

Liquid cell TEM sample holder training class agenda

Training classes are available for new users or those who want to refresh their skills. Hummingbird Scientific's application scientists are ready to assist you to support your research. Meet our team and visit our design studio and manufacturing facility. Two-day classes include training on:

- How to use the liquid cell TEM sample holder (shaft and tip). Know the different parts of the sample holder required to perform in-situ liquid TEM experiments, including liquid and electrical connections.
- Assembling and disassembling MEMS-chips liquid environmental cells. Know the different types of chips that we have (spacer, heater, and window MEMS chips) and learn how to put together environmental cells.
- Function of leak checking station. Get hands-on experience with our leak checking station and learn how to operate it—allowing you to safely use the sample holder in the TEM.
- Liquid cell TEM best practices. Make the most of your equipment by doing real experiments in our lab.
- Where applicable: liquid-heating system. Learn how to heat solutions with the liquid sample holder.

DAY 1

8:00 am – 9:00 am

Welcome & introduction to in-situ liquid cell TEM

9:00 am – 11:00 am

Hands-on instruction and practice in assembling and disassembling liquid cell

11:00 am – Noon

Liquid tubing system setup, replacement and connection

Noon – 1:00 pm

Lunch

1:00 pm – 2:00 pm

Setting up and filling the liquid cell with liquid using the liquid delivery system

2:00 pm – 3:00 pm

Leak checking assembled cell and getting it ready for the TEM

4:00 pm – 6:00 pm

Liquid cell TEM sample holder in TEM and demo imaging sample – discussion of imaging best practices

Dinner

DAY 2

8:00 am – 9:00 am

Facility tour

9:00 am – 10:00 am

Connecting electrical lines—for electrochemistry or heating

11:00 am – Noon

Hands-on cleaning procedures training and setting up the next experiment (Where applicable: setup heating system)

Noon – 1:00 pm

Lunch

1:00 pm – 4:00 pm

Hands-on experiments and discussion of best-practice imaging

4:00 pm – 5:00 pm

Wrap up and walkthrough to Hummingbird's webstore
