unique tools for materials science

UltraSTEM 100 & 200™

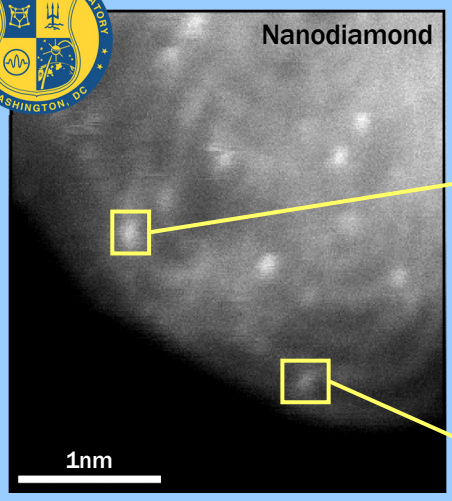
...atomic-resolution EELS mapping & sub-Å imaging

UltraSTEM-MC™ (HERMES)

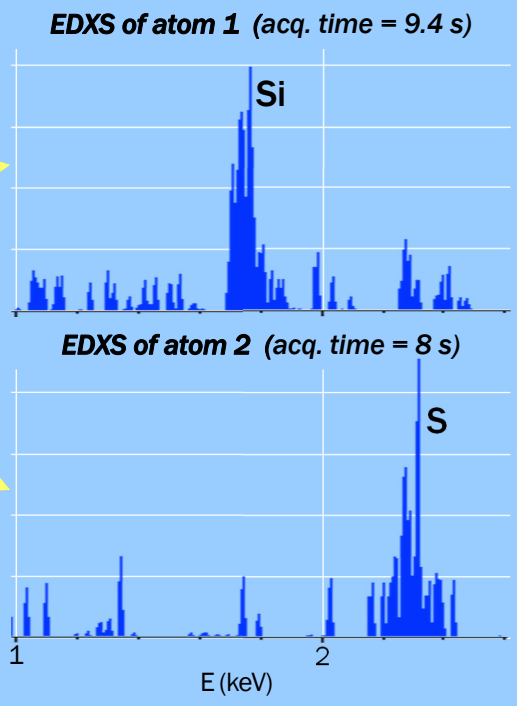
...UltraSTEM capabilities *plus* vibrational spectroscopy

NEW UltraSTEM-X™ (with EDXS)

...UltraSTEM capabilities *plus* single-atom EDXS

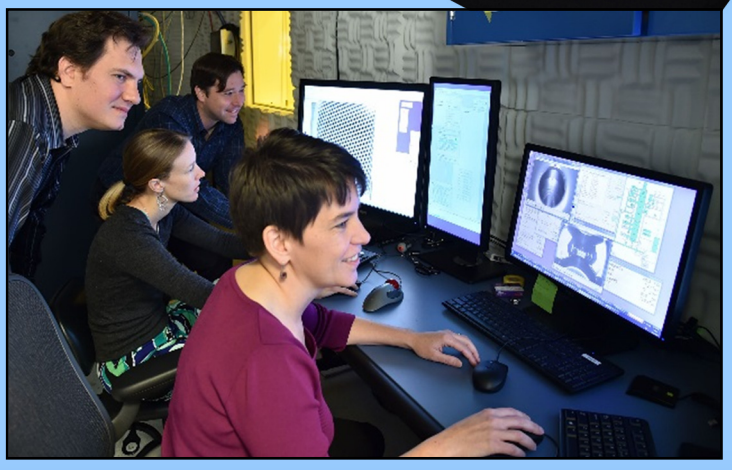


HAADF STEM image of single-atom impurities in meteorite nanodiamond.
Nion UltraSTEM 200-X, 60 kV, 80 pA.
Bruker Quantax XFlash UHV SDD.
Rhonda Stroud et al., NRL, to be published.



Kate Burgess (ASEE Postdoctoral Fellow, NRL):

"From achieving 80 pm spatial resolution ten days after the microscope's delivery to obtaining single-atom-sensitivity EDX spectra in seconds, the Nion UltraSTEM has exceeded expectations. Any day you get an "Oh, wow!" from a visiting Nobel Prize winner looking at your latest data is a great day. At NRL with our new UltraSTEM, we have had this and more."



Left to right: Nabil Bassim, Kate Burgess, Todd Brintlinger and Rhonda Stroud (group leader) at the controls of NRL's Nion UltraSTEM 200-X™

+1 (425) 822 1521

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