

## Res. Asst. KÜBRA BAYRAK

### Personal Information

**Email:** kbayrak@akdeniz.edu.tr

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### Education Information

Doctorate, Akdeniz University, Fen Bilimleri, Turkey 2019 - Continues

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Fizik, Turkey 2016 - 2019

Undergraduate, Yildiz Technical University, Fen Edebiyat Fakültesi, Fizik, Turkey 2011 - 2016

### Certificates, Courses and Trainings

Education Management and Planning, Enerji Teknolojileri Yaz Okulu (ETY-2019): Yakıt Pili Teknolojileri, Niğde Ömer Halis Demir Üniversitesi, 2019

Education Management and Planning, CETS2017, Central European Training School on Neutron Techniques, 2017

### Research Areas

Physics, Natural Sciences

### Academic Titles / Tasks

Research Assistant, Akdeniz University, Faculty of Science, Department of Physics, 2018 - Continues

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

- I. **Optical properties of a quantum dot confined in inverse square root truncated exponential potential under varied conditions of temperature, hydrostatic pressure, and electric/magnetic fields**  
BAYRAK K., KAYA D., BAYRAK O.  
European Physical Journal Plus, vol.139, no.8, 2024 (SCI-Expanded)
- II. **The effect of position-dependent effective mass on the optical properties of a spherical quantum dot confined in inverse square root truncated and deformed exponential potential**  
BAYRAK K., KAYA D., BAYRAK O.  
European Physical Journal Plus, vol.138, no.6, 2023 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Investigation of Heavy Metal Concentrations in The Gulf of Izmit (Marmara Sea) Altinova Shipyard Region**  
BAYRAK K., Kam E., Yümün Z. Ü., Önce M.

- Journal of the Turkish Chemical Society, Section A: Chemistry, vol.9, no.4, pp.1263-1276, 2022 (Scopus)
- II. **EVALUATION OF EXCESS LIFETIME CANCER RISK CAUSED BY EXTERNAL EXPOSURE DUE TO NATURAL RADIOACTIVITY IN BOLU, TURKEY**  
Ates N. Z., BAYRAK K., Turgay M. E., KAM E.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.38, no.2, pp.945-954, 2020 (ESCI)
  - III. **Investigation of Outdoor Gamma Dose Rates in Yalova, Turkey**  
Bayrak K., Yümün Z. Ü., Çakar M.  
Avrupa Bilim ve Teknoloji Dergisi, no.18, pp.568-573, 2020 (Peer-Reviewed Journal)
  - IV. **Concentrations of environmental radioactivity in sediment cores from kulakçayiri lake**  
KAM E., Yumun Z. U., Acikgoz G., Bayrak K.  
Journal of the Turkish Chemical Society, Section A: Chemistry, vol.5, no.3, pp.1371-1374, 2018 (Scopus)
  - V. **A Study of Background Radioactivity Level for Edirne, Turkey**  
Yümün Z. Ü., BAYRAK K., Aksoy H., Ayseli U.  
Journal of Engineering Technology and Applied Sciences, vol.3, no.2, pp.135-139, 2018 (Peer-Reviewed Journal)
  - VI. **Determination of Natural Radiation Levels in Izmit Gulf Altinova Shipyard Area**  
BAYRAK K., Yümün Z. Ü., Kam E.  
Journal of Biological and Environmental Sciences, vol.12, no.34, pp.7-11, 2018 (Peer-Reviewed Journal)
  - VII. **Investigation of the Shielding Capability of Concrete Matrixed Colemanite Reinforced Shielding Material**  
Tuna T., Bayrak K.  
Journal of Engineering Technology and Applied Sciences, vol.2, no.2, pp.57-63, 2017 (Peer-Reviewed Journal)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Investigation of Neutron Radiation Shielding Capability of the Boron Added Barite Concrete Samples**  
BAYRAK K., Kam E.  
International Conference on Material Science and Technology, Ankara, Turkey, 18 - 20 October 2019, pp.18
- II. **Determination of Heavy Metals in Antalya Soils by Laser Induced Breakdown Spectroscopy**  
BAYRAK K., Önce M.  
4th International Scientific Research Congress (UBAK), Yalova, Turkey, 14 - 17 February 2019, pp.177-0
- III. **Determination of Heavy Metals in Sarkoy Soils by Laser Induced Breakdown Spectroscopy**  
BAYRAK K., Önce M., Yümün Z. Ü., Kam E.  
4th International Scientific Research Congress (UBAK), Yalova, Turkey, 14 - 17 February 2019, pp.178-0
- IV. **ELEMENTAL EXAMINATION OF LIGHT AND HEAVY PUMICE SAMPLES WITH LIBS (LASER INDUCED BREAKDOWN SPECTROSCOPY) TECHNIQUE**  
Kam E., BAYRAK K., Yalçın Z.  
International Engineering and Natural Sciences Conference (IENSC), Diyarbakır, Turkey, 14 - 17 November 2018, pp.1
- V. **Investigation of Natural Gamma Dose Rates for Edirne, Istanbul**  
BAYRAK K., Yümün Z. Ü., Aksoy H., Ayseli U.  
BSW2018, Yozgat, Turkey, 8 - 10 August 2018
- VI. **Determination of Outdoor Gamma Dose Rates in Yalova (Turkey)**  
Kam E., BAYRAK K., Çakar M.  
BSW2018, Yozgat, Turkey, 8 - 10 August 2018
- VII. **Study of Gross Alpha and Gross Beta Activity Concentration in Sediments in the Büyükçekmece Lake Basin (İstanbul, Turkey)**  
BAYRAK K., Şengül M., Kurt D.  
TESNAT2018, Antalya, Turkey, 20 - 22 April 2018
- VIII. **Determination of Morphological Characteristics and Mineralojik Structure of the Kulakçayiri**

### **Sediments by SEM and XRD**

Açıköz G., Yümün Z. Ü., Kam E., BAYRAK K.

TESNAT2018, Antalya, Turkey, 20 - 22 April 2018

- IX. **Determination of Count Intensity and Elemental Weight Percentages of Sediments in the Altınova Shipyard Region (Yalova-Izmit Gulf) by SEM-EDX**  
BAYRAK K., Kam E., Yümün Z. Ü.  
TESNAT2018, Antalya, Turkey, 20 - 22 April 2018
- X. **Outdoor Gamma Dose Rates in Bolu, West of Turkey**  
BAYRAK K., Ateş Z. N., Kam E.  
2nd Radiation Protection Congress with International Participation, Ankara, Turkey, 23 - 25 November 2017
- XI. **Measurement of Natural and Artificial Radioactivity in Kulakçayırı Lake**  
BAYRAK K., Kam E., Yümün Z. Ü., Açıköz G.  
2nd Radiation Protection Congress with International Participation, Ankara, Turkey, 23 - 25 November 2017
- XII. **Evaluation of Gross Alpha and Gross Beta Activity Concentration in Marine Sediments in the Altınova (Yalova/Turkey)**  
BAYRAK K., Kam E., Yümün Z. Ü.  
ICFAS2017, Saraybosna, Bosnia And Herzegovina, 21 - 25 August 2017, pp.101
- XIII. **Investigation of Properties of Shielding Ability of Concrete Matrix Composite Material Reinforced With Colemanite Against Neutron Radiation**  
BAYRAK K., Tuna T., Kam E.  
RAD2017, 12 - 16 June 2017, pp.267
- XIV. **Assessment of Gross Alpha and Gross Beta Radioactivity for Sediments in İzmir Province West of Turkey**  
BAYRAK K., Artun A., Karaalioğlu Z., Ateş Z. N., Şengül M.  
INASE17, Atina, Greece, 9 - 11 April 2017, pp.85

### **Activities in Scientific Journals**

International Journal of Natural Science, Assistant Editor/Section Editor, 2018 - Continues

### **Metrics**

Publication: 24

Citation (Scopus): 1

H-Index (Scopus): 1

### **Scholarships**

CETS2017, Official Institutions of Foreign Countries, 2017 - 2017