**Draft Program (Subject to Change)**

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|  | **Tuesday 28th June- TECHNICAL SESSIONS- PALAU DE CONGRESSOS (*CONFERENCE CENTRE*)** | | |
| 8:30 | Registration open (*Hall 1)* | | |
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|  | **Room 1: “Sala Cambra”** | **Room 2 “Sala Petita”** | **Room 3: “Sala Assaig”** |
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|  | **T11. Recovery of added value chemicals (8:45-10:30)**  *Chairs: Albert Guisasola (UAB) & Tommaso Lotti (Univ. Florence)* | **T14. Aerobic granulation (8:45-10:30)**  *Chairs: Liu Ye (UQ*) *& Damián Amador (FCC-AQUALIA)* | **T17. Nature based solutions (8:45-10:30)**  *Chairs: Blanca Antizar (Isle utilities) & Silvia Bolognesi (LEQUIA-UdG)* |
| 8:45-9:00 | 11.1. An electrochemical strategy by Lithium recovery from waste battery and brine desalination. Alberto Maimone. CETIM Technological | 14.1. Unravelling the alpha factor for aerobic granular sludge reactors. Laurence Strubbe. Ghent University | 17.1. Framework for a quantification approach of resource streams utilized by nature-based solutions in circular cities. Bernhard Pucher. University of Lisbon |
| 9:00-9:15 | 11.2. From Waste Streams to Platform Chemicals. Isaac Owusu-Agyeman. KTH-Royal Institute of Technology | 14.2. Determining the causes of the deterioration of granules in an aerobic granular sludge continuous flow system. Anuska Mosquera Corral. Univ. Santigao de Compostela | 17.2. INTEXT Platforms: Innovative hybrid INTensive EXTensive technologies for wastewater treatment in small communities. Damian Amador Cabezali. AQUALIA-FCC. |
| 9:15-9:30 | 11.3. High-rate production of carboxylic acids from carbohydrate-rich wastewaters. Ramon Ganigué. Ghent University | 14.3. A Pilot-Scale Study on the Impact of Aerobic Granular Sludge on Membrane Filtration Performance. Eirini Tsertou. University of Antwerp | 17.3. Green solutions for treating nitrate and micropollutants in groundwater to meet drinking standards: one year overview. Belén Fernández. IRTA. |
| 9:30-9:45 | 11.4. CO2 bioelectrorecycling to butyric acid and its upgrade to butanol. Meritxell Romans Casas. LEQUIA-UdG | 14.4. Combined Aerobic Granular Sludge and Gravity-Driven Membrane System for Energy-Efficient Wastewater Treatment and Reuse. Hari Ananda Rao. KAUST | 17.4. Nature-Based Solution (NBS) as a tertiary wastewater treatment to reduce antibiotics into the aquatic ecosystems. Edward Jair Pastor López. CSIC-IDAEA |
| 9:45-10:00 | 11.5. Innovative cell platforms to transform CO2 into fine chemicals for the pharmaceutical industry. Elisa Huang-Lin. Univ. Valladolid. | 14.5. Getting the most out of existing infrastructure: Denmark and Spain put MABR and AGS technology to the test. Nerea Uri Carreno. VCS Denmark | 17.5. Organic micropollutant removal from urban waters by MULTISOURCE Enhanced Natural Treatment Solutions. Pedro Carvalho. Aarhus University |
| 10:00-10:05 | 11.6. Recovery of Cu and Zn from liquid anaerobic digestates via S. pasteurii induced carbonate precipitation: influence of pH and volatile fatty acids on metals precipitation. Ailén Maria Florencia Soto. Spanish National Research Council | 14.6. Dynamics of antibiotic-resistant genes in aerobic granular systems in aerobic granular reactors treating real wastewater. David Correa-Galeote. Univ. of Granada | 17.6. Assessment of intensified constructed wetlands for the attenuation of PMT compounds from groundwater and wastewater. Alicia Cano López. IDAEA-CSIC |
| 10:05-10:10 | 11.7. Inhibition limits by undissociated acids in mixed culture fermentation and strategies to increase process capacity. Jorge Rodríguez R. Khalifa University | 14.7. Carbon and nitrogen removal from wastewater in a continuous upflow aerobic granular sludge blanket reactor. Anna Lanzetta. University of Naples | 17.7. Application of novel filling materials in vertical subsurface flow constructed wetlands to treat the UASB effluent of domestic wastewater. Taxiarchis Seintos. National Technical University of Athens |
| 10:10-10:15 | 11.8. Thermal hydrolysis pre-treatment has no positive influence on VFA production from sewage sludge. Ander Castro. CETAQUA | 14.8. Kinetic characterization of Phosphorus Accumulating Organisms (PAO) and Glycogen Accumulating Organisms (GAO) anaerobic metabolism in Aerobic Granular Sludge (AGS). Jan Pietro Czellnik. University of Florence | 17.8. Challenges and implementation of Nature-based solutions in Southern European countries. Ivan Blanco. AQUALIA- FCC |
| 10:15-10:30 | Questions/discussion | Questions/discussion | Questions/discussion |
| 10:30-11:00 | Coffee break | | |

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|  | **T12. Recovery of PHA and SCP (11:00-13:15)**  *Chairs: Maria Reis (UNL) & Zeynep Cetecioglu (KTH)* | **T15. Partial nitritation & anammox (11:00-13:15)**  *Chairs: Jesús Colprim (LEQUIA-UdG) & Jan Dries (University of Antwerp)* | **T18. Environmental assessment ((11:00-13:15)**  *Chairs: Bernhard Pucher (BOKU) & Mario Ruiz (Aigües de Barcelona)* |
| 11:00-11:15 | 12.1. Volatile fatty acids yield and profile during sludge and food waste co-fermentation at different temperatures. Noemí Pérez i Esteban. University of Barcelona | 15.1. Energy-efficient nitrogen removal from sewage: achieving mainstream partial nitritation/anammox via recurrent multi-stressor floc treatments. Michiel Van Tendeloo. University of Antwerp | 18.1. Are circular economy strategies environmentally sustainable? Including the end-of-life stage when assessing seafood plastic packaging. Brais Vázquez Vázquez. Univ. de Santiago de Compostela. |
| 11:15-11:30 | 12.2. Exploring the ammonia presence effect on PHA production of a phototrophic-chemotrophic consortium operated under Light-Feast/Dark-Aerated-Famine. Juliana Almeida. Institute for Health and Bioeconomy and UCIBIO | 15.2. Sustainable Mainstream Deammonification by Ion Exchange and Bioregeneration via Partial Nitritation/Anammox. Sheldon Tarre. Technion | 18.2. Environmental assessment of bio based Volatile Fatty Acids production from industrial wastewater. Lucía González. CETAQUA |
| 11:30-11:45 | 12.3. Top-down engineering of natural phototrophic microbiomes into stable and productive consortia for the production of bioplastics. Eva Gonzalez Flo. Universitat Politècnica de Catalunya | 15.3. Kinetic and stoichiometric characterization of a new thermophilic anaerobic ammonium oxidation culture. Lin Zeng. Ghent University. | 18.3. Minimal liquid discharge desalination circularity and sustainability assessment. João Ribeiro. Brunel University London |
| 11:45-12:00 | 12.4. Bioconversion of H2 to Single Cell Protein by Purple Bacteria consortia: Influence of environmental conditions on microbial kinetics. Maria del Rosario Rodero Raya. INRAE-LBE | 15.4. Mainstream Aerobic Granular Sludge start-up from HRAS effluent targeting partial nitritation. Oriol Carbó. GS-Inima | 18.4. Analysis and comparison of life cycle assessment approaches in mineral and recovered phosphorus fertilizer production. Lori Manoukian. McGill University |
| 12:00-12:15 | 12.5. The potential of H2S- and CO-tolerant hydrogen-oxidizing bacteria to convert sewage sludge into microbial protein through aerobic syngas fermentation. Vincenzo Pelagalli. Univ. of Cassino and Southern Lazio | 15.5. Sensitivity of anammox bacteria under mainstream conditions: combined effect of low temperature and pH with inhibitory concentrations of free ammonia/free nitrous acid. Alba Pedrouso. Univ. de Santiago de Compostela | 18.5. End-user Perspective Life Cycle Environmental Impacts of Wastewater-derived Phosphorus Products. Ka Leung Lam. Duke Kunshan University |
| 12:15-12:30 | 12.6. Integration of heterotrophic microalgae beads bioreactor in microbial electrosynthesis for bioelectro-conversion of carbon dioxide into bio-oil and proteins. Silvia Bolognesi. LEQUIA-UdG | 15.6. Nitrogen Removal/Recovery in the mainstream of a WWTP including ultrafiltration after the primary treatment: Partial Nitrification+Anammox vs. Ion Exchange+Hollow fiber membrane contactors. Jesús Godifredo. IIAMA | 18.6. How sustainable is the digitalization of treatment stages for micropollutant removal? Jueying Qian. University of Kassel |
| 12:30-12:45 | 12.7. Co-treatment of urban wastewater and municipal solid waste by mixed phototrophic cultures to generate PHA by varying organic carbon loads. Sandra Chacón. Universidad Rey Juan Carlos de Móstoles. | 15.7. Influence of free nitrous acid on nitrifiers to introduce shortcut nitrification in the mainstream of WWTP. Edyta Laskawiec. Silesian University of Technology | 18.7. TBD |
| 12:45-12:50 | 12.8. Maximising the production of composition-specific polyhydroxyalkanoates from volatile fatty acids. Alba Pedrouso. Univ. de Santiago de Compostela | 15.8. When its worthwhile to include the nitrite pathway in a WWTP with C/N/P removal? Àlex Gaona. Univ. Autònoma de Barcelona. | 18.8. Utilising sustainable value propositions to understand the value creation of circular actions in wastewater systems. David Renfrew, Brunel University London |
| 12:50-12:55 | 12.9. Resources from wastewater: employment of an advanced strategy for polyhydroxyalkanoates (PHA) synthesis and recovery. Antonio Mineo. Palermo University | 15.9. A novel wastewater treatment process incorporating acidophilic ammonia oxidation. Min Zheng, The University of Queensland. | 18.9. Life cycle assessment of on-site nature-based wastewater treatment and reuse systems. Natasa Atanasova. University of Ljubljana |
| 12:55-13:00 | 12.10. Acidogenic fermentation of model carbohydrate/protein mixtures: how does substrate organic composition impact? Ana Vázquez-Fernández. Univ. Autònoma de Barcelona | 15.10. Long-term effect of shortcut biological nitrogen removal as energy saving strategy for liquid waste treatment. Laura Palli. GIDA spa | 18.10Sustainability assessment at early stages of technology development: phosphorus recovery for fertiliser from dairy wastewater. Marta Behjat. Chalmers University of Technology |
| 13:00-13:15 | Questions/discussion | Questions/discussion | Questions/discussion |
| 13:15-14:15 | Lunch | | |

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|  | **T13. Energy Recovery (14:15-16:00)**  *Chairs: Frank Rogalla (AQUALIA-FCC) & Francisca Sousa Braga (DTU & Skanderborg Spildevand A/S)* | **T16. GHG & Microbial community dynamics (14:15-16:00)**  Chairs: Adrian Ohemen (UQ) & Evina Katsou (Brunel Univ.) | **T19. Decentralized systems (14:15-16:00)**  *Chairs: Pedro Carvalho (DTU) & Laura Rovira (LEQUIA-UdG)* |
| 14:15-14:30 | 13.1. Energy recovery from wastewater: ammonia and hydrogen production from nitrogen-containing waste streams. Ruben Asiain-Mira. AQUALIA-FCC. | 16.1. The long-term full-scale monitoring of GHG from an Australian WWTP demonstrated the upstream carbon capture can stimulate downstream emissions. Liu Ye, The Univ. of Queensland | 19.1. Lessons learned from phosphorus chemical precipitation in small wastewater treatment plants. Sophie Besnault. INRAE |
| 14:30-14:45 | 13.2. Anaerobic microbial electrochemical fluidized membrane bioreactor for domestic wastewater treatment and reuse with energy recovery. Hari Ananda Rao. KAUST | 16.2. Real-time monitoring and data-driven management of N2O generation in biological reactors. Laura Flores. CETAQUA | 19.2. Nitrate electro-bioremediation as a decentralised water treatment: from the proof-of-concept to the on-site technology validation. Alba Ceballos-Escalera. LEQUIA-UdG |
| 14:45-15:00 | 13.3. Optimising anaerobic digesters with thermal pre-treatment by understanding sludge composition full-scale and laboratory results on trace elements and enzyme supplementation. Yadira Bajon Fernandez. Cranfield University | 16.3. Unraveling the N2O emissions from thermophilic nitrification reactors. Ramon Ganigué. Ghent Univ. | 19.3. Innovative decentralized wastewater treatment project for 400 households and local industry, combining water, nutrient and energy recovery. Bart De Gusseme. Ghent University |
| 15:00-15:15 | 13.4. High-rate Activated Sludge at very short SRT: key factors for process Stability and Performance of COD fractions removal. Hector Monclus. LEQUIA-UdG | 16.4. A laboratory-scale study to mitigate greenhouse gas emissions from open sludge lagoons. Sarah Aucote. Univ. of Queensland. | 19.4. The third route: Techno-economic analysis of extreme water and wastewater decentralization. Irene Barnosell. LEQUIA-UdG |
| 15:15-15:30 | 13.5. An integrated system to produce bio-based volatile fatty acids for the industry and biogas from sewage sludge. Ander Castro. CETAQUA | 16.5. Nitrous oxide production for nitrogen valorisation on side stream of an urban waste water treatment plant. Lluc Olmo. Univ. Autònoma de Barcelona. | 19.5. Occurrence and fate of Organic Micropollutants and Antibiotic Resistance Genes during Separated Decentralised Treatment of Black Water and Grey Water |
| 15:30-15:35 | 13.6. Influence of carbon-coated zero-valent iron-based nanoparticle concentration on continuous photosynthetic biogas upgrading. Edwin Gilbert Hoyos. Univ. de Valladolid | 16.6. Low nitrous oxide emissions and its mechanisms in a pilot-scale mainstream Partial Nitritation/Anammox process. Haoran Duan. The Univ. of Queensland. | 19.6. Decentralized hybrid wastewater treatment system for water reuse on a campsite at Costa Daurada. Francisco Omil. Univ. Santiago de Compostela |
| 15:35-15:40 | 13.7. Enhancing bioelectrochemical hydrogen production from industrial wastewater in a 150 L microbial electrolysis cell pilot plant. Oscar Guerrero. Univ. Autònoma de Barcelona | 16.7. Characterization of hydrogenotrophic methanogenic cultures through a novel pressurized headspace-free Hydrogen Uptake Rate methodology. Manuel Fachal. Univ. Autònoma de Barcelona | 19.7. Biocarriers-facilitated Gravity-driven Membrane Reactor for Decentralized Wastewater Treatment under Cold Climate. Bing Wu. University of Iceland |
| 15:40-15:45 | 13.8. Organic loading rate and pH as optimization parameters for biohydrogen production via dark fermentation coupled with microbial electrolysis cells. Jose Antonio Magdalena. LBE-INRAE | 16.8. Seasonal microbial community dynamics at Lleida WWTP: filamentous bulking and nitrification deterioration events. Sergi Astals. Univ. de Barcelona. | 19.8. Freshwater microbial communities as a potential nature-based solution for wastewater tertiary treatment in small facilities. Lluis Bertrans Tubau. BETA Tech Center- Univ. Vic |
| 15:45-16:00 | Questions/discussion | Questions/discussion |  |
| 16:00-16:30 | Coffee break in the poster area | | |
| **CLOSING CEREMONY- SALA SINFÒNICA** | | | |
| 16:30-17:45 | Closing Plenary 1:  Prof. Gustav Olson, Lund University (Sweeden): “*Water - key indicator of global warming and basis for energy and food production*”  Closing Plenary 2:  Prof. Krishna Pagilla, Nevada Water Innovation Institute (USA): “*Drivers and Strategies of Wastewater Reclamation for Potable Reuse*” | | |
| 17:45-18:15 | Chairs: *Maite Pijuan (ICRA) & Ignasi Rodriguez-Roda (LEQUIA-UdG)*  Statement from the Director of the Catalan Water Agency (ACA), Mr. Samuel Reyes  Closing remarks, Poster & Platform awards and announcement Next EcoSTP25. | | |
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| 20:00-00:00 | Gala dinner | | |