

Biography

Claire Villevieille is currently the leader of the Battery Materials group at the Paul Scherrer Institute in Switzerland since 2014. Her research is especially dedicated to study the reaction mechanisms of battery systems such as Li-ion, Na-ion, Li-S, and recently all-solid-state cells by means of various operando techniques. Moreover, her work centers on the proper design and/or adjustments of the measurement cells so that they meet the requirements of selected characterization techniques. Her research involves both, in-house devices as well as large facilities such as Swiss Light Source (PSI, Switzerland), Swiss Spallation Neutron Source (PSI, Switzerland), ERSF (Grenoble, France), ILL (Grenoble, France), and Soleil (Paris, France). In 2010 she accepted the position of a scientist at the Paul Scherrer Institute in Switzerland in the “Electrochemical Energy Storage Section” lead by Prof. Petr Novák. In 2006 she graduated with a Master degree in Materials Science (2006) at the University of Montpellier II in France. In 2009 she obtained her doctoral degree from the Science, Physics, and Chemistry Department (ICGM-AIME Laboratory) of the University of Montpellier in France. Her doctoral studies focused on the conversion and insertion-based negative electrodes for Li-ion batteries and the elucidation of the complex reaction mechanisms using in situ X-Ray Diffraction (XRD), Mössbauer spectroscopy, SQUID measurements, etc. Her primary interests include solid state synthesis, electrochemical properties, and bulk–surface relationship of the various electrode materials.

