

## Res. Asst. SÜMEYRA BALCI YEGEN

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Cukurova University, Fen Bilimleri Enstitüsü, Fizik, Turkey 2014 - 2023

Postgraduate, North Carolina State University, Physics, United States Of America 2011 - 2013

Undergraduate, Fatih University, Turkey 2005 - 2009

### Research Areas

Physics, Nuclear physics, Natural Sciences

### Academic Titles / Tasks

Research Assistant, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, 2015 - Continues

Research Assistant, Nevşehir Üniversitesi, Fen Edebiyat Fakültesi, Fizik, 2014 - 2015

Research Assistant, North Carolina State University, Faculty Of Science And Art, Physics, 2012 - 2013

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

- I. **Preliminary study on the thermally stimulated luminescence characterization of UVC and beta irradiated tridymite**  
Balci S., Topaksu M., Benavente J. F., Garcia-Guinea J., Correcher V.  
APPLIED RADIATION AND ISOTOPES, vol.186, 2022 (SCI-Expanded)
- II. **Thermoluminescence of beta-particle induced Bern-4M muscovite**  
Portakal-Uçar Z. G., Akça S., Balci-Yegen S., Yüksel M., Doğan T., Souadi G., Parlak O., Topaksu M., Can N.  
RADIATION PHYSICS AND CHEMISTRY, vol.174, 2020 (SCI-Expanded)
- III. **Anomalous heating rate response of beta irradiated Sm<sup>3+</sup> and Tb<sup>3+</sup> doped BaAl<sub>2</sub>O<sub>4</sub> phosphors**  
Kaynar U. H., Guvener E., Ayvacikli M., DOĞAN T., Balci-Yegen S., Oglakci M., TOPAKSU M., Karabulut Y., Canimoglu A., Benourdja S., et al.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.764, pp.523-529, 2018 (SCI-Expanded)
- IV. **Heating rate properties and kinetic parameters of thermoluminescence glow curves of La-doped zinc borate**  
Yüksel M., Doğan T., Balci-Yegen S., Akça S., Portakal Z. G., Kucuk N., Topaksu M.  
RADIATION PHYSICS AND CHEMISTRY, vol.151, pp.149-155, 2018 (SCI-Expanded)
- V. **Thermoluminescence dose and heating rate dependence and kinetic analysis of ZnB<sub>2</sub>O<sub>4</sub>:0.05Dy(3+) phosphor**  
Balci-Yegen S., YÜKSEL M., Kucuk N., Karabulut Y., Ayvacikli M., Can N., TOPAKSU M.

- VI. **Correlation between thermoluminescence emission and phase transitions of tridymite**  
Balci-Yegen S., Boronat C., Garcia-Guinea J., TOPAKSU M., Correcher V.  
PHASE TRANSITIONS, vol.91, no.11, pp.1122-1128, 2018 (SCI-Expanded)
- VII. **Luminescence characteristics of Dy<sup>3+</sup> incorporated zinc borate powders**  
Portakal Z. G., DOĞAN T., Yegen S., Kucuk N., Ayvacikli M., Garcia Guine J., Canımoğlu A., Karabulut Y., TOPAKSU M., Can N.  
JOURNAL OF LUMINESCENCE, vol.188, pp.409-417, 2017 (SCI-Expanded)
- VIII. **Normal and anomalous heating rate effects on thermoluminescence of Ce-doped ZnB<sub>2</sub>O<sub>4</sub>**  
DOĞAN T., YÜKSEL M., AKÇA S., PORTAKAL Z. G., BALCI YEGEN S., KÜÇÜK N., TOPAKSU M.  
APPLIED RADIATION AND ISOTOPES, vol.128, pp.256-262, 2017 (SCI-Expanded)
- IX. **Search for possible solar influences in Ra-226 decays**  
Stancil D. D., Yegen S. B., Dickey D. A., Gould C. R.  
RESULTS IN PHYSICS, vol.7, pp.385-406, 2017 (SCI-Expanded)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Thermoluminescence Response of Rare Earth Elements Doped Barium Aluminate Phosphors**  
TOPAKSU M., güvener e., AYVACIKLI M., KAYNAR Ü. H., DOĞAN T., BALCI YEGEN S., oğlakçı m., KARABULUT Y., CANIMOĞLU A., can N.  
11th International Conference On Luminescence And ESR Dosimetry (LumiDoz-11), Gaziantep, Turkey, 5 - 09 September 2018, pp.65
- II. **Thermoluminescence Heating Rate Behaviour of Zn(B<sub>2</sub>O<sub>3</sub>)<sub>2</sub>:0.05Dy<sup>3+</sup>**  
BALCI YEGEN S., YÜKSEL M., KÜÇÜK N., KARABULUT Y., AYVACIKLI M., CAN N., TOPAKSU M.  
4th International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology (TESNAT2018), Antalya, Turkey, 20 - 22 April 2018, pp.129
- III. **Characterization of a natural tridymite by means of thermoluminescence and thermal x-ray diffraction**  
BALCI YEGEN S., Boronat C., Garcia Guinea J., TOPAKSU M., Correcher V.  
", International Conference on Condensed Matters and Material Science, 11 - 15 November 2017
- IV. **Trap depth estimation of the 225 oC thermoluminescence maximum of natural tridymite using initial rise and various heating rate methods**  
BALCI YEGEN S., Boronat C., Correcher V., Garcia Guinea J., TOPAKSU M.  
Turkish Physical Society 33rd International Physics Congress, 6 - 10 September 2017
- V. **Calculation of Activation Energy Using VHR Method for Low Temperature Peak of Gypsum Mineral**  
DOĞAN T., YÜKSEL M., PORTAKAL Z. G., BALCI YEGEN S., AKÇA S., TOPAKSU M.  
RAD 2017 Fifth International Conference on Radiation and Applications in Various Fields of Research, Budva, Montenegro, 12 - 16 June 2017, vol.5, pp.235
- VI. **The Effects of Annealing on the Thermoluminescence Glow Peaks of Natural Muscovite Mineral**  
AKÇA S., PORTAKAL Z. G., BALCI YEGEN S., YÜKSEL M., DOĞAN T., PARLAK O., TOPAKSU M.  
FIFTH INTERNATIONAL CONFERENCE ON RADIATION AND APPLICATIONS IN VARIOUS FIELDS OF RESEARCH, 12 - 16 June 2017, pp.261
- VII. **Thermoluminescence Dose Response Characteristics and Reusability Properties of Muscovite Mineral**  
BALCI YEGEN S., AKÇA S., PORTAKAL Z. G., YÜKSEL M., DOĞAN T., PARLAK O., TOPAKSU M.  
FIFTH INTERNATIONAL CONFERENCE ON RADIATION AND APPLICATIONS IN VARIOUS FIELDS OF RESEARCH, 12 - 16 June 2017, pp.180
- VIII. **Preliminary results on OSL dose response of serpentine mineral from Kızıldağ plateau in Karaisalı, Turkey**

TOPAKSU M., DOĞAN T., BOZDAĞ ÖZENSOY E., AKÇA S., PORTAKAL Z. G., BALCI YEGEN S., PARLAK O., YÜKSEL M.  
International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology  
(TESNAT 2017), Adana, Turkey, 10 - 12 May 2017, pp.138

**IX. Influence of Sintering Time on the Thermoluminescence Characteristics of Eu<sup>3+</sup> doped CaO obtained from Sea-Urchin Skeleton: A Preliminary Study**

PORTAKAL Z. G., BALCI YEGEN S., AKÇA S., Yücel A., Depçi T., TOPAKSU M.  
International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology  
(TESNAT 2017), Adana, Turkey, 10 - 12 May 2017, pp.168

**X. Measurements of Radioactivity Levels in Soil Samples from Southeastern Anatolia Region, Turkey**

BALCI YEGEN S., PORTAKAL Z. G., AKÇA S., YÜKSEL M., DOĞAN T., Goren E., Ugur F., TOPAKSU M.  
International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology  
(TESNAT 2017), Adana, Turkey, 10 - 12 May 2017, pp.134

**XI. Investigation of the relation between the Sun and the changes in beta decay rates of Ra-226**

BALCI YEGEN S., Gould C. R., Dickey D. A., Stencil D. D.  
EURISOL DF 2016, Lueven, Belgium, 18 - 21 October 2016, pp.15

## Other Publications

**I. Genel Fizik III Laboratuvarı**

UFUKTEPE Y., Karakılıç M., YÜKSEL M., AKYOL M., AKÇA G., AKÇA S., GÜRSUL M., ŞEKER(ZAİMOĞLU) Z., ÇETİN G.,  
Balci Yegen S., et al.  
Experiment, pp.1, 2015

## Supported Projects

TOPAKSU M., PARLAK O., BALCI YEGEN S., PORTAKAL Z. G., YÜKSEL M., AKÇA S., DOĞAN T., Project Supported by Higher Education Institutions, Muskovit Mineralinin Termoluminesans(TL) Özelliklerinin İncelenmesi, 2016 - 2018

DOĞAN T., YÜKSEL M., TOPAKSU M., BALCI YEGEN S., PORTAKAL Z. G., AKÇA S., Project Supported by Higher Education Institutions, Calculation of Activation Energy Using VHR Method for Low Temperature Peak of Gypsum Mineral, 2017 - 2017

TOPAKSU M., KAYIŞ TOPAKSU A., PORTAKAL Z. G., AKÇA S., BALCI YEGEN S., YÜKSEL M., DOĞAN T., Project Supported by Higher Education Institutions, International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology (TESNAT2017), 2017 - 2017

TOPAKSU M., YÜKSEL M., DOĞAN T., BALCI YEGEN S., AKÇA S., PORTAKAL Z. G., KARAMAN T., Project Supported by Higher Education Institutions, Analysis of Thermoluminescence Kinetic Parameters of Apatite with CGCD Method, 2017 - 2017

YÜKSEL M., DOĞAN T., PORTAKAL Z. G., BALCI YEGEN S., AKÇA S., TOPAKSU M., Project Supported by Higher Education Institutions, A Preliminary Study of TL and OSL Traps for Aragonite Mineral, 2017 - 2017

TOPAKSU M., UĞUR F. A., YÜKSEL M., DOĞAN T., PORTAKAL Z. G., AKÇA S., BALCI YEGEN S., Project Supported by Higher Education Institutions, Güneydoğu Anadolu Bölgesindeki Toprak ve Fıstık Örneklerinin Doğal Radyoaktivitesinin Belirlenmesi, 2015 - 2017

TOPAKSU M., YAZICI A. N., YÜKSEL M., DOĞAN T., PORTAKAL Z. G., AKÇA S., BALCI YEGEN S., KAFADAR V. E., AYVACIKLI M., KARALI T., et al, Project Supported by Higher Education Institutions, 10th International Conference on Luminescence and ESR Dosimetry, 2016 - 2016

## Metrics

Publication: 24

Citation (WoS): 59

Citation (Scopus): 72

H-Index (WoS): 4

H-Index (Scopus): 4

## **Non Academic Experience**

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