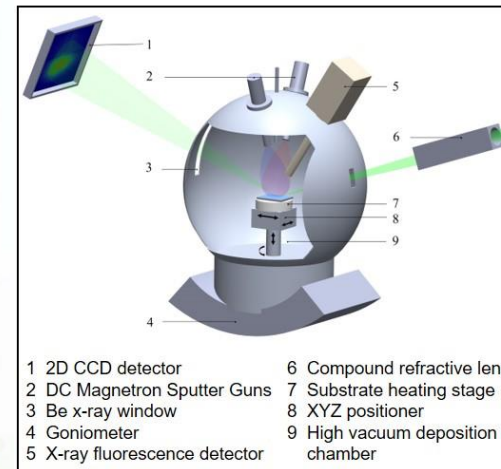


The Shared Instrumentation Facilities of the Wisconsin MRSEC provide access to and training on over 100 state-of-the-art instruments for fabrication and characterization of materials. They are widely used by University of Wisconsin students and staff, researchers from other universities, and representatives of companies throughout the region.

- In addition, the MRSEC is developing two new instrument capabilities that are not commercially available: a next-generation, ultrafast direct electron detector for the MRSECs aberration corrected scanning electron microscopy (pursued via collaboration with Direct Electron LP); and an synchrotron end station for *in-situ* (“live”) x-ray diffraction studies of deposition and phase change processes, a collaboration with scientists at Argonne National Laboratory. Both development efforts will lead to regionally unique capabilities.



Design schematic (above) of the experimental end station that will allow *in-situ* studies of how atoms in a glass (gray circles, right) move to the yellow positions to create a crystal from the glass.

