

Mohamed Z

Is NTU parameter applicable for a process containing mass transfer, not only heat transfer?

Naimish S Pandya

Dear Dr. Warsinger,

Can we use metal oxide nanofluids with super hydrophobic surfaces to enhance condensation and heat transfer also?

Gopinath Sahu

How salinity affects total mass output while using membrane?

Anonymous Attendee

would the coating block the pores of the membrane?

Anonymous Attendee

Thanks for the great presentation. Is the surface heating necessary if we can minimize the temperature polarization by enhancing the convective heat transfer in the bulk? With minimized TP, what would be differences between heating bulk solution and surface heating? Literature often presents the surface heating study with high TP operating conditions to exaggerate the impact of surface heating.

Hasib

I have a question to Dr. Qilin Li: what are the differences between CB in PMMA and CB @ PMMA; what are the ways these two are prepared?

Anonymous Attendee

The temperature gradient in larger scale modules may not be an issue if photo/electro-thermal membranes are used, correct?

Anonymous Attendee

What are the benefits of having a vertical orientation for MD membranes vs horizontal?

patrick Loulergue

In your opinion, beside desalination, is there any other application in which MD can be competitive?

Swapnil

Can solar thermal desalination be more cost effective and produce more water/unit area than solar PV+RO combination?

patrick Loulergue

Patrick Loulergue (Univ Rennes, France): Taking into account energetic aspect AND membrane fouling/wetting, which will be, in your opinion, the most suitable configurations for membranes and membrane modules at industrial scale?

Ruikun Xin

Dear professors, we know that the current MD membrane allows the transport of all types of gas molecules across the membrane. How necessary do you think that a MD membrane need to reject the transport of volatile compounds (e.g ethanol, ammonia, etc.) other than water vapor?

Anonymous Attendee

How to optimize the thickness while fabricating different surfaces such as omniphobic, superhydrophobic etc.?

Yajing

Hi Prof. Li, thanks for sharing your interesting work. I wonder if your lab has done any work on or put any considerations about optimizing the geometry of the electrospun fibers? e.g., how thickness and pore size of the electrospun fibers would affect the performance, and do you want as much CB as possible?

Evyatar Shaulsky

Do MD have the potential to achieve higher GOR than MVC?

Abdul Orlando

what is the biggest challenge for the implementation of MD technology in applications of medium and large-scale desalination units?

Yajing

Hi Prof. Warsinger, nice work! Could you explain why exp data for superhydrophobic surfaces are not as good as water-gad MD?

NorEddine Ghaffour

Guillermo: Is the GOR of 13.8 achieved by considering non-payable energy?

Mohammad Rezaei

What are the limitations of impedance wetting detection method?

Ganesh Shirsath

Hello This is Dr. Ganesh Shirsath from IIT Delhi. I want to know to remove the clogging in membrane.

Anonymous Attendee

What is the difference between MD and MSF though both use evaporation method, one just put a membrane in between, which technically should increase mass transfer resistance?

Ganesh Shirsath

Can we use these membranes for dehumidification purposes?

Jamel Orfi

Do you think there is a future for large scale applications of hybrid thermal Desalination (for instance MED/MD)?

Anonymous Attendee

In the air gap MD configuration, if we eliminate the membrane itself (but still have the air gap), could we still get comparable performance but without scaling issues?

Anonymous Attendee

Which type of configuration can be efficient at permeate side in photothermal systems since we need to minimize the conduction loss?

Mostafa Elsharqawy

Can the MD concept be used to extract water vapor from moist air (instead of extracting it from the feedwater)?

Prof. S K Das

Will there be enhancement in performance if the condensing film is broken by low finned surface?

Mohamed Ragab

How can we use zero salinity water for drinking? What about using it in pharmaceutical application instead?

Shounak Joshi

How would presence of multiple ions affect heterogeneous scaling?

HUAWEI P30

Can membrane wetting in MD be avoided through hydrophobic modification or construct rough surface?

Amit Thakur

Which membrane distillation configuration is more suitable for real produced water treatment and long-term performance?

Anonymous Attendee

Will there always be a flux vs. GOR tradeoff in thermal desalination?

DEKA Bhaskar Jyoti

Is it possible to recover the valuable resources like lithium etc. from brine or leachate by using MD? Which configuration of MD will be suitable?

Bijan Rahimi

Dr. zaragoza mentioned about some industrial application. Can you please tell me the unit product cost of md processes?

HUAWEI P30

What is your opinion about newly porous materials like MOF used as preparing advanced membrane?

patrick Loulergue

Patrick Loulergue (Univ Rennes, France): what are the most used membrane materials at large scale? Can inorganic materials (SiC?) emerge in the future?

Bruce

Why can pervaporation of the hydrophilic dense cortex now also be used in membrane distillation to maintain a good wetting resistance? What is the difference between vacuum membrane distillation and pervaporation desalination?

Hooman Chamani

Question for Dr. Li:

In the literature, it has been reported that membranes subjected to intermittent operation (something like solar-driven MD due to the instability of solar operation) usually face pore wetting very fast. Have you investigated solar-driven MD for long-term operation?

Juan Antonio Andrés-Mañas

Did you study omniphobic membranes in terms of thermal efficiency? Could it be compared with current MD hydrophobic membranes?

Bruce

Why can pervaporation of the hydrophilic dense layer now also be used in membrane distillation to maintain a good wetting resistance? What is the difference between vacuum membrane distillation and pervaporation desalination?

Abdul Orlando

Is there a commercial superhydrophobic membrane or is that still a concept in the research phase? what is the maximum life span of this type of membrane?

antar

very interesting, would the combination be good to handle high salinity reject?