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International Researcher IDs

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Education Information

Doctorate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Environmental Engineering (Eng), Turkey 2013 - 2021

Postgraduate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Environmental Engineering (Eng), Turkey 2011 - 2013

Undergraduate, Marmara University, Faculty of Engineering, Environmental Engineering, Turkey 2007 - 2011

Biography

Hatice YEŞİL works as a research assistant at Marmara University Environmental Engineering Department.

She received her Bachelor's degree (2011), Master of Science degree (2013), and Ph.D. degree (2021) from the Environmental Engineering Department of Marmara University. Between 2023 and 2024, she works as a post-doc researcher at the Environmental Biotechnology Laboratory of Tübingen University (Germany) within the scope of 2219 - International Postdoctoral Research Fellowship Program for Turkish Citizens supported by TUBITAK.

Her current research interests are sustainable waste management, resource recovery through bio-based technologies, integrated biotechnology&membrane applications for material recovery from waste streams, and bio-based bioplastic production using waste-derived materials.

She may be contacted at hatice.yesil@marmara.edu.tr or haticeyesil89@gmail.com

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Selective separation and recovery of heavy metals from sewage sludge via integrated anaerobic bio-leaching and membrane processes, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Environmental Engineering (Eng), 2021

Postgraduate, Anaerobic fermentation of organic solid wastes: Volatile fatty acid production and separation, Marmara Üniversitesi, Faculty of Engineering, Environmental Engineering, 2013

Research Areas

Environmental Engineering, Waste Water Collection and Treatment, Solid Waste Engineering and Management, Water Supply and Treatment, Engineering and Technology

Academic Titles / Tasks

Research Assistant PhD, Marmara University, Faculty of Engineering, Environmental Engineering, 2013 - Continues

Advising Theses

Yeşil H., Tuğtaş Karnabat A. E., Modeling of the Effects of Ammonia Inhibition on Anaerobic Digestion, Postgraduate, İ.SEKİZELMA(Student), Continues

Yeşil H., Tuğtaş Karnabat A. E., Modeling of pH-controlled anaerobic fermentation of ultrasound pre-treated sewage sludge, Postgraduate, A.İNAN(Student), Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Conceptual system for sustainable and next-generation wastewater resource recovery facilities**
Owusu-Agyeman I., Plaza E., Elginöz N., Atasoy M., Khatami K., Perez-Zabaleta M., Cabrera-Rodríguez C., YEŞİL H., TUĞTAŞ KARNABAT A. E., ÇALLI B., et al.
Science of the Total Environment, vol.885, 2023 (SCI-Expanded)
- II. **Removal and recovery of heavy metals from sewage sludge via three-stage integrated process**
YEŞİL H., Molaey R., ÇALLI B., TUĞTAŞ KARNABAT A. E.
Chemosphere, vol.280, 2021 (SCI-Expanded)
- III. **Enhanced heavy metal leaching from sewage sludge through anaerobic fermentation and air-assisted ultrasonication**
Molaey R., YEŞİL H., ÇALLI B., TUĞTAŞ KARNABAT A. E.
Chemosphere, vol.279, 2021 (SCI-Expanded)
- IV. **Extent of bioleaching and bioavailability reduction of potentially toxic heavy metals from sewage sludge through pH-controlled fermentation**
YEŞİL H., Molaey R., ÇALLI B., TUĞTAŞ KARNABAT A. E.
Water Research, vol.201, 2021 (SCI-Expanded)
- V. **Influence of volatile fatty acids in anaerobic bioleaching of potentially toxic metals**
Molaey R., YEŞİL H., ÇALLI B., TUĞTAŞ KARNABAT A. E.
Journal of Environmental Management, vol.285, 2021 (SCI-Expanded)
- VI. **A hybrid dry-fermentation and membrane contactor system: Enhanced volatile fatty acid (VFA) production and recovery from organic solid wastes**
YEŞİL H., ÇALLI B., TUĞTAŞ KARNABAT A. E.
Water Research, vol.192, 2021 (SCI-Expanded)

- VII. **Pervaporative Separation of Mixed Volatile Fatty Acids: A Study Towards Integrated VFA Production and Separation**
Yeşil H., Taner H., Uğur Nigiz F., Hilmioğlu N., Tuğtaş Karnabat A. E.
WASTE AND BIOMASS VALORIZATION, vol.11, no.11, pp.1737-1753, 2020 (SCI-Expanded)
- VIII. **Removal of heavy metals from leaching effluents of sewage sludge via supported liquid membranes**
YEŞİL H., Tugtas A. E.
SCIENCE OF THE TOTAL ENVIRONMENT, vol.693, 2019 (SCI-Expanded)
- IX. **Ammonia removal from chicken manure digestate through vapor pressure membrane contactor (VPMC) and phytoremediation**
ORTAKÇI S., YEŞİL H., TUĞTAŞ KARNABAT A. E.
Waste Management, vol.85, pp.186-194, 2019 (SCI-Expanded)
- X. **Recovery of mixed volatile fatty acids from anaerobically fermented organic wastes by vapor permeation membrane contactors**
Aydin S., YEŞİL H., TUĞTAŞ KARNABAT A. E.
BIORESOURCE TECHNOLOGY, vol.250, pp.548-555, 2018 (SCI-Expanded)
- XI. **Anaerobic fermentation of organic solid wastes: volatile fatty acid production and separation**
Yesil H., Tugtas A. E., Bayrakdar A., Calli B.
WATER SCIENCE AND TECHNOLOGY, vol.69, no.10, pp.2132-2138, 2014 (SCI-Expanded)

Books & Book Chapters

- I. **İklim Krizi ve Yeşil Mutabakat Çerçevesinde Biyobozunur Atıkların Yönetimi**
Yeşil H., Tuğtaş Karnabat A. E., Çallı B.
in: , Mehmet Emin Aydın, Güleda Engin, Editor, Tüba Basın Yayın, Ankara, pp.127-156, 2023

Refereed Congress / Symposium Publications in Proceedings

- I. **Reduction of heavy metals from waste activated sludge via anaerobic fermentation and chemical post treatment for land application**
MOLAEY R., YEŞİL H., ÇALLI B., TUĞTAŞ KARNABAT A. E.
2020 11th International Conference on Environmental Science and Development, Barcelona, Spain, 10 - 12 February 2020
- II. **Volatile Fatty Acid Recovery from Anaerobically Fermented Organic Wastes**
AYDIN S., YEŞİL H., TUĞTAŞ KARNABAT A. E.
9 th IWA Young Water Professionals, 24 - 27 May 2017
- III. **Application of Pervaporation in Environmental Engineering VFA Separation via Commercial and Manufactured Membranes**
KÜLLÜ Ç., TANER H., YEŞİL H., TUĞTAŞ KARNABAT A. E.
ICS International Sustainability Congress, 1 - 03 December 2016
- IV. **Separation of Volatile Fatty Acids from Leachate via TOA Impregnated Liquid Membranes**
YEŞİL H., TUĞTAŞ KARNABAT A. E.
Eurasia 2014 Waste Management Symposium, İstanbul, Turkey, 28 - 30 April 2014
- V. **Anaerobic fermentation of organic solid wastes Volatile fatty acid production and separation**
YEŞİL H., TUĞTAŞ KARNABAT A. E., BAYRAKDAR A., ÇALLI B.
13th World Congress on Anaerobic Digestion, Santiago de Compostela, Spain, 25 - 28 June 2013

Supported Projects

TUBITAK Project, Valorization of medium chain fatty acids derived from acid whey as a feedstock in biodegradable bioplastic production, 2023 - 2024

Tuğtaş Karnabat A. E., Çallı B., TUBITAK Project, Metal Separation and Recovery from Wastewater Treatment Plant Sludge through Anaerobic Bio-leaching and Membrane Separation Processes , 2017 - 2020

Tuğtaş Karnabat A. E., Çallı B., Yeşil H., TUBITAK Project, Pervaporation Separation of Volatile Fatty Acids from Leachate Generated by a Leach-bed Reactor, 2012 - 2016

Tuğtaş Karnabat A. E., Çallı B., Yeşil H., Project Supported by Higher Education Institutions, Organik Katı Atığın Anaerobik Fermentasyonu ile Üretilen Uçucu Yağ Asitlerinin Membran Kontaktör ile Sıvı Fazdan Ayrılması, 2013 - 2015

Student Project

R & D Project, Marmara University, Faculty Of Engineering, Environmental Engineering, Turkey, 2023 - Continues

Scientific Refereeing

APPLIED SCIENCES, SCI Journal, July 2023

CHEMICAL ENGINEERING JOURNAL, SCI Journal, April 2023

Waste Management, SCI Journal, March 2023

CHEMOSPHERE, SCI Journal, January 2023

JOURNAL OF CLEANER PRODUCTION, SCI Journal, January 2023

Metrics

Publication: 17

Citation (WoS): 262

Citation (Scopus): 292

H-Index (WoS): 9

H-Index (Scopus): 10

Scholarships

2219 International Postdoctoral Research Fellowship Program for Turkish Citizens, TUBITAK, 2023 - 2024

Scholarship within the framework of a scientific project financially supported by TÜBİTAK (Grant No. 116Y227), TUBITAK, 2018 - 2020

2211-E Direct National Scholarship Programme of TÜBİTAK, TUBITAK, 2013 - 2017

2210 National Scholarship Programme of TÜBİTAK, TUBITAK, 2011 - 2013

Awards

Yeşil H., Tuğtaş Karnabat A. E., The Best Doctoral Thesis Awards in the Field of Environment (Honorable Mention), Çevre Vakfı, June 2022

Yeşil H., Tuğtaş Karnabat A. E., Gold Pen Doctoral Thesis Award, Marmara Üniversitesi Fen Bilimleri Enstitüsü, March 2022