

Asst. Prof. Mustafa AĐLAR

Personal Information

Office Phone: [+90 216 681 5100](tel:+902166815100) Extension: 5197

Email: mcaglar@medipol.edu.tr

Other Email: drmustafacaglar@gmail.com

Web: <https://avesis.medipol.edu.tr/mcaglar>

Address: Kavacak Mah. Ekinciler Cad. No 19/1 Beykoz/İstanbul

International Researcher IDs

ScholarID: wtpRiMMAAAAJ

ORCID: 0000-0002-0106-7683

Publons / Web Of Science ResearcherID: AAK-9129-2021

ScopusID: 57206430340

Yoksis Researcher ID: 204844

Education Information

Doctorate, Yıldız Technical University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 2015 - 2021

Postgraduate, Istanbul University, Onkoloji Enstitüsü, Tıbbi Radyofizik (YI) (Tezli), Turkey 2012 - 2015

Postgraduate, Istanbul Technical University, Enerji Enstitüsü, Radyasyon Bilim Ve Teknoloji (YI) (Tezli), Turkey 2011 - 2012

Undergraduate, Sakarya University, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey 2006 - 2010

Dissertations

Doctorate, Tıbbi Radyasyon Zırhlamalarında Kullanılabilecek Çok Fonksiyonlu Mikro/Nano Kompozit Malzemelerin Geliştirilmesi ve Dozimetrik Özelliklerinin İncelenmesi, Yıldız Technical University, Fen Bilimleri Enstitüsü, Fizik (Dr), 2021

Postgraduate, Kranyospinal ışınlamalarda farklı tedavi tekniklerinin dozimetrik olarak karşılaştırılması, Istanbul University, Onkoloji Enstitüsü, Tıbbi Radyofizik (YI) (Tezli), 2014

Research Areas

Biophysics, Radiation Oncology, Radiodiagnostic, Radiation Biophysics, Physics, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Istanbul Medipol University, Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler Ve Teknikler Bölümü, 2013 - Continues

Academic and Administrative Experience

Head of Department, Istanbul Medipol University, Sağlık Bilimleri Enstitüsü, 2023 - Continues

Courses

TIBBİ RADYOFİZİK, Associate Degree, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

RADYASYONDAN KORUNMA, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Fizik, Undergraduate, 2014 - 2015, 2013 - 2014

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **The Effect of Dose Enhancement in Tumor With Silver Nanoparticles on Surrounding Healthy Tissues: A Monte Carlo Study**
Çağlar M., Eşitmez D., Cebe M. S.
TECHNOLOGY IN CANCER RESEARCH AND TREATMENT, vol.23, no.23, pp.1-8, 2024 (SCI-Expanded)
- II. **Na₂Si₃O₇/Ag micro and nano-structured glassy composites: The experimental and MCNP simulation surveys of their radiation shielding performances**
ÇAĞLAR M., KARABUL Y., KILIÇ M., GÜVEN ÖZDEMİR Z., İÇELLİ O.
Progress in Nuclear Energy, vol.139, 2021 (SCI-Expanded)
- III. **An investigation on gamma-ray shielding properties of quaternary glassy composite (Na₂Si₃O₇/Bi₂O₃/ B₂O₃/Sb₂O₃) by BXCOM and MCNP 6.2 code**
AKÇALI Ö., ÇAĞLAR M., TOKER O., Bilmez B., KAVANOZ H. B., İÇELLİ O.
Progress in Nuclear Energy, vol.125, 2020 (SCI-Expanded)
- IV. **A novel comprehensive utilization of vanadium slag/epoxy resin/antimony trioxide ternary composite as gamma ray shielding material by MCNP 6.2 and BXCOM**
KAVANOZ H. B., AKÇALI Ö., TOKER O., Bilmez B., ÇAĞLAR M., İÇELLİ O.
Radiation Physics and Chemistry, vol.165, 2019 (SCI-Expanded)
- V. **Radiation interaction parameters for blood samples of breast cancer patients: an MCNP study**
TOKER O., ÇAĞLAR M., ÖZ E., BAKIRDERE S., Topdagi O., Eyecioglu O., İÇELLİ O.
Radiation and Environmental Biophysics, vol.58, no.4, pp.531-537, 2019 (SCI-Expanded)
- VI. **Na₂Si₃O₇/BaO composites for the gamma-ray shielding in medical applications: Experimental, MCNP5, and WinXCom studies**
ÇAĞLAR M., Kayack H., KARABUL Y., KILIÇ M., GÜVEN ÖZDEMİR Z., İÇELLİ O.
Progress in Nuclear Energy, vol.117, 2019 (SCI-Expanded)
- VII. **Dosimetric evaluation of right coronary artery in radiotherapy for breast cancer**
Altınok A., Askeroğlu O., Doyuran M., ÇAĞLAR M., Cantürk E., EROL C., Beşe N.
Medical Dosimetry, vol.44, no.3, pp.205-209, 2019 (SCI-Expanded)
- VIII. **Availability of water glass/Bi₂O₃ composites in dielectric and gamma-ray screening applications**
Demirbay T., ÇAĞLAR M., KARABUL Y., KILIÇ M., İÇELLİ O., GÜVEN ÖZDEMİR Z.
Radiation Effects and Defects in Solids, vol.174, no.5-6, pp.419-434, 2019 (SCI-Expanded)
- IX. **BXCOM: a software for computation of radiation sensing**
Eyecioglu Ö., El-Khayatt A., KARABUL Y., ÇAĞLAR M., TOKER O., İÇELLİ O.
Radiation Effects and Defects in Solids, vol.174, no.5-6, pp.506-518, 2019 (SCI-Expanded)
- X. **Dielectric and gamma shielding properties of sodium silicate glassy structure modified with tungsten**
KILIÇ M., ÇAĞLAR M., KARABUL Y., GÜVEN ÖZDEMİR Z., İÇELLİ O.
Radiation Effects and Defects in Solids, vol.174, no.3-4, pp.229-247, 2019 (SCI-Expanded)
- XI. **Determination of Se, Cr, Mn, Zn, Co, Na, and K in blood samples of breast cancer patients to investigate their variation using ICP-MS and ICP-OES**
Tokera O., Topdagi Ö., BAKIRDERE S., Bursahoglu E. O., ÖZ E., Eyecioglu Ö., KARABUL Y., ÇAĞLAR M., İçell O.

Atomic Spectroscopy, vol.40, no.1, pp.11-16, 2019 (SCI-Expanded)

- XII. **X-ray irradiated LDPE/PP blends with high mechanical and dielectric performance**
ALKAN Ü, KILIÇ M., KARABUL Y., ÇAĞLAR M., İÇELLİ O., GÜVEN ÖZDEMİR Z.
Journal of Applied Polymer Science, vol.135, no.31, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Experimental validation of peripheral dose distribution of electron beams for eclipse electron Monte Carlo algorithm**
Acar H., ÇAĞLAR M., Altinok A. Y.
Journal of Radiotherapy in Practice, vol.17, no.3, pp.279-288, 2018 (Scopus)
- II. **Does preoperative positron emission tomography help delineate the boost volume after oncoplastic surgery for breast cancer?**
Yildirim Altinok A., Doyuran M., ÇAĞLAR M., ÇAKIR T., Acar H., Küçükorkoç E., Küçük N., Çağlar H., ATASEVER T.
Turk Onkoloji Dergisi, vol.32, no.4, pp.160-164, 2017 (Scopus)

Books & Book Chapters

- I. **TERMOPLASTİK POLİÜRETAN/GADOLİNYUM OKSİT KOMPOZİTLERİNİN RADYASYON ZIRHLAMA ÖZELLİKLERİNİN İNCELENMESİ**
Çağlar M.
in: FEN VE MÜHENDİSLİKTE ANALİZ, SENTEZ VE UYGULAMALAR, Dr. Öğr. Üyesi Serkan GÜLDAL, Editor, İKSAD, Ankara, pp.35-48, 2023
- II. **GAMMA-RAY SHIELDING PARAMETERS FOR PC/BATIO3 COMPOSITES**
Erdönmez S., Çağlar M., Eşitmez D., Karabul Y.
in: Engineering Sciences Issues, Opportunities and Researches, Halil Ibrahim KURT Engin ERGÜL, Editor, Livre de Lyon, Lyon, pp.133-144, 2023

Refereed Congress / Symposium Publications in Proceedings

- I. **An investigation of ternary composites as gamma ray shielding material by Monte Carlo simulation and BXCUM**
KAVANOZ H. B., AKÇALI Ö., TOKER O., Bilmez B., YILMAZ M., ÇAĞLAR M., İÇELLİ O.
Eighth Bozok Science Workshop, Yozgat, Turkey, 25 - 27 July 2019
- II. **Study of electron density via some elements in breast cancer patients' blood samples**
TOKER O., TOPDAĞI Ö., BAKIRDERE S., BURSALIOĞLU E. O., ÖZ E., EYECİOĞLU Ö., KARABUL Y., ÇAĞLAR M., İÇELLİ O.
International Advanced Researches Engineering Congress-2017, 16 - 18 November 2017
- III. **Investigation of the variations in Se, Cr, Mn, Zn, Co, Na, K concentrations in blood samples of breast cancer patients**
TOKER O., TOPDAĞI Ö., BAKIRDERE S., BURSALIOĞLU E. O., ÖZ E., EYECİOĞLU Ö., KARABUL Y., ÇAĞLAR M., İÇELLİ O.
International Advanced Researches and Engineering Congress, Osmaniye, Turkey, 16 - 17 November 2017
- IV. **Sodium Silicate/Wolfram Glassy Composites: Investigation of Shielding and Dielectric Parameters**
KARABUL Y., KILIÇ M., GÜVEN ÖZDEMİR Z., ÇAĞLAR M., İÇELLİ O.
2nd International Conference on Material Science and Technology in Cappadocia, 11 - 13 October 2017, pp.169
- V. **Enhance of the Radiation Shielding Performance of Concrete with Kufeki Stone Additive**
BULGURCUOĞLU A. E., ÇAĞLAR M., KARABUL Y., KILIÇ M., GÜVEN ÖZDEMİR Z., İÇELLİ O.
2nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'17), 11 - 13 October 2017, pp.353

- VI. **Investigation of Shielding Properties: Sodium Silicate/Kufeki Glassy Structure**
BULGURCUOĞLU A. E., KARABUL Y., KILIÇ M., ÇAĞLAR M., GÜVEN ÖZDEMİR Z., İÇELLİ O.
2nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'17), 11 - 13 October 2017, pp.256
- VII. **LDPE/PP Composites: Dielectric and Mechanical Properties under Low Level Radiation**
KILIÇ M., ALKAN Ü., GÜVEN ÖZDEMİR Z., KARABUL Y., ÇAĞLAR M., İÇELLİ O.
2nd International Conference on Material Science and Technology in Cappadocia (IMSTEC'17), 11 - 13 October 2017, pp.321
- VIII. **Boost volume assessment in breast cancer: preop tumor volume vs clips used in oncoplastic surgery**
ÇAĞLAR M., ACAR DEMİR H., ÖZKÖK H. B., esra k.
Kongre, 29 April 2016

Supported Projects

- Çağlar M., TUBITAK Project, YENİ NESİL OPTİK UYARIMLI LÜMİNESANS DOZİMETRE SİSTEMLERİNİN GELİŞTİRİLMESİ, 2022 - 2024
- ÇAĞLAR M., Project Supported by Higher Education Institutions, Çinko Borasilikat Camların Üretimi, Karakterizasyonu ve Alternatif Radyasyon Zırh Malzemesi Olarak Değerlendirilmesi, 2021 - 2022
- TUBITAK Project, Bor Mineral Atıklarının Fotovoltaik Uygulamalarda Kullanılması, 2015 - 2016

Metrics

- Publication: 24
Citation (Scopus): 153
H-Index (Scopus): 8

Entrepreneurship Activities

- Limited, My Teknolab Medikal Teknoloji Ltd. Şti, 19 September 2022, Founder Owner