In situ studies of nanoparticle growth in a glass matrix

- ZBLAN glass ceramics are being developed for use as X-ray scintillators and storage phosphors
- The optical properties depend critically on the size and distribution of the BaCl$_2$ nanocrystals that form on heating
- TEM is being used to study the microstructure of the glasses and also the way in which crystallization occurs.

Future work:
- *In situ* heating of glass ceramics to observe interface kinetics with the glass matrix.
- The *in situ* results will be compared with samples that have been heat treated ex situ.