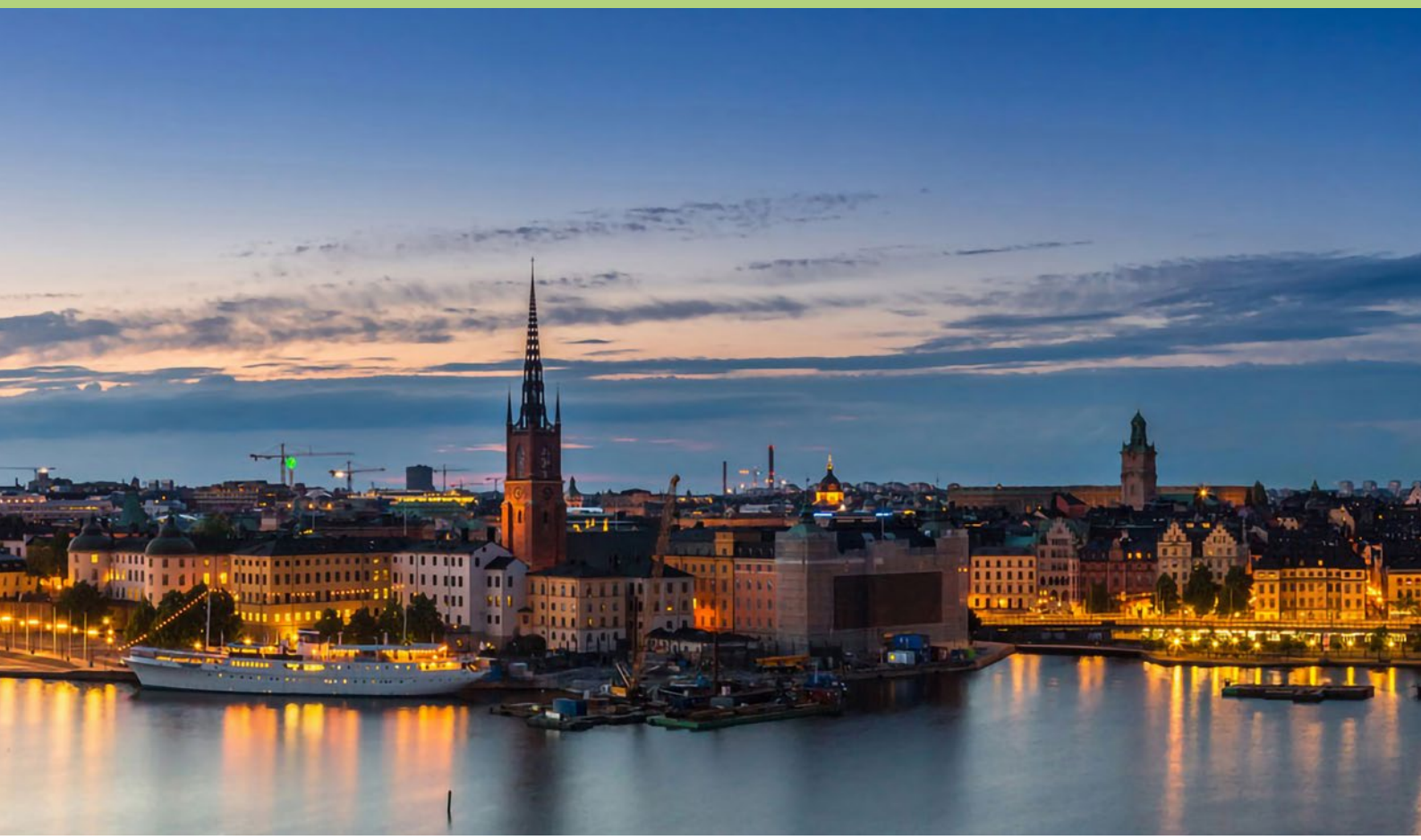
ECO STP 2025

7th IWA International Conference on Ecotechnologies for Wastewater Treatment

the international water association

Stockholm, Sweden

June 23-26, 2025



Poster list

KTH VETENSKAP OCH KONST

Mälardalen University

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

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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

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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

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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 Takeda1, 2,Carolina Tavares Paula1,Maria Eduarda Simões Dias1,André do Vale Borges1,Elis Watanabe Nogueira1,Julio César Pereira Cantarelli1,Márcia Helena Rissato Zamariolli Damianovic1
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2 University of Santiago de Compostela Department of Chemical Engineering

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

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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
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P009 - NUTRITIVE PROJECT:SUSTAINAIBLE 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
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P011 - Energy potential, nutrients and heavy metals in olive mill solid waste

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

Svitlana Tkachenko1,Valentina Iurchenko1,Oksana Melnikova1,Kateryna Utkina2,Natalia Teliura1
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P013 - Assessment of GHG Emission Reduction Due to Upgrade of Big-Scale WWTPs in Ukraine

Iryna Avdiienko1,Oleksandr Smyrnov2,Kateryna Utkina3,Valentina Iurchenko1
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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
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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
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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 Dau
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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 Tuvesson3,Karin Jönsson1,Britt-marie Wilén4
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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
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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
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P022 - Effectiveness of vermifiltration 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, 2,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.

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

Adrian Garrido Sanchis1
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P026 - Model and Experiment-based Evaluation of Seawater-based Urine Phosphorus Recovery (SUPR) Process

Wentao Tang1, 2,Guanghao Chen2,Tianwei Hao1
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P027 - The Effect of Disinfection on the Behaviour of Two Reserve Antibiotics in Hospital Wastewater

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

Neus Bonet Garcia1,Sara Cantera2, 3,Helena Wehmeyer1,Aragao-Börner Rosa1,Soussan Elodie1,Muñoz Raul2, 3
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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,Flavio Rubens Lapolli1
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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
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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,Maria Àngeles Lobo-Recio1,Flávio Lapolli1
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P035 - Nitrate and phosphate removal by ZVI-based materials reactors for small wastewater treatment plants

Edgar Godet1,Michel Baudu1,Pauline Lanet2,Véronique Deluchat1
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P036 - Biological valorisation of syngas into the valuable pharmaceutical compound hydroxyectoine: proof of concept and optimisation

Eva Marcos Rodrigo1, 2,Raúl Muñoz1, 2,Raquel Lebrero1, 2,Sara Cantera1, 2,Nicolás Díaz
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P037 - CO2 and Methane integral bioconversion to SCP, PHA and Methanol: COMBOI project

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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-Uribe1,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
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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. Lanham1, 4,Maria Teresa Cesário1, 5
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P043 - Nanotechnological Advances in Hydrometallurgy for the Sustainable Treatment of Wastewater and Critical Metal Recovery

Giovani Pavoski1, 2,Denise Crocce Romano Espinosa1,Wenying Liu2,Jorge Alberto Soares Tenorio1
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P044 - Minimization of Greenhouse Gas (GHG) Emissions and Recovery of Latex from Skim Latex Wastewater through Ceramic Ultrafiltration

Watsa Khongnakorn1,Supakorn Sansaneeyapeurk1,Bucha Pipittapan2, 3,Paneeya Wuttisassana3,Theerawat Suratago3
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P045 - Relation between microbial community and product formation under different operational temperatures for fatty acid production

Leonor Q. Lobo1,Isaac Owusu Agyeman1,Luisa W. Hughert2,Zeynep Cetecioglu1
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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
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P047 - Synthesis and Evaluation of PHBV Nanoparticles Derived from Whey for Controlled Drug Delivery Applications

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

Pei-Hung Tsang1,Ching-Yu Peng1
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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 Andecochea Saiz2,Sergi Durán-Videra2,Eduard Borras2,María M. Micó2
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P052 - Optimizing liquid-to-liquid membrane distillation for ammonia removal and recovery from wastewater: Impact of key operational parameters

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

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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
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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
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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
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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
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P059 - Exploring Exopolymeric Substances Production from Methane by Methanotrophic Bacteria

David Primo-Catalunya1,Milagros Peña-Castro1,Jose Luis Balcázar1,Maite Pijuan1
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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
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P062 - Biomethane potential of confectionery wastewater: evaluating the effects of inoculum and initial organic matter concentration

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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

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

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

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

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

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

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

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

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

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

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

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

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

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P080 - Nutrient Adsorption onto Modified Biochar for Stormwater Treatment

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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P115 - Sustainable Management of Municipal Wastes

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

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

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

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

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

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

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

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

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

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

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