

Cirriculum Vitae

Prof. BAHAR İNCE, Ph.D.

Boğaziçi University • Institute of Environmental Sciences

34342 • Bebek-Istanbul, TURKEY

Tel: +90 212 359 70 16 • Fax: +90 212 257 50 33

E-mail: bahar.ince@boun.edu.tr

Web: <http://www.meg.boun.edu.tr/people1.html> • http://www.iesc.boun.edu.tr/IESc/Bahar_Ince.html

KEY QUALIFICATIONS

- Design, analysis, operational control of industrial and municipal wastewater treatment systems
- Microbial ecology and environmental microbiology
- Methanogenic archaeal diversity, their functions and interrelationships
- Microbial products in bioreactors.

PROFESSIONAL EDUCATION AND ACADEMIC DEGREES

- 1990-1994 Ph.D. in Department of Civil Engineering, Division of Environmental Engineering, University of Newcastle upon Tyne, UK.
- 1989-1990 M.Sc. in Department of Civil Engineering, Division of Environmental Engineering, University of Newcastle upon Tyne, UK.
- 1984-1988 B.Sc. in Department of Environmental Engineering, METU, Ankara, Turkey.

PROFESSIONAL RECORDS

- 2002- Professor, Institute of Environmental Sciences, Bogazici University, Istanbul, Turkey.
- 1996-2002 Associate Professor, Institute of Environmental Sciences, Bogazici University, Istanbul, Turkey.
- 1995-1996 Assistant Professor, Department of Environmental Engineering, Istanbul University, Istanbul, Turkey.
- 1991-1994 Research Associate, Department of Civil Engineering, Division of Environmental Engineering, University of Newcastle upon Tyne, UK.
- 1988-1989 Teaching and Research Assistant, Department of Environmental Engineering, METU, Ankara, Turkey.

PUBLICATIONS

1. International Book Chapters

O. Ince, Z. Cetecioglu, E.G. Ozbayram, M.M. Iglesias, **B. Ince**, N. Massalha, A. Robles, I. Sabbah, A. Seco, J. M. Lema, S. Suarez Martinez (Ed.), 2017. "Anaerobic treatment of municipal wastewater in Innovative Wastewater Treatment & Resource Recovery Technologies: Impacts on Energy, Economy and Environment", ISBN: 9781780407869, IWA Publishing

B. K. Ince, Z. Cetecioglu, O. Ince, 2011. "Pollution prevention in the pulp and paper industries" Environmental Management in Practice, InTech Publishing.

O.Ince, M. Koluturk, **B. K. Ince**, 2010. "Molecular microbial ecology of Marmara Sea sediments. Microbiology Book Series - Volume 2: Current Research, Technology and Education Topics in Applied Microbiology and Microbial Biotechnology, Formatex Publishing.

B. K. Ince, N. Ayman Öz, G. Türker, Ş. Çelikkol, O. Ince, 2010. "Microbial ecology of anaerobic reactors for treatment of alcohol industry wastewaters: a review", Current Research, Technology and Education Topics in Applied Microbiology and Microbial Biotechnology, Formatex Publishing.

2. International Referred Journals

Ç. Akyol, O. Ince, M. Bozan, E.G. Ozbayram, **B. Ince**, 2019. Fungal bioaugmentation of anaerobic digesters fed with lignocellulosic biomass: What to expect from anaerobic fungus *Orpinomyces* sp. Bioresource Technology, 277, 1-10.

Ç. Akyol, E.G. Ozbayram, B. Demirel, T.T. Onay, O. Ince, **B. Ince**, 2019. Linking nano-ZnO contamination to microbial community profiling in sanitary landfill simulations. Environmental Science and Pollution Research, doi: 10.1007/s11356-019-04906-8

O. Ince, E.G. Ozbayram, Ç. Akyol, E.I. Erdem, G. Gunel, **B. Ince**, 2018. Bacterial succession in the thermophilic phase of composting of anaerobic digestates. Waste and Biomass Valorization, doi:10.1007/s12649-018-0531-3

E.G. Ozbayram, S. Kleinstuber, M. Nikolausz, **B. Ince**, O. Ince, 2018. Bioaugmentation of anaerobic digesters treating lignocellulosic feedstock by enriched microbial consortia. Engineering in Life Sciences 18 (7), 440-446.

E.G. Ozbayram, O. Ince, **B. Ince**, H. Harms, S. Kleinstuber, 2018. Comparison of rumen and manure microbiomes and implications for the inoculation of anaerobic digesters. Microorganisms 6 (1), 15.

E.G. Ozbayram, Ç. Akyol, **B. Ince**, C. Karakoç, O. Ince, 2018. Rumen bacteria at work: bioaugmentation strategies to enhance biogas production from cow manure. Journal of Applied Microbiology 124 (2), 491-502.

- B.E. Öner, Ç. Akyol, M. Bozan, O. Ince, S. Aydin, **B. Ince**, 2018. Bioaugmentation with *Clostridium thermocellum* to enhance the anaerobic biodegradation of lignocellulosic agricultural residues. *Bioresource Technology* 249, 620-625.
- E.G. Ozbayram, S. Kleinstuber, M. Nikolausz, **B. Ince**, O. Ince, 2018. Enrichment of lignocellulose-degrading microbial communities from natural and engineered methanogenic environments. *Applied Microbiology and Biotechnology* 102 (2), 1035-1043.
- G. Turker, Ç. Akyol, O. Ince, S. Aydin, **B. Ince**, 2018. 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. *Ecotoxicology and Environmental Safety*, 147, 349-356.
- A. Shahi, **B. Ince**, S. Aydin, O. Ince, 2017. 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. *Applied Microbiology and Biotechnology*, 101, 4341-4348.
- E.G. Ozbayram, S. Kleinstuber, M. Nikolausz, **B. Ince**, O. Ince, 2017. Effect of bioaugmentation by cellulolytic bacteria enriched from sheep rumen on methane production from wheat straw. *Anaerobe*, 46, 122-130.
- E. Yildirim, O. Ince, S. Aydin, **B. Ince**, 2017. Improvement of biogas potential of anaerobic digesters using rumen fungi. *Renewable Energy*, 109, 346-353.
- S. Aydin, H.A. Karaçay, A. Shahi, S. Gökçe, **B. Ince**, O. Ince, 2017. Aerobic and anaerobic fungal metabolism and Omics insights for increasing polycyclic aromatic hydrocarbons biodegradation. *Fungal Biology Reviews*, 31, 61-72.
- M. Bozan, Ç. Akyol, O. Ince, S. Aydin, **B. Ince**, 2017. Application of next-generation sequencing methods for microbial monitoring of anaerobic digestion of lignocellulosic biomass. *Applied Microbiology and Biotechnology*, 101, 6849-6864.
- C. Yangin-Gomec, G. Pekiyaş, T. Sapmaz, S. Aydin, **B. Ince**, Ç. Akyol, O. Ince, 2017. Microbial monitoring of ammonia removal in a UASB reactor treating pre-digested chicken manure with anaerobic granular inoculum. *Bioresource Technology*, 241, 332-339.
- S. Aydin, E. Yildirim, O. Ince, **B. Ince**, 2017. Rumen anaerobic fungi create new opportunities for enhanced methane production from microalgae biomass. *Algal Research*, 23, 150-160.
- Ç. Akyol, S. Aydin, O. Ince, **B. Ince**, 2016. A comprehensive microbial insight into single-stage and two-stage anaerobic digestion of oxytetracycline-medicated cattle manure. *Chemical Engineering Journal*, 303, 675-684.
- S. Aydin, **B. Ince**, O. Ince, 2016. Assessment of anaerobic bacterial diversity and its effects on anaerobic system stability and the occurrence of antibiotic resistance genes. *Bioresource Technology*, 207, 332-338.

- A. Shahi, S. Aydin, **B. Ince**, O. Ince, 2016. Reconstruction of bacterial community structure and variation for enhanced petroleum hydrocarbons degradation through biostimulation of oil contaminated soil. *Chemical Engineering Journal*, 306, 60-66.
- Ç. Akyol, G. Turker, O. Ince, E. Ertekin, O. Üstüner, **B. Ince**, 2016. Performance and microbial community variations in thermophilic anaerobic digesters treating OTC medicated cow manure under different operational conditions. *Bioresource Technology*, 205, 191-198.
- A. Shahi, S. Aydin, **B. Ince**, O. Ince, 2016. 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. *International Biodeterioration & Biodegradation*, 114, 67-74.
- G. Turker, S. Aydin, Ç. Akyol, O. Yenigun, O. Ince, B. Ince, 2016. Changes in microbial community structures due to varying operational conditions in the anaerobic digestion of oxytetracycline-medicated cow manure. *Applied Microbiology and Biotechnology*, 100, 6469-6479.
- Z. Cetecioglu, **B. Ince**, D. Orhon, O. Ince, 2016. Anaerobic sulfamethoxazole degradation is driven by homoacetogenesis coupled with hydrogenotrophic methanogenesis. *Water Research*, 90, 79-89.
- A. Shahi, S. Aydin, **B. Ince**, O. Ince, 2016. Evaluation of microbial population and functional genes during the bioremediation of petroleum-contaminated soil as an effective monitoring approach. *Ecotoxicology and Environmental Safety*, 125, 153-160.
- M. Kolukirik, M. Yilmaz, O. Ince, C. Ketre, A.I. Tosun, **B.K. Ince**, 2016. Development of a fast and low-cost qPCR assay for diagnosis of acute gas pharyngitis. *Annals of Clinical Microbiology and Antimicrobials*, 15:46.
- Ç. Akyol, E.G. Ozbayram, O. Ince, S. Kleinsteuber, **B. Ince**, 2016. Anaerobic co-digestion of cow manure and barley: effect of cow manure to barley ratio on methane production and digestion stability. *Environmental Progress and Sustainable Energy*, 35(2), 589-595.
- Ç. Akyol, O. Ince, Z. Cetecioglu, F.U. Alkan, **B. Ince**, 2016. The fate of oxytetracycline in two-phase and single-phase anaerobic cattle manure digesters and its effects on microbial communities. *Journal of Chemical Technology and Biotechnology*, 91, 806-814.
- O. Ince, E.G. Ozbayram, Ç. Akyol, Ö. Ince, **B. Ince**, 2016. Composting practice for sustainable waste management: a case study in Istanbul. *Desalination and Water Treatment*, 57, 14473-14477.
- H. Coban, E. Ertekin, O. Ince, G. Turker, Ç. Akyol, **B. Ince**, 2016. Degradation of oxytetracycline and its impacts on biogas producing microbial community structure. *Bioprocess and Biosystems Engineering*, DOI 10.1007/s00449-016-1583-z.
- Z. Cetecioglu, **B. Ince**, M. Gros, S. Rodriguez-Mozaz, D. Barcelo, O. Ince, D. Orhon, 2015. Biodegradation and reversible inhibitory impact of sulfamethoxazole on the utilization of volatile

fatty acids during anaerobic treatment of pharmaceutical industry wastewater. *Science of the Total Environment*, 536, 667-674.

S. Aydin, **B. Ince**, O. Ince, 2015. Application of real-time PCR to determination of combined effect of antibiotics on Bacteria, Methanogenic Archaea, Archaea in anaerobic sequencing batch reactors. *Water Research*, 76, 88-98.

S. Aydin, **B. Ince**, Z. Cetecioglu, O. Arıkan, E.G. Ozbayram, A. Shahi, O. Ince, 2015. Combined effect of erythromycin, tetracycline and sulfamethoxazole on performance of anaerobic sequencing batch reactors. *Bioresource Technology*, 176, 207-214 .

S. Aydin, **B. Ince**, O. Ince, 2015. Development of antibiotic resistance genes in microbial communities during long-term operation of anaerobic reactors in the treatment of pharmaceutical wastewater. *Water Research*, 83, 337-344.

Z. Cetecioglu, **B. Ince**, M. Gros, S. Rodriguez-Mozaz, D. Barceló, O. Ince, D. Orhon, 2015. Biodegradation and reversible inhibitory impact of sulfamethoxazole on the utilization of volatile fatty acids during anaerobic treatment of pharmaceutical industry wastewater. *Science of the Total Environment*, 536, 667-674.

S. Aydin, Z. Cetecioglu, O. Arıkan, **B. Ince**, E.G. Ozbayram, O. Ince, 2015. Inhibitory effects of antibiotic combinations on syntrophic bacteria, homoacetogens and methanogens. *Chemosphere*, 120, 515-520.

S. Aydin, A. Shahi, E.G. Ozbayram, **B. Ince**, O. Ince, 2015. Use of PCR-DGGE based molecular methods to assessment of microbial diversity during anaerobic treatment of antibiotic combinations. *Bioresource Technology*, 192, 735-740.

Z. Cetecioglu, **B. Ince**, O. Ince, D. Orhon, 2015. Acute effect of erythromycin on metabolic transformations of volatile fatty acid mixture under anaerobic conditions. *Chemosphere*, 124, 129-135.

Ç. Akyol, O. Ince, H. Coban, Z. Cetecioglu, N. Ayman Oz, **B. Ince**, 2015. Individual and combined inhibitory effects of methanol and toluene on acetyl-CoA synthetase expression level of acetoclastic methanogen, *Methanosaeta concilii*. *International Biodeterioration and Biodegradation*, 105, 233-238.

Ö. Eyice, O. Ince, **B. Ince**, 2015. Monitoring the abundance and the activity of ammonia-oxidizing bacteria in a full-scale nitrifying activated sludge reactor. *Environmental Science and Pollution Research*, 22, 2328-2334.

E.G. Ozbayram, O. Arıkan, **B. Ince**, Z. Cetecioglu, S. Aydin, O. Ince, 2015. Acute effects of various antibiotic combinations on acetoclastic methanogenic activity. *Environmental Science and Pollution Research*, 22, 6230-6235.

S. Aydin, **B. Ince**, O. Ince, 2015. Inhibitory effect of erythromycin, tetracycline and sulfamethoxazole antibiotics on anaerobic treatment of a pharmaceutical wastewater. *Water Science and Technology*, 71(11), 1620-1628.

S. Aydin, **B. Ince**, O. Ince, 2015. The joint acute effect of tetracycline, erythromycin and sulfamethoxazole on acetoclastic methanogens. *Water Science and Technology*, 71(8), 1128-1135.

S. Celikkol-Aydin, Z. Suo, X. Yang, **B. Ince**, R. Avci, 2014. Sharp Transition in the Immunoimmobilization of *E. coli* O157:H7. *Langmuir*, 30, 7755-7761.

Ç. Akyol, O. Ince, G. Türker, **B. Ince**, 2014. Acidification of non-medicated and oxytetracycline-medicated cattle manures during anaerobic digestion. *Environmental Technology*, 18, 2373-2379.

Z. Cetecioglu, **B. Ince**, S. Azman, O. Ince, 2014. Biodegradation of tetracycline under various conditions and effects on microbial community. *Applied Biochemistry and Biotechnology*, 172, 631-640.

S. Aydin, **B. Ince**, Z. Cetecioglu, E.G. Ozbayram, A Shahi, O. Okay, O. Arikan, O. Ince, 2014. Performance of anaerobic sequencing batch reactor in the treatment of pharmaceutical wastewater containing erythromycin and sulfamethoxazole mixture. *Water Science and Technology*, 70(10), 1625-1632.

B. Ince, H. Coban, G. Turker, E. Ertekin, O. Ince, 2013. Effect of Oxytetracycline on Biogas Production and Active Microbial Populations During Batch Anaerobic Digestion of Cow Manure. *Bioprocess and Biosystems Engineering*, 36(5), 541-546.

G. Turker, O. Ince, E. Ertekin, C. Akyol, **B. Ince**, 2013. Changes in performance and active microbial communities due to single and multiple effects of mixing and solid content in anaerobic digestion process of OTC medicated cattle manure. *International Journal of Renewable Energy Research*, 3(1), 144-148.

Z. Cetecioglu, **B. Ince**, M. Gros, S. Rodriguez-Mozaz, D. Barceló, D. Orhon, O. Ince, 2013. Chronic impact of tetracycline on the biodegradation of an organic substrate mixture under anaerobic conditions. *Water Research*, 9, (47), 2959-2969.

M.D. Ercan, S. Karataş, E. Turgay, M. Kolukirik, O. Ince, **B. Ince**, 2013. Changes in transferrin gene expression in sea bass (*Dicentrarchus labrax*) challenged with *Vibrio anguillarum*. *Turkish Journal of Veterinary and Animal Sciences*, 37(2), 141-146.

N.A. Oz, O. Ince, G. Turker, **B. Ince**, 2012. Effect of seed sludge microbial community and activity on the performance of anaerobic reactors during the start-up period. *World Journal of Microbiology and Biotechnology*, 2(28), 637-647.

E.B. Cokgor, D.O. Tas, G.E. Zengi, E. Aydinli, S. Ozdemir, G. Insel, M. Kolukirik, O. Ince, **B. K. Ince**, 2012. Erratum to “Effect of aerobic stabilization on biomass activity”. *Journal of Biotechnology*, 160(3–4), 269.

B. Basak, O. Ince, **B. Ince**, Z. Cetecioglu, S. Celikkol, M. Kolukirik, 2012. Effect of Nitrogen Deficiency during SBR Operation on PHA Storage and Microbial Diversity. *Environmental Technology*, 33(16), 1827-1837.

B. Ince, Z. Cetecioglu, S. Celikkol, O. Ince, 2012. The microbial diversity, methane production, operational routine of an anaerobic reactor treating maize processing wastewater. *Water Practice and Technology*, 2(2), Doi:10.2166/wpt.2012.027.

Z. Cetecioglu, **B. Ince**, D. Orhon, O. Ince, 2012. Acute inhibitory impact of antimicrobials on acetoclastic methanogenic activity. *Bioresource Technology*, 114, 109-116.

B. Ince, G. Koksall, Z. Cetecioglu, N. A. Oz, H. Coban, O. Ince, 2011. Inhibition effect of isopropanol on acetyl-CoA synthetase expression level of acetoclastic methanogen, *Methanosaeta concilii*. *Journal of Biotechnology*, 2(156), 95-99.

B. Basak, O. Ince, N. Artan, N. Yagci, **B.K. Ince**, 2011. Effect of nitrogen limitation on enrichment of activated sludge for PHA production. *Bioprocess and Biosystems Engineering*, 34(8), 1007-1016.

M. Kolukirik, O. Ince, **B.K. Ince**, 2011. Increment in Anaerobic Hydrocarbon Degradation Activity of Halic Bay Sediments via Nutrient Amendment. *Microbial Ecology*, 4(61), 871.

M. Kolukirik, O. Ince, Z. Cetecioglu, S. Celikkol, **B. Ince**, 2011. Local and Seasonal Changes in Microbial Diversity of the Marmara Sea Sediments. *Marine Pollution Bulletin*, 11(62), 2384-2394.

N.A. Oz, O. Ince, E. Gozdereliler, **B. Ince**, 2009. Methanogenic Archaea dynamics in an anaerobic reactor treating toluene-containing synthetic wastewater. *New Biotechnology*, 10.1016/j.nbt.2009.06.621.

O. Ince, M. Kolukirik, Z. Cetecioglu, O. Eyice, O. Inceoglu, **B. Ince**, 2009. Toluene Inhibition of an Anaerobic Reactor Sludge in Terms of Activity and Composition of Acetoclastic Methanogens. *Journal of Environmental Science and Health- Part A: Toxic/Hazardous Substances & Environmental Engineering*, 44(14), 1551-1556.

Z. Cetecioglu, **B. Ince**, M. Kolukirik, O. Ince, 2009. Biogeographical Distribution and Diversity of Bacterial and Archaeal Communities within Highly Polluted Anoxic Marine Sediments from the Marmara Sea. *Marine Pollution Bulletin*, 58, 384-395.

Y. A. Oktem, O. Ince, P. Sallis, T. Donnelly, **B. Ince**, 2008. Anaerobic treatment of a chemical synthesis-based pharmaceutical wastewater in a hybrid upflow anaerobic sludge blanket reactor. *Bioresource Technology*, 99(5), 1089-1096.

M. Kolukirik, O. Ince, **B. Ince**, 2007. Methanogenic Community Change in a Full-Scale UASB Reactor Operated at a Low F/M Ratio", *Journal of Environmental Science and Health, Part A Toxic/Hazardous Substance & Environmental Engineering*, 42, 903-910.

O. Eyice, **B. Ince**, G. Coskune, S. Sozen, O. Ince, 2007. Identification of nitrifiers in a full-scale biological treatment system using fluorescent in situ hybridization. *Journal of Environmental Science and Health Part A*, 42(4), 517-523.

O. Ince, M. Kolukirik, Z. Cetecioglu, O. Eyice, C. Tamerler, **B. Ince**, 2007. Methanogenic and sulphate reducing bacterial population levels in a full-scale anaerobic reactor treating pulp and paper industry wastewater using fluorescence in situ hybridization. *Water Science and Technology*, 55(10), 183-191.

Y. Oktem, O. Ince, P. Sallis, T. Donnelly, **B. Ince**, 2006. Determination of optimum operating conditions of an acidification reactor treating a chemical synthesis-based pharmaceutical wastewater. *Process Biochemistry*, 11(41), 2258-2263.

O. Ince, A. T. Akarsubasi, N. Sayi, O. Eyice, S. Ovez, **B. Ince**, 2006. Analysis of Anaerobic Microbial Diversity in Haliç (marine inlet) Sediment by Molecular Tools. *Advanced Molecular Medicine*, 2(2), 71-77.

B. Ince, I. Usenti, A. Eyigor, N. A. Oz, M. Kolukirik, O. Ince, 2006. Analysis of methanogenic archaeal and sulfate reducing bacterial populations in the sediments of the Black Sea using FISH. *Journal of Geomicrobiology*, 23, 1-8.

A. T. Akarsubasi, O. Ince, N. A. Oz, B. Kirdar, **B. Ince**, 2006. Evaluation of performance, acetoclastic methanogenic activity and archaeal composition of full-scale UASB reactors treating alcohol distillery wastewaters. *Process Biochemistry*, 1(41), 28-35.

A. T. Akarsubasi, O. Ince, B. Kirdar, N. A. Oz, D. Orhon, T. P. Curtis, I. M. Head, **B. Ince**, 2005. Effect of wastewater composition on archaeal population diversity. *Water Research*, 8(39), 1576-1584.

T. Dogan, O. Ince, N. Ayman Oz, **B. Ince**, 2005. Inhibition of Volatile Fatty Acid Production in Granular Sludge From An UASB Reactor", *Journal of Environmental Science and Health, Part A Toxic/Hazardous Substance & Environmental Engineering*, 3(40), 633-644.

O. Ince, M. Kolukirik, N. A. Oz, **B. Ince**, 2005. Comparative Evaluation of Full-Scale UASB Reactors Treating Alcohol Distillery Wastewater in Terms of Performance and Methanogenic Activity. *Journal of Chemical Technology and Biotechnology*, 80, 138-144.

N. Ayman Oz, O. Ince, **B. Ince**, 2004. Effect Of Wastewater Composition On Methanogenic Activity In An Anaerobic Reactor", *Journal of Environmental Science and Health, Part A Toxic/Hazardous Substance & Environmental Engineering*, 11-12(39), 2941-2953.

B. Ince, O. Ince, N. Ayman Oz, 2003. Changes in acetoclastic methanogenic activity and microbial composition in an upflow anaerobic filter. *Water, Air and Soil Pollution*, 144, 301-315.

N. Ayman Oz, O. Ince, **B. Ince**, A. T. Akarsubasi, O. Eyice, 2002. Microbial population dynamics in an anaerobic CSTR treating chemical synthesis based pharmaceutical wastewater", *Journal of*

Environmental Science and Health, Part A Toxic/Hazardous Substance & Environmental Engineering, 10(38), 2029-2042.

B. Ince, A. Selçuk, O. Ince, 2002. Effect of a chemical synthesise based pharmaceutical wastewater on performance, acetoclastic methanogenic activity and microbial population in an upflow anaerobic filter. Journal of Chemical Technology and Biotechnology, 6(77), 711-719.

O.Ince, **B. Ince**, O. Yenigün, 2001. Determination of potential loading capacity of an upflow anaerobic sludge blanket reactor using specific methanogenic activity test. Journal of Chemical Technology and Biotechnology, 6(76), 573-578.

B. Ince, O.Ince, G. K. Anderson, S. Arayıcı, 2001. Assessment of biogas use as an energy source from anaerobic digestion of brewery wastewater. Water, Air and Soil Pollution, 126, 239-251.

O. Ince, **B. Ince**, T.Donnely, 2000. Attachment, strength and performance of a porous-media in an upflow anaerobic filter treating dairy wastewater. Water Science and Technology, 4-5(41), 261-270.

B. Ince, O.Ince, P.J.Sallis, G.K.Anderson, 2000. Inert COD production in a membrane anaerobic reactor treating brewery wastewater. Water Research, 16(34), 3943-3948.

B. Ince, O.Ince, 2000. Changes to bacterial community make-up in a two-phase anaerobic digestion system. Journal of Chemical Technology and Biotechnology, 75, 500-508.

O. Ince, F. Germirli, **B. Ince**, G. K. Anderson, 1998. Experimental determination of soluble inert COD fractions of brewery wastewater under anaerobic conditions. Environmental Technology, 19, 437-442.

O. Ince, G. K. Anderson, **B. Kasapgil**, 1997. Composition of the microbial population in a membrane anaerobic system during start-up. Water Research, 1(31), 1-10.

G. K. Anderson, **B. Kasapgil**, O.Ince, 1996. Microbial kinetics of a membrane anaerobic reactor system. Environmental Technology, 17, 449-464.

O. Ince, G. K. Anderson, **B. Kasapgil**, 1995. Control of organic loading rate using the specific methanogenic activity test during start-up of an anaerobic digestion system. Water Research, 29(1), 349-355.

O.Ince, G. K. Anderson, **B. Kasapgil**, 1995. Effect of changes in compositions of methanogenic species on performance of a membrane anaerobic reactor system treating brewery wastewater. Environmental Technology, 16, 901-914.

G. K. Anderson, **B. Kasapgil**, O.Ince, 1994. Microbiological study of two-stage digestion during start-up. Water Research, 11, 28, 2383-2392.

B. Kasapgil, G. K. Anderson, O. Ince, 1994. An investigation into the pre-treatment of dairy wastewater prior to aerobic biological treatment. Water Science and Technology, 9(29), 205-215.

G. K. Anderson, **B. Kasapgil**, O. Ince, 1994. Comparison of porous and non-porous media in upflow anaerobic filter for dairy wastewater treatment. *Water Research*, 7(28), 1619-1624.

3. National Book Chapters

O İnce, Z. Çetecioglu, N. Ayman Öz, Ş. Çelikkol, **B. Kasapgil İnce**, N. Aran (Ed.), "Waste Management and Recycling of By-products in Food Industry", In: *Food Biotechnology*, 2009, İstanbul: Nobel Kitabevi.

4. National Journals

G. Günel, O. Ince, G. Ozbayram, Ç. Akyol, **B. Ince**, 2015. Rumen Sıvısının Aşı Olarak Kullanıldığı Büyükbaş Hayvan Dışkıları İle İşletilen Anaerobik Çürütücülerde Asidifikasyon Veriminin İncelenmesi. *Çanakkale Onsekiz Mart Üniversitesi Fen Bilimleri Enstitüsü Dergisi*, 1, 27-38.

E.I. Erdem, O. Ince, Ç. Akyol, G. Ozbayram, **B. Ince**, 2015. Bahçe Atıkları Kompostunun Yasal Düzenlemeler Çerçevesinde Toprak Şartlandırıcısı Olarak Kullanımının İncelenmesi. *Çanakkale Onsekiz Mart Üniversitesi Fen Bilimleri Enstitüsü Dergisi*, 1, 65-80.

Ş. Çelikkol, **B. K. İnce**, M. Kolukırık, Z. Çetecioglu, O. İnce, "Determination of the Microbial Community in Pulp and Paper Mills Effluents", *İTÜ Dergisi/e*, Vol. 18, No. 2-3, 2008, p. 23-31.

O. İnce, Ö. Eyice, **B. K. İnce**, "Effect of sludge age on the diversity of nitrification bacteria and reactor stability", *İTÜ Dergisi/e*, Vol. 1, No. 18, 2008, p. 32-41.

B. K. İnce, M. Kolukırık, O. İnce, "Methanogenic population dynamics in full-scale UASB reactors", *İTÜ Dergisi/e*, Vol. 2, No. 17, 2007, p. 3-14, Invited sheets.

O. İnce, Ö. Eyice, **B. K. İnce**, "Effect of sludge age on the diversity of nitrification bacteria and reactor stability", *İTÜ Dergisi/b*, Vol. 1, No. 2, 2005, p. 32-41.

O. Ince, N. Ayman Oz, **B. Kasapgil İnce**, B. Kocarslan, "Evaluation of anaerobic treatment system performance and biological sludge of an alcohol distillery industry characterization", *Su Kirlenmesi Kontrolü Dergisi*, Vol. 3, No. 13, 2003.

B. Kasapgil İnce, O. İnce, "Basic principles for determination of operating conditions of pre-acidification tanks for anaerobic treatment of industrial wastewaters", *Su Kirlenmesi Kontrolü Dergisi*, Vol. 1, No. 7, 1997, p. 29-35.

O. İnce, **B. Kasapgil**, "Determination of methanogenic activity in anaerobic treatment systems using Warburg Respirometry during start-up and control of the system stability", *Su Kirlenmesi ve Kontrolü Dergisi*, Vol. 1, No. 5, 1995, p. 27-37.

SELECTED PROJECTS

Determination of biochemical methane potentials and microbial community dynamics during anaerobic co-digestion of commonly cultivated cereal crops and cow manure, composting of the digestates, and investigation of the effect of final products on the ecosystem, TÜBİTAK 115Y597, 2016-2019.

Improvement of anaerobic biodegradation efficiency of petroleum-derived wastes, TÜBİTAK & The Federal Ministry of Education and Research of Germany (BMBF), 2016-2019.

Enhancement of biomethane production of anaerobic digesters using rumen fluid of cattle, Boğaziçi University, Scientific Research Projects Fund (BAP 11262), 2016-2017.

Improvement of biomethane potential of anaerobic digesters using specific rumen bacteria and hydrolytic enzymes, TÜBİTAK 113Y451, 2014-2016.

Determination of the effect of hydrolytic enzyme addition on acidification and biomethane production in two-phase anaerobic digestion of oxytetracycline-medicated cattle manure, Boğaziçi University, Scientific Research Projects Fund (BAP 8720), 2014-2015.

Determination of impacts of wastewaters including antibacterials and antibiotics on anaerobic metabolic pathways and investigation of relationship between these pharmaceuticals and antibiotic resistance genes, TÜBİTAK 110Y310.

Effects of a commonly used veterinary antibiotic on biogas production in anaerobic digestion systems and its fate in receiving environments, TÜBİTAK 109Y275.

Detection of some indicator and pathogen bacteria in bottled water, some minimally processed fresh vegetables and fresh poultry meat by fluorescent *In situ* hybridization (FISH), TÜBİTAK, 107O690.

Quantitative analysis of transferrin gene expression during *in vitro* vibrio anguillarum infection in sea bass, TÜBİTAK 108O321.

Evaluation of anoxic and anaerobic biodegradation potential of antibiotics and their stimulation/inhibition/toxicity effects on mixed microbial culture, TÜBİTAK 109Y012.

Determination of the inhibition effects of organic solvents on acetyl-coA synthetase expression of *Methanosaeta concilii*, Bogazici University Research Fund Project 08M108.

Metanolün Ardışık Kesikli Anaerobik Reaktörlerde Mikrobiyal Türler Üzerine Etkisinin DGGE Yöntemi ile Belirlenmesi, B.Ü., Bilimsel Araştırma Projeleri, 2008.

Determination of the effect of sludge age on nitrifying bacterial population dynamics and treatment system stability, ITU Research Funds 32096.

Determination of interaction between anaerobic treatment of organic solvent containing industrial wastewater with its system dynamics using molecular tools, TÜBİTAK 106Y241.

Evsel Katı Atık Deponi Sahalarında Hakim Mikrobiyal Yapının FISH Tekniği Kullanılarak Belirlenmesi. B.Ü., Bilimsel Araştırma Projeleri, 2006.

Anaerobic degradation of petroleum hydrocarbons in anoxic marine environments, TÜBİTAK 105Y307.

Non-linear microbial growth dynamics and its effects on the process stability of nitrification systems, engineering and Physical Sciences Research Council (EPSRC grant GR/S59543/01), Biotechnology and Biological Sciences Research Council (BBSRC), School of Civil Engineering and Geosciences of Newcastle University upon Tyne.

Determination the microbial community structure of anaerobic systems treating sulphate containing wastewater and optimization of biogas production, Civil Engineering Faculty Interdisciplinary Research Support Program (11_04_241).

Determination of nitrifying bacteria in a full-scale activated sludge system using fluorescent in situ hybridization technique, TÜBİTAK (102I041).

Archaeal population dynamics in a full-scale anaerobic reactor using 16s rDNA based molecular techniques, TÜBİTAK (110T054).

Determination of archaeal populations in full-scale anaerobic reactors using fluorescent in situ hybridization technique, ITU Institute of Science Master of Sciences Thesis Support Program (00_04_63).

Analysis of anaerobic microbial diversity in halic (marine inlet) sediment by molecular tools.

Evsel Katı Atık Deponi Sahalarında Hakim Mikrobiyal Yapının FISH Tekniği Kullanılarak Belirlenmesi. B.Ü., Bilimsel Araştırma Projeleri, 2006.

Anaerobik Proseslerde Asetoklastik Metan Arkelerin Floresanlı Yerde Hibritleşme (FISH) Tekniği Kullanılarak Belirlenmesi, 02Y103D, B.Ü., Bilimsel Araştırma Projeleri.

Archaeal population dynamics in the black sea by fluorescence in situ hybridization technique.

Determination of sulfate reducing bacterial population in the black sea sediments by fluorescence in situ hybridization technique.

Microbial population dynamics in an anaerobic cstr treating chemical synthesis based pharmaceutical wastewater.

Determination of specific methanogenic activity of acetoclastic methanogens in anaerobic reactors, BU Research Fund (01S101), ITU Research Fund (844).

Anaerobik Arıtmada Metan Bakterilerin Aktivitelerinin Sayılarının ve Kompozisyonlarının Belirlenmesi, B.Ü., Bilimsel Araştırma Projeleri, 1999.

SUPRERVISSED THESIS

1. Ph.D. Thesis

Çağrı Akyol, 2019. Improvement of biogas production by fungal treatment during the conversion of agricultural biomass into energy and digestate.

Şükriye Çelikkol-Aydin, 2013. Rapid detection and identification of bacterial pathogens in drinking water sources using DNA-based methods and immunoimmobilization technology.

Gökhan Türker, 2013. Determination of effects of selected veterinary antibiotics on biogas production in anaerobic digestion systems and analysis of resistance gene promotion.

Nilgün Ayman Öz, 2008. Analysis of microbial communities associated with anaerobic solvent degradation in sequencing batch reactors by traditional and molecular tools.

Alper Tunga Akarsubaşı, 2003. Determination of archeal populations in anaerobic reactors using molecular techniques.

2. M.Sc. Thesis

Mahir Bozan, 2018. Biomethane potential of pre-treated macroalgae and corn stover by *Trametes versicolor* entrapped in Ca-Alginate beads.

Bilgesu Tural, 2017. Effects of operational parameters on methane production and microbial community dynamics in anaerobic digesters fed with cow manure and barley.

Gülşah Günel, 2017. Improvement of biomethane production using rumen bacteria in anaerobic cattle manure digesters.

Elif Irmak Erdem, 2017. Comparison of waste degradation and microbial community profiles during composting of yard waste, kitchen waste and cow manure.

Elif Yıldırım, 2016. Effect of rumen fungi on potential of biogas production in anaerobic digesters fed with different lignocellulosic compounds.

İbrahim Halil Miraloğlu, 2015. Development of a quick molecular based technique for identification of zooplankton in the Turkish Coast of Black Sea.

Çağrı Akyol, 2013. Rapid detection and identification of bacterial pathogens in drinking water sources using DNA-based methods and immunoimmobilization technology.

Emine Ertekin, 2011. Effect of oxytetracycline on biogas production and microbial communities during anaerobic digestion of cow manure by fluorescence in situ hybridization and real time polymerase chain reaction.

Halil Çoban, 2011. Microbial community dynamics during anaerobic digestion of OTC medicated cow manure using DGGE and clone libraries.

Gözde Köksel, 2010. Single and multiple effects of organic solvents on the expression level of acetyl-coa synthetase gene and active methanogenic population.

Erkin Gözdereliler, 2008. Evaluation of methanol effect on an anaerobic sludge using methanogenic activity measurements and fluorescent in situ hybridization.

Gökhan Türker, 2007. 16S rDNA analysis of microbial communities in a highly polluted region of the Marmara sea.

Aslı Sezgin, 2007. 16S rDNS analysis of microbial communities in anoxic marine sediments of the Marmara sea.

Leyla Şimşek Çavuş, 2007. Methanogenic and non-methanogenic activities and archaeal composition of a full-scale anaerobic EGSB reactor treating a brewery wastewater.

Sair Sinan Kestelli, 2006. Analysis of archaeal community dynamics in full scale anaerobic reactors using fluorescent in situ hybridization.

Ayşe Eyigör, 2004. Analysis of archaeal diversity in the Black Sea sediments by fluorescence in situ hybridization technique.

İclal Üşenti, 2004. Determination of sulfate reducing bacterial population in the Black Sea sediments by fluorescence in situ hybridization technique.

Egemen Burak Öncel, 2002. Determination of inert COD fractions in a two-stage biological treatment of an alcohol distillery wastewater.

Nilgün Ayman, 2001. Microbial population dynamics in an anaerobic completely stirred tank reactor (CSTR) treating a pharmaceutical wastewater.

Atakan Selçuk, 2001. Treatment of a chemical synthesis based pharmaceutical wastewater using an upflow anaerobic filter.

Turhan Doğan, 2001. The Inhibition of volatile fatty acid production in granular sludge from an UASB reactor.

Hasan Selim Sanver, 2000. Anaerobic digestion of a chemical synthesis based pharmaceutical wastewater.

LECTURES

ESC 501.01 Principles of Environmental Pollution

ESC 501.02 Principles of Environmental Pollution

ESC 518 Fundamentals of Anaerobic Digestion Processes

ESC 557 Environmental Microbiology

ESC 59B Environmental Molecular Microbiology: Methods and Applications