

PROVISIONAL CONFERENCE PROGRAMME

PRE-CONFERENCE DAY

Monday morning 22 June 2026

9:00–17:30 Registration

9:00–13:00 Workshop Desalination and Agriculture Applications, including coffee break. Co-organised by IWRI, OCP Green Water and ONEE.

13:00–14:00 Lunch

14:00–17:40 Technical sessions

Monday afternoon 22 June 2026

	Session 1 Brine valorisation I	Session 2 Novel membranes	Session 3 Fouling I	Session 4 Advanced wastewater treatment I
14:00	<p>54 A global outlook of the desalination industry and state-of-the-art technologies for brine valorisation Carmelo Morgante, Marta Herrero-Gonzalez, Julio Lopez Rodriguez, Jan Imholze, Vittorio Boffa, Raquel Ibañez Mendizabal, José Luis Cortina Pallas</p>	<p>164 Integrated ceramic and polymeric membrane treatment of gas field produced water for beneficial reuse Viktor Kochkodan, Andrius Stanulis, Nabil Tarhouni, Darren Oatley-Radcliffe, Andrew Barron, Linso Vargnese, Suhur Saeed, Khaled Mahmoud</p>	<p>86 Beating biofouling: How a revised cleaning and pretreatment strategy restored RO performance <i>Gabriele Brummer</i></p>	<p>89 Spinel ferrite nanoparticles for wastewater treatment: synthesis routes, mechanistic insights, and environmental applications Hamza Guenoua, Abdessamad Belgada, Anas Aguelmous</p>
14:20	<p>73 Utilizing desalination brine to capture CO₂ and simultaneously produce high-value MgCO₃ and vaterite-type CaCO₃ Abdallatif Abdalrhman, Seungwon Ihm, Eslam Alwaznani, Mohammad Talibi, Myoung-Jin Kim</p>	<p>188 Zeolite X/polystyrene mixed matrix membrane layer deposited on pyrophyllite support for efficient dye removal Sanaa Adlane, Jamyla Naim, Manal Idgharnane, Ahlam Essate, Brahim Achiou, Abdellah Aaddane, Mohamed Ouammou, Saad Alami Younssi</p>	<p>99 Sustainable scale control and biofouling mitigation in seawater reverse osmosis using aKua® 100 and data-driven dose optimization Isabel Borrego-Jimenez, Jorge Agenjo-Monge, Lorena Welte-Hidalgo, Oscar Salmeron-Martinez</p>	<p>64 Enhancing vertical flow constructed wetland efficiency using olive pomace-derived biochar <i>Sofiane El Barkaoui</i></p>
14:40	<p>97 Integrated brine mining platform: Turning desalination waste into strategic resources Cesar Nieto Delgado, Piotr Dlugolecki, Chakravarthy Gudipati, Philip Hart</p>	<p>132 Low-cost graphene oxide composite membranes cross-linked with urea: a sustainable solution for textile dye removal Manal Idgharnane, Jamyla Naim, Sanaa Adlane, Majda Breida, Mohamed Ouammou, Martin Conda-Sheridan, Saad Alami Younssi, Brahim Achiou</p>	<p>78 Influence of concentration polarization on RO membrane service life Haytham Abdelfatah, Eli Oklejas</p>	<p>206 Advanced treatment technologies for microplastic and emerging contaminant removal to enhance wastewater quality Patricia Terrero, Domingo Zarzo, Clara Calvo, María del Pilar Gómez, Daniel Prats, María José Moya, Samuel Núñez</p>
15:00	<p>163 Roadmap to deploy a digital twin for accelerating brine valorisation: from pilot testing to model-based optimisation and scale-up Yanira López López, Angel Rivero Falcon, José Antonio Carta, Baltasar Peñate Suarez, Pedro Jesus Cabrera Santana</p>	<p>147 Ultra-low dP TFN RO membrane for improved fouling resistance and cost efficiency in industrial wastewater treatment Eugene Rozenbaum, Peter Ingarra, Adrian Brozell, Roy Daly, Richard Newman</p>	<p>271 Independent pilot evaluation of electrochemical feedwater conditioning for energy and fouling reduction in seawater reverse osmosis <i>Chris Rose</i></p>	<p>171 A fluorescence-based artificial neural network for online control of organic micropollutants during quaternary wastewater treatment Paolo Roccaro, Filippo Fazzino, Erica Gagliano, Domenico Santoro</p>

15:20	7 Sustainable lithium recovery from brine using a deep eutectic solvent-functionalized keratin/cellulose sponge <i>Fawzi Banat, Mohammed Abujayyab, Shadi Hasan</i>	60 Electrospun PVDF@MIL-53(Fe) metal organic framework: membranes for potential water treatment <i>Rachid Bouhfid, Hamza Louhibi</i>	279 Optimizing coagulation dose, pH and rapid mixing with MFI-UF to reduce particulate/colloidal fouling in RO/NF <i>Yiman Liu, Abrar Adem, Afrasiab Yameen, Nirajan Dhakal, Peter Vollaard, Rinnert Schurer, Begüm Tanis, Jan C. Schippers, Maria D. Kennedy</i>	212 Non-conventional water resources in agriculture: advances, challenges and practical recommendations <i>Patricia Terrero, Domingo Zarzo, Clara Calvo, María del Pilar Gómez, Francisco José Maestre</i>
--------------	---	--	---	--

15:40–16:00 Coffee break

	Session 5 Brine valorisation II	Session 6 Mass transfer and transport through membranes	Session 7 Fouling II	Session 8 Advanced wastewater treatment II
16:00	209 The CARMEn project: A novel circular approach to recover critical raw materials and energy from spent seawater brines <i>Giuseppe Scelfo, Giuseppe Battaglia, Michela Cardella, Antonia Filingeri, Andrea Culcasi, Francesco Volpe, Lorenzo Craveri, Erica Bertozzi, Alberto Tiraferri, Andrea Cipollina, Giorgio Micale</i>	10 Direct numerical simulation of flow and mass transfer in feed spacer-filled channels of membrane separation processes <i>Santiago Cespedes, Cristian Picioreanu, Bastiaan Blankert</i>	93 Use of membrane concentration polarization (CP) to monitor and control membrane biological fouling in SWRO desalination <i>Harvey Winters, Eli Oklejas</i>	70 Treatment of produced water using a pilot-scale advanced electrochemical oxidation unit <i>Abdullah Basaleh, Bassam Tawabini</i>
16:20	180 Concentration of saline water in a hybrid membrane system <i>Marian Turek, Krzysztof Mitko</i>	66 Discrepancy between salinity and pH on Na ⁺ rejection: Experimental and modelling insights <i>Fernan David Martinez Jimenez, Bastiaan Blankert, Cristian Picioreanu</i>	35 Real-time feed water assessment for biofouling control in SWRO plants <i>Amr Ahmed, Sultan Ahmed, Aleksejs Zolotarjovs, Ahmed S. Alghamdi, Girts Ozolins, Gatis Tunens</i>	105 Ultrafiltration and nanofiltration for the recovery of phenolic/tannic compounds and water from the cork processing wastewaters <i>Maria Noberta de Pinho, Miguel Minhalma</i>
16:40	173 Annual assessment of a hybrid CAES–PV–RO system with brine re-use <i>Aarón Raúl Poyatos Bakker, Lidia Roca, Cintia Gómez-Serrano, F. Gabriel Acien, Patricia Palenzuela</i>	154 Fundamental challenges to solution-diffusion theory of water transport across membrane <i>Lianfa Song</i>	198 Unveiling the dynamics of RO membrane fouling: A new in-situ visualization methodology for biofouling and colloidal fouling <i>Louise Ratel, Noshin Karim, Nitish Sarker, Amy Bilton, Catherine Charcosset</i>	59 Eco-friendly kaolinite–alginate beads adsorbents for advanced water treatment applications <i>Abderrahim Rahioui, Rachid Bouhfid</i>
17:00	129 Performance assessment of forward osmosis for brine concentration with multi-effect distillation regeneration stage <i>Bartolomé Ortega Delgado, Patricia Palenzuela, Lourdes García-Rodríguez, Guillermo Zaragoza</i>	200 Modeling water flux in forward osmosis under concentration polarization limitations <i>Abdulrahman Alalawi, Ibrahim Almutaz</i>	21 Biofouling in seawater reverse osmosis (SWRO) plants: Experiences from the eastern coast of Saudi Arabia <i>Ghulam Mohammad Mustafa, Eslam Saleh Break AlWaznani</i>	119 An integrated RO–NF process for the concentration of volatile fatty acid mixtures: modeling and simulation <i>Omar Atiq, Serena Bandini, Marco Giacinti Baschetti</i>
17:20	193 Brine valorization through selective nanofiltration and membrane brine concentration: Operational performance evaluation <i>Guillem Gilabert-Oriol, Seungwon Ihm, Omar Al-Raqibah, Eslam Al-Waznani, Mohammed Al-Talibi, Claudia Niewersch, Dean Welsh</i>	276 Diving into the transfer of small organics in seawater reverse osmosis desalination: Insights and cascade strategies <i>Fatima Zohra Charik, Saad Alami Younssi, Murielle Rabiller-Baudry</i>	166 Extension of cartridge filter lifespan through chemical cleaning <i>Irene Ochoa Marchán, Paul Osthuizen, Domingo Zarzo, Patricia Terrero, Rafael Buendía</i>	43 Custom tailored loose nanofiltration membrane incorporating cationic/zwitterionic polymer for enhanced separation performance <i>Zeeshan Arshad, Nadeem Baig, Shaikh Asrof Ali</i>
17:40	221 Closing the brine valorisation cycle at DESAL+ Living Lab via an integrated approach to high-purity salt production <i>Ángel Rivero Falcón, Yanira López López, Baltasar Peñate Suárez, Noemi Melián Martel</i>	82 Carrier-ion interactions in membranes enable efficient nitrate and chloride separation in wastewater <i>Fei Liu, Wan Chao, Yang Zhang</i>	167 Biofouling in SWRO desalination plants: operational impact, detection and control <i>Erineos Koutsakos, Menahem Priel</i>	184 Computer vision-based detection and classification of protozoa for water quality monitoring <i>Jover Erreyes Pilozo, Cosmin Koch Ciobotaru, Ana Maria Jimenez Banzo</i>

18:00–19:00 Poster pitches

19.45–21:00 Welcome reception

Tuesday morning 23 June 2026

8:00–09:00 Registration

9:00–11:00 Official opening

11:00–11:40 Walk around the exhibition and coffee break

11:40–12:50 Panel session on the Future of Desalination in Morocco. Co-organised by EDS, IWRI and OCP Green Water

12:50–13:50 Lunch

Tuesday afternoon 23 June 2026

	Session 9 Brine valorisation III	Session 10 Energy efficiency	Session 11 Fouling and scaling	Session 12 Brackish water desalination
13:50	295 Towards sustainable desalination in Morocco: brine valorization in the agri-food industry as a circular economy lever <i>Anas Aguelmous, Abdessamad Belgada, Nawal Sifa</i>	225 Design and implementation of the DESALRO 2.0® concept: The most energy efficient seawater reverse osmosis desalination plant <i>Baltasar Peñate-Suarez, J. Antonio de la Fuente-Bencomo, Sigrid Arenas-Urrea, Lourdes García-Rodríguez, Rafael González-Almenara</i>	254 Impact of renewable-driven intermittent operation on scaling in falling film evaporators: role of tube material selection <i>Heike Glade, Tom Ruiter</i>	235 From pilot-scale operation to techno-economic and life cycle assessment for hybrid brackish water desalination <i>Arianna Tariqi, Reema Shinh, Varinia Felix, Vicky Karanikola, Kerri Hickenbottom</i>
14:10	53 Selective magnesium recovery from seawater-derived solutions through recyclable metal-organic framework glass-based adsorbents <i>Carmelo Morgante, Samraj Mollick, Morten Matstrup Smedskjær, Vittorio Boffa</i>	69 Efficiency of reverse osmosis plants from a pumping equipment perspective <i>Isaac Vera Olivares, Miguel Herrero, Jorge Muñagorri</i>	24 Techno-economic impacts of antiscalant selection on RO membrane performance in inland desalination systems <i>Ali Alshami, Christopher Buelke</i>	45 Sustainable brackish water desalination via single forward osmosis process with green membrane management <i>Ganghyeon Jeong, Am Jang, Hongrae Im</i>
14:30	199 State-of-the-art nanofiltration and electro dialysis technologies for direct lithium extraction from SWRO brine <i>El Houssine Ghoulam, Abdessamad Belgada, Rachid Bouhfid, Youssef-Amine Boussouga</i>	211 High-pressure pumps – Total cost of ownership analysis <i>Sebastian Liebs</i>	113 The limitation of saturation indices in antiscalant projection software <i>Max Fazel, Daniela Vidal, Mike Sinfield</i>	87 Yearlong field trial of a brine reuse architecture for point-of-use, reverse osmosis systems <i>Melissa Brei, Ian Manning, Natasha Wright, Amos Winter V</i>
14:50	125 Can conventional desalination technologies adapt to recover critical elements from the EoL lithium-ion battery recycling industry? <i>Marco Malaguti, Simón Díaz-Quezada, Michelle Trinh Ho, Sofie Kjølby Niss, Antonio Peñas-Sanjuán, Pedro Navarrete-Segado, Amer Ali, Cejna Anna Quist-Jensen</i>	121 Use of variable speed drives on main pumps in large SWRO plants: Technical and economical considerations <i>Antonio de la Torre</i>	203 Polymeric antiscalants in desalination: Characterization and biofouling potential in seawater <i>Maria Camila Albarracin, Graciela Gonzalez-Gil, Johannes Vrouwenvelder</i>	280 Key performance and energy challenges in small scale brackish water desalination systems <i>Youssef-Amine Boussouga</i>
15:10	195 CO ₂ recovery from reverse osmosis brines through membrane contactors <i>Lorenzo Ventimiglia, Giuseppe Battaglia, Maria Jose Lujan Facundo, Fabrizio Vicari, Maria Amparo Bes Pia, Alessandro Tamburini, Andrea Cipollina, Jose Antonio Mendoza Roca, Giorgio Micale</i>	213 Energy and cost optimization in CCRO and FO-RO water reuse systems <i>Sebastian Liebs, Georg Herborg, Amogh Sharma</i>	155 A more effective fouling characterization method for feedwater to reverse osmosis desalination processes <i>Lianfa Song</i>	115 Lessons learned from the operation of the world's largest reversal electro dialysis (EDR) plant for brackish water treatment <i>Fernando Valero, Pere Emiliano</i>
15:30–15:50 Coffee break				

Tuesday afternoon 23 June 2026

	Session 13 Brine valorisation IV	Session 14 Solar desalination	Session 15 Osmotic processes for brine concentration	Session 16 Advancements in pretreatment
15:50	201 Energetic evaluation of advanced pressure-driven desalination technologies for efficient industrial brine concentration <i>Christine Kleffner, Tim Santen, Gerd Braun, Yuliya Schiesser</i>	22 Evacuated-tube solar collector with embedded vacuum-assisted sweeping-gas membrane distillation for efficient solar desalination <i>Atia E. Khalifa, Mohammad Abu Abbas, Mohamed Rabie</i>	230 Techno-economic assessment of high-recovery seawater reverse osmosis (SWRO) based on osmotically assisted reverse osmosis (OARO) <i>Juan I. Pinaglia-Villalón, Rafael González-Almenara, Guillem Gilabert-Oriol, Rolando Bosleman, Juan Cifuentes, Lourdes García-Rodríguez</i>	56 Evaluation of optimal operational conditions of a multimedia filter for seawater pretreatment <i>Ratul Das, Yasmeeen Nadreen, Graciela Gonzalez Gil, Ruben Gomez, Jeremy Biddle, Johannes Vrouwenvelder</i>
16:10	273 Sustainable circular desalination through brine-to-chemicals conversion: a pilot study in Lampedusa Island (Italy) <i>Giuseppe Battaglia, Michela Cardella, Giuseppe Lo Burgio, Lorenzo Ventimiglia, Giuseppe Scelfo, Simona Asaro, Giovanni Virruso, Antonino Campione, Fabrizio Vicari, Andrea Cipollina</i>	49 Performance assessment of a solar-driven vacuum-assisted sweeping gas membrane distillation system with bubble column dehumidifier <i>Mohammad Abu Abbas, Atia Khalifa</i>	76 Modelling and validation of OARO for NaCl brine and its role in ZLD <i>Vinay Narayan Hegde, Joachim Went, Mohammad Alwaz Khan, Joachim Koschikowski, Werner Platzer, Sven-Uwe Geissen</i>	259 Variable-property mass transfer modeling to optimize ultrafiltration pretreatment for high-recovery RO desalination <i>Mohammad Alizadehfard, Nader Rahemi, Somayeh Allahyari, Pedram Sadr</i>
16:30	117 Recovery of salts from brackish water RO brines through physicochemical techniques: experimental evaluation <i>Rafael Buendía, Domingo Zarzo</i>	84 Design and testing of a solar desalination unit for emergency conditions <i>Gabriele Copetti, Francesco Picarelli, Matteo Morciano, Matteo Fasano, Alberto Tiraferri</i>	303 Osmotically assisted reverse osmosis for high-salinity brine management: Recent advances and future technology development needs <i>Basel Abusharkh</i>	111 Data-driven optimization of ultrafiltration operations using DuPont's ultrafiltration operations advisor <i>David Romero-Puyal, Gerard Massons, Guillem Gilabert-Oriol, Leaelaf Hailemariam, Sylvia Insogna, Santhosh Ramalingam, Ankit Gupta, Amrita Panjwani</i>
16:50	245 Nutrients recovery from wastewater centrate via struvite precipitation with brine-derived magnesium hydroxide <i>Ferdinando Domenico Miciletta, Samuel Navajas-Valiente, José Antonio Mendoza Roca, Amparo Bes Pia, Giuseppe Battaglia, Alessandro Tamburini, Andrea Cipollina</i>	36 Concentrating solar power (CSP) assisted FO hybrid systems for desalination of seawater: a preliminary study <i>Ahmed Al-Ghamdi, Sultan Ahmed, Amro Mahmoud, Hajar Albutuwaybh, Jenan Almاده</i>	109 Brine concentration with low salt rejection reverse osmosis membranes <i>Guillem Gilabert-Oriol, Angels Tejero, Claudia Niewersch, Caleb Funk, Steve Jons</i>	226 Assessment of next generation high area ultrafiltration membrane as seawater desalination pretreatment <i>Daniel García-Huertas, Michael Hoffmann, Christian Staaks, Guillem Gilabert-Oriol, Olga Ferrer Mallén</i>
17:10	278 Water and ion transport properties of high-pressure nanofiltration membranes for brine treatment <i>Seoyeon Lee, Minji Je, Yeosong Jeong, Juyeong Lee, Yongjun Choi, Sangho Lee</i>	16 Life cycle assessment of solar- and grid-powered decentralized reverse osmosis and membrane distillation systems <i>Chakravarthy Gudipati, Badr Mohamed, Noora Almarzooqi, Sara Alzaabi, Philip Hart, Yousif Alhammadi</i>	239 Maven brine mining plant – world 1st commercial OARO project: HPP & ERD on-site performance results <i>Sebastian Liebs, Francisco Jimenez Castellanos</i>	159 Hybrid ferrate coagulation/UF pretreatment for biofouling control during algal blooms <i>Abdullah Alshahria, Mohammed Obaid, Abdulah Dehwah, Thomas Missimer, Muhammad Ali, Noredine Ghaffour</i>
17:30	140 Pilot scale production of magnesium carbonates from desalination brines <i>Michela Cardella, Giuseppe Battaglia, Giuseppe Lodato, Fabrizio Vicari, Alessandro Tamburini, Andrea Cipollina, Giorgio Micale</i>	241 Can off-grid desalination scale globally? Insights from a techno-economic and life-cycle analysis <i>Varinia Viridiana Felix Parra, Matthew Malaker Shingler, Robert Norwood, Jeb Shingler, Reema Shinh, Kerri Hickenbottom</i>	218 Evaluation of low salt rejection RO membranes prepared by controlled oxidation of SWRO membranes <i>Almoatasem Alaufi, Gaetan Blandin</i>	123 Brackish water with arsenic: comparing aerobic and anaerobic treatment <i>Timon Rijnaarts, Tim Van Dijk, Friso Snijders, Roy Duijnmaijer, Teun De Zeeuw, Patrick van der Wens, Jasper Verberk</i>

18:00–19.00 Poster pitches

Wednesday morning 24 June 2026

	Session 17 Electromembrane technologies	Session 18 Membrane distillation I	Session 19 Innovations in reverse osmosis	Session 20 Advancements in pretreatment II
8:30	228 Towards industrial electrodialysis with bipolar membranes: a validated scale-up methodology and techno-economic assessment <i>Andrea Culcasi, Antonia Filingeri, Alessandro Tamburini, Giorgio Micale, Andrea Cipollina</i>	98 Study of a simultaneous cooling and desalination system using CO ₂ as a refrigerant and AGMD <i>Paul Byrne, Salma Roussel, Mostafa Dahbani, Thierry Maré</i>	264 Beyond energy efficiency: The broader advantages of semi-closed reverse osmosis (SCRO) desalination <i>Qianhong She, Zijing Mo, Yifu Xiao, Anthony Fane</i>	62 Redefining SWRO pretreatment through ceramic membrane technology <i>Ernst Lutz, Patrick Buchta, Daniel Arias, Douglas Espin</i>
8:50	135 Brine valorization using bipolar membrane electrodialysis: magnesium and calcium scaling with monovalent selective membranes <i>Daniel Kelly Coto, Ruben Halfwerk, Leonardo Gutierrez, Jan Post, Emile Cornelissen</i>	172 Sustainable concentration of brine from a reverse osmosis plant through the integration of solar membrane distillation <i>Isabel Requena, Alba Ruiz-Aguirre, Juan Antonio Andrés-Mañas, Juan Diego Gil, Guillermo Zaragoza</i>	205 Active batch reverse osmosis: Next-generation membrane desalination for high-efficiency produced water reuse <i>Christine Kleffner, Quantum Wei, Arian Edalat</i>	178 Optimization of pretreatment during high suspended solids episodes <i>Irene Ochoa Marchán, Domingo Zarzo, Patricia Terrero, Rafael Buendía</i>
9:10	68 Ladder electrodialysis enables efficient up-concentration of brines and acids <i>Cong Liu, Ming Tan, Yang Zhang</i>	170 Breaking the 200 g/L barrier in membrane distillation: Experimental performance of an integrated solar-driven pilot <i>Frederico Felizardo, Alejandro Bueso, Maria Helena Novais, Guillermo Zaragoza, Pedro Horta</i>	247 Survival analysis for the dynamic prediction of gypsum scaling risk in batch reverse osmosis systems <i>Natasha Wright, Ali Abdelkawi</i>	243 An innovative and sustainable pretreatment design for flexible and robust operation <i>Javier Cañas Jimenez, Jesus Gimenez-Rico, Luis Miguel Garcia, Belen Gutierrez</i>
9:30	42 Experimental evaluation of multi-stage, multi-pass (batch) electrodialysis desalination brackish water at pilot plant scale <i>Jonathan Bessette, Andria Jones, Shane Pratt, Ben Judge, Amos Winter</i>	207 Performance enhancement of air-gap membrane distillation using TiO ₂ /GO-modified PVDF-HFP membranes <i>Hamad Alromaih, Patricia Gorgojo, Maria Perez-Page</i>	50 Elevating recovery rate with osmotically assisted and ultra-high-pressure reverse osmosis <i>Rolando Bosleman, Richard Stover</i>	19 Ozonation of seawater: Structural trends and salinity-driven byproduct formation via non-target HRMS <i>Kourosh Nasr Esfahani, Antonino Di Bella, Oronzio Santoro, Paolo Roccaro, Domenico Santoro</i>
9:50	38 Advancing Morocco's water future through sustainable solar-powered electrodialysis: a simulation-based economic analysis <i>Basma Bachiri, Mohamed Taky</i>	37 Comparative life cycle assessment of a brine treatment plant in Morocco under different energy sources <i>Yassine Soumbati, Zeeshan Arshad, Almotasembellah Abushaban, Youssef Belmabkhout, Mohamed Chaker Necibi</i>	17 A stepwise approach to use nanofiltration membranes instead of RO to produce drinking water at high recoveries <i>Alexei Pervov, Vyacheslav Dzyubenko</i>	277 Innovative pretreatment processes for next-generation SWRO desalination plants <i>Abdessamad Belgada</i>
10:10-10:30 Coffee break				
10:30-11:40 Panel session Misconceptions Affecting Social Perception and Acceptance of Desalination. Co-organised by EDS and the Expert Group on Desalination of Water Europe. Sponsored by ONEE.				

Wednesday morning 24 June 2026

	Session 21 PFAS and pollutants removal	Session 22 Membrane distillation II	Session 23 Novel membrane materials	Session 24 Advancements in pre- and post-treatment
11:40	20 Integrated closed-circuit RO–VUV system for PFAS and micropollutant degradation via molecular uncoupling <i>Ehsan Khorshidi Nazloo, Domenico Santoro</i>	80 Harnessing light for water: Photothermal membrane distillation for sustainable desalination <i>Mohamed Khayet, A. Askir, S. Díaz-Luz, C. García-Payo, F. Aziz</i>	114 Nanomaterials use in desalination: From promise to reality <i>Hassan Arafat</i>	272 Submerged UF on the rise again: DuPont Inge ultrafiltration technology in submerged mode <i>Christian Staaks, M. Hoffmann, M. Riemer, M. Heijnen</i>
12:00	40 Removal of PFAS from water using onion peels biochar <i>Nawaf Bin Darwish, Abdulrahman Alalaw</i>	28 Comparative modeling and evaluation of polypropylene and PVDF hollow-fiber membranes for enhanced AGMD performance <i>Ahmed Geweda, Ahmed Omera, Mohammed Antar</i>	25 Polymers of intrinsic microporosity for high performance desalination <i>Mahmoud Abdulhamid</i>	181 Ultrafiltration and microfiltration: Going beyond the standard operation and maintenance solutions to extend membrane life <i>Dan Freeman, Raul Gonzalez, Fiona Finlayson, Javier Nicolas Martinez, Natasha O'Hara</i>
12:20	248 Enhancing RO system design: Integration of arbitrary molecule rejection simulation for PFAS and emerging contaminants <i>Harish Warsono, Takumi Kobayash</i>	202 Conventional and emerging membrane technologies for effective treatment of textile finishing wastewater: Differences and advantages <i>Shara Pérez Mateos, Carmen María Sánchez-Arevalo, Esperanza M. Garcia-Castello, Antonio Rodriguez-Lopez, María Cinta Vincent-Vela, Beatriz Elena Cuartas-Urbe</i>	79 Enhanced desalination performance of a metal-organic framework@activated carbon hybrid material <i>Imane Souhil, Mohamed Anouar, Asmaa Msaad, Oumaima Azhar, Amal Adli, Yazid Zayd Abalhate, Youness Benaarif, Adil El Achhab, Younes El Goumi, Asmaa Dghoughi, Youssef Lghazi, Mounir Belbahloul</i>	100 Next-generation post-treatment: Driving efficiency and resource recovery <i>Nicholas Nelson, Bouazza Ihyane, Jan Stemann</i>
12:40	262 Enhancing PFAS removal: Innovative plasma-treated TiO ₂ photocatalysts on Unisol membranes for advanced water treatment <i>Somayeh Allahyari, Nader Rahemi, Mohammad Alizadehfard</i>	107 Coupled thermodynamic analysis, process modeling, and DCMD experiments for sustainable water recovery from steel industry effluent <i>Hussein Fairousha Sulaiman, Simon Díaz-Quezada, Imen Bousrih, Aamer Ali, Cejna Anna Quist-Jensen</i>	152 Development of a low-cost pozzolan-based ultrafiltration membrane coated with purified red clay for dye removal <i>Jamyla Naim, Sanaa Adlane, Manal Idgharnane, Brahim Achiou, Kateryna Fatyeyeva, Abdelleh Aaddane, Mohamed Ouammou, Saad Alami Younssi</i>	75 Optimizing calcite contactor remineralization process: a techno-economic framework for desalinated drinking water <i>Bouazza Ihyane, Jan Stemann, Nicholas Nelson</i>
13:00–14:00 Lunch				

Wednesday afternoon 24 June 2026

	Session 25 Minimum and zero liquid discharge (MLD, ZLD) schemes	Session 26 Reverse osmosis membranes	Session 27 Desalination in policies and societal impacts	Session 28 Special session for the EXBRINER project
14:00	160 Minimizing liquid discharges in large-scale SWRO desalination: An integrated MLD design approach <i>Elena Crespo Olazabal</i>	110 New seawater fouling resistant low-energy reverse osmosis element: Introducing FILMTEC™ SW30XLE-400/34 membrane element David Arias, Guillem Gilabert-Oriol, Gerard Massons, Maria Perez-Macia	39 Public acceptance of desalinated and reclaimed water: Evidence from Spain <i>Sofia Tirado Sarti</i>	236 Effect of temperature on NaOH production and energy consumption from seawater brines by using electro dialysis with bipolar membranes Anastássia Lima, Júlio Lopes Rodriguez, Elena Guillen Burrieza, José Luis Cortina Pallas
14:20	27 Advanced treatment of contaminated groundwater: achieving near-zero liquid discharge through a multibarrier approach <i>Lorenzo Craveri, Erica Bertozzi, Marco Malaguti, Gabriele Copetti, Davide Cerrina, Alessandro Trombetta, Valentina Rosetti, Alberto Tiraferri</i>	33 Confined water channels in polyamide RO membranes for energy-efficient desalination <i>Harutoki Shimura</i>	116 Integrating desalination and indirect potable reuse for urban water resilience in Mediterranean cities Jordi Molist, Antoni Munné	283 Polymer composites for photothermal desalination Athanassia Athanassiou, Despina Fragouli 284 Nanocomposite hydrogels for single step water purification and quality monitoring Despina Fragouli, Fatemeh Norouzi, Athanassia Athanassiou
14:40	168 Scaling-free gypsum and water recovery from pulp and paper wastewater via membrane crystallization <i>Imen Bousrih, Simón Diego Díaz Quezada, Cejna Anna Quist-Jensen, Amer Ali</i>	174 Correlating pressure drop in spacer-filled RO channels with membrane deformation Luigi Ranieri, Bastiaan Blankert, Cristian Picioreanu	275 Challenges and opportunities of blending desalinated water with conventionally treated water for a stable potable water supply – A UK focused case study Jawad Mustafa, Alex Mead, Abraham Negaresh	285 Photothermal graphene-based membranes meets sunlight: Efficient brine valorization Sergio Santoro, Antonio Politano, Roviell Berhane Zegeye, Alula Selomon Embay, Loredana De Bartolo, Efrem Curcio
15:00	142 Modular tubular seeded AGMDCr for near-ZLD operation and selective salt recovery Stefanie Flatscher, Mark W. Hlawitschka	81 Pacific Ocean seawater desalination using electro-active reverse osmosis membranes Arian Edalat, Subir Bhattacharjee, David Baarck, Derrick Dlamini, Arash Tayyebi	282 Policy and regulatory framework for desalination in Oman - A successful model for sustainable sector expansion <i>Saud Al Shidhani</i>	286 Hybrid photothermal membrane distillation-selective electro dialysis for enhanced lithium recovery from hypersaline brines Roviell Berhane Zegeye, Ramato Ashu Tufa, Sergio Santoro, Bruno Marco Inzillo, Marco Aquino, Pietro Argurio, Efrem Curcio
15:20	229 Universal electrified pretreatment system for high recovery of brines Andrea Achilli, Mervin Lim, Tenzin Phakdon, James Farrell	182 Counter-current cascades of RO membranes: A tool to enhance performance and overcome membrane ageing in desalination <i>Youness Kouzi</i>	299 An introduction to AMTA's New Guideline for Membrane System Safety and Reliability (G-002) for membrane desalination facilities <i>Doug Eisberg</i>	287 Investigation of solid-liquid Interface Interactions of NiSe and CoSe for applications in desalination and mineral recovery Tsotne Dadiani, Danit Boukhvalov, Gianluca D'Olimpio, Antonio Politano

15:40–16:00 Coffee break

Wednesday afternoon 24 June 2026

	Session 29 Low-cost ceramic membranes	Session 30 Intake	Session 31 New concepts for desalination	Session 32 Special session for the EXBRINER project
16:00	1 Advancing oily wastewater treatment with an innovative and cost-efficient clay-based ceramic membrane <i>Yehia Manawi, Viktor Kochkodan</i>	48 Why FEED design of seawater intakes is the key to prevent future head loss <i>Harry Polman, Hugo Costa, Mario Valente</i>	57 Gravitational vapor compression desalination (GVCD) – a breakthrough for this millennia <i>Ratul Das, Ruben Gomez, Khaled Bandar Alsaud, Eusebi Nomen, Thomas Altmann</i>	288 Influence of objective selection on VMD module design and global performance: A comparative study between permeate flowrate vs. flux-based optimization <i>Indira Chimanlal, Gina Alfonso, Aras Ahmadi, Corinne Cabassud</i>
16:20	301 Bifunctional ceramic membranes from lay and spent coffee grounds for selective removal of pharmaceuticals and textile dyes <i>Raja Ben Amar, Feryelle Aouay, Afef Attia, Lasâad Dammak</i>	72 Tunnelling solutions for water intakes and brine outlets in desalination plant construction <i>Raphael Sistermans</i>	74 Development and experimental testing of a sorption-based desalination + cooling system <i>Valeria Palomba, Antonio Fotia, Matteo Calò, Walter Mittelbach, Andrea Frazzica</i>	289 Magnesium sulphate recovery from multistage seawater nanofiltration brine using photothermal membrane crystallization <i>Asif Saud, Bruno Marco Inzillo, Sergio Santoro, Aamer Ali, Efrem Curcio, Cejna Anna Quist Jensen</i>
16:40	250 Enhancement of microfiltration performances of pozzolan membrane by incorporation of micronized phosphate and its application <i>Dounia Beqqour</i>	210 Transition Box remediation: a modular approach to underwater infrastructure renewal <i>Irene Ochoa Marchán, Domingo Zarzo, Patricia Terrero, Rafael Buendía</i>	136 Binary LiCl–CaCl ₂ composite adsorbents for low-temperature adsorption desalination <i>Antonio Fotia, Andrea Frazzica, Valeria Palomba, Vincenza Brancato, Roberta De Salvo</i>	290 Gatekeepers of ions: Functionalized UiO 66 multilayers for selective separation <i>Muhammad Ahsan Khan, Bart Van der Bruggen</i>
17:00	138 Toward sustainable desalination: Low-cost ceramic membranes and industry 4.0 integration for enhanced anti-fouling performance <i>Abdelbast Karbal, Hassan Naanani, Fouad Alloun, Mustapha Faraji, Driss Bougmoum, Essadki Abdelhafid, Abdeslam El Bouari</i>	77 Maintaining intake flow: Cleaning and inspection of seawater intake pipelines for desalination plants <i>Pilar Vera-Rodriguez, Simon Bell, Paul Newbury</i>	217 Flocean One – The world's first large scale subsea desalination demonstrator <i>Tor-Anders Rusvik, Christian Abellsson</i>	291 Hypersaline brine valorization using cation exchange membrane: Experimental and modelling approach <i>Federico Dei Sommi, Roman Kodým, Jaromír Hnát, Karel Bouzek</i>
17:20	222 Treatment of seawater using a novel low-cost ceramic membrane fabricated with clay and food waste <i>Sara Bouk, Laila Bennani, Yassine Rakcho</i>	9 Recent designs of marine installations for desalination plants in Morocco <i>Eloy Pita, Pablo Pita, Mario Sanchez-Barriga, Liliana Quispealaya, Lucas Martin, Alberto Rivas</i>	61 Subsea desalination energy advantage: a comparative analysis with terrestrial RO facilities <i>Harith Alomar, Matias Cornejo, Antoine Vuillermet, Hugo Harstad</i>	292 3D printing of profiled ion-exchange membranes <i>Mekhna Venu, Claudia Galinha, Sylwin Pawlowski, Joao Crespo</i>
17:40	252 Low-cost geomaterial-based membranes in service of seawater desalination <i>Brahim Achiou, Saad Alami Younssi, Mohamed Ouammou, Mohamed Bouhria, Abdellah Aaddane, Jamal Bennazha</i>	34 Early warning for marine biofouling risks at seawater intake of coastal SWRO plants <i>Harry Polman, Patricia González, Kasper Kusters, Sandra van Amsterdam</i>	126 Floating power/water barges for remote islands <i>Vassilis Deligiannis, Evdokia Fotiadou</i>	293 Organic fouling of anion exchange membranes <i>Alula Selomon Embaye, Antonella Piscioneri, Maria Penelope De Santo, Ramato Ashu Tufa, Sergio Santoro, Efrem Curcio, Loredana De Bartolo</i>
20:00 Gala event				

Thursday morning 25 June 2026

	Session 33 Regional case study experiences	Session 34 Green hydrogen	Session 35 Desalination and the environment	Session 36 Plant design and optimization
9:20	23 Brine-based backwash for ultrafiltration systems in seawater desalination: Chtouka (Agadir) plant – case study <i>Manuel Alberto López Martín</i>	204 Integration of a continuous electrodeionisation process with a desalination plant for UPW production Simona Maria Asaro , <i>Andrea Culcasi, Dario Grano, Alessandro Tamburini, Giorgio Micale, Andrea Cipollina</i>	94 Seawater corrosion mitigation using plant-derived inhibitors: Electrochemical insight and efficiency Oumaima Azhar , <i>Imane Souhil, Asmaa Msaad, Mohamed Anouar, Mohamed Merouane El Hammoumi, Abdelhadi El Bachiri, Amal Adli, Yazid Zayd Abalhate, Youness Benaarif, Adil El Achhab, Mounir Belbahloul</i>	30 How to design a desalination plant for the safe transport of chemicals <i>Francisco Javier Lorenzo Moral</i>
9:40	267 Thin-film nanocomposite reverse osmosis membranes for sustainable seawater desalination: The Dakhla SWRO project in Morocco <i>Alvaro Lagartos</i>	151 Water reuse vs. desalination: Technical feasibility, design and economics of ultra-pure water production for green hydrogen Jan-Hendrik Imholze , <i>Patrizia Moosmann, Stefan Krahl, Jürnjakob Dugge, Karen Stummeyer</i>	108 Desalination brine discharges: Physicochemical characteristics, environmental impacts and valorization strategies Nawal Sifa , <i>Anas Aguelmous, Abdessamad Belgada</i>	112 Long term performance of DuPont ultrafiltration at the Limassol desalination plant in Cyprus <i>Gerard Massons, Guillem Gilabert-Oriol, Lorena Barbera, Erineos Koutsakos, Menahem Priel</i>
10:00	139 Demineralization of brackish water for irrigation gardening and dairy sector in the commune of Jraifia Lahcen Hasnaoui , <i>Alae Ayyad, Jamila Oudich</i>	128 Production of water of high purity by membrane distillation for renewable hydrogen production Alba Ruiz Aguirre , <i>Bernardo Ventura, Robinson Johan Ramirez-Gil, Guillermo Zaragoza</i>	58 Subsea desalination plant brine discharge and environmental impact Harith Alomar , <i>Matias Cornejo, Antoine Vuillermet, Jo Jernsletten, Hugo Harstad</i>	55 Optimization methodology for design and performance of SWRO desalination plants <i>Fernando Javier Suarez Perez</i>
10:20	133 Machine learning-enabled digital twin for autonomous optimization of containerized reverse osmosis desalination systems <i>Bouchra Mahrouch, Karim Kadmiri, Idriss Azhari</i>		253 Coupled TELEMAT-3D–TOMAWAC modeling of brine and thermal discharges for optimal outfall–intake design on Atlantic coasts <i>El Mehdi Chagdali</i>	47 Optimization of SWRO performance through single- and multi-OEM membrane hybridization Ahmed Yousry , <i>Justin Robert, Tariq Nada, Mohammed Haroon Siyech, Ahmad Alharthi</i>
	10:40-11:00 Coffee break			

Thursday morning 25 June 2026

	Session 37 Thermal desalination	Session 38 Desalination and sustainability	Session 39 Energy recovery system	Session 40 Plant operation
11:00	197 Machine learning–based modeling and performance analysis of multi-effect distillation under CSP variability <i>Alfred Pitia Martin Loro, Aicha Chorak, Bartolomé Ortega-Delgado, Abdelouahid Lyhyaoui, Patricia Palenzuela</i>	227 Demonstration of a highly sustainable desalination scheme <i>Mariana Figueira, Lyvia Mendes, Nil Llopart, Germán Santos, Marina Martínez, Marta Ruamayor, Hendrik Swart, Olga Ferrer Mallén</i>	52 Energy recovery in low, high, and ultra high-pressure reverse osmosis systems <i>Rolando Bosleman, Juan Cifuentes</i>	131 SeaQual: Using remote sensing and AI to predict SWDP performance <i>Alexander Baekelandt, Carlos Laguna Sanchez</i>
11:20	208 Integrated solar micro gas turbine–driven sea-water desalination combining high-recovery SWRO and zero liquid discharge <i>Rafael González Almenara, Lourdes García-Rodríguez, Néstor Santana-Hernández, Agustín Delgado-Torres, Jesús Montes-Sánchez, Jorge Camacho-Espino, Bartolomé Ortega-Delgado, Nicolás Aranda-Pérez</i>	244 Assessment of energy efficiency of the DESALRO 2.0® plant installed at the Canary Islands Institute of Technology <i>Lourdes García-Rodríguez, Rafael González-Almenara, Baltasar Peñate-Suarez, J. Antonio de la Fuente-Bencomo, Sigrid Arenas-Urrea</i>	242 Active energy recovery devices to enable lower power consumption - MPE 70 operation results <i>Sebastian Liebs, Francisco Jimenez Castellanos</i>	179 Management of placing SWRO desalination plants in standby mode: Engineering challenges <i>Erineos Koutsakos, Menahem Priel, Aristos Loucaides, Christie Stylianou, Louisa Christodoulou</i>
11:40	232 Performance analysis of MSF and MED based desalination plants using exergy and actual data <i>Jamel Orfi, Faisal Abuderman, Seungwon Ihm, Osman Hamed</i>	148 Streamlining sustainability: Potential onsite water reuse for data center operations <i>Kerri Hickenbottom, Reema Shinh, Leila Karimi, Varinia Felix</i>	298 Analysis of energy consumption and efficiency standardization for hydraulic energy recovery devices <i>Eli Oklejas</i>	44 Learning at scale: Shared knowledge and lessons from mega desalination projects <i>Ramon Rubio de Castro</i>
12:00	162 Self-propelled condensation droplets behavior on cantor fractal surface <i>Luyuan Gong, Yali Guo, Qinggang Qiu, Shengqiang Shen</i>	186 The role of the water stress index (WSI) as a category of determining impact in the assessment of the water footprint <i>Mercedes Calzada Garzón, Noe Meana Rodriguez, Domingo Zarzo Martinez, María Encarnación Mateos Tejedor, Jaime Salas-Praves Hernandez</i>	51 Next generation high efficiency energy recovery device <i>Rolando Bosleman, Juan Cifuentes</i>	266 Enhancing SWRO sustainability: Energy optimization and fouling control with TFN high-rejection membranes and LDP feed spacers <i>Alvaro Lagartos</i>
12:20	31 SWAP™: Ultra-low-energy, atmospheric-pressure desalination with high-salinity tolerance <i>May Akrawi, Hill Kemp, Alkis Strompoulis</i>	192 Decarbonization and sustainability in desalination <i>Domingo Zarzo, Patricia Terrero</i>	96 Comparative evaluation of pressure-exchange and turbine ERDs under varying feed-flow conditions <i>Haytham Abdelfatah, Eli Oklejas</i>	71 Data-driven optimization in large-scale RO facility: a comprehensive case study in operational excellence <i>Elad Barak, Micha Oestereich</i>

12:40-13:20 Innovation Panel session with the finalists of the Miriam Balaban Innovation Award

13:20-14:20 Lunch

14:20-15:20 Closing ceremony and the announcement of the winner of the Miriam Balaban Award

POSTERS

- 2** Modification of polyamide NF membranes by addition of acacia gum for the rejection of perfluorooctanoic acid from water
Yehia Manawi, Viktor Kochkodan
- 3** Techno-economic optimization of stand-alone PV–wind hybrid desalination for MENA (Dubai, Saudi Arabia)
Ahmed Bilal Shahulhameed, Abdullah Al Hasan, Md Abdullah Al Bari
- 5** Predictive modeling of membrane based produced water treatment using machine learning models
Asmat Ullah
- 14** High-pressure reverse osmosis: A comprehensive and recent review of advances in desalination and water treatment
Yehia Manawi, Viktor Kochkodan
- 15** Structural and permeability analysis of ceramic membrane for high pressure water desalination
Hongxia Li, Zishan Akhter, Ahmed Shaaban, Navya Thomas, Jiun Hui Low, Santhana Raghuraman, Chakravarthy Gudipati
- 18** Electrical load forecasting using AI and deep learning in SEC–EOA
Ahmed T. AlAwami
- 26** Sustainable pretreatment strategies for desalination using recycled date palm fiber waste
Yassine Elyaakouby, Amine Tilioua
- 29** Thermo-economic optimization of hybrid AD-HDH desalination for green water production: a parametric study
Ahmed Abuelmaaty, Rached Ben-Mansour
- 41** Pyxis Lab — Advanced online monitoring solutions for reverse osmosis systems
Diana Cruz
- 46** Thermoplastic piping systems for SWRO: Enhancing reliability, durability, and lifecycle performance
Markus Ebster
- 63** Interpretable data-driven modeling for forward osmosis: water flux prediction and parameter interaction analysis
Chaima Aboulkacem, Samya Sigue, Mohammed Seaid, Nabil El Mocayd, Almotasembellah Abushaban, Youssef Belmabkhout, Mohamed Chaker Necibi
- 65** Renewable energy integration and salinity gradient power recovery for sustainable desalination in southern Morocco
Fatima Aziar, Mohamed Essalhi, Otman Abida, Abdelkader Boulezhar, Hanane Ait Lahoussine Ouali
- 67** Sustainable use of RO reject brine and oil-produced water for simultaneous sand stabilization and CO₂ sequestration
Bassam Tawabini, Mohammad Ariansyah
- 83** Hydrodynamic control of bubble size in flotation-based PFAS removal from drinking water
Florian Klupal, Mark W. Hlawitschka
- 85** Optimizing desalination operations for energy flexibility
Mohamed Ait Kasem, Mohammad Chaoui, Ali Tarraq
- 88** Optimize and design of photovoltaic materials for high-efficiency on-grid desalination
Fatima Zahra Kamli, Khalid Belasfar, Omar Zahot, Taoufik Garmim, Mounir Belbahloul, Abdelhadi El Bachiri, Mohamed Merouane El Hammoumi
- 90** CTA-HF SWRO membrane—establishing a new industry benchmark in operational durability and performance efficiency
Ahmed Radwan, Toshitaka Tanaka
- 91** Performance and energy implications of cellulose tri-acetate hollow fiber membranes in seawater reverse osmosis
Ahmed Radwan, Ratul Das
- 92** Machine learning based predictive maintenance for improving reliability and energy efficiency in desalination systems
Aliyu Ibrahim Ahmad, Ahmad Sadik Aliyu
- 95** Salinity gradient power for a sustainable future: Insights from reverse electrodialysis
Mohamed Khayet, C. García-Payo, L. García-Fernández, D. Barrera-Ariza, A. Ruiz-García, D. Suárez-Alonso, I.L. Martín-Tougui, J. Contreras-Martínez, E. Guillen-Burrieza
- 101** Nanocarbon-based coating for graphite electrodes: characterization and electrochemical desalination performance for water treatment
Anissa Aouni, Samar Faidi
- 102** Electrocrystallization as a sustainable approach for metal recovery from secondary battery wastewater
June-Seok Choi, Linitho Suu, Joowan Lim, Youngkwon Choi
- 103** 49 element simulator pilot plant, tests partial feed bypass theory to increase flux, reduce pressure loss and save energy
David Jiminez, Stephen Chesters, Stephane Jarrige
- 104** Salt-bridge-mediated protein fouling on FT-30 polyamide membranes: Molecular dynamics insights
Bassem Jamoussi, Lassaad Gzara
- 106** Microwave-synthesized CuO/ZnO–PES composite membranes for high-permeability, antifouling desalination pretreatment
Lassaad Gzara, Faisal Alruways, Kotbia Labiod, Khalid Alotaibi, Arun Shukla, Hasan Alwael
- 118** Specific energy consumption improvement in BWRO plant after 20 years in operation by installing ERD devices
Rafael Buendía, Juan Cifuentes, Domingo Zarzo
- 120** Closing the ion-exchange loop: Regenerating HCl and NaOH from industrial waste eluates using EDBM-based process
Marek Bobák, Maro Groík, Jan Filák
- 122** Seawater desalination in Eastern Scheldt, The Netherlands: a challenge in a cold climate and Natura2000 waterbody
Timon Rijnaarts, Teun De Zeeuw, Jannes Van Hove, Tim Van Dijk, Friso Snijders, Patrick van der Wens, Jasper Verberk
- 124** Using boron as indicator for arsenite removal in BWRO
Timon Rijnaarts, Tim Van Dijk, Friso Snijders, Roy Duijnmaijer, Patrick van der Wens, Teun De Zeeuw
- 127** A holistic approach to planning, design, and lifecycle management of large-scale water networks: A case study from Dubai
Vassilis Deligiannis, Imad Makhzoumi, Evdokia Fotiadou

- 130** Flow and evaporation heat transfer characteristics of falling film around non-circular horizontal tubes under MED conditions
Jiakang Yao, Yan Luo, Lu Tao, Xue Chen, Shengqiang Shen
- 134** Eco-friendly TiO₂ for ceramic wastewater membranes
Fatimaezzahra Oujaha, Brahim Achiou, Saad Alami Younssi, Mohamed Ouammou
- 137** Amine-functionalized TiO₂ nanocomposite polyamide membranes for advanced seawater desalination
Mousa Al Zubaidi, Lassaad Gzara, Yasser Shaban
- 141** A sustainable approach to freshwater production: modelling and simulation of a vacuum barometric desalination unit
Sami Own, Adel Nasser, Hector Iacovides
- 143** Development of polycarbazole-based functional ceramic membranes for water treatment
Sara Ouardi Idrissi, Dounia Beqqour, Saad Alami Younssi, Adiba Rais, Brahim Achiou, Mohamed Ouammou
- 144** Comparison of standard vs. custom RO plant designs: Advantages and disadvantages
Haytham Abdelfatah, Eli Oklejas
- 145** Public perceptions and social acceptance of seawater desalination for drinking water in Morocco
Lina Migliore, Tarik Chfadi
- 146** Development of MXene nanomaterial-based nanofiltration membranes for water and wastewater treatment
Nouhaila Makrouni, Manal Idgharnane, Brahim Achiou, Dounia Beqqour, Mohamed Ouammou, Saad Alami Younssi
- 149** SmartBrine: A feasibility study of enabling circular use of desalination brine in northeastern Brazil
Marcos Bruno Almeida Colombo, Silvano Porto Pereira, Esther de Kroon, Hamed Rastegarian, Luewton Agostinho
- 150** Ab initio study of the double perovskite Rb₂AgSbCl₆ for solar desalination
Mustapha Bouzidi, Abdelhadi El Bachiri, M. Belbahloul
- 156** Is it feasible to harvest salinity energy profitably?
Lianfa Song
- 157** Performance of reverse osmosis desalination is controlled by thermodynamic restriction
Lianfa Song
- 158** Using salinity gradients as an energy source to produce hydrogen
Valeriy Knyazhev
- 161** Desalination as a factor for peace
Abdelrahman Alamarah(tamimi)
- 165** Numerical investigation of steam condensation and liquid film dynamics in inclined tubes under marine operating conditions
Yali Guo, Minle Bao, Shenglin Quan, Qinggang Qiu, Luyuan Gong, Shengqiang Shen
- 169** Liquid entry pressure testing of hydrophobic membranes and perspectives for ceramic membrane distillation
Philipp Nagel, Sebastian Schilling, Heike Glade
- 175** Amphoteric chitosan/PVA beads with lignin nanotriangles for enhanced water desalination
Asmaa Dghoughi, Asmaa Msaad, Mohamed Anouar, Imane Souhil, Abdelhadi Elbachir, Mounir Belbahloul
- 176** Enhancing municipal wastewater reclamation by hollow fiber nanofiltration
Arul Jinu Lucas, Ahmed Elkhateeb
- 177** Integrating geopolitical risk into desalination planning for Mediterranean water security
Darío Salinas Palacios, Sofía Tirado Sarti
- 183** An early warning system to enhance climate resilience of SWRO facilities
Alexis Steverlynck, Luana Bueno, Morten Loell Vinther
- 185** Effect of sintering temperature on the characteristics of microfiltration membranes based on a mixture of perlite and micronized
Marouane Boukhari, Dounia Beqqour, Beqqour Rais, Mohamed Ouammou, Brahim Achiou, Saad Alami Younssi
- 187** Brine concentration by solar multi-effect distillation
Robinson Johan Ramirez Gil, Alejandro Bueso, Alba Ruiz-Aguirre, Juan Antonio Andrés-Mañas, Guillermo Zaragoza
- 191** Mapping fouling mechanism transitions in mixed protein–polysaccharide nanofiltration using response surface methodology and Hermia
Neveen AlQasas, Daniel Johnson, Dmitrii Petukhov
- 194** Parameters affecting membrane distillation performance – Effect of temperature and flow rate in DCMD
Shara Pérez Mateos, Carmen María Sánchez-Arevalo, María José Luján-Facundo, Silvia Álvarez-Blanco, Beatriz Elena Cuartas-Urbe, María Cinta Vincent-Vela
- 196** ZnMgFe LDH biocomposite beads: mechanistic insights and reutilization potential for the removal of organic pollutants from aqueous
Abdelhay El Amri, Nadia Zari, Rachid Bouhfid
- 214** Potential of Cs_xK_{1-x}NbO₃ ferroelectric materials for desalination applications: structural, dielectric, and functional study
Omar Zahot, Taoufik Garmim, Lahcen Soussi, Chaimae Louardi, Moustapha Bouzidi, Nouhaiyla Benaiyssa, Mouynir Belbahyloul, Maroyuane El Hammoumi, Abdelhadi El Bachiri, Ahmed Louardi
- 215** Smart groundwater complete solution up to MLD
George Brik, Tamara Merjaneh
- 216** Characterization of nanocarbon nanomaterial based electrodes for enhanced electrochemical degradation of aqueous pollutants
Samar Faidi, Anissa Aouni
- 219** A physics-informed hybrid machine learning framework for forward osmosis water-flux prediction under uncertain membrane parameters
Samya Sigue, Chaima Aboulkacem, Almotasembellah Abushaban, Youssef Belmabkhout, Mohamed Chaker Necibi
- 220** Artificial intelligence for seawater desalination optimization: Moroccan context
Fedwa Essannouni, Bouchra Douich
- 224** Fabrication of CuO-carbon aerogel-PA-TFN membranes with enhanced antifouling for water treatment
Mokibelo Joy Hlaraka, Thollwana Makhetha, Bhekani Mbuli, Kabo Matshetshe, Keneiloe Khoabane
- 231** Soil-based solutions to improve water efficiency and agricultural sustainability in a context of water stress
Asma Azekour, Houria Abdelghaffar, Nadia Boutaleb, Meriem Mahmoudi, Karima Jmaili, Khawla Waddi, Yasmine Mastari
- 233** Performance enhancement of a typical air GT by waste heat recovery to drive a sCO₂ Brayton cycle and membrane distillation unit
Jamel Orfi, Mohammed Raihan, Abdullah Olaiqa, Abdullah Al-Hamdan, Hassan Alshehri
- 234** Renewable energy and desalination integration as a sustainable approach
Jamel Orfi, Raed Sherif, Musaad AlFaleh

- 237** Photo-thermal membrane distillation for desalination
A. Askir, S. Díaz-Luz, F. Aziz, C. García-Payo, Mohamed Khayet
- 238** Innovative, online biofilm-control solution for SWRO systems producing potable water:
A case study from the Arabian Gulf
Dan Freeman, Georgia Skordalou, Ingo Konigs, Javier Martinez, Fiona Finlayson
- 240** Innovative nanocomposite RO membranes for improved desalination performance
Syed Zaidi, Mohd Muzammil Zubair
- 249** Recovery of magnesium and calcium from desalination brine
Qazi Iqra Shafi, Jamilu Usman, Billel Salhi, Nadeem Baig, Isam Aljundi
- 251** Design and engineering of nano-hydroxyapatite-based ceramic membranes
for superior wastewater treatment performance
Oussama Salhi, Mohamed Ouammou, Abdellah Aaddane, Jamal Bennazha, Saad Alami Younssi
- 255** Sustainable seawater pretreatment: bioflocculant performance optimized via statistical and AI approaches
Mounir Belbahloul, Mohamed Anouar, Asmaa Dghoughi, Asmaa Msaad, Imane Souhil, Abdelhadi Elbachiri, M. Merouane El Hammoumi
- 256** Sustainable menthol-derived antibacterial compounds for biofouling mitigation in water treatment
and desalination systems
Wiame Boumzour, Mohamed Merouane El Hammoumi, Mounir Belbahloul
- 257** Design-guided high-entropy alloys for electrochemical PFAS and contaminant removal in desalination
Mohammad Alizadehfard, Sahar Nazari
- 258** Advancing water, energy, and environmental circularity
Mohammad Alizadehfard, Sahar Nazari, Ensieh Taheri, Pedram Sadr
- 260** Limonene-derived organic compounds as sustainable antibacterial agents for water protection
in desalination processes
Mohamed Merouane El Hammoumi, Wiame Boumzour, Mounir Belbahloul
- 261** AI optimization of membrane cleaning in desalination and wastewater treatment facilities
Somayeh Allahyari, Mohammad Alizadehfard
- 263** Tantalum doped NiO thin films prepared by spin coating technique for high-efficiency on-grid desalination
Abdelhadi El Bachiri, Mounir Belbahloul, Fatima Ezzahra Kamli, Omar Zahot, Taoufik Garmim, Marouane El Hammoumi
- 265** The Enerplage system or how to protect beaches against coastal erosion and producing filtered seawater
Arnaud Ballay, Christelle Breton
- 268** CO₂ mineralization of real produced water via pH-swing precipitation: High-purity CaCO₃ recovery
and water treatment
Jun-Hwan Bang, Kyungsun Song, Youngchul Kim, Nam-Jo Jeong
- 270** Decentralized desalination systems for resilience under climate and environmental emergencies
Omar Elmaraghy, Patrick Buchta
- 274** Material selection and design challenges of GRP filtration housings for seawater RO pretreatment
Oren Heymans
- 281** Design of a small scale filter media system for seawater pretreatment prior desalination
Youssef-Amine Bousouga, Abdessamad Belgada
- 297** Manufacturing low-cost membranes from HIPS recycled
M.I. Iborra-Clar, A. Iborra-Clar, J.A. Mendoza-Roca, J.L. Soler-Cabezas, A.H. Sadeq
- 300** Redefining water autonomy: A paradigm shift in decentralized desalination and water intelligence
Natalia Petre
- 302** Upgrading OCP's SWRO plant in Morocco: A compact i-UF solution
Pedro Otegui