

## Assoc. Prof. Hatice BAYRAKÇEKEN

### Personal Information

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### International Researcher IDs

ScholarID: gMXP8SUA AAAJ

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ScopusID: 24449154200

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### Education

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Turkey 2003 - 2010

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği, Turkey 1999 - 2003

Undergraduate, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey 1995 - 1999

### Certificates, Courses and Trainings

Education Management and Planning, Materials Characterization Using Thermal Analysis, Anadolu Üniversitesi, 2012

### Dissertations

Doctorate, FOSFAT KAYASININ TERMAL DAVRANIŞININ İNCELENMESİ, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği, 2010

Postgraduate, MARDİN-MAZIDAĞI FOSFAT KAYASI İLE BACA GAZI DESÜLFÜRİZASYONU ESNASINDA KARBONDİOKSİTİN ETKİSİNİN İNCELENMESİ, Atatürk Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği, 2003

### Research Areas

Chemical Engineering and Technology, Basic Operations and Thermodynamics, Transport Events, Engineering and Technology

### Academic Positions

Associate Professor, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2022 - Continues

Assistant Professor, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2018 - Continues

Assistant Professor, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2014 - 2018

Research Assistant PhD, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2010 - 2014

## Academic and Administrative Experience

Deputy Head of Department, Atatürk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2016 - 2025

## Courses

### Doctorate

İleri Kimya Mühendisliği Termodinamiği 2, Doctorate, 2018 - 2019

### Undergraduate

Analitik Kimya ve Enstrümental Analiz, Undergraduate, 2023 - 2024

Nano Teknolojiye Giriş, Undergraduate, 2022 - 2023

Kimya Mühendisliği Laboratuvarı I, Undergraduate, 2019 - 2020

Genel Kimya, Undergraduate, 2018 - 2019

Nanoteknolojiye Giriş , Undergraduate, 2013 - 2014

Elektrokimya, Undergraduate, 2010 - 2011

## Supervised Theses

BAYRAKÇEKEN H., İNSAN SAÇINDAN ÜRETİLMİŞ AKTİF KARBONUN KULLANIMI, Postgraduate, O.KOTAN(Student), 2019

BAYRAKÇEKEN H., POLİPİROL/METALOKSİT KOMPOZİTLERİNİN SENTEZİ VE KARAKTERİZASYONU, Postgraduate, F.Sena(Student), 2019

## Jury Memberships

Post Graduate, Yüksek Lisans Tez Savunması , Atatürk Üniversitesi , July, 2019

Post Graduate, Yüksek Lisans Tez Savunması , Atatürk Üniversitesi , July, 2017

Doctoral Examination, Doktora Yeterlilik Sınavı , Atatürk Üniversitesi , February, 2017

## Journal articles indexed in SCI, SSCI, and AHCI

- I. **Recycled human hair-derived activated carbon for energy-related applications**  
Kotan O., BAYRAKÇEKEN H.  
TURKISH JOURNAL OF CHEMISTRY, vol.46, no.1, pp.184-192, 2021 (SCI-Expanded)
- II. **Experimental investigation of mechanical and modal properties of Al<sub>2</sub>O<sub>3</sub> nanoparticle reinforced polyurethane core sandwich structures**  
Khan T., Aydın O. A., ACAR V., Aydın M. R., HÜLAGÜ B., BAYRAKÇEKEN H., Seydibeyoğlu M. Ö., AKBULUT H.  
Materials Today Communications, vol.24, 2020 (SCI-Expanded)
- III. **Investigation of combustion kinetics of Umutbaca-lignite by thermal analysis technique**  
NAKTİYOK J., BAYRAKÇEKEN H., ÖZER A., GÜLABOĞLU M.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.129, no.1, pp.531-539, 2017 (SCI-Expanded)
- IV. **In vitro and in vivo evaluation of alginate and alginatechitosan beads containing metformin hydrochloride**  
Mokhtare B., Çetin M., Ozakar R., Bayrakçeken H.  
Tropical Journal of Pharmaceutical Research, vol.16, no.2, pp.287-296, 2017 (SCI-Expanded)
- V. **Investigation of the Thermal Behavior of Polypyrrole/Carbon Nanotube Composites and Utilization as Capacitive Material or Support for Catalysts**  
Bayrakçeken H., Naktiyok J., Özer A., Bayrakçeken Yurtcan A.  
CHEMICAL ENGINEERING COMMUNICATIONS, vol.204, no.8, pp.916-925, 2017 (SCI-Expanded)
- VI. **Kinetics of thermal decomposition of phospholipids obtained from phosphate rock**

- NAKTİYOK J., BAYRAKÇEKEN H., ÖZER A., GÜLABOĞLU M.  
FUEL PROCESSING TECHNOLOGY, vol.116, pp.158-164, 2013 (SCI-Expanded)
- VII. **Flue Gas Desulfurization by Calcined Phosphate Rock and Reaction Kinetics**  
NAKTİYOK J., BAYRAKÇEKEN H., ÖZER A., GÜLABOĞLU M. Ş.  
ENERGY & FUELS, vol.27, no.3, pp.1466-1472, 2013 (SCI-Expanded)
- VIII. **The effect of carbon dioxide during the desulfurization of flue gas with Mardin-Mazidagi phosphate rock**  
SINIRKAYA M., BAYRAKÇEKEN H., ÖZER A., GÜLABOĞLU M.  
FUEL, vol.87, pp.3200-3206, 2008 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Pyrolytic Degradation Behavior of Biomass Seeds: Cherry And Peach Seed**  
ÇORUH M. K., BAYRAKÇEKEN H.  
Kocaeli Journal of Science and Engineering , vol.3, no.2, pp.46-65, 2020 (Peer-Reviewed Journal)
- II. **Determination Of Pyrolysis Kinetics Of Pistachio Shell And Cranberry Seed**  
BAYRAKÇEKEN H., KIZILCA M.  
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.13, no.12, pp.847-856, 2020 (Peer-Reviewed Journal)
- III. **Preparation of Metformin HCl loaded Chitosan Microspheres and In vitro Characterization Studies**  
MOKHTARE B., ÇETİN M., SEVİNÇ ÖZAKAR R., BAYRAKÇEKEN H.  
Hacettepe University Journal of the Faculty of Pharmacy, vol.35, no.1, pp.74-86, 2015 (Peer-Reviewed Journal)
- IV. **Non-isothermal calcination kinetics of phosphate rock**  
BAYRAKÇEKEN H., NAKTİYOK J., OKUR H., ÖZER A., GÜLABOĞLU M. Ş.  
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, 2014 (Peer-Reviewed Journal)
- V. **Pirit Mineralinin CO<sub>2</sub> Atmosferinde Termal Bozunmasında Su Buharının Etkisi**  
BOYABAT N., BAYRAKÇEKEN H., BAYRAKÇEKEN S.  
İğdır Univ. J. Inst. Sci. & Tech., vol.2, no.3, pp.79-84, 2012 (Peer-Reviewed Journal)

## Books

- I. **İş Yerlerinde Kimyasal Kirlilik Ve Korunma**  
Bayrakçeken H.  
in: İş Hijyeni, Zülal ÖZKURT, Editor, Atatürk Üniversitesi Açıköğretim Fakültesi, Erzurum, pp.126-145, 2019
- II. **Binalarda Kimyasal Etkenler**  
BAYRAKÇEKEN H.  
in: Bina Yönetim Sistemleri, Albayrak, Z.N., Editor, Atatürk Üniversitesi Açık Öğretim Fakültesi, Erzurum, pp.2-14, 2018

## Papers Presented at Peer-Reviewed Scientific Conferences

- I. **Determination Of Pyrolysis Kinetics Of Pistachio Shell And Cranberry Seed**  
BAYRAKÇEKEN H., KIZILCA ÇORUH M.  
INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS AND NANOTECHNOLOGY, Putrajaya, Malaysia, 19 - 20 August 2019, pp.111-112, (Full Text)
- II. **Investigation on the Thermal Behaviour of Eggshell**  
BAYRAKÇEKEN H., MAZLUMOĞLU H.  
INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS AND NANOTECHNOLOGY, Putrajaya, Malaysia, 19 - 20 August 2019, pp.92-94, (Full Text)

- III. **INVESTIGATION OF PYROLYSIS KINETICS OF NON-ISOTHERMAL CONDITIONS FROM BIOMASS SEEDS**  
KIZILCA M., BAYRAKÇEKEN H.  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURALMEDICAL SCIENCES-V, Erzurum, Turkey, 2 - 05 May 2019, (Full Text)
- IV. **SYNTHESIS OF ACTIVATED CARBON BY HUMAN HAIR OF DIFFERENT AGES**  
KOTAN O., BAYRAKÇEKEN H.  
3rd International Energy & Engineering Congress, Gaziantep, Turkey, 18 - 19 October 2018, pp.944-949, (Full Text)
- V. **Polipirol Esaslı Kompozit Malzemelerin Sentezi**  
ÖZPEKER F. S., BAYRAKÇEKEN H.  
13.ULUSAL KİMYA MÜHENDİSLİĞİ KONGRESİ, Van, Turkey, 3 - 06 September 2018, pp.172-173, (Full Text)
- VI. **EFFECTS OF CD HP CD AND PVP K30 ON THE SOLUBILITY OF DAIDZEIN**  
SERVER B., ÖZAKAR E., BAYRAKÇEKEN H., ÇETİN M.  
18th International Pharmaceutical Technology Symposium, 18 - 21 September 2016, (Summary Text)
- VII. **Alginate-chitosan (CS) beads for oral delivery of metformin HCl**  
Mokhtare B., Sevinç Özakar R., Çetin M., Bayrakçeken H.  
17th International Pharmaceutical Technology Symposium, Antalya, Turkey, 8 - 10 September 2014, pp.275-276, (Full Text)
- VIII. **Capacitive properties of polypyrrole carbon nanotube composites**  
BAYRAKÇEKEN YURTCAN A., BAYRAKÇEKEN H., NAKTİYOK J., ÖZER A.  
The Sixth International Exergy, Energy and Environment Symposium, 1 - 04 July 2013, (Full Text)
- IX. **Thermal properties of poly ethylene oxide montmorillonite nanocomposites prepared using by sol gel method**  
KARACA S., GÜRSES A., BAYRAKÇEKEN H., KADER Y., MURAT K.  
", 9. Ulusal Nanobilim ve Nanoteknoloji Konferans, Turkey, 24 - 28 June 2013
- X. **Non isothermal Decomposition Kinetics and Synthesis of Nano Nickel Borate**  
EDA K. G., BAYRAKÇEKEN H., NAKTİYOK J., BAYRAKÇEKEN YURTCAN A., ÖZER A.  
1st International Chemistry and Chemical Engineering Conference, 18 - 21 April 2013, (Full Text)
- XI. **Farklı Reaktantlarla Nano Boyutta CuO Sentezi**  
BOZKURT G., BAYRAKÇEKEN H., NAKTİYOK J., ÖZER A.  
10. Ulusal Kimya Mühendisliği Kongresi, Turkey, 3 - 06 September 2012, (Full Text)
- XII. **Fosfat Kayası İçindeki Çözünür Organik Maddenin İzotermal Olmayan Bozunma Kinetiği**  
NAKTİYOK J., BAYRAKÇEKEN H., ÖZER A., GÜLABOĞLU M. Ş.  
10. Ulusal Kimya Mühendisliği Kongresi, Turkey, 3 - 06 September 2012, (Full Text)
- XIII. **Alternative sorbent to CO<sub>2</sub> capture**  
BAYRAKÇEKEN H., NAKTİYOK J., ÖZER A., GÜLABOĞLU M. Ş.  
12th International Combustion Symposium, 24 - 26 May 2012, (Full Text)
- XIV. **Flue gas desulfurization with the phosphate rock impregnated by different salt solutions**  
NAKTİYOK J., BAYRAKÇEKEN H., ÖZER A., GÜLABOĞLU M. Ş.  
12th International Combustion Symposium, 24 May - 26 April 2012, (Full Text)
- XV. **Thermal Behaviour Of Phosphate Rock In Calcination Carbonation Cycles For CO<sub>2</sub> Capture**  
BAYRAKÇEKEN H., NAKTİYOK J., ÖZER A., GÜLABOĞLU M. Ş.  
2nd International Conference On Air Pollution An Control, Antalya, Turkey, 19 - 23 September 2011, (Full Text)
- XVI. **Effect of SO<sub>2</sub> Concentration At The Flue Gas Desulphurization With Calcined Phosphate Rock**  
BAYRAKÇEKEN H., NAKTİYOK J., ÖZER A., GÜLABOĞLU M. Ş.  
2nd International Conference On Air Pollution An Control, Antalya, Turkey, 19 September 2011 - 23 September 2004, (Full Text)
- XVII. **Fosfat Kayasının Termogravimetrik Olarak Kalsinasyon Kinetiği**  
BAYRAKÇEKEN H., OKUR H., ÖZER A., GÜLABOĞLU M. Ş.  
25. Ulusal Kimya Kongresi, Erzurum, Turkey, 27 June - 02 July 2011, (Full Text)
- XVIII. **Mardin Mazıdağı Fosfat Kayası İle Baca Gazı Desülfürizasyonu Esnasında Karbondioksitin Etkisinin**

## **İncelenmesi**

BAYRAKÇEKEN H., ÖZER A., GÜLABOĞLU M. Ş.

6. Ulusal Kimya Mühendisliği Kongresi, İzmir, Turkey, 7 - 10 September 2004, (Full Text)

## **Funded Projects**

Çelik N., Kılıç M., Bayrakçeken A., Bayrakçeken H., TUBITAK Project, Dental Kompozit Rezinlerde Zeolitik İmidazol Çerçeve Kullanımı, 2024 - 2026

BAYRAKÇEKEN H., BAYRAKÇEKEN YURTCAN A., KILIÇ M., Project Supported by Higher Education Institutions, Dental kompozit rezinlerin fiziksel ve antibakteriyel özelliklerinin geliştirilmesi, 2022 - 2024

BAYRAKÇEKEN H., BAYRAKÇEKEN YURTCAN A., KILIÇ M., Project Supported by Higher Education Institutions, Yeni antibakteriyel özellikli cam iyonomer simanların geliştirilmesi, 2022 - 2024

BAYRAKÇEKEN H., KILIÇ M., BAYRAKÇEKEN YURTCAN A., Project Supported by Higher Education Institutions, Yeni bir diş macununun materyal özelliklerinin geliştirilmesi, 2022 - 2024

BAYRAKÇEKEN H., BAYRAKÇEKEN YURTCAN A., KILIÇ M., Project Supported by Higher Education Institutions, Diş pulpası kuafaj materyalinin özelliklerinin geliştirilmesi, 2022 - 2024

ÖZ E., BAYRAKÇEKEN H., ÖZ F., Project Supported by Higher Education Institutions, Farklı fırın poşetlerinin termal ve yapısal özelliklerinin ette BisfenolA migrasyonu üzerine etkisi, 2022 - 2023

TEKİN T., BAYRAKÇEKEN H., Project Supported by Higher Education Institutions, KİMYA MÜHENDİSLİĞİ BÖLÜMÜ, 2018 - 2019

TEKİN T., DEMİR F., BAYRAKÇEKEN H., Project Supported by Higher Education Institutions, MEMBRAN DESTEKLİ NANOTÜP VE İNCE FİLM TiO<sub>2</sub> FOTOKATALİZÖRLERİNİN ÜRETİMİ VE KARAKTERİZASYONU, 2016 - 2017

BAYRAKÇEKEN H., Project Supported by Higher Education Institutions, "FARKLI SORBENTLER İLE CO<sub>2</sub>'İN DÖNGÜSEL TUTULMASI", 2012 - 2014

## **Peer Reviews in Scientific Publications**

CHEMICAL ENGINEERING JOURNAL, SCI Journal, September 2021

ENVIRONMENTAL PROGRESS, SCI Journal, August 2020

Chemical Engineering Journal, SCI Journal, August 2016

Chemical Enginnering Commication , SCI Journal, November 2015

Chemical Enginnering Commication , SCI Journal, January 2015

## **Scientific Project Refereeing**

Project Supported by Higher Education Institutions, BAP Research Project, December 2019

Technopark, April 2019

Technopark, January 2016

## **Peer Reviews for Ethical Evaluations**

Kimya Mühendisliği Bölümü , Ataturk University, Turkey, March 2021

Chemical Engineering Department, Ataturk University, Turkey, March 2021

## **Metrics**

Publication: 43

Citation (WoS): 99

Citation (Scopus): 114

H-Index (WoS): 7

H-Index (Scopus): 7

## **Congress and Symposium Activities**

INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS AND NANOTECHNOLOGY, Attendee, Malaysia, 2019  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURAL&MEDICAL SCIENCES-V, Attendee, Turkey, 2019

3rd International Energy & Engineering Congress, Attendee, Gaziantep, Turkey, 2018

13. Ulusal Kimya Mühendisliği Kongresi, Attendee, Van, Turkey, 2018

The Sixth International Exergy, Energy and Environment Symposium, Attendee, Rize, Turkey, 2013

9. Ulusal Nanobilim ve Nanoteknoloji Konferans, Attendee, Erzurum, Turkey, 2013

1st International Chemistry and Chemical Engineering Conference, Attendee, Baku, Azerbaijan, 2013

10. Ulusal Kimya Mühendisliği Kongresi, Attendee, Erzurum, Turkey, 2012

10. Ulusal Kimya Mühendisliği Kongresi, Attendee, İstanbul, Turkey, 2012

25. Ulusal Kimya Kongresi, Attendee, Erzurum, Turkey, 2012

12th International Combustion Symposium, Attendee, Kocaeli, Turkey, 2012

12th International Combustion Symposium, Attendee, Kocaeli, Turkey, 2012

2nd International Conference On Air Pollution An Control, Attendee, Antalya, Turkey, 2011

2nd International Conference On Air Pollution An Control, Attendee, Antalya, Turkey, 2011

6. Ulusal Kimya Mühendisliği Kongresi, Attendee, İzmir, Turkey, 2004

## **Non Academic Experience**

Other Public Institution, Bilim Sanayi Ve Teknoloji Bakanlığı