



Postdoctoral Fellowship Opportunity in Theoretical Electrochemistry

Position: Postdoctoral Researcher

Location: Technion IIT, Haifa, Israel

Division: Department of Materials Science and Engineering

Professor Avner Rothschild, Technion

Email: avnerrot@technion.ac.il

Professor Arik Yochelis, Ben-Gurion University

Email: yochelis@bgu.ac.il

About the research project:

We are looking for a postdoctoral fellow to join multidisciplinary research related to energy storage in batteries and green hydrogen. The project is supported by the Israel Science foundation (ISF) and is carried out at the Technion – Israel Institute of Technology in Haifa, Israel, in collaboration with Ben-Gurion University of the Negev.

The research project will advance the frontiers of knowledge of electrochemically-induced phase transitions in electrodes used in rechargeable batteries and electrolyzers for green hydrogen production, with implications to other types of energy storage devices. It is part of a long-standing collaboration between Professor Avner Rothschild, an experimental material scientist and engineer, and Professor Arik Yochelis, a physicist interested in understanding the spatiotemporal dynamics in complex systems.

The theoretical work will involve, but not be limited to: chemical interactions and charge transfer reactions, phase separation processes, pattern formation and bifurcation theories, numerical computations of partial differential equations, and asymptotic perturbation methods. While the position is theoretical the research will also comprise a deep understanding of experimental results and a close collaboration with experimentalists.

Ideal Candidates:

We are looking for individuals with a PhD in Physics/Applied Mathematics/Physical Chemistry who are passionate about connecting theory and experimental studies in the field of electrochemistry, and with interests in dynamical systems and/or pattern formation and numerical analysis of partial differential equations.

Application Process:

If you are interested, please reach out Prof. Avner Rothschild via email at avnerrot@technion.ac.il, or Prof. Arik Yochelis at yochelis@bgu.ac.il. Feel free to share this opportunity with anyone who might be interested.

Explore more about our lab and research at Rothschild Lab Website <https://emd.net.technion.ac.il/> and Yochelis Lab Website <https://tzin.bgu.ac.il/~yochelis/>.

Apply by September 16, 2024 for [Fulbright funding](#):

- Stipend: \$95,000 (\$47,500 per academic year for two years)
- Reimbursement of up to \$1,700 for airfare expenses for Fulbright fellows (and spouses)
- Partial reimbursement of children's education expenses and fees
- Relocation support of up to \$9,000 provided by Bar-Ilan University

For More information: USprograms@fulbright.org.il