



September 19, 2019

Dear ICS members,

It is my pleasure to announce that the winner of the 2019 ICS-Uri Golik Prize for an Excellent Graduate Student is **Mr. Netanel Shpigel** of the Department of Chemistry, Bar-Ilan University.



Mr. Netanel Shpigel
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Netanel Shpigel was born in 1984 in Kfar Saba, Israel. After 4 years of a military service in a combat unit of the IDF he obtained his B.Sc. degree (2014) in Materials Engineering from the Azrieli college of engineering in Jerusalem. He then proceeded to M.Sc. and Ph.D. studies in Bar Ilan University under the supervision of Prof. Michael Levi and Prof. Doron Aurbach. His research focuses on the electrochemistry of batteries and supercapacitors and, in particular, on the development of new analytical methodology based on advanced techniques, such as piezo-electric sensing and electron microscopy. He has applied electrochemical quartz crystal microbalance with dissipation monitoring (EQCM-D) for the characterization of electrodes during their operation. The use of EQCM-D as the main research technique combined with electrochemical AFM and high-resolution electron microscopies enabled him and his colleagues to obtain *in-situ* information about complex mass transfer processes, morphological changes, and mechanical variations that occur in batteries and in supercapacitor electrodes. For example, this unique information provided valuable insight into degradation mechanisms in these systems, suggesting ways for the development of advanced electrochemical devices for higher energy and power applications.

Netanel has already published 18 research papers in high impact journals, such as *Nature materials*, *Nature energy*, *Joule*, *Angewandte Chemie* and *Account of Chemical Research*. Over the years Netanel has received several prizes and research grants, including the ICS Excellent Graduate Student Prize, the Rector Award for Excellence, the Rieger foundation fellowship, Bar-Ilan Nano scholarship and Israel Ministry of Science fellowship for development of alternative fuels for transportation.

The award ceremony will take place during the first day of the 85th ICS Annual Meeting on February 18, 2020.

Congratulations to Netanel for his achievements!

