

Dr. Daniel Juarez-Robles:

Dr. Daniel Juarez Robles joined the Electrochemical Safety Research Institute (ESRI) at UL Research Institutes (ULRI) as a Research Scientist in November 2019. He earned his B.S. and M.S. in Mechanical Engineering at the University of Guanajuato, researching PEM fuel cells performance from modeling and experimental perspectives. Dr. Juarez Robles then earned an M.S. in Applied Math at the Research Center of Math (CIMAT) in Guanajuato, investigating the solution of the advection-diffusion-reaction equation in an infinite domain space. He received his Ph.D. in Mechanical Engineering from Purdue University, where he worked on the degradation-safety analytics of energy storage systems.

Dr. Juarez Robles' research interests are primarily energy storage systems with an emphasis on safety. He has experience with the degradation mechanisms of lithium-ion batteries under cycle life aging conditions. His current work focuses on fire and gas characterization of lithium-ion cells and batteries subjected to thermal runaway. He is also working on the safety aspects of redox flow batteries. And he is an active member of the ASME, ACS and ECS societies.