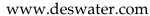
## Desalination and Water Treatment



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# The 2nd International Conference on Recycling and Reuse, held on June 4–6, 2014, in Istanbul, Turkey

### **Editorial**

This special issue of the *Desalination and Water Treatment* Journal is dedicated to the 2nd International Conference on Recycling and Reuse, held on 4–6 June 2014 in Istanbul, Turkey. This international conference was jointly organized by Boğaziçi University, Environmental Sciences Institute and Istanbul University, Environmental Engineering Department, Turkey. The purpose of the conference was to provide an excellent platform for researchers and practitioners to exchange emerging ideas and investigate key issues such as:

- recycling and reuse concerns
- · advanced wastewater treatment
- · membrane technologies for recycling and reuse
- advanced oxidation technologies
- waste reduction
- water and wastewater management
- solid waste treatment and management
- hazardous waste management
- resource use
- renewable energy technologies
- current and future recycling markets
- public health issues
- legislations and policies of recycling and reuse

At the conference, a total of 90 oral and 155 posters presentations were included in the program. Eight key speakers enlightened the program with their utmost contributions in their fields of expertise. A total number of 26 papers have been selected after an essential peer review process to be published in this special issue, specifically named "Sustainable Technologies for Recycling and Reuse" that includes a wide spectrum of scientific contributions performed in various countries. The authors and guest editors expect that this issue should provide an overview of recent works done in "Recycling and Reuse" field and fulfill scientific gaps to provide important contribution to science and technology as well as to the practitioners.

The guest editors would like to thank all colleagues for their valuable contributions to this special issue and express their appreciation to Prof. Miriam Balaban, Editor-in-Chief and to Prof. Dr Miray Bekbolet, co-chair of the conference for providing this opportunity.

Guest Editors



**Süreyya Meriç**, Full Professor, Environmental Engineering Department, Namık Kemal University, Çorlu 59860, Tekirdağ, Turkey

She holds BSc degrees in environmental engineering from Istanbul Technical University (ITU), Turkey and MSc (1990) and PhD (1997) from ITU Institute of Sciences. She collaborated with the Sanitary and Environmental Engineering Division of University of Salerno (Italy) from 2004 to 2010 and Naples University Federico II, Biology Department, Ecotoxicology Research Laboratory from 2007 to 2010. She was a visiting scientist in Italy from 1998 to 2000 at the National Cancer Research Institute. She was awarded fellowship from the Italian Ministry of Foreign Affairs from

1999 to 2000 at the University of Naples Federico II. She had worked as research assistant and assistant professor at ITU from 1988 to 2004. She has developed a long-lasting expertise in advanced (waste)water treatment technologies, recycling and reuse, alternative water sources, and impact assessment. She has coordinated or collaborated with many international and national projects, supervised a number of graduate theses in Turkish, Italian, and English. She was enrolled as an expert to evaluate national and international projects and professorship candidates. She has been an invited speaker or chairperson, and enrolled in organizing and scientific committees at national and international symposiums, conferences, and summer school. She acted as guest editor for special issues, edited book chapters, published more than 70 SCI papers having an h-index of 23.



**Huseyin Selcuk**, Full Professor, Environmental Engineering Department, Istanbul University, Avcilar 34320, Istanbul, Turkey

He is enrolled as Head of the Department at Istanbul University. He is director of the Applied Environmental and Earth Sciences Research and Development Center at Istanbul University. In 2001, he was a visiting researcher at the Environmental Chemistry and Technology Program in Water Chemistry Laboratory at the University of Wisconsin Madison. He received his PhD degree in 2004 from Environmental Engineering Program of Istanbul Technical University, Applied Sciences Institute, Turkey. He has developed expertise in disinfection—

disinfection by-products, advanced treatment of water and wastewater, reuse of industrial wastewater. He participated in many international research projects such as EU COST, EU LEONARDO DA VINCI, NATO Collaborative Linkage Grant, MIUR, *Italian International Collaborative* research projects. He participated in the editing of a book for NOVA Science Publishers Inc., NY, USA, "Advances in Control of Disinfection By-Products in Drinking Water Systems". He has published more than 30 papers (SCI index) and has given many invited presentations at international venues and summer schools. He was appointed as the co-chair of the International Workshop on Urbanization, Land Use, Land Degradation and Environment 28 September–1 October 2009 (http://ule2009.pau.edu.tr). He has initiated *International Recycling and Reuse Conference* as co-chair with Prof. Dr Miray Bekbölet in 2012 (http://istanbul.rr2014.edu.tr).



**Nüket Sivri**, Associate Professor, Environmental Engineering Department, Istanbul University, Avcılar 34320, Istanbul, Turkey

She received her PhD in 1999 from the Faculty of Marine Sciences, Department of Fisheries Technology Engineering at Karadeniz Technical University (KTU), Turkey. She served as a teaching and research assistant at KTU from 1991 to 2003. She has developed expertise in enteric bacteria, varied and interaction between algae, nutrient dynamics. Her research focuses mainly on understanding the role of micro-organisms in the coastal area using genomic approaches. She has been awarded research grants by The Turkish Scientific and Technological Research Council

at the Plymouth Marine Laboratory in Plymouth, UK for two periods (July 2012–January 2013; August 2013–February 2014). She has been experiencing short/long term workshops and conferences in different countries (Japan, Greece, Bulgaria, Germany, Jordan, Egypt, Senegal, Morocco, Croatia, Netherlands, Thailand, Italy, Malaysia, Indonesia, Crete, Macedonia, UK). She has been involved in several national and international projects. She has published 28 SCI indexed papers and served as a referee for more than 30 SCI journals.



**Serdar Aydin**, Associate Professor, Environmental Engineering Department, Istanbul University, Avcılar 34320, Istanbul, Turkey

He received his BSc degree from the Environmental Engineering Department at Istanbul University in 1995 and his MSc in Environmental Science from Istanbul University in 1998. He served as a teaching and research assistant at the Department of Environmental Engineering, Istanbul University between 1997 and 2007. He received his PhD in 2004 from the Institute of Sciences at Istanbul University. He has been working at the Environmental Engineering Department at Istanbul University. His scientific area of interest involves waste minimization,

sludge management, and wastewater treatment. He has been involved in several national projects. He has published 14 SCI indexed papers, submitted more than 25 oral/poster presentations in national and international scientific organizations and served as a referee for more than 10 SCI journals.



**Burcu Onat**, Associate Professor, Environmental Engineering Department, Istanbul University, Avcılar 34320, Istanbul, Turkey

She received her PhD in 2005 from the Faculty of Engineering, Department of Environmental Engineering at Istanbul University (IU). She served as research assistant at IU from 1995 to 2000. She worked as Health, Safety and Environmental Engineer at the Power Plant Project in Baku, Azerbaijan from 2000 to 2003. She has been working at the Environmental Engineering Department at IU since 2006. Her scientific area of interest involves air pollution, air quality modeling, emission control, indoor air quality, and traffic sourced emissions. She has been

awarded research grants by The Turkish Scientific and Technological Research Council at the Birmingham University, School of Geography, Earth & Environmental Science, England, between June 2013 and December 2013. She has been involved in several national projects. She has published 16 SCI indexed papers, submitted more than 40 oral/poster presentations in national and international scientific organizations and served as a referee for more than 20 SCI journals.



**Ülkü Alver Şahin**, Associate Professor, Environmental Engineering Department, Istanbul University, Avcılar 34320, Istanbul, Turkey

She received her PhD in 2005 from the Faculty of Engineering, Department of Environmental Engineering at Istanbul University (IU). She served as research assistant at IU from 1998 to 2007 and as assistant Prof. at IU from 2007 to 2013. She has been working at the Environmental Engineering Department at IU since 2013 as associated Prof. Her scientific area of interest involves air pollution, air quality modeling, emission control, indoor air quality, and greenhouse gasses emissions management. She has been awarded research grants by the Istanbul University

at the Carleton University, Environmental Engineering Department and Environmental Canada, Air Quality Laboratory in Ottawa, Canada, between March 2012 and June 2012. She has been involved and managed several national projects. She has published 20 SCI indexed papers, submitted more than 40 oral/poster presentations in national and international scientific organizations and served as a referee for more than 20 SCI journals.



**H. Kurtulus Ozcan**, Associate Professor, Environmental Engineering Department, Istanbul University, Avcılar 34320, Istanbul, Turkey

He received his PhD in 2008 from the Faculty of Engineering, Department of Environmental Engineering at Istanbul University (IU). He served as research assistant at Istanbul University from 2000 to 2011. His scientific area of interest involves solid waste management, environmental monitoring, pollution control, and waste-to-energy. He has been involved in several national projects. He has published 24 SCI indexed papers, submitted more than 45 oral/poster presentations in national and international scientific organizations.



Emine Elmaslar Özbaş, Assistant Professor, Environmental Engineering Department, Istanbul University, Avcılar 34320, Istanbul, Turkey

She received her PhD in 2009 from the Faculty of Engineering, Department of Environmental Engineering at Istanbul University (IU). She served as research assistant at Istanbul University from 2001 to 2012. Her scientific area of interest involves environmental pollution control, soil pollution and waste management. She studied in a research project in CEBAS-CSIC in Spain for four months (in 2013). She has been involved in several national projects. She has published 15 SCI indexed papers, submitted about 30 oral/poster presentations in national and international

scientific organizations and served as a referee for about 20 SCI journals.



**Atakan Ongen**, Assistant Professor, Environmental Engineering Department, Istanbul University, Avcılar 34320, Istanbul, Turkey

He received his PhD in 2011 from the Faculty of Engineering, Department of Environmental Engineering at Istanbul University (IU). He served as a research assistant at Trakya University and Namik Kemal University, Çorlu, Tekirdağ from 2001 to 2010. He has been working at the Environmental Engineering Department at IU for 4 years. His scientific area of interest involves environmental pollution control, waste-to-energy concept, thermo-chemical processes, and waste management. He has been awarded research grants by The Turkish Scientific and Technological

Research Council at the University of Ontario, Canada between April and September 2015. He has been involved in several national projects. He has published 15 SCI indexed papers, submitted more than 40 oral/poster presentations in national and international scientific organizations, four chapters in international books and served as a referee for more than 20 SCI journals.









2nd International Conference on Recycling and Reuse

4-6 June 2014



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- · Yunus SÖYLET, Rector, Istanbul University
- Mehmet Ali GÜRKAYNAK, Institute Director, Institute of Sciences, Istanbul University
- Orhan YENİGÜN, Institute Director, Institute of Environmental Sciences, Boğaziçi University
- Süleyman TANYOLAÇ, Dean, Faculty of Engineering, Istanbul University

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Levent YILMAZ, Türkiye

### **Keynote Speakers**



Miriam Balaban



Damià Barceló Cullerès



Vincenzo Belgiorno



İbrahim Di**n**çer



Nalan Kabay



Juan M. Lema



Gianluca Li Puma



Sixto Malato