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### Education Information

Post Doctorate, Katholieke Hogeschool Leuven, Mühendislik Fakültesi, Fizik Muh., Belgium 2005 - 2005

Doctorate, Hacettepe University, Mühendislik Fakültesi, Fizik Muh, Turkey 1996 - 2004

Postgraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Muh., Turkey 1993 - 1996

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Muh., Turkey 1989 - 1993

### Foreign Languages

English, C1 Advanced

### Research Areas

Physics, Atomic and Molecular Physics, Atomic and Molecular Interactions, Natural Sciences

### Academic and Administrative Experience

Hacettepe Üniversitesi, İş Sađlığı Ve Güvenliđi, Meslek Hastalıkları Uygulama Ve Araştırma Merkezi, 2012 - Continues

Hacettepe Üniversitesi, Nükleer Bilimler Enstitüsü, 2011 - 2012

### Courses

FİZ 137-26, Undergraduate, 2017 - 2018

HAS222-21, Undergraduate, 2017 - 2018

FİZ 467-01, Undergraduate, 2017 - 2018

FİZ301-LAB V-KUANTUM FİZİĞİ LAB, Undergraduate, 2017 - 2018, 2016 - 2017

FİZ167-FİZİK1, Undergraduate, 2016 - 2017

FİZ475-TASARIM DERSİ, Undergraduate, 2016 - 2017

FİZ467-SAĞLIK FİZİĞİ, Undergraduate, 2016 - 2017

### Advising Theses

ÇOLAK Ş., ZnO nano sistemlerinin sentezlenmesi ve manyetik özelliklerinin elektron paramanyetik rezonans (EPR) spektroskopisi ile incelenmesi, Postgraduate, C.AKTÜRK(Student), 2013

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

- I. **EPIDEMIOLOGICAL CHARACTERISTICS OF VIRAL HEPATITIS IN PATIENTS WITH RHEUMATIC DISEASES - IMPLICATIONS FROM TREASURE DATABASE**  
Ersozlu D., Ekici M., COŞKUN N., Badak S. O., Bilgin E., Kalyoncu U., Yagiz B., PEHLİVAN Y., Kucuksahin O., Erden A., et al.  
ANNALS OF THE RHEUMATIC DISEASES, vol.81, pp.919-920, 2022 (SCI-Expanded)
- II. **DO PERIPHERAL AND EXTRA MUSCULOSKELETAL MANIFESTATIONS HAVE AN IMPACT ON BIOLOGIC DMARD PRESCRIBING PATTERNS IN AXIAL SPONDYLOARTHRITIS: THE RESULTS OF TREASURE EXPERIENCE**  
Ediboglu E. D., Solmaz D., Karadag O., PEHLİVAN Y., Cinar M., Ertenli A. I., COŞKUN N., Ersozlu D., Kucuksahin O., Ates A., et al.  
ANNALS OF THE RHEUMATIC DISEASES, vol.80, pp.731, 2021 (SCI-Expanded)
- III. **Damage assessment in adult IgA vasculitis. Cross-sectional results of a multicentre cohort**  
Gazel U., Colak S., Sari A., Cansu D. U., Yazici A., Cefle A., Bes C., Karadag O., Omma A., Direskeneli H., et al.  
CLINICAL AND EXPERIMENTAL RHEUMATOLOGY, vol.38, no.2, 2020 (SCI-Expanded)
- IV. **The Effect of Different Sterilization Methods on Polypropylene Syringes**  
Turker N. S., Ozer A. Y., Kutlu B., Nohutcu R., ÇOLAK Ş., EKİZOĞLU M., Ozalp M.  
JOURNAL OF MEDICAL DEVICES-TRANSACTIONS OF THE ASME, vol.12, no.2, 2018 (SCI-Expanded)
- V. **Preparation and characterization of ethylenediamine modified glycidyl methacrylate-grafted nonwoven cotton fabric adsorbent**  
Korpayev S., KAVAKLI C., ÇOLAK Ş., Kavaklı P.  
Cellulose, vol.25, no.1, pp.813-828, 2018 (SCI-Expanded)
- VI. **ESR investigations of gamma irradiated medical devices**  
Turker N. S., Ozer A. Y., ÇOLAK Ş., Kutlu B., Nohutcu R.  
APPLIED RADIATION AND ISOTOPES, vol.130, pp.121-130, 2017 (SCI-Expanded)
- VII. **Investigation of radiosterilization feasibility of sulfamethoxazole by ESR spectroscopy**  
ÇOLAK Ş.  
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.172, pp.835-850, 2017 (SCI-Expanded)
- VIII. **Nano drug delivery systems and gamma radiation sterilization**  
Sakar F., Özer A. Y., Erdoğan S., Ekizoğlu M., Kart D., Özalp M., Çolak Ş., Zencir Y.  
PHARMACEUTICAL DEVELOPMENT AND TECHNOLOGY, vol.22, no.6, pp.775-784, 2017 (SCI-Expanded)
- IX. **Synthesis and Characterization of Undoped and Doped (Mn, Cu, Co) ZnO Nanoparticles: An EPR Study**  
ÇOLAK Ş., Akturk C.  
EMR/ESR/EPR SPECTROSCOPY FOR CHARACTERIZATION OF NANOMATERIALS, vol.62, pp.151-179, 2017 (SCI-Expanded)
- X. **Investigation of radiosterilization of Benzylamine Hydrochloride by electron spin resonance spectroscopy**  
ÇOLAK Ş.  
RADIATION PHYSICS AND CHEMISTRY, vol.127, pp.204-209, 2016 (SCI-Expanded)
- XI. **Feasibility of radiation sterilization and dosimetric features of ampicillin: an electron spin resonance study**  
ÇOLAK Ş.  
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.171, pp.904-915, 2016 (SCI-Expanded)
- XII. **The effects of gamma irradiation on diclofenac sodium, liposome and niosome ingredients for rheumatoid arthritis**

- ÖZER A. Y., TURKER S., ÇOLAK Ş., Korkmaz M., KILIÇ E., ÖZALP M.  
Interventional Medicine and Applied Science, vol.5, no.3, pp.122-130, 2013 (SCI-Expanded)
- XIII. **Gamma-irradiated liposome/niosome and lipogelosome/niogelosome formulations for the treatment of rheumatoid arthritis**  
TURKER S., ÖZER A. Y., KILIÇ E., ÖZALP M., ÇOLAK Ş., Korkmaz M.  
Interventional Medicine and Applied Science, vol.5, no.2, pp.60-69, 2013 (SCI-Expanded)
- XIV. **An ESR study on biological dosimeters: Human hair**  
ÇOLAK Ş., ÖZBEY T.  
RADIATION MEASUREMENTS, vol.46, no.5, pp.465-472, 2011 (SCI-Expanded)
- XV. **ESR identification of gamma-irradiated albendazole**  
Çolak S.  
Radiation Effects and Defects in Solids, vol.165, no.1, pp.72-82, 2010 (SCI-Expanded)
- XVI. **Investigation of spectroscopic and kinetic features of the radicals produced in gamma irradiated butylated hydroxyanisole**  
ÇOLAK Ş., Korkmaz M., GUENES C., DOELEK S.  
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.164, no.2, pp.101-112, 2009 (SCI-Expanded)
- XVII. **ESR response of gamma-irradiated sulfamethazine**  
ÇOLAK Ş., Korkmaz M.  
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.164, no.12, pp.788-799, 2009 (SCI-Expanded)
- XVIII. **Investigation of radiosterilization and dosimetric features of sulfacetamide sodium**  
Colak S., KORKMAZ M.  
JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS, vol.36, no.4, pp.791-798, 2004 (SCI-Expanded)
- XIX. **Spectroscopic features of radiolytic intermediates induced in gamma irradiated sulfatiazole: an ESR study**  
Colak S., KORKMAZ M.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.285, pp.1-11, 2004 (SCI-Expanded)
- XX. **Kinetics of the radicals induced in gamma irradiated sulfafurazole: An EPR study**  
Colak S., KORKMAZ M.  
ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.59, pp.481-487, 2004 (SCI-Expanded)
- XXI. **Radiosterilization of sulfonamides: I: determination of the effects of gamma irradiation on solid sulfonamides**  
Mercanoglu G., Ozer A. Y., Colak S., Korkmaz M., Ozalp M. A., Ekizoglu M., Barbarin N., Tilquin B.  
RADIATION PHYSICS AND CHEMISTRY, vol.69, no.6, pp.511-520, 2004 (SCI-Expanded)
- XXII. **Investigation of structural and dynamic features of the radicals produced in gamma irradiated sulfanilamide: an ESR study**  
Colak S., Korkmaz M.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.267, pp.49-58, 2003 (SCI-Expanded)

## Articles Published in Other Journals

- I. **An ESR study on fingernail as a biological dosimeter**  
ÇOLAK Ş., ÖZBEY T.  
Journal of Physical Education and Sport, vol.12, no.3, pp.289-301, 2012 (Scopus)
- II. **Gamma irradiation of liposomal phospholipids**  
ERDOĞAN S., ÖZER A. Y., EKIZOĞLU M., ÖZALP M., ÇOLAK Ş., Korkmaz M.  
Fabad Journal of Pharmaceutical Sciences, vol.31, no.4, pp.182-190, 2006 (Scopus)
- III. **The effects of gamma radiation sterilization on cefazolin sodium**  
LIMAN V., ÖZER Y. A., ÇOLAK Ş., Korkmaz M., KILIÇ E., ÖZALP M.  
Fabad Journal of Pharmaceutical Sciences, vol.30, no.3, pp.124-132, 2005 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **CLINICAL CHARACTERISTICS AND DISEASE COURSE BEFORE AND AFTER SARS-COV-2 INFECTION IN A LARGE COHORT OF SYSTEMIC SCLEROSIS PATIENTS**  
Guler A. A., Ozcimen B., Aydogdu M., Sari A., Aliyeva N., Tuzun N., Colak S., Karadeniz H., Vasi I., KÜÇÜK H., et al.  
European Congress of Rheumatology (EULAR), Milan, Italy, 31 May - 03 June 2023, pp.1890
- II. **PREDICTORS AND SEVERITY OF POST-THROMBOTIC SYNDROME IN VASCULAR BEHCET'S DISEASE: RETROSPECTIVE MULTICENTER STUDY**  
Aksoy A., Colak S., Yagiz B., Seniz B. N., Omma A., Yildiz Y., Atas N., Ilgin C., Sari A., Erden A., et al.  
Annual European Congress of Rheumatology (EULAR), ELECTR NETWORK, 03 June 2020, vol.79, pp.367-368
- III. **ESR INVESTIGATION OF X-RAY EXPOSURE ON SOME ANTI-DIABETICS AND PROTON PUMP INHIBITORS**  
SARCAN E. T., Taş A., SİLİNDİR GÜNAY M., ÖZER A. Y., ÇOLAK Ş., HEKİMOĞLU B.  
International Conference on Radiation Applications, 16 - 19 September 2019
- IV. **ESR Investigation of X-ray Exposed Pharmaceutics**  
SARCAN E. T., TAŞ A., SİLİNDİR GÜNAY M., ÖZER A. Y., ÇOLAK Ş., HEKİMOĞLU B.  
International Conference on Radiation Applications (RAP 2019), 16 - 19 September 2019
- V. **ESR Studies of Gamma Radiation and Microwave Sterilized Grafts for Periodontological Applications**  
Bargh S., SİLİNDİR GÜNAY M., ÖZER A. Y., ÇOLAK Ş., KUTLU H. B., NOHUTCU R. M.  
International Conference on Ionizing Processes (ICIP 2018), Maryland, United States Of America, 22 July 2018, pp.87
- VI. **Synthesis and FMR Study of the Fe<sub>3</sub>O<sub>4</sub> Nanoparticles**  
ERSOY N., Çitoğlu S., ÇOLAK Ş., COŞKUN M.  
Nanoscience and Nanotechnology for Next Generation (NaNONG) 2014, Elazığ, Turkey, 20 August 2014
- VII. **Studies on gamma radiation sterilization on liquid crystalline and gel state liposomes**  
Sakar F., ERDOĞAN S., ÖZER A. Y., EKİZOĞLU M., KART D., ÖZALP M., ÇOLAK Ş.  
Gordon Research Conferences on "Radiation Chemistry, 29 July - 03 August 2012
- VIII. **Kama filtresinden kaynaklanan notron kontaminasyonunun esdeger doza katkisinin 18 MV medikal lineer hizlandiricida BD-PND bubble dedektor kullanilarak olculmesi**  
BİLTEKİN F., ÖZYİĞİT G., ÇOLAK Ş., ÇELİK D., AKYOL H. F., CENGİZ M., YILDIZ F., ZORLU A. F., GÜRKAYNAK H. M.  
10. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 19 - 23 April 2012
- IX. **Notron kontaminasyonundan kaynakli esdeger dozun alan boyutuna bagimlilikinin dozimetrik olarak incelenmesi**  
BİLTEKİN F., ÖZYİĞİT G., ZORLU A. F., ÇELİK D., AKYOL H. F., CENGİZ M., YILDIZ F., ÇOLAK Ş., GÜRKAYNAK H. M.  
10. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 19 - 23 April 2012
- X. **6 MV foton enerjisinde SRT/SRS ve YART uygulamalarından kaynakli notron kontaminasyonunun dozimetrik olarak olculmesi**  
BİLTEKİN F., ÖZYİĞİT G., CENGİZ M., ÇELİK D., ZORLU A. F., YILDIZ F., AKYOL H. F., ÇOLAK Ş., GÜRKAYNAK H. M.  
10. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 19 - 24 April 2012
- XI. **9 MeV, 10 MeV, 15 MeV ve 18 MeV elektron enerjilerinde BD-PND bubble dedektor kullanilarak notron kontaminasyonu olcumu**  
BİLTEKİN F., ÖZYİĞİT G., YILDIZ F., ÇELİK D., CENGİZ M., AKYOL H. F., ZORLU A. F., ÇOLAK Ş., GÜRKAYNAK H. M.  
10. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 19 - 23 April 2012
- XII. **18 MV foton enerjisinde 3B-KRT ve YART tekniği ile tedavi planlamasi yapilan prostat kanserli hastalarda notron kontaminasyonundan kaynakli ikincil kanser riskinin degerlendirilmesi**  
BİLTEKİN F., ÖZYİĞİT G., AKYOL H. F., ÇELİK D., YILDIZ F., ZORLU A. F., CENGİZ M., ÇOLAK Ş., GÜRKAYNAK H. M.  
10. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 19 - 23 April 2012
- XIII. **Comparative evaluation of gamma irritated drug carrier systems**  
Sakar F., ERDOĞAN S., ÖZER A. Y., EKİZOĞLU M., KART D., ÖZALP M., ZENCİR Y., ÇOLAK Ş.  
12th International Symposium on Advances in Technology& Business Potential of New Drug Delivery Systems, 9 - 10 February 2012

#### XIV. Some drug carrier systems and gamma irradiation

Sakar F., ERDOĞAN S., ÖZER A. Y., EKİZOĞLU M., KART D., ÖZALP M., ZENCİR Y., ÇOLAK Ş.

12th International Symposium on Advances in Technology& Business Potential of New Drug Delivery Systems, 9 - 10 February 2012

#### Supported Projects

SİLİNDİR GÜNAY M., NOHUTCU R. M., BARGH S., ÖZER A. Y., KUTLU H. B., İDE S., ÇOLAK Ş., EKİZOĞLU M., Project Supported by Higher Education Institutions, Periodontolojide Kullanılan Dermal Greftler Kemik Greftler ve Kortikal Laminaların Gama Radyasyonuyla Sterilizasyonu, 2017 - 2020

ÖZER A. Y., Sarcan E. T., Taş A., ÇOLAK Ş., SİLİNDİR GÜNAY M., HEKİMOĞLU B., Project Supported by Higher Education Institutions, Farmasötik Preparatların X-ışını Maruziyeti, 2018 - 2019

ÇOLAK Ş., POLAT M., Project Supported by Higher Education Institutions, Araştırma Laboratuvarında Yenileme Çalışmaları, 2017 - 2018

İDE S., SÜNETÇİOĞLU M. M., YILDIRIM L., ÖZBEY S., POLAT M., ÇOLAK Ş., Project Supported by Higher Education Institutions, FİZ301 FİZİK LAB. V. (Kuantum Fiziği Laboratuvarı) dersi kapsamındaki bazı deney donanımlarının sarf malzeme eksikliklerinin giderilmesi, 2014 - 2015

#### Metrics

Publication: 41

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Citation (Scopus): 127

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