

Assoc. Prof. Sevcan AYDIN

Personal Information

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Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Biotechnology, Turkey 2010 - 2015

Under Graduate, Ege University, Faculty Of Science, Biyoloji Bölümü, Turkey 2003 - 2008

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Combined effects of antibiotics on the anaerobic microbial community structure, investigation of metabolites and antibiotic resistance genes, Istanbul Technical University, Fen Bilimleri Enstitüsü, Mühendislik Fakültesi, 2015

Research Areas

Microbiology and Clinical Microbiology, Environmental Microbiology, Biotechnology, Environmental Biology, Microbiology, Molecular Biology and Genetics

Academic Titles / Tasks

Associate Professor, Istanbul University, Faculty Of Science, Department Of Biology, 2021 - Continues

Associate Professor, Nisantasi University, Faculty Of Engineering-Architecture, Department Of Genetics And Bioengineering, 2017 - 2021

Professional Experience

Vice Dean, Nisantasi University, Faculty Of Engineering-Architecture, Department Of Genetics And Bioengineering, 2020 - 2021

Courses

Sistematiik ve Biyoçeşitlilik, Under Graduate, 2020 - 2021

Beneficial Organisms, Under Graduate, 2020 - 2021

Kişisel Proje II, Under Graduate, 2020 - 2021

General Biology, Under Graduate, 2020 - 2021
Bitirme Tezi II, Under Graduate, 2020 - 2021
Bitirme Tezi I, Under Graduate, 2020 - 2021
Genetik Mühendisliği, Under Graduate, 2020 - 2021

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Bioaugmentation with immobilized endophytic *Penicillium restrictum* to improve quorum quenching activity for biofouling control in an aerobic hollow-fiber membrane bioreactor treating antibiotic-containing wastewater**
Fakhri H., Shahi A., Övez S., Aydın S.
ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, vol.210, 2021 (Journal Indexed in SCI)
- II. **Pyophage cocktail for the biocontrol of membrane fouling and its effect in aerobic microbial biofilm community during the treatment of antibiotics**
Aydın S., CAN K.
BIORESOURTE TECHNOLOGY, vol.318, 2020 (Journal Indexed in SCI)
- III. **Sustainable bioremediation of antibacterials, metals and pathogenic DNA in water**
Islas-Espinoza M., Aydın S., de las Heras A., Ceron C. A. , Martinez S. G. , Carlos Vazquez-Chagoyan J.
JOURNAL OF CLEANER PRODUCTION, vol.183, pp.112-120, 2018 (Journal Indexed in SCI)
- IV. **Bioaugmentation with *Clostridium thermocellum* to enhance the anaerobic biodegradation of lignocellulosic agricultural residues**
Oner B. E. , Akyol C., Bozan M., İnce O., Aydın S., Ince B.
BIORESOURTE TECHNOLOGY, vol.249, pp.620-625, 2018 (Journal Indexed in SCI)
- V. **Operating conditions influence microbial community structures, elimination of the antibiotic resistance genes and metabolites during anaerobic digestion of cow manure in the presence of oxytetracycline**
Turker G., Akyol C., İnce O., Aydın S., Ince B.
ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, vol.147, pp.349-356, 2018 (Journal Indexed in SCI)
- VI. **Microbial monitoring of ammonia removal in a UASB reactor treating pre-digested chicken manure with anaerobic granular inoculum**
Gömeç Ç., Pekyavas G., Sapmaz T., Aydın S., Ince B., Akyol C., İnce O.
BIORESOURTE TECHNOLOGY, vol.241, pp.332-339, 2017 (Journal Indexed in SCI)
- VII. **Application of next-generation sequencing methods for microbial monitoring of anaerobic digestion of lignocellulosic biomass**
Bozan M., Akyol C., İnce O., Aydın S., Ince B.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.101, no.18, pp.6849-6864, 2017 (Journal Indexed in SCI)
- VIII. **Improvement of biogas potential of anaerobic digesters using rumen fungi**
Yildirim E., İnce O., Aydın S., Ince B.
RENEWABLE ENERGY, vol.109, pp.346-353, 2017 (Journal Indexed in SCI)
- IX. **Assessment of the horizontal transfer of functional genes as a suitable approach for evaluation of the bioremediation potential of petroleum-contaminated sites: a mini-review**
Shahi A., Ince B., Aydın S., İnce O.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.101, no.11, pp.4341-4348, 2017 (Journal Indexed in SCI)
- X. **Rumen anaerobic fungi create new opportunities for enhanced methane production from microalgae biomass**
Aydın S., Yildirim E., İnce O., Ince B.
ALGAL RESEARCH-BIOMASS BIOFUELS AND BIOPRODUCTS, vol.23, pp.150-160, 2017 (Journal Indexed in SCI)
- XI. **Aerobic and anaerobic fungal metabolism and Omics insights for increasing polycyclic aromatic hydrocarbons biodegradation**
Aydın S., Karacay H. A. , Shahi A., Gokce S., Ince B., İnce O.

FUNGAL BIOLOGY REVIEWS, vol.31, no.2, pp.61-72, 2017 (Journal Indexed in SCI)

- XII. **Reconstruction of bacterial community structure and variation for enhanced petroleum hydrocarbons degradation through biostimulation of oil contaminated soil**
Shahi A., Aydin S., Ince B., Ince O.
CHEMICAL ENGINEERING JOURNAL, vol.306, pp.60-66, 2016 (Journal Indexed in SCI)
- XIII. **A comprehensive microbial insight into single-stage and two-stage anaerobic digestion of oxytetracycline-medicated cattle manure**
Akyol C., Aydin S., Ince O., Ince B.
CHEMICAL ENGINEERING JOURNAL, vol.303, pp.675-684, 2016 (Journal Indexed in SCI)
- XIV. **The effects of white-rot fungi *Trametes versicolor* and *Bjerkandera adusta* on microbial community structure and functional genes during the bioaugmentation process following biostimulation practice of petroleum contaminated soil**
Shahi A., Aydin S., Ince B., Ince O.
INTERNATIONAL BIODETERIORATION & BIODEGRADATION, vol.114, pp.67-74, 2016 (Journal Indexed in SCI)
- XV. **Enhanced biodegradation of antibiotic combinations via the sequential treatment of the sludge resulting from pharmaceutical wastewater treatment using white-rot fungi *Trametes versicolor* and *Bjerkandera adusta***
Aydin S.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.100, no.14, pp.6491-6499, 2016 (Journal Indexed in SCI)
- XVI. **Changes in microbial community structures due to varying operational conditions in the anaerobic digestion of oxytetracycline-medicated cow manure**
Turker G., Aydin S., Akyol C., Yenigun O., Ince O., Ince B.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.100, no.14, pp.6469-6479, 2016 (Journal Indexed in SCI)
- XVII. **Microbial sequencing methods for monitoring of anaerobic treatment of antibiotics to optimize performance and prevent system failure**
Aydin S.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.100, no.12, pp.5313-5321, 2016 (Journal Indexed in SCI)
- XVIII. **Enhancement of microbial diversity and methane yield by bacterial bioaugmentation through the anaerobic digestion of *Haematococcus pluvialis***
Aydin S.
APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol.100, no.12, pp.5631-5637, 2016 (Journal Indexed in SCI)
- XIX. **Assessment of anaerobic bacterial diversity and its effects on anaerobic system stability and the occurrence of antibiotic resistance genes**
Aydin S., Ince B., Ince O.
BIORESOURCETECHNOLOGY, vol.207, pp.332-338, 2016 (Journal Indexed in SCI)
- XX. **Evaluation of microbial population and functional genes during the bioremediation of petroleum-contaminated soil as an effective monitoring approach**
Shahi A., Aydin S., Ince B., Ince O.
ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, vol.125, pp.153-160, 2016 (Journal Indexed in SCI)
- XXI. **Biomimetic Approaches for Membrane Technologies**
Sengur-Tasdemir R., Aydin S., Turken T., Genceli E. A., Koyuncu İ.
SEPARATION AND PURIFICATION REVIEWS, vol.45, no.2, pp.122-140, 2016 (Journal Indexed in SCI)
- XXII. **Development of antibiotic resistance genes in microbial communities during long-term operation of anaerobic reactors in the treatment of pharmaceutical wastewater**
Aydin S., Ince B., Ince O.
WATER RESEARCH, vol.83, pp.337-344, 2015 (Journal Indexed in SCI)
- XXIII. **Use of PCR-DGGE based molecular methods to assessment of microbial diversity during anaerobic treatment of antibiotic combinations**
Aydin S., Shahi A., Ozbayram E. G., Ince B., Ince O.
BIORESOURCETECHNOLOGY, vol.192, pp.735-740, 2015 (Journal Indexed in SCI)
- XXIV. **Combined effect of erythromycin, tetracycline and sulfamethoxazole on performance of anaerobic**

sequencing batch reactors

Aydin S., Ince B., Cetecioglu Z., Arıkan O., Ozbayram E. G. , Shahi A., İnce O.

BIORESOURCETECHNOLOGY, vol.186, pp.207-214, 2015 (Journal Indexed in SCI)

- XXV. **Application of real-time PCR to determination of combined effect of antibiotics on Bacteria, Methanogenic Archaea, Archaea in anaerobic sequencing batch reactors**
Aydin S., Ince B., İnce O.
WATER RESEARCH, vol.76, pp.88-98, 2015 (Journal Indexed in SCI)
- XXVI. **Acute effects of various antibiotic combinations on acetoclastic methanogenic activity**
Ozbayram E. G. , Arıkan O., Ince B., Cetecioglu Z., Aydin S., İnce O.
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, vol.22, no.8, pp.6230-6235, 2015 (Journal Indexed in SCI)
- XXVII. **Inhibitory effects of antibiotic combinations on syntrophic bacteria, homoacetogens and methanogens**
Aydin S., Cetecioglu Z., Arıkan O., Ince B., Ozbayram E. G. , İnce O.
CHEMOSPHERE, vol.120, pp.515-520, 2015 (Journal Indexed in SCI)
- XXVIII. **The joint acute effect of tetracycline, erythromycin and sulfamethoxazole on acetoclastic methanogens**
Aydin S., Ince B., İnce O.
WATER SCIENCE AND TECHNOLOGY, vol.71, no.8, pp.1128-1135, 2015 (Journal Indexed in SCI)
- XXIX. **Inhibitory effect of erythromycin, tetracycline and sulfamethoxazole antibiotics on anaerobic treatment of a pharmaceutical wastewater**
Aydin S., Ince B., İnce O.
WATER SCIENCE AND TECHNOLOGY, vol.71, no.11, pp.1620-1628, 2015 (Journal Indexed in SCI)
- XXX. **Performance of anaerobic sequencing batch reactor in the treatment of pharmaceutical wastewater containing erythromycin and sulfamethoxazole mixture.**
Aydin Ş. B. , Ince B., Cetecioglu Z., Ozbayram E. G. , Shahi A., Okay O., Arıkan O. A. , İnce O.
Water science and technology : a journal of the International Association on Water Pollution Research, vol.70, no.10, pp.1625-32, 2014 (Journal Indexed in SCI Expanded)

Books & Book Chapters

I. Metabolic Engineering

Aydin S.

in: Microbial Systematics: Taxonomy, Microbial Ecology, Diversity, Bhagwan Rekadwad, Editor, CRC, New York, New York, pp.100-113, 2020

Supported Projects

Aydin S., Yıldırım S. T. , Project Supported by Higher Education Institutions, 2020 - 2021

Can K., Aydın S., Project Supported by Higher Education Institutions, 2020 - 2021

Aydin S., TUBITAK Project, Investigation of the active microbial community dynamics in the anaerobic and aerobic biofilm reactors, the prevention of biofilm formation and prohibiting of the antibiotic resistance development using the biological cleaning agents , 2017 - 2021

İnce B., Aydın S., TUBITAK Project, 2016 - 2019

İnce O., Aydın S., İnce B., TÜBİTAK International Bilateral Joint Cooperation Program Project, Petrol Türevi Atıkların Anaerobik Biyodegradasyon Verimliliğinin Geliştirilmesi- SIFIRATIK, 2016 - 2019

Scientific Refereeing

H2020 Project, H2020 Research Infrastructures Project, the European Union's Horizon 2020 research and innovation programme, Belgium, January 2021

Citations

Total Citations (WOS):672

h-index (WOS):16