

## CURRICULUM VITAE

Name and Surname: Mehmet Fatih TURHAN  
Academic Title: Associate Professor  
Work Address:  
Email: fatih.turhan@afsu.edu.tr

| Degree    | Department/Program            | University         | Year |
|-----------|-------------------------------|--------------------|------|
| Doctorate | ATOM VE MOLEKÜLER FİZİĞİ (DR) | Atatürk University | 2017 |

| Position Title      | Workplace                                 | Year           |
|---------------------|---|----------------|
| Associate Professor | Afyonkarahisar Health Sciences University | 2022-Continues |

### Administrative Duties:

1. Head of Department - Afyonkarahisar Health Sciences University (2020 - Continues)

## PUBLICATIONS

### A. Articles published in international peer-reviewed journals:

- A1.** Turhan M. F., Kaçal M. R., Özdoğan H., Turşucu A., Akman F., Ogul H., Polat H., Yurtcan S., "Determination of neutron and gamma ray shielding properties, secondary radiation formations and neutron damage of composites containing polyester/pyrite/titanium diboride", *Applied Radiation and Isotopes*, vol. 225, 2025.
- A2.** Akman F., Turhan M. F., Ogul H., Özdoğan H., Turhan M. K., "A study on photon/neutron interaction parameters with some alloys implant frequently used in orthopedics", *Radiation Physics and Chemistry*, vol. 235, 2025.
- A3.** Turhan M. F., Turşucu A., Ogul H., Kaçal M. R., Polat H., Çolak E., Yurtcan S., Akman F., "A study on radiation interaction parameters of boron carbide/zirconium boride composites", *Applied Physics A*, vol. 131, 2025.
- A4.** Akman F., Turhan M. F., Ogul H., Turşucu A., Erdoğan T., Kaçal M. R., Polat H., "Production and evaluation of the polyester composites containing pyrite and niobium diboride for radiation protection", *Radiation Physics and Chemistry*, vol. 226, 2025.
- A5.** Akman F., Ogul H., Turhan M. F., Ağırlı C. Ş., "Interactions between X-/gamma rays and alloys used in dental braces: A study on theory and simulations", *Radiation Physics and Chemistry*, vol. 215, 2024.
- A6.** Turhan M. F., Akman F., "K shell fluorescence parameters of some elements at 59.54 keV: Experimental and theoretical results", *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms*, vol. 534, pp. 16-25, 2023.
- A7.** Turhan M. F., Akman F., Kaçal M. R., Polat H., Demirkol İ., "A study for gamma-ray attenuation performances of barite filled polymer composites", *Applied Radiation and Isotopes*, vol. 191, 2023.
- A8.** Turhan M. F., Akman F., Taşer A., Dilsiz K., Ogul H., Kaçal M. R., Açar O., "Gamma radiation shielding performance of CuxAg(1-x)-alloys: Experimental, theoretical and simulation results", *PROGRESS IN NUCLEAR ENERGY*, vol. 143, no. 104036, pp. 1-13, 2022.
- A9.** Turhan M. F., "Photon interaction performance of various contrast agents: Theoretical and simulation results", *Applied Radiation and Isotopes*, vol. 177, no. 109920, pp. 1-14, 2021.
- A10.** Kurtuluş R., Kavas T., Agar O., Turhan M. F., Kaçal M., Dursun I., Akman F., "Study on recycled Er-incorporated waste CRT glasses for photon and neutron shielding", *Ceramics International*, vol. 47, no. 18, pp. 26335-26349, 2021.
- A11.** Turhan M. F., Akman F., Polat H., Kaçal M. R., Demirkol İ., "Gamma-ray attenuation behaviors of hematite doped polymer composites", *PROGRESS IN NUCLEAR ENERGY*, vol. 129, no. 103504, pp. 1-12, 2020.

- A12.** Akman F., Ogul H., Kaçal M. R., Polat H., Dilsiz K., Turhan M. F., "Impact of lead(II) iodide on radiation shielding properties of polyester composites", *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*, vol. 126, no. 301, pp. 1-9, 2020.
- A13.** Turhan M. F., Akman F., Kaçal M. R., Durak R., "Determination of some fluorescence parameters of L sub-shells for Th and U at 59.54 keV photon energy", *Applied Radiation and Isotopes*, vol. 157, no. 109025, pp. 1-6, 2020.
- A14.** Turhan M. F., Turşucu A., Akman F., Akdemir F., Durak R., "Chemical effect on K shell X-ray fluorescence parameters for some Mn and Ni compounds", *Radiation Physics and Chemistry*, vol. 168, no. 108564, pp. 1-6, 2020.
- A15.** Turhan M. F., Durak R., Akman F., Kaçal M. R., Araz A., "Determination of some selected absorption parameters for Cd, La and Ce elements", *RADIATION PHYSICS AND CHEMISTRY*, vol. 159, pp. 101-108, 2019.
- A16.** Akman F., Durak R., Turhan M. F., Kaçal M., "Studies on effective atomic numbers, electron densities from mass attenuation coefficients near the K edge in some samarium compounds", *Applied Radiation and Isotopes*, vol. 101, pp. 107-113, 2015.
- A17.** Akman F., Durak R., Kaçal M., Turhan M. F., "Measurement of Li X-ray fluorescence production cross sections and intensity ratios of some elements at 59.54 keV", *Canadian Journal of Physics*, vol. 93, no. 10, pp. 1057-1066, 2015.
- A18.** Akman F., Durak R., Kaçal M. R., Turhan M. F., Akdemir F., "Determination of K-shell absorption jump factors and jump ratios for La<sub>2</sub>O<sub>3</sub>, Ce and Gd using two different methods", *Radiation Physics and Chemistry*, vol. 107, pp. 75-81, 2015.
- A19.** Turhan M. F., Durak R., Akman F., "Determination of L X-ray fluorescence parameters for Ho, Lu, W, Hg and Bi", *Applied Radiation and Isotopes*, vol. 89, pp. 151-158, 2014.
- A20.** Kaçal M., Durak R., Akman F., Turhan M. F., Han I., "Measurement of L subshell fluorescence cross sections and intensity ratios of heavy elements at 22.6keV", *Radiation Physics and Chemistry*, vol. 80, no. 6, pp. 692-700, 2011.

## **B. Papers presented at international scientific meetings and published in proceedings:**

- B1.** Turhan M. F., DETERMINATION OF PHOTON INTERACTION PARAMETERS OF SOME SELECTED BIOMATERIALS, In: *4th INTERNATIONAL CONGRESS OF MULTIDISCIPLINARY STUDIES IN MEDICAL SCIENCES*, Antalya, Türkiye, 2022.
- B2.** Turhan M. F., PHOTON INTERACTION PERFORMANCE OF DENTAL COMPOSITES, In: *AHI EVRAN International Conference on Scientific Research*, Kırşehir, Türkiye, 2021.
- B3.** Turhan M. F., STUDY of GAMMA RADIATION ATTENUATION PARAMETERS of ZnO, SnO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub>., In: *5th International Conference on Multidisciplinary Sciences*, Türkiye, 2020.
- B4.** Turhan M. F., Akman F., Kaçal M. R., Durak R., Calculation of Absorption Parameters for Some Selected Minerals in the Energy Range of 1 keV to 100 GeV, In: *4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES*, Ağrı, Türkiye, 2019.
- B5.** Turhan M. F., Akman F., Akman F., Durak R., Calculation of Radiation Interaction Parameters for Commonly Used Polymers in Daily-life, In: *4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES*, Ağrı, Türkiye, 2019, pp. 190-197.
- B6.** Akman F., Kaçal M. R., Polat H., Turhan M. F., Durak R., Investigation of the Radiation Attenuation Properties for Bi<sub>2</sub>S<sub>3</sub> Doped Polymer Concretes, In: *4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES*, Ağrı, Türkiye, 2019.
- B7.** Turhan M. F., Durak R., Kaçal M. R., Akman F., Determination of Gamma Ray Buildup Factors of Some Enzyme Inhibitors, In: *4th INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCES*, Ağrı, Türkiye, 2019.
- B8.** Akdemir F., Akman F., Geçibesler İ. H., Kaçal M. R., Turhan M. F., Durak R., Investigation of radiation absorption parameters for some plants using XRF technique in the energy range 13.92-59.54 keV, In: *3rd International Conference on Advances in Natural and Applied Sciences*, Antalya, Türkiye, 2018.
- B9.** Durak R., Turhan M. F., Akdemir F., Araz A., Akman F., Evaluation of absorption parameters for CaCO<sub>3</sub>, MgCO<sub>3</sub>, NaHCO<sub>3</sub>, (NH<sub>4</sub>)<sub>2</sub>HPO<sub>4</sub>, In: *3rd International Conference on Advances in Natural and Applied Sciences*, Antalya, Türkiye, 2018.
- B10.** Durak R., Akman F., Akdemir F., Turhan M. F., Araz A., Calculation of effective atomic numbers and electron densities for some selected solvents, In: *3rd International Conference on Advances in Natural and Applied Sciences*, Antalya, Türkiye, 2018.
- B11.** Durak R., Akman F., Akdemir F., Turhan M. F., Araz A., The radiation absorption characteristics of some organic photovoltaic materials in the wide energy range, In: *3rd International Conference on Advances in Natural and Applied Sciences*, Antalya, Türkiye, 2018.
- B12.** Akdemir F., Akman F., Geçibesler İ. H., Kaçal M. R., Turhan M. F., Durak R., Measurement of mass attenuation coefficients and molar extinction coefficients of Alyssum Pateri Subsp. Prostratum, In: *3rd International Conference on Advances in Natural and Applied Sciences*, Antalya, Türkiye, 2018.
- B13.** Durak R., Turhan M. F., Akdemir F., Akman F., Calculation of absorption parameters for some selected ferrite ceramics, In: *3rd International Conference on Advances in Natural and Applied Sciences*, Antalya, Türkiye, 2018.
- B14.** Turhan M. F., Akman F., Durak R., Investigation of X-ray fluorescence parameters for Ba, In: *International Congress on Science and Education 2018*, Afyonkarahisar, Türkiye, 2018.
- B15.** Turhan M. F., Akman F., X-ray absorption parameters at different energies for BaSO<sub>4</sub>, In: *International Congress on Science and Education 2018*, Afyonkarahisar, Türkiye, 2018.
- B16.** Durak R., Turhan M. F., Akman F., Investigation of K shell Oscillator Strengths and Related Parameters for Sb and Ce, In: *4. International congress on technology engineering and science*, Malaysia, 2017.

- B17.** Akdemir F., Turhan M. F., Akman F., Durak R., Araz A., Measurements of K Shell Absorption Parameters for Ce, In: *2nd INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL AND APPLIED SCIENCES, ANTALYA, TURKEY*, Antalya, Türkiye, 2017.
- B18.** Akman F., Durak R., Kaçal M. R., Turhan M. F., Determination of K Li sub shell total K L and total K M shell vacancy transfer probabilities for Europium Gadolinium and Terbium, In: *International Physics Conference At The Anatolian Peak*, Erzurum, Türkiye, 2016.
- B19.** Turhan M. F., Akman F., Kaçal M. R., Durak R., Determination of K shell fluorescence parameters for some elements in the atomic number range 50 Z 60, In: *International Physics Conference At The Anatolian Peak*, Erzurum, Türkiye, 2016.
- B20.** Turhan M. F., Akman F., Durak R., The LIII subshell X ray production cross sections of Yb Hf Ta and W elements at photons of 0 0208 nanometer wavelength, In: *International Semiconductor Science & Technology Conference*, İstanbul, Türkiye, 2014.
- B21.** Akman F., Turhan M. F., Durak R., Demirkol İ., Determination of K X ray production cross sections and K K intensity ratios for Ba La Ce and Gd elements excited with photons of 0 0208 nanometer wavelengths, In: *International Semiconductor Science & Technology Conference*, İstanbul, Türkiye, 2014.
- B22.** Akman F., Turhan M. F., Akdemir F., Kaçal M. R., Durak R., Bazı Gd bileşiklerinin K tabakası soğurma parametrelerinin belirlenmesi, In: *TFD 30. International Physics Congress*, İstanbul, Türkiye, 2013.
- B23.** Akdemir F., Araz A., Akman F., Turhan M. F., Durak R., Sm Gd Pb ve Bi elementleri için IL IL IL IL IL IL şiddet oranlarının ölçülmesi, In: *TFD 30. International Physics Congress*, İstanbul, Türkiye, 2013.
- B24.** Turhan M. F., Akman F., Durak R., Kaçal M. R., Er Lu Au ve Pb Elementleri İçin K Tabakası Floresans Verim ve Seviye Genişlikleri Ölçülmesi, In: *TFD 29. International Physics Congress*, Muğla, Türkiye, 2012.
- B25.** Akman F., Turhan M. F., Kaçal M. R., Durak R., 59 54 keV Foton Enerjisinde Atom Numarası 22 68 Aralığında Bazı Elementlerin Kbeta Kalfa X ışını Şiddet Oranlarının Ölçülmesi, In: *TFD 29. International Physics Congress*, Muğla, Türkiye, 2012.
- B26.** Akman F., Turhan M. F., Kaçal M. R., Han İ., Relative Intensities of L Subshell X rays In Some High Z Elements, In: *TFD 29. International Physics Congress*, Muğla, Türkiye, 2012.
- B27.** Durak R., Turhan M. F., Akman F., Kaçal M. R., Measurements of Radiative Vacancy Transfer Probabilities From K to L2 L3 M2 M3 Subshells For Some Elements, In: *TFD 29. International Physics Congress*, Muğla, Türkiye, 2012.
- B28.** Akman F., Turhan M. F., Kaçal M. R., Durak R., Lu W Au vE Pb Elementleri İçin L Alt Tabakası X Işını Üretim Tesir Kesitlerinin Ve Floresans Verimlerinin Ölçülmesi, In: *TFD 28. International Physics Congress*, Muğla, Türkiye, 2011.
- B29.** Turhan M. F., Akman F., Kaçal M. R., Durak R., Hg Tl Pb ve Bi Elementleri İçin L3 Alt Tabakası Floresans Verim Ve Seviye Genişliklerinin Ölçülmesi, In: *TFD 28. International Physics Congress*, Muğla, Türkiye, 2011.
- B30.** Kaçal M. R., Akman F., Turhan M. F., Han İ., Durak R., Measurement Of Mass Attenuation Coefficients And Comparison Of Detectors Efficiencies At Some Energies, In: *TFD 26. Uluslararası Fizik kongresi*, Muğla, Türkiye, 2009.
- B31.** Kaçal M. R., Akman F., Turhan M. F., Durak R., Electric Dipole Mixing In Photon Induced Inner Shell Magnetic Quadrupole Transitions, In: *7th General Conference Of The Balkan Physical Union*, Greece, 2009.

#### **D. Articles published in national peer-reviewed journals:**

- D1.** Akdemir F., Turhan M. F., Akman F., Geçibesler İ. H., Kaçal M. R., Durak R., "Düşük Enerji Aralığında Bazı Bitkilerin Radyasyon Soğurma Parametrelerinin Belirlenmesi", *Journal of the Institute of Science and Technology*, vol. 11, no. 3, pp. 1959-1969, 2021.
- D2.** Turhan M. F., "Anjiyotensin Dönüştürücü Enzim İnhibitörlerinin Foton Etkileşim Parametrelerinin İncelenmesi", *Journal of the Institute of Science and Technology*, vol. 11, no. 2, pp. 1114-1126, 2021.
- D3.** Akdemir F., Turhan M. F., Akman F., Geçibesler İ. H., Kaçal M. R., Durak R., "Alyssum pateri subsp. prostratum Bitkisinin Kütle Azaltma Katsayılarının ve Molar Yok-Oлма Katsayılarının Ölçülmesi", *Journal of the Institute of Science and Technology*, vol. 9, no. 1, pp. 339-346, 2019.
- D4.** Turhan M. F., Durak R., Kaçal M. R., Akman F., "Determination of Gamma Ray Buildup Factors of Some Enzyme Inhibitors", *International Journal of Scientific Engineering Research*, vol. 10, no. 9, pp. 8-13, 2019.
- D5.** Turhan M. F., Akman F., Kaçal M. R., Durak R., "Calculation of Absorption Parameters for Some Selected Minerals in the Energy Range of 1KeV to 100 GeV", *International Journal of Scientific Engineering Research*, vol. 10, no. 9, pp. 56-61, 2019.
- D6.** Turhan M. F., Akdemir F., Akman F., Araz A., Durak R., "Calculation of Radiation Absorption Parameters for Some Selected Ferrite Ceramics", *Journal of the Institute of Science and Technology*, vol. 9, no. 2, pp. 771-779, 2019.

#### **E. Papers presented at national scientific meetings and published in proceedings:**

- E1.** Akman F., Turhan M. F., Kaçal M. R., Durak R., Karabulut A., Measurement of mass attenuation coefficients around the K absorption edge of some Ce compounds, In: *4. National Crystallographic Meeting with International Participation*, Diyarbakır, Türkiye, 2014.
- E2.** Akman F., Turhan M. F., Kaçal M. R., Durak R., Karabulut A., X- ray attenuation coefficients of Gd compounds in the K edge region at different energies, In: *4. National Crystallographic Meeting with International Participation*, Diyarbakır, Türkiye, 2014.

- E3.** Durak R., Akman F., Turhan M. F., Kaçal M. R., SAMARYUM BİLEŞİKLERİNİN FOTON ETKİLEŞİM PARAMETRELERİNİN BELİRLENMESİ, In: *XIII. Ulusal Spektroskopi Kongresi*, Burdur, Türkiye, 2013.
- E4.** Akman F., Turhan M. F., Akdemir F., Kaçal M. R., Durak R., Hg Tl Pb ve Bi elementleri için L1 Leta Lalfa Lbeta ve Lgama üretim tesir kesitlerinin deneysel olarak hesaplanması, In: *XIII. Ulusal Spektroskopi Kongresi*, Burdur, Türkiye, 2013.
- E5.** Turhan M. F., Akman F., Durak R., Kaçal M. R., Akdemir F., Ho Er Tl ve W elementleri için L1 Lalfa Lbeta ve Lgama X ışını floresans tesir kesitlerinin ölçülmesi, In: *XIII. Ulusal Spektroskopi Kongresi*, Burdur, Türkiye, 2013.