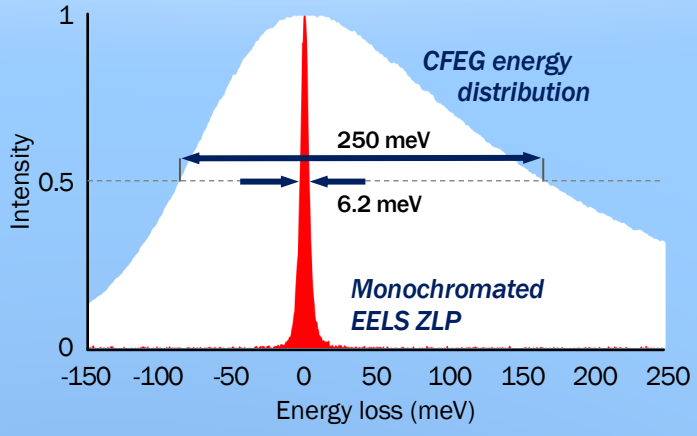
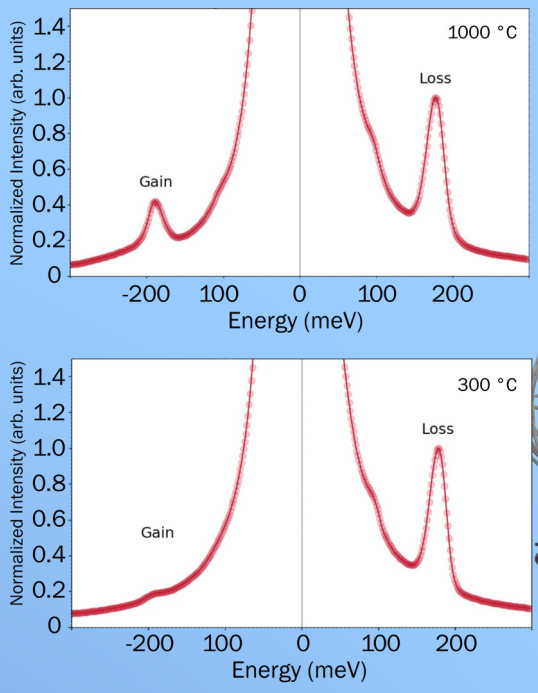
tools for tomorrow™

Nion HERMES*™

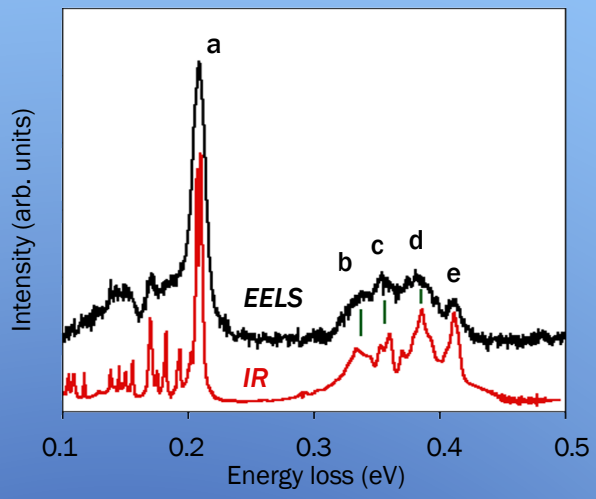
Ultra-High Energy Resolution EELS



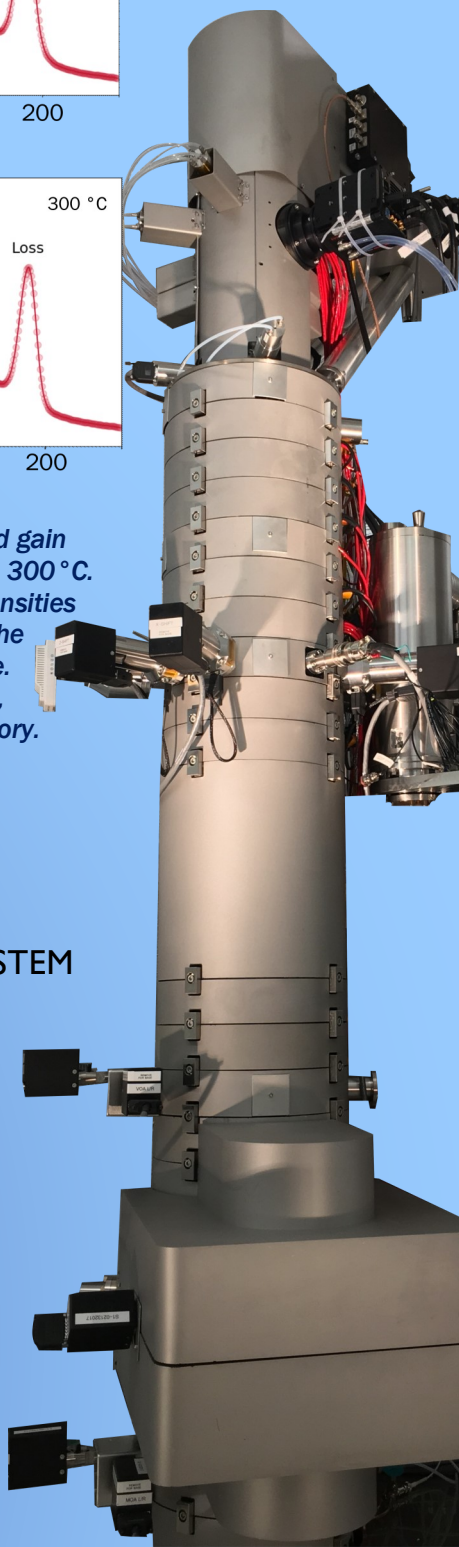
Zero loss peak (ZLP) acquired with Nion HERMES™, 1 ms, 60 keV primary voltage, compared to the unmonochromated ZLP. Courtesy UC Irvine.



Hexagonal BN phonon loss and gain peaks measured at 1000 °C and 300 °C. The ratio of gain/loss peak intensities is a sensitive measure of the local sample temperature. Courtesy J-C Idrobo et al., Oak Ridge National Laboratory.



EEL spectrum of Guanine acquired with Nion HERMES™, aloof mode, 60 keV primary voltage, compared with FTIR spectrum. Peaks b-e show vibrations due to different H bonds.
Peter Rez et al., Nature Communications 7 (2016) 10945.



* High Energy Resolution Monochromated EELS-STEM

- 30 – 200 keV
- Ultra-bright cold field emission (CFE) gun
- Dispersing-undispersing monochromator
- < 10 meV energy resolution (at 60 keV)
- Sub-nm spatial resolution vibrational imaging
- UltraSTEM-type imaging and EELS mapping

www.nion.com