

Assoc. Prof. Bilge Alpaslan Kocamemi

Mail Address: Marmara University, Faculty of Engineering

Environmental Engineering Department

Kuyubaşı- İstanbul

Tel: +902163480292 (Dahili: 1270)

E-mail: bilge.alpaslan@ marmara.edu.tr

EDUCATION

1999 - 2005

Ph.D

Boğaziçi University, Institute of Environmental Sciences
Environmental Technology

1997 - 1999

M.Sc.

Marmara University, Institute of Pure and Applied Sciences
Environmental Engineering

1991 - 1996

B.Sc.

Marmara University, Faculty of Engineering
Environmental Engineering

1988 - 1991

High Scholl
Özel Üsküdar Fen Lisesi

ACADEMIC EXPERIENCE

2015-	Assoc. Prof. Marmara University, Department of Environmental Engineering
2007 - 2015	Assist. Prof. Marmara University, Department of Environmental Engineering
2005 - 2007	Instructor, PhD Marmara University, Department of Environmental Engineering
2001 - 2005	Instructor Marmara University, Department of Environmental Engineering
2000 – 2001	Research and teaching assistant Marmara University, Department of Environmental Engineering
1997 – 2000	Research and teaching assistant Marmara University, Institute of Pure and Applied Sciences Department of Environmental Engineering

WORK EXPERIENCE

1996 – 1997 Project Engineer
ANTEL Arıtma Tesisleri, İnşaat San. ve Tic. A.Ş., Kozyatagı/İstanbul

RESEARCH INTERESTS

Suspended and attached growth biological treatment systems

Partial nitrification process

Anaeorobic ammonium oxidation (Anammox) process

Application of ultrasound in biological phosphorus removal

Cometabolic degradation of chlorinated organics

Sludge treatment and energy recovery

Process and hydraulic design of sewage treatment plants

Soil remediation (Stabilization/solidification)

B. Sc. COURSES TAUGHT

(2002 -)	
ENVE 301	Environmental Engineering Unit Operations
ENVE 302	Environmental Engineering Unit Processes
ENVE 411	Water Engineering Design
ENVE 422	Wastewater Engineering Design
ENVE 495	Special Topics in Environmental Engineering
ENVE 497	Engineering Project I
ENVE 498	Engineering Project II
(2001-2002)	
ENVE 311	Water Supply Engineering
ENVE 322	Wastewater Engineering

M. Sc. COURSES TAUGHT

ENVE 725	Environmental Biotechnology
ENVE 741	Biological Wastewater Treatment

REVIEWER IN JOURNALS

Biodegradation

Chemosphere

Critical Reviews in Environmental Science and Technology

Clean - Soil, Air, Water

Environmental Technology

Journal of Hazardous Materials

Water Research

Water Science and Technology

PUBLICATIONS

SCI Journal Papers

- 1. Yükselen M.A., **Alpaslan B**. (2001), *Leaching of Metals from Soil Contaminated by Mining Activities*, <u>Journal of Hazardous Materials</u>, Vol:87, No: 1-3, pp.289-300.
- 2. **Alpaslan B.**, Yükselen M.A. (2002), Remediation of Lead Contaminated Soils by Stabilization/Solidification, Water, Air and Soil Pollution, Vol:133, pp.253-263.
- 3. **Alpaslan Kocamemi B.**, Çeçen F. (2005), Cometabolic Degradation of TCE in Enriched Nitrifying Batch Systems, Journal of Hazardous Materials, Vol:B125, pp.260-265.
- 4. **Alpaslan Kocamemi B.**, Çeçen F. (2007), Kinetic Analysis of the Inhibitory Effect of Trichloroethylene (TCE) on Nitrification in Cometabolic Degradation, Biodegradation, Vol:18, pp. 71-81.
- 5. **Alpaslan Kocamemi B.**, Çeçen F. (2007), *Inhibitory Effect of the Xenobiotic 1,2-Dichloroethane in a Nitrifying Biofilm Reactor*, Water Science and Technology, Vol: 55 (8-9), pp. 67-73.
- 6. **Alpaslan Kocamemi B.**, Çeçen F. (2009), *Biodegradation of 1,2-dichloroethane (1,2-DCA) by cometabolism in a nitrifying biofilm reactor*, <u>International Biodeterioration & Biodegradation</u>, 63, pp.717-726.
- 7. **Alpaslan Kocamemi B.**, Çeçen F. (2010), *Biological removal of the xenobiotic trichloroethylene* (TCE) through cometabolism in nitrifying systems, Bioresource Technology, 101, pp.430-433.
- 8. **Alpaslan Kocamemi B.**, Çeçen F. (2010), Cometabolic degradation and inhibition kinetics of 1,2-Dichloroethane (1,2-DCA) in suspended-growth nitrifying systems, Environmental Technology, Vol.31, pp.295-305.
- 9. **Alpaslan Kocamemi B.**, Dityapak D. (2014), *Real time process dynamics monitoring in Anammox reactors*, Water Science and Technology, Vol. 70 (2), pp.183-191.

National Conference Proceedings

- 1. **Alpaslan B.**, Yükselen M.A., *Sea Pollution in an Old Mining Area: North Cyprus*, Turkey Costs 98, National Conferance, Middle East Technical University, Ankara, Turkiye, 22-25 September 1998.
- 2. **Alpaslan Kocamemi B.**, Dityapak D., Semerci N., Tepe C., Bilgin B., Kurt H., Kumru M., Akarsubaşı, A. T., *Start-up of Anammox Process using Local Mixed Activated Sludge Seed*, Environmental Pollution Priorities in Turkey (ÇEVKOS) VII, 22-23 November 2012.
- 3. Semerci N., Bakıcı N., **Kocamemi B.,** Investigation of Anoxic Phosphorus Uptake in Post Denitrification, System Environmental Pollution Priorities in Turkey (ÇEVKOS) VII, 22-23 November 2012.

Book Chapter

Ferhan Çeçen, Bilge Alpaslan Kocamemi, Özgür Aktaş. 2010, "Metabolic And Co-Metabolic Degradation Of Industrially Important Chlorinated Organics Under Aerobic Conditions, In: Xenobiotics in the Urban Water Cycle: Mass Flows, Environmental Processes and Mitigation Strategies' Environmental Process, Vol 16, DOI 10.1007/978-90-481-3509-9_9 (Springer Environmental Book Series) (COST 636).

International Conference Proceedings

- Yükselen M.A., Alpaslan B., Çallı B., Gökyay O., The Effect of Land-Based Sea Pollution in an Old Mining Region: A Case Study from Northern Cyprus, Paris 2000: 1st World Congress of the International Water Association (IWA), 3-7 June 2000.
- **2. Alpaslan Kocamemi B.,** Çeçen F., *Cometabolic Degradation of TCE in Enriched Nitrifying Batch Systems*, 4th International Water Association (IWA) World Water Congress, Marrakech, 19-24 September 2004.
- 3. Alpaslan Kocamemi B., Çeçen F., Inhibitory Effect of the Xenobiotic 1,2-DCA in a Nitrifying Biofilm Reactor, Biofilm IV Congress of the International Water Association (IWA), Amsterdam-The Netherlands, 24-27 September 2006.

- 4. Alpaslan Kocamemi B., Çeçen F., Kinetic Analysis of Cometabolic Trichloroethylene (TCE)

 Degradation by Nitrifiers, Micropol & Ecohazard 2007, 5th International Water Association

 (IWA) Specialized Conference on Assessment and Control of Micropollutants / Hazardous

 Substances in Water, Frankfurt am Main/ Germany, 17-20 June 2007.
- 5. Alpaslan Kocamemi B., Dityapak, D., Semerci N., Monitoring of anaeorobic ammonium oxidation (ANAMMOX) process start-up via on-line measurements in a sequencing batch reactor., 14th International Biotechnology Symposium and Exhibition in Rimini, Italy, 14-18 September 2010 (Journal of Biotechnology, Vol.150, Supplement 1, p.291, doi. 10.1016/j.jbiotec.2010.09.236)
- 6. Semerci N., Bakıcı N., Alpaslan Kocamemi B., Effects of nitrite, oxygen and initial pH on biological phosphorus removal in a post-denitrification system., 14th International Biotechnology Symposium and Exhibition in Rimini, Italy, 14-18 September 2010 (Journal of Biotechnology, Vol.150, Supplement 1, p.291, doi. 10.1016/j.jbiotec.2010.09.239)
- 7. Alpaslan Kocamemi B., Dityapak, D., Semerci N, Evaluation of pH, ORP and conductivity profiles in an Anammox reactor started-up using municipal activated sludge seed, European Biotechnology Congress 2011 in Istanbul, Turkey, 28. September 2011 1. October 2011 (Current Opinion in Biotechnology, Vol: 22, Supplement 1, p. S38, doi:10.1016/j.copbio.2011.05.088)
- 8. Semerci N., Bakıcı N., Alpaslan Kocamemi B., Evaluation of oxic and anoxic phosphate removal in a post-denitrification system, European Biotechnology Congress 2011 in Istanbul, Turkey, 28 September 2011 1 October 2011 (Current Opinion in Biotechnology, Vol. 22, Supplement 1, p. S67, doi:10.1016/j.copbio.2011.05.191)
- 9. Esen E., Dityapak D., Kurt H., Kumru M., Alpaslan Kocamemi B., Semerci N., Akarsubaşı A.T., Molecular characterization of partial nitrification followed by anammox process, ISME 14th International Symposium on Microbial Ecology, Copenhagen, Denmark, 19-24 August 2012.
- 10. Ergal, I., Semerci N., Alpaslan Kocamemi B., Kurt H., Akarsubaşı A.T., Quantitative analysis of Candidatus Accumilibacter phosphatis on lab scale denitrifying phosphorus removal sequencing batch reactors, <u>ISME 14th International Symposium on Microbial Ecology</u>, Copenhagen, Denmark, 19-24 August 2012.

- 11. Alpaslan Kocamemi B., Dityapak D., Real time monitoring of Process Dynamics in Anammox Reactors, WEF/IWA Nutrient Removal and Recovery 2013, Vancouver, British Columbia, Canada, 28-31 July, 2013.
- 12. Alpaslan Kocamemi B., Dityapak D., Novel Nitrogen Removal Technologies For Wastewater Treatment: An overview of ANAMMOX (Anaeorobic Ammonium Oxidation) Process, Catec 2014, 2nd Caspian International Aqua Technologies Exhibition and Conference, Baku, Azerbaijan, pp.629-635, 10-12 April 2014
- 13. Alpaslan Kocamemi B., Çiçek E., Partial Nitrification of Domestic Wastewater under Oxygen Limited Conditions, ICOCEE Cappadocia 2015- International Conference on Civil and Environmental Engineering, Nevsehir, Türkiye, pp. 130, 20-23 May 2015.
- 14. Alpaslan Kocamemi B., Güre N., Sarıalioğlu F., Kuzey C., Saatçı A.M., Application of low intensity ultrasound to enhance biological phosphorus removal, <u>ICOCEE Cappadocia 2015-International Conference on Civil and Environmental Engineering</u>, Nevsehir, Türkiye, pp. 175, 20-23 May 2015.
- 15. Alpaslan Kocamemi B., Dityapak D., Oktem H., Influence of Operating Parameters and Wastewater Constituents on the Performance of Anammox Process, WEF- IWA Nutrient Removal and Recovery 2016, Denver, USA, 10-13 July 2016.
- 16. Aktuz E., Yu J., Alpaslan Kocamemi B., Ozen T., Izgi D., Maximum Heat Recovery And Utilization System In A Municipal Activated Sludge Fluidized Bed Incineration (FBI) Plant: A Case Study For Bursa, Turkey, WEFTEC 2016, Water Environment Federation's Annual Technical Exhibition and Conference, New Orleans, USA, 24-28 September 2016.
- 17. Alpaslan Kocamemi B., Dityapak D., The use of Combined Partial Nitritation and Anammox Process for Mainstream Sewage Treatment, WEFTEC 2016, Water Environment Federation's Annual Technical Exhibition and Conference, New Orleans, USA, 24-28 September 2016.
- 18. Uflaz H., Alpaslan Kocamemi B., The First Pilot Scale Anammox Plant in Turkey: A case study of Bursa STP, ICOCEE Cappadocia 2017-International Conference on Civil and Environmental Engineering, Nevsehir, Türkiye, 8-10 May 2017.
- **19. Alpaslan Kocamemi B.,** Uflaz H., Kurt H., *Challenges of Partial Nitritation prior to Anammox Application for Mainstream Sewage: A Pilot Study for Bursa Sewage Treatment Plant in Turkey*,

WEF Water Environment Federation Nutrient Symposium 2017, Fort Lauderdale, Florida, USA, June 12-14, 2017.

Ph.D. Thesis:

Alpaslan Kocamemi B. (2005), Cometabolic Degradation of Trichloroethylene (TCE) and 1,2-Dichloroethane (1,2-DCA) in Nitrification Systems, Boğaziçi University, Institute of Environmental Sciences. Thesis supervisor: Prof. Ferhan Çeçen

M. Sc. Thesis:

Alpaslan B. (1999), *Remediation of Heavy Metal Contaminated Soils*, Marmara University, Institute of Pure and Applied Sciences, Environmental Engineering. <u>Thesis Supervisor</u>: Assoc. Prof. Mehmet Ali Yükselen

THESIS SUPERVISED

- 1. Çiçek E.,(2007-2008), Assesment of Partial Nitrification/Nitritification Process under Oxygen-limited Conditions, Marmara University, Institute of Pure and Applied Sciences, Environmental Engineering,
- 2. Dityapak D., (2011-2012), Applicability of Anammox Process for the Nitrogen Removal from Domestic Wastewater, Marmara University, Institute of Pure and Applied Sciences, Environmental Engineering.
- **3.** Uflaz H., (2014-continue), *Start-up of Pilot Scale Partial Nitrification and Anammox Reactors Installed in a Sewage Treatment Plant*, Marmara University, Institute of Pure and Applied Sciences, Environmental Engineering.

RESEARCH PROJECTS

- 1. Alpaslan Kocamemi B., Çeçen F. (2003-2004), Investigation of Cometabolic Degradation of Trichloroethylene in Nitrification Systems. The Scientific and Technological Research Council of Turkey (TUBITAK), Project No: İCTAG-A038 (Project Coordinator)
- 2. Alpaslan Kocamemi B., Çeçen F. (2004-2005), Cometabolic Degradation of Trichloroethylene by Nitrifying Species in an Aerobic Upflow Biofilm Systems. The Scientific and Technological Research Council of Turkey (TUBITAK), Project No: İCTAG-A052. (Project Coordinator)

- 3. Alpaslan Kocamemi B., Çiçek E. (2007-2008), Assessment of Partial Nitrification /Nitritification Process under Oxygen-limited Conditions. The Scientific and Technological Research Council of Turkey (TUBITAK), Project No: CAYDAG-1002- 107Y117 (Project Coordinator)
- 4. Alpaslan Kocamemi B., Semerci, N., Keklik, E., (2008-2011), Investigation of Biological Nitrogen Removal from Wastewaters with the Anaerobic Ammonium Oxidation (Anammox)Process. The Scientific and Technological Research Council of Turkey (TUBITAK), Project No: CAYDAG-1001- 108Y120. (Project Coordinator)
- Alpaslan Kocamemi B., Dityapak D., (2011-2012), Applicability of Anammox process for nitrogen removal from domestic wastewater. Marmara University Scientific Research Projects Committee (MU-BAPKO), Project No: Fen C-YLP-060911-0282. (Project Coordinator)
- 6. Alpaslan Kocamemi B., Saatci A.M., Semerci N. (2012-2014), Investigation of ultrasound application effects on biological phosphorus removal from wastewater. Marmara University Scientific Research Projects Committee (MU-BAPKO), Project No: Fen A-YLP-090512-0156. (Project Coordinator)
- 7. Alpaslan Kocamemi B. (2013-2014), On-line monitoring of start –up and enrichment phases of Anammox process in SBR systems inoculated with enriched Anammox and local mixed activated sludge, Marmara University Scientific Research Projects Committee (MU-BAPKO), Project No: Fen D-220513-0219. (Project Coordinator)
- **8.** Alpaslan Kocamemi B. (2013), Real-time monitoring of process dynamics in Anammox Reactors, TUBITAK- 2224, The Scientific and Technological Research Council of Turkey (TUBITAK), (Project Coordinator)
- 9. Alpaslan Kocamemi B., Uflaz H., (2015-continue), Start-up of pilot scale partial nitrification and anammox reactors installed in a sewage treatment plant, Marmara University Scientific Research Projects Committee (MU-BAPKO), Project No: Fen C-YLP-080415-0123). (Project Coordinator)
- **10. Alpaslan Kocamemi B.,** (2015-continue), *Nitrogen removal from sewage via partial nitrification and Anammox processes*, T.C. Bursa Greater Municipality, Bursa Water and Sewerage Administration . (**Project Coordinator**)

- 11. Alpaslan Kocamemi B., Chandran, K. (December 2015) Global grand challenges in wastewater treatment and resource recovery, The Scientific and Technological Research Council of Turkey (TUBITAK) The Programme of the Visiting Scientists and Scientists on Sabbatical Leave. (Project Coordinator, Host Scientist)
- 12. Yükselen M.A., Kerç A., Alpaslan B. (1996-1997), Removal of Organics and Nitrogen from Intermittent Flow Wastewater with a Package Treatment Unit. Marmara University Scientific Research Projects Committee (MU-BAPKO), Project No: 1996 FEN-FB4. (Researcher)
- 13. Yükselen M.A., Alpaslan B. (1998), Evaluation of heavy metal contamination in soil. Marmara University Scientific Research Projects Committee (MU-BAPKO), Project No:FE-DYD-39. (Researcher)
- 14. Yükselen M.A., Alpaslan B. (1999), *Remediation of Heavy Metal Contaminated Soil*. Marmara University Scientific Research Projects Committee (MU-BAPKO), FE-1998-15. (Researcher)
- **15.** Yenigün O., Çeçen F., **Alpaslan Kocamemi B.** (2003), Evaluation of removal of chlorinated organics in a nitrifying biofilm system. The Scientific and Technological Research Council of Turkey (TÜBİTAK), Project No: A027. (**Researcher**)
- **16.** Çeçen F., **Alpaslan Kocamemi B.** (2003), Cometabolic removal of chlorinated organic compounds in nitrifying systems, Bogazici University, Institute of Environmental Science, Research Fund Project No: 02Y101D. (**Researcher**)
- 17. Çeçen F., Türker Saçan M., Alpaslan Kocamemi B., Semerci N., Aktaş O., Yapsaklı K., (2006-2008), Behaviour of selected organic and inorganic xenobiotics in biological systems and formation of structure –activity relationship (SAR) models, The Scientific and Technological Research Council of Turkey (TUBITAK), Project No: 1054379. (Researcher)
- 18. Semerci N., Alpaslan Kocamemi B., Bakıcı, N., Hasılcı, M.K. (2009-2012), Investigation of Biological Phosphorus Removal in Anoxic Conditions, The Scientific and Technological Research Council of Turkey (TUBITAK), Project No: CAYDAG- 3501- 108Y319. (Researcher)
- 19. Can Z., Alpaslan Kocamemi B., Semerci N., Çakır E., Demircioğlu Kuş Ç., (2008-2010)

 Treatability of Paşaköy Wastewater Treatment Plant Effluent by Activated Carbon / Activated

 Sludge Treatment Applied Prior to Chemical Oxidation for Reuse, Marmara University

Scientific Research Projects Committee (MU-BAPKO), Project No: Fen A- 030408-0079). (Researcher)

20. Semerci N., **Alpaslan Kocamemi B.**, Kerç A., Çallı, B., (2009-2011), *Investigation of Phosphorus Recovery from Municipal Activated Sludge with Ozonation*, Marmara University Scientific Research Projects Committee (MU-BAPKO), Project No: FEN-A-300409-0117 / 30.04.2009-30.04.2011 (**Researcher**)

CONSULTANCIES

- Kuzu Construction Company, Project Name: Dogu Sewage Treatment Plant, Activated Sludge Incineration Plant Project, Bursa, Turkey
- 2. Alkatas Construction Company & Fissiante: Atakoy Sewage Teratment Plant, Design and Startup of Anammox Pilot Plant for Centrate Treatment
- 3. Alkatas Construction Company & Fissiante: Atakoy Sewage Treatment Plant Second Stage Cogen and Sludge Drying System Heat Balance Optimization
- **4.** Envita Ltd Sti: Istabul Water ansd Sewarage Administration- Pilot Granular Activated Carbon Study for Potable Water

AWARDS

- 1. Special Award of Marmara University Dean Office for the activities in Journey to Excellence in Education (EFQM), 2000.
- 2. 1st ranking award of poster presentation, Micropol & Ecohazard 2007, 5th International Water Association (IWA) Specialised Conference on Assessment and Control of Micropollutants / Hazardous Substances in Water, Frankfurt am Main/ Germany, 17-20 June, 2007.

MEMBERSHIPS

- 1. Water Environment Federation (WEF), VA, USA.
- 2. International Water Association (IWA), England.

ADMINISTRATIVE DUTIES

1. Chair of Faculty Scholarship Committee

- 2. Member of Student Amnesty Committee
- 3. Member of Faculty Industrial Relations and Career Planning Committee