

Assist. Prof. Neslihan SEMERCİ

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EDUCATION

2000 - 2007	Ph.D Boğaziçi University, Institute of Environmental Sciences, Environmental Technology
1997 - 2000	MSc. Marmara University, Institute of Pure and Applied Sciences
1993- 1997	BSc. Marmara University, Faculty of Engineering, Environmental Engineering Department
1988 – 1991	High School Üsküdar Cumhuriyet Lisesi

ACADEMIC EXPERIENCE

2009-	Assist. Prof. Marmara University,Environmental Engineering Department
2007 - 2009	Instructor, Ph.D Marmara University,Environmental Engineering Department
2002 - 2007	Instructor Marmara University,Environmental Engineering Department
1998 – 2002	Research and Teaching Assistant Marmara University,Environmental Engineering Department

WORK EXPERIENCE

1997-1998	Project Engineer Proses Arıtma Sistemleri, İnşaat San. ve Tic. A.Ş., İstanbul
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RESEARCH INTERESTS

Enhanced Biological Phosphorus Removal
Phosphorus recovery from sewage sludge
Anaerobic Dynamic Membrane Bioreactors

Bio-plastic (PHA) production from activated sludge systems
Biotechnological treatment systems
Design and Operation of Large Wastewater Treatment Plants
Modelling of biological nutrient removal processes
Design of sewage and storm sewer systems
Hydraulics of drinking and wastewater treatment plants

B.Sc. COURSES TAUGHT

ENVE 2004 Engineering Hydraulics
ENVE 322 Wastewater Engineering Design
ENVE 2061 Basic Fluid Mechanics
ENVE 100 Introduction to Environmental Engineering
ENVE 423 Advanced Wastewater Treatment
ENVE 411 Water Engineering Design
ENVE 422 Wastewater Engineering Design
ENVE 497 Engineering Project I
ENVE 498 Engineering Project II

M.Sc. COURSES TAUGHT

ENVE 522 Advanced Wastewater Treatment
ENVE 616 Treatment and Disposal Techniques of Wastewater Sludges
ENVE 526 Biological Nutrient Removal
ENVE 623 Advanced Topics in Hazard. and Toxic Wastes Treat. & Control
ENVE 552 Solid Waste Analysis and Disposal Methods

B.Sc. COURSES ASSISTED

ENVE 411 Water Engineering Design
ENVE 422 Wastewater Engineering Design
ENVE 204 Environmental Engineering Hydraulics
ENVE 340 Air Pollution Engineering
ENVE 341 Air Pollution Control
CHEM 101 General Chemistry
ES 124 Computer Programming (FORTRAN)
ENVE 205 Environmental Engineering Hydrology
CHEM 209 Analytical Chemistry
ENVE 301 Unit Operations
ENVE 302 Unit Processes
ENVE 350 Geotechnical Engineering
ENVE 461 Computer Modelling in Environmental Engineering
ENVE 402 Impact Assessment

PUBLICATIONS

Journal Papers (SCI Indexed)

1. Semerci N, Hasılıcı Bakıcı N., 2016, *Fate of carbon, nitrogen and phosphorus removal in a post-anoxic system treating low strength wastewater*, International Biodeterioration & Biodegradation, No. 108, 166-174
2. Çeçen F., Semerci N. and Geyik Ayşe Gül, 2010, *Inhibition of respiration and distribution of Cd, Pb, Hg, Ag and Cr species in a nitrifying sludge*, Journal of Hazardous Materials, No. 178 (1-3), 619-27
3. Çeçen F., Semerci N. and Geyik Ayşe Gül, 2009, *Inhibitory effects of Cu, Zn, Ni and Co on nitrification and relevance of speciation*, Journal of Chemical Technology and Biotechnology, Vol. 85, Issue. 4, 520-528
4. Saçan M.T., Çeçen F., Ertürk M.D. and Semerci N., 2009, *Modelling the relative toxicity of metals on respiration of nitrifiers using ion characteristics, SAR and QSAR in Environmental Research*, Vol. 20(7-8), 727-740
5. Semerci N., Çeçen, F., 2008 “*Effect of continuous feeding on the performance of a nitrification reactor*”, Biodegradation, Vol. 20(2), 155-64
6. Mertoğlu, B., Semerci, N., Guler, N., Calli, B., Çeçen, F., Saatçi, A.M., 2008 “*Monitoring of population shifts in an enriched nitrifying system under gradually increased cadmium loading*”, Vol. 160(2-3), 495-501
7. Semerci, N., Çeçen, F., 2007. “*Importance of cadmium speciation in nitrification inhibition* Journal of Hazardous Materials”, Vol 147(1-2) 503-512

Other Journal Papers

8. **Semerci, N.**, Çeçen, F., 2006. “Importance of free Zn species in batch nitrification systems”, *Water Practice and Technology*, 1 (3), (doi10.2166/wpt.2006.0053)

Presentations in International Conferenses

9. **Semerci, N.**, Çitak T. F., 2012. Polyhydroxyalkanoate (PHA) production from Activated Sludge, *International Conference of Recycling and Reuse, (R&R, 2012)*, 4-6 June, 2012, Istanbul/Turkey
10. Alpaslan Kocamemi B., Dityapak, D., **Semerci N**, Evaluation of pH, ORP and conductivity profiles in an Anammox reactor started-up using municipal activated,

European Biotechnology Congress 2011, Istanbul, Turkey, 28 September 2011 - 1 October 2011.

11. **Semerci, N.**, Çeçen, F., 2006. Importance of free Zn species in batch nitrification systems, *IWA World Water Congress and Exhibition*, 10-14 September 2006, *Beijing/China*,

Presentations in National Conference

1. **N. Semerci**, N. Bakıcı, B. A. Kocamemi, Sonda Denitrifikasyon Sisteminde Anoksik Ortamda Fosfor Gideriminin İncelenmesi, *Türkiyede Çevre Kirlenmesi Öncelikleri Sempozyumu VII*, GYTE, 22-23 Kasım 2012
2. B. A. Kocamemi, D., Dityapak, **N. Semerci**, Türkiye'deki Bir Evsel Atık su Arıtma Tesisinden Alınan Aktif Çamur ile Anaerobik Amonyum Oksidasyon (ANAMMOX) Prosesinin İşletmeye Alınması, *Türkiyede Çevre Kirlenmesi Öncelikleri Sempozyumu VII*, GYTE, 22-23 Kasım 2012
3. Mertoğlu, B., **Semerci N.**, Çeçen, F., Saatçı, A. M., 2007. “Kadmiyumun Nitrifikasyon bakterisi Türlerine Etkisinin Moleküler Tekniklerle İncelenmesi”, *Ulusal çevre Sempozyumu 2007*, 18-21 April 2007, Mersin Üniversitesi, Mersin; Turkey
4. Erkan, S., **Semerci N.**, Karışan H., Tuskan C., Tüylüoğlu B. S., Çallı B., Öztürk İ., 2008. “Burdur İli İçin Uygun Katı Atık Yönetim Sisteminin Hazırlanması”, *İnsan ve Çevre Sorunları Sempozyumu'* Kasım 2008, İstanbul Teknik Üniversitesi, İstanbul, Turkey

International Conference Proceedings (Abstract/Posters)

1. **Semerci N.**, Ayhan, M., *Existence of Denitrifying Phosphate Accumulating Organisms at Full Scale Wastewater Treatment Plants in Turkey.*, International Conference of Recycling and Reuse, (R&R, 2012) that will take place in Istanbul, Turkey, on June 4-6, 2012

2. **Semerci N.**, Bakici, N., Alpaslan Kocamemi B., Evaluation of oxic and anoxic phosphorus removal in a post-denitrification system., European Biotechnology Congress 2011, İstanbul: 28. September 2011-1. October 2011, Current Opinon in Biotechnology
3. **Semerci N.**, Bakıcı N., Alpaslan K. B., , Effects of nitrite, oxygen and initial pH on biological phosphorus removal in a post-denitrification system’ “14 th International Biotechnology Symposium and Exhibition”14-18 September 2010, Italy, Rimini
4. Alpaslan K. B., Dityapak D., **Semerci N.**, Monitoring of Anaerobic Ammonium Oxidation (Annamox) Process Start-up via On-line Measurements in a SBR, “14 th International Biotechnology Symposium and Exhibition”14-18 September 2010, Italy, Rimini
5. Çeçen F., **Semerci N.**, Geyik A. G., 2009, Inhibitory Effects and Speciation of Heavy Metals Ni, Cu, Zn, Co in a Nitrifying Activated Sludge, *6th IWA/GRA Specialized Conference on Assessment and Control of Micropollutants and Hazardous Substances in Water*, June 8-10, 2009, San Francisco.
6. Çeçen F., **Semerci N.**, Geyik A. G., 2010, Inhibitory and speciation properties of nine heavy metals in a nitrifying sludge , *IWA World Water Congress & Exhibition*, 19-24 September 2010, Montreal, Canada
7. **Semerci, N.**, Saatçi, A. M., 2003. “Cost Analysis in Biological Nutrient Removal Systems”, *9th IWA International Specialized Conference on Large Wastewater Treatment Plants*, held in Prague, Czech Republic, 1-4 September 2003
8. **Semerci, N.**, Çeçen, F., 2005. “The effect of Cd in Nitrification Systems”, *Proceedings of the IWA Specialized Conference: Nutrient Management in Wastewater Treatment Processes and Recycle Streams*, 19-21 Eylül 2005, Krakow/Polonya , pp. 1015-1018.

Ph.D. Thesis:

N. YAZICI Semerci (2007) “Effect of Heavy Metal Speciation on Nitrification Inhibition”
Boğaziçi University, Institute of Environmental Sciences,
Advisor: Prof. Dr. Ferhan Çeçen

M. Sc. Thesis:

N. YAZICI (2000) “Cost Analysis in Biological Nutreint Removal Systems”, Marmara University, Environmental Engineering
Advisor: Prof. Dr. Ahmet Mete Saatçi

THESIS ASSISTED

1. Erkan, S. Preparation of Solid Waste Management System for Burdur Province, 2009
 2. Bakıcı, N. Investigation of Biological Phosphorus Removal in Anoxic Conditions, 2010
 3. Ayhan, M. Investigation of the Existence of Denitrifying Phosphate Accumulating Organisms at Wastewater Treatment Plants in Turkey, 2011
 4. Çitak F. T., Factors Affecting the Enrichment of a Mixed Bacterial Culture in an Aerobic Dynamic Feeding (ADF) System for Polyhydroxyalkanoate (PHA) production, 2013
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PROJECTS

1. Anaerobik Dynamic Membrane Biyoreaktör, (TÜBİTAK), 2015, N. SEMERCİ, B. ÇALLI
2. Investigation of Biological Phosphorus Removal in Anoxic Conditions, (TÜBİTAK) 2012, N. SEMERCİ, B.A. KOCAMEMİ, N. BAKICI, M.K. HASILCI
3. Investigation of Phosphorus Recovery from Municipal Activated Sludge with Ozonation (MU-BAPKO), 2011, N. SEMERCİ, B. ÇALLI, A. KERÇ, B.A. KOCAMEMİ,
4. Investigation of the Existence of Denitrifying Phosphate Accumulating Organisms at Wastewater Treatment Plants in Turkey, (MU-BAPKO), 2011, N. SEMERCİ, M. AYHAN
5. Characterization and Treatment of Leachate from Municipal Solid Waste Disposal Sites (MU-BAPKO), 2002
6. Effects of Heavy Metals on Nitrification Systems in the Presence of Complexing Agents (TUBİTAK), 2004
7. Effects of Metal Speciation on Biological Systems, Boğaziçi University-BAP, 2007
8. Seçilmiş Organik Ve İnorganik Ksenobiyotiklerin Biyolojik Sistemlerde Davranışlarının İncelenmesi Ve Yapı-Etki İlişkisi (SAR) Modellerinin Oluşturulması, TÜBİTAK- COST Action 636 Xenobiotics in the Urban Water Cycle Project No : 1054379 (2006-)
9. Investigation of the Biological Nitrogen Removal from Wastewaters by Anaerobic Ammonium Oxidation (Anammox) Process (TUBİTAK), 2011

10. Treatability of Paşaköy Wastewater Treatment Plant Effluent by Activated Carbon /
Activated Sludge Treatment Applied Prior to Chemical Oxidation for Reuse Purposes
(MU-BAPKO), 2010