DECHEMA

Gesellschaft für Chemische Technik
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PROGRAMME

17 – 19 November 2020
Virtual Conference

Industrial Water 2020

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INDUSTRIAL WATER 2020

#IndustrialWater

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Tuesday, 17 November 2020

12:30	**Welcome and Introduction**
	Chair: T. Track[1], [1] DECHEMA e.V., Frankfurt am Main/D
12:50	**KEYNOTE LECTURE** **Environmental and economic assessment of innovative solutions in water management** F. Dinkel[1]; N. Rastetter[2]; R. Wünsch[2]; [1] Carbotech AG, Basel/CH; [2] FHNW - University of Applied Sciences and Arts Northwestern Switzerland, Muttenz/CH
	DIGITALIZATION IN INDUSTRIAL WATER MANAGEMENT
	Chair: S. Geißen[1], [1] TU Berlin/D
13:35	**Upgrade the capacity of your wastewater treatment plant through a software upgrade rather than through a hardware upgrade – SmartLab®** M. Brockmann[1]; J. De Lathouwer[2]; [1] Waterleau Services Germany GmbH, Bremen/D; [2] Waterleau Group nv, Wespelaar/B
13:55	**Digitally integrated industrial wastewater treatment: DynaWater4.0** J. Singer[1]; M. Kojadinovic[1]; G. Robleto[2]; C. Hübner[2]; J. Alex[2]; P. Hasse[3]; F. Plonsky[3]; E. Bitter[1]; [1] EnviroChemie GmbH, Rossdorf/D; [2] ifak - Institut für Automation und Kommunikation e. V., Magdeburg/D; [3] Fraunhofer FOKUS, Berlin/D
14:15	**Discussion with the speakers of the previous session**
14:25	Break and meet the exhibitors
14:55	**Digitizing large industrial water users – IndustrialWater 4.0** D. Becker[1]; [1] DECHEMA e.V., Frankfurt am Main/D
15:15	**Digitalization in industrial wastewater treatment -Reduction of operating costs through intelligent online analysis** T. Hackner[1]; [1] HUBER SE, Berching/D
15:35	**Discussion with the speakers of the previous session**
15:45	**Poster FlashTalks**
16:45	**Exhibitor FlashTalks**

PROGRAMME

Wednesday, 18 November 2020

10:15	**Welcome**
	TREATMENT OF PROCESS WATER
	Chair: H. Spanjers[1], [1] TU Delft/NL
10:20	**Recovery of Ammonia from Fertiliser Plant Condensate for Energy Generation Purposes** G. Bandinu[1]; N. van Linden[1]; D. Overmeire[2]; R. van Lier[3]; H. Spanjers[1]; J. van Lier[1]; [1] TU Delft, Delft/NL; [2] Yara Sluiskil B.V., Sluiskil/NL; [3] Yara International, Brussels/B
10:40	**Recovery of Ammonia from Livestock and Municipal Wastewater using Gas Permeable Membranes: Effect of Carbonate Alkalinity** M. Vanotti[1]; [1] United States Department of Agriculture, Florence, SC/USA
11:00	**Discussion with the speakers of the previous session**
11:10	**Demand-driven air supply – It´s a system** M. Bickendorff[1]; H. Hermann[1]; [1] Binder Engineering GmbH, Ulm/D
11:30	**German Cooperation – Industrial Wastewater Treatment in India and MENA** L. Heinrich[1]; [1] Isle Utilities GmbH for German Water Partnership e.V, Berlin/D
11:50	**Discussion with the speakers of the previous session**
12:00	Break and meet the exhibitors
	Chair: M. Engelhart[1], [1] TU Darmstadt/D
12:50	**KEYNOTE LECTURE** **Dow's Sustainable Water Use Strategy - Terneuzen Wetland Research** N. Groot[1]; A. de las Heras[2]; O. Schepens[3]; D. van Oirschot[4]; D. Rousseau[5]; [1] Dow Benelux BV, Hoek/NL; [2] Dow Benelux BV, Terneuzen/NL; [3] Evides Industriewater B.V., Rotterdam/NL; [4] Rietland bvba, Minderhout/B; [5] University of Ghent, Kortrijk/B
	TREATMENT OF COOLING AND PROCESS WATER
	Chair: M. Engelhart[1], [1] TU Darmstadt/D
13:35	**Cooling tower water characterisation and treatment - Dow Benelux, Terneuzen case study** P. Saha[1]; H. Bruning[1]; H. Rijnaarts[1]; [1] Wageningen University and Research, Wageningen/NL
13:55	**Efficient control of the chemical dosing in a cooling tower water treatment of a reused waste water** M. Witte[1]; C. Persner[1]; P. Tojo[2]; [1] Grundfos Water Treatment GmbH, Pfinztal/D; [2] Grundfos A/S, Bjerringbro/DK
14:15	**Experience and outlook for innovative and sustainable solutions for efficient water use in steel industry by desalination with capacitive deionisation** M. Hubrich[1]; M. Kozariszczuk[1]; E. Piedra Fernandez[2]; B. Padilla Vivas[2]; [1] VDEh-Betriebsforschungsinstitut GmbH, Düsseldorf/D; [2] ArcelorMittal, Global R&D Asturias, Aviles/E
14:35	**Discussion with the speakers of the previous session**
14:50	Break and meet the exhibitors
	INDUSTRIAL WASTEWATER MANAGEMENT
	Chair: H. Pool[1], [1] SusChem-Sustainable Chemistry Technology Plattform & CEFIC, Brussels/B
15:20	**Effluent Polishing in Industrial Wastewater Treatment** J. Schumacher[1]; A. Meda[1]; [1] BHU Umwelttechnik GmbH, Leonberg/D
15:40	**Centralised treatment of industrial wastewater; a robust solution** J. Mulder[1]; S. Dr. Lübbecke[2]; [1] Evides Industriewater B.V., Rotterdam/NL; [2] Evides Industriewater Deutschland GmbH, Bremen/D
16:00	**Discussion with the speakers of the previous session**
16:10	**Point of Use (PoU) wastewater treatment systems (case studies in the semiconductor industry)** S. Sfaelou[1]; [1] DAS Environmental Expert GmbH, Dresden/D
16:30	**Effluent reuse for fresh water reduction in Pulp & Paper industry** S. Prasse[1]; [1] Centre Technique du Papier, Grenoble cedex 9/F
16:50	**Discussion with the speakers of the previous session**

Thursday, 19 November 2020

10:15	**Welcome**
	HIGH SALINE AND CHALLENGING WASTEWATERS
	Chair: S. Panglisch[1], [1] DGMT German Society for Membrane Technology, Duisburg/D
10:20	**Goodbye biofouling - Strategies to successfully reduce the risk of biofouling in reverse osmosis plants** J. Henkel[1]; M. Slagt[2]; [1] DuPont, Rheinmuenster/D; [2] DuPont de Nemours, Terneuzen/NL
10:40	**Membrane Distillation Affected by Scale Formation During Brine Concentration** S. Schilling[1]; H. Glade[1]; [1] University of Bremen, Bremen/D
11:00	**Discussion with the speakers of the previous session**
11:10	**Ionic separation of ion exchange brine by nanofiltration** D. Diamantidou[1]; N. van Linden[1]; B. Heijman[2]; H. Spanjers[2]; [1] Lenntech, Delft/NL; [2] Delft University of Technology, Delft/NL
11:30	**Bioprocess Development for Continuous Treatment of Industrial Waste Salt Water** T. Mainka[1]; C. Herwig[1]; S. Pflügl[1]; [1] Technische Universität Wien, Vienna/A
11:50	**Discussion with the speakers of the previous session**
12:00	Break and meet the exhibitors
	Chair: T. Track[1], [1] DECHEMA e.V., Frankfurt/D
12:50	**KEYNOTE LECTURE** **Management of industrial concentrates** S. Geißen[1]; [1] Technische Universität Berlin, Berlin/D
	PHYSICO-CHEMICAL TREATMENT PROCESSES
	Chair: Y. Schiesser[1], [1] Covestro Deutschland AG, Leverkusen/D
13:35	**Electrochemical advanced oxidation through a novel system with a compact in-situ oxidant production reactor in combination with an electrochemical precipitation reactor** T. Muddemann[1]; D. Haupt[1]; M. Sievers[1]; Y. Schießer[2]; R. Neuber[3]; U. Kunz[1]; [1] Clausthal University of Technology, Clausthal-Zellerfeld/D; [2] Covestro Deutschland AG, Leverkusen/D; [3] CONDIAS GmbH, Itzehoe/D
13:55	**Enhanced Electrochemical Production of Hydrogen Peroxide** N. Kuipers[1]; [1] Wageningen Food and Biobased Research, Wageningen/NL
14:15	**Elimination of acitve pharmaceutical ingredients from wastewater of pharmaceutical production sites** D. Londoño Moreno[1]; [1] EnviroChemie GmbH, Roßdorf/D
14:35	**Discussion with the speakers of the previous session**
14:50	Break and meet the exhibitors
15:20	**Degradation after adsorptive enrichment – novel concepts for degradation of challenging contaminants** A. Georgi[1]; K. Mackenzie[1]; L. Qian[1]; F. Kopinke[1]; [1] Helmholtz Centre for Environmental Research - UFZ, Leipzig/D
15:40	**AquaCritox® SC: Next Generation Hydrothermal Oxidation of Spent Caustic** S. Kaspar[1]; [1] H+E GmbH, Stuttgart/D
16:00	**Discussion with the speakers of the previous session**
16:10	**Wrap up & Closure** T. Track[1]; S. Geißen[2]; [1] DECHEMA e.V., Frankfurt am Main/D; [2] Technische Universität Berlin, Berlin/D

Industrial wastewater treatment Vlissingen NL, 50.000 PE

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P 01 **aixProM Big Data Analytics – Wastewater Ozonation**
M. Weng[1]; T. Volmer[1]; M. Habermehl[1]; I. Brückner[2]; V. Kohlgrüber[3]; [1] aixprocess GmbH, Aachen/D; [2] Wasserverband Eifel-Rur, Düren/D; [3] RWTH Aachen University - Institut für Siedlungswasserwirtschaft, Aachen/D

P 02 **That Colour isnt right! What went Wrong ?**
C. Allen[1]; [1] Tintometer GmbH, Dortund/D

P 03 **Wastewater reuse for process water - Two different approaches**
S. Lübbecke[1]; D. Dr. Moed[2]; J. Mulder[2]; [1] Evides Industriewater Deutschland GmbH, Bremen/D; [2] Evides Industriewater B.V., Rotterdam/NL

P 04 **WATER-MINING: Next generation water-smart management systems: large scale demonstrations for a circular economy and society**
D. Becker[1]; N. Heine[1]; [1] DECHEMA e.V., Frankfurt am Main/D

P 05 **Starch characterisation and recovery to limit detrimental microbial activity in Pulp & Paper industry**
C. Neyret[1]; [1] CTP, Grenoble/F

P 06 **Water reuse in dairy industry– Practical examples of vapor condensate treatment and future research**
A. Herrling[1]; K. Dickhoff[1]; E. Bitter[1]; [1] EnviroChemie GmbH, Rossdorf/D

P 07 **Influence of upflow velocity in UASB reactor performance**
C. Ramos[1]; A. Casadellà[1]; A. Serra[1]; M. Correa[1]; E. Gonzalez[1]; J. Ribera-Pi[1]; X. Martinez Lladó[1]; [1] EURECAT, Manresa/E

P 09 **Systematic optimization of the thermal reactivation of activated carbon for water treatment using statistical methods**
K. Rathinam[1]; [1] University of Duisburg-Essen, Duisburg/D

P 10 **Wastewater contaminated with VOCs: The challenge for industry and the future for new functionalized materials**
B. Muir[1]; M. Sobczyk[1]; T. Bajda[1]; [1] AGH University of Science and Technology, Kraków/PL

P 11 **Removal of anionic contaminants from wastewaters using functionalized mineral adsorbent in a fixed-bed column installation**
A. Koteja[1]; P. Maziarz[1]; A. Solinska[1]; J. Matusik[1]; [1] AGH - University of Science and Technology, Krakow/PL

P 13 **Modelling Framework for Desalination Treatment Train Comparison Applied to Brackish Water Sources**
J. Wreyford[1]; [1] Wageningen University & Research, Wageningen/NL

P 14 **Application of AGXX® in a Non-Ferrous Metal Mill to Optimize Process Water Stability, Plant Availability and Product Quality**
P. Frania[1]; G. Räcker[1]; I. Jolk[1]; [1] Feindrahtwerk Adolf Edelhoff GmbH & Co. KG, 58640 Iserlohn/D

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BINDERGROUP designs and manufactures equipment and systems for aeration control of biological purification in wastewater treatment plants (WWTP), gas flow measurement, gas pressure and temperature control, and biogas analysis. Our corporate slogan, "BETTER CONTROL. BETTER ENVIRONMENT." underlines the use of all our products to conserve investment assets, improve processes safety and efficiency, and protect the environment while offering our customers the highest economic and performance value.

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WavE – WATER.REUSE.DESALINATION
An initiative of the Federal Ministry of Education and Research
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The aim of the funding measure WavE, sponsored by the German Federal Ministry of Education and Research (BMBF), was to increase water availability by developing innovative technologies and concepts. Topic areas were (I) water reuse by utilizing treated municipal wastewater, (II) recycling of industrial water, and (III) treatment of saline ground and surface water. The results show a broad range of solutions contributing to a sustainable reuse of water in industry, agriculture, and municipalities.

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