, pp.890-897, 2011 (SCI-Expanded)
- XIII. **True coincidence-summing corrections for the coincident gamma-rays measured with coplanar grid CdZnTe detectors**
YÜCEL H., Solmaz A. N., KÖSE E., Bor D.
APPLIED RADIATION AND ISOTOPES, vol.68, no.6, pp.1040-1048, 2010 (SCI-Expanded)
- XIV. **Methods for spectral interference corrections for direct measurements of U-234 and Th-230 in materials by gamma-ray spectrometry**
YÜCEL H., Solmaz A. N., Kose E., Bor D.
RADIATION PROTECTION DOSIMETRY, vol.138, no.3, pp.264-277, 2010 (SCI-Expanded)
- XV. **A semi-empirical method for calculation of true coincidence corrections for the case of a close-in detection in gamma-ray spectrometry**
YÜCEL H., Solmaz A. N., Kose E., Bor D.
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.283, no.2, pp.305-312, 2010 (SCI-Expanded)
- XVI. **Spectral interference corrections for the measurement of U-238 in materials rich in thorium by a high resolution gamma-ray spectrometry**
YÜCEL H., Solmaz A. N., KÖSE E., Bor D.
APPLIED RADIATION AND ISOTOPES, vol.67, no.11, pp.2049-2056, 2009 (SCI-Expanded)
- XVII. **Virtual photon interaction depths of CdZnTe detectors in the energy range of 50-662 keV**
Yuecel H., Solmaz A. N., Bor D.
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.280, no.3, pp.569-575, 2009 (SCI-Expanded)

Articles Published in Other Journals

- I. **Accumulation of Heavy Metals and Determination of Natural Radioactivity in the Soil-Thyme System in Omerli, Istanbul: Assessment of Ecological and Health Risk**
Esen A. N., Azbouche A., Hacıyakupoğlu S., Erentürk S., Melzi Z.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.37, no.1, pp.75-88, 2024 (Scopus)
- II. **Estimation of Critical Heat Flux in Different Operating Parameters by Computational Fluid Dynamics Simulation**
Esen A. N.
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.22, no.2, pp.444-453, 2022 (Peer-Reviewed Journal)
- III. **Detection efficiency of CdZnTe detector in the range of 30-670 keV gamma ray energy for a disc source geometry Disk kaynak geometrisi için 30-670 keV gama işini enerji aralığında CdZnTe detektörünün dedeksiyon verimi**
YÜCEL H., Solmaz A. N., Kurt A., Inal T., Bor D.
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.23, no.3, pp.699-707, 2008 (Scopus)

Books & Book Chapters

- I. **OVERVIEW OF NEUTRON ACTIVATION ANALYSIS AT ITU TRIGA MARK II REACTOR**
Erentürk S., Hacıyakupoğlu S., Esen A. N.
in: Proficiency Testing by Interlaboratory Comparison Performed in 2010–2015 For Neutron Activation Analysis and Other Analytical Techniques: ANNEX IV: COUNTRY REPORTS , International Atomic Energy Agency, Editor, International Atomic Energy Agency , Vienna, pp.163-174, 2017

II. An Overview of Energy Technologies for a Sustainable Future

ESEN A. N., DÜZGİT Z., TOY A. Ö., GÜNAY M. E.

in: Energy Systems and Management, Ali Nezihi Bilge, Ayhan Özgür Toy, Mehmet Erdem Günay, Editor, Springer International Publishing, pp.1-16, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. **Possible use of Resadiye natural bentonite mineral as engineering barrier material for gamma radiation shielding**
GÜNAY N., YALÇINKAYA D. A., ESEN A. N., HACIYAKUPOĞLU S.
International Conference on Development and Applications of Nuclear Technologies, NUTECH 2023, Krakow, Poland, 20 - 22 September 2023
- II. **Determination of rare earth elements by neutron activation analysis to predict wildfire impact on soil**
ESEN A. N., Yıldız C., Zinicovscaia I., HACIYAKUPOĞLU S.
International Conference on Development and Applications of Nuclear Technologies, NUTECH 2023, Krakow, Poland, 20 - 22 September 2023
- III. **Use of natural dolomite mineral as an adsorbent for cobalt-60 radionuclide from aqueous solutions**
Saçkiran O., ESEN A. N., HACIYAKUPOĞLU S.
International Conference on Development and Applications of Nuclear Technologies, NUTECH 2023, Krakow, Poland, 20 - 22 September 2023
- IV. **QUANTIFYING THE EFFECT OF WILDFIRE ON SOIL ELEMENT CONCENTRATIONS IN MEDITERRANEAN**
ESEN A. N., Yushin N., Grozdov D., Yıldız C., Zinicovscaia I., HACIYAKUPOĞLU S., ERENTÜRK S., GÖRÜM T.
International Nuclear Sciences and Technologies Conference (INTEC-22), 19 October 2022
- V. **Çekirdekli Kaynamadan Ayrılmanın Hesaplamalı Akışkanlar Dinamiği Simülasyonu**
ESEN A. N.
International Online Conferences on Engineering and Natural Sciences, 05 July 2021, pp.86
- VI. **Review of moss biomonitoring in Turkey**
ESEN A. N., HACIYAKUPOĞLU S., ERENTÜRK S.
4th Task Force Meeting of the ICP Vegetation, 22 February 2021, pp.31
- VII. **Radiological assessment on the terrestrial non-human biota in Turkey using ERICA tool**
ESEN A. N., HACIYAKUPOĞLU S., ERENTÜRK S.
2nd International Conference on Radioanalytical and Nuclear Chemistry, 5 - 10 May 2019, pp.362
- VIII. **Kinetic studies of cesium and strontium adsorption from aqueous solution onto potential barrier material**
HACIYAKUPOĞLU S., ERENTÜRK S., ESEN A. N., ŞENKAL B. F.
2nd International Conference on Radioanalytical and Nuclear Chemistry, 05 May 2019, pp.396
- IX. **Assessment of the radiological impact of coal-fired power plants to terrestrial biota using ERICA tool**
ESEN A. N., HACIYAKUPOĞLU S., ERENTÜRK S.
8th International Symposium on IN Situ Nuclear Metrology as a tool for radioecology, 23 April 2019, pp.30-32
- X. **Theoretical Post-Dryout Heat Transfer Model**
TUNÇ K. M. M., ESEN A. N., ŞEN D., KARAKAŞ A.
International Conference on Computational Materials Science and Thermodynamic Systems, Cambridge, Canada, 22 - 23 March 2018, vol.1, pp.142-150
- XI. **A Review of Radiological Impact of Coal-Fired Power Plants in Turkey**
ESEN A. N.
II. International Energy Raw Materials and Energy Summit, 23 September 2017
- XII. **Comparison of Relative INAA and k0-INAA using Proficiency Test Materials at ITU TRIGA Mark II Research Reactor**

ESEN A. N., HACIYAKUPOĞLU S., ERENTÜRK S.

7th International k0-Users' Workshop, 3 - 08 September 2017, pp.33

- XIII. **Assessment of environmental risk from coal using neutron activation analysis**
İleri R., HACIYAKUPOĞLU S., ESEN A. N., ERENTÜRK S., Oruçoğlu E.
4th International Congress APMAS 2014, 24 April 2017, pp.483
- XIV. **Assesment of Natural Radioactivity and Associated Radiological Implications in Marble Samples from Turkey**
KARAMAN C., ESEN A. N., Oruçoğlu E., HACIYAKUPOĞLU S.
3rd International Conference on Po and Radioactive Pb Isotopes, 11 October 2015, pp.144
- XV. **Feasibility study of k0-INAA at the ITU TRIGA Mark II research reactor, Turkey**
ESEN A. N., HACIYAKUPOĞLU S., ERENTÜRK S., Kubesova M., Kucera J.
14th International Conference on Modern Trends in Activation Analysis, 23 August 2015, pp.51
- XVI. **Instrumental neutron activation analysis of plant tissues and soils for phytoremediation study in Istanbul**
ESEN A. N., Kubesova M., HACIYAKUPOĞLU S., Kucera J.
11th International Conference on Nuclear Analytical Methods in the Life Sciences, 23 August 2015, pp.143
- XVII. **Determination of chromium in proficiency testing soil samples by neutron activation analysis**
HACIYAKUPOĞLU S., ESEN A. N., ERENTÜRK S.
The Fourth International Proficiency Testing Conference, 18 September 2013, pp.155-162
- XVIII. **Modeling of Selenium Adsorption for Remediation of Contaminated Aquatic Systems**
HACIYAKUPOĞLU S., ESEN A. N., YUŞAN S., ERENTÜRK S.
Fourth International Conference on Environmental Management, Engineering, Planning and Economics, 24 June 2013, pp.249
- XIX. **Determining spatial distribution of heavy metal pollution in terms of ecological risk levels in the industrially intensive areas around Istanbul**
HACIYAKUPOĞLU S., ESEN A. N., ERENTÜRK S., YUŞAN S., CAMTAKAN Z., TANBAY T.
Fourth International Conference on Environmental Management, Engineering, Planning and Economics, 24 June 2013, pp.137
- XX. **Arsenic Determination in Coal and Ash Samples by Neutron Activation Analysis**
ESEN A. N., Oruçoğlu E., HACIYAKUPOĞLU S., ERENTÜRK S.
European Research Reactor Conference, 21 April 2013, pp.26-31
- XXI. **Determination of Spatial ¹³⁷Cs Distribution in Ugrak Watershed**
HACIYAKUPOĞLU S., ESEN A. N.
Fifth International Conference on Water, Climate and Environment, 28 May 2012
- XXII. **Gerçek Çakışma (Coincidence) Düzeltmelerinin Belirlenmesi için Toplam-Fotopik Oranlarının Ge Dedektör ile Ölçülmesi**
YÜCEL H., ESEN A. N., UYAR E., BOR M. D.
X. Ulusal Nükleer Bilimler ve Teknolojileri Kongresi, 06 October 2009, pp.70
- XXIII. **EFFICIENCY CALIBRATION OF A WELL-TYPE Ge DETECTOR FOR VOLUMINOUS SAMPLES IN CYLINDRICAL GEOMETRY**
Solmaz A. N., Bor D., Yucel H.
NATO Advanced Training Course in New Techniques for the Detection of Nuclear and Radioactive Agents, Muğla, Turkey, 26 - 30 May 2008, pp.193-194
- XXIV. **Comparison of the Activity Results Measured in the well-type HPGe Detector by Using Radionuclide Specific and Absolute Efficiency Calibrations**
ESEN A. N., YÜCEL H., UYAR E., BOR M. D.
The Fifth Eurasian Conference on Nuclear Science and Its Application, 14 October 2008, pp.77
- XXV. **Interference Corrections for Some Spectral Peaks Used in Gamma Spectrometric Analysis of ²³⁸U and ²²⁶Ra in Presence of Thorium in Samples**
YÜCEL H., UYAR E., ESEN A. N., BOR M. D.
The Fifth Eurasian Conference on Nuclear Science and Its Application, 14 October 2008, pp.79

Supported Projects

- Esen A. N., Tunçkılıç S., Project Supported by Higher Education Institutions, Bentonit Katkılı Farklı Tipteki Çimentoların Gama Işını Radyasyonunu Zırhlama Özelliklerinin İncelenmesi, 2023 - Continues
- Esen A. N., Hacıyakupoğlu S., Yalçinkaya D. A., Durmayaz A., Tanbay T., Erbay O., IAEA International Atomic Energy Agency Supportted Project, The Use of Radiotracer Method for Measuring the Flow Parameters in a Lab-Scale Constructed Wetland, 2023 - 2028
- Esen A. N., Hacıyakupoğlu S., Project Supported by Higher Education Institutions, Determination of Sorption Behavior of Cobalt-60 Radionuclide in Natural Dolomite Mineral, 2022 - 2024
- Esen A. N., Yetkin E. A., Project Supported by Higher Education Institutions, Plastik ve Sıvı Sintilatörler İçin Makina Öğrenmeye Dayalı Nötron-Gamma Ayırıştırıcı Methodların Geliştirilmesi, 2022 - 2024
- Esen A. N., Yetkin A., Project Supported by Higher Education Institutions, Basınçlı su reaktörlerinde çekirdekli kaynamadan ayrılmanın modellenmesi, 2019 - 2021

Metrics

- Publication: 48
- Citation (WoS): 111
- Citation (Scopus): 115
- H-Index (WoS): 7
- H-Index (Scopus): 6