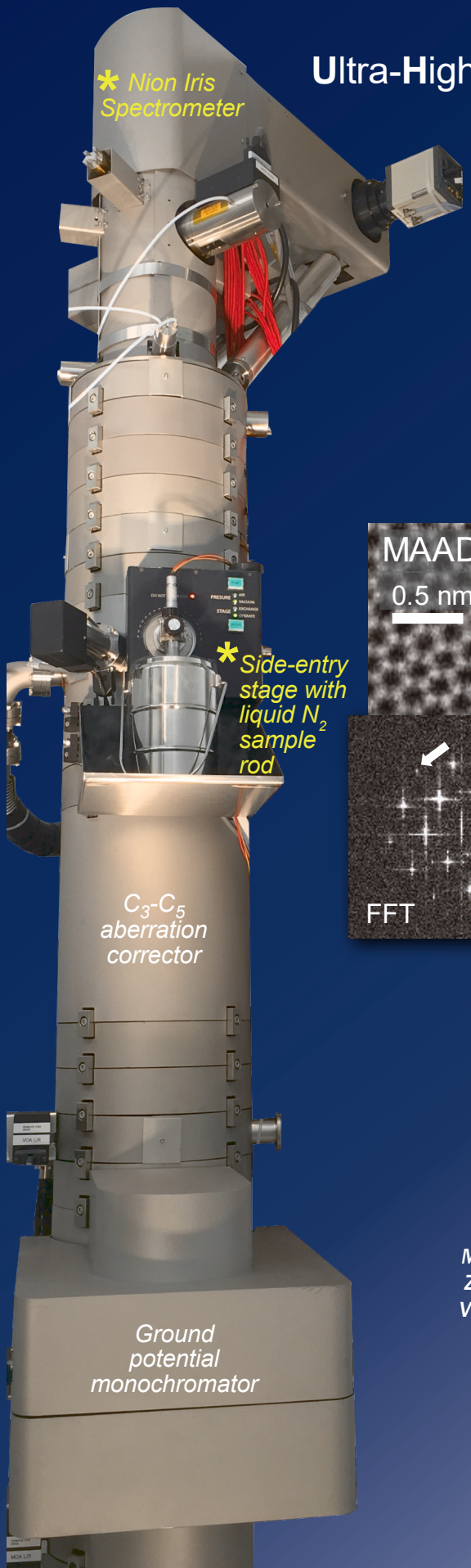
Nion U-HERMES™-S*

*** New for 2018**

Ultra-**H**igh **E**nergy **R**esolution **M**onochromated **E**ELS-**S**TEM with **S**ide-entry stage

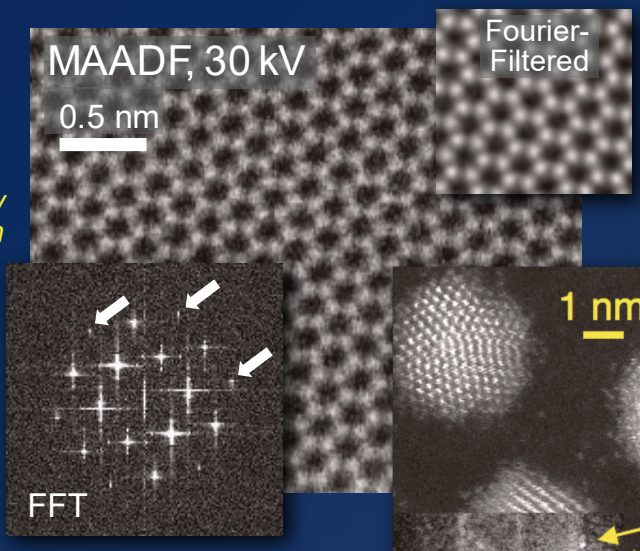


Ultra-high optical performance

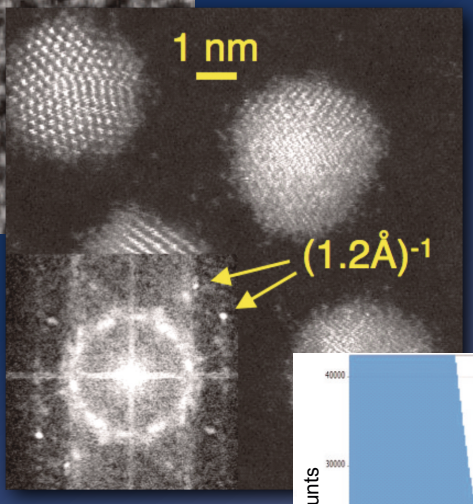
0.6 Å spatial resolution at 200 kV
**5 meV energy resolution at 30 kV / 6 meV at 60 kV*

Ultra-flexible

** cooling, heating, etc. sample holders*
** ultra-stable EELS optimized for low and high losses*
**UHV reachable at the sample with side-entry stage*
powerful Python-based open-source software

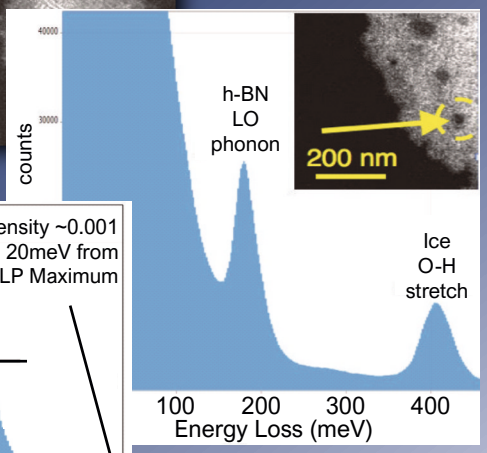


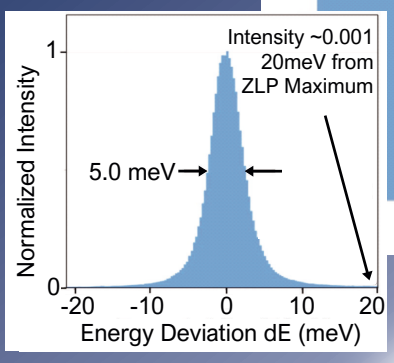
Medium-angle annular dark field (MAADF) monochromated STEM image of graphene. Arrows in FFT mark $(1.07\ Å)^{-1}$ $\delta E \sim 100$ meV, $V_0 = 30$ kV.



HAADF image of Au nanoparticles, 200 kV, sample at liquid N_2 temperature.

Aloof vibrational EEL specturm of ice adsorbed onto an h-BN flake, $V_0 = 100$ kV.





Monochromated EELS Zero Loss Peak (ZLP), $V_0 = 30$ kV, acquisition time = 100 msec.

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