

## Asst. Prof. Ekin KIPÇAK

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-4558-2020

ScopusID: 37000149900

Yoksis Researcher ID: 121521

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Süperkritik Su Koşullarında Zeytin Karasuyundan Hidrojen ve Biyoyakıt Üretimi, Yıldız Technical University, Graduate School of Natural and Applied Sciences, Kimya Mühendisliği, 2013

Postgraduate, Modeling of the Interfacial Reaction Between Concentrated Sulfuric Acid and Toluene, Ege University, Faculty of Education, Kimya Mühendisliği, 2006

### Research Areas

Chemical Engineering and Technology, Environmental Chemistry and Technology, Process and Reactor Design, Chemical Reaction Engineering, Catalysis and Catalytic Processes, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Chemical Engineering, 2020 - Continues

Research Assistant PhD, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Chemical Engineering, 2013 - 2020

Research Assistant, Yıldız Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Chemical Engineering, 2009 - 2013

### Courses

Basic Computer Sciences, Undergraduate, 2018 - 2019, 2017 - 2018

Graduation Thesis, Undergraduate, 2018 - 2019

Computer Applications in Chemical Engineering, Undergraduate, 2018 - 2019, 2017 - 2018

Chemical Engineering Lab II, Undergraduate, 2018 - 2019, 2017 - 2018  
Quality Control in Chemical Industry, Undergraduate, 2018 - 2019  
Bioprocess Engineering, Undergraduate, 2018 - 2019, 2017 - 2018  
Chemical Reaction Engineering, Undergraduate, 2017 - 2018  
Process Dynamics and Control, Undergraduate, 2017 - 2018

## Advising Theses

Kıpçak E., Ultrasonik ön işlem uygulamalarının üzümü meyvelerin kurutma süreçlerine etkisinin incelenmesi, Postgraduate, S.SÜRER(Student), 2024  
Kıpçak E., Çeşitli kimyasal ön işlemlerin aronya meyvesi ve yaban mersininin kurutma kinetiği üzerindeki etkilerinin incelenmesi, Postgraduate, B.GÖK(Student), 2024  
Kıpçak E., Farklı ön işlemlerin üzümü meyvelerin kurutma kinetiği üzerindeki etkilerinin incelenmesi, Postgraduate, Z.EMİN(Student), 2023

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

- I. **Treatment of pistachio processing industry wastewaters by supercritical water oxidation in a continuous-flow reactor**  
AKGÜN M., KIPÇAK E.  
Environmental Technology (United Kingdom), 2024 (SCI-Expanded)
- II. **Treatment of hospital wastewater by supercritical water oxidation process**  
Top S., Akgün M., Kıpçak E., Bilgili M. S.  
WATER RESEARCH, vol.185, 2020 (SCI-Expanded)
- III. **The treatment of detergent industry wastewaters by supercritical water oxidation**  
Kıpçak E., Senturk S., Akgün M.  
JOURNAL OF THE INDIAN CHEMICAL SOCIETY, vol.96, pp.1169-1173, 2019 (SCI-Expanded)
- IV. **Biofuel production from olive mill wastewater through its Ni/Al<sub>2</sub>O<sub>3</sub> and Ru/Al<sub>2</sub>O<sub>3</sub> catalyzed supercritical water gasification**  
Kıpçak E., Akgün M.  
RENEWABLE ENERGY, vol.124, pp.155-164, 2018 (SCI-Expanded)
- V. **Surface adsorption and spontaneous aggregation of rhamnolipid mixtures in aqueous solutions**  
İkizler B., Arslan G., Kıpçak E., Dirik C., Celenk D., Aktuglu T., Helvacı Ş. Ş., Peker S.  
COLLOIDS AND SURFACES A-PHYSICO-CHEMICAL AND ENGINEERING ASPECTS, vol.519, pp.125-136, 2017 (SCI-Expanded)
- VI. **The treatment of landfill leachate over Ni/Al<sub>2</sub>O<sub>3</sub> by supercritical water oxidation**  
Civan F., Ozaltun D. H., KIPÇAK E., AKGÜN M.  
JOURNAL OF SUPERCRITICAL FLUIDS, vol.100, pp.7-14, 2015 (SCI-Expanded)
- VII. **Catalytic hydrogen production from 2-propanol in supercritical water: Comparison of some metal catalysts**  
AKGÜN M., KIPÇAK E.  
JOURNAL OF SUPERCRITICAL FLUIDS, vol.90, pp.101-109, 2014 (SCI-Expanded)
- VIII. **Hydrogen production from 2-propanol over Pt/Al<sub>2</sub>O<sub>3</sub> and Ru/Al<sub>2</sub>O<sub>3</sub> catalysts in supercritical water**  
Karakus Y., Aynaci F., KIPÇAK E., AKGÜN M.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.38, no.18, pp.7298-7306, 2013 (SCI-Expanded)
- IX. **In situ gas fuel production during the treatment of textile wastewater at supercritical conditions**  
KIPÇAK E., AKGÜN M.  
WATER SCIENCE AND TECHNOLOGY, vol.67, no.5, pp.1058-1067, 2013 (SCI-Expanded)
- X. **Oxidative gasification of olive mill wastewater as a biomass source in supercritical water: Effects on**

### **gasification yield and biofuel composition**

Kıpçak E., Akgün M.

JOURNAL OF SUPERCRITICAL FLUIDS, vol.69, pp.57-63, 2012 (SCI-Expanded)

- XI. **Hydrothermal gasification of olive mill wastewater as a biomass source in supercritical water**  
Kıpçak E., Sogut O. O., Akgün M.  
JOURNAL OF SUPERCRITICAL FLUIDS, vol.57, pp.50-57, 2011 (SCI-Expanded)
- XII. **The treatment of wastewaters by supercritical water oxidation**  
Sogut O. O., Yildirim E., AKGÜN M.  
DESALINATION AND WATER TREATMENT, vol.26, pp.131-138, 2011 (SCI-Expanded)
- XIII. **Treatment of whey wastewater by supercritical water oxidation**  
Sogut O. O., KIPÇAK E., AKGÜN M.  
WATER SCIENCE AND TECHNOLOGY, vol.63, no.5, pp.908-916, 2011 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **The effect of chemical pretreatment on the drying behavior of blueberries**  
Gök B., Kıpçak E.  
BULGARIAN CHEMICAL COMMUNICATIONS, vol.56, no.3, pp.233-241, 2024 (Scopus)
- II. **The effect of vacuum on the drying kinetics and mathematical modelling of blueberries**  
Kıpçak E.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.42, no.3, pp.739-746, 2024 (ESCI)
- III. **The utilization of lathe waste as a catalyst for the treatment of landfill leachate in supercritical water conditions**  
Kıpçak E., Akgün M.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.42, no.3, pp.767-777, 2024 (ESCI)
- IV. **The Investigation of Oven and Vacuum Oven Drying Kinetics and Mathematical Modelling of Golden Berries**  
KIPÇAK E.  
Journal of the Turkish Chemical Society Section B: Chemical Engineering, vol.6, no.1, pp.1-8, 2023 (Peer-Reviewed Journal)
- V. **The effect of ultrasound pretreatment on oven and vacuum oven drying kinetics of blueberries**  
Taşçı Z. E., KIPÇAK E.  
Bulgarian Chemical Communications, vol.55, no.3, pp.256-266, 2023 (Scopus)
- VI. **Catalytic Supercritical Water Gasification of 2-Propanol: The Effect of Fe-Cr Catalyst on Gasification and Hydrogen Yields**  
Kıpçak E., Akgün M.  
ACADEMIC JOURNAL OF SCIENCE, vol.3, pp.417-426, 2014 (Peer-Reviewed Journal)
- VII. **Catalytic gasification of olive mill wastewater as a biomass source under supercritical conditions**  
Kıpçak E., Akgün M.  
INTERNATIONAL SCHOLARLY AND SCIENTIFIC RESEARCH & INNOVATION, vol.7, no.9, pp.690-694, 2013 (Peer-Reviewed Journal)
- VIII. **Hydrogen and biofuel production from 2-propanol over Ru/Al<sub>2</sub>O<sub>3</sub> catalyst in supercritical water**  
Kıpçak E., Karakuş Y., Akgün M.  
INTERNATIONAL SCHOLARLY AND SCIENTIFIC RESEARCH & INNOVATION, vol.7, no.9, pp.695-698, 2013 (Peer-Reviewed Journal)
- IX. **Simultaneous treatment and catalytic gasification of olive mill wastewater under supercritical conditions**  
Kıpçak E., Kutluay S., Akgün M.  
INTERNATIONAL SCHOLARLY AND SCIENTIFIC RESEARCH & INNOVATION, vol.6, no.11, pp.1075-1080, 2012 (Peer-Reviewed Journal)

- X. **Hydrogen rich fuel gas production from 2-propanol using Pt/Al<sub>2</sub>O<sub>3</sub> and Ni/Al<sub>2</sub>O<sub>3</sub> catalysts in supercritical water.**  
Karakuş Y., Aynacı F., Kıpçak E., Akgün M.  
INTERNATIONAL SCHOLARLY AND SCIENTIFIC RESEARCH & INNOVATION, vol.6, no.11, pp.1049-1053, 2012  
(Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Hydrogen Production by Supercritical Water Gasification of Biomass**  
Kıpçak E., Akgün M.  
in: Production of Hydrogen from Renewable Resources, Zhen Fang, Richard L. Smith, Jr., Xinhua Qi, Editor, Springer, London/Berlin, Dordrecht, pp.179-220, 2015

## Refereed Congress / Symposium Publications in Proceedings

- I. **The Effect of Chemical Pretreatments on the Drying Behavior of Blueberries**  
Gök B., Kıpçak E.  
10th International Conference on New Trends in Chemistry, Budapest, Hungary, 19 - 21 April 2024, pp.27-28
- II. **The Effect of Ultrasonic Pretreatment Duration on the Drying Kinetics of Red Berries**  
Sürer S., Kıpçak E.  
10th International Conference on New Trends in Chemistry, Budapest, Hungary, 19 - 21 April 2024, pp.74-75
- III. **Altın Çilek Meyvesinin Kurutulmasında Ultrasonik Ön İşlemlerin Etkisinin İncelenmesi**  
Taşçı Z. E., Kıpçak E.  
15. Ulusal Kimya Mühendisliği Kongresi, Çanakkale, Turkey, 4 - 07 September 2023, pp.27-28
- IV. **The Effect Of Ultrasound Pretreatment on the Oven and Vacuum Oven Drying Kinetics of Blueberries**  
Taşçı Z. E., Kıpçak E.  
9th International Conference on New Trends in Chemistry, Skopje, Macedonia, 19 - 21 May 2023, pp.63-64
- V. **The Investigation of Oven and Vacuum Oven Drying Kinetics and Mathematical Modelling of Golden Berries**  
Kıpçak E.  
1st International Karatekin Science and Technology Conference, Çankırı, Turkey, 1 - 03 September 2022, pp.68-69
- VI. **The Treatment of Detergent Industry Wastewaters by Supercritical Water Oxidation**  
Kıpçak E., Şentürk S., Akgün M.  
5th International Conference on New Trends in Chemistry, Athens, Greece, 22 - 24 April 2019, pp.51
- VII. **Supercritical Water Gasification of Isopropanol and Isobutanol: An Alternative Approach for Energy Production**  
Kıpçak E., Akgün M.  
6th Annual International Conference on Chemistry, Athens, Greece, 23 - 26 July 2018, pp.30
- VIII. **The treatment of landfill leachate by supercritical water oxidation with the use of Ni/Al<sub>2</sub>O<sub>3</sub> catalyst**  
Kıpçak E., Çavuşoğlu F., Özaltun D. H., Akgün M.  
International Conference on Energy and Thermal Engineering: Istanbul 2017, İstanbul, Turkey, 25 - 28 April 2017, pp.666-670
- IX. **Catalytic Gasification of Methanol at Supercritical Water Conditions**  
Kıpçak E., Özaltun D. H., Çavuşoğlu F., Akgün M.  
International Conference on Energy and Thermal Engineering: Istanbul 2017, İstanbul, Turkey, 25 - 28 April 2017, pp.865
- X. **Hydrogen and Fuel Gas Production from Isobutanol Over Pt/Al<sub>2</sub>O<sub>3</sub> Catalyst by Supercritical Water Gasification**  
Kıpçak E., Özaltun D. H., Çavuşoğlu F., Akgün M.

International Conference on Energy and Thermal Engineering: Istanbul 2017, İstanbul, Turkey, 25 - 28 April 2017, pp.866

- XI. **Süperkritik su ortamında etanolden hidrojen üretiminde Pt/Al<sub>2</sub>O<sub>3</sub> katalizörünün etkisi**  
Özaltun D. H., Civan F., Kıpçak E., Akgün M.  
12. Ulusal Kimya Mühendisliği Kongresi, İzmir, Turkey, 23 - 26 August 2016, pp.219-220
- XII. **Süperkritik su koşullarında hidrotermal, oksidatif ve katalitik gazlaştırma ile zeytin karasuyundan biyoyakıt üretimi: Bir derleme çalışması**  
Kıpçak E., Akgün M.  
12. Ulusal Kimya Mühendisliği Kongresi, İzmir, Turkey, 23 - 26 August 2016, pp.1-5
- XIII. **Deterjan fabrikası atık suyunun süperkritik su oksidasyonu yöntemi ile arıtımı**  
Civan F., Şentürk S., Özaltun D. H., Kıpçak E., Akgün M.  
12. Ulusal Kimya Mühendisliği Kongresi, İzmir, Turkey, 23 - 26 August 2016, pp.1-5
- XIV. **Süperkritik su ortamında izopropil alkolden katalitik hidrojen üretiminde çeşitli katalizörlerin etkisi**  
Akgün M., Karakuş Y., Aynacı F., Kıpçak E.  
11. Ulusal Kimya Mühendisliği Kongresi, Eskişehir, Turkey, 2 - 05 September 2014, pp.1-5
- XV. **Süperkritik su ortamında Pt/Al<sub>2</sub>O<sub>3</sub> katalizörü kullanarak çeşitli alkollerden hidrojen üretimi**  
Özaltun D. H., Kıpçak E., Akgün M.  
11. Ulusal Kimya Mühendisliği Kongresi, Eskişehir, Turkey, 2 - 05 September 2014, pp.1-5
- XVI. **Hydrothermal gasification: a promising method for energy recovery and simultaneous treatment of industrial wastewaters**  
Kıpçak E., Özaltun D. H., Akgün M.  
EurAsia Waste Management Symposium, İstanbul, Turkey, 28 - 30 April 2014, pp.526-531
- XVII. **The treatment of landfill leachate by supercritical water oxidation**  
Yalım A., Keleş Ö., Kıpçak E., Akgün M.  
EurAsia Waste Management Symposium, İstanbul, Turkey, 28 - 30 April 2014, pp.264-270
- XVIII. **The effect of catalyst use on the gasification of olive mill wastewater at supercritical conditions**  
Kıpçak E., Akgün M.  
EurAsia Waste Management Symposium, İstanbul, Turkey, 28 - 30 April 2014, pp.822-827
- XIX. **Catalytic supercritical water gasification of 2-propanol: the effect of Fe-Cr catalyst on gasification and hydrogen yields**  
Kıpçak E., Akgün M.  
International Journal of Arts and Sciences' International Conference for Academic Disciplines, Vienna, Austria, 6 - 10 April 2014, pp.1-5
- XX. **Hydrogen and biofuel production from 2-propanol over Ru/Al<sub>2</sub>O<sub>3</sub> catalyst in supercritical water**  
Kıpçak E., Karakuş Y., Akgün M.  
ICCEAC 2013: International Conference on Chemical Engineering and Applied Chemistry, Rome, Italy, 26 - 27 September 2013, pp.1109-1112
- XXI. **Catalytic gasification of olive mill wastewater as a biomass source under supercritical conditions**  
Kıpçak E., Akgün M.  
ICCEAC 2013: International Conference on Chemical Engineering and Applied Chemistry, Rome, Italy, September 26-27, Rome, Italy, 26 - 27 September 2013, pp.1103-1108
- XXII. **Hydrogen rich fuel gas production from 2-propanol using Pt/Al<sub>2</sub>O<sub>3</sub> and Ni/Al<sub>2</sub>O<sub>3</sub> catalysts in supercritical water**  
Karakuş Y., Aynacı F., Kıpçak E., Akgün M.  
ICCE 2012: International Conference on Chemical Engineering, Paris, France, 28 - 29 November 2012, pp.1767-1771
- XXIII. **Simultaneous treatment and catalytic gasification of olive mill wastewater under supercritical conditions**  
Kıpçak E., Kutluay S., Akgün M.  
ICCE 2012: International Conference on Chemical Engineering, Paris, France, 28 - 29 November 2012, pp.1636-1642

- XXIV. **Süperkritik su ortamında zeytin karasuyunun Pt katalizörü kullanılarak hidrotermal arıtımı ve gazlaştırılması**  
Kutluay S., Aynacı F., Kıpçak E., Akgün M.  
10. Ulusal Kimya Mühendisliği Kongresi, İstanbul, Turkey, 3 - 06 September 2012, pp.285-286
- XXV. **Zeytin Karasuyunun Pt Katalizörü Kullanılarak Hidrotermal Arıtımı ve Gazlaştırılması**  
KUTLUAY S., AYNACI F., KIPÇAK E., AKGÜN M.  
10. Ulusal Kimya Mühendisliği Kongresi, İstanbul, Turkey, 03 September 2012, pp.1
- XXVI. **Bir biyokütle olarak zeytin karasuyunun süperkritik su koşullarında gazlaştırılması**  
Kıpçak E., Akgün M.  
10. Ulusal Kimya Mühendisliği Kongresi, İstanbul, Turkey, 3 - 06 September 2012, pp.281-282
- XXVII. **Süperkritik su ortamında 2-propanolün katalitik gazlaştırılması**  
Aynacı F., Kutluay S., Kıpçak E., Akgün M.  
10. Ulusal Kimya Mühendisliği Kongresi, İstanbul, Turkey, 3 - 06 September 2012, pp.283-284
- XXVIII. **The effect of oxygen on the gasification of biomass in supercritical water**  
Kıpçak E., Söğüt O. Ö., Akgün M.  
12th Mediterranean Congress of Chemical Engineering, Barcelona, Spain, 15 - 18 November 2011, pp.1
- XXIX. **The evaluation of different wastewaters as an energy source through their treatment by supercritical water gasification**  
Kıpçak E., Akgün M.  
12th Mediterranean Congress of Chemical Engineering, Barcelona, Spain, 15 - 18 November 2011, pp.1
- XXX. **Hydrothermal gasification of industrial wastewater at supercritical conditions**  
Söğüt O. Ö., Kıpçak E., Arslan T., Akgün M.  
9th Conference on Supercritical Fluids and Their Applications, Naples, Italy, 5 - 08 September 2010, pp.427-432
- XXXI. **Hydrothermal gasification of biomass in supercritical water**  
Kıpçak E., Söğüt O. Ö., Akgün M.  
9th Conference on Supercritical Fluids and Their Applications, Naples, Italy, 5 - 08 September 2010, pp.413-419
- XXXII. **The treatment of wastewaters by supercritical water oxidation**  
Söğüt O. Ö., Kıpçak E., Akgün M.  
ULE2009 / International Workshop on Urbanization, Land Use, Land Degradation, and Environment, Denizli, Turkey, 28 September - 01 October 2009, pp.1-5

## Supported Projects

Kıpçak E., Akgün M., TUBITAK Project, Süperkritik Su Ortamında İzopropil Alkolden Hidrojen Üretimi, 2012 - 2013  
Akgün M., Kıpçak E., TUBITAK Project, Zeytin Karasuyundan Hidrojen ve Biyoyakıt Üretimi, 2009 - 2012

## Scientific Refereeing

APPLIED FOOD RESEARCH, SCI Journal, December 2024

DESALINATION AND WATER TREATMENT, SCI Journal, September 2024

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, Journal Indexed in ESCI, September 2024

JOURNAL OF SUPERCRITICAL FLUIDS, SCI Journal, February 2023

JOURNAL OF SUPERCRITICAL FLUIDS, SCI Journal, July 2017

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, Journal Indexed in SCI-E, May 2017

## Metrics

Publication: 56  
Citation (WoS): 254  
Citation (Scopus): 340  
H-Index (WoS): 9  
H-Index (Scopus): 9

## **Scholarships**

Bilim İnsanı Destekleme Daire Başkanlığı Yurt İçi Doktora Bursu, TUBITAK, 2007 - 2013

## **Awards**

Kıpçak E., Yılın Doktora Tezi Ödülü, Ege Sanayicileri Ve İşadamları Derneği (Esiad), December 2014