

Asst. Prof. HANİFE ERDEN

Personal Information

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International Researcher IDs

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Education Information

Post Doctorate, Vrije Universiteit Brussel, Faculty of Engineering, Department of Chemical Engineering, Belgium 2019 - 2020

Doctorate, University of South Carolina, Faculty of Engineering, Department of Chemical Engineering, United States Of America 2012 - 2016

Postgraduate, Mugla Sitki Kocman University, Faculty Of Science, Department Of Chemistry, Turkey 2006 - 2009

Undergraduate, Ege University, Faculty Of Engineering, Kimya Mühendisliği Bölümü, Turkey 2000 - 2005

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, TWO-STAGE PSA SYSTEM FOR CO₂ REMOVAL AND CONCENTRATION DURING CLOSED-LOOP HUMAN SPACE EXPLORATION MISSIONS, University of South Carolina, College of Engineering, Department of Chemical Engineering, 2016

Postgraduate, THE DEVELOPMENT of METAL DOPED CLAY CATALYST SYSTEMS and THE INVESTIGATION of CATALYTIC DEEP OXIDATION of CVOs , Mugla Sitki Kocman University, Faculty Of Science, Department Of Chemistry, 2009

Research Areas

Chemical Reaction Engineering, Catalysis and Catalytic Processes, Chemical Process System Engineering, Process Design

Academic Titles / Tasks

Assistant Professor, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Kimya Mühendisliği, 2020 - Continues
Research Assistant PhD, Osmaniye Korkut Ata University, Faculty Of Engineering, Department Of Chemistry Engineering, 2017 - 2020

Research Assistant, University of South Carolina, College of Engineering, Department of Chemical Enigneering, 2012 - 2016

Researcher, Mugla Sitki Kocman University, Faculty Of Arts And Sciences, Department Of Chemistry, 2007 - 2010

Courses

Adsorpsiyon Teorisi ve Uygulamaları, Doctorate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Kimya Mühendisliği İçin İleri Matematik, Doctorate, 2022 - 2023
Teknik İngilizce, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021
Biyoreaktör Tasarımı, Undergraduate, 2022 - 2023, 2021 - 2022
Kütle Transferi, Undergraduate, 2022 - 2023, 2021 - 2022
Adsorpsiyon, Undergraduate, 2023 - 2024, 2022 - 2023
Isı transferi, Undergraduate, 2022 - 2023, 2021 - 2022
Petrol Kimyası, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Fosil Yakıtlar ve Konvensiyonel Yanma Teknolojileri, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
İleri kütle aktarımı, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Isı ve Kütle Transferi, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Kimya Mühendisliği Uygulamaları , Undergraduate, 2023 - 2024
İleri Isı Aktarımı, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Bitirme Projesi, Undergraduate, 2023 - 2024, 2022 - 2023
Seramik Malzemeler, Undergraduate, 2021 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **NiFe₂O₄/polyhydroxymethyl methacrylate and Fe₃O₄/polyhydroxymethyl methacrylate magnetic nanogels for lipase immobilization**
İspirli Doğaç Y., Arabacı G., ERDEN H., Öztürk F.
International Journal of Polymeric Materials and Polymeric Biomaterials, vol.73, no.9, pp.746-760, 2024 (SCI-Expanded)
- II. **Development of a Pressure Swing Adsorption Cycle for Producing High Purity CO₂ from Dilute Feed Streams. Part I: Feasibility Study**
Erden H., Ebner A. D., Ritter J. A.
Industrial and Engineering Chemistry Research, vol.57, no.23, pp.8011-8022, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Comparison of Adsorption Isotherm Models for Methane and Carbon Dioxide Adsorption onto Activated Carbon**
Erden L., Erden H.
International Journal of Innovative Approaches in Science Research, vol.7, no.1, pp.25-36, 2023 (Peer-Reviewed Journal)
- II. **A Simple Equalization Pressure Prediction Method for Pressure Equalization via Tanks in PSA Process**
Erden H., Erden L.
International Journal of Scientific and Technological Research, vol.4, no.10, pp.111-119, 2018 (Peer-Reviewed Journal)
- III. **On the Use of Multi-Site Langmuir Model for Prediction of Non-Ideal Gas Mixture Adsorption Isotherms**
Erden H., Erden L.
Usak University Journal of Material Sciences, vol.6, no.1-2, pp.7-14, 2017 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Biyogaz Zenginleştirme için Basınç Salımlı Adsorpsiyon (PSA) Prosesi Tasarımı ve Modellenmesi**
ERDEN H., ERDEN L.
15. Ulusal Kimya Mühendisliği Kongresi, Çanakkale, Turkey, 4 - 07 September 2023
- II. **ACTIVATED CARBON BASED MONOLITHIC ADSORBENTS FOR CO₂ CAPTURE**
ERDEN L., ERDEN H.
ASES III. INTERNATIONAL SCIENTIFIC RESEARCH CONFERENCE, Trabzon, Turkey, 28 - 29 January 2023
- III. **Two-Stage PSA System for CO₂ Removal during Closed-Loop Human Space Exploration Missions**
Ritter J. A., Erden H., Ebner A. D.
2016 AIChE Annual Meeting, California, United States Of America, 13 - 18 November 2016, pp.1
- IV. **New PSA Cycle for Removing and Concentrating Metabolic CO₂ Produced during Closed-Loop Human Space Exploration Missions**
Ebner A. D., ERDEN H., Ritter J. A.
12th International Conference on the Fundamentals of Adsorption, Friedrichshafen/Lake Constance, Germany, 29 May 2016
- V. **New PSA Cycle for CO₂ Removal during Closed-Loop Human Space Exploration Missions**
ERDEN H., Ebner A. D., Ritter J. A.
2015 AIChE Annual Meeting, Salt Lake UTAH, United States Of America, 8 - 13 November 2015
- VI. **On the Development of a Novel Pressure Swing Reactor for the Production of Ammonia**
ERDEN H., Ebner A. D., Ritter J. A.
2014 AIChE Annual Meeting, Atlanta, GA, United States Of America, 16 - 21 November 2014
- VII. **Rapid Cycling of Pure Gases in a Single Bed PSA Apparatus**
Rahman A., Ebner A. D., ERDEN H., Holland C. E., Ritter J. A.
2013 AIChE Annual Meeting, San-Francisco, Costa Rica, 3 - 08 November 2013
- VIII. **Low temperature CVOCs oxidation reaction over bimetallic Zr-PILCs nanocomposite clay catalysts**
BEŞÜN N., DEVECİ İ., ERDEN H., ERDEN L.
8th World Chemical Engineering Congress, WCCE8, Montreal, Canada, 23 August 2009
- IX. **Synthesis and Characterization of micro-mesoporous Mixed-PILCs with varying pillar density**
BEŞÜN N., DEVECİ İ., ERDEN H., ERDEN L.
2nd National Catalysis Conference, Erzurum, Turkey, 18 June 2008

Supported Projects

Deveci İ., Erden H., TUBITAK Project, Vakum Piroliz Yöntemiyle Yüksek Lipit İçerikli Schizochytrium Sp. Alg Türü Kullanılarak Piroliz Yağı Üretimi Ve Eş Zamanlı Katalitik Geliştirilmesi , 2023 - 2026

ERDEN H., UĞUR NİĞİZ F., KAHRAMAN S., BARDAKÇI S., Project Supported by Higher Education Institutions, Oleik asitten biyodizel üretiminin piston akışlı borusal reaktörde optimizasyonu ve modellenmesi, 2022 - 2024

ERDEN H., KAHRAMAN S., Project Supported by Higher Education Institutions, Oleik asitten biyodizel üretiminin membran reaktörde incelenmesi, 2023 - 2023

Erden H., Denayer J., Industrial Organizations of Other Countries Supported Project, Catalytic CO₂ Reduction to Solar Fuels and Chemicals, 2018 - 2021

Erden H., Ritter J. A., Project Supported by Public Organizations in Other Countries, New PSA Cycle for CO₂ Removal and Concentration during Closed-Loop Human Space Exploration Missions, 2015 - 2016

Erden H., Ritter J. A., Project Supported by Public Organizations in Other Countries, Novel Pressure Swing Adsorption (PSA) Cycle to Facilitate Heavy Component (CO₂) Enrichment and Recovery, 2015 - 2015

Erden H., Ritter J. A., Project Supported by Public Organizations in Other Countries, Development of Rapid Cycle Pressure Swing Adsorption Oxygen Concentrators for Extraterrestrial Applications, 2009 - 2013

Erden H., Ritter J. A., Project Supported by Public Organizations in Other Countries, Development of Pressure Swing Adsorption Technology for Spaceflight Medical Oxygen Concentrators, 2009 - 2013

Erden H., Ritter J. A., Project Supported by Public Organizations in Other Countries, Integrated Ammonia Reactor and Ammonia Pressure Swing Adsorption Recovery, 2010 - 2011

Erden L., Erden H., Akpolat O., TUBITAK Project, Synthesis characterization and testing of bimetallic organic inorganic clay catalyst for TCE removal, 2009 - 2010

Erden H., Ritter J. A., Project Supported by Public Organizations in Other Countries, Ammonia Process by Pressure Swing Adsorption, 2007 - 2010

Beşün N., TUBITAK Project, Katalitik CVOCs (Klorine olmuş uçucu organik bileşiklerin) oksidasyon reaksiyonu için kil kataliz sistemlerinin tasarımı, 2007 - 2010

Metrics

Publication: 14

Citation (Scopus): 6

H-Index (WoS): 1

H-Index (Scopus): 1

Scholarships

YLSY, Ministry of Education, 2010 - 2016