

Symposium Programme

| WEDNESDAY, 10.09.2025 | | |
|-----------------------|--|--|
| 08.00 - 09.00 | Registration | |
| <i>Anadolu Hall</i> | | |
| 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 | Coffee 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 <i>Kotaro Kitamura, Jingyu Duan, Teppei Nitta, Megumi Kuroiwa, Shohei Riya, Taku Fujiwara, Tomoyuki Hori, Akihiko Terada</i> | Enhanced lactic acid production through cavitation: influence of substrate loading, pretreatment time, and microbial diversity <i>Aisha Khan Khanzada, Xianbao Xu, Ewa Zaborowska, Jacek Maćkonia</i> |
| 11.00 - 11.10 | Meet venom found in the leachate wastewater treatment plant: macro to micro <i>Didem Güven, Beste Kaya, Dilşad Soylu, Goksin Ozyildiz, Bünyamin Karagöz, Emine Çokgör, Fatih Çoker, Mehmet Gençosmanoğulları, Fatih Peker, Güçlü Insel</i> | Experimental and modeling study in an agro-industry considering by-product utilization for sustainable wastewater management <i>Cigdem Yangin-Gomec, Busem Urediler, Seferhan Yılmaz, Ozlem Karahan Ozgun</i> |
| 11.10 - 11.20 | Phosphorus removal potential of swine wastewater activated sludge treatment effluent by crystallization <i>Miyoko Waki, Tomoko Yasuda, Yasuyuki Fukumoto</i> | Valorisation of seafood and dairy waste into high-value bioproducts through circular biorefineries <i>Salman Nisar, Carla Maggetti, Massimiliano Sgroi, Anna Laura Eusebi, Francesco Fatone</i> |
| 11.20 - 11.30 | Balancing nitrogen removal and N ₂ O emissions: continuous vs. intermittent aeration strategy <i>Weronika Borowska, Olga Zajac, Monika Zubrowska-Sudoł</i> | Co-culture valorization of fermented agro-waste <i>Simge Sertgümeç, Elaheh Mohammadigharagoz, Mehmet Sadık Akça, Ece Polat, Elif Demirkan, Mahmut Altınbaş</i> |
| 11.30 - 11.40 | Recovery of microalgal-bacterial consortia in cultivation system using fluidized carriers for wastewater treatment <i>Ashikur Sarker, Yugo Takabe, Yoshikuni Hino, Taro Horino, Motoharu Noguchi</i> | Hydrothermal humification for converting olive pomace to artificial humic acids <i>Mona Ghaslani, Giovanna Cappai, Gianluigi Farru, Nader Marzban</i> |
| 11.40 - 11.50 | Performance of nitrifying biofilms for ammonia removal in shrimp aquaculture <i>Papitchaya Srithep, Piyaporn Khunrak, Sorawit Powtongsook</i> | The impact of electrolytes on anaerobic digestion-microbial electrolysis cell (ad-mec) systems treating cattle manure <i>Berkan Oden, Yasemin Dilsad Yilmazel</i> |
| 11.50 - 12.00 | Pilot-scale cultivation of macroalga <i>Ulva meridionalis</i> using treated sewage effluent: Growth characteristics and nutrient recovery <i>Lorenzo Victor Totanes, Youhei Nomura, Masanori Hiraoka, Mitsunobu Nomura, Taira Hidaka, Taku Fujiwara</i> | Upcycling agro-industrial waste into bio-based chemicals: Indigenous bacteria-driven volatile fatty acids production from cassava <i>Dennapa Sengmee, Benjaphon Suraraksa, Pawinee Chairasert</i> |
| 12.00 - 12.10 | Analyzing bacterial abundance and microbial diversity across constructed wetlands and urban landscapes <i>Marvin John Uy, Miguel Enrico Robles, Yugyeong Oh, Md Tashdedul Haque, Leehyung Kim</i> | Treatment of shipyard wastewater with adsorbents and design (selection) of the bag filter <i>Özgül Taspınar, D. Bülent Çift, Mustafa Can Bozkurt, Ahmet Alparslan Kuzucu, Volkan Uslan</i> |
| 12.10 - 12.20 | Discussion | |
| 12.20 - 13.50 | Lunch | |

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 Anadolu Hall Chairs: Dionissios Mantzavinos Idil Arslan Alaton | Session II-B Bosphorus Hall-A Chairs: Akihiko Terada Ismail Koyuncu |
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| 14.30 - 14.40 | Comparative study of UV/H ₂ O ₂ degradation and ion exchange recovery for MEA wastewater treatment <i>Hung-Yee Shu, Ming-Chin Chang, Chen-Tai Huang</i> | Non-sterile cultivation of <i>Chromochloris zofingiensis</i> using refrigerated secondary-treated wastewater <i>Satoshi Akao, Yohei Matsumoto, Hideaki Nagare</i> |
| 14.40 - 14.50 | Applications and implications of the color parameter in textile industry wastewater treatment: A review <i>Işık Kabdaşlı, Idil Arslan-Alaton</i> | Production of volatile fatty acids as platform value-added products from food processing residues <i>Isaac Owusu-Agyeman, Margherita Bechi, Zeynep Cetecioglu</i> |
| 14.50 - 15.00 | Occurrence, environmental risks, and control measures of multiclass antibiotics in aquaculture water of Bangladesh <i>Umma Salma, Anwar Hossain, Md. Shafiujjaman, Yuri Nishimura, Masahiro Tokumura, Rumi Tanoue, Tatsuya Kunisue, Kozo Watanabe, Mohammad Raknuzzaman, Kazushi Noro, Takashi Amagai, Masakazu Makino</i> | An approach to dominant culture of the microalga <i>Haematococcus lacustris</i> for treatment of hydroponic effluent and value creation <i>Hideaki Nagare, Chiharu Ishikawa, Takanori Masuda, Tan Nhut Huynh, Satoshi Akao, Yugo Takabe</i> |
| 15.00 - 15.10 | Economic analysis of highly saline pickle brine waste into polyhydroxyalkonate production by mixed microbial culture <i>Gülsüm Emel Zengin, Emine Cokgor, Nevin Yagci, Hakan Dulkadiroğlu, Goksin Ozyildiz, Didem Güven, Güçlü Insel</i> | Smart control methods for industrial wastewater heat recovery in Zambian food processing <i>Madhu Krishna Murali, Eleanor Mancusi-Ungaro, Aonghus McNabola</i> |
| 15.10 - 15.20 | Microbial inactivation using TiO ₂ /Cu fabricated sheets for sustainable water reuse in irrigation system <i>Sovannlaksmy Sorn, Chiren Matsumoto, Shuta Nakagawa, Akihiko Chikamatsu, Masao Ito, Youhei Nomura, Taku Fujiwara, Shuji Fukahori, Masuru Ihara</i> | Establishment of a hybrid electrolysis method for phosphorus precipitation and sludge thickening <i>Yugo Takabe, Kotaro Ida</i> |
| 15.20 - 15.30 | Valorisation of vinasse to single cell protein via two-stage acidogenic and aerobic fermentations <i>Hatice Taspinar Demir, U. Cem Derman, Mustafa Turker</i> | Effect of hydrochar and pyrochar on chain elongation process in a novel yeast-bacteria microbiome <i>Xianbao Xu, Y. Ma, X. Li, Jacek Mąkinia</i> |
| 15.30 - 15.40 | Investigating anaerobic degradation of deproteinized natural rubber wastewater enhanced by sodium dodecyl sulfate and magnetite <i>Duc Minh Tran, Takahiro Watari, Thu Huong Nguyen, Phuong Thao Tran, Hong Dao Nguyen Pham, Masashi Hatamoto, Lan Huong Nguyen, Takashi Yamaguchi</i> | Enhancing hydrogen and vivianite recovery from waste activated sludge via electro-fermentation assisted by iron anode <i>Zhihong Liu, Zhengtong Guo, Dengfei Li, Xiuping Yue, Aijuan Zhou</i> |
| 15.40 - 15.50 | Phosphorous recovery from source segregated human urine by vivianite precipitation <i>Işık Kabdaşlı, Nergis Dilsizoglu Akyol, Tiziana Andreoli, Goksin Ozyildiz, Alessio Siciliano</i> | Valorization of second cheese whey for lactic acid production via mixed microbial culture fermentation <i>Fabiano Asunis, Luca Attene, Giorgia De Gioannis, Aldo Muntoni</i> |
| 15.50 - 16.00 | Discussion | Discussion |
| 16.00 - 16.40 | Coffee break | |

WEDNESDAY, 10.09.2025

Anadolu Hall

16.40 - 16.50 Silver Sponsor Presentation: METAWATER Co., Ltd.

| | <p>Session III-A Anadolu Hall</p> <p>Chairs: Francesco Fatone Nevin Yağcı</p> | <p>Session III-B Bosphorus Hall-A</p> <p>Chairs: Aijuan Zhou H. Güçlü İnsel</p> |
|---------------|--|---|
| 17.00 - 17.10 | <p>Modified rice husk biochar for sustainable nitrogen removal from wastewater: Application evaluation and regional feasibility <i>Jiayuan Ji, Yuichiro Kanematsu, Masanori Takemoto, Raquel Simancas, Toru Wakihara, Yasunori Kikuchi</i></p> | <p>GasAbate treatment reduces gaseous emissions and retains the biogas and fertiliser potential of stored pig and cattle manures <i>Dermot Hughes, Stephen Nolan, Camilla Thorn, Michael McDonagh, Ruairi Friel, W O'Neill, Jason Chin, John McGrath, Paul Williams, Vincent O'Flaherty</i></p> |
| 17.10 - 17.20 | <p>Two-stage anaerobic digestion process of orange processing waste "pastazzo": Hydrogen & methane production and microbial community <i>Silvia Rosa, Giuseppe Lembo, Luca Ruggiero, Antonella Signorini, Eleonora De Santis, Elio Fantini, Loretta Daddiego, Loredana Lopez, Antonella Marone</i></p> | <p>Optimization of <i>Chlorella vulgaris</i> and <i>Bacillus</i> sp. co-culture for enhanced algal biomass production <i>Gamze Ceylan-Perver, Elaheh Mohammadigharagoz, Simge Sertgumec, Sinan Yilmaz, Duygu Mutlu, Mehmet Sadik Akca, Ece Polat, Elif Demirkan, Mahmut Altinbas</i></p> |
| 17.20 - 17.30 | <p>Full-scale study on high-rate low temperature anaerobic digestion of agro-food wastewater <i>Y.C. Liu, L. M. Paulo, V. O'Flaherty</i></p> | <p>Nature-based solutions for urban heat island mitigation and carbon storage in urban environments <i>Md Tashdedul Haque, Lee -Hyung Kim</i></p> |
| 17.30 - 17.40 | <p>Recycling dam sediment into soil for antioxidant-enhanced plants <i>Tsukasa Ito, Yuta Oike, Gaku Ishikura</i></p> | <p>Life cycle assessment of barley as cattle feed: Waste management strategies <i>Enes Tok, Burcin Atilgan Turkmen, Fatos Germirli Babuna, Gulen Iskender</i></p> |
| 17.40 - 17.50 | <p>Evaluation of biodegradable chitosan--alginate hydrogels as a controlled-release fertilizer for sustainable wheat cultivation <i>Muhammed Furkan Aras, Selin Taskin, Sayed Ali Naziri Mehrabani, Mehmet Isik, Mehmet Emin Pasaoglu, Hilal Gubbuk, Berra Buyukucar, Ismail Koyuncu</i></p> | <p>Transition toward quaternary treatments: innovative living membrane bioreactor for microplastic removal <i>Marika Carnesi, Antonio Mineo, Vincenzo Naddeo, Antonio Palumbo Piccionello, Carla Rizzo, Giorgio Mannina</i></p> |
| 17.50 - 18.00 | <p>Start-up of a biphasic expanded granular sludge bed reactors for pig slurry treatment and biogas production: A pilot scale study <i>Antonio J. Aragón-Barroso, Manuel Gallardo-Altamirano, Antonio Castellano-Hinojosa, Alejandro González-Martínez, Jesús González-López, Francisco Osorio</i></p> | <p>A study on reduction of non-carbon dioxide greenhouse gas emissions from pig farm by installing anaerobic digester <i>Hyojin Cho, Chang Soo Kim, Nak Seung Sung, Seong Hoon Hong, Dahyun Ha, Seong Wook Oa</i></p> |
| 18.00 - 18.10 | Discussion | Discussion |
| 19.00 - 22.00 | <p>WELCOME COCKTAIL Presidential Suite, Divan İstanbul</p> | |

THURSDAY, 11.09.2025

08.00 - 09.00 **Registration**

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

THURSDAY, 11.09.2025

Anadolu Hall

10.50 - 11.00 Silver Sponsor Presentation – Kubota Corporation

11.00 - 11.20 Keynote Speaker: Prof. Francesco Fatone

| | Session V-A Anadolu Hall | Session V-B Bosphorus Hall-A |
|----------------------|---|--|
| | Chairs: Satoshi Akao Çiğdem Eskicioğlu | Chairs: Monika Żubrowska-Sudoł Hung-Yee Shu |
| 11.30 - 11.40 | Effect of Fenton's reagent on the degradation and biogas production potential of reactive 4 dye wastewater <i>İdil Arslan-Alaton, Elif Zeynep Deneri, Çiğdem Yangın-Gomec</i> | A zero-waste strategy for effluent remediation and beneficiation in small wineries <i>Pamela Welz, Gareth Holtman, Rainer Haldenwang, Walusungu Kaira</i> |
| 11.40 - 11.50 | Oyster shell utilization for optimization of aquaponics system with local waste reduction <i>Daisuke Tanikawa, Chisa Ishihara</i> | Energy assessment of a novel biorefinery concept to recover biofuel and biomethane from food waste <i>Ewa Zaborowska, Hubert Byliński, Sylwia Fudala-Książek</i> |
| 11.50 - 12.00 | Degradation of diclofenac from aqueous solution by electro-oxidation using different anode materials <i>Narmin Garazade, Hilal İlhan, Gülşay Arslan Çene, Emine Can Güven, Senem Yazıcı Guvenç, Gamze Varank</i> | Response of microbial interactions in hybrid biofilm system with low organic loading to micropollutant removal <i>Gulsum Emel Zengin, Roya Dadkhah, Dilsad Soylu, İlke Pala-Ozkok, Didem Güven, Goksin Ozyildiz, Berkay Uçan, Güçlü İnsel, Emine Çokgör</i> |
| 12.00 - 12.10 | Conventional activated sludge with ultrafiltration vs living membrane bioreactor systems: A comprehensive comparison <i>Dilsad Soylu, Antonio Mineo, Marika Carnesi, Vincenzo Naddeo, Jie Jiang, Giorgio Mannina</i> | A water circularity index for agro-industries products <i>Geneve Farabegoli, Anabela Rebelo</i> |
| 12.10 - 12.20 | Selective nickel recovery from PCBs through biomineralization induced by biogranules <i>Rabia Konakci, Kadir Şekercioğlu, Murat Pekcan, Yusuf Çağatay Erşan</i> | Removal of ammonia/ammonium ions by ozone in bromide-containing artificial seawater for recirculating aquaculture systems (RAS) <i>Tadao Mizuno, Aoi Miyake, Yuu Sumita, Tetsumi Ochi</i> |
| 12.20 - 12.30 | Anaerobic treatment of slaughterhouse wastewater for pollution reduction and biogas production in Rwanda <i>Valens Habimana, Jean Chrisostome Ufitinema, Antoine Nsabimana, Gunaratna Kuttuva Rajarao</i> | Microalgae-based nitrogen removal from swine wastewater treatment <i>Pattaraporn Kunapongkiti, Papitchaya Srithep</i> |
| 12.30 - 12.40 | Advanced quantification of methane emissions from an agricultural biogas plant using inverse dispersion modeling <i>Clément Romand, Timothe Depelchin, Matthieu Trombetti, Caroline Bouchet</i> | Unlocking bioenergy pathways from crop residue and manure in Türkiye to support circularity within the water-energy-food nexus <i>Ece Demir, Emre Alp</i> |
| 12.40 - 12.50 | Discussion | Discussion |
| 12.50 - 14.20 | Lunch | |

THURSDAY, 11.09.2025

Anadolu Hall

14.20 - 14.30 Silver Sponsor Presentation – Kanadevia Corporation

14.30 - 14.50 Keynote Speaker: Prof. Giorgio Mannina

| | Session VI-A Anadolu Hall | Session VI-B 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 <i>Shohei Riya, Kouta Sakihara, Manoj Kumar Jena, Chihiro Fushimi, Akihiko Terada</i> | Seasonal variation of microplastics in wastewater treatment plant sludges and implications for agricultural use <i>Nimitha Choran, Banu Ormeci</i> |
| 15.10 - 15.20 | Concept of a cascade hydroponic system contributing to nitrogen circulation and circular economy in greenhouse horticulture <i>Taku Fujiwara, Masaru Ihara, Youhei Nomura, Shuji Fukahori, Daisuke Kozaki, Yuki Sago, Daisuke Yasutake, Ayumu Onda, Masanori Hiraoka, Hideaki Nagare, Satoshi Akao</i> | Stepwise temperature shift from mesophilic to thermotolerant enhances microbial adaptation and biogas production <i>Tsuyoshi Imai, Gede Adi Wiguna Sudiarta</i> |
| 15.20 - 15.30 | Assessment of an innovative water resource recovery plant configuration in accordance with the biorefinery concept <i>Yagmur Nazdar Kacmaz, Canberk Diler, Ilkim Gürel, Yesim Askin, Tevhide Erusta, Serife Korpe, Öykü Yesilbas, Yaren Ergezen, Ayca Ozyaz, Seferhan Yilmaz, Özlem Karahan Özgün</i> | Application of artificial intelligence to sludge dewatering for the optimization of flocculant dosage <i>Penqzhe SUJ, Junta Takahashi, Santisak Kitjanukit, Yasuko Shinjo, Kazuaki Shimamura</i> |
| 15.30 - 15.40 | Development of a GIS tool for assessing nitrate contamination risk in groundwater: Gediz basin case study <i>Cihançir Aydoğan, İrfan Yolcubal, Şebnem Aynur Koyunluoğlu, Yusuf Kurucu, Bihter Çolak Esetlili, Tolga Esetlili, Yusuf Gürbüz, Orhan Sezgin, İpek Özenç, Pinar Hışır</i> | Thermochemical processes as an alternative to conventional sludge management practices: A life cycle assessment study <i>Matia Mainardis, F. Gievers, A. Catenacci, A. Loewen, D. Goi, M. Nelles</i> |
| 15.40 - 15.50 | Innovative biofilter design with OPEFB-Activated carbon for sustainable tofu wastewater treatment <i>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</i> | Searching for a method of sewage sludge pretreatment to improve the efficiency of the anaerobic digestion process <i>Katarzyna Sytek-Szmeichel, Justyna Walczak, Monika Żubrowska-Sudoł</i> |
| 15.50 - 16.00 | Agricultural irrigation water and struvite recovery from AnMF-OMBR and UASB MF-OMBR systems <i>Sümeyye Hasanoglu, Dilara Akyildiz, Ilknur Yalcin Guney, Zeren Beril Gönder, Gulsum Yilmaz, İlda Vergili, Coskun Aydiner, Yasemin Kaya</i> | Hydrothermal liquefaction of biological nutrient removal sludge: Bio-crude oil production and by-product valorization <i>Farid Alizad Oghynous, Cigdem Eskicioglu</i> |
| 16.00 - 16.10 | Kinetic evaluation of acute and chronic impact of bisphenols on activated sludge systems using respirometry <i>Mathias Sandvik, Ilke Pala-Ozkok</i> | Investigation on behavioral adaptation of methanogens in the thermotolerant range around 45°C <i>Riho Takahashi, Tsuyoshi Imai</i> |
| 16.10 - 16.20 | Estimation of the pollutant load from livestock runoff in arid region <i>Monica Perez-Sane, Jaime Lara-Borrero</i> | A sustainable approach to the treatment of textile reverse osmosis concentrate using the photo-Fenton process <i>Gamze Canbakal, Oyku Nur Ersoz, Gulay Arslan Cene, Senem Yazici Guvenc, Emine Can Guven, Gamze Varank</i> |
| 16.20 - 16.30 | Discussion | Discussion |
| 16.30 - 17.00 | Coffee break | |

THURSDAY, 11.09.2025

| THURSDAY, 11.09.2025 | | |
|----------------------|---|---|
| | 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 <u>Tulay Yilmaz</u> , <u>Emine Cokgor</u> , 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 <u>Narmin Garazade</u> , 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 <u>Saba Aghdam Tabar</u> , Usman Saifder, 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 <u>Michael Hananta Utomo</u> , Recep Kaan Dereli, Ronald Halim | Harvesting microalgae <i>Chlorella sorokiniana</i> by dual-polymer flocculation with chitosan and sodium polyacrylate <u>Akiho Yonezawa</u> , <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> , Masanori Hiraoka, Taku Fujiwara | Improving swine manure treatment performance with cow manure biochar: Focus on nitrification, denitrification, and composting <u>Jeon Jae Ock</u> , 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 <u>Tugce Katipoglu-Yazan</u> , 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 | GALA DINNER Lokanta by Divan, Divan İstanbul | |

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 Istanbul <i>Fatos Germirli Babuna, Ayşe Gül Tanık, Omer Lutfi Sen, Gokhan Cuceoglu, Guclu Insel, Turker Turken, Elif Zeynep Deneri, Serra Selin Ovez, Cansu Delibas, Erbil Buyukbay, Izzet Ozturk</i> |
| 09.10 - 09.20 | Utilizing agro-waste for sustainable construction materials and retrofitting strategies <i>Firdevs Sezer, Burcin Atilgan Turkmen, Fatos Germirli Babuna</i> |
| 09.20 - 09.30 | Novel circular utilization of agricultural waste: From rice straw and livestock manure to single cell protein feed <i>Tianxiang Xu, Yui Kazuta, Megumi Kuroiwa, Shohei Riya, Akihiko Terada</i> |
| 09.30 - 09.40 | Impact of pig farming on the groundwater environment from long-term observation data and its improvement <i>Tomijiro Kubota, Hidemi Wakikado, Ichiro Uezono, Masato Katsuda, Shoichi Tanaka</i> |
| 09.40 - 09.50 | Life cycle assessment of fresh and dried apricot production <i>Seda Hatun Uluzlu, Burcin Atilgan Turkmen, Fatoş Germirli Babuna</i> |
| 09.50 - 10.00 | Enhanced biomass production by co-culturing <i>Chlamydomonas reinhardtii</i> and growth-promoting bacteria <i>Yuge Bai, Kazuhiro Mori, Yasuhiro Tanaka, Tadashi Toyama</i> |
| 10.00 - 10.10 | Enhancing methane recovery from recirculating aquaculture system sludge under salinity stress using biochar and zeolite <i>Abdullah Bugra Senol, Linn Solli, Wietske Annechien Stel, John Morken, Nazli Pelin Kocatürk Schumacher</i> |
| 10.10 - 10.20 | Environmental sustainability of artichoke canning with nutritional perspective <i>Hulya Sahin Akkurt, Bilge Bas, Gulen Iskender, Fatos Germirli Babuna</i> |
| 10.20 - 10.30 | Advanced biofiltration for odor and VOC removal in solid waste facilities: Media innovation and field results <i>Mahdi Jemel, Clément Romand, Arantxa Bomboi Rodríguez</i> |
| 10.30 - 10.40 | Peroxi-coagulation process as an effective treatment for textile industry wastewater: optimization, biodegradability and cost <i>Beyza Balıkcıoğlu, İrem Ozen, Senem Yazıcı Guvenç, Emine Can Guven, Gamze Varank</i> |
| 10.40 - 10.50 | Discussion |
| 10.50 - 11.30 | Coffee break Session IX Anadolu Hall Chairs: Fatoş Germirli Babuna - Vincent O'Flaherty |
| 11.30 - 11.40 | Anaerobic digestion of oil palm empty fruit bunches: Effect of biological pre-treatment <i>Sri Suhartini, Novita Ainur Rohma, Irnia Nurika, Efri Mardawati, Kasbawati Kasbawati, Lynsey Melville, Syazwani Idrus</i> |
| 11.40 - 11.50 | Evaluation of capacity utilization for agricultural waste biogas plants in Türkiye <i>Ahmet Musluoglu, Serra Selin Ovez, Kadir Özçelik, Elif Maçın, Muhammad Waqas, Recep Kaan Dereli, Osman Atilla Arıkan</i> |
| 11.50 - 12.00 | Transforming Oil Palm Empty Fruit Bunches (OPEFBs) into sustainable membranes for microbial fuel cells <i>Sri Suhartini, Andhika Putra Agus Pratama, Muhammad Alim Perdana, Novita Ainur Rohma, Ioannis Ieropoulos, Nur Hidayat, Widya Fatriasari, Young Hoon Jung, Ika Atsari Dewi, Lynsey Melville</i> |
| 12.00 - 12.10 | Anaerobic digestion of lignocellulosic waste: Effects of pre-treatment on performance, microbial dynamics and economic viability <i>İrem Güven Beyaz, Ömer Uzun, Bahar İnce, Canberk Kazancı, Orhan İnce</i> |
| 12.10 - 12.20 | Comparative analysis of anaerobic sludge digestion in conventional and high-rate activated sludge systems <i>Ali Tamer Cetinkaya, Goksin Ozyildiz, Nergis Dilsizoglu Akyol, Emine Cokgor, Guclu Insel</i> |
| 12.20 - 12.30 | Climate change and emerging pollutant toxicity on <i>Enchytraeus crypticus</i> : Impact of rising temperature and dry soil <i>İrem Öztürk Ufuk, Saadet Nur Coşkun, Ashna Waseem, Emel Topuz</i> |
| 12.30 - 12.40 | Role of soil organic matter content in climate change adaptation by regulating terrestrial no emissions after floods <i>Eda Ceylan, Cemile Büyük, İlker Akmırza, Derya Ayrıl Çınar</i> |
| 12.40 - 12.50 | Evaluating the impact of mulching of olive pruning residues on soil properties and yields in olive groves <i>Hiba Abu Tayeh, Aviad Karmazyn, José Grünzweig, Tamir Klein, David Yalin</i> |
| 12.50 - 13.00 | Electric field-driven simultaneous nitrification-denitrification: optimization of electron acceptor <i>Mythili Divya M, Young Chae Song, Seong-Wook Oa, Keug-Tae Kim</i> |
| 13.00 - 13.10 | Discussion |
| 13.10 - 13.40 | Closing Ceremony |

Poster Programme

| POSTER PRESENTATIONS WILL BE HELD BETWEEN 10 - 11 SEPTEMBER 2025, PARALLEL TO ORAL SESSIONS | |
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| Bosphorus Hall-B Poster Presentations - Wednesday, 10.09.2025 | |
| Wednesday, September 10, 2025 | Anaerobic digestion of sludge and agricultural processing residues in small-scale wastewater treatment plants <i>Masato Nakamura, Shibata Hirohiko, Fumiko Oritate, Noriyuki Kamachi</i> |
| | Enhanced short chain fatty acid production assisted by nitrate photolysis during sludge fermentation <i>Xiuping Yue, Yun Lu, Zhihong Liu, Dengfei Li, Aijuan Zhou</i> |
| | Applicability of bivalve shells to electrochemical systems for enhancing phosphorus precipitation <i>Tatsuaki Satoh, Yugo Takabe, Fumitake Nishimura</i> |
| | Exploring polyphenol content in olive leaf waste: Effect of geographical, seasonal, and varietal differences <i>Aina Mir-Cerdà, Raúl García-García, Mercè Granados, Sonia Sentellas, Javier Saurina</i> |
| | Innovative food packaging: Active films from alginate/cellulose nanofibers with olive leaf NADES extracts <i>Aina Mir-Cerdà, Sonia Sentellas, Javier Saurina, Yeni A. Paredes-Padilla, Sergio Benavides, Miryams Millán-Fritz, Rodrigo Segura, Patricia Castaño, Gustavo Cabrera-Barjas</i> |
| | Comparative RNA/DNA analysis of the impact of influent microorganisms on MBR-Activated Sludge <i>Hinata Higuchi, S. Terada, S. Nagatsuma, C. Kudou, Takahiro Watari, Takashi Yamaguchi, Masashi Hatamoto</i> |
| | Distribution of GHG emissions from production to wastewater treatment process of natural rubber products in Vietnam <i>Hong Dao Nguyen Pham, Takahiro Watari, Nhu Nguyet Phan, Minh Duc Tran, Lan Huong Nguyen, Masashi Hatamoto, Kazuaki Syutsubo, Takashi Yamaguchi</i> |
| | Improvement of sewage sludge fertilizer quality through co-digestion with tofu residue <i>Taketo Togari, Norihisa Matsuura, Taira Hidaka, Ryoko Yamamoto-Ikemoto</i> |
| | Optimized photocatalytic degradation of Congo Red using ZnO and LaO nanoparticles synthesized with laurel extracts <i>Meriem Zamouche, Sabrina Mechat, Ferial Djemaa, Deneche Lina Loudjeine, Chahinez Kadri, Hichem Tahraoui</i> |
| | Sustainable recovery of 3-hydroxytyrosol from olive oil waste using flash chromatography <i>Adrià Perez-Amor, Ruben Titos, Monica Reig, Jose L. Cortina, Javier Saurina, Jose L. Beltran, Merce Granados, Sonia Sentellas</i> |
| | Circular bioeconomy: Recovery of bioactive compounds from hop leaves <i>Pau Lorente, Oscar Nuñez, Merce Granados, Javier Saurina, Sonia Sentellas</i> |
| | Optimization of bioactive compound extraction from cocoa bean shell using green solvents <i>SK Fahim Tahmid Boni, Sonia Sentellas, Javier Saurina</i> |
| | A sustainable approach to enhance water reuse in a closed RAS bred with <i>Clarias Gariepinus</i> using a biological DHS system <i>Nur Adlin, Norfariza Ab Wahab, Nurul Fariha Lokman, Ahmad Zaid Arshad, Muhammad Naim Badaruddin, Suhaila Mohd Najib, Samadhi Wandana, Takahiro Watari, Takashi Yamaguchi</i> |
| | Non extractable phenolic compounds in olive leaves: Assessing hydrolysis methods <i>Paulina Tapia-Quiros, Aina Mir-Cerdà, Mercè Granados, Sonia Sentellas, Javier Saurina</i> |
| | Agricultural non-point source pollution control using agro-waste-derived biochar and its carbon emission reduction benefit <i>Ya-Zhen Huang, Chihhao Fan</i> |
| | Nitrogen mineralization modeling of sewage sludge fertilizers with acid detergent soluble organic nitrogen analysis <i>Hirotaaka Ihara, Masato Nakamura, Fumiko Oritate, Mutsumi Fujita, Toyohisa Miyamoto, Keita Takahashi, Taira Hidaka</i> |
| | Utilization of agricultural waste in the development of sustainable bio-composite brake pads: An experimental study on eco-friendly <i>Abdulkadir Unal</i> |
| | Downflow Hanging Sponge (DHS) reactor with immobilized biochar for complete nitrogen removal in recirculated aquaculture system <i>Samadhi Wandana, Nur Nur, Takahiro Watari, Masashi Hatamoto, Takashi Yamaguchi</i> |
| | Influence of acid fermentation liquid compositions on PHBV production by waste activated sludge-derived mixed microbial culture <i>Daisuke Inoue, Shunsuke Hirai, Akihide Sugawara, Yasunao Okamoto, Gen Yoshida, Michihiko Ike</i> |
| | Potential valorizations of brewery by-products for food packaging materials <i>Buse Sezer, Gurbuz Gunes</i> |
| Real-time monitoring and data-driven modeling of greenhouse gas emissions from horticultural soil <i>Morihiro Maeda, Miyu Sazuka, Wataru Shiraishi, Makito Mori, Daisuke Yasutake, Satoshi Akao, Taku Fujiwara</i> | |
| Application of pumice stone waste as biofilm carrier in MBBR Systems: Impacts on wastewater treatment and color removal in the denim industry <i>Berrak Torusdag, Goksin Ozyildiz, Derin Orhon, Seval Sozen</i> | |

| Bosporus Hall-B | |
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| Poster Presentations - Thursday, 11.09.2025 | |
| Thursday, September 11, 2025 | Effective start-up of microaerobic activated sludge process to convert nitrogen components in industrial wastewater to ammonia <i>Kengo Momiuchi, Tomo Aoyagi, Takuma Suzuki, Tomoyuki Hori, Hidehiro Sugiura</i> |
| | Neutralizer selection and excess sludge utilization in microaerobic activated sludge system to convert wastewater nitrogen to NH ₄ ⁺ <i>Tomo Aoyagi, Akihiko Terada, Tomoyuki Hori</i> |
| | Activated carbons from Baru (Dipteryx Alata Vog) waste impregnated with copper oxide: Application in the post-harvest preservation <i>Hector Valdes, Ana Carolina de Jesus Oliveira, Tatianne Ferreira de Oliveira</i> |
| | Utilization of pomace waste for sustainable DHA production via unsterile cultivation of <i>Aurantiochytrium</i> sp. L3W <i>Brilian Pamungkas, Gen Sasaki, Satoshi Nakai, Toshikazu Suenaga, Takehiko Gotoh, Wataru Nishijima</i> |
| | High value-added technologies for biofertilizer derived from dairy manure <i>Anju Urabe, Masahiro Tokumura, Yoshiro Kawashima, Naoyoshi Komuro, Keiji Wakabayashi, Masakazu Makino</i> |
| | Environmental risk screening of recycled plastics using a quantitative non-targeted analytical approach <i>Masahiro Tokumura, Sota Sakai, Takeshi Enomoto, Kouichi Tatsu, Naohide Shinohara, Masakazu Makino</i> |
| | Lactic acid and PLA bioplastic production from sustainable substrates by <i>Lactobacillus acidophilus</i> <i>Duygu Mutlu, Seymen Guzelordu, Taha Burhan Olker, Fikret Dogac Gundogdu, Ece Polat, Mahmut Altinbas</i> |
| | Changes in water quality and greenhouse gas emissions in a pond system for treatment of Palm Oil Mill Effluent (POME) <i>Takashi Onodera, Yoshiyuki Takahashi, Kazuya Nishina, Ryuichi Hirata, Joseph Walli, Frankie Kiew, Guan Wong, Lulie Melling</i> |
| | Production of polyunsaturated fatty acids by culturing a thraustochytrid using a brown alga <i>Sargassum</i> <i>Miki Hatanaka, Satoshi Nakai, Anh Thi Nhat Tran, Toshikazu Suenaga, Takehiko Gotoh, Wataru Nishijima, Hiromichi Suzuki</i> |
| | Calorific value of pellets produced from baru (Dipteryx Alata Vog.) waste <i>Tatianne Ferreira De Oliveira, Zamira Abel d de Jesus Maria, Ana Carolina de Jesus Oliveira, Fernando Pereira de Sá</i> |
| | Dynamics of operational parameters in aerobic biodegradation of Baru (Dipteryx Alata Vog.) waste <i>Flavio Alves Da Silva, Zamira Abel de Jesus Maria, Ana Carolina de Jesus Oliveira, Fernando Pereira de Sá, Tatianne Ferreira de Oliveira</i> |
| | Environmental burdens of potato cultivation <i>Enes Tok, Burcin Atilgan Turkmen, Fatos Germirli Babuna, Gulen Iskender</i> |
| | Environmental sustainability of reactive dye containing textile wastewater treatment through peroxide-assisted ozonation <i>Kubra Dogan, Burcin Atilgan Turkmen, Idil Arslan Alaton, Fatos Germirli Babuna</i> |
| | Modeling biogas production from high-rate activated sludge system treatment sludge <i>Yesim Askin, Tevhide Erusta, Serife Korpe, Ayca Ozyaz, Busra Yesilyurt, Seferhan Yilmaz, Özlem Karahan Özgün</i> |
| | From wastewater to value: Phosphorus recovery in the circular economy <i>Yagmur Nazdar Kacmaz, Canberk Diler, Ilkim Gürel, Seferhan Yilmaz, Özlem Karahan Özgün</i> |
| | PHA production from waste activated sludge using mixed microbial cultures integrated with high-rate activated sludge systems <i>Öykü Yesilbas, Yaren Ergezen, Seferhan Yilmaz, Özlem Karahan Özgün</i> |
| | Facile preparation of carbon-modified magnetic nanoparticle derived from iron sludge for removal of organic matter in wastewater <i>Huiping Zeng, Dong Li</i> |
| | As(V) removal by starch-coated magnetite nano-adsorbent based on waste iron sludge <i>Dong Li, Huiping Zeng</i> |
| | Sustainable biogas production from macrophytes in the era of the green transition <i>Emine Gözde Özbayram, Dilek Özyurt, Latife Köker, Tunahan Özdemir, Reyhan Akçaalan, Meriç Albay</i> |
| | Innovative approaches to agrofood biowaste digestion for energy recovery maximization <i>Andrea Capodaglio, Brice F. Kana, Arianna Callegari</i> |
| Organic load-driven correlations of microbes, elements and chemicals in anaerobic digester revealed by Bayesian network <i>Masahiro Honjo, Tomo Aoyagi, Tomoyuki Hori</i> | |
| Optimization of the recovery conditions for PNA in a laboratory-scale granular sequencing batch reactor <i>Hussein Al-Hazmi, Xi Lu, Joanna Majtacz, Przemyslaw Kowal, Jacek Makinia</i> | |
| Optimizing partial denitrification–anammox in granular sequencing batch reactors for wastewater nitrogen removal <i>Hussein Al-Hazmi, Joanna Majtacz</i> | |
| Quantitative assessment of N, P and greenhouse gas emissions in food and water system in Japan <i>Kanami Kogure, Kaito Kitahara, Hideaki Nagare</i> | |