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Personal Information

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Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Çevre Bilimleri Ve Mühendisliği (Dr), Turkey 2000 - 2006

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Çevre Bilimleri Ve Mühendisliği (Dr), Turkey 1998 - 2000

Foreign Languages

English

German

Dissertations

Doctorate, Biyolojik arıtılabilirlik bazlı atık su karakterizasyonu ve atık aktif çamur üzerinde ozonlamanın etkisi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Çevre Bilimleri Ve Mühendisliği (Dr), 2006

Postgraduate, Bir pamuklu son işlemleri endüstrisinde ozonlamanın KOİ bileşenleri üzerine etkisi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Çevre Bilimleri Ve Mühendisliği (Dr), 2000

Research Areas

Technical Sciences, Environmental Engineering, Environmental Sciences, Environmental Chemistry

Academic Titles / Tasks

Associate Professor, Istanbul Technical University, İnşaat, Çevre Mühendisliği, 2014 - Continues

Assistant Professor, Istanbul Technical University, İnşaat, Çevre Mühendisliği, 2009 - 2014

Research Assistant, Istanbul Technical University, İnşaat, Çevre Mühendisliği, 1999 - 2009

Published journal articles indexed by SCI, SSCI, and AHCI

1. Co-metabolism of olive mill wastewater in sequencing batch reactor under aerobic conditions after Fenton-based oxidation
ÇİĞGIN A. S., Iravanian A., Doğruel S., Orhon D.

JOURNAL OF WATER PROCESS ENGINEERING, vol.43, 2021 (SCI-Expanded)

- II. **Impact of ultrasonic pretreatment on Fenton-based oxidation of olive mill wastewater-towards a sustainable treatment scheme**
ÇİĞGIN A. S., Sarica E. S., Doğruel S., Orhon D.
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- III. **Particle size distribution of chemical oxygen demand in industrial effluents: impact on effective filtration size and modelling of membrane bioreactors**
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JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.96, pp.1777-1784, 2021 (SCI-Expanded)
- IV. **Particle size distribution as a major characteristic of domestic wastewater: implications for the modeling and design of membrane bioreactors**
Dogruel S., Orhon D.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.96, no.4, pp.825-836, 2021 (SCI-Expanded)
- V. **Anatomy of the organic carbon in an industrial wastewater: Implications of particle size distribution, respirometry and process modelling**
Doğruel S., Altun A., Çokgör E., Insel G., KESKİNLER B., Orhon D.
PROCESS SAFETY AND ENVIRONMENTAL PROTECTION, vol.146, pp.257-266, 2021 (SCI-Expanded)
- VI. **Ozonation in advanced treatment of secondary municipal wastewater effluents for the removal of micropollutants**
Doğruel S., Atesci Z. C., Aydin E., Pehlivanoğlu Mantaş E.
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, vol.27, no.36, pp.45460-45475, 2020 (SCI-Expanded)
- VII. **Performance of ozone and peroxone on the removal of endocrine disrupting chemicals (EDCs) coupled with cost analysis**
Ölmez Hancı T., Dogruel S., Emek A. D. A., Yilmazer C. E., Cinar S., Kiraz O., Cital E., Orhon A. K., Siltu E., Gucver S. M., et al.
WATER SCIENCE AND TECHNOLOGY, vol.82, pp.640-650, 2020 (SCI-Expanded)
- VIII. **Effect of ultrasonic and microwave disintegration on physico-chemical and biodegradation characteristics of waste-activated sludge**
Doğruel S., Ozgen A. S.
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- IX. **Kinetic characterization of acetate utilization and response of microbial population in super fast membrane bioreactor**
Basaran S. T., AYSEL M., Kurt H., ERGAL I., AKAR SUBASI A., Yağcı N., Doğruel S., Çokgör E., Keskinler B., Sözen S., et al.
JOURNAL OF MEMBRANE SCIENCE, vol.455, pp.392-404, 2014 (SCI-Expanded)
- X. **Effect of ferric chloride coagulation, lime precipitation, electrocoagulation and the Fenton's reagent on the particle size distribution of olive mill wastewater**
Gursoy-Haksevenler B. H., DOGRUEL S., ARSLAN-ALATON I.
INTERNATIONAL JOURNAL OF GLOBAL WARMING, vol.6, pp.194-211, 2014 (SCI-Expanded)
- XI. **Biodegradation characteristics and size fractionation of landfill leachate for integrated membrane treatment**
Insel G., DAGDAR M., DOGRUEL S., Dizge N., Cokgor E., Keskinler B.
JOURNAL OF HAZARDOUS MATERIALS, vol.260, pp.825-832, 2013 (SCI-Expanded)
- XII. **Potential of ultrafiltration for organic matter removal in the polymer industry effluent based on particle size distribution analysis**
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ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, vol.20, no.1, pp.340-350, 2013 (SCI-Expanded)
- XIII. **Biodegradation characteristics of high strength municipal wastewater supported by particle size distribution**
Dogruel S.
DESALINATION AND WATER TREATMENT, vol.45, pp.11-20, 2012 (SCI-Expanded)

- XIV. **Particle size distribution based evaluation of biodegradation and treatability for leachate from organic waste**
Doğruel S., KOKTUNA M., Cokgor E. U., SOZENA S., Orhon D.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.86, no.11, pp.1364-1373, 2011 (SCI-Expanded)
- XV. **Effect of Fenton's oxidation on the particle size distribution of organic carbon in olive mill wastewater**
Doğruel S., OLMEZ-HANCI T., KARTAL Z., ARSLAN-ALATON I., ORHON D.
WATER RESEARCH, vol.43, no.16, pp.3974-3983, 2009 (SCI-Expanded)
- XVI. **COD fractionation of tannery wastewaters - Particle size distribution, biodegradability and modeling**
Karahan Ö., Doğruel S., Dulekgurgen E., Orhon D.
WATER RESEARCH, vol.42, pp.1083-1092, 2008 (SCI-Expanded)
- XVII. **Effect of chemical and biological treatment on COD fingerprints of textile wastewaters**
Dulekgurgen E., Dogruel S., ORHON D.
WATER SCIENCE AND TECHNOLOGY, vol.55, no.10, pp.277-287, 2007 (SCI-Expanded)
- XVIII. **Effect of ozonation on biodegradability characteristics of surplus activated sludge**
Dogruel S., SIEVERS M., Germirli-Babuna F. F.
OZONE-SCIENCE & ENGINEERING, vol.29, no.3, pp.191-199, 2007 (SCI-Expanded)
- XIX. **An investigation on the optimal location of ozonation within biological treatment for a tannery wastewater**
Dogruel S., Genceli E. A., Babuna F. F., ORHON D.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.81, no.12, pp.1877-1885, 2006 (SCI-Expanded)
- XX. **Evaluation of coagulation-flocculation on a COD-based molecular size distribution for a textile finishing mill effluent**
UNER H., Dogruel S., Arslan-Alaton I., Babuna F. F., ORHON D.
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- XXI. **Coagulation-flocculation of wastewaters from a water-based paint and allied products industry and its effect on inert COD**
Eremektar G., GOKSEN S., Babuna F. F., Dogruel S.
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- XXII. **Effect of ozonation on chemical oxygen demand fractionation and color profile of textile wastewaters**
Dogruel S., Dulekgurgen E., Orhon D.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.81, pp.426-432, 2006 (SCI-Expanded)
- XXIII. **Size distribution of wastewater COD fractions as an index for biodegradability**
Dulekgurgen E., Dogruel S., KARAHAN Ö., ORHON D.
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- XXIV. **Biological treatability of raw and ozonated penicillin formulation effluent**
Cokgor E., ALATON I., KARAHAN Ö., DOGRUEL S., ORHON D.
JOURNAL OF HAZARDOUS MATERIALS, vol.116, pp.159-166, 2004 (SCI-Expanded)
- XXV. **Combined chemical and biological oxidation of penicillin formulation effluent**
Alaton I., Dogruel S., BAYKAL E., GERONE G.
JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.73, no.2, pp.155-163, 2004 (SCI-Expanded)
- XXVI. **Pre-treatment of penicillin formulation effluent by advanced oxidation processes**
Arslan-Alaton I., DOGRUEL S.
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- XXVII. **Feasibility analysis of in-plant control for water minimization and wastewater reuse in a wool finishing textile mill**
ERDOGAN A., ORHON H., DULKADIROGLU H., Dogruel S., Eremektar G., Babuna F. F., ORHON D.
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- ENVIRONMENTAL ENGINEERING, vol.39, no.7, pp.1819-1832, 2004 (SCI-Expanded)
- XXVIII. **Evaluation of control alternatives for domestic and industrial wastewater sources in Umur Creek Catchment Area**
ONGAN-TORUNOGLU P., DOGRUEL S., ORHON D., Musaoglu N.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.13, no.9, pp.831-838, 2004 (SCI-Expanded)
- XXIX. **Ozonation of nonbiodegradable organics in tannery wastewater**
Dogruel S., Genceli E., Babuna F. F., ORHON D.
JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH PART A-TOXIC/HAZARDOUS SUBSTANCES & ENVIRONMENTAL ENGINEERING, vol.39, no.7, pp.1705-1715, 2004 (SCI-Expanded)
- XXX. **Biodegradability improvement of penicillin formulation effluent by ozonation**
Cokgor E., Arslan-Alaton I., KARAHAN Ö., DOGRUEL S., ORHON D.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.13, no.10, pp.1053-1056, 2004 (SCI-Expanded)
- XXXI. **Advanced oxidative treatment of dyehouse effluents using Fenton's reagent, O-3 and O3H2O2 processes**
UNER H., Dogruel S., Alaton I., Babuna F. F.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.13, no.10, pp.959-964, 2004 (SCI-Expanded)
- XXXII. **Wastewater reuse for the minimization of fresh water demand in coastal areas - Selected cases from the textile finishing industry**
ORHON D., Kabdasli I., Babuna F. F., Sozen S., DULKADIROGLU H., Dogruel S., Gul Ö., Insel G.
JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH PART A-TOXIC/HAZARDOUS SUBSTANCES & ENVIRONMENTAL ENGINEERING, vol.38, no.8, pp.1641-1657, 2003 (SCI-Expanded)
- XXXIII. **Effect of stream segregation on ozonation for the removal of significant COD fractions from textile wastewater**
Dogruel S., Germirli-Babuna F. F., Kabdasli I., Insel G., ORHON D.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.78, no.1, pp.6-14, 2003 (SCI-Expanded)
- XXXIV. **Assessment of source based nitrogen removal alternatives in leather tanning industry wastewater**
ZENGİN BALCI G. E., ÖLMEZ HANCI T., DOĞRUEL S., KABDAŞLI N. I., Tünay O.
WATER SCIENCE AND TECHNOLOGY, vol.45, no.12, pp.205-215, 2002 (SCI-Expanded)
- XXXV. **In-plant control applications and their effect on treatability of a textile mill wastewater**
DULKADIROGLU H., Eremektar G., Dogruel S., UNER H., Germirli-Babuna F. F., ORHON D.
WATER SCIENCE AND TECHNOLOGY, vol.45, no.12, pp.287-295, 2002 (SCI-Expanded)
- XXXVI. **Assessment of Sourced based Nitrogen Removal Alternative in Leather Tanning Industry**
ZENGİN BALCI G. E., ÖLMEZ HANCI T., DOĞRUEL S., Kabdaşlı N. I., TÜNAY O.
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- XXXVII. **Ozonation application in activated sludge systems for a textile mill effluent**
ORHON D., DULKADIROGLU H., Dogruel S., Kabdasli I., Sozen S., Babuna F. F.
WATER SCIENCE AND TECHNOLOGY, vol.45, no.12, pp.305-313, 2002 (SCI-Expanded)
- XXXVIII. **A scientific approach to wastewater recovery and reuse in the textile industry**
ORHON D., Babuna F. F., Kabdasli I., Insel F., Karahan Ö., DULKADIROGLU H., Dogruel S., SEVİMLİ F., YEDİLER A.
WATER SCIENCE AND TECHNOLOGY, vol.43, no.11, pp.223-231, 2001 (SCI-Expanded)

Articles Published in Other Journals

- I. **Kimyasal arıtma proseslerinin karasuyun boyutsal dağılımı üzerindeki etkilerinin incelenmesi**
GÜRSOY HAKSEVENLER B. H., DOĞRUEL S., ARSLAN ALATON İ.
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.24, no.3, pp.469-482, 2019 (Peer-Reviewed Journal)
- II. **İleri biyolojik atıksu arıtma tesislerinde model bazlı proses optimizasyonu**
Sözen S., ORHON D., COKGOR E. U., INSEL G., KARAHAN O., Yağcı N., DOGRUEL S., EMEL ZENGİN BALCI G., Ölmez Hancı T., Okutman Taş D., et al.
itüdergisi/e, vol.19, pp.101-110, 2009 (Peer-Reviewed Journal)

Supported Projects

Doğruel S., Project Supported by Higher Education Institutions, Atık Çamurun Ozon Oksidasyonu ve Fenton Prosesi İle Dezentegrasyonu, 2013 - 2018

Doğruel S., Project Supported by Higher Education Institutions, Dezenentegrasyonun Atık Aktif Çamurun Fizikokimyasal Özellikleri ve Biyolojik Ayrışabilirliği Üzerindeki Etkisinin İncelenmesi, 2014 - 2017

Metrics

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