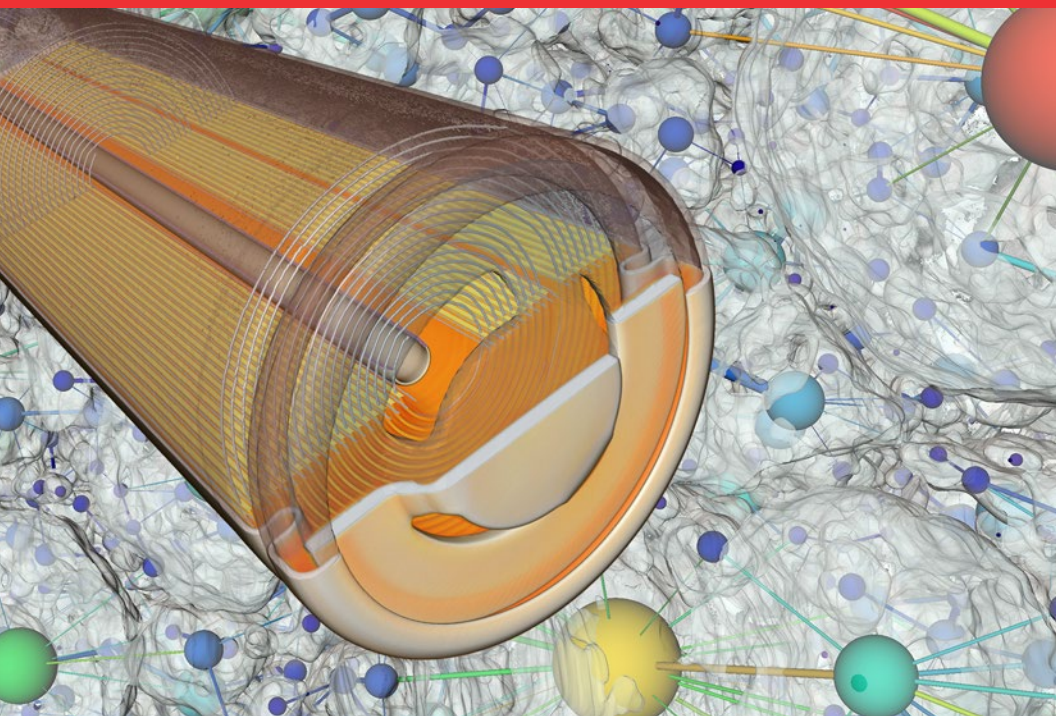




thermo scientific



Avizo Software for Battery Analysis

Materials characterization and quality control

Thermo Scientific™ Avizo™ Software enables you to perform macro analysis to control manufacturing quality and better understand the aging process while also exposing transport properties at the micro level. Its automated, optimized workflows allow you to innovate faster, reduce your time to market, and produce more reliable batteries with improved performance.

Find out more at
thermofisher.com/amira-avizo

ThermoFisher
S C I E N T I F I C

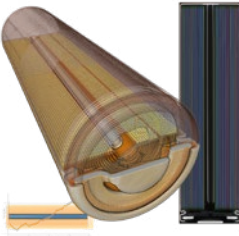
Avizo Software for Battery Analysis

Materials characterization and quality control

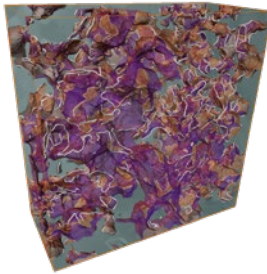
Thanks to advanced image processing and segmentation techniques, Avizo Software makes it possible to extract key quantitative parameters of the microstructure and macrostructure of the involved materials.

At the macro level, Avizo Software can be used to assess the quality of the manufacturing process, looking into packaging, checking solder points, and detecting possible leakage or porosity and delamination. It can also examine the aging process, looking into foil, cathode and anode morphological changes or core leakage.

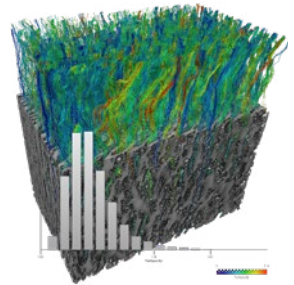
At the microscopic level, Avizo Software allows for the estimation of the tortuosity and permeability of the porosity structure of electrode and separator; thus, effective transport properties can be further used in the electrochemical performance simulation. Quantification of triple phase boundary (TPB), phase distribution and connectivity further allows for characterization of the cell's performance.



Lithium-Ion cylindrical cell -
Battery structure inspection
Courtesy of Paul Shearing's group,
University College London
Data acquisition: MicroCT



Triple Phase Boundaries -
SOFC anode
Courtesy of Sabanci University, Turkey
Data acquisition: FIB-SEM



Lithium-Ion battery separator.
Data acquisition: FIB-SEM.

Find out more at

[thermofisher.com/amira-avizo](https://www.thermofisher.com/amira-avizo)

ThermoFisher
S C I E N T I F I C