



12th IWA International Symposium on Waste Management Problems in Agro-Industries











AGRO'2025 PROGRAMME













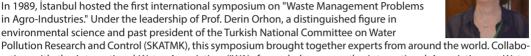


industries.

10-12 September 2025, İstanbul, Türkiye



Welcome you back to our magnificent city of İstanbul, one of the world's most impressive and popular tourist destinations....



rating with the International Water Association (IWA), formerly known as the International Association on Water Quality (IAWQ), this event played a significant role in addressing critical issues related to waste management in agro-

Beginning with its inaugural event, each subsequent symposium has attracted an increasingly diverse audience, exemplifying a commitment to fostering collaboration and knowledge exchange. Notably, the second event convened in Istanbul in 1992 paved the way for future gatherings, including those in Istanbul in 1998 and Shiga, Japan in 2001. Subsequent symposia have continued this tradition, culminating in the most recent event in Gdansk, Poland in 2022. As we celebrate the legacy of this long-standing academic exchange, we are excited to return to Istanbul, a city known for its rich history and cultural significance. It is a fitting tribute to the extraordinary journey of the symposium over the past 36 years.

We are fully convinced that the Agro'2025 Symposium Series provides a unique, highly distinguished, outstanding and inherently specialized platform to discuss, evaluate and criticize the most attractive, state-of-the art as well as emerging subjects of agro-industries and related industrial sectors. The AGRO'2025 Symposium will also be an exciting scientific event, covering a wide range of topics, from conventional physico-chemical and biological treatment applications to climate change mitigation and adaptation. We are particularly interested in the focus on the circular economy, life cycle assessment, resource recovery, and waste valorization applications within the Water-Energy-Food (WEF) Nexus.

This year, we have received over 250 papers from all over the world, of which 150 were selected for oral and 60 for poster presentations by our distinguished Scientific Committee. Contributions submitted as a paper or poster, will be sent to peer-reviewed journals (Environmental Technology and Environmental Quality Management) for further consideration.

We hope you will enjoy the Agro'2025 Symposium not only as a tourist but also from a scientific perspective...

With my warmest regards,

Prof. Dr. Işık Kabdaşlı Chair of Agro'2025



10-12 September 2025, İstanbul, Türkiye



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12th IWA International Symposium on Waste Management Problems in Agro-Industries

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First, we would like to express our sincere gratitude to the Turkish National Committee on Water Pollution Research and Control (SKATMK) for its continuous and intensive support of the Agro Symposiums since 1989, the birth of Agro Symposia, and especially to SKATMK President Prof. Rüya Taşlı for her invaluable support at AGRO'2025.

The Organization Committee respectfully thanks İstanbul Technical University (Türkiye) and Kyoto University (Japan) for the valuable supports in the organization of the AGRO'2025 Symposium. The Organizing Committee would like to express its sincere gratitude to Prof. Hiroshi Tsuno, who chaired the first AGRO symposium held in Japan, in 2001 and initiated Turkish-Japanese cooperation at the symposium.

We would like to extend its sincere gratitude to Professor Taku Fujiwara for his continuous support of the AGRO symposiums as both chair and vice-chair since 2014. His dedicated leadership has played a key role in fostering and strengthening the friendship between Japan and Turkey. The Organization Committee would like to express our sincere gratitude to all of our Japanese colleagues, especially Professor Hideaki Nagare, for their continued support at AGRO 2025, as well as at previous AGRO symposiums.

The Organization Committee is especially grateful to our dear colleague and friend, Bülent Solmaz, Deputy Head of the İstanbul Sewage and Water Administration (İSKİ), for his kind support of the AGRO'2025 Symposium.

A very huge and respectful thank you also to the Gold (AON Construction and GNR Altyapı İnşaat A.Ş.), Silver (Scientific and Technological Research Council of Türkiye (TUBITAK), Metawater Co., Ltd., Kanadevia Corporation, and Kubota Corporation), bronze (Su Vakfı, Baltech Green Technology, and Maezawa Industries, Inc.) Institutional Sponsor (İski) Coctail & Gala Dinner Venue Sponsor (Divan İstanbul) sponsors of Agro'2025 Symposium. Without their financial support this event would not have been successfully accomplished.

The Organization Committee wishes to appreciate the Scientific Committee Members for their inherent dedication and quite difficult job to criticize, evaluate and select all the five-star oral and poster contributions to the symposium.

Finally, the Organization Committee would like to acknowledge all participants and discussants for their valuable contributions. Without them, this unique event would not have been as successful.



























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Oral Presentations

Presentation rooms will be equipped with a data projector and screen, sound system, microphones for speakers and the audience, a handheld microphone for the session chair, a laptop for PowerPoint presentations, and a laser pointer.

Technical personnel will be available nearby to assist presenters. Each presentation is strictly limited to 10 minutes, followed by a 10-minute discussion period at the end of the sessions.

Poster Presentations

Posters must be designed in portrait orientation and not exceed A0 size ($84.1 \text{ cm} \times 118.9 \text{ cm}$). The poster ID number will be placed at the top of the display board by the Organizing Committee. Participants are encouraged to engage actively with the poster displays throughout the conference. **Posters should be printed prior to arrival at the conference venue.**

Publication Information

The Book of Abstracts will be provided to all participants on a USB flash drive upon registration at the Symposium.

Registered participants presenting their work at AGRO'2025, whether as oral or poster presentations, will have the opportunity to publish full papers in the journals *Environmental Quality Management* and *Environmental Technology*. These journals have already launched a call for papers for special issues titled "Waste Management Issues in Agricultural Industries: Innovative and Sustainable Solutions (AGRO 2025)"

https://think.taylorandfrancis.com/special issues/waste management problems agro-industries/? ga=2.211092117.1082599831.1738402810-333508189.1738402810

and

https://onlinelibrary.wiley.com/page/journal/15206483/homepage/call-for-papers/si-2024-001713

The articles submitted to these special issues are currently being managed by guest editors.



2025.

10-12 September 2025, İstanbul, Türkiye

Symposium Date: The symposium will take place between September 10 and September 12,

Symposium Website: For further information and updates, please visit:

https://agro2025.itu.edu.tr/

Symposium Venue: InterContinental Istanbul, İstanbul, Türkiye

Language: The official language of the symposium is English.

Registration Fee: The registration fee includes coffee breaks, lunches, the symposium proceedings, and welcome cocktail.

Only full registration participants are included in the gala dinner. Students and young water professionals who wish to attend the gala dinner have the option of paying an additional fee.

Registration Type		Late (Until 31 August 2025)	Onsite (After 31 August 2025)
	Non IWA	700	750
High income country (HIC)	IWA	600*	650*
	YWP / Student	350*	400*
Low in some sountmy (LIMIC	Non IWA	600	650
Low income country (UMIC,	IWA	500*	550*
LMIC and LIC)	YWP / Student	300*	350*
One day registration		350	400

Please refer to the 2024 Country Classification Table to verify your classification as High-Income Country (HIC), Upper-Middle-Income Country (LMIC), Lower-Middle-Income Country (LMIC), or Low-Income Country (LIC), based on IWA's 4-tier country classification aligned with the World Bank classifications.

Participants registering as Young Water Professionals (YWP) or IWA members must provide proof of their IWA membership status for 2025.

Student & Spouse Registration Fees: Graduate and undergraduate students may register at a reduced fee upon presenting a valid student ID. One-day registration fees include access to all presentations scheduled for that day.

Payment & Confirmation: Detailed payment information is available at https://agro2025.itu.edu.tr/registration.php. Please note that on-site registrations can be paid in cash or by credit card.

Upon receipt of the full registration fee, each participant will receive a confirmation letter and invoice via email.

^{*}Reduced fees are available for IWA members with active membership status for 2025.







Prof. Maria Reis

Universidade Nova de Lisboa, Portugal

Presentation titled "Agro-Waste Valorization for Polyhydroxyalkanoates Production: Harnessing Microbial Cultures for Sustainable Solutions"



Prof. Michihiko Ike

The University of Osaka, Japan

Presentation titled "Super-Duckweed System Using Plant Growth-Promoting Bacteria for Improving Co-benefits of Water Cleanup and Biomass Production"



Prof. Dionissios Mantzavinos

University of Patras, Greece

Presentation titled "Biomass Valorization in the Context of Sustainable Engineering & Circular Economy"



Prof. Francesco Fatone

Polytechnic University of Marche, Italy

Presentation titled "Agro-Industrial Waste Biorefineries: Pilot and Demonstration Experiences in EU-Funded Projects."



Prof. Giorgio Mannina

Palermo University, Italy

Presentation titled "Frontiers in wastewater treatment: advances and perspectives for environmental sustainability"



	WEDNESDAY, 10.	09.2025
08.00 - 09.00	Registration	
	Anadolu Ha	II .
09.00 - 09.40	Opening Ceremony	
09.40 - 10.00	Keynote Speaker: Prof. Maria Reis	
10.00 - 10.20	Keynote Speaker: Prof. Michihiko Ike	
10.20 - 10.45		ffee break
	Session I-A Anadolu Hall	Session I-B Bosphorus Hall-A
	Chairs: Taku Fujiwara Işık Kabdaşlı	Chairs: Michihiko Ike Rüya Taşlı
10.50 - 11.00	Anaerobic-microaerophilic granular sludge system for ammonia retention, phosphorus recovery, and improved settleability Kotaro Kitamura, Jingyu Duan, Teppei Nitta, Megumi Kuroiwa, Shohei Riya, Taku Fujiwara, Tomoyuki Hori, Akihiko Terada	Enhanced lactic acid production through cavitation: influence of substrate loading, pretreatment time, and microbial diversity Aisha Khan Khanzada, Xianbao Xu, Ewa Zaborowska, Jacek Mąkinia
11.00 - 11.10	Meet venom found in the leachate wastewater treatment plant: macro to micro Didem Güven, Beste Kaya, Dilşad Soylu, Goksin Ozyildiz, Bünyamin Karagöz, Emine Çokgör, Fatih Çoker, Mehmet Gençosmanoğulları, Fatih Peker, Güçlü Insel	Experimental and modeling study in an agro-industry considering by-product utilization for sustainable wastewater management Cigdem Yangin-Gomec, Busem Urediler, Seferhan Yilmaz, Ozlem Karahan Ozgun
11.10 - 11.20	Phosphorus removal potential of swine wastewater activated sludge treatment effluent by crystallization willow Yasuda, Yasuyuki Fukumoto	Valorisation of seafood and dairy waste into high-value bioproducts through circular biorefineries <u>Salman Nisar</u> . Carla Maggetti, Massimiliano Sgroi, Anna Laura Eusebi, Francesco Fatone
11.20 - 11.30	Balancing nitrogen removal and N ₂ O emissions: continuous vs. intermittent aeration strategy Weronika Borowska, Olga Zajac, Monika Zubrowska-Sudol	Co-culture valorization of fermented agro-waste <u>Simge Sertgümec</u> , Elaheh Mohammadigharagoz, Mehmet Sadık Akça, Ece Polat, Elif Demirkan, Mahmut Altınbaş
11.30 - 11.40	Recovery of microalgal-bacterial consortia in cultivation system using fluidized carriers for wastewater treatment Ashikur Sarker, Yugo Takabe, Yoshikuni Hino, Taro Horino, Motoharu Noguchi	Hydrothermal humification for converting olive pomace to artificial humic acids Mona Ghaslani, Giovanna Cappai, Gianluigi Farru, Nader Marzban
11.40 - 11.50	Performance of nitrifying biofilms for ammonia removal in shrimp aquaculture Papitchaya Srithep, Piyaporn Khunrak, Sorawit Powtongsook	The impact of electrolytes on anaerobic digestion- microbial electrolysis cell (ad-mec) systems treating cattle manure Berkan Oden, Yasemin Dilsad Yilmazel
11.50 - 12.00	Pilot-scale cultivation of macroalga ulva meridionalis using treated sewage effluent: Growth characteristics and nutrient recovery Lorenzo Victor Totanes, Youhei Nomura, Masanori Hiraoka, Mitsunobu Nomura, Taira Hidaka, Taku Fujiwara	Upcycling agro-industrial waste into bio-based chemicals: Indigenous bacteria-driven volatile fatty acids production from cassava <u>Dennapa Sengmee</u> , Benjaphon Suraraksa, Pawinee Chaiprasert
12.00 - 12.10	Analyzing bacterial abundance and microbial diversity across constructed wetlands and urban landscapes Marvin John Uy. Miguel Enrico Robles, Yugyeong Oh, Md Tashdedul Haque, Leehyung Kim	Treatment of shipyard wastewater with adsorbents and design (selection) of the bag filter Özgül Taspinar, <u>D. Bülent Çift,</u> Mustafa Can Bozkurt, Ahmet Alparslan Kuzucu, Volkan Uslan
12.10 - 12.20	Discussion	Discussion
12.20 - 13.50		Lunch



15.50 - 16.00

16.00 - 16.40

Discussion

12^{th} IWA International Symposium on Waste Management Problems in Agro-Industries

10-12 September 2025, İstanbul, Türkiye



WEDNESDAY, 10,09,2025 Anadolu Hall 13.50 - 14.00 Gold Sponsor Presentation: AON Construction 14.00 - 14.20 Keynote Speaker: Prof. Dionissios Mantzavinos Session II-A Session II-B Anadolu Hall Bosphorus Hall-A Chairs: Dionissios Mantzavinos Chairs: Akihiko Terada Idil Arelan Alaton İsmail Kovuncu 14.30 - 14.40 Comparative study of UV/H₂O₂ degradation and ion Non-sterile cultivation of Chromochloris zofingiensis exchange recovery for MEA wastewater treatment using refrigerated secondary-treated wastewater Hung-Yee Shu, Ming-Chin Chang, Chen-Tai Huang Satoshi Akao. Yohei Matsumoto. Hideaki Nagare 14.40 - 14.50 Applications and implications of the color parameter Production of volatile fatty acids as platform valuein textile industry wastewater treatment: A review added products from food processing residues Isık Kabdaslı, İdil Arslan-Alaton Isaac Owusu-Aqveman, Margherita Bechi, Zevnep Cetecioglu 14.50 - 15.00 Occurrence, environmental risks, and control An approach to dominant culture of the microalga measures of multiclass antibiotics in aquaculture Haematococcus lacustris for treatment of hydroponic water of Bangladesh effluent and value creation Umma Salma, Anwar Hossain, Md. Shafiujjaman. Hideaki Nagare, Chiharu Ishikawa, Takanori Yuri Nishimura, Masahiro Tokumura, Rumi Tanoue, Masuda, Tan Nhut Huynh, Satoshi Akao, Yugo Tatsuya Kunisue, Kozo Watanabe, Mohammad Takabe Raknuzzaman, Kazushi Noro, Takashi Amagai, Masakazu Makino 15.00 - 15.10 Economic analysis of highly saline pickle brine Smart control methods for industrial wastewater heat recovery in Zambian food processing waste into polyhydroxyalkaonate production by mixed microbial culture Madhu Krishna Murali, Eleanor Mancusi-Ungaro, Gülsüm Emel Zengin, Emine Cokgor, Nevin Yagci, Aonghus McNabola Hakan Dulkadiroğlu, Goksin Ozyildiz, Didem Güven, Güçlü İnsel 15.10 - 15.20 Microbial inactivation using TiO2/Cu fabricated Establishment of a hybrid electrolysis method for sheets for sustainable water reuse in irrigation phosphorus precipitation and sludge thickening Yugo Takabe, Kotaro Ida Sovannlaksmy Sorn, Chiren Matsumoto, Shuta Nakagawa, Akihiko Chikamatsu, Masao Ito, Youhei Nomura, Taku Fujiwara, Shuji Fukahori, Masuru Ihara 15.20 - 15.30 Effect of hydrochar and pyrochar on chain elongation Valorisation of vinasse to single cell protein via twostage acidogenic and aerobic fermentations process in a novel yeast-bacteria microbiome Hatice Taspinar Demir, U. Cem Derman, Mustafa Xianbao Xu, Y. Ma, X. Li, Jacek Makinia 15.30 - 15.40 Investigating anaerobic degradation of deproteinized Enhancing hydrogen and vivianite recovery from natural rubber wastewater enhanced by sodium waste activated sludge via electro-fermentation dodecyl sulfate and magnetite assisted by iron anode Duc Minh Tran, Takahiro Watari, Thu Huong Zhihong Liu, Zhengtong Guo, Dengfei Li, Xiuping Nguyen, Phuong Thao Tran, Hong Dao Nguyen Yue, Aijuan Zhou Pham, Masashi Hatamoto, Lan Huong Nguyen, Takashi Yamaguchi 15.40 - 15.50 Phosphorous recovery from source segregated Valorization of second cheese whey for lactic acid human urine by vivianite precipitation production via mixed microbial culture fermentation Işık Kabdaşlı, Nergis Dilsizoglu Akyol, Tiziana Fabiano Asunis, Luca Attene, Giorgia De Gioannis, Andreoli, Goksin Ozyildiz, Alessio Siciliano Aldo Muntoni

Discussion

Coffee break





	WEDNESDAY, 10.09.2	2025
	Anadolu Hall	
16.40 - 16.50	Silver Sponsor Presentation: METAWATER Co., L	.td.
	Session III-A Anadolu Hall	Session III-B Bosphorus Hall-A
	Chairs: Francesco Fatone Nevin Yağcı	Chairs: Aijuan Zhou H. Güçlü İnsel
17.00 - 17.10	Modified rice husk biochar for sustainable nitrogen removal from wastewater: Application evaluation and regional feasibility Jiayuan Ji, Yuichiro Kanematsu, Masanori Takemoto, Raquel Simancas, Toru Wakihara, Yasunori Kikuchi	GasAbate treatment reduces gaseous emissions and retains the biogas and fertiliser potential of stored pig and cattle manures Dermot Hughes, Stephen Nolan, Camilla Thorn, Michael McDonagh, Ruairi Friel, W O'Neill, Jason Chin, John McGrath, Paul Williams, Vincent O'Flaherty
17.10 - 17.20	Two-stage anaerobic digestion process of orange processing waste "pastazzo": Hydrogen & methane production and microbial community Silvia Rosa, <u>Giuseppe Lembo</u> , Luca Ruggiero, Antonella Signorini, Eleonora De Santis, Elio Fantini, Loretta Daddiego, Loredana Lopez, Antonella Marone	Optimization of Chlorella vulgaris and Bacillus sp. co- culture for enhanced algal biomass production Gamze Ceylan-Perver, Elaheh Mohammadigharagoz, Simge Sertgumec, Sinan
17.20 - 17.30	Full-scale study on high-rate low temperature anaerobic digestion of agro-food wastewater Y.C. Liu, L. M. Paulo, V. O'Flaherty	Nature-based solutions for urban heat island mitigation and carbon storage in urban environments Md Tashdedul Haque, Lee -Hyung Kim
17.30 - 17.40	Recycling dam sediment into soil for antioxidant- enhanced plants <u>Tsukasa Ito</u> . Yuta Oike, Gaku Ishikura	Effect of Fenton's reagent on the degradation and biogas production potential of reactive 4 dye wastewater [dil Arslan-Alaton, Elif Zeynep Deneri, Cigdem Yangin-Gomec
17.40 - 17.50	Evaluation of biodegradable chitosanalginate hydrogels as a controlled-release fertilizer for sustainable wheat cultivation Muhammed Furkan Aras, Selin Taskin, Sayed Ali Naziri Mehrabani, Mehmet Isik, Mehmet Emin Pasaoglu, Hilal Gubbuk, Berra Buyukucar, Ismail Koyuncu	Transition toward quaternary treatments: innovative living membrane bioreactor for microplastic removal Marika Carnesi, Antonio Mineo, Vincenzo Naddeo, Antonio Palumbo Piccionello, Carla Rizzo, Giorgio Mannina
17.50 - 18.00	Start-up of a biphasic expanded granular sludge bed reactors for pig slurry treatment and biogas production: A pilot scale study Antonio J. Aragón-Barroso, Manuel Gallardo-Altamirano, Antonio Castellano-Hinojosa, Alejandro González-Martinez, Jesús González-López, Francisco Osorio	Evaluation of Anaerobic Digesters for Reducing Odor and Non-CO ₂ GHG Emissions in Pig Farms <u>Hyojin Cho</u> , Chang Soo Kim, Nak Seung Sung, Seong Hoon Hong, Dahyun Ha, Seong Wook Oa
18.00 - 18.10	Discussion	Discussion
19.00 - 22.00		COCKTAIL
	Presidential Sui	te, Divan İstanbul

12th IWA International Symposium on Waste Management Problems in Agro-Industries



	THURSDAY, 11.0	9.2025
08.00 - 09.00	Registration	
	Session IV-A Anadolu Hall	Session IV-B Bosphorus Hall-A
	Chairs: Mahmut Altınbaş Satoshi Nakai	Chairs: Banu Örmeci Tatianne Ferreira de Oliveira
09.00 - 09.10	Effect of SRT on microaerobic activated sludge process for ammonia retention from actual fermentation industrial wastewater Xinyi Zhou, Taku Fujiwara, Akihiko Terada, Tomoyuki Hori, Taira Hidaka, Fumitake Nishimura, Tomohiro Nakanishi	Circular reuse of all components of an agro-industrial effluent Boudewijn Meesschaert
09.10 - 09.20	Modeling nickel impact on enriched nitrifying microbial culture using Microbial Transition State (MTS) and activated sludge model Tugce Katipoglu-Yazan, Dilşad Soylu, Güçlü İnsel	From agroindustrial residues to hydrochar: characterization and energy properties Gianluigi Farru, Mona Ghaslani, Giovanna Cappai
09.20 - 09.30	Uncertainty analysis in the measurement of nitrification kinetics in urban wastewater treatment plants Berker Leblebici, <u>Güçlü Insel</u> , Didem Güven, Tuğçe Katipoğlu Yazan, Emine Çokgör	Effect of magnesium concentration on <i>Dunaliella salina</i> growth using human urine as a medium Yasemin Akdag, <u>Hazal Gulhan</u> , Cigdem Demirer, Mustafa Evren Ersahin, Hale Ozgun, Huseyin Guven
09.30 - 09.40	Cultivation of Aurantiochytrium sp. using pickle seasoning liquid wastes and its repeated utilization for production of polyunsat Anh Thi Nhat Tran, Radita Putradhitama Novanda, Satoshi Nakai, Toshikazu Suenaga, Wataru Nishijima, Takehiko Gotoh	Recovery and characterization of cellulose nanofibers from primary sludge: A case study at Kayseri municipal wastewater treatment Yusuf Ersan, Ayse Gul
09.40 - 09.50	Ammonium ion removal in segregated fluidized beds: Effects of flow rate and number of segregated layers <u>Gulay Arslan Cene</u> , Elif Soyer	Bioelectrochemical recovery of saline and nitrate- contaminated groundwater within a circular economy approach Seyedmehdi Hosseini. Sebastià Puig, Alba Ceballos- Escalera, Alessandra Carucci, Stefano Milia
09.50 - 10.00	Algal growth in ion-exchange pretreated human urine: Effects of different coagulants on harvesting efficiency and protein content <u>Yasemin Akdag</u> , Buket Hatice Engel, Busranur Ozdere, Gamze Ceylan-Perver, Mehmet Sadik Akca, Mahmut Altinbas, Ismail Koyuncu, Huseyin Guven, Mustafa Evren Ersahin, Hale Ozgun	Synthesis of cobalt aluminate and usage as catalyst in pet recycle <u>Ece Tunca</u> , Enis Gül, Sefa Kemal Mandal, Fatma Tugçe Senberber Dumanli, Emek Derun
10.00 - 10.10	Co-cultivation of four microalgal species with activated sludge for municipal wastewater treatment and biomass production Aulia Maulana, Kazuhiro Mori, Tadashi Toyama	Energy potential and environmental assessment on application of pig and cattle manure as solid fuels <u>Eun Seong Lee</u> , Seonghoon Hong, Dahyeon Ha, Nakseung Sung, Junsoo Ha, Seong Wook Oa
10.10 - 10.20	Discussion	Discussion
10.20 - 10.50	Co	offee break



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10-12 September 2025, İstanbul, Türkiye

11.30 - 11.40	vith local waste reduction <u>Tanikawa,</u> Chisa Ishihara	Session V-B Bosphorus Hall-A Chairs: Monika Żubrowska-Sudoł Hung-Yee Shu A zero-waste strategy for effluent remediation and beneficiation in small wineries Pamela Welz, Gareth Holtman, Rainer Haldenwang, Walusungu Kaira Energy assessment of a novel biorefinery concept to recover biofuel and biomethane from food waste Ewa Zaborowska, Hubert Byliński, Sylwia Fudala- Książek
11.30 - 11.40	Speaker: Prof. Francesco Fatone Session V-A Anadolu Hall Chairs: Satoshi Akao Çiğdem Eskicioğlu e assessment of barley as cattle feed: nanagement strategies k, Burcin Atilgan Turkmen, Fatos Germirli Gulen Iskender hell utilization for optimization of aquaponics with local waste reduction Tanikawa, Chisa Ishihara	Session V-B Bosphorus Hall-A Chairs: Monika Żubrowska-Sudoł Hung-Yee Shu A zero-waste strategy for effluent remediation and beneficiation in small wineries Pamela Welz, Gareth Holtman, Rainer Haldenwang, Walusungu Kaira Energy assessment of a novel biorefinery concept to recover biofuel and biomethane from food waste Ewa Zaborowska, Hubert Byliński, Sylwia Fudala- Książek
11.30 - 11.40 Life cycl Waste m	Session V-A Anadolu Hall Chairs: Satoshi Akao Çiğdem Eskicioğlu e assessment of barley as cattle feed: nanagement strategies k, Burcin Atilgan Turkmen, Fatos Germirli Gulen Iskender hell utilization for optimization of aquaponics with local waste reduction Tanikawa, Chisa Ishihara	Bosphorus Hall-A Chairs: Monika Żubrowska-Sudoł Hung-Yee Shu A zero-waste strategy for effluent remediation and beneficiation in small wineries Pamela Welz, Gareth Holtman, Rainer Haldenwang, Walusungu Kaira Energy assessment of a novel biorefinery concept to recover biofuel and biomethane from food waste Ewa Zaborowska, Hubert Byliński, Sylwia Fudala- Książek
Waste m Enes To Babuna, 11.40 - 11.50 Oyster s system v Daisuke 11.50 - 12.00 Degrada electro-c	Anadolu Hall Chairs: Satoshi Akao	Bosphorus Hall-A Chairs: Monika Żubrowska-Sudoł Hung-Yee Shu A zero-waste strategy for effluent remediation and beneficiation in small wineries Pamela Welz, Gareth Holtman, Rainer Haldenwang, Walusungu Kaira Energy assessment of a novel biorefinery concept to recover biofuel and biomethane from food waste Ewa Zaborowska, Hubert Byliński, Sylwia Fudala- Książek
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system v <u>Daisuke</u> 11.50 - 12.00 Degrada electro-c	vith local waste reduction <u>Tanikawa,</u> Chisa Ishihara	recover biofuel and biomethane from food waste <u>Ewa Zaborowska</u> , Hubert Byliński, Sylwia Fudala- Książek
electro-c		
	ation of diclofenac from aqueous solution by oxidation using different anode materials <u>Garazade</u> , Hilal Ilhan, Gülay Arslan Çene, can Güven, Senem Yazici Guvenc, Gamze	Response of microbial interactions in hybrid biofilm system with low organic loading to micropollutant removal Gulsum Emel Zengin, Roya Dadkhah, Dilsad Soylu, Ilke Pala-Ozkok, Didem Güven, Goksin Ozyildiz, Berkay Uçan, Güçlü İnsel, Emine Çokgör
living me compreh Dilsad S	ional activated sludge with ultrafiltration vs embrane bioreactor systems: A iensive comparison oylu, <u>Antonio Mineo</u> , Marika Carnesi, o Naddeo, Jie Jiang, Giorgio Mannina	A water circularity index for agro-industries products Geneve Farabegoli, Anabela Rebelo
12.10 - 12.20 Selective biominer Rabia Ki	e nickel recovery from PCBs through ralization induced by biogranules <u>onakel, Kadir Şekercioğlu, Murat Pekcan,</u> ağatay Erşan	Removal of ammonia/ammonium ions by ozone in bromide-containing artificial seawater for recirculating aquaculture systems (RAS) <u>Tadao Mizuno</u> , Aoi Miyake, Yuu Sumita, Tetsumi Ochi
for pollui Rwanda <u>Valens I</u> Antoine	H <u>abimana,</u> Jean Chrisostome Ufitinema, Nsabimana, Gunaratna Kuttuva Rajarao	Microalgae-based nitrogen removal form swine wastewater treatment <u>Pattaraporn Kunapongkiti</u> , Papitchaya Srithep
an agric modeling <u>Clément</u> Trombet	Romand, Timothe Depelchin, Matthieu ti, Caroline Bouchet	Unlocking bioenergy pathways from crop residue and manure in Türkiye to support circularity within the water-energy-food nexus <u>Ece Demir</u> , Emre Alp
12.40 - 12.50 Discussi	on	Discussion



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	THURSDAY, 11.09.20	25
	Anadolu Hall	
14.20 - 14.30	Silver Sponsor Presentation – Kanadevia Corpora	ation
14.30 - 14.50	Keynote Speaker: Prof. Giorgio Mannina	
	Session VI-A	Session VI-B
	Anadolu Hall	Bosphorus Hall-A
	Chairs: Maria Reis Giorgio Mannina	Chairs: Seong-Wook Oa Emine Çokgör
15.00 - 15.10	Adsorption of ammonium and phosphorus by biochar produced by co-pyrolysis of solid digestate and egg shell Shohei Riya, Kouta Sakihara, Manoj Kumar Jena, Chihiro Fushimi, Akihiko Terada	Seasonal variation of microplastics in wastewater treatment plant sludges and implications for agricultural use Nimitha Choran, Banu Ormeci
15.10 - 15.20	Concept of a cascade hydroponic system contributing to nitrogen circulation and circular economy in greenhouse horticulture <u>Taku Fujiwara</u> . Masaru Ihara, Youhei Nomura, Shuji Fukahori, Daisuke Kozaki, Yuki Sago, Daisuke Yasutake, Ayumu Onda, Masanori Hiraoka, Hideaki Nagare, Satoshi Akao	Stepwise temperature shift from mesophilic to thermotolerant enhances microbial adaptation and biogas production Tsuyoshi Imai, Gede Adi Wiguna Sudiartha
15.20 - 15.30	Assessment of an innovative water resource recovery plant configuration in accordance with the biorefinery concept Yagmur Nazdar Kacmaz, Canberk Diler, İlkim Gürel, Yesim Askin, Tevhide Erusta, Serife Korpe, Öykü Yesilbas, Yaren Ergezen, Ayca Ozyaz, Seferhan Yilmaz, Özlem Karahan Özgün	Application of artificial intelligence to sludge dewatering for the optimization of flocculant dosage <u>Pengzhe SUI</u> . Junta Takahashi, Santisak Kitjanukit, Yasuko Shinjo, Kazuaki Shimamura
15.30 - 15.40	Development of a GIS tool for assessing nitrate contamination risk in groundwater: Gediz basin case study <u>Cihangir Aydöner</u> , İrfan Yolcubal, Şebnem Aynur Koyunluoğlu, Yusuf Kurucu, Bihter Çolak Esetlili, Toga Esetlili, Yusuf Gürbüz, Orhan Sezgin, İpek Özenc, Pınar Hısır	Thermochemical processes as an alternative to conventional sludge management practices: A life cycle assessment study Matia Mainardis, F. Gievers, A. Catenacci, A. Loewen, D. Goi, M. Nelles
15.40 - 15.50	Innovative biofilter design with OPEFB-Activated carbon for sustainable tofu wastewater treatment Sri Suhartini. Alya Vinurila, Nimas Mayang Sabrina Sunyoto, Andhika Putra Agus Pratama, Novita Ainur Rohma, Ika Atsari Dewi, Widya Fatriasari, Young Hoon Jung, Lynsey Melville	Searching for a method of sewage sludge pretreatment to improve the efficiency of the anaerobic digestion process <u>Katarzyna Sytek-Szmeichel</u> , Justyna Walczak, Monika Żubrowska-Sudoł
15.50 - 16.00	Agricultural irrigation water and struvite recovery from AnMF-OMBR and UASB MF-OMBR systems Sumeyye Hasanoglu, Dilara Akyildüz, Ilknur Yalcin Guney, Zeren Beril Gönder, Gulsum Yilmaz, Ilda Vergili, Coskun Aydiner, Yasemin Kaya	Hydrothermal liquefaction of biological nutrient removal sludge: Bio-crude oil production and by-product valorization Farid Alizad Oghynous, Cigdem Eskicioglu
16.00 - 16.10	Kinetic evaluation of acute and chronic impact of bisphenols on activated sludge systems using respirometry Mathias Sandvik, Ilke Pala-Ozkok	Investigation on behavioral adaptation of methanogens in the thermotolerant range around 45°C Riho Takahashi, Tsuyoshi Imai
16.10 - 16.20	Estimation of the pollutant load from livestock runoff in arid region Monica Perez-Sane, Jaime Lara-Borrero	A sustainable approach to the treatment of textile reverse osmosis concentrate using the photo-Fenton process Gamze Canbakal, Oyku Nur Ersoz, Gulay Arslan Cene, Senem Yazici Guvenc, Emine Can Guven, Gamze Varank
16.20 - 16.30	Discussion	Discussion
16.30 - 17.00	Coffe	e break



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	THURSDAY, 11.09.20	25
	Session VII-A Anadolu Hall Chairs: Sri Suhartini Hideaki Nagare	Session VII-B Bosphorus Hall-A Chairs: Pamela Welz Seval Sözen
17.00 - 17.10	How can anaerobic digestion of agricultural wastes contribute to mitigating renewable energy variability? <u>Taira Hidaka</u> , Masato Nakamura, Shuh Matsuda, Fumiko Oritate, Mutsumi Fujita	Enhanced carboxylic acids conversion from waste activated sludge fermentation via sulfate reduction-mediated syntrophic consortia <u>Aijuan Zhou</u> , Yaxin Fan, Hongyan Liu, Xiuping Yue
17.10 - 17.20	Impact of sludge age on nitrification and carbon removal in a membrane bioreactor treating textile wastewater Tulay Yilmaz, Emine Cokgor, Emir Kasım Demir, Gulfem Asik, Senem Teksoy Basaran, Seval Sozen, Erkan Sahinkaya	Sustainable biosynthesis of caproate from waste activated sludge via electro-fermentation <u>Dengfei Li</u> , Shuanglan Cheng, Zhihong Liu, Aijuan Zhou, Xiuping Yue
17.20 - 17.30	A combined fate and effect study to explore the impact of wastewater derived human pharmaceuticals on soil gas emissions Narmin Garazade, John Nightingale, Andrea Garduño Jiménez, David Ashley, Santiago Clerici, Paul Kay, Laura Carter	Harnessing surplus renewable energy: Co-digestion and hydrogen injection in the BSM2 model Saba Aghdam Tabar, Usman Safder, Sarah Cotterill, Recep Kaan Dereli
17.30 - 17.40	Techno-economic analysis of an integrated ABE fermentation and microalgae technology for valorisation of cheese whey Michael Hananta Utomo, Recep Kaan Dereli, Ronald Halim	Harvesting microalgae Chlorella sorokiniana by dual- polymer flocculation with chitosan and sodium polyacrylate Akiho Yonezawa, <u>Ryosuke Homma</u> . Tao Wang, Tetsuya Yamamoto, Masaki Takaoka, Kazuyuki Oshita. Hideki Kanda
17.40 - 17.50	Full-scale cultivation of macroalga <i>Ulva prolifera</i> using hydroponic effluent <u>Youhei Nomura</u> , <i>Masanori Hiraoka</i> , <i>Taku Fujiwara</i>	Improving swine manure treatment performance with cow manure biochar: Focus on nitrification, denitrification, and composting Jeon Jae Ock, Hyo Jin Cho, Changsoo Kim, Jungwoo Son, Seong Wook Oa
17.50 - 18.00	Acute impact of SMX, TET, and ERY on enriched nitrifying system kinetics: A comparison with mixed microbial culture Tugce Katipoglu-Yazan, Emine Ubay-Cokgor, Derin Orhon	Water quality impacts of hydroponic farm effluent in receiving water bodies <u>Eun Seong Lee</u> , Changsoo Kim, Jungwoo Son, Junsoo Ha, Seong Wook Oa
18.00 - 18.10	Discussion	Discussion
19.00 - 00.00		DINNER an, Divan İstanbul

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	FRIDAY, 12.09.2025
08.00 - 09.00	Registration
	Session VIII
	Anadolu Hall
	Chairs: İlke Pala Özkök - Takashi Yamaguchi
09.00 - 09.10	Challenges in developing industrial water management strategies for metropolises with agro-industries:
	Case of İstanbul <u>Fatos Germirli Babuna</u> , Ayse Gül Tanik, Omer Lutfi Sen, Gokhan Cuceloglu, Guclu Insel, Turker Turken, Elif Zeynep Deneri, Serra Selin Ovez, Cansu Delibas, Erbil Buyukbay, Izzet Ozturk
09.10 - 09.20	Utilizing agro-waste for sustainable construction materials and retrofitting strategies <u>Firdevs Sezer</u> , Burcin Atilgan Turkmen, Fatos Germirli Babuna
09.20 - 09.30	Novel circular utilization of agricultural waste: From rice straw and livestock manure to single cell protein feed
09.30 - 09.40	<u>Tianxianq Xu.</u> Yui Kazuta, Megumi Kuroiwa, Shohei Riya, Akihiko Terada Impact of pig farming on the groundwater environment from long-term observation data and its improvement <u>Tomijiro Kubota</u> , Hidemi Wakikado, Ichiro Uezono, Masato Katsuda, Shoichi Tanaka
09.40 - 09.50	Life cycle assessment of fresh and dried apricot production
09.50 - 10.00	<u>Seda Hatun Uluzlu</u> , Burçin Atilgan Türkmen, Fatoş Germirli Babuna Enhanced biomass production by co-culturing <i>Chlamydomonas reinhardtii</i> and growth-promoting bacteria
10.00 - 10.10	Yuge Bai, Kazuhiro Mori, Yasuhiro Tanaka, Tadashi Toyama Enhancing methane recovery from recirculating aquaculture system sludge under salinity stress using
10.00 - 10.10	biochar and zeolite Abdullah Bugra Senol, Linn Solli, Wietske Annechien Stel, John Morken, Nazli Pelin Kocatürk Schumacher
10.10 - 10.20	Environmental sustainability of artichoke canning with nutritional perspective
10.20 - 10.30	Hulya Sahin Akkurt, Bilge Bas, Gulen Iskender, Fatos Germirli Babuna Advanced biofiltration for odor and VOC removal in solid waste facilities: Media innovation and field results
10.30 - 10.40	Mahdi Jemel, <u>Clément Romand</u> , Arantxa Bombol Rodríguez Peroxi-coagulation process as an effective treatment for textile industry wastewater: optimization,
	biodegradability and cost Beyza Balikcioglu, <u>Irem Ozen,</u> Senem Yazici Guvenc, Emine Can Guven, Gamze Varank
10.40 - 10.50	Discussion
10.50 - 11.30	
10.50 - 11.50	Coffee break
10.50 - 11.50	Session IX Anadolu Hall
10.30 - 11.30	Session IX
11.30 - 11.40	Session IX Anadolu Hall Chairs: Fatoş Germirli Babuna - Vincent O'Flaherty Anaerobic digestion of oil palm empty fruit bunches: Effect of biological pre-treatment Sri Suhartini, Novita Ainur Rohma, Irnia Nurika, Efri Mardawati, Kasbawati Kasbawati, Lynsey Melville,
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12th IWA International Symposium on Waste Management Problems in Agro-Industries =

10-12 September 2025, İstanbul, Türkiye



POSTER PRESENTATIONS WILL BE HELD BETWEEN 10 - 11 SEPTEMBER 2025, PARALLEL TO ORAL SESSIONS

Bosphorus Hall-B Poster Presentations - Wednesday, 10.09.2025

Anaerobic digestion of sludge and agricultural processing residues in small-scale wastewater treatment plants Masato Nakamura, Shibata Hirohiko, Fumiko Oritate, Noriyuki Kamachi

Enhanced short chain fatty acid production assisted by nitrate photolysis during sludge fermentation Xiuping Yue, Yun Lu, Zhihong Liu, Dengfei Li, Aijuan Zhou

Applicability of bivalve shells to electrochemical systems for enhancing phosphorus precipitation Tatsuaki Satoh, Yugo Takabe, Fumitake Nishimura

Exploring polyphenol content in olive leaf waste: Effect of geographical, seasonal, and varietal differences Aina Mir-Cerdà, Raúl García-García, Mercè Granados, Sonia Sentellas, Javier Saurina

Arna Mir-Cerda, Raul Garcia-Garcia, Merce Granados, Sonia Sentellas, Javier Saurina
Innovative food packaging: Active films from alginate/cellulose nanofibers with olive leaf NADES extracts
Aina Mir-Cerdà. Sonia Sentellas. Javier Saurina. Yeni A. Paredes-Padilla. Sergio Benavides. Mirvams Millán-Fritz. Rodrigo

Segura, Patricia Castaño, Gustavo Cabrera-Barjas

Comparative RNA/DNA analysis of the impact of influent microorganisms on MBR-Activated Sludge

Hinata Higuchi, S. Terada, S. Nagatsuma, C. Kudou, Takahiro Watari, Takashi Yamaguchi, Masashi Hatamoto Distribution of GHG emissions from production to wastewater treatment process of natural rubber products in Vietnam Hong Dao Nguyen Pham, Takahiro Watari, Nhu Nguyet Phan, Minh Duc Tran, Lan Huong Nguyen, Masashi Hatamoto, Kazuaki Svutsubo, Takashi Yamaguchi

Improvement of sewage sludge fertilizer quality through co-digestion with tofu residue Taketo Togari. Norihisa Matsuura. Taira Hidaka. Rvoko Yamamoto-Ikemoto

Optimized photocatalytic degradation of Congo Red using ZnO and LaO nanoparticles synthesized with laurel extracts Meriem Zamouche. Sabrina Mechati. Ferial Diemaa. Deneche Lina Loudieine. Chahinez Kadri. Hichem Tahraoui

Sustainable recovery of 3-hydroxytyrosol from olive oil waste using flash chromatography

Adrià Perez-Amor, Ruben Titos, Monica Reig, Jose L. Cortina, Javier Saurina, Jose L. Beltran, Merce Granados, Sonia Sentellas

Circular bioeconomy: Recovery of bioactive compounds from hop leaves

Pau Lorente, Oscar Nuñez, Merce Granados, Javier Saurina. Sonia Sentellas

Optimization of bioactive compound extraction from cocoa bean shell using green solvents SK Fahim Tahmid Boni. Sonia Sentellas. Javier Saurina

A sustainable approach to enhance water reuse in a closed RAS bred with *Clarias Gariepinus* using a biological DHS

System Nur Adlin, Norfariza Ab Wahab, Nurul Fariha Lokman, Ahmad Zaid Arshad, Muhammad Naim Badaruddin, Suhaila Mohd Naiib. Samadhi Wandana. Takahiro Watari. Takashi Yamaquchi

Non extractable phenolic compounds in olive leaves: Assessing hydrolysis methods Paulina Tapia-Quiros, Aina Mir-Cerdà, Mercè Granados, Sonia Sentellas, Javier Saurina

Agricultural non-point source pollution control using agro-waste-derived biochar and its carbon emission reduction benefit Ya-Zhen Huang. Chihhao Fan

Nitrogen mineralization modeling of sewage sludge fertilizers with acid detergent soluble organic nitrogen analysis

Hirotaka Ihara, Masato Nakamura, Fumiko Oritate, Mutsumi Fujita, Toyohisa Miyamoto, Keita Takahashi, Taira Hidaka

Utilization of agricultural waste in the development of sustainable bio-composite brake pads: An experimental study on

Abdulkadir Unal

Downflow Hanging Sponge (DHS) reactor with immobilized biochar for complete nitrogen removal in recirculated aquaculture system

Samadhi Wandana, Nur Adlin, Takahiro Watari, Masashi Hatamoto, Takashi Yamaquchi

Influence of acid fermentation liquid compositions on PHBV production by waste activated sludge-derived mixed microbial culture

Daisuke Inoue, Shunsuke Hirai, Akihide Sugawara, Yasunao Okamoto, Gen Yoshida, Michihiko Ike

Potential valorizations of brewery by-products for food packaging materials

Buse Sezer, Gurbuz Gunes

Real-time monitoring and data-driven modeling of greenhouse gas emissions from horticultural soil

Morihiro Maeda, Miyu Sazuka, Wataru Shiraishi, Makito Mori, Daisuke Yasutake, Satoshi Akao, Taku Fujiwara

Application of pumice stone waste as biofilm carrier in MBBR Systems: Impacts on wastewater treatment and color removal in the denim industry

Berrak Torusdag, Goksin Ozyildiz, Derin Orhon, Seval Sozen



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Bosphorus Hall-B

Poster Presentations - Thursday, 11.09.2025

Effective start-up of microaerobic activated sludge process to convert nitrogen components in industrial wastewater to ammonia

Kengo Momiuchi, Tomo Aoyagi, Takuma Suzuki, Tomoyuki Hori, Hidehiro Sugiura

Neutralizer selection and excess sludge utilization in microaerobic activated sludge system to convert wastewater nitrogen to NH₄⁺

Tomo Aoyagi, Akihiko Terada, Tomoyuki Hori

Activated carbons from Baru (Dipteryx Alata Vog) waste impregnated with copper oxide: Application in the post-harvest preservation

Hector Valdes, Ana Carolina de Jesus Oliveira, Tatianne Ferreira de Oliveira

Utilization of pomace waste for sustainable DHA production via unsterile cultivation of *Aurantiochytrium* sp. L3W Brilian Pamungkas. Gen Sasaki. Satoshi Nakai. Toshikazu Suenaga. Takehiko Gotoh. Wataru Nishiiima

High value-added technologies for biofertilizer derived from dairy manure

Anju Urabe, Masahiro Tokumura, Yoshiro Kawashima, Naoyoshi Komuro, Keiji Wakabayashi, Masakazu Makino

Environmental risk screening of recycled plastics using a quantitative non-targeted analytical approach Masahiro Tokumura, Sota Sakai, Takeshi Enomoto, Kouichi Tatsu, Naohide Shinohara, Masakazu Makino

Lactic acid and PLA bioplastic production from sustainable substrates by *Lactobacillus acidophilus*Duyau Mutlu, Seymen Guzelordu, Taha Burhan Olker, Fikret Dogac Gundoadu, Ece Polat, Mahmut Altinbas

Changes in water quality and greenhouse gas emissions in a pond system for treatment of Palm Oil Mill Effluent (POME) Takashi Onodera, Yoshiyuki Takahashi, Kazuya Nishina, Ryuichi Hirata, Joseph Waili, Frankie Kiew, Guan Wong, Lulie Melling

Production of polyunsaturated fatty acids by culturing a thraustochytrid using a brown alga *Sargassum*Miki Hatanaka, Satoshi Nakai, Anh Thi Nhat Tran, Toshikazu Suenaga, Takehiko Gotoh, Wataru Nishijima, Hiromichi
Suzuki

Calorific value of pellets produced from baru (Dipteryx Alata Vog.) waste

Tatianne Ferreira De Oliveira, Zamira Abel d de Jesus Maria, Ana Carolina de Jesus Oliveira, Fernando Pereira de Sá

Dynamics of operational parameters in aerobic biodigestion of Baru (Dipteryx Alata Vog.) waste

Flavio Alves Da Silva, Zamira Abel de Jesus Maria, Ana Carolina de Jesus Oliveira, Fernando Pereira de Sá, Tatianne Ferreira de Oliveira

Environmental burdens of potato cultivation

Enes Tok, Burcin Atilgan Turkmen, Fatos Germirli Babuna, Gulen Iskender

Environmental sustainability of reactive dye containing textile wastewater treatment through peroxide-assisted ozonation Kubra Dogan, Burcin Atilgan Turkmen, Idil Arslan Alaton, Fatos Germirli Babuna

Modeling biogas production from high-rate activated sludge system treatment sludge

Yesim Askin, Tevhide Erusta, Serife Korpe, Ayca Ozyaz, Büsra Yesilyurt, Seferhan Yilmaz, Özlem Karahan Özgün

From wastewater to value: Phosphorus recovery in the circular economy

Yagmur Nazdar Kacmaz, Canberk Diler, İlkim Gürel, Seferhan Yilmaz, Özlem Karahan Özgün

PHA production from waste activated sludge using mixed microbial cultures integrated with high-rate activated sludge systems

Öykü Yesilbas, Yaren Ergezen, Seferhan Yılmaz, Özlem Karahan Özgün

Facile preparation of carbon-modified magnetic nanoparticle derived from iron sludge for removal of organic matter in wastewater

Huiping Zeng, Dong Li

As(V) removal by starch-coated magnetite nano-adsorbent based on waste iron sludge Dong Li, Huiping Zeng

Sustainable biogas production from macrophytes in the era of the green transition Emine Gözde Özbayram, Dilek Özyurt, Latife Köker, Tunahan Özdemir, Reyhan Akçaalan, Meriç Albay

Innovative approaches to agrofood biowaste digestion for energy recovery maximization Andrea Capodaglio, Brice F. Kana, Arianna Callegari

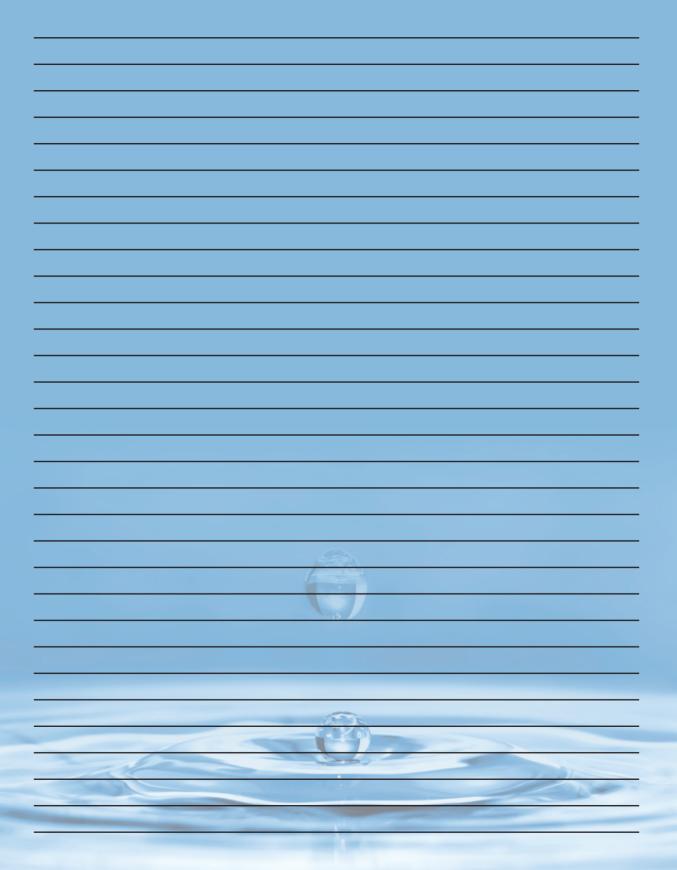
Organic load-driven correlations of microbes, elements and chemicals in anaerobic digester revealed by Bayesian network Masahiro Honjo, Tomo Aoyagi, Tomoyuki Hori

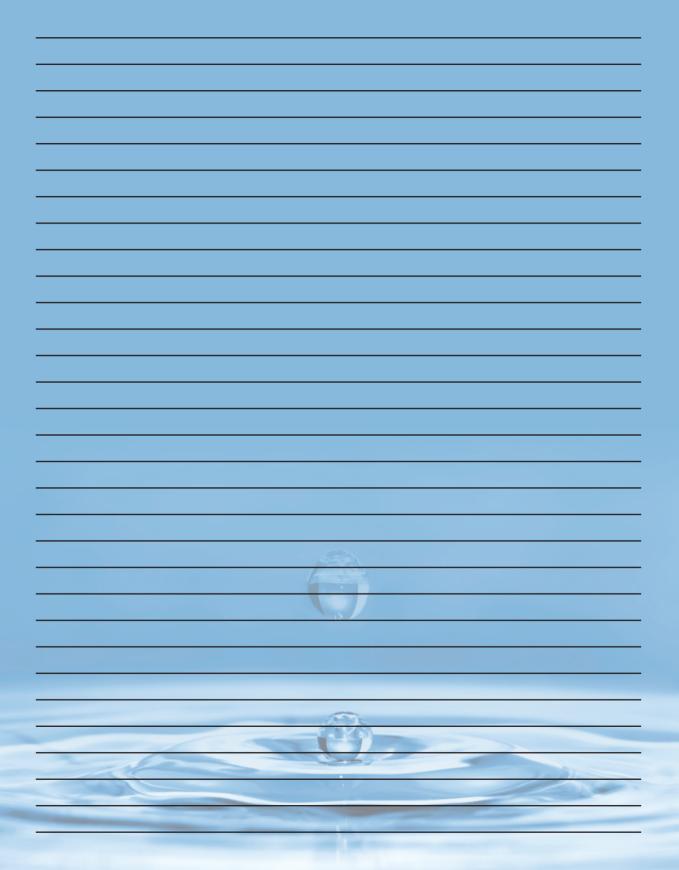
Optimization of the recovery conditions for PN/A in a laboratory-scale granular sequencing batch reactor Hussein Al-Hazmi, Xi Lu, Joanna Majtacz, Przemyslaw Kowal, Jacek Mąkinia

Optimizing partial denitrification–anammox in granular sequencing batch reactors for wastewater nitrogen removal Hussein Al-Hazmi, Joanna Maitacz

Quantitative assessment of N, P and greenhouse gas emissions in food and water system in Japan Kanami Kogure, Kaito Kitahara, Hideaki Nagare

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