

## **Asst. Prof. GİZEM BAKIR**

### **Personal Information**

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### **International Researcher IDs**

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### **Education Information**

Post Doctorate, McMaster University, Faculty of engineering, Engineering physics, Canada 2019 - 2021

Doctorate, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, Turkey 2013 - 2016

Postgraduate, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, Turkey 2011 - 2013

Undergraduate, Erciyes University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 2005 - 2011

### **Dissertations**

Doctorate, TORYUM, URANYUM VE KULLANILMIŞ YAKIT TRISO PARTİKÜLLERİ İLE YÜKLENMİŞ HIZLANDIRICI SÜRÜCÜLÜ SİSTEMİN YAKIT DÖNÜŞÜMÜ VE HİDROJEN ÜRETİM POTANSİYELİNİN ARAŞTIRILMASI, Erciyes Üniversitesi, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, 2016

Postgraduate, Füzyon-fisyon hibrid reaktöründe nükleer hidrojen üretimi, Erciyes Üniversitesi, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, 2013

### **Research Areas**

Engineering and Technology

### **Academic Titles / Tasks**

Research Assistant PhD, Sivas Cumhuriyet University, Teknoloji Fakültesi, İmalat Mühendisliği Bölümü, 2016 - Continues

### **Courses**

Makine Tasarımı, Undergraduate, 2018 - 2019

Üretim Teknolojisi - II, Undergraduate, 2018 - 2019

Prototip Geliştirme, Undergraduate, 2018 - 2019

Kaynak Teknolojisi, Undergraduate, 2018 - 2019

Takım Tezgahları, Undergraduate, 2018 - 2019

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

- I. ANALYSIS OF REUSABILITY OF ThO<sub>2</sub> AND SPENT UO<sub>2</sub> FUELS ENRICHED WITH ADS IN A CANDU REACTOR**  
 Durmaz B., BAKIR G., Arslan A. B., Yapıcı H.  
*Nuclear Technology and Radiation Protection*, vol.37, no.4, pp.289-301, 2022 (SCI-Expanded)
- II. Analysis of thorium and transuranium utilization in a small modular reactor**  
 Bakır G.  
*NUCLEAR TECHNOLOGY AND RADIATION PROTECTION*, vol.37, no.4, pp.175-180, 2022 (SCI-Expanded)
- III. Neutronic analysis of an ads fuelled with minor actinide and designed for spent fuel enrichment and fissile fuel production**  
 Durmaz B., Bakır G., Arslan A. B., Yapıcı H.  
*Nuclear Technology & Radiation Protection*, vol.36, no.4, pp.299-314, 2021 (SCI-Expanded)
- IV. Transmutations of Long-Lived and Medium-Lived Fission Products Extracted from CANDU and PWR Spent Fuels in an Accelerator-Driven System**  
 Arslan A. B., Yilmaz I., BAKIR G., YAPICI H.  
*SCIENCE AND TECHNOLOGY OF NUCLEAR INSTALLATIONS*, vol.2019, 2019 (SCI-Expanded)
- V. ANALYSIS OF FUEL REJUVENATION TIMES IN A FUSION BREEDER REACTOR FUELLED WITH A MIXTURE OF URANIUM-THORIUM OXIDES FOR THE CANDU REACTOR**  
 BAKIR G., YAPICI H.  
*NUCLEAR TECHNOLOGY & RADIATION PROTECTION*, vol.32, no.3, pp.193-203, 2017 (SCI-Expanded)
- VI. STUDY OF A CONCEPTUAL ACCELERATOR DRIVEN SYSTEM LOADED WITH THORIUM DIOXIDE MIXED WITH TRANSURANIC DIOXIDES IN TRISO PARTICLES**  
 BAKIR G., GENÇ G., YAPICI H.  
*NUCLEAR TECHNOLOGY & RADIATION PROTECTION*, vol.31, no.3, pp.197-206, 2016 (SCI-Expanded)
- VII. Neutron-Induced Medical Radioisotope Production in a Conceptual Accelerator-Driven System, Fueled with Uranium Carbide**  
 Arslan A. B., Bakır G., Selcuklu S. B., Genc G., Yapıcı H.  
*ACTA PHYSICA POLONICA A*, vol.130, no.1, pp.68-71, 2016 (SCI-Expanded)
- VIII. Neutronic Analysis of LBE-Uranium Spallation Target Accelerator Driven System Loaded with Uranium Dioxide in TRISO Particles**  
 Bakır G., Selcuklu S. B., Genc G., Yapıcı H.  
*ACTA PHYSICA POLONICA A*, vol.130, no.1, pp.30-32, 2016 (SCI-Expanded)
- IX. Time-Dependent Neutronic Analysis of a Power-Flattened Gas Cooled Accelerator Driven System Fuelled with Thorium, Uranium, Plutonium, and Curium Dioxides TRISO Particles**  
 BAKIR G., GENÇ G., YAPICI H.  
*SCIENCE AND TECHNOLOGY OF NUCLEAR INSTALLATIONS*, 2016 (SCI-Expanded)
- X. Medical Radioisotope Production in a Power-Flattened ADS Fuelled with Uranium and Plutonium Dioxides**  
 BAKIR G., SELÇUKLU S. B., YAPICI H.  
*SCIENCE AND TECHNOLOGY OF NUCLEAR INSTALLATIONS*, 2016 (SCI-Expanded)

## Articles Published in Other Journals

- I. BİR ISI BORULU NÜKLEER REAKTÖRDE ISI LİMİTASYONLARININ ANALİZİ**  
 Bakır G.  
*Adiyaman Üniversitesi Mühendislik Bilimleri Dergisi*, vol.10, no.19, pp.54-65, 2023 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. Bölüm 12**

- Bakır G.  
in: KÜÇÜK MODÜLER REAKTÖRLERİN UYGULAMAYA GEÇİRİLMESİ VE BU REAKTÖRLERİN UYGULANMAYA GEÇİRİLMESİNDE KARŞILAŞILAN SORUNLAR, Doç. Dr. Selahattin Bardak, Editor, Gece kitaplığı, Ankara, pp.169-180, 2022
- II. **bölüm 11**  
Bakır G.  
in: YENİLİKÇİ NÜKLEER TEKNOLOJİ OLAN KÜÇÜK MODÜLER REAKTÖRLER VE KULLANIM ALANLARI, Doç. Dr. Selahattin Bardak, Editor, Gece Kitaplığı, Ankara, pp.157-167, 2022

### Refereed Congress / Symposium Publications in Proceedings

- I. **HIZLANDIRICI SÜRÜCÜLÜ BİR SİSTEMDE KULLANILMIŞ YAKIT ZENGİNLEŞTİRİMESİ**  
Durmaz B., Bakır G., Buğra Arslan A., Yapıcı H.  
CEUKUROVA 8th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE, Adana, Turkey, 15 April 2022, pp.985-997
- II. **NEUTRONIC ANALYSIS OF AN ADS FUELLED WITH MINOR ACTINIDE AND DESIGNED FOR SPENT FUEL ENRICHMENT AND FISSILE FUEL PRODUCTION**  
Arik A., Bakır G., Buğra Arslan A., Yapıcı H.  
CEUKUROVA 8th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE, Adana, Turkey, 15 April 2022, pp.975-984
- III. **CORE DESIGN OF THE CANADIAN NUCLEAR BATTERYTM, A VERY SMALL MODULAR REACTOR FOR THE CANADIAN ARCTIC**  
Bakır G., Buijs A., Reodikar S.  
40th Annual Conference of the Canadian Nuclear Society, 06 June 2022, pp.1-15
- IV. **ANALYSES OF EFFECT OF FUEL PITCH LENGTH ON NEUTRONIC DATA WITH INFINITE REACTOR MEDIUM APPROACH**  
Sayan D., Yılmaz İ., Arslan A. B., Bakır G., Yapıcı H.  
6. CEUKUROVA INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE, Adana, Turkey, 05 March 2021, pp.103-115
- V. **Numerical Analysis of Neutron Flux within Optimized Target of an Accelerator Driven System with the Help of Point Detectors**  
Arslan A. B., Yılmaz İ., Bakır G., Yapıcı H.  
5th International Conference on Engineering Sciences, Ankara, Turkey, 19 September 2019, pp.43-46
- VI. **Homogeneous and heterogeneous fuel core analyses in accelerator driven systems and fusion-fission hybrid reactors**  
Yılmaz İ., Saygan D., Bakır G., Yapıcı H.  
5th International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Amasya, Turkey, 02 May 2019, pp.242-247
- VII. **Doğal Uranyumun bir Füzyon-Fisyon Hibrid Reaktöründe Zenginleştirilerek PWR'de Kullanılması**  
BAKİR G., YAPICI H.  
2nd International Mediterranean Science and Engineering Congress (IMSEC 2017), 25 October - 27 December 2017, pp.230-247
- VIII. **Time-Dependent Neutronic and Burn-up Analyses of in a Thorium-Based ADS cooled with Various Coolants**  
BAKİR G., YAPICI H.  
1st International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT 2017), 2 - 04 November 2017, vol.1, pp.60-64
- IX. **Hydrogen Production in an Actinide Fusion Transmuter Fueled PWR UO<sub>2</sub> Spent Fuel**  
BAKİR G., ÇİÇEK B., GENÇ G., YAPICI H.  
kongre, 16 - 20 June 2014

## **Metrics**

Publication: 22

Citation (WoS): 7

Citation (Scopus): 14

H-Index (WoS): 2

H-Index (Scopus): 2