
# ADVANCE PROGRAMME 1-5 JUNE 2026

## WORKSHOPS

### 1 June 2026

***Timing: 13:00-15:00***

**Workshop 1:**
Innovative Desalination and Brine Management Technologies for Produced Water

**Workshop 2:**
Gasification Projects, Pitfalls, Bear Traps, Dust Devils, and Opportunities

**Workshop 3:**
Decentralized Water & Wastewater: Modular Solutions Complementing Centralized Infrastructure

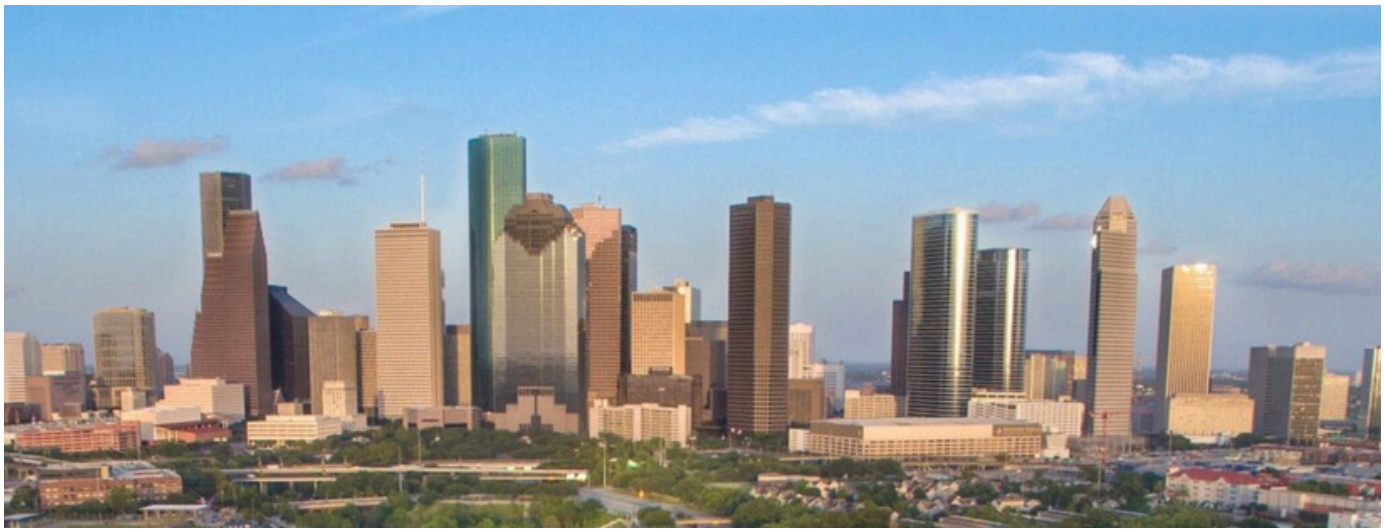
***Timing: 15:30-17:30***

**Workshop 4:**
Artificial Intelligence (AI) for Water and Wastewater Systems

**Workshop 5:**
Advanced Materials and Processes for Pollution Mitigation, Disinfection, and Resource Recovery

**Workshop 6:**
Net-Zero targets and direct process emissions: measuring, estimating and mitigating $N_2O$ from wastewater treatment

**Welcome Reception: 17:30-19:30**



# PLENARY SESSION

## 2 June 2026

**Welcome Addresses & Cultural Event**

The Tuesday programme will commence at 8:45 am with a welcome address from Reginald DesRoches, Rice University President and John Whitmire, Mayor of the City of Houston, followed by a cultural event.

**Plenary Keynote Sessions**

The plenary sessions will feature multiple inspiring keynotes from leading voices and thought leaders. All the keynote speakers are the top specialists and most prominent figures within the water sector and beyond.

**Tracy Caldwell Dyson**
NASA, USA

**Mark van Loosdrecht**
Delft University of Technology, Netherlands

**Menachem Elimelech**
Rice University, USA

**Amanda Lake**
Jacobs, UK

**Amy Childress**
University of Southern California, USA

**Christopher Gasson**
Global Water Intelligence, UK

**Poster Session: 17:00-19:00**

# IWA LET 2026 DRINKING WATER TRACK

## 3 June 2026

## Morning

### Technical Session 1: Advances in Membrane Technologies and Multifunctional Hybrid Systems

**Session Chairs: Mikel Duke,** Australia **& Shihong Lin,** USA.
**Session Keynote Speaker - Shane Snyder,** USA: Performance Optimization of Ozone/Ceramic Membrane Systems for Virus and Organic Contaminant Removal
**Alexander Mitranescu**, Germany: Low-cost Image-based Monitoring To Assess Biofouling In High-pressure Membranes
**Zhijie Wang**, USA: Fate Transformation Of Low-micrometer Microplastics Under Pressure-driven Membrane Filtration
**Discussion (15 mins)**

**Break (30 mins)**

**Session Keynote Speaker - Henk Koops**, Netherlands: Direct filtration with nanofiltration: 10 years of innovation in water treatment with hollow fibre membranes
**Harmita Golwala**, USA: Investigating Modified Ludzack-Ettinger Membrane Bioreactor (MLE-MBR) Systems In Potable Water Reuse Schemes With Seawater And Urban Runoff Augmentation
**Brian Butters**, Canada: Modern Water Purification: Advanced Solutions For Efficiency, Sustainability, And Reliability
**Discussion (15 mins)**

**Poster Pitches:**
**Shaikh Imran Hossain,** Bangladesh: Reverse Osmosis And Decentralized Water Systems: An Overview In Coastal Bangladesh
**Eliana Cadena,** USA: Effects Of A Polyamide Layer On Electrochemical Properties Of Electric Conducting Membranes And Their Implication For Scaling Control
**Chengzhi Hu**, China: Developing High-performance Nanofiltration Membrane Based On The Dehydration-driven Ion|water Cluster Transport Mechanism In Nanochannels

*Lunch (90 mins)*

## Afternoon

### Technical Session 3: Desalination, Decreasing Energy Requirements & Brine Management

**Session Chairs: Jonathan Clement,** Netherlands **& Menachem Elimelech,** USA.
**Session Keynote Speaker - Eric Hoek,** USA: Membrane Brine Concentration: State of the Art, Opportunities and Challenges
**Juan Arévalo**, Spain: Alma de Mar. Brine mining real application in gourmet sodium chloride production and commercialization
**Vasu Veerapaneni,** USA: Advanced Strategies for Brine and Concentrate Management in For Saline Water Treatment in Municipal and Industrial Applications
**Discussion (15 mins)**

**Break (30 mins)**

**Session Keynote Speaker - Tomer Efrat**, Israel: From Waste to Resource: Building Self-Sustaining Desalination Through Circular Chemical Production
**Enyu Liu,** Singapore: Technical Evaluation of a New Alternative, Electro-coagulation (EC) with Ceramic Ultrafiltration, for Seawater Reverse Osmosis Desalination Pre-treatment
**Tyler Malkoske**, USA: Translating Mechanistic Insight Into Enhanced Silica Removal From Saline Brine Via Electrocoagulation
**Discussion (15 mins)**

**Poster Pitches:**
**Ngai Yin Yip**, USA: A Novel Approach for Direct Lithium Extraction from Alkali Metal Cations in Brine Mixtures using Thermally Switchable Solvents
**Jing-Hua Tzeng**, USA: Commercial Nanofiltration Membranes for Partial Desalting of Brackish Water Sources for Agricultural Irrigation
**Hongxu Chen**, USA: Hygroscopicity-driven spontaneous sustainable lithium extraction

# IWA LET 2026 WASTEWATER TRACK

## 3 June 2026

### Morning

#### Technical Session 2: Pushing the limits: Ultra-low nutrient discharges, and intensification in a constrained future

**Session Chairs: Mark van Loosdrecht,** Netherlands **& Michelle Young,** USA.
**Session Keynote Speaker - Prachi Salekar**, USA: Advancing Process Intensification And Resilience With MABR Technology
**Jared Alder**, USA: SBR And Densified Sludge For Enhanced Settleability And Nutrient Removal
**Onder Caliskaner**, USA: From Advanced Primary To Advanced Secondary: A Three-Year Demonstration Project For The Next Generation Of Intensified Wastewater Advanced Treatment Processes
**Discussion (15 mins)**

**Break (30 mins)**

**Session Keynote Speaker - Tanja Rauch-Williams**, USA: Pushing the Limits: R&D needs for practical ultra-low nutrient treatment
**Yewei Sun**, USA: Integrating Partial Denitrification–Anammox And Biological Selection-Driven Densification
**Pim de Jager**, Netherlands: High-Performance Phosphate Removal From WWTP Effluents Using The BioPhree® Technology
**Discussion (15 mins)**

**Poster Pitches:**
**Delph Mak**, UK: Coupling Mechanistic And Machine Learning Models For Energy-Centric Optimization And GHG Reduction
**Michelle Young**, USA: Real-time Off-Gas Testing To Diagnose Nitrogen Pathways In Intensified Ultra-Low Biological Nutrient Removal
**Xuan Wang**, China: High-purity FePO4 Production From Wastewater Sludge For LFP Batteries: Process Development And System-level Sustainability Assessment

*Lunch (90 mins)*

### Afternoon

#### Technical Session 4: Modular and Decentralised Treatment

**Session Chairs: Ana Soares,** UK **& Marc Deshusses,** USA.
**Session Keynote Speaker - Paula Kehoe**, USA: Scaling Decentralized Water Systems Through Collaboration and Governance Reform
**Victor Monsalvo**, Spain: Transforming municipal WWTPs into photobiorefineries: demonstration of ANPHORA® technology for nutrient recovery
**Inka Schirm**, Germany: (Semi-) decentralised wastewater treatment for water reuse
**Discussion (15 mins)**

**Break (30 mins)**

**Session Keynote Speaker - Marc Deshusses**, USA
**Yuankai Huang**, USA: AI-guided sensors for real-time decentralized wastewater monitoring and process optimization
**Discussion (15 mins)**

**Poster Pitches:**
**Amro Hassanein**, USA: Autonomous Modular Greywater Treatment And Reuse System To Enable Reliable Decentralized Operation
**Zixuan Wang**, USA: The Potential Of Thermomechanical And Thermochemical Processes To Enable Sustainable Household Sanitation

**Poster Session: 17:00-19:00**

# IWA LET 2026 WATER TRACK continued

## 4 June 2026

### Morning

#### Technical Session 5: PFAS Mineralisation Technologies for Water, Wastewater, Sludge and Brine Treatment

**Session Chairs: Mike Wong,** USA **& Scott Grieco,** USA.
**Session Keynote Speaker - Megan Plumlee**, USA: Highlights from the Applied Research Program at Orange County Water District: PFAS Measurement, Data Management, and Treatment
**Daniel Cho**, USA: PFAS Destruction In Foamate And IX-generated Still Bottoms
**Leah Pifer**, USA: Holistic Life Cycle Assessment (LCA) To Evaluate The Impact Of Biosolids Thermal Processes For Mitigating PFAS
**Discussion (15 mins)**

**Break (30 mins)**

**Session Keynote Speaker - Detlef Knappe**, USA: Going Beyond Destruction and Removal Efficiency: Assessing the Effectiveness of PFAS Mineralisation Technologies
**Dora Chiang**, Canada: Performance Verification Of PFAS Destruction And Mineralization For Adaptive PFAS Management
**Tony Powell**, USA: On-Site PFAS Destruction Using Next-Generation Chemical-Free Photocatalysts
**Discussion (15 mins)**

**Poster Pitches:**
**Yilang Sun**, USA: Develop Synergetic Novel Macrocycle-based Sorbents With Thermal Destruction For Enhanced Per- And Polyfluoroalkyl Substances (PFAS) Removal In Groundwater And Drinking Water Treatment
**Bonjun Ku**, Republic of Korea: Novel Application Of Cu-Al Layered Double Hydroxide To The Concentration Of PFAS For The Post-treatment

***Lunch (90 mins)***

### Afternoon

#### Technical Session 7: Closing the Water Cycle Towards Direct Potable Reuse

**Session Chairs: Shane Trussel,** USA **& Jörg E. Drewes,** Germany.
**Session Keynote Speaker - Eva Steinle-Darling**, USA: El Paso's Path to the first Direct-to-Distribution DPR Project in the US: Milestones and Context
**Aleks Pisarenko**, USA: The True Cost Of The DPR Treatment Train
**Uwe Hübner**, Germany: Implementing RED-based UV/AOP Control Strategy At San Diego's North City Pure Water Facility
**Discussion (15 mins)**

**Break (30 mins)**

**Session Keynote Speaker - Bart de Gusseme,** Belgium: Full-scale direct potable reuse from municipal WWTP effluent in Flanders, Belgium
**Mitchel Bartolo**, USA: Comparing IPR Vs DPR: Testing At The City Of San Diego's CASSF
**Paul Westerhoff**, USA: Atmospheric Water Harvesting: Towards 1 Billion M3 Of Installed Capacity
**Discussion (15 mins)**

**Poster Pitches:**
**Rania Elsebai**, Canada: Far-UVC LED Photodegradation Of Steroid Estrogens In Water
**Kyle Thompson**, USA: Thinking Abnormally: A New Way To Look At RO Data
**Mohammad Shehryaar Khan**, Germany: Nano-Enabled Water Reuse (NEWR): Catalytic Filtration With Immobilized MnO2 For Sulfate Radical-Based Oxidation Of Trace Organic Contaminants

# IWA LET 2026 WASTEWATER TRACK continued

## 4 June 2026

### Morning

#### Technical Session 6: Developments in Digitalisation, Automation and Artificial Intelligence

**Session Chairs: Qilin Li,** USA **& Delph Mak,** Singapore, USA.
**Session Keynote Speaker -Amber Boone**, USA: Implementing Agentic AI Agents for Operational Excellence
**Rishab Puri**, USA: From Theory To Practice: Designing And Operating Struvite Recovery Systems With Predictive Analytics And Techno-Economics
**Seung-Ju Choi**, Republic of Korea: Development Of Machine Learning Models For PFAS Detection And Classification In Aquatic Systems
**Discussion (15 mins)**

Break (30 mins)

**Session Keynote Speaker - Lina Sela**, USA: What Do We Mean by AI in Water Systems?
**Yongbing Xie**, China: Structure Activity Relationship Of Organics Degradation From The Perspective Of Machine Learning
**Fletcher T. Chapin**, USA: A Prototype Ontology And Data Management Platform For Water Treatment Systems
**Discussion (15 mins)**

**Poster Pitches:**
**Tong Tiezheng**, USA: The Applications Of Artificial Intelligence To Selective Membrane Separation For Water Purification
**Junjie Zhu**, USA: Knowledge-Infused Language Models For Water And Sustainability Domain
**Xingyu Wang**, USA: From Data To Decision: AI-Enabled Digitalization And Mechanistic Autonomy For Intelligent Biological Nutrient Removal

*Lunch (90 mins)*

### Afternoon

#### Technical Session 8: Advanced Solids and Wastewater Management for Energy-Neutral Treatment Plants

**Session Chairs: Richard Lancaster,** UK **& Ajie Wang**, China.
**Session Keynote Speaker - John Follin**, USA: Organic and PFAS Waste Destruction using GA's Industrial Supercritical Water Oxidation (iSCWO)
**Victor Monsalvo**, Spain: CAMELLIA®: Advanced Anaerobic Digestion For Sludge Hygienisation And Energy Integration
**Onder Caliskaner**, USA: Innovative Thickening Technologies Driving Energy-Neutral WRRFs
**Discussion (15 mins)**

Break (30 mins)

**Session Keynote Speaker - Alireza Abbassi Monjezi**, UK: Waterwhelm – Transforming Industrial Water Recycling and Reuse
**YanFei Tang**, USA: Employing Methanotrophs For Phosphorus Recovery As Polyphosphate From Waste Streams While Mitigating GHG
**Maria Concetta Tomei**, Italy: Advanced Anaerobic Treatment To Achieve Energy Self-sufficiency In Urban Wastewater Treatment
**Discussion (15 mins)**

**Poster Pitches:**
**Zhiwu Wang**, USA: Halophilic Bioprocessing For Wastewater Valorization To Bioplastics
**Kuichang Zuo**, China: Dual-Membrane Distillation For Simultaneous Recovery Of Volatile Fatty Acids And Water From Wastewater
**Jiahe Zhang**, USA: Membrane-Free Electrosynthesis Of Ammonia And Volatile Fatty Acids (VFAs) From Waste Streams

**Gala Dinner from 19:00**


# TECHNICAL TOURS

## 5 June 2026

### Tour 1:

**NASA Space Center Private Tram Tour**

Join us for an exclusive private tour aboard the NASA Tram Tour at Space Center Houston. This behind-the-scenes experience takes your group onto the NASA Johnson Space Center campus to explore historic Mission Control, astronaut training facilities and Rocket Park. Led by expert guides, you'll gain insider insight into NASA's bold missions to the Moon, Mars, and beyond. After the tour, you will be provided time for self-exploration in the museum exhibits and gift shop before returning to campus—making this inspiring field trip both seamless and unforgettable.

Time: 8:30 AM to 12:00 PM

Price: $50

PAX: 34

### Tour 2:

**Grundfos US Headquarters Technical Tour: Innovating the Future of Water**

Join us at the Grundfos US Headquarters in Brookshire, Texas, and experience how we turn our purpose, pioneering solutions to the world's water and climate challenges, into reality. This technical tour offers a behind-the-scenes look at our advanced manufacturing environment, where digitalisation, automation, and sustainability are integrated across production and assembly.

Explore our dosing and water treatment line, where customised solutions are built to meet real-world needs, and discover our Engineered-to-Order capabilities designed for complex applications. From robotics and forklift-free operations to state-of-the-art testing, see how Grundfos combines innovation and responsibility to shape the future of water.

Time: 8:00 AM to 12:00 PM

Price: $50

PAX: 30