

LIST OF PUBLICATIONS

Faculty: Dr Saikat Sinha Ray

Department of Environmental Science and Engineering

JOURNAL PUBLICATIONS

1. **Saikat Sinha Ray**, Rohit Kumar Verma, Ashutosh Singh, Mahesh Ganesapillai, and Young-Nam Kwon. "A Holistic review on how artificial intelligence has redefined water treatment and seawater desalination Processes." *Desalination* 546 (2023): 116221.
2. **Saikat Sinha Ray**, Pranav RT Peddinti, Ritesh Soni, Byungmin Kim, You-In Park, In-Chul Kim, Chang Young Lee, and Young-Nam Kwon. "Effectiveness of nanoparticles-based ultrahydrophobic coating for concrete Materials." *Journal of Building Engineering* (2023): 105799.
3. **Saikat Sinha Ray**, Ritesh Soni, Dao Thi Thanh Huyen, Srinath Ravi, Suwan Myung, Chang Young Lee, and Young-Nam Kwon. "Chemical engineering of electrospun nanofibrous-based three-layered nonwoven Polymeric protective mask for enhanced performance." *Journal of Applied Polymer Science*: (2022) E53584.
4. **Saikat Sinha Ray**, Ritesh Soni, In-Chul Kim, You-In Park, Chang Young Lee, and Young-Nam Kwon. "Surface Innovation for fabrication of superhydrophobic sand grains with improved water holding capacity for Various environmental applications." *Environmental Technology & Innovation* 28 (2022): 102849.
5. Mahesh Ganesapillai, Bidisha Mondal, Ishita Sarkar, Aritro Sinha, **Saikat Sinha Ray**, Young-Nam Kwon, Kazuho Nakamura, and K. Govardhan. "The face behind the Covid-19 mask-A comprehensive review." *Environmental Technology & Innovation* (2022): 102837.
6. **Saikat Sinha Ray**, Rohit Kumar Verma, Ashutosh Singh, Suwan Myung, You-In Park, In-Chul Kim, Hyung-Kae Lee, and Young-Nam Kwon. "Exploration of Time Series Model for Predictive Evaluation of Long-term Performance of Membrane Distillation Desalination." *Process Safety and Environmental Protection* (2022).
7. **Saikat Sinha Ray**, Hyung Kae Lee, Dao Thi Thanh Huyen, Shiao-Shing Chen, and Young-Nam Kwon. "Microplastics waste in environment: A perspective on recycling issues from PPE kits and face masks during The COVID-19 pandemic." *Environmental Technology & Innovation* (2022): 102290.
8. Huyen, Dao Thi Thanh, **Saikat Sinha Ray**, In-Chul Kim, Min-Gyu Kim, and Young-Nam Kwon. "Structured Pattern hollow fiber membrane designed via reverse thermally induced phase separation method for Ultrafiltration applications." *Journal of Applied Polymer Science* 139, no. 30 (2022): e52680.

9. **Saikat Sinha Ray**, Hitesh Dommati, Jia-Chang Wang, Hyung Kae Lee, You-In Park, Hosik Park, In-Chul Kim, Shiao-Shing Chen, and Young-Nam Kwon. "Facile approach for designing a novel micropatterned Antiwetting membrane by utilizing 3D printed molds for improved desalination performance." *Journal of Membrane Science* 637 (2021): 119641.
10. Hyung Kae lee, **Saikat Sinha Ray**, Dao Thi Thanh Huyen, Wooseok Kang, and Young-Nam Kwon. "Chemical And surface engineered superhydrophobic patterned membrane with enhanced wetting and fouling Resistance for improved membrane distillation performance." *Journal of Membrane Science* 629 (2021): 119280.
11. **Saikat Sinha Ray**, Hyung Kae Lee, Dao Thi Thanh Huyen, You-In Park, Hosik Park, Seung-Eun Nam, In-Chul Kim, Young-Nam Kwon, Fluorine-free anti-droplet surface modification by hexadecyltrimethoxysilane-Modified silica nanoparticles-coated carbon nanofibers for self-cleaning applications, *Progress in Organic Coatings* 2021, Volume 153, April 2021, 106165
12. Cao, Thanh Ngoc-Dan, Shiao-Shing Chen, Hau-Ming Chang, **Saikat Sinha Ray**, Faisal I. Hai, Thanh Xuan Bui, and Hussnain Mukhtar. "Simultaneous hexavalent chromium removal, water reclamation and Electricity generation in osmotic bio-electrochemical system." *Separation and Purification Technology* 263 (2021): 118155.
13. Prithvi Simha, Melissa A Barton, Luis Fernando Perez-Mercado, Jennifer R McConville, Cecilia Lalander, Maria Elisa Magri, Shanta Dutta, Humayun Kabir, Albert Selvakumar, Xiaoqin Zhou, Tristan Martin, Thanasis Kizos, Rupam Katakai, Yoram Gerchman, Dheaya Alrousan, Eng Giap Goh, Daniela Elenciu, Aleksandra Głowacka, Laura Korculanin, Rongyu Veneta Tzeng, **Saikat Sinha Ray**, Charles Niwagaba, Christine Prouty, James R Mihelcic, Björn Vinnerås, Willingness among food consumers to recycle human urine as crop fertiliser: Evidence from a multinational survey, *Science of The Total Environment* 2021, 144438
14. Hyung Kae Lee, Byung-Moon Jun, **Saikat Sinha Ray**, Young-Nam Kwon, Three-layered hollow fiber (HF) Membrane and its modification to enhance wetting resistance for membrane distillation (MD), *Environmental Technology & Innovation* 2021, 101227
15. Thanh Ngoc-Dan Cao, Shiao-Shing Chen, Hau-Ming Chang, Saikat Sinha Ray, Faisal I Hai, Thanh Xuan Bui, Hussnain Mukhtar, Simultaneous Hexavalent Chromium Removal, Water Reclamation and Electricity Generation in Osmotic Bio-electrochemical System, *Separation and Purification Technology* 2021, Pages 118155
16. **Saikat Sinha Ray**, Raghav Dhangayach, Young-Nam Kwon, Surface Engineering for Anti-wetting and Antibacterial Membrane for Enhanced and Fouling Resistant Membrane Distillation Performance, *Chemical Engineering Journal* 2020, Volume 405 Pages, 126702
17. **Saikat Sinha Ray**, You-In Park, Hosik Park, Seung-Eun Nam, In-Chul Kim, Young-Nam Kwon*, Surface Innovation to Enhance Anti-Droplet and Hydrophobic Behavior of

Breathable Compressed-Polyurethane Masks, Environmental Technology & Innovation 2020, Volume 20, Pages 101093

18. Hau-Ming Chang, Shiao-Shing Chen, Yu-Ting Chen, WS Chang, Chi-Wang Li, Nguyen Cong Nguyen, **Saikat Sinha Ray**, Recovery of iodide as triiodide from thin-film transistor liquid crystal display wastewater by forward osmosis, Journal of Hazardous Materials 2020, 123637
19. **Saikat Sinha Ray***, Harshdeep Singh Bakshi, Raghav Dangayach, Randeep Singh, Chinmoy Kanti Deb, Mahesh Ganesapillai*, Shiao-Shing Chen*, Mihir Kumar Purkait, Recent Developments in Nanomaterials-Modified Membranes for Improved Membrane Distillation Performance, Membranes 2020, 10(7), 14140
20. Thanh Ngoc-Dan Cao, Shiao-Shing Chen*, Hau-Ming Chang, **Saikat Sinha Ray**, Huy Quang Le, Chinh Cong Duong, Thanh Xuan Bui, Evaluating the performance of polystyrene sulfonate coupling with non-ionic Triton-X114 surfactant as draw solution in forward osmosis and membrane distillation systems, Environmental Technology & Innovation, Volume 19, August 2020, 100993