

## Res. Asst. PhD Dođukan TUNAY

### Personal Information

**Email:** dtunay@yildiz.edu.tr

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### International Researcher IDs

ORCID: 0000-0002-4194-7765

ScopusID: 57324039100

Yoksis Researcher ID: 283854

### Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Çevre Mühendisliđi, Turkey  
2018 - 2023

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Çevre Mühendisliđi, Turkey 2016 - 2018

Undergraduate, Istanbul Technical University, İnşaat Fakültesi, Çevre Mühendisliđi , Turkey 2010 - 2015

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, YENİ GELİŞTİRİLEN ENTEGRE BİR SİSTEMLE KÂĞIT ENDÜSTRİSİNDE PROSES İÇİ SU VE SÜLFÜR GERİ  
KAZANIMI, Yildiz Technical University, Faculty Of Civil Engineering, Department Of Environmental Engineering, 2023

Postgraduate, Kaynağında Ayrı Toplanmış İnsan İdrarında Mikroalg Yetiştirilmesi, İstanbul Teknik Üniversitesi, Çevre  
Mühendisliđi, 2018

### Research Areas

Environmental Engineering, Environmental Technology, Waste Water Collection and Treatment, Life Sciences,  
Biotechnology, Environmental Biotechnology, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Research Assistant, Yildiz Technical University, Rectorate, Rectorate, 2020 - Continues

Research Assistant, Yildiz Technical University, Faculty Of Civil Engineering, Department Of Environmental Engineering,  
2018 - Continues

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

1. Biological sulphur production potential of local sulphur oxidising bacteria culture and

### **Thioalkalivibrio versutus AL2 in haloalkaliphilic conditions**

Tunay D., Ozkaya B.

International Journal of Global Warming, vol.32, no.3, pp.309-321, 2024 (SCI-Expanded)

- II. **Optimization of enzymatic hydrolysis conditions of chemical pretreated cotton stalk using response surface methodology for enhanced bioethanol production yield**  
Yıldırım Ö., Tunay D., Özkaya B.  
BIOMASS CONVERSION AND BIOREFINERY, vol.13, no.8, pp.6623-6634, 2023 (SCI-Expanded)
- III. **Energy-efficient biogas production from co-digestion of food waste and sewage sludge via kinetic modeling and exergy analyses**  
TUNAY D., YILDIRIM Ö., ÖZKAYA B.  
Environment, Development and Sustainability, 2023 (SCI-Expanded)
- IV. **Usage of source separated urine for the biodiesel production from algal biomass**  
TUNAY D., Altınbaş M., ÖZKAYA B.  
BIOCHEMICAL ENGINEERING JOURNAL, vol.188, 2022 (SCI-Expanded)
- V. **Optimization of oxalic and sulphuric acid pretreatment conditions to produce bio-hydrogen from olive tree biomass**  
YILDIRIM Ö., TUNAY D., ÖZKAYA B., DEMİR A.  
International Journal of Hydrogen Energy, vol.47, no.62, pp.26316-26325, 2022 (SCI-Expanded)
- VI. **Effect of organic fraction of municipal solid waste addition to high rate activated sludge system for hydrogen production from carbon rich waste sludge**  
TUNAY D., YILDIRIM Ö., ÖZKAYA B., DEMİR A.  
International Journal of Hydrogen Energy, vol.47, no.62, pp.26284-26293, 2022 (SCI-Expanded)
- VII. **Effect of Green synthesized silver oxide nanoparticle on biological hydrogen production**  
YILDIRIM Ö., TUNAY D., ÖZKAYA B., DEMİR A.  
International Journal of Hydrogen Energy, vol.47, pp.19517-19525, 2022 (SCI-Expanded)
- VIII. **Determination of photoautotrophic growth and inhibition kinetics by the Monod and the Aiba models and bioenergetics of local microalgae strain**  
TUNAY D., YILDIRIM Ö., ÖZKAYA B., DEMİR A.  
Chemosphere, vol.292, 2022 (SCI-Expanded)
- IX. **Reuse of sea water reverse osmosis brine to produce Dunaliella salina based 0-carotene as a valuable bioproduct: A circular bioeconomy perspective**  
Yıldırım Ö., Tunay D., Özkaya B.  
JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.302, 2022 (SCI-Expanded)

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

- I. **COMPARATIVE ANALYSIS BETWEEN PRODUCTION OF BIOETHANOL FROM SUGARCANE BAGASSE, HALOPHYTES AND NON-EDIBLE BIOMASS**  
Ali M., Ahmed M., Imran M., Shakaib M., ÖZKAYA B., TUNAY D.  
NED University Journal of Research, vol.21, no.2, pp.1-18, 2024 (Scopus)

### **Books & Book Chapters**

- I. **SUSTAINABLE ETHANOL PRODUCTION FROM LIGNOCELLULOSIC BIOMASS: A WATER FOOTPRINT ANALYSIS OVER PRE-TREATMENT TECHNOLOGIES**  
Yıldırım Ö., Tunay D., Özkaya B., Demir A.  
in: Bioethanol Biochemistry and Biotechnological Advances, Ayerim Y.Hernandez Almanza, Nagamani Balagurusamy, Hector A.Ruiz, Cristobal N.Aguilar, Editor, Apple Academic Press, Burlington, pp.401-419, 2022
- II. **RESOURCE MANAGEMENT**

Tunay D.

in: YILDIZ TECHNICAL UNIVERSITY SUSTAINABLE CAMPUS REPORT, Prof. Dr. Çiğdem Polatoğlu, Prof. Dr. Füsün Balık Şanlı, Doç. Dr. Gökçe Tuna Taygun, Editor, Yıldız Teknik Üniversitesi, İstanbul, pp.53-58, 2021

## Refereed Congress / Symposium Publications in Proceedings

- I. **Effect of Organic Fraction of Municipal Solid Waste Addition to High Rate Activated Sludge System for Hydrogen Production from Carbon Rich Waste Sludge**  
Tunay D., Yıldırım Ö., Özkaya B., Demir A.  
5th International Hydrogen Technologies, Niğde, Turkey, 26 - 28 May 2021, pp.232-233
- II. **Effect of Green Synthesized Silver Oxide Nanoparticles on Biological Hydrogen Production**  
Yıldırım Ö., Tunay D., Özkaya B., Demir A.  
International Hydrogen Technologies Congress (5th IHTEC), 26 - 28 May 2021, pp.52-54
- III. **Optimization of Pretreatment of Olive Tree Biomass using Response Surface Methodology for Biological Hydrogen Production**  
Yıldırım Ö., Tunay D., Özkaya B., Demir A.  
International Hydrogen Technologies Congress (5th IHTEC), 26 - 28 May 2021, pp.255-256
- IV. **Enhanced Bioethanol Production from Olive Tree Biomass with Different Pretreatment Methods**  
Yıldırım Ö., Tunay D., Özkaya B., Demir A.  
3rd Bioenergy Studies Symposium, 20 - 21 May 2021, pp.18
- V. **EVSEL VE HAYVANSAL ATIKLARDAN KOMPOST ÜRETİMİ VE UYGULANABİLİRLİĞİNİN İNCELENMESİ**  
Akgün B., Tunay D., Duran S., Çebi A., Koşma E. B., Bilgili M. S., Demir A.  
Çevre Mühendisliği Kongresi, Kocaeli, Turkey, 10 - 12 October 2019, pp.509-519
- VI. **Application of Thermal Conversion Process to Major Solid and Wet Wastes of Istanbul City**  
Çallıalp F., Teymur S., Bostan D., Yıldırım Ö., Tunay D., Civelek Yörüklü H., Özkaya B.  
WESCE 2019, İstanbul, Turkey, 26 - 28 August 2019
- VII. **Determination of hydrogen and methane production from biological sludge based on energy equivalence and environmental impacts**  
TUNAY D., YILDIRIM Ö., KÖROĞLU E. O., ÖZKAYA B.  
4. International Hydrogen Technologies Congress-IHTEC 2019, 20 - 23 June 2019, no.309
- VIII. **Feasibility of Biological Hydrogen and Alcohol Production from Sunflower Straw**  
Yıldırım Ö., Civelek Yörüklü H., Tunay D., Köroğlu E. O., Özkaya B., Demir A.  
International Hydrogen Technologies Congress, Edirne, Turkey, 20 - 23 June 2019, no.315, pp.109
- IX. **Production Of Microalgae Using Centrate Wastewater**  
Sarılar İ., Tunay D., Özkaya B.  
International Conference on Civil, Environmental, Geology and Mining Engineering, Trabzon, Turkey, 20 - 22 April 2019, pp.320
- X. **Cultivation of Spirulina platensis Using Anaerobic Digestion Effluent As a Nutrient Source For Biomass Production**  
Ermış H., Tunay D., Altınbaş M.  
2nd INTERNATIONAL CONFERENCE ON CIVIL AND ENVIRONMENTAL ENGINEERING, Nevşehir, Turkey, 8 - 10 May 2017, pp.2519
- XI. **Detection of the dilution factors for anaerobic digestate to cultivation of mixed culture microalgae and detection of particulate matters affect on cultivation**  
Tunay D., Ermış H., Altınbaş M.  
2nd INTERNATIONAL CONFERENCE ON CIVIL AND ENVIRONMENTAL ENGINEERING, Nevşehir, Turkey, 8 - 10 May 2017, pp.2005

## Supported Projects

TUBITAK Project, MBR/EDI ENTEGRASYONUyla OLUřTURULAN YENİ BİR SİSTEMDE KRAFT PROSESİNİN HALOALKALİ KOřULLARINDA MADDE GERİ KAZANIMININ DEęERLENDİRİLMESİ, 2021 - 2023

Altınbaş M., Koyuncu İ., TUBITAK Project, Kanal Tipi Membran Fotobiyoreaktör Sistemi İle Anaerobik Çürütücü Çıkış Suyunda Mikroalg Üretimi, 2016 - 2018

## Metrics

Publication: 24

Citation (WoS): 6

Citation (Scopus): 77

H-Index (WoS): 2

H-Index (Scopus): 6

## Non Academic Experience

Business Establishment Private, Doęa Çevre Yön. Ve Alt. Enerji Tek. Müh. Eęitim Ve Danışmanlık Hiz. Ltd. řti.

Other Public Institution, Ataköy İleri Biyolojik Atıksu Arıtma Tesisi