

## Prof. ÖNDER AYYILDIZ

### Personal Information

**Office Phone:** [+90 286 218 0018](tel:+902862180018) Extension: 2181

**Fax Phone:** [+90 286 218 0541](tel:+902862180541)

**Email:** [oayyildiz@comu.edu.tr](mailto:oayyildiz@comu.edu.tr)

**Web:** <https://avesis.comu.edu.tr/oayyildiz>

**Address:** Çanakkale Onsekiz Mart Üniversitesi, Mühendislik Fakültesi, Çevre Mühendisliği, Terzioğlu Kampüsü, Çanakkale, 17100

### Education Information

Doctorate, Illinois Institute of Technology, Engineering Faculty, Chemical And Environmental Engineering Department, United States Of America 1997 - 2003

Postgraduate, Illinois Institute of Technology, Engineering Faculty, Chemical And Environmental Engineering Department, United States Of America 1995 - 1997

Undergraduate, Yildiz Technical University, Faculty Of Civil Engineering, Çevre Mühendisliği, Turkey 1989 - 1993

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Ultrasonic and air stripping removal of CCl<sub>4</sub> and TCA from water: Investigating synergistic effects, Illinois Institute of Technology, Engineering Faculty, Environmental Engineering, 2003

### Research Areas

Environmental Engineering, Environmental Technology, Water Pollution and Control, Engineering and Technology

### Academic Titles / Tasks

Professor, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Çevre Mühendisliği, 2015 - Continues

Associate Professor, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Çevre Mühendisliği, 2011 - 2015

Assistant Professor, Canakkale Onsekiz Mart University, Mühendislik Mimarlık Fakültesi, Çevre Mühendisliği, 2004 - 2011

Research Assistant, Canakkale Onsekiz Mart University, Mühendislik Mimarlık Fakültesi, Jeoloji Mühendisliği, 2003 - 2004

### Academic and Administrative Experience

Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Çevre Mühendisliği, 2005 - 2015

## Advising Theses

- Ayyıldız Ö., METİL ORANJ AZO BOYAR MADDESİNİN SONOELEKTROKİMYASAL ARITIMI, Postgraduate, Y.ÖZBAYRAK(Student), 2023
- Ayyıldız Ö., Manganez/nikel oksit partikülleri ile sentetik atıksularda krom(VI) giderimi, Postgraduate, İ.DOĞU(Student), 2019
- Ayyıldız Ö., Ultrasonik ortamda sıfır yüklü çinko ile nitrit içerikli suların arıtımı, Postgraduate, D.NUR(Student), 2018
- Ayyıldız Ö., Ultrases ve sıfır yüklü magnezyum ile krom (VI) içerikli suların pH kontrolsüz arıtılması, Postgraduate, E.ACAR(Student), 2017
- AYYILDIZ Ö., Atıksularda Koliform Kirliliğinin Ultrases ve Klordioksit Oksidasyon Metotları ile Giderilmesi, Postgraduate, S.Sanık(Student), 2010
- AYYILDIZ Ö., Evsel Atıksu Arıtma Tesisi Giriş ve Çıkış Sularında Bulunan Organik Madde Miktarlarının Klor Dioksit Dezenfeksiyon Verimine Etkisi, Postgraduate, B.İleri(Student), 2009

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

- I. **Activation of zinc particles with 3-(N-morpholino)propanesulfonic acid buffer and ultrasound for nitrite reduction**  
Ayyıldız Ö.  
DESALINATION AND WATER TREATMENT, vol.303, pp.87-96, 2023 (SCI-Expanded)
- II. **Sonocatalytic Reduction of Hexavalent Chromium by Metallic Magnesium Particles**  
AYYILDIZ Ö., Acar E., İLERİ B.  
Water, Air, WATER AIR AND SOIL POLLUTION, vol.227, pp.1-9, 2016 (SCI-Expanded)
- III. **Ultrasound-assisted activation of zero-valent magnesium for nitrate denitrification: Identification of reaction by-products and pathways**  
İLERİ B., AYYILDIZ Ö., APAYDIN Ö.  
JOURNAL OF HAZARDOUS MATERIALS, vol.292, pp.1-8, 2015 (SCI-Expanded)
- IV. **Microbial Quality in Coastal Waters of Dardanelles in Relation to the Pollution Sources and Transport Pathways**  
TÜRKMEN C., AYYILDIZ Ö., Akbulut M., Kaya H.  
CLEAN-SOIL AIR WATER, vol.40, no.12, pp.1320-1325, 2012 (SCI-Expanded)
- V. **Flow injection analysis of sulphide based on its photoelectrocatalytic oxidation at poly-methylene blue modified glassy carbon electrode**  
Dilgin Y., Canarşlan S., AYYILDIZ Ö., Ertek B., Nisli G.  
ELECTROCHIMICA ACTA, vol.66, pp.173-179, 2012 (SCI-Expanded)
- VI. **Effect of ultrasonic pretreatment on chlorine dioxide disinfection efficiency**  
AYYILDIZ Ö., Sanık S., İleri B.  
ULTRASONICS SONOCHEMISTRY, vol.18, no.2, pp.683-688, 2011 (SCI-Expanded)
- VII. **Impacts of water organic load on chlorine dioxide disinfection efficacy**  
AYYILDIZ Ö., İleri B., Sanık S.  
JOURNAL OF HAZARDOUS MATERIALS, vol.168, pp.1092-1097, 2009 (SCI-Expanded)
- VIII. **Sonolytic degradation of halogenated organic compounds in groundwater: Mass transfer effects**  
Ayyıldız O., Peters R. W., Anderson P. R.  
ULTRASONICS SONOCHEMISTRY, vol.14, no.2, pp.163-172, 2007 (SCI-Expanded)
- IX. **Laboratory batch experiments of the combined effects of ultrasound and air stripping in removing CCl<sub>4</sub> and 1,1,1-TCA from water**  
Ayyıldız Ö., Anderson P., Peters R.  
JOURNAL OF HAZARDOUS MATERIALS, vol.120, pp.149-156, 2005 (SCI-Expanded)
- X. **Synergy of combined sonication and vapor stripping treatment in the removal of PCE from water**  
Ayyıldız O., Peters R. W.

## Articles Published in Other Journals

- I. **Deri Atıksuyunun Sono-Elektrokimyasal Arıtımı**  
DOĞU İ., YALÇIN M., İLERİ B., AYYILDIZ Ö.  
Çanakkale Onsekiz Mart Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.3, no.1, pp.1-23, 2017 (Peer-Reviewed Journal)
- II. **DENITRIFICATION OF NITRATE BY COMBINED ULTRASOUND AND ZERO VALENT MAGNESIUM AT pH CONTROLLED CONDITIONS**  
İLERİ B., APAYDIN Ö., AYYILDIZ Ö.  
Sigma Journal of Engineering and Natural Sciences, vol.33, no.4, pp.489-501, 2015 (ESCI)

## Books & Book Chapters

- I. **URBAN GROUNDWATER POLLUTION IN TURKEY**  
BABA A., AYYILDIZ Ö.  
in: Urban Groundwater Management and Sustainability, John H. Tellam, Micheal O. Rivett, Raug G. İsrailov, Editor, Springer, Dordrecht, pp.93-110, 2006
- II. **Use of Sonication for In-Well Softening of Semivolatile Organic Compounds**  
Peters R. W., Manning J. M., AYYILDIZ Ö., Wilkey M. L.  
in: Subsurface Contamination Remediation, Edgar Berkey, Tiffany Zachry, Editor, American Chemical Society, pp.12-63, 2005

## Refereed Congress / Symposium Publications in Proceedings

- I. **Düşük Frekans Ultrases ve Yıkama İşleminin İspanaklardaki C. difficile, TAMB ve Enterobacterales Yüküne Etkisi.**  
TAYLAN G., TOSUN M. N., Korkmazer G., AYYILDIZ Ö., ZORBA N. N.  
NAFoST 1. Ulusal Gıda Bilimi ve Teknolojisinde Yenilikçi Yaklaşımlar Kongresi, İzmir, Turkey, 28 September 2023, pp.18
- II. **ULTRASES İLE MODİFİYE EDİLEN UÇUCU KÜL KULLANILARAK AZO BOYA GİDERİMİNİN ARAŞTIRILMASI**  
İLERİ B., Songür S., Kardeşler E. S., Doğu İ., Dönmez G., AYYILDIZ Ö.  
Uluslararası Su ve Çevre Kongresi (SUÇEV), Bursa, Turkey, 22 - 24 March 2018, pp.1228-1237
- III. **Treatment of Acid Mine Lake by Ultrasonically Modified Fly Ash at Different Frequencies**  
İLERİ B., ŞANLIYÜKSEL YÜCEL D., AYYILDIZ Ö.  
ICESE 2018: 20th International Conference on Environmental Sciences and Engineering, Londra, United Kingdom, 15 - 16 March 2018, pp.616
- IV. **Reduction in hexavalent chromium by zero-valent magnesium coupled with ultrasonic treatment**  
AYYILDIZ Ö., Acar E., İLERİ B.  
15th Meeting of the European Society of Sonochemistry, İstanbul, Turkey, 27 June - 01 July 2016, pp.1
- V. **Reduction of nitrate by combined ultrasound and zerovalent magnesium under pH uncontrolled conditions**  
AYYILDIZ Ö., İLERİ B., Apaydin O.  
International Conference on Civil and Environmental Engineering (ICOCEE), Cappadocia'2015, Nevşehir, Turkey, 20 - 23 May 2015, pp.1
- VI. **Chemical denitrification of nitrate in water with combined ultrasound and zero-valent magnesium**

AYYILDIZ Ö., İLERİ B., Apaydn Ö.

Porous and Powder Materials Symposium and Exhibition, İzmir, Turkey, 3 - 06 September 2013, pp.306

VII. **Gıdaların Tazeliğinin Korunmasında Klordioksit Kullanımı ve Etkinliği**

ADAY M. S., CANER C., AYYILDIZ Ö.

7. Gıda Mühendisliği Kongresi, Turkey, 24 - 26 November 2011, vol.1, pp.173

VIII. **Flow Injection Analysis od sulphide depend on its photoelectrocatalytic oxidation at poly methylene blue modified glassy carbon electrode**

DİLGİN Y., SEDA C., AYYILDIZ Ö., ERTEK B., NİŞLİ G.

9th International Electrochemsitry Meeting in TURKEY, 25 - 29 September 2011

IX. **Ultrases Oksidasyonu ile Atıksularda Koliform ve Enterekok Kirliliklerinin Giderilmesi**

AYYILDIZ Ö., Sanik S., İLERİ B.

Çevre Sorunları Sempozyumu Kocaeli-2008, Kocaeli, Turkey, 14 - 17 May 2008, pp.1

X. **Urban groundwater pollution in Turkey - A national review of urban groundwater quality issues**

Baba A., AYYILDIZ Ö.

Conference of the NATO Advanced Study Institute on Management and Sustainable Development of Urban Groundwater Systems, Baku, Azerbaijan, 6 - 15 August 2004, vol.74, pp.93-97

## Supported Projects

KANTAR Ç., CAN C., AYYILDIZ Ö., ALTEN A., İLERİ B., ORAK E., MENTEŞE S., AYMAN ÖZ N., Project Supported by Higher Education Institutions, Çanakkale Boğazi Kıyı Sularının Fiziksel Kimyasal ve Mikrobiyolojik Kirliliği ile Hava Kalitesinin Araştırılması, 2017 - 2019

AYYILDIZ Ö., TUBITAK Project, Birleşik ultrases ve sıfır yüklü magnezyum (Mg0) ile yer altı sularında nitratın kimyasal denitrifikasyonu, 2012 - 2014

AYYILDIZ Ö., TUBITAK Project, Birleşik ultrason ve klorin dioksit arıtma sistemi ile atıksularda KOİ ve ve Fekal Koliform kirliliklerinin giderilmesi, 2006 - 2009

AKBULUT M., AYYILDIZ Ö., ÇELİK E. Ş., SAĞIR ODABAŞI S., ERKAN YURDABAK F., Project Supported by Higher Education Institutions, Çanakkale İli Menderes Çayı'nın Bentik Makroomurgasız Faunasının Taksonomik ve Ekolojik Açından Araştırılması, 2005 - 2007

## Metrics

Publication: 30

Citation (WoS): 182

Citation (Scopus): 201

H-Index (WoS): 7

H-Index (Scopus): 6

## Non Academic Experience

Argonne National Laboratory-Chicago-USA