

Zakhar Maletskyi

 Born 1986  Male  Norwegian

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APPOINTMENTS

- 01/09/2020-present **Associate professor of water and environmental engineering**
Research group on analytics in water treatment
- 01/09/2019-31/08/2020 **Researcher**
- 01/09/2015-31/08/2019 **Postdoctoral fellow in membrane processes for water & wastewater treatment**
Norwegian University of Life Sciences (NMBU), Ås (Norway) www.nmbu.no
- 01/12/2019-present **Research & development manager (*part-time*)**
Doscon AS, Oslo (Norway) www.doscon.no
Environmental & industrial process analytics for water and wastewater treatment
- 01/12/2012-31/08/2015 **Research & development manager**
- 01/08/2008-30/11/2012 **Research engineer**
Ecosoft BWT, Kyiv (Ukraine) www.ecosoft.com
Water engineering

BOARDS & COMMITTEES

- Nov 2020-present **Board member, institute representative**
Research board, Faculty of Science & Technology, NMBU, Ås (Norway)
- 2021-present **Program council, research group representative**
Program council for water & environmental engineering, NMBU, Ås (Norway)
- 2021-present **Board chair**
- 2019-2021 **Board member**
Forum for technology and development cooperation (FTU), Norwegian society of graduate technical and scientific professionals (Tekna), Oslo (Norway)
- 2021-present **Board member**
Norwegian water research association (VAnnforsk), Oslo (Norway)
- 2021-present **Management Committee member, grant awarding committee**
Network on water-energy-food nexus for a low-carbon economy in Europe and beyond (NEXUSNET), EU COST Action
- 2022-present **Working group member**
- 2020-2022 **Working group co-leader**
Human Capital working group of the Water Europe, Brussels (Belgium)

GRANT EXPERIENCE

- European Commission *Horizon Europe: Widening Participation and Spreading Excellence actions, ERA-NET Water JPI ERASMUS+ Strategic Partnerships, Knowledge Alliances, Capacity Building in Higher Education*
- National agencies *Research Council of Norway: Regional Research Fund, Innovation Program, INTPART*

Norwegian Agency for Development Cooperation (NORAD): Programme for Capacity Development in Higher Education (NORHED)

Norwegian Directorate for Higher Education and Skills: Eurasia Programme, Partnership with North America Program

Bilateral programs Norway EEA Grants
Arctic Research and Studies programme of the Icelandic and Norwegian Foreign Ministries

EXPERT SERVICE

2 Apr 2019 **Technical expert**
United Nations workshop of the European Union Water Initiative Plus for the Eastern Partnership, Geneva (Switzerland)

12-13 Feb 2019 **Technical expert**
United Nations World Health Organisation: Meeting of policymakers and experts, Bonn (Germany)

2019-2020 **Expert team member**
United Nations World Health Organisation and Economic Commission for Europe, Joint Secretariat for the Protocol on Water and Health: Sanitation Scoping Study in the pan-European region (review for 56 countries)

FELLOWSHIPS & SCHOLARSHIPS

2021 **Research Talent for Sustainability fellowship**
University talent development program, NMBU, Ås (Norway)

2020 **Faculty Research Boost fellowship**
Research networking and development activities, NMBU, Ås (Norway)

2017 **Scholarship for research stays abroad**
Research stays at the Michigan State University (US) and Kyungpook National University (South Korea), awarded by NMBU, Ås (Norway)

2008-2009 **Young scientist scholarship**
Research stays at the Forschungszentrum Karlsruhe (Karlsruhe Institute of Technology) awarded by German Research Foundation (DFG)

ACADEMIC QUALIFICATIONS

2013 **PhD in Engineering**
2009 **Master in Chemical Technology and Engineering**
National Technical University of Ukraine, Kyiv (Ukraine)

PROFESSIONAL CERTIFICATES

2015 **Project Management Professional (PMP)**
active Certified by the Project Management Institute (PMI), Pennsylvania (United States)
Cert. #1839847, originally earned 04.08.2015 <https://certification.pmi.org/registry.aspx>

ACTIVE MEMBERSHIPS

International Water Association, Water Europe, Norwegian Society of Graduate Technical and Scientific Professionals (Tekna), European Membrane Society, Project Management Institute

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Track record in Research, Education, and Service

RESEARCH

Research projects

- | | |
|--------------------------|---|
| 2022-2024
4,4 mil NOK | Project manager, principal investigator
HybridSens – Hybrid Sensors for Safe Drinking Water
<i>Research Council of Norway, Innovation Program</i> |
| 2022-2025
1,5 mil EUR | Work package leader
SMART4ENV – Enhancing scientific capacity in smart environment technologies for climate change challenges
<i>European Commission, Horizon Europe WIDERA</i> |
| 2022-2025
2 mil EUR | Work package leader
WATERLINE - Transforming advanced water skilling through the creation of a network of extended-reality water emulative centres
<i>European Commission, Horizon Europe WIDERA</i> |
| 2021-2026
10 mil NOK | Work package leader
PATCHER – Protecting aquatic ecosystem and human health from micropollutants
<i>Research Council of Norway, INTPART program</i> |
| 2021-2022
97 000 NOK | Project manager
IntelMEM – Intelligent nanofiltration membrane systems for natural organic matter removal in water treatment
<i>Research Council of Norway and German Academic Exchange Service (DAAD)</i> |
| 2021-2023
0,2 mil EUR | Co-investigator
ECO-SOS – Development of Emerging Contaminants Soft Sensor
<i>Horizon 2020 MSCA (EU)</i> |
| 2021-2023
3,3 mil NOK | Principal investigator
SEKRENS – Secondary chemical treatment of wastewater: optimisation with process control, oxidative and biofilm processes
<i>Research Council of Norway – Regional Research Fund</i> |
| 2021-2025 | Work package co-leader
NEXUSNET – Network on water-energy-food nexus for a low-carbon economy in Europe and beyond
<i>Horizon 2020 COST (EU)</i> |
| 2020-2021
25 000 EUR | Collaborator
Arctic Water
<i>Arctic Research and Studies programme of the Icelandic and Norwegian Foreign Ministries</i> |
| 2020-2023
5,8 mil NOK | Project manager, principal investigator
AECos – Advancing EleCtrochemical processes for water safety and circularity
<i>Research Council of Norway, INTPART program</i> |
| 2019-2021
2 mil EUR | Work package leader
Water Harmony JPI – Closing the Water Cycle Gap with Harmonised Actions for Sustainable Management of Water Resources www.waterharmony.net/wjpi
<i>Horizon Europe ERA-NET Water JPI</i> |

2017-2023 12,3 mil NOK	Work package leader MEMPREX – International partnership on membrane processes in water treatment for research and educational excellence www.memprex.org <i>Research Council of Norway, INTPART program</i>
2016-2018	Researcher HumusTek – New technology for purification of NOM-containing water for reserve water supply <i>Research Council of Norway – Regional Research Fund</i>
2015-2018 1,4 mil NOK	Project manager and principal investigator CE-MBR – Development of Chemically Enhanced Membrane Biological Reactor <i>Research Council of Norway – Innovation for Industrial Sector</i>
2015-2017 0,5 mil USD	Researcher IMPREG – Improving wastewater treatment with better phosphorus recovery <i>EEA Grants POL-NOR (Norway)</i>

EDUCATION

Curriculum development projects

2021-2022 0,25 mil EUR	Project manager SMARTEN – Serious games for digital readiness of water education www.smartenproject.eu <i>ERASMUS+ Strategic Partnership for digitalisation of education</i>
2021-2023 1 mil EUR	Work package leader, co-proposer DIGIWATER – Digitalisation of water industry by innovative graduate water education www.waterharmony.net/digiwater <i>ERASMUS+ Knowledge Alliance</i>
2020-2021 0,3 mil NOK	Collaborator NANOWATER – Managing nanoparticles and use of nanotechnology in water www.waterharmony.net/nanowater <i>Diku-RCN, Partnership with North America Program (Norway)</i>
2018-2019 0,3 mil NOK	Project manager TENOR – Towards the circular EcoNomy in Organic faRming www.tenorproject.eu <i>Diku Eurasia Program (Norway)</i>
2018-2019 0,3 mil NOK	Project manager AECo – Advancing Electrocoagulation for Water Safety and Circularity www.aeco-project.org <i>Diku-RCN, Partnership with North America Program (Norway)</i>
2017-2019 2 mil NOK	Collaborator WaterMagic – Water Management in Cold Climate www.watermagic.org <i>Diku High North Program (Norway)</i>

Academic instruction at NMBU

Course responsible

THT 271 (15 ECTS) Water and wastewater treatment technology
Taught: spring 2022

Co-instructor

THT 310 (15 ECTS) Water and wastewater treatment engineering
Taught: fall 2017-2021

THT 311 (10 ECTS) Water resources management and treatment technologies
Taught: summer 2017-2022

THT 312 (5 ECTS) Water management in cold climate
Taught: summer 2017, 2018, 2022

THT 271 (15 ECTS) Water and wastewater treatment (basic)

	<i>Taught: spring 2017-2021</i>		
	KJM 220 (10 ECTS) Water chemistry		
	<i>Taught: fall 2022</i>		
	IMRT 100 Introduction about the water treatment industry		
	<i>Taught: 2019-2022</i>		
Invited lectures	South Kazakhstan State University (<i>Kazakhstan, June 2020 and 2016</i>)		
	Qingdao University of Technology (<i>China, 29-29 August 2018, December 2017</i>)		
	Shandong Jianzhu University (<i>China, November 2017</i>)		
Instruction in Lifelong Learning programs	Water Harmony online training for academic staff (<i>May 2020 – July 2021</i>)		
	United Nations Economic Commission for Europe (UNECE), “Water resource management and modern water treatment technologies”: professional extension course in the context of Protocol on Water and Health supporting National Dialogue on Water Policy under Integrated Water Resources Management in Kyrgyzstan and Kazakhstan		
	<i>24-25 September 2018 in Bishkek, Kyrgyzstan (10 h)</i>		
	<i>26-27 September 2018 in Shymkent, Kazakhstan (10 h)</i>		
	<i>22-23 October 2018 in Osh, Kyrgyzstan (10 h)</i>		
PhD supervision (main)	Advancing electrochemical processes for water safety and circularity	Fanjing Meng	2022-2026
PhD co-supervision	Flux Enhancers in Biofilm Membrane Bioreactors: Insight into Fouling Control	Olga Kulesha	2016-2019
	Ecological safety of dairy processing	Volodymyr Besedyuk	2021-2023
MSc supervision	Main supervisor		
	1 Electrochemical oxidation and UV-VIS quantification of per- and polyfluoroalkyl substances (PFAS) for wastewater treatment	Philip Lein	2022
	2 The Prospect of Using Nature-Derived Chemicals for Removing Metals from Acid Mine Drainage in Follidal, Norway	Noor al-Bedani	2022
	3 Filter materials for removal of heavy metals from road runoff	Jonas Granøien	2022
	4 A review of selected natural coagulants in water and wastewater treatment	Sebastian Slinning Aarø	2020
	5 Nanofiltration of surface water with high organic content, focusing on reserve water supply in Halden municipality	Gorm Walter Høili Pettersen	2019
	6 Advanced coagulation and membrane filtration treatment of effluent from high-rate MBBR	Lars Rumohr Blingsmo and Leon Dokland	2019
	7		
	8 Effects of electrochemical treatment of mixed liquor in submerged ceramic membrane bioreactor	Roman Kuzhel and Anastasiia Nehrii	2019
	9		
	10 Comparison of treatment and fouling mitigation efficiency of organic and inorganic coagulants in biofilm membrane bioreactor	Vladyslav Shostak	2019
	11 Operational Optimization of Biofilm Membrane BioReactor (BMBR) for decentralized wastewater treatment	Anura Kumara Arembage	2018
	12 Testing Aluminium based chemicals for fouling reduction in membrane bioreactor	Dawit Kahsay Zigta	2017
	Co-supervisor		
	13 Impact of Climate Change on water supply	Shafici Adib	2020
	14 Electrocoagulation in wastewater treatment: a review	Thea Caroline	2020

				Granhus	
	15	Prediction of THM Formation Potential in disinfection of drinking water		Evelina Koltsova	2019
	16	Investigations of challenges and assessment of measures to be taken in association with the treatment plant at Orkla's production facilities in Rygge		Samson Langfeldt	2017
	17	Chronic Kidney Disease (CKD) in Sri Lanka – Evaluation of Status, Practices and Potential Pollutants		Mathias Espeland	2016
Supervision of visiting researchers and exchange students	1	MSCA postdoc	Development of Emerging Contaminants Soft Sensor	Agnieszka Cuprys, Poland	2021
	2	Mitacs Globalink Phd Student	Functionalized nano-adsorbent for simultaneous removal of heavy metals and ciprofloxacin from wastewater (PhD student from Institut national de la recherche scientifique – Québec, Canada – 3 months)	Agnieszka Cuprys, Canada	2019
	3	ERASMUS+	Comparative study of activated carbon and modified biochar for removal of heavy metals (10 ECTS)	Mihaela Bectoras, Romania	2019
	4	ERASMUS+	Removal of ciprofloxacin with electrocoagulation (10 ECTS)	Ilieva Natalia, Romania	2019
	5	ERASMUS+	Understanding mechanism and development of approaches to control membrane fouling in membrane bioreactor (MBR) (30 ECTS)	Yuliia Dzhiora, Ukraine	2017
	6	ERASMUS+	Handling of reject water and improvement of sludge dewatering in sewage treatment (30 ECTS)	Ivan Borysov, Ukraine	2017
	7	ERASMUS+	Hybrid sorption-membrane water treatment technology for removal of organic pollutants of natural and synthetic origin (30 ECTS)	Svitlana Kyrii, Ukraine	2017
	8	ERASMUS+	Iron-based fine particle adsorbents for water treatment (30 ECTS)	Marta Litynska, Ukraine	2017
	9	ERASMUS+	Membrane fouling reducers for submerged MBR – experimental proof of concept on laboratory scale (30 ECTS)	Stella Saliu, Ukraine	2017
	10	NORAD-NORHED	Removal of Arsenic from drinking water with reverse osmosis (30 ECTS)	Kim Lengthong, Cambodia	2017

SERVICE

Capacity building projects

2021-2023

1 mil EUR

Work package leader, co-proposer

CCWater – Graduates for Climate Change adapted water management

www.waterharmony.net/ccwater

ERASMUS+ Capacity Building in Higher Education

2021-2026

20 mil NOK

Collaborator, co-proposer

Water ESSENCE Africa - creating synergy to meet the global challenges

Norad NORHED II (Norway)

2021-2023

90 000 EUR

Collaborator, co-proposer

Digitalisation of the water sector and water education, EEA Grants for Romania (Norway)

2018-2021

0,9 mil EUR

Coordinator for NMBU, work package leader

SWARM – Strengthening of MSc curricula in Water Resource Management for the

Western Balkans HEIs and stakeholders www.swarm.ni.ac.rs

ERASMUS+ Capacity Building in Higher Education

- 2016-2020 **Work package leader**
6 mil USD WaSo – Water, Society and Climate Change www.wasoproject.org
Norad NORHED (Norway)
- 2015-2018 **Coordinating secretary**
1,1 mil EUR Water Harmony – Harmonising water related graduate education www.waterh.eu
ERASMUS+ Capacity Building in Higher Education
- 2012-2020 **Coordinating secretary**
15 mil NOK Water Harmony – Integration of Education, Research, Innovation and Entrepreneurship.
Curricula development and improvement of teaching tools www.waterh.net
Diku Eurasia (Norway)

PEER-REVIEW

5-10 assignments per year

IWA Water Research; MDPI Water; MDPI Membranes; Water, Air, & Soil Pollution; Elsevier Desalination; MDPI Resources; MDPI Toxins, Elsevier books etc.

INSTITUTIONAL RESPONSIBILITIES

- 2020-2021 **Committee member**
Appointment committee for the position of laboratory technician
- 2020-2021 **Working group member, facilitator**
Inter-faculty working group on “Water chemistry” course development (KJM 220)
- 2020-2021 **Working group member**
Faculty working group on values
- 2020 **Committee coordinator**
Evaluation committee for the PhD degree of Abhilash Muralidharan Nair
- 2020-present **Management Committee member**
EU COST Action CA19123 – Protection, Resilience, Rehabilitation of damaged environment
- 2020-2021 **Management Committee member**
EU COST Action CA19139 – Process-based models for climate impact attribution across sectors
- 2019 **Facilitator**
Development of the WESH group research strategy
- 2017 **Research program coordinator**
Strategic PhD program “Environmental effects on societal infrastructure – water”
- 2013-2015 **Program coordinator**
Professional certification program of the Water Quality Association (WQA, US) in Russian speaking countries
- 2012-2014 **National organiser**
Stockholm Junior Water Prize, Stockholm International Water Institute, responsible for Ukraine

ORGANISATION OF MEETINGS

- 2021 **Scientific committee member** Novi Sad, Serbia
International symposium "Water resources management: new perspectives and innovation practices"
- Workshop co-facilitator** Online
Workshop “Building a water smart Europe in the digital age: drivers, barriers and

- opportunities”, Water Knowledge Europe, Water Europe
- Member of the organising committee** Online
United Nations World Water Day, Norwegian national event “Value of water”
- 2020 **Scientific committee secretary** Online
International conference on Water, Society and Climate Change (WaSo), concluding event of the NORAD-NORHED project, 85 presenters and around 200 participants
- Moderator** Online
“Play to learn the Nexus Approach - Serious Game: learning for a resource-efficient and green economy”. Water Knowledge Europe 2020 - EU Green Deal Call Brokerage event, organised by Water Europe (online), around 30 participants
- Chair of the organising committee** Online
United Nations World Water Day, Norwegian national event “Water and Climate Change”, 200 participants
- Scientific committee secretary** Harbin, China
European Water Association and International Water Association joint conference “Water Management in Cold Climate”, around 100 participants
- 2019 **Workshop co-facilitator** Colombo, Sri Lanka
International Water Association World Water Development Congress
- Rapporteur** Oslo, Norway
European Water Association Green Capital Conference: Sustainable urban drainage solutions (SUDS)
- 2018 **Workshop coordinator** Norway-Germany
NATO Science for Peace, Water Safety Advanced Research Workshop
- Scientific advisory committee member** Kandy, Sri Lanka
The 9th International Conference on Sustainable Built Environment, special session on Water Management in Developing Countries
- 2016 **Scientific committee secretary** Oslo, Norway
International Water Association, Particle Separation Conference, around 150 participants
- Scientific committee secretary** Spitsbergen
European Water Association, Water Management in Cold Climate Conference, around 100 participants

COLLABORATIONS & NETWORKING

Facilitating member

Water Harmony
global network
of 81 universities
and research organisations
across 51 nations
since 2012



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Publications

Peer-reviewed journal publications

1. X. Zhou, X. Bi, T. Yang, X. Fan, X. Shi, L. Wang, Y. Zhang, L. Cheng, F. Zhao, **Z. Maletskyi**, X. Hui. Metagenomic insights into microbial nitrogen metabolism in two-stage anoxic/oxic-moving bed biofilm reactor system with multiple chambers for municipal wastewater treatment. *Bioresource Technology*, Volume 361, 2022, 127729, ISSN 0960-8524, doi 10.1016/j.biortech.2022.127729.
2. V. Dubovik, H. Ratnaweera, R. Markevich, A. Issayeva, **Z. Maletskyi**, V. Sorogovets. 2022 IOP Conf. Ser.: Earth Environ. Sci. 981 042008. doi 10.1088/1755-1315/981/4/042008
3. Cuprys, A.; **Maletskyi, Z.**; Rouissi, T.; Ratnaweera, H.; Brar, S.K.; Knystautas, E.; Drogui, P. Insights into the Simultaneous Sorption of Ciprofloxacin and Heavy Metals Using Functionalized Biochar. *Water* 2021, 13, 2768
4. **Maletskyi, Z.**; Zigta, D.K.; Kulesha, O.; Ratnaweera, H. Chemical Enhancement for Retrofitting Moving Bed Biofilm and Integrated Fixed Film Activated Sludge Systems into Membrane Bioreactors. *Membranes-Basel* 2019, 9, doi:10.3390/membranes9100135.
5. Kulesha, O.; **Maletskyi, Z.**; Kvaal, K.; Ratnaweera, H. Strategy for Flux Enhancement in Biofilm Ceramic Membrane Bioreactor Applying Prepolymerized and Non-Prepolymerized Inorganic Coagulants. *Water-Sui* 2019, 11, doi:10.3390/w11030446.
6. **Maletskyi, Z.** Water Critical Infrastructure Preparedness in Emerging Economies. In *Physical and Cyber Safety in Critical Water Infrastructure*, Ratnaweera, H., Pivovarov, O., Eds. IOS Press BV: Amsterdam, 2019; pp. 91-99.
7. Kulesha, O.; **Maletskyi, Z.**; Ratnaweera, H. State-of-the-art of membrane flux enhancement in membrane bioreactor. *Cogent Eng* 2018, 5, doi:10.1080/23311916.2018.1489700.
8. Kulesha, O.; **Maletskyi, Z.**; Ratnaweera, H. Multivariate Chemometric Analysis of Membrane Fouling Patterns in Biofilm Ceramic Membrane Bioreactor. *Water-Sui* 2018, 10, doi:10.3390/w10080982.
9. **Maletskyi, Z.**; Mitchenko, T.; Makarova, N.; Shevchuk, E.; Kolomiets, Y. Comparative assessment of sorption properties of commercially available and experimental hybrid materials aimed to impurities of As(III) and As(V) in water. *Water & Water purification technologies. Scientific & Technical News* 2012, 1(7), 21-30.
10. Orestov, Y.; **Maletskyi, Z.**; Mitchenko, T. Peculiarities of physical-chemical transformation of iron compounds in groundwater. *Water & purification technologies. Scientific & Technical News* 2011, 1(3), 4-11.
11. **Maletskyi, Z.**; Mitchenko, T.; Makarova, N.; Hoell, W.H. Properties of anion exchange resins exhausted by humic compounds. *Desalin Water Treat* 2011, 25, 78-83, doi:10.5004/dwt.2011.1524.
12. **Maletskyi, Z.**; Mitchenko, T. About the mechanism of properties transformation of anion exchange resins impregnated with humic substances. *Scientific notes of National Kiev Mohyla Academy. Chemical technologies and science* 2011, 118, 21-30.
13. Fendri, F.; Mitchenko, T.; **Maletskyi, Z.** Optimization of the reverse osmosis seawater demineralization technologies for a power producing industry. *Desalin Water Treat* 2011, 25, 84-90, doi:DOI 10.5004/dwt.2011.1832.
14. Shobotov, S.; Kvitka, A.; **Maletskyi, Z.** Structural optimization of double-stage membrane system for seawater demineralization. *Water & Purification Technologies. Scientific & Technical News* 2010, 2(2), 59-72.
15. **Maletskyi, Z.**; Mitchenko, T.; Makarova, N.; Hoell, W. Formation and properties of hybrid sorbents based on anion exchange resins and humic substances. *Scientific notes of National Kiev Mohyla Academy. Chemical technologies and science* 2009, 92, 69-75.

Book chapters

1. **Maletskyi, Z.** Advances in Membrane Materials and Processes for Water and Wastewater Treatment. In *Multidisciplinary Advances in Efficient Separation Processes*, American Chemical Society: 2020; Vol. 1348, pp. 3-35.
2. **Maletskyi, Z.** Water for boilers. Chemical water treatment. In *Current water issues. Modern water treatment world*, Mitchenko, T., Ed. WaterNet: Kiev, Ukraine, 2019; pp. 56-62. ISBN 978-

966-97940-1-7

3. **Maletskyi, Z.:** Mitchenko, T. Ion exchange. In Physico-chemical methods of water treatment. Water resources management, Astrelin, I., Ratnaweera, H., Eds. Water Harmony: 2015. ISBN 978-82-999978-0-5
4. **Maletskyi, Z.** New developments in water and wastewater treatment technologies. In Physico-chemical methods of water treatment. Water resources management, Astrelin, I., Ratnaweera, H., Eds. Water Harmony: 2015. ISBN 978-82-999978-0-5
5. Orestov, Y.; Mitchenko, T.; **Maletskyi, Z.** Membrane processes. In Physico-chemical methods of water treatment. Water resources management, Astrelin, I., Ratnaweera, H., Eds. Water Harmony: 2015. ISBN 978-82-999978-0-5

Conference papers and presentations

1. G. Pettersen, **Z. Maletskyi.** Nanofiltration of surface water with high organic content for reserve water supply. Nanofiltration 2022, Achalm, Germany, 26-30 June 2022.
2. A. Cuprys, H. Ratnaweera, **Z. Maletskyi.** Chitosan-functionalized biochar for simultaneous sorption of ciprofloxacin and heavy metals in hybrid nanofiltration-adsorption process. Nanofiltration 2022, Achalm, Germany, 26-30 June 2022.
3. **Maletskyi, Z.** Prediction of disinfection by-products in surface water. IX International Conference on Environmental Management, Engineering, Planning and Economics. Greece, 3-9 June 2022.
4. **Maletskyi, Z.** MBR Digital Twin enabling data-driven water reclamation solutions. Euromembrane Conference, Copenhagen, Denmark, November 28 - December 02 2021.
5. **Maletskyi, Z.** Emerging water quality stressors. Invited talk at the Water Quality HUB. AquaTech Amsterdam, The Netherlands, November 2021.
6. **Maletskyi, Z.,** Ratnaweera, H. Climate Change and NOM increase in Northern European source waters: prediction of disinfection by-products. International Symposium "Water Resources Management: New Perspectives and Innovative Practices". Novi Sad, Serbia, 22-24 September 2021.
7. **Maletskyi, Z.** Water-smart circular economy: enabling technologies. Water, Society and Climate Change conference of the NORAD-NORHED project. December 2020.
8. **Maletskyi, Z.,** Koltsova E., Ratnaweera H., Stolyarenko H. Prediction of Trihalomethanes Formation Potential in disinfection of drinking water in Northern Europe. Water Management in Cold Climate. IWA-EWA Conference, Harbin, China, 12-14 January 2020.
9. **Maletskyi, Z.;** Zigta, D. Membrane fouling control in centralized and decentralized Bf-MBR wastewater treatment plants. In Proceedings of IWA Water and Development Congress and Exhibition, Colombo, Sri Lanka, 1-5 December 2019.
10. **Maletskyi, Z.;** Ratnaweera, H.; Kulesha, O. Membrane fouling reduction in biofilm MBR applying polymeric and monomeric inorganic coagulants. In Proceedings of The 9th IWA Membrane Technology Conference and Exhibition for Water and Wastewater Treatment and Reuse, Toulouse, France, 23-27 June 2019; pp. 67-68.
11. **Maletskyi, Z.;** Kulesha, O. Comparison of Al- and Fe-based Membrane Fouling Reducers for Biofilm Membrane Bioreactor. Euromembrane, Valencia, Spain, 9-13 July 2018.
12. **Maletskyi, Z.;** Kulesha, O. Fouling behavior of chemically modified mixed liquor from submerged ceramic biofilm-membrane bioreactor. Abstr Pap Am Chem S 2018, 256.
13. **Maletskyi, Z.** Multiple water sources and water-smart society for emerging markets. In Proceedings of 9th International Conference on Sustainable Built Environment (ICSBE), Kandy, Sri Lanka, 13-15 December 2018.
14. **Maletskyi, Z.** Towards water-smart circular economy. Building a case in organic farming. In Proceedings of 5th International Water Forum "Water Resources and Climate", Minsk, Belarus, 5-6 October 2017.
15. Kulesha, O.; **Maletskyi, Z.;** Todt, D.; Ratnaweera, H. Development and validation of performance evaluation protocol for small wastewater treatment MBR systems In Proceedings of S2SMALL International IWA Conference on Sustainable Solutions for Small Water and Wastewater Treatment Systems, Nantes, France, 22-26 October 2017.
16. **Maletskyi, Z.;** Mitchenko, T. Human Right to Water in Countries with Transition Economy: Water Quality Monitoring Issues. In Proceedings of IWA World Water Congress, Lisbon, Portugal, 21-26 September 2014.
17. **Maletskyi, Z.;** Mitchenko, T.; Shevchuk, E.; Stender, P.; Kolomiets, Y. Comparative assessment of filter media for arsenic removal from drinking water: Commercially available and perspective hybrid sorbents. In Proceedings of 11th World Filtration Congress, Graz, Austria, 16-20 April 2012.

18. **Maletskiy, Z.**; Mitchenko, T.; Makarova, N. Obtaining and properties investigation of Hybrid Sorbents based on nanoparticles of Humic Substances. In Proceedings of IWA Specialist Conference "Applications of Nanotechnology in the Water Sector", Monte Verità, Ascona, Switzerland, 15 May 2011; p. 83.
19. **Maletskiy, Z.**; Mitchenko, T.; Shevchuk, E.; Orestov, Y. Hybrid sorbents for iron removal process in RO technologies. In Proceedings of International Congress on Membranes and Membrane Processes, Amsterdam, The Netherlands, 23-29 July 2011.
20. **Maletskiy, Z.**; Mitchenko, T.; Shevchuk, E.; Orestov, Y. Prevention of Iron fouling by feed water pretreatment with hybrid sorbent. In Proceedings of 6th IWA Specialist Conference on Membrane Technology for Water & Wastewater Treatment, Aachen, Germany, 4-7 October 2011.
21. Fendri, F.; Mitchenko, T.; **Maletskiy, Z.** Cost-effective seawater desalination technology based on reuse of municipal water. In Proceedings of International Conference EuroMed, Tel Aviv, Israel, 3-7 October 2010; p. 87.
22. **Maletskiy, Z.**; Mitchenko, T.; Makarova, N.; Shevchuk, E. Eliminating Arsenic from RO concentrates by the reuse of anion exchange resins. In Proceedings of International Conference EuroMed, Tel Aviv, Israel, 3-7 October 2010; pp. 85-87.
23. Fendri, F.; Mitchenko, T.; **Maletskiy, Z.** Varying seawater salinity as optimization factor in water demineralization and efficient way of municipal wastewater utilization. In Proceedings of IWA Regional Conference and Exhibition on Membrane Technology and Water Reuse, Istanbul, Turkey, 18-22 October 2010; pp. 684-687.
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