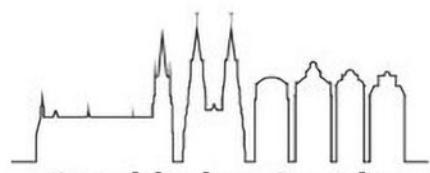


ECO STP 2025



7th IWA International
Conference on
Ecotechnologies for
Wastewater Treatment



Stockholm, Sweden

June 23-26, 2025



Poster list



Poster Session and Mingle

Tuesday June 24, 17:30 - 19:00, Poster hall

For abstracts see the [online programme](#)

P001 - Fate of dissolved methane and hydrogen sulfide during mainstream nitrogen conversions in sponge-bed trickling filters

Thiago Bressani-Ribeiro¹, Bohan Yu¹, Carlos Chernicharo², Eveline Volcke¹

¹ * BioCo Research Group, Department of Green Chemistry and Technology, Ghent University, Coupure links 653, Gent 9000, Belgium

² ** Department of Sanitary and Environmental Engineering, Federal University of Minas Gerais, Av. Antônio Carlos, 6.627, Pampulha, Belo Horizonte, MG 31270-901, Brazil

P002 - Impacts of pollutants from individual sewage treatment facilities on groundwater in Jeju Island (South Korea)

Jinkeun Kim¹

¹ Jeju National University

P003 - Methane production from co-digestion of food waste and corn industry wastewater

Monserrat Vázquez-López¹, Marisol Pérez-Rangel¹, Iván Moreno-Andrade¹

¹ Laboratory for Research on Advanced Processes for Water Treatment, Unidad Académica Juriquilla, Instituto de Ingeniería, Universidad Nacional Autónoma de México, Blvd. Juriquilla 3001, 76230 Querétaro, México.

P004 - Kinetic, equilibrium and thermodynamic studies of Cr(III) and Cr(VI) ions sorption onto buckwheat (*Fagopyrum esculentum*) hulls

TAYYAB TAHIR¹

¹ State research institute Center for Physical Sciences and Technology, Savanorių Ave. 231, LT-02300 Vilnius, Lithuania

P005 - The Use of Black Soldier Fly Larvae in Wastewater Treatment: The Influence of Organic Concentration and Load on Process Performance

Mia Henjak¹

¹ Mia Henjak, DICEA, Department of Civil, Architectural and Environmental Engineering, University of Padova. Via Marzolo 9, 35131 Padova, Italy

P006 - Exploiting carbon sources to stabilize partial denitrification-anammox in mainstream applications

Paula Yumi Takeda^{1, 2}, Carolina Tavares Paula¹, Maria Eduarda Simões Dias¹, André do Vale Borges¹, Elis Watanabe Nogueira¹, Julio César Pereira Cantarelli¹, Márcia Helena Ríssato Zamariolli Damianovic¹

¹ University of São Paulo São Carlos School of Engineering

² University of Santiago de Compostela Department of Chemical Engineering

P007 - Microalgae-bacteria consortia as granular biomass to save aeration in wastewater treatment

Yolanda López-Garabato¹, Alba Pedrouso¹, José Luis Campos², Ángeles Val del Río¹, Anuska Mosquera-Corral¹

¹ CRETUS Institute, Department of Chemical Engineering, Universidade de Santiago de Compostela, Rúa Lope Gómez de Marzoa s/n., Santiago de Compostela 15705, Spain.

² Facultad de Ingeniería y Ciencias, Universidad Adolfo Ibáñez, Av. Padre Hurtado 750, Viña del Mar 2503500, Viña del Mar, Chile.

P008 - Demonstration of anaerobic membrane bioreactor for co-digestion of brewery and municipal wastewater with food waste in an urban-industrial symbiosis

Noah Christy¹, Vasileia Stoumpou¹, Sara Björkqvist², Paulo Martins Silva², Henrik R. Andersen¹, Daniel Seth Larson², Borja Valverde-Pérez¹

¹ Department of Environmental and Resource Engineering, Technical University of Denmark, Bygningstorvet, Bygning 115, 2800 Kgs. Lyngby, Denmark
² BEOF

P009 - NUTRITIVE PROJECT:SUSTAINABLE STRATEGIES FOR MANURE MANAGEMENT

Jesús Godifredo¹, Adriana Pacherres¹, Patricia Ruiz¹, Miguel Ángel Leal¹, Lucía Argiz², Leticia Regueiro²

¹ Ainia
² MEDRAR SMART SOLUTIONS

P010 - Thermophilic codigestion of swine slurry and olive mill solid waste: Hydrogen production and antibiotic resistance genes behaviour

Cinta Martín Medrano¹, Jose Manuel Espinosa¹, Roberto Egea¹, Víctor Riau², Víctor Ramos¹, Fernando González Fermoso¹, Marina Pintado³, Soraya Zahedi¹

¹ Instituto de La Grasa, Spanish National Research Council (CSIC), Campus Universitario Pablo de Olavide- Ed. 46, Ctra. de Utrera, Km. 1, Seville, 41013, Spain.

² IRTA Institute of Agrifood Research and Technology, Torre Marimon, E08140 Caldes de Montbui, Barcelona, Spain

³ Department of Physical Chemistry, Faculty of Marine and Environmental Sciences, CEI-MAR, University of Cadiz, Cádiz, Spain

P011 - Energy potential, nutrients and heavy metals in olive mill solid waste

Cristina Aparicio¹, Cinta Martín Medrano¹, Jose Manuel Espinosa¹, Víctor Ramos¹, Fernando González Fermoso¹, Rosa Cert¹, Soraya Zahedi¹

¹ Instituto de La Grasa, Spanish National Research Council (CSIC), Campus Universitario Pablo de Olavide- Ed. 46, Ctra. de Utrera, Km. 1, Seville, 41013, Spain.

P012 - Quantitative Determination of the Strength of Activated Sludge Flocs in Biological Wastewater Treatment

Svitlana Tkachenko¹, Valentina lurchenko¹, Oksana Melnikova¹, Kateryna Utkina², Natalia Teliura¹
 1 O.M. Beketov National University of Urban Economy in Kharkiv
 2 Urban Water Engineering, Luleå University of Technology

P013 - Assessment of GHG Emission Reduction Due to Upgrade of Big-Scale WWTPs in Ukraine

Iryna Avdiienko¹, Oleksandr Smyrnov², Kateryna Utkina³, Valentina lurchenko¹
 1 O.M. Beketov National University of Urban Economy in Kharkiv
 2 Stavební huť Slatiňany, spol. s r.o., Hranice, Czech Republic
 3 Luleå University of Technology

P014 - An Innovative Technology for Nitrogen Removal in Wastewater: Dissimilatory Nitrate Reduction to Ammonia by *Candidatus Loosdrechtii*

Lara Gözde Çetinbaş¹, Senanur Yavuzarslan¹, Fevzi Süha Topçu¹, Deren Yaren Batur¹, Sümeyye Çelik¹, Bilge Alpaslan Kocamemi¹
 1 Marmara University

P015 - Enhanced Nitrogen Removal in Integrated Partial Denitrification and Anammox in a Two-Stage SBR System for Mainstream Sewage Treatment

Naveed Ali¹
 1 Dr. Mohammad Azari

P016 - First full-scale MABR implementation in Europe: Experiences and lessons learned at Schilde (Belgium) WWTP

Thomas Dobbeleers¹, Koen Van Laer¹
 1 Aquafin NV, Dijkstraat 8, 2630 Aartselaar, Belgium

P017 - Key-characteristics of biofilter packing for long-term performance in wastewater treatment

Sylvie Baig¹, Gilles Hébrard², Dominique Bastoul², Juan Maldonado², Béatrice Fournier¹, Cécile Bourdon¹, Adriana Gonzalez Ospina¹, Martin Dau¹
 1 Suez International
 2 INSA Toulouse

P018 - N2O emissions from poultry wastewater cultivated aerobic granular sludge: comparing sequential, and simultaneous nitrification-denitrification

Jana Scheynen¹, Jan Dries¹, Tran Le Luu²
 1 University of Antwerp
 2 Vietnamese German University

P019 - Nitrogen Removal in Cold-Weather Conditions using MBBRs: Insights from the Fillan WWTP Pilot Study

Manuela Gomez Monsalve¹, Andriy Malovanyy², Linda Kanders², Malin Tuesson³, Karin Jönsson¹, Britt-marie Wilén⁴
 1 Lund University, Department of Process and Life Science Engineering, Naturvetarvägen 16, 221 00 Lund, SWEDEN
 2 IVL Swedish Environmental Institute, Box 210 60, 100 31 Stockholm, SWEDEN
 3 MittSverige Vatten & Avfall, Stuvarvägen 17, 851 03 Sundsvall, SWEDEN
 4 Chalmers University of Technology, Department of Architecture and Civil Engineering, Sven Hultins gata 6, 41296 Göteborg, SWEDEN

P020 - Strategy to achieve Nitrification and Carbon Removal from Synthetic Refinery Wastewater in a Sequencing Batch Reactor

Himanshu Sati¹, Prashant Sinha¹, Harleen Kaur Walia¹, Ankisha Vijay¹, Anurag Garg¹, Suparna Mukherji¹
 1 IIT Bombay

P021 - Nature-Based Solution for Decentralized Water Management in Wildlife Facilities: A Case Study of Barcelona Zoo

Cinthia Padilla¹, Gaetan Blandin¹, Paola Sepúlveda-Ruiz², Jordi Hernandez³, Antoni Alarcon³, Antonina Torrens², Ignasi Rodriguez-Roda¹
 1 LEQUIA, Institute of the Environment, University of Girona, Spain.
 2 University of Barcelona, Department of Biology, Health and Environment, Faculty of Pharmacy and Food Sciences, Av. Joan XXIII 37-41, 08028, Barcelona, Spain.
 3 Barcelona Zoo, Barcelona, Spain.

P022 - Effectiveness of vermicfiltration systems in wastewater bioremediation: a sustainable and cost-effective approach

Alexandra Guanuchi Quito¹, Daniel Aguado García², Yolanda Moreno Trigos³
 1 Alexandra Guanuchi Quito
 2 Daniel Aguado García
 3 Yolanda Moreno Trigos

P023 - Treatment wetlands as a part of municipal wastewater treatment

Tova Forkman Fahlgren¹, Adam Engström Svanberg³
 1 L. Halvarsson
 2 T. Forkman Fahlgren
 3 A. Engström Svanberg

P024 - Validation of novel Dissolved air flotation system (DAFAST) combined with UV for achieving class A quality.

Maria José Quero-Pastor¹, M. A. Roccamante¹, Enrique Lara¹, Frank Rogalla¹, M.G. Pinna-Hernández², Ana Agüera², Patricia Plaza-Bolaños², José Luis Casas López², Zouhayr Arbib¹
 1 FCC Aqualia
 2 Solar Energy Research Centre (CIESOL)

P025 - Sustainable Piggery Water Treatment: Integrating Solar & Recycled Combustion Gases in a Bubble Column Evaporator

Adrian Garrido Sanchis¹
1 University of New South Wales

P026 - Model and Experiment-based Evaluation of Seawater-based Urine Phosphorus Recovery (SUPR) Process

Wentao Tang^{1, 2}, Guanghao Chen², Tianwei Hao¹
1 Zhuhai UM Science & Technology Research Institute
2 The Hong Kong University of Science and Technology

P027 - The Effect of Disinfection on the Behaviour of Two Reserve Antibiotics in Hospital Wastewater

Ewa Felis¹, Sylwia Bajkacz², Joanna Wilk², Paulina Sowik¹, Monika Harnisz³, Ewa Korzeniewska³
1 Department of Environmental Biotechnology, Silesian University of Technology, Gliwice, Poland
2 Department of Inorganic Chemistry, Analytical Chemistry, and Electrochemistry, Silesian University of Technology, Gliwice, Poland
3 Department of Engineering of Water Protection and Environmental Microbiology, University of Warmia and Mazury in Olsztyn, Olsztyn, Poland

P028 - Mitigating Greenhouse Gas Emissions from Cattle Slurry Storage through Low-Cost Additives: From Lab to Farm Scale

Neus Bonet Garcia¹, Sara Cantera^{2, 3}, Helena Wehmeyer¹, Aragao-Börner Rosa¹, Soussan Elodie¹, Muñoz Raul^{2, 3}
1 Nestlé Research, Société des Produits Nestlé S.A., Route du Jorat 57, 1000 Lausanne, Switzerland.
2 Institute of Sustainable Processes, Dr. Mergelina s/n, 47011 Valladolid, Spain
3 Department of Chemical Engineering and Environmental Technology, School of Industrial Engineering, University of Valladolid, Dr. Mergelina, s/n, 47011 Valladolid, Spain

P029 - Degradation of Cyanide and Organic Compounds in Coking Wastewater by Ozonation with a Ruthenium-Supported Catalyst

Chihpin Huang¹, Chan-Po Chen¹, Yi-kuan Huang¹, Shan-Shan Chou¹
1 National Yang Ming Chiao Tung University

P030 - Electrochemical Ammonia Stripping from Source-Separated Urine: Implications of Anode- and Cathode-Fed Approaches

Philip Arve¹, Sudeep Popat¹
1 Clemson University

P031 - Formation and Gene Expression of VBNC and Resuscitated Bacteria Induced by Chlorine and UV Treatment

Lok Yi Tang¹, Yuen Man Chung¹, Yee Nam Yu¹, Chun Kwan Lau¹
1 Hong Kong University of Science and Technology

P032 - Evaluation of Phosphorus Removal from Synthetic Swine Effluent by Electrocoagulation with Experimental Design

Ketley Costa Rocha Arruda¹, Thamires Custodio Jeremias¹, Ana Carla Sorgato¹, Maria Eliza Nagel Hassemer¹, Maria Ángeles Lobo-Recio¹, Flávio Rubens Lapolli¹
1 Postgraduate Program in Environmental Engineering, Federal University of Santa Catarina

P033 - Innovative Bioelectrochemical Approach to Textile Wastewater Treatment: Harnessing MFCs for Energy Recovery and Dye Decolorization

Magali Teresinha Ritter¹, Amanda Dalalibera¹, Isabel Padilla², Maria Eliza Nagel-Hassemer¹, Flávio Rubens Lapolli¹, María Ángeles Lobo-Recio³
1 Department of Environmental Engineering, Federal University of Santa Catarina (UFSC), Campus Reitor João David Ferreira Lima, 88.040-900, Florianópolis, SC, Brazil
2 Department of Materials, Eduardo Torroja Institute for Construction Sciences (IETcc-CSIC), Serrano Galvache Street, 4, 28033 Madrid, Spain
3 Department of Energy and Sustainability, Federal University of Santa Catarina (UFSC), Campus Araranguá, Rod. Gov. Jorge Lacerda, 3201, Jardim das Avenidas, 88.906-072, Araranguá, SC, Brazil

P034 - Recent studies on the application of electrocoagulation associated with membrane filtration in the treatment of anaerobic digestion effluents

Luísa Dos Anjos¹, Ketley Arruda¹, André Battistelli¹, Maria Eliza Hassmer¹, María Ángeles Lobo-Recio¹, Flávio Lapolli¹
1 Postgraduate Program in Environmental Engineering - PPGEA, Federal University of Santa Catarina, Delfino Conti Street, 261 - Trindade, Campus Universitário - Trindade, 88040-970, Florianopolis - SC, Brazil

P035 - Nitrate and phosphate removal by ZVI-based materials reactors for small wastewater treatment plants

Edgar Godet¹, Michel Baudu¹, Pauline Lanet², Véronique Deluchat¹
1 E2Lim Laboratory
2 CTE Limoges

P036 - Biological valorisation of syngas into the valuable pharmaceutical compound hydroxyectoine: proof of concept and optimisation

Eva Marcos Rodrigo^{1, 2}, Raúl Muñoz^{1, 2}, Raquel Lebrero^{1, 2}, Sara Cantera^{1, 2}, Nicolás Díaz¹
1 Department of Chemical Engineering and Environmental Technology, University of Valladolid. Valladolid. Spain.
2 Institute of sustainable processes, University of Valladolid, Valladolid, Spain.

P037 - CO₂ and Methane integral bioconversion to SCP, PHA and Methanol: COMBOI project

Sandra Chacón¹, Carolina Colvée¹, María Gauchía¹, Andrés Sala², Ana Torrejón¹
 1 Department of Industrial Biotechnology, AINIA Technology Center (Valencia, Spain).
 2 Department of Materials and Packaging Technology, AINIA Technology Center (Valencia, Spain).

P038 - Concentration of phenolic compounds from citrus waste by forward osmosis and membrane distillation

Silvia Álvarez-Blanco¹, Pablo Alonso-Vázquez¹, Klara Burggraeve², Beatriz Elena Cuartas-Uribé¹, María-Cinta Vincent-Vela¹
 1 Universitat Politècnica de València
 2 HOGENT University of Applied Sciences and Arts

P039 - Deciphering the Bacterial Synergies in PHA Accumulation: The Close Relationship between Burkholderia and Chitinophaga

David Correa-Galeote¹
 1 Microbiology and Environmental Technology Section, Water Research Institute, University of Granada, 18011 Granada, Spain

P040 - Effect of temperature and substrate to biomass ratio on the conversion of organic matter into VFAs

Beatriz Molinuevo-Salces¹, María Carmen Gando-Maseda¹, Paula Clavo de Diego¹, María Cruz García-González¹, Mercedes Sánchez-Báscones¹
 1 Department of Agroforestry Sciences, ETSIAA, University of Valladolid, Avenida Madrid 44, 34004, Palencia, Spain.

P041 - Enzymatic pre-treatment of sewage sludge for organic matter solubilization

Laura Isern-Cazorla¹, Julián Carrera¹, María Eugenia Suárez-Ojeda¹
 1 Universitat Autònoma de Barcelona

P042 - Intrinsic polyhydroxyalkanoates production potential from wastewater in biological nutrient removal systems

Madalena Varandas¹, Viviane Runa², Simon Bengtsson³, Ana B. Lanham^{1, 4}, Maria Teresa Cesário^{1, 5}
 1 iBB and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal
 2 EPSRC Centre for Doctoral Training in Sustainable Chemical Technologies, Department of Chemical Engineering, University of Bath, United Kingdom
 3 VA SYD, Malmö, Sweden & Sweden Water Research AB, Lund, Sweden
 4 Department of Chemical Engineering, Water Innovation and Research Centre, University of Bath, Bath, United Kingdom
 5 Associate Laboratory i4HB—Institute for Health and Bioeconomy at Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal

P043 - Nanotechnological Advances in Hydrometallurgy for the Sustainable Treatment of Wastewater and Critical Metal Recovery

Giovani Pavoski^{1, 2}, Denise Croce Romano Espinosa¹, Wenying Liu², Jorge Alberto Soares Tenorio¹
 1 University of São Paulo
 2 The University of British Columbia

P044 - Minimization of Greenhouse Gas (GHG) Emissions and Recovery of Latex from Skim Latex Wastewater through Ceramic Ultrafiltration

Watsa Khongnakorn¹, Supakorn Sansaneeyapeurk¹, Bucha Pipattapan^{2, 3}, Paneeya Wuttisassana³, Theerawat Suratago³
 1 Department of Civil and Environmental Engineering, Faculty of Engineering, Prince of Songkla University, 15 Kanjanavanit Rd., Hat Yai, Songkhla 90110, Thailand
 2 Faculty of Environmental Management, Prince of Songkla University, 15 Kanjanavanit Rd., Hat Yai, Songkhla 90110, Thailand
 3 Sri Trang Agro-Industry Public Company Limited, 10 Soi 10, Phetkasem Rd., Hat Yai, Songkhla 90110, Thailand

P045 - Relation between microbial community and product formation under different operational temperatures for fatty acid production

Leonor Q. Lobo¹, Isaac Owusu Agyeman¹, Luisa W. Hugher², Zeynep Cetecioglu¹
 1 Department of Industrial Biotechnology, KTH Royal Institute of Technology, Sweden
 2 Department of Medical Biochemistry and Microbiology, Uppsala University, Sweden

P046 - Resource Recovery Toolbox: accelerating implementation of circular cities through bridging knowledge and practice.

Adriana Soto¹, Daniel Ddiba¹, Linus Dagerskog¹, Sveva Lazzati¹, Silvija Marcinkevičiūtė¹, Richard Taylor¹
 1 Stockholm Environment Institute

P047 - Synthesis and Evaluation of PHBV Nanoparticles Derived from Whey for Controlled Drug Delivery Applications

Loreto Cabarcos Mouzo¹, Silvia María Díaz Prado², María Carmen Veiga Barbazán¹, Christian Kennes¹
 1 Department of Chemical Engineering and Faculty of Sciences and Centre for Advanced Scientific Research (CICA), Research group: BIOENGIN, University of A Coruña, Rúa da Fraga 10, E - 15008 A Coruña, Spain
 2 Institute of Biomedical Research of A Coruña (INIBIC), University Hospital Complex A Coruña (CHUAC), Galician Health Service (SERGAS), A Coruña, 15006

P048 - Copper Hexacyanoferrate (CuHCF)/Activated Carbons (ACs) Flow-electrode Capacitive Deionization (FCDI) System for Ammonia Removal

Pei-Hung Tsang¹, Ching-Yu Peng¹
 1 Department of Water Resources and Environmental Engineering, Tamkang University

P049 - Exploring the valorisation potential of urban wastewater in Flanders by the application of a 2-stage technology

Lennert Dockx¹
1 Aquafin NV

P050 - Influence of Operational Parameters on Particle Size Reduction of Sewage Sludge in Pilot Thin Film Dryer

Ayumi Schober¹
1 Ayumi Schober

P051 - Integration of Nitrogen Recovery and Biogas Enrichment in WWTPs through Bioelectrochemical Technologies

Federico Ferrari¹, Jorge Luque Rueda², Ruben Rodríguez-Alegre², Pau Bosch-Jimenez², Carlos Andeocochea Saiz², Sergi Durán-Videra², Eduard Borras², María M. Micó²
1 ACCIONA, Innovation Department, Av. Les Garrigues, 22, 08820, El Prat de Llobregat, Barcelona, Spain
2 Leitat Technological Center, Circular Economy & Decarbonization Department, C/ de la Innovació, 2, 08225, Terrassa, Barcelona, Spain

P052 - Optimizing liquid-to-liquid membrane distillation for ammonia removal and recovery from wastewater: Impact of key operational parameters

Bogna Sniatala¹, Dominika Sobotka¹, Bartosz Szela², Jacek Makinia¹
1 Faculty of Civil and Environmental Engineering, Gdańsk Tech, Narutowicza 11/12, 80-233 Gdańsk, Poland
2 Faculty of Environmental Engineering, Geomatics and Renewable Energy, Kielce University of Technology, Tysiąclecia Państwa Polskiego 7, Kielce, Poland

P053 - Phosphorus recovery as vivianite from anaerobic digester: model-based analysis of influencing factors

Hafiz Zargham Bin Imran¹, Paula Carrera¹, Thomas Prot², Di Wu^{1, 3}, Eveline Volcke¹
1 BioCo Research Group, Department of Green Chemistry and Technology, Ghent University, Coupure Links 653, 9000 Gent, Belgium
2 Wetsus, European Centre Of Excellence for Sustainable Water Technology, Oostergoweg 9, 8911 MA, Leeuwarden, The Netherlands
3 Centre of Green Chemistry and Environmental Biotechnology (GREAT), Ghent University Global Campus, 119-5 Songdo Munhwa-ro, Yeonsu-gu, Incheon 406-840, Republic of Korea.

P054 - Startup Strategies for Nitrification in a Moving Bed Biofilm Reactor Treating Blackwater Digestate

Stephanie Rusch Fehrmann¹, Stephanie Rusch Fehrmann¹, Annelie Hedström¹, Inga Herrmann¹, David J.I Gustavsson², 3, Hamse Kjerstadius⁴, Andreas Johansson⁵, Maria Gelfgren¹, Elisabeth Kvarnström¹

1 Department of Civil, Environmental and Natural Resources Engineering, Luleå University of Technology, 97187 2 VA SYD, Box 191, 20121 Malmö, Sweden

3 Sweden Water Research AB, Fabriksgatan 4 Nordvästra Skånes Vatten och Avlopp AB, Rönnnowsgatan 10, 252 20 Helsingborg, Sweden

5 Department of Computer Science, Electrical and Space Engineering, Luleå University of Technology, 97187, Luleå, Sweden.

P055 - Stepwise Crystallization and Nutrient Partitioning During Evaporative Dehydration of Acidified Human Urine

Ya Gao¹, Björn Vinnerås¹, Prithvi Simha¹
1 Swedish University of Agricultural Sciences

P056 - Strategies for improving economic and environmental sustainability of wet chemical phosphorus recovery from sewage sludge ash

Lorenzo Esposito¹, Gaia Boniardi², Daniel El Chami³, Roberto Canziani¹, Andrea Turolla¹
1 Politecnico di Milano
2 The University of Queensland
3 TIMAC AGRO International

P057 - Urine diverting Waterlocks & Pipes – enzymatic activity and factors that affect the rate of urea hydrolysis

Christoffer Parrow Melhus¹, Prithvi Simha¹, Jenna Senecal-Smith¹, Björn Vinnerås¹
1 Department of Energy & Technology, Swedish University of Agricultural Sciences (SLU)

P058 - A Framework for Evaluating Large-Scale Resource Recovery Strategies to Achieve Compliance with Directive (EU) 2024/3019

Sina Borzooei¹, Giuseppe Campo², Barbara Ruffino², Alberto Cerutti², Mariachiara Zanetti²
1 Swedish Environmental Research Institute IVL
2 Politecnico di Torino

P059 - Exploring Exopolymeric Substances Production from Methane by Methanotrophic Bacteria

David Primo-Catalunya¹, Milagros Peña-Castro¹, Jose Luis Balcázar¹, Maite Pijuan¹
1 Catalan Institute for Water Research (ICRA), C. Emili Grahit 101, 17003 Girona, Spain

P060 - Performance of a biochar produced from cellulose as admixture in constructed wetlands used to treat wastewater effluent and combined sewer overflows

Silvia Venditti¹, Irene Salmeron¹, Joachim Hansen¹
1 University of Luxembourg

P061 - Application of Stable Isotope Techniques for an In-Depth Understanding of Syngas Biomethanation Conversion Pathways

Irene Bonato¹, Arianna Catenacci¹, Sergio Gil-Villalba², Francesca Malpei¹
 1 Politecnico di Milano
 2 Isotope Tracer Technologies S.r.l.

P062 - Biomethane potential of confectionery wastewater: evaluating the effects of inoculum and initial organic matter concentration

Annalisa Russo¹, Armando Oliva¹, Alessandra Cesaro¹
 1 Department of Civil, Architectural and Environmental Engineering, University of Naples Federico II, Via Claudio 21, 80125, Naples, Italy

P063 - Effect of pH on conversion of palmitic acid in anaerobic digesters fed with fats, oils, and grease (FOG) for energy recovery

Julia Ann Funk¹, Sudeep Popat¹
 1 Clemson University

P064 - Effect of Thermal Hydrolysis on Municipal Solid Waste and SBR Sludge

Anjali Anand¹, Ohm Soni¹, Gowtham Balasundaram¹, Pallavi Gahlot², Absar

Kazmi¹, Vinay Tyagi², Harald Kleiven³, Ashish Kumar Sahu³
 1 Department of Civil and Environmental Engineering, Indian Institute of Technology, Roorkee, India
 2 National Institute of Hydrology, Roorkee, India
 3 Cambi Group AS, Asker, Norway

P065 - Sludge and food waste co-digestion as a tool to energy neutral wastewater treatment

Pavel Jenicek¹, Dominik Stransky^{1, 2}, Martin Srb²
 1 University of Chemistry and Technology Prague, Czech Republic
 2 Pražské vodovody a kanalizace a.s., Czech Republic

P066 - Can silica materials aid in the removal of disinfection byproducts from water?

Maria Inês Roque¹, Matheus M. Pereira¹, Teresa Chichorro¹, Artur J.M. Valente², Sílvia Gramacho³, Rui C. Martins¹, Luisa Durães¹
 1 University of Coimbra, CERES, Department of Chemical Engineering, 3030-790 Coimbra, Portugal
 2 CQC-IMS, Department of Chemistry, University of Coimbra, Rua Larga, 3004-535 Coimbra, Portugal
 3 Department of Chemistry, University of Coimbra, Rua Larga, 3004-535 Coimbra, Portugal

P067 - Can the combination of double hydroxide adsorption and UV/H₂O₂ treatment enhance the removal of textile dyes?

Lorena Gonzalez-Gil¹, Pedro Hidalgo², Lara Febrero¹, Rosa Devesa-Rey¹
 1 Defense University Centre at the Spanish Naval Academy, Group of Thermal and Environmental Engineering (InTeam), Plaza de España, 36920 Marín, Pontevedra, Spain
 2 Armada Española, Ministerio de Defensa

P068 - Economic perspective of nature-based solutions supporting re-use of greywater and rainwater implemented on a building in an university campus

Marie Neumanová¹, Jan Vymazal¹
 1 Department of Applied Ecology, Faculty of Environmental Sciences, Czech University of Life Sciences Prague, Kamýcká 129, 165 00 Prague – Suchodol, Czech Republic

P069 - Optimization of Advanced Oxidation Processes for the removal 4-Chloro-L-phenylalanine Using Layered Double Hydroxide Catalysts

Teresa Chichorro¹, Maria Inês Roque¹, Matheus M. Pereira¹, Fethi Ghribi², 3, João Gomes¹, Luisa Durães¹, Rui C. Martins¹

1 University of Coimbra, CERES, Department of Chemical Engineering, University of Coimbra, Rua Sílvio Lima, 3030-790 Coimbra, Portugal

2 Centre de Recherche Scientifique et Technique en Analyses Physico-chimiques (CRAPC). Zone Industrielle, BP 384 Bou-Ismail, Tipaza, Algeria

3 Unité de Recherche en Analyses Physico-Chimiques des Milieux Fluides et Sols -(URAPC-MFS/ CRAPC), 11, Chemin Doudou Mokhtar, Ben Aknoun - Alger, Algeria

P070 - Promotion of Water Reuse Applications: Development of a DST to Facilitate the Selection of the Best Purification Treatment

Irene Salmerón¹, 2, Silvia Venditti², Paula Núñez-Tafalla², Martin Biehler¹, Joachim Hansen²

1 TR-Engineering, 86-88 Rue de l'Égalité, L-1456 Luxembourg
 2 University of Luxembourg, Department of Engineering, 6, rue Richard Coudenhove-Kalergi, L-1359 Luxembourg

P071 - Selective photocatalytic removal of procaine – comparison of molecularly imprinted and non-imprinted TiO₂ material

Kristina Tolić Čop¹, Dragana Mutavdžić Pavlović¹, Leona Čakić¹, Ivana Gabelica²

1 University of Zagreb, Faculty of Chemical Engineering and Technology

2 University of Zagreb, Faculty of mechanical engineering and naval architecture

P072 - Utilization of Reclaimed Water for Non-Potable Uses in Sweden (REUSE)

Shruti Subhash Jagtap¹, Emma Björnberg², Gunnar Larsson³, Timos Karpouzoglou⁴, Sahar Dalahmeh¹

1 KTH Royal Institute of Technology, Department of Sustainable Development, Environmental Science and Engineering, Teknikringen 10B, SE-10044 Stockholm, Sweden

2 Uppsala Vatten och Avfall AB, Uppsala, Sweden

3 Swedish University of Agricultural Science, Department of Energy and Technology, SE-75007 Uppsala, Sweden

4 Linköping University, Department of Thematic Studies (TEMA), Campus Valla, TEMA building, SE-58183 Linköping, Sweden

P073 - Waste-Derived Activated Carbons for Water Remediation: Efficient Removal of Ozone-Resistant Pollutants via Adsorption & Catalysis

Cátia A. L. Graça¹, 2,O. Salomé G. P. Soares¹, 2

1 Laboratory of Separation and Reaction Engineering - Laboratory of Catalysis and Materials

2 ALICE - Associate Laboratory in Chemical Engineering, Faculty of Engineering, University of Porto

P074 - Assessment of the fate of microplastics in wastewater treatment plants

Vanesa Paramá Pérez¹, Cecilia Lores Fernández¹, Emilio Roldán Álvarez¹, Antón Santos Taboada¹, Celia María Castro Barros¹, Leticia Rodríguez Hernández², Hugo Quintana

1 CETQUA- Water Technology Centre

2 Viaqua

P075 - BIODAPH: an eco-efficient tertiary technology to obtain high quality water for reuse

Manuela Hidalgo¹, Victòria Salvadó¹, Teresa Serra¹, Jordi Colomer¹, Ana Karen Agustin¹, Vaggelis Stavridis², Taxiarhis Seintos², Eleni Nyktari², Anna Marizzi del Olmo³, Víctor Matamoros³, Julio Cesar López-Doval⁴

1 University of Girona (Girona, Spain)

2 Dept. of Water Resources and Environmental Engineering, National Technical University of Athens (Athens, Greece)

3 Dept. of Environmental Chemistry. IDAEA-CSIC (Barcelona, Spain)

4 BETA Technological Centre - University of Vic - Central University of Catalonia (Vic, Spain)

P076 - Combining granular UASB and biochar adsorption as two-step sustainable domestic wastewater treatment for resource recovery and micropollutant removal

Domenica Mosca Angelucci¹, Nicolas Pennazza¹, Enrica Donati², Monica Brienza³, Oussama Baaloudj³, M. Concetta Tomei¹

1 Water Research Institute, National Research Council (CNR-IRSA), Via Salaria km 29.300, CP 10, 00015 Monterotondo Stazione (Rome), Italy

2 Institute for Biological Systems - National Research Council (CNR-ISB), Via Salaria km 29.300, CP 10, 00015 Monterotondo Stazione (Rome), Italy

3 Dipartimento di Scienze di Base ed Applicate, Università degli Studi della Basilicata, Viale dell'Ateneo Lucano 10, 85100 Potenza, Italy

P077 - Degradation of a surfactant sodium dodecyl benzene sulfonate (SDBS) in water matrices by ionizing irradiation and changes in micelle property

Libing Chu¹

1 Tsinghua University

P078 - Development of a multidisciplinary approach for systemic evaluation of native enzymes for micropollutants elimination.

Jeanne TROGNON¹, Muhammad ESHAMUDDIN¹, Claire ALBASI¹

1 Laboratoire de Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, Toulouse, France

P079 - Modeling the fate of the transformation products generated by the degradation of carbamazepine and atenolol in various water treatment processes

Jeanne TROGNON¹, Jean-Marc CHOUBERT², Karyn LE MENACH³, Hélène BUDZINSKI³, Claire ALBASI¹

1 Laboratoire de génie Chimique, Université de Toulouse, CNRS, INPT, UPS, Toulouse, France,

2 INRAE UR REVERSAAL, Villeurbanne, France

3 Université de Bordeaux 1, EPOC, LPTC, UMR 5805, Laboratoire de Physico et Toxicobiologie de l'Environnement, 351, cours de la Libération, 33405 Talence, France

P080 - Nutrient Adsorption onto Modified Biochar for Stormwater Treatment

A. H. M. Faisal Anwar¹, Boyuan Chen¹

1 School of Civil and Mechanical Engineering, Curtin University, Perth, Western Australia

P081 - Removal of Pharmaceutical Pollutants from Water Using Pectin-Based Hydrogel Adsorbents

Carolina Iacobone^{1, 2, 3}, Francesco Coin^{2, 3}, Silvana Cerveny^{1, 2}

1 Donostia International Physics Center (DIPC), Paseo Manuel de Lardizabal 4, San Sebastián 20018, Spain

2 Centro de Física de Materiales (CSIC, UPV/EHU)-Materials Physics Center (MPC), Paseo Manuel de Lardizabal 5, San Sebastián 20018, Spain

3 Departamento Polímeros y Materiales Avanzados: Física, Química y Tecnología, University of the Basque Country (UPV/EHU), P. Manuel Lardizabal 3, 20018 San Sebastián, Spain

P082 - Effects of Crystalline Phases on Adsorption of As (III) and Se (IV) by Copper Ferrite Particles

Chih-Huang Lai¹

1 National Tsing Hua University

P083 - Hybrid Managed Aquifer Recharge - An experimental study on pretreatment effects on biodegradation of trace organic contaminants

Felicia Linke¹, Magdalena A. Knabl¹, Jörg E. Drewes¹

1 Technical University Munich, Chair of Urban Water Systems Engineering, Am Coulombwall 3, 85748 Garching, Germany

P084 - Enhancing anaerobic degradation of carbamazepine through hydrolases and hydrolase-inducing substrates

Yutong Guo¹, Zhe Deng¹, Najmeh Askari¹, Ilse Smets¹, Lise Appels¹

1 KU Leuven

P085 - Removal of Pharmaceuticals from Water Using Char Derived from Spent PVDF Membranes: Preliminary Modification Tests

Isabel Pereira da Silva^{1, 2}, Giovanni Souza Casella², Cássia Ribeiro Souza¹, Ali Maged³, Frederico Marques Penha⁴, Eduardo Coutinho de Paula², Sonia Denise Ferreira Rocha¹

1 Mining Engineering Department, School of Engineering, Federal University of Minas Gerais, Av. Antônio Carlos 6627, Pampulha, Belo Horizonte-MG, 31270-901, Brazil

2 Department of Sanitary and Environmental Engineering, School of Engineering, Federal University of Minas Gerais, Av. Antônio Carlos 6627, Pampulha, Belo Horizonte-MG, 31270-901, Brazil

3 Geology Department, Faculty of Science, Suez University, 43221, Suez, Egypt

4 Department of Chemical Engineering, KTH Royal Institute of Technology, CBH School, Teknikrigen 42 114 28, Stockholm, Sweden

P086 - Micropollutant Removal: 10 Years Full-Scale Experience which impact the Future

Ludwig Dinkloh¹, Laurent De Franceschi¹, Amanda Murillo¹, Charlotte Bopp¹, Giacomo Scaramuzzi¹

1 Veolia Ozonia Switzerland AG

P087 - Zero-valent iron nanoparticles supported on cellulose-based materials for efficient p-nitrophenol removal

Stephanie Novaes¹, Michael Serpe¹

1 University of Alberta

P088 - Insights into the effects of contaminants of emerging concern on mainstream anammox process

Paula Yumi Takeda^{1, 2}, Elis Watanabe Nogueira¹, Thiago Vinicius Ribeiro Soeira¹, Flávia Talarico Saia³, Márcia Helena Rissato Zamariolli Damianovic¹, Rodrigo Braz Carneiro⁴

1 University of São Paulo São Carlos School of Engineering

2 University of Santiago de Compostela Department of Chemical Engineering

3 Federal University of São Paulo Institute of Marine Sciences

4 University of São Paulo São Carlos Institute of Chemistry

P089 - The Effects of pyrolysis scrubber liquids on anaerobic digestion of cow manure

Sakariye Shariif Yuusuf Hirsi¹

1 Muhammad Tahir Ashraf

P090 - MOF-Biochar composite: a cost-effective adsorbent for the removal of heavy metals in wastewater treatment

Samaneh Ghaedi¹, Hamid Rajabi², Mojgan Hadi Mosleh¹, Majid Sedighi¹

1 The University of Manchester

2 University of Liverpool

P091 - Occurrence and removal of microplastics in various wastewater treatment plants in Saudi Arabia

Shaima Iskandarani^{1, 2}

*1 *Department of Civil, Environmental and Geomatic Engineering, University College London, Gower St, Bloomsbury, London, WC1E 6BT, United Kingdom*

*2 ** Biological and Environmental Science and Engineering (BESE) Division, King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Kingdom of Saudi Arabia*

P092 - Influence of ultrasound application on the release of microplastics from digestate.

Samuel Navajas Valiente¹, María Amparo Bes Piá^{1, 2}, José Antonio Mendoza Roca¹

1 University Research Institute for Industrial, Radiophysical and Environmental Safety (ISIRYM), Universitat Politècnica de València, Valencia, Spain

2 Department of Chemical and Nuclear Engineering, Universitat Politècnica de València, Spain

P093 - Assessment of MPs separation in centrate samples using submerged polymeric microfiltration membranes.

Samuel Navajas Valiente¹, Patricia Llacer Grau¹, María Amparo Bes Piá^{1, 2}, José Antonio Mendoza Roca^{1, 2}

1 University Research Institute for Industrial, Radiophysical and Environmental Safety (ISIRYM), Universitat Politècnica de València, Valencia, Spain

2 Department of Chemical and Nuclear Engineering, Universitat Politècnica de València, Spain

P094 - Effect of Relaxation Time on Fouling Rate in Membrane Bioreactor Applications in Laundry Machine Shop

Watsa Khongnakorn¹, Jasmin Bensalah¹, Rattana Kaewnamrob¹

1 Department of Civil and Environmental Engineering, Faculty of Engineering, Prince of Songkla University, 15 Kanjanavanit Rd., Hatyai, Songkhla 90110, Thailand

P095 - Life Cycle Assessment of Up-flow Anaerobic Sludge Blanket Microfiltration Osmotic Membrane Bioreactor

Sümeyye Hasanoglu¹, Yasemin Kaya¹, Zeren Beril Gönther¹, Gulsum Yilmaz¹, Ilknur Yalcin Guney¹, Coskun Aydiner², Ilda Vergili¹

1 Istanbul University-Cerrahpaşa

2 Gebze Technical University

P096 - Water Reclamation from Textile Dyeing Wastewater by means of Membrane Distillation

Masoud Delsouz Chahardeh¹, Carmen M. Sánchez-Arévalo², Alireza Shakeri¹, Silvia Álvarez-Blanco², Beatriz Cuartas-Uribe², M. Cinta Vincent-Vela²

1 School of Chemistry, College of Science, University of Tehran, P.O. Box 14155-6619, Tehran, Iran

2 Research Institute for Industrial, Radiophysical and Environmental Safety (ISIRYM), Universitat Politècnica de València, Camino de Vera, s/n, 46022 Valencia, Spain

P097 - Treatment of Textile Wastewater by means of Forward Osmosis. Towards Dyeing New Jeans with Recovered Dyes

Carmen M. Sánchez-Arévalo¹, Ane Pérez García-Serrano¹, Silvia Álvarez-Blanco¹, Beatriz Cuartas Uribe¹, M. Cinta Vincent-Vela¹
¹ Universitat Politècnica de València

P098 - Nitrogen recovery from municipal solid waste leachate by membrane contactor

Iván Puchol-Candel¹, Beatriz Cuartas-Urbe¹, Jose-Antonio Mendoza-Roca¹, maría-José Lujan-Facundo¹
¹ Universitat Politècnica de València, Valencia, Spain

P099 - Synergistic effects of cis-2-decenoic acid and sodium hypochlorite on biofouling control in MBR

Sungjin Park¹, Wonjung Song², Chehyeon Kim¹, Taelim Jang¹, Jiwon Han¹, Jihyang Kweon¹
¹ Department of Environmental Engineering, Konkuk University, Seoul 05029, Republic of Korea
² Eco industry - convergence and open sharing center, Innovation Convergence Center, Konkuk University, Seoul, 05029, Republic of Korea

P100 - Industrial Wastewater Reuse: Water Recovery and Brine Concentration by Means of

Membrane Technology Synergies
 Maroš Grošák¹, Libor Šeda¹
¹ MemBrain s.r.o., Pod Vinicí 87, 47127 Stráž pod Ralskem, Czechia

P101 - Sustainable Manure Management in Comunidad Valenciana, Spain: Anaerobic Digestion as a Circular Economy Solution

Ivana Ivailova¹, Gema Arjona¹, Adriana Pacherres¹, Carlos Pizarrro¹, Pablo López¹
¹ AINIA

P102 - Eco-Efficiency and Marginal Cost of Reducing Scope 2 Greenhouse Gas Emissions in Wastewater Treatment Plants

Maria Molinos-Senante¹, Alexandros Maziotis²
¹ University of Valladolid
² New York College

P103 - The application of membrane contactors in wastewater treatment systems downstream of anaerobic membrane bioreactors

Norbert Selzer¹, Martin Ulbricht¹, Angel Robles²
¹ Solventum Germany GmbH, Öhder Str. 28, 42289 Wuppertal, Germany
² Universitat de Valencia - Department of Chemical Engineering, Av. de la Universitat, 46100 Burjassot, Spain

P104 - Electrochemical oxidation of per- and polyfluoroalkyl substances in landfill leachate: A short review

Pubali Mandal¹, Manoj Kumar Yadav²
¹ Department of Civil Engineering, Birla Institute of Technology and Science Pilani, Rajasthan 333031, India
² Department of Civil and Environmental Engineering, Indian Institute of Technology Patna, Patna 801106, India

P105 - Environmental Sustainability Assessment of Innovative Materials for Wastewater Treatment Using Life Cycle Assessment

Dimitrios Ziotas^{1, 2, 3, 4, 5, 6, 7, 8}
¹ Dimitrios Ziotas, University of Bologna (UNIBO), Department of Industrial Chemistry "Toso Montanari", Via Piero Gobetti 85, 40129 Bologna, Italy
² Fabrizio Passarini, University of Bologna (UNIBO), Department of Industrial Chemistry "Toso Montanari", Via Piero Gobetti 85, 40129 Bologna, Italy
³ Daniele Cespi, University of Bologna (UNIBO), Department of Industrial Chemistry "Toso Montanari", Via Piero Gobetti 85, 40129 Bologna, Italy
⁴ Luca Ciacci, University of Bologna (UNIBO), Department of Industrial Chemistry "Toso Montanari", Via Piero Gobetti 85, 40129 Bologna, Italy
⁵ Antonio Arques, Polytechnic University of Valencia (UPV), Department of Textile and Paper Engineering, Spain
⁶ Gaia Mattarello, Polytechnic University of Valencia (UPV), Department of Textile and Paper Engineering, Spain
⁷ Vittorio Boffa, Aalborg University (AAU), Department of Chemistry and Bioscience, Denmark
⁸ Paolo Iaconis, Aalborg University (AAU), Department of Chemistry and Bioscience, Denmark

P106 - Microbial bioprocesses in the sustainable production of water, energy, chemicals and soil improvement from industrial side streams

Elias Hakalehto¹, Taru Hanski², Matti Yliknuussi²
¹ Finnoflag Oy
² Helen Ltd

P107 - Water-Energy-Food-Ecosystem nexus assessment: interactions between Scale, Circularity, Greening, and Digitalization at Urban Water Systems design

Nicole Arnaud De Aguiar¹, Lucia Alexandra Popartan¹, Marta Verdaguer¹, Manuel Poch¹
¹ University of Girona

P108 - Ecological Assessment of the Use of Oxygen from Water Electrolysis on Municipal Wastewater Treatment Plants

Zoé Béalu¹, Johanna Walther¹, Oliver Gretzschel¹, Heidrun Steinmetz¹
¹ RPTU University of Kaiserslautern-Landau

P109 - Feasibility Study for the Implementation of Hydrothermal Liquefaction in Southeast Michigan: Considering Environmental, Economic, and Social Aspects

Xavier Fonoll Almansa¹, John Norton², Andrew Marcus², William Wehner¹, Shuyun Li³, Yuan Jiang³, Timothy Seiple³, Mahmoud Ataya⁴, Carol Miller⁴, Yongli Wager⁴
¹ University of Texas at Austin
² Great Lakes Water Authority
³ Pacific Northwest National Laboratory
⁴ Wayne State University

P110 - Construction of a Biofiltration system for Urban Water Runoff (UWR) management: environmental impact determination using Life Cycle Assessment (LCA)

Valeria Acevedo García¹

¹ Singular Strategic Safe and Sustainable Initiatives (S4I), AIMEN, 27A Calle Relva Torneiros, Porrino, 36410, Spain

P111 - Monitoring Antineoplastics Agents in the Environment: A Prioritization Strategy and Evaluation of Renewable Biomass-Based Passive Samplers

Taciana Guarnieri¹, Camilo Dias Seabra Pereira³, Rodrigo Brasil Choueri³, Sherlan Guimarães Lemos⁴, Décio Semensatto^{1, 5, 6}, Vanessa Pereira², Geórgia Labuto^{1, 6, 8}
¹ Laboratory of Integrated Sciences, Universidade Federal de São Paulo, Diadema, SP, 09972-270, Brazil

² iBET - Instituto de Biologia Experimental e Tecnológica, Av. da República, 2780-157, Oeiras, Portugal

³ Department of Marine Sciences, Universidade Federal de São Paulo, Santos, SP, 11030-100, Brazil

⁴ Advanced Study Group in Analytical Chemistry, Department of Chemistry, Universidade Federal da Paraíba, João Pessoa, PB, 58051-970, Brazil

⁵ Department of Environmental Sciences, Universidade Federal de São Paulo, Diadema, SP, 09972-270, Brazil

⁶ ARIES Antimicrobial Resistance Institute of São Paulo, SP, Brazil

⁷ ITQB Instituto de Tecnologia Química e Biológica António Xavier, Av. da República, 2780-157, Oeiras, Portugal

⁸ Department of Chemistry, Universidade Federal de São Paulo, Diadema, SP, 09913-030, Brazil

P112 - From Waste to Resource: Exploring the Double-Edged Benefits of Contaminated Biomass in Biochar Production

Piotr Cichy¹, Joanna Kalka¹

¹ Environmental Biotechnology Department, Faculty of Energy and Environmental Engineering, Silesian University of Technology, Akademicka 2, Gliwice, Poland

P113 - Towards Net-Zero Targets in Industrial Wastewater Treatment Systems using Digital Decision Support Tools

Tianyu Lei¹, Jaime Whale-Obrero², Sille Larsen², Siying Cai³, Kasper Kjellberg², Krist Gernaey¹, Xavier Flores-Alsina¹

¹ Process and Systems Engineering Centre (PROSYS), Department of Chemical and Biochemical Engineering, Technical University of Denmark

² Novonesis A/S, Hallas Alle 1, 4400, Kalundborg, Denmark

³ Individual LCA consulter

P114 - Antimicrobial resistance and untreated wastewater: Review of research carried out on Enterobacteriaceae in urban water bodies in Bolivia

Freddy Soria¹, Carolina Garvizu¹, Omar Salinas¹

¹ Universidad Católica Boliviana San Pablo

P115 - Sustainable Management of Municipal Wastes

Oguzhan Cekim¹, Sumeyye Hasanoglu¹, Burçak Bozkurt¹, Yunus Emre Öztürk¹, Almina Özkan¹, Gulsum Yilmaz¹

¹ Department of Environmental Engineering, İstanbul University-Cerrahpaşa, Avcılar, 34320, İstanbul, Turkey

P116 - Decentralized Urban Water Systems gone wrong? A critical perspective on the Global North and South

Luz Karime Sánchez Galvis¹, Alexandra Popartan¹, Héctor Monclús¹, Manel Poch¹

¹ Laboratory of Chemical and Environmental Engineering, Universitat de Girona, Campus Montilivi s/n, E-17071, Girona, Catalonia, Spain.

P117 - Water-nutrients nexus between rural wastewater treatment plants and agriculture: sustainable location sites

Ignacia Martínez¹, Cristina Alejandra Villamar Ayala², Franco Quezada¹

¹ Departamento de Ingeniería Industrial, Facultad de Ingeniería, Universidad de Santiago de Chile

² Departamento Ingeniería Civil en Obras Civiles, Facultad de Ingeniería, Universidad de Santiago de Chile

P118 - Cilastatin in Hospital Wastewater as an Indicator of Imipenem Use

Joanna Wilk¹, Sylwia Bajkacz¹, Ewa Felis², Monika Harnisz³, Ewa Korzeniewska³

¹ Silesian University of Technology, Faculty of Chemistry, Department of Inorganic Chemistry, Analytical Chemistry and Electrochemistry, B. Krzywoustego 6 Str., 44-100 Gliwice, Poland

² Silesian University of Technology, Faculty of Power and Environmental Engineering, Environmental Biotechnology Department, Akademicka 2 Str., 44-100 Gliwice, Poland

³ Department of Engineering of Water Protection and Environmental Microbiology, Faculty of Geoengineering, University of Warmia and Mazury in Olsztyn, Prawocheńskiiego 1 Str., 10-720, Olsztyn, Poland

P119 - Development of a volumetric microbial respirometer for biochemical oxygen demand measurement in wastewater analysis

Jing Liu¹

¹ J. Liu

P120 - Real-Time Sensor Integration and AHP Analysis for Optimizing Stormwater Management in Green Infrastructure

Minsu Jeon¹, Miguel Enrico Robles¹, Sangrae Kim², Heungsun Kim¹, Lee Hyung Kim¹

¹ Department of Civil and Environmental Engineering, Kongju National University, Cheonan 31080, Republic of Korea

² Water Environment & Carbon Assessment Center, Korea Conformity Laboratories, Republic of Korea

P121 - Enhancing Biotransformation of Organic Micropollutants by Complex Microbial Communities Using Metabolic Modeling

Michaël Pierrelée¹, Tal Elad^{1, 2}, Alberto Santos Delgado³, Arnaud Dechesne^{1, 2}, Borja Valerde-Pérez¹
¹ Department of Environmental and Resource Engineering, Technical University of Denmark (DTU)
² Department of Biotechnology and Biomedicine, Technical University of Denmark (DTU)
³ Novo Nordisk Foundation Center for Biosustainability, Technical University of Denmark (DTU)

P122 - Steady-state modelling of a dual-chamber earthen membrane-based microbial fuel cell to identify strategies for system upscaling

Palak Saket¹, Faisal Asfand², Kiran Bala², Atreyee Ghosh³, Manthan Siwach³
¹ Indian Institute of Technology Indore, India
² University of Huddersfield United Kingdom
³ IITI DRISHTICPS Foundation, Indore, India

P123 - Rapid estimation of biosludge polymer demand for dewatering via image classification neural network model

Sergio Luna Nino¹, Aymun Qayume¹, Torsten Meyer¹, Elizabeth Edwards¹, D. Grant Allen¹
¹ Department of Chemical Engineering and Applied Chemistry, University of Toronto, 200 College St, Toronto, Ontario, M5S 3E5, Canada

P124 - Comparison of U-Net Semantic Segmentation Models Trained on Different Datasets for Quantifying Protruding Filaments in Activated Sludge Floc Images

Uthpala Kaushalya¹, Yuki Nakaya¹, Shota Ishizaki¹, Kai Sugino¹, Reiko Hirano², Hisashi Satoh¹
¹ Division of Environmental Engineering, Graduate School of Engineering, Hokkaido University, North-13, West-8, Sapporo 060-8628, Hokkaido, Japan
² Cellspect Co., Ltd., 2-4-23 Kitaiioka, Morioka, Iwate 020-0857, Japan

P125 - Innovative CFD Modelling for Smart Wastewater Treatment Plant Maximization: Insights from Two Full-Scale Facilities

Usman Rehman¹, Roberta Muonio¹, Simon Duchi¹, Per Henrik Nielsen², Dines Thornberg³, Wim Audenaert¹
¹ AM-Team, Sint-Pietersnieuwstraat 1, 9000 Ghent, Belgium
² VCS Denmark Ltd, Vandværksvej 75000 Odense, Denmark
³ BIOFOS A/S, Refshalevej 250 1432 Copenhagen, Denmark

P126 Harnessing solar energy for urban wastewater treatment: integrating microalgae-based secondary treatment and photo-Fenton as a quaternary treatment

M.Guadalupe Pinna-Hernández, D. Rodríguez García, F.X. Cadena-Aponte, S. Belachqer El Attar, A.M. Agüera López, M.J. Quero Pastor, M.A. Roccamante, Z. Arribi, J.L. Casas

P127 Monitoring PFAS in Valencia's Sewage System and Wastewater Treatment Plant

Á.Sabina Acebrón Regidor, María Lorenzo, Joaquín Serralta, Daniel Aguado, María Lera Modino, Luis Borrás