

Res. Asst. TAYLAN BAŐKAN



## Personal Information

**Office Phone:** [+90 462 377 2557](tel:+904623772557) Extension: 2557

**Email:** [taylanbaskan@ktu.edu.tr](mailto:taylanbaskan@ktu.edu.tr)

**Web:** <https://avesis.ktu.edu.tr/taylanbaskan>

**Address:** KTÜ KANUNİ KAMPÜSÜ FİZİK BÖLÜMÜ ODA 210 ORTAHİSAR  
TRABZON



## International Researcher IDs

ScholarID: DJvIITsAAAAJ

ORCID: 0000-0001-6079-4234

Publons / Web Of Science ResearcherID: DTK-5500-2022

ScopusID: 57226528511

Yoksis Researcher ID: 297849

## Education Information

Postgraduate, Karadeniz Technical University, Fen Fakültesi/Fen Bilimler  
Enstitüsü, Fizik Bölümü/ Nükleer Fizik, Turkey 2016 - 2020

Undergraduate, Karadeniz Technical University, Fen Fakültesi, Turkey 2008 -  
2016

## Certificates, Courses and Trainings

Occupational Health and Safety, Radyasyon ve İSG Kursu, Radyasyondan Korunma Uzmanları Derneđi, 2022

Vocational Course, II. INTERNATIONAL NUCLEAR SUMMER SCHOOL (CHERNOBYL and RIVNE NPP Technical Training  
Research) , National Scientific and Technical Center for Nuclear and Radiation Safety (SSTC NRS) of Ukraine,  
Energoatom, Odessa National Polytechnic University (ONPU) and Ankara University Institute of Nuclear Sciences, 2019

## Dissertations

Postgraduate, DÖTEROUNUN BAĞLANMA ENERJİSİNİN KUANTUM HESAPLAMA TEORİSİ İLE İNCELENMESİ, Karadeniz  
Technical University, Fen Fakültesi, Fizik Bölümü / Nükleer Fizik, 2020

## Research Areas

Physics, Nuclear physics, Nuclear Structure, Natural Sciences

## Academic Titles / Tasks

Research Assistant, Karadeniz Technical University, Fen Fakültesi, Fizik, 2019 - Continues

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

- I. **Thermal Conductivity and Phase-Change Properties of Boron Nitride-Lead Oxide Nanoparticle-Doped Polymer Nanocomposites**  
Ortaç B., Mutlu S., Başkan T., Savaskan Yılmaz S., Yılmaz A. H., Erol B.  
POLYMERS, vol.15, no.10, 2023 (SCI-Expanded)
- II. **Radiation Shielding Tests of Crosslinked Polystyrene-b-Polyethyleneglycol Block Copolymers Blended with Nanostructured Selenium Dioxide and Boron Nitride Particles**  
Cinan Z. M., Erol B., Başkan T., Mutlu S., Ortaç B., Savaşkan Yılmaz S., Yılmaz A. H.  
NANOMATERIALS, vol.12, no.3, 2022 (SCI-Expanded)
- III. **EXHAUSTIVE THEORETICAL INVESTIGATION OF PHONON NUMBER ALTERATION, FUSION CROSS SECTIONS AND BARRIER DISTRIBUTIONS FOR Si-30+Zr-90,Zr-92,Zr-94,Zr-96 REACTIONS VIA ENERGY-DEPENDENT WOODS-SAXON POTENTIAL AND COUPLED CHANNEL MODELS**  
Cinan Z. M., Erol B. G., Başkan T., Yılmaz A. H.  
ACTA PHYSICA POLONICA B, vol.53, no.3, 2022 (SCI-Expanded)
- IV. **Gamma irradiation, thermal conductivity, and phase change tests of the cement-hyperbranched poly amino-ester-block-poly cabrolactone-polyurathane plaster-lead oxide and arsenic oxide composite for development of radiation shielding material**  
Cinan Z. M., Başkan T., Erol B., Mutlu S., Misirlioglu Y., Yılmaz S., Yılmaz A. H.  
International Journal of Energy Research, vol.45, no.15, pp.20729-20762, 2021 (SCI-Expanded)
- V. **Heavy-Ion Fusion Reaction Calculations: Establishing the Theoretical Frameworks for In-111 Radionuclide over the Coupled Channel Model**  
Cinan Z. M., Erol B., Başkan T., Yılmaz A. H.  
ENERGIES, vol.14, no.24, 2021 (SCI-Expanded)
- VI. **Gamma Irradiation and the Radiation Shielding Characteristics: For the Lead Oxide Doped the Crosslinked Polystyrene-b-Polyethyleneglycol Block Copolymers and the Polystyrene-b-Polyethyleneglycol-Boron Nitride Nanocomposites**  
Cinan Z. M., Erol B., Başkan T., Mutlu S., Yılmaz S., Yılmaz A. H.  
POLYMERS, vol.13, no.19, 2021 (SCI-Expanded)
- VII. **INVESTIGATING MEDIUM AND HEAVY MASS HEAVY-ION FUSION REACTIONS AND BARRIER DISTRIBUTIONS WITH COUPLED-CHANNEL ANALYZES**  
Erol B. G., Cinan Z. M., Başkan T., Yılmaz A. H.  
ACTA PHYSICA POLONICA B, vol.52, no.9, pp.1117-1145, 2021 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Theoretical Inspecting of At-211 Radionuclide via Coupled-Channel Model for Fusion Reaction of Stable Nuclei**  
Cinan Z. M., Başkan T., Erol B. G., Yılmaz A. H.  
ATOM INDONESIA, vol.47, no.3, pp.163-172, 2021 (ESCI)
- II. **The Large Angle Quasi-Elastic Scattering Cross Sections and The Effective Weight Function Based on The Barrier Distribution for 32S+92,94,96,98,100Mo Reactions**  
Cinan Z. M., Yılmaz A. H., Erol B., Başkan T.  
Beykent Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.12, no.2, pp.23-30, 2019 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Radyasyon Kalkanı Polimer-Çimento/SeO<sub>2</sub>/ BN Nanokompozitleri**  
Erol B., Cinan Z. M., Başkan T., Mutlu S., Ortaç B., Savaşkan Yılmaz S., Yılmaz A. H.

3.Uluslararası Katılımlı Radyasyondan Korunma Kongresi, Ankara, Turkey, 02 December 2022 - 04 January 2023, pp.1-9

- II. **The Evaluation of the Applications of Polymer-Based Nano-Structured Composites Doped with Tungsten (W) and Tungsten Trioxide (WO<sub>3</sub>) for Gamma Irradiation Shieldings**  
Cinan Z. M., Başkan T., Erol B., Mutlu S., Savaşkan Yılmaz S., Yılmaz A. H.  
International Conference on Polymer Science and Composite Materials (ICPSCM 2021), Frankfurt, Germany, 8 - 10 November 2021, pp.1-2
- III. **Influences of Energy Dependent Woods-Saxon Potential and Coupled Channel Model in Heavy-Ion Fusion Reactions: Setting the Theoretical Background of 111-In Radionuclide**  
Cinan Z. M., Erol B., Başkan T., Yılmaz A. H.  
37th Turkish Physical Society International Physics Congress (TPS-37), Muğla, Turkey, 1 - 05 September 2021, vol.37, no.37, pp.206
- IV. **Coupled-Channel Analyses on 32S+90Zr and 32S+96Zr Heavy-Ion Fusion Reactions and Barrier Distributions**  
Erol B., Yılmaz A. H., Cinan Z. M., Başkan T.  
Turkish Physical Society 36th International Physics Congress (TPS-36), Muğla, Turkey, 1 - 05 September 2020, pp.21
- V. **The Gamma Ray Sorption of PS-PEG-OPC Composites and PS-PEG-OPC-BN Nanocomposites**  
Erol B., Cinan Z. M., Başkan T., Mısırlıoğlu Y., Savaşkan Yılmaz S., Şahin M., Yılmaz A. H.  
Turkish Physical Society 36th International Physics Congress (TPS-36), Muğla, Turkey, 1 - 05 September 2020, pp.21
- VI. **Inspecting of At-211 Radionuclide via Fusion Reaction of Stable F-19 and Os-192 Nuclei**  
Cinan Z. M., Yılmaz A. H., Erol B., Başkan T.  
Turkish Physical Society 36th International Physics Congress (TPS-36), Muğla, Turkey, 1 - 05 September 2020, pp.22
- VII. **Calculations of Nuclear Level Densities for Some Deformed Nuclei**  
Başkan T., Cinan Z. M., Bashirli L., Erol B., Yılmaz A. H.  
Turkish Physical Society 36th International Physics Congress (TPS-36), Muğla, Turkey, 1 - 05 September 2020, pp.22
- VIII. **PS-PEG Block Copolymers and PS-PEG-BN Nanocomposites-Gamma Ray Interaction**  
Cinan Z. M., Başkan T., Mısırlıoğlu Y., Erol B., Savaşkan Yılmaz S., Şahin M., Yılmaz A. H.  
Turkish Physical Society 36th International Physics Congress (TPS-36), Muğla, Turkey, 1 - 05 September 2020, pp.22
- IX. **Determination of the Gamma Ray Mass Attenuation Coefficient of HB(PAE-b-PCL-DI)-PU-OPC Composites Sorbed Se and Pb Atoms**  
Mısırlıoğlu Y., BAŞKAN T., CİNAN Z. M., şentürk ş., BAYRAM T., YILMAZ A. H.  
CESCOP2019-International Conference on Chemical Energy Semiconductor Photochemistry, Trabzon, Turkey, 4 - 06 September 2019
- X. **Optical Model Calculation Descriptions of 6Li94Nb from 1-Neutron Transfer Channel in 7Li 93Nb Reaction at Energies Close to the Coulomb Barrier**  
Cinan Z. M., Yılmaz A. H., Erol B., Başkan T.  
ISAS2018-2th International Symposium on Innovative Approaches in Engineering and Natural Sciences, Samsun, Turkey, 30 November - 02 December 2018, pp.93
- XI. **Theoretical Disquisition of Angular Distributions for 6,7Li Elastic Scattering Reactions from Heavy MassTarget 208Pb Around The Coulomb Barrier**  
Cinan Z. M., Yılmaz A. H., Erol B., Başkan T.  
International Eurasian Conference onScience, Engineering and Technology(EurasianSciEnTech 2018), Ankara, Turkey, 22 - 23 November 2018, pp.123
- XII. **Theoretical Inspection of the Inelastic 3He Scattering Mechanism for 185, 187Re Around 10-30 MeV Energy Ranges**  
Cinan Z. M., Yılmaz A. H., Erol B., Başkan T.

5th INTERNATIONAL SYMPOSIUM ON MULTIDISCIPLINARY STUDIES (ISMS-2018), Ankara, Turkey, 16 - 17 November 2018, pp.56

**XIII. Coupled-Channel Analyses on  $^{160}\text{Er}$ ,  $^{72}\text{Ge}$ ,  $^{74}\text{Ge}$ ,  $^{76}\text{Ge}$  Heavy-Ion Fusion Reactions**

EROL B., YILMAZ A. H., CİNAN Z. M., BAŞKAN T.

XI. International Conference on Nuclear Structure Properties (NSP-2018), Trabzon, Turkey, 12 - 14 September 2018

**XIV. ELASTIC SCATTERING PROCESSES CALCULATIONS USING THE OPTICAL MODEL PARAMETERS OF  $^{19}\text{F}$ ,  $^{16}\text{O}$ ,  $^{17}\text{O}$ ,  $^{18}\text{O}$  REACTIONS AT MULTIFARIOUS ENERGY REGIONS**

Cinan Z. M., Yılmaz A. H., Erol B., Başkan T.

XI. INTERNATIONAL CONFERENCE ON NUCLEAR STRUCTURE PROPERTIES (NSP-2018), Trabzon, Turkey, 12 - 14 September 2018, pp.88

## Supported Projects

SAVAŞKAN YILMAZ S., YILMAZ A. H., MUTLU S., BAŞKAN T., ORTAÇ B., Project Supported by Higher Education Institutions, Kurşun Oksit ile Katkılandırılmış Çok Dalı Poli Kaprolakton Esaslı PAE-b-PCL Kompozitlerinin Radyasyon Kalkanı ve Termal İletkenlik Özelliklerinin İncelenmesi, 2022 - Continues

Çanakçı A., Çuvalcı H., Gedikli H., Yılmaz A. H., Varol T., Erdemir F., Karabacak A. H., Tunç S. A., Başkan T., Meriç D., et al., Project Supported by Higher Education Institutions, Production and Characterization of New Generation Functional Composite Armor Plates with High Ballistic Resistance and Radiation Absorption Properties, 2022 - 2025

## Tasks In Event Organizations

Başkan T., KÜÇÜKÖMEROĞLU T., INTERNATIONAL CONFERENCE ON CHEMICAL ENERGY SEMICONDUCTOR PHOTOCHEMISTRY, Scientific Congress, Trabzon, Turkey, Eylül 2019

Başkan T., DEMİRCİ M., XI. INTERNATIONAL CONFERENCE ON NUCLEAR STRUCTURE PROPERTIES, Scientific Congress, Trabzon, Turkey, Eylül 2018

## Scientific Research / Working Group Memberships

Ortac Group, İhsan Doğramacı Bilkent University, Turkey, <http://www.ortacgroup.org>, 2022 - Continues

Yılmaz Research Group, Karadeniz Technical University, Turkey, <https://avesis.ktu.edu.tr/arastirma-grubu/nucphys>, 2021 - Continues

## Metrics

Publication: 24

Citation (WoS): 45

Citation (Scopus): 54

H-Index (WoS): 3

H-Index (Scopus): 4

## Congress and Symposium Activities

II. INTERNATIONAL NUCLEAR SUMMER SCHOOL (CHERNOBYL and RIVNE NPP Technical Training Research) (National Scientific and Technical Center for Nuclear and Radiation Safety (SSTC NRS) of Ukraine, Energoatom, Odessa National Polytechnic University (ONPU) and Ankara University Institute of Nuclear Sciences), Attendee, Kyiv, Ukraine, 2019

2. Nükleer Bilimler Lisansüstü Öğrenci Kongresi, Attendee, Ankara, Turkey, 2019

International Symposium on Innovative Approaches in Scientific Studies, Attendee, Samsun, Turkey, 2018

5. International Symposium on Multidisciplinary Studies, Attendee, Ankara, Turkey, 2018

International Conference on Nuclear Structure Properties, Attendee, Trabzon, Turkey, 2018

## **Awards**

Cinan Z. M., Erol B., Başkan T., Mutlu S., Savaşkan Yılmaz S., Yılmaz A. H., TÜBİTAK Uluslararası Bilimsel Yayınları Teşvik (UBYT) Programı Q1 Yayın Teşvik Ödülü, Tübitak Ulakbim Uluslararası Bilimsel Yayınları Teşvik (Ubyt), March 2022

Cinan Z. M., Başkan T., Erol B., Mutlu S., Savaşkan Yılmaz S., Yılmaz A. H., TÜBİTAK Uluslararası Bilimsel Yayınları Teşvik (UBYT) Programı Q1 Yayın Teşvik Ödülü, Tübitak Ulakbim Uluslararası Bilimsel Yayınları Teşvik (Ubyt), December 2021