

Conference report and impression from the 242nd ECS meeting in Atlanta, GA, USA- Sapir Willdorf-Cohen

I am Sapir Willdorf-Cohen, a Ph.D. candidate under the joint supervision of Prof. Dario R. Dekel and Prof. Charles E. Diesendruck. First and most important, I would like to take this opportunity to thank the Israeli Smart Transportation Research Center (ISTRC) for generously funding my attendance at the 242nd electrochemical society (ECS) meeting in Atlanta, GA, USA during October 2022. I am extremely honored to be a recipient of this prestigious conference grant.

The 242nd ECS Meeting brings together the most active professional and student researchers in academia, government, and industry to engage, discuss, and innovate in the areas of electrochemistry and solid-state science and technology, and allied subjects. This is the premier destination for industry professionals to experience five days of learning, technical presentations, business development, and networking opportunities.

At this conference, I gave an oral presentation on my recent study on the topic of: “**the impact of carbonation process on the chemical stability of anion-exchange membranes (AEMs)**”. In general, anion-exchange membrane fuel cells (AEMFCs) has been attracting significant attention as a promising green and efficient technology for energy conversion and storage. AEMFCs operate in an alkaline environment, and thus, allow the use of precious metal-free electrocatalysts from a wide selection of materials, as well as low-cost AEMs.

My research is focused on investigating the effect of water on the chemical stability of anion exchange membranes, which is one of the three major challenges in the development of this technology. Overcoming the chemical stability paradox, which is the bottleneck in this technology, will be a major breakthrough in the field of AEMFCs. This, in turn, will facilitate the development of highly stable AEMs for fuel cells, making AEMFC technology a clear and better alternative to be used in automotive applications in the next generation of fuel cells cars.

The ECS conference is one of the largest and more important conference in our field. My first recommendation is to make a list of relevant lectures that you want to attend. Because there are eight parallel sessions, it is critical that you understand where the relevant lectures are for you. In addition, I advise attending the panel sessions and ask questions the speakers. This may assist in the creation of new collaborations and the expansion of your network with people in the field. I also suggest having a business card with you, especially for a large conference like ECS, as this will allow you to keep constant much more easily.

To conclude, I had a wonderful opportunity to discuss my findings with expert experimentalists in the field of fuel cells in a friendly environment and made valuable networking contacts. I am confident that this fellowship will promote my collaborative work, academic achievements and expands networking possibilities.

I would like to thank again to the ISTRC and express my deep gratitude for awarding me this grant.

Sincerely,

Sapir Willdorf-Cohen Prof. Dario Dekel

