

Res. Asst. PhD AYTAÇ PERİHAN AKAN

Personal Information

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Education Information

Post Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Chemical Engineering, Turkey 2020 - 2021

Doctorate, New Jersey Institute of Technology, Newark College of Engineering, Department of Chemical Engineering, United States Of America 2018 - 2019

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Çevre Mühendisliği Bölümü, Turkey 2014 - 2019

Postgraduate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Endüstri Mühendisliği Bölümü, Kalite Ve Uygunluk Değerlendirme Mühendisliği, Turkey 2015 - 2016

Postgraduate, Boğaziçi Üniversitesi, Çevre Bilimleri Enstitüsü, Çevre Teknolojileri , Turkey 2011 - 2014

Undergraduate, Trakya Üniversitesi, Çorlu Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, Turkey 2004 - 2008

Dissertations

Doctorate, Post Combustion Carbon Dioxide Capture with Membrane-Solvent Hybrid Systems, Hacettepe University, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, 2019

Postgraduate, Surface Interactions of Humic Acid - Anion Doped Titania Binary System, Bogazici University, Institute Of Environmental Sciences, 2014

Research Areas

Environmental Engineering, Environmental Technology, Environmental Impact Assessment, Environmental Risk Assessment, Air Pollution and Control, Air Pollution Monitoring, Pollution Prevention and Waste Reduction, Water Pollution and Control, Engineering and Technology

Academic Titles / Tasks

Research Assistant PhD, Hacettepe University, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, 2019 - Continues

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, 2013 - Continues

Researcher, Université Catholique de Louvain, Institute Of Mechanics, Materials And Civil Engineering (Immc), Materials and Process Engineering, 2018 - 2018

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- Determination of Tekirda (Turkey) wind energy potential and evaluation of selected wind turbines in terms of techno-economic and environmental aspects**
AKAN A. P. , Akan A. E.
JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, vol.13, no.3, 2021 (Journal Indexed in SCI)

- II. **Post-combustion CO₂ capture and recovery by pure activated methyldiethanolamine in crossflow membrane contactors having coated hollow fibers**
Akan A. P. , Chau J., Sirkar K. K.
SEPARATION AND PURIFICATION TECHNOLOGY, vol.244, 2020 (Journal Indexed in SCI)
- III. **Adsorption of molecular size fractions of humic acid onto anion-doped TiO₂ specimens**
Akan P., Birben N. C. , Bekbolet M.
DESALINATION AND WATER TREATMENT, vol.57, no.6, pp.2455-2465, 2016 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Assessment of CO₂ Emissions Reduction Based on Different Insulation Materials in Residential Buildings: Example from Turkey**
Akan A. P. , Akan A. E.
IOP Conf. Series: Earth and Environmental Science , vol.801, no.12026, pp.1-10, 2021 (Refereed Journals of Other Institutions)
- II. **A General Approach to Accreditation of Environmental Laboratories in Turkey**
AKAN A. P. , TESTİK Ö. M.
International Journal of Engineering Technologies, vol.4, no.2, pp.102-106, 2018 (Refereed Journals of Other Institutions)
- III. **Potential of reduction in carbon dioxide equivalent emissions via energy efficiency for a textile factory**
AKAN A. P. , AKAN A. E.
Journal of Energy Systems, vol.2, pp.57-69, 2018 (Refereed Journals of Other Institutions)
- IV. **Determining residential energy consumption-based CO₂ emissions and examining the factors affecting the variation in Ankara, Turkey**
KUŞ M., AKAN A. P. , AYDINALP KÖKSAL M., GÜLLÜ G.
E3S Web of Conferences, vol.22, 2017 (Refereed Journals of Other Institutions)
- V. **Examination of the Accreditation Status of Water Quality Parameters**
AKAN A. P. , TESTİK Ö. M.
The Turkish Journal of Occupational / Environmental Medicine and Safety, vol.2, no.1, pp.45-55, 2017 (Other Refereed National Journals)

Books & Book Chapters

- I. **Energy Storage via Hydrogenation of CO₂ to Hydrocarbons**
Akan A. P. , Akan A. E.
in: Academic Approaches to Engineering Issues, Akan Aytac Perihan; Akan Ahmet Erhan, Editor, IKSAD , Ankara, pp.177-191, 2020
- II. **Wind energy systems and their effects on environmental sustainability**
Akan A. E. , Akan A. P.
in: Theoretical Investigations and Applied Studies in Engineering, Ozseven Turgut, Yasar Ebubekir, Editor, Ekin, Tokat, pp.109-126, 2019
- III. **Bölüm 48: Zararlı Böceklerin Kontrolünde Kullanılan Evcil Hayvan Bakım Ürünleri**
AKAN A. P.
in: Hayes'xxin Pestisit Toksikolojisi El Kitabı, Erol Rauf Ağış, Engin Tutkun, Ömer Hınç Yılmaz, Hüseyin İlter, Editor, T. C. Sağlık Bakanlığı, Ankara, pp.1109-1122, 2018

- I. **Comparison of Techno-Economic and Environmental Feasibility Analysis of Solar Powered Electric Vehicle Charging Stations for Çorlu**
Akan A. E. , Akan A. P.
23. Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 8 - 10 September 2021
- II. **Determination of Wind Energy Potential for Marmara Ereğlisi and Comparison of Techno-Economic and Environmental Feasibility Analyzes of Two Different Wind Turbines**
Akan A. E. , Akan A. P.
23. Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 8 - 10 September 2021
- III. **Cellulose Ultrafiltration Membranes via Phase Inversion for Protein Concentration from Cheese Whey**
Akan A. P. , Çulfaz Emecen P. Z.
4th IWA RESOURCE AND RECOVERY CONFERENCE, İstanbul, Turkey, 5 - 08 September 2021
- IV. **Determination of wind energy potential and evaluation of the feasibility analysis of a wind turbine via RETScreen for Çerkezköy, Turkey**
Akan A. E. , Akan A. P.
9. European Conference on Renewable Energy Systems, İstanbul, Turkey, 21 - 23 April 2021
- V. **Assessment of CO2 Emissions Reduction Based on Different Insulation Materials in Residential Buildings: Example from Turkey**
Akan A. P. , Akan A. E.
11th International Conference on Future Environment and Energy, Tokyo, Japan, 28 - 30 January 2021, pp.35-36
- VI. **Post-combustion CO2 capture and recovery via polypropylene membrane coated with fluorosiloxane in a membrane contactor and activated methyldiethanolamine hybrid systems**
AKAN A. P. , Chau J., Sirkar K. K.
6th MEMTEK International Symposium on Membrane Technologies and Applications, İstanbul, Turkey, 18 - 20 November 2019, pp.498-499
- VII. **Life Cycle Assessment of CO2 Capture for Further Reuse as Sodium Carbonate**
AKAN A. P. , Salmon I. R. , Luis P.
6. European Conference on Renewable Energy Systems, İstanbul, Turkey, 25 - 27 June 2018, pp.560-566
- VIII. **An Evaluation Framework for Life Cycle Assessment of Post-Combustion CO2 Capture**
AKAN A. P.
International Congress on Engineering and Life Science, Kastamonu, Turkey, 26 - 29 April 2018, pp.612
- IX. **Current Status of Education in Turkey Related to Occupational Health and Safety**
Uysal F. F. , Akan A. P.
2. İş Güvenliği ve Çalışan Sağlığı Kongresi, Kocaeli, Turkey, 8 - 09 November 2017
- X. **ANALYSIS OF OCCUPATIONAL ACCIDENTS ACCORDING TO PROVINCES IN TURKEY**
AKAN A. P. , UYSAL F. F.
2. Uluslararası İş Güvenliği ve Çalışan Sağlığı Kongresi, Kocaeli, Turkey, 8 - 09 November 2017
- XI. **WASTE RECOVERY AND ENERGY EFFICIENCY VIA INDUSTRIAL SYMBIOSIS APPLICATIONS: CASE STUDIES FROM TURKEY**
AKAN A. P. , Başer N.
INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE: ICAS2017, İstanbul, Turkey, 13 - 15 September 2017, pp.293-297
- XII. **Investigation of Accreditation Status of Environmental Parameters in Turkey**
AKAN A. P. , TESTİK Ö. M.
Proceedings of the 2nd World Congress on Civil, Structural, and Environmental Engineering (CSEE'17), 2 - 04 April 2017
- XIII. **Su Kalite Parametrelerinin Akreditasyon Durumlarının İncelenmesi**
AKAN A. P. , TESTİK Ö. M.
2nd International Water and Health Congress, Antalya, Turkey, 13 - 17 February 2017
- XIV. **Carbon Dioxide Capture and Sequestration CCS Technologies**
AKAN A. P. , GÜLLÜ G.

International Summer School on CO₂ Conversion from Fundamentals towards Applications, Villars-sur-Ollon, Switzerland, 29 August - 02 September 2016

- XV. **Spectrofluorometric Characterization of Adsorption of Different Molecular Size Fractions of Humic Acid onto Anion Doped TiO₂ Specimens**
AKAN A. P. , BİRBEN N. C. , BEKBÖLET F. M.
International Conference on Agricultural, Civil and Environmental Engineering (ACEE-16), İstanbul, Turkey, 18 - 19 April 2016
- XVI. **Differences in Characterization between Humic Acid and Its Size Fractions Following Adsorption onto Anion Doped TiO₂ Specimens by Fluorescence Excitation Emission Matrices**
AKAN A. P. , BİRBEN N. C. , BEKBÖLET F. M.
INTERNATIONAL CONFERENCE ON AIR, WATER, AND SOIL POLLUTION AND TREATMENT (AWSPT'xx16), Prag, Czech Republic, 30 - 31 March 2016
- XVII. **FARKLI MOLEKÜLER BOYUT FRAKSİYONLARINDAKİ HÜMİK ASİTİN ANYONLA KATKILANDIRILMIŞ TiO₂ TÜRLERİ İLE ADSORPSİYONU**
AKAN A. P. , BEKBÖLET F. M.
11.Ulusal Çevre Mühendisliği Kongresi, Bursa, Turkey, 15 - 17 October 2015
- XVIII. **Farklı Moleküler Büyüklük Fraksiyonlarındaki Hümik Asit ve Anyon ile Katkılandırılmış Titanyum İkili Sistemlerinin Karşılaştırılması**
AKAN A. P. , BEKBÖLET F. M.
XII. Ulusal Ekoloji ve Çevre Kongresi, Muğla, Turkey, 14 - 17 September 2015
- XIX. **A COMPARATIVE APPROACH TO SURFACE INTERACTIONS BETWEEN MOLECULAR SIZE FRACTIONS OF HUMIC ACID AND ANION DOPED TITANIA BINARY SYSTEM**
AKAN A. P. , BEKBÖLET F. M.
14th International Conference on Environmental Science and Technology, 3 - 05 September 2015
- XX. **Evaluation of Surface Interactions between Diverse MolecularSize Fractions of Humic Acid and Anion Doped TiO₂ by Excitation Emission Matrix EEM Fluorescence Spectra**
AKAN A. P. , BEKBÖLET F. M.
International Congress Energy and Environment Engineering and Management, Paris, France, 22 - 24 July 2015
- XXI. **Adsorption and Kinetic Studies of Molecular Size Fractions of Humic Acid onto Anion Doped TiO₂ Specimens**
AKAN A. P. , BEKBÖLET F. M.
International Conference on Civil and Environmental Engineering, Nevşehir, Turkey, 20 May - 23 July 2015
- XXII. **Adsorption of Molecular Size Fractions of Humic Acid onto Anion-Doped TiO₂ Specimens**
AKAN A. P. , BEKBÖLET F. M.
2nd International Conference on Recycling and Reuse, İstanbul, Turkey, 4 - 06 June 2014

Supported Projects

UĞURLU A., SEVER AKDAĞ A., ANDAÇ ÖZDİL A. M. , AKAN A. P. , ÇAKMAK S., Project Supported by Higher Education Institutions, Çevre Mühendisliği Çevre Kimyası ve Çevre Mikrobiyolojisi Öğrenci Laboratuvarları için Altyapının Oluşturulması, 2015 - 2018

AKAN A. P. , Project Supported by Higher Education Institutions, Hümik Asit ve Moleküler Büyüklük Fraksiyonlarının Anyon ile Katkılandırılmış TiO₂ Türleri ile Adsorpsiyonunun Floresans UyarımYayılm Matrisleri Aracılığıyla Karakterizasyon Farklılıkları, 2016 - 2016

AKAN A. P. , Project Supported by Higher Education Institutions, Uyarma-Emisyon Matris Floresans Spektra aracılığıyla Anyon Katkılı TiO₂ ve Hümik Asitin Farklı Moleküler Boyut Fraksiyonları arasındaki Yüze Etkileşiminin Değerlendirilmesi, 2015 - 2016

AKAN A. P. , Project Supported by Higher Education Institutions, Farklı Moleküler Boyut Fraksiyonlarındaki Hümik Asitin Anyonla Katkılandırılmış TiO₂ Türleri ile Adsorpsiyonu, 2015 - 2015

AKAN A. P. , Project Supported by Higher Education Institutions, Küresel Ölçekte Çevre Etiği, 2015 - 2015

Edit Congress and Symposium Activities

9. European Conference on Renewable Energy Systems, Session Moderator, İstanbul, Turkey, 2021

Scholarships

2214-A Yurt Dışı Doktora Sırası Araştırma Bursu- New Jersey Institute of Technology (NJIT), Amerika Birleşik Devletleri, TÜBİTAK, 2018 - 2019

Yurtdışı Araştırma Bursu-Université catholique de Louvain (UCLouvain),Belçika, University, 2018 - 2018

2224-A Yurt Dışı Bilimsel Etkinliklere Katılım Desteği - Yunanistan, TÜBİTAK, 2015 - 2015

Yaz Okulu Katılım Desteği - University of Helsinki (UH), Finlandiya, University, 2015 - 2015

Awards

Akan A. P. , Highest ranked student in the Faculty of Engineering, Trakya Üniversitesi, July 2008

Akan A. P. , Top scoring student at department, Trakya Üniversitesi, July 2008