



JEOL JEM-2100Plus: Un potente e versatile S/TEM multi-purpose

UniGE - OpenLab

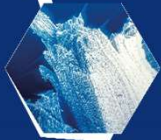
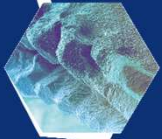


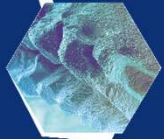
*Dr. Paolo Grianti, Ph.D
General Manager Sales Operation*



TOPICS

- *JEOL & the Electron Microscopy History*
- *Which type of TEM?*
- *JEM-2100Plus*
- *Optionals available at UniGe*





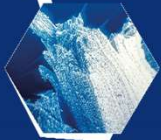
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JEOL = Japan Electron Optics Laboratory

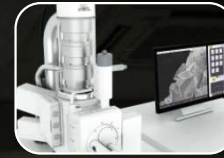


Founded in 1949, is a world leader for scientific instruments thanks to more than 70 years of experience :



TEM

Electron Optics



SEM



EPMA

Analytical Instruments



NMR



XPS



MS

Sample Preparation



Cross-Section Polisher (SEM)



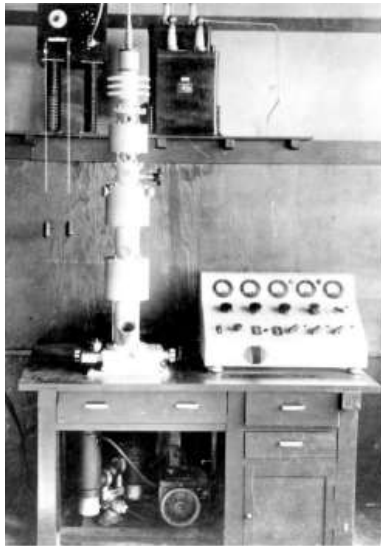
Sputter Coater



FIB



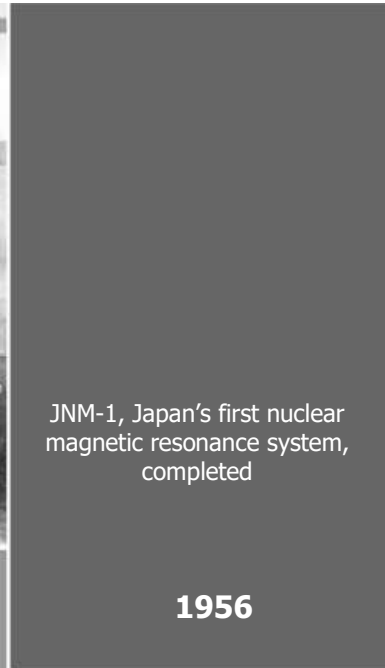
JEOL = Japan Electron Optics Laboratory



1949

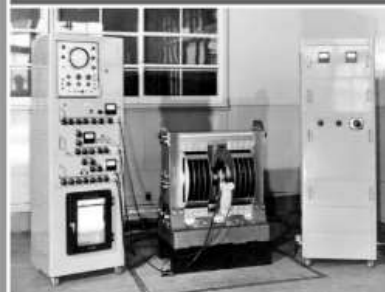
Japan Electron Optics Laboratory
Ltd. established

JEM-1 Electron Microscope
completed



JNM-1, Japan's first nuclear
magnetic resonance system,
completed

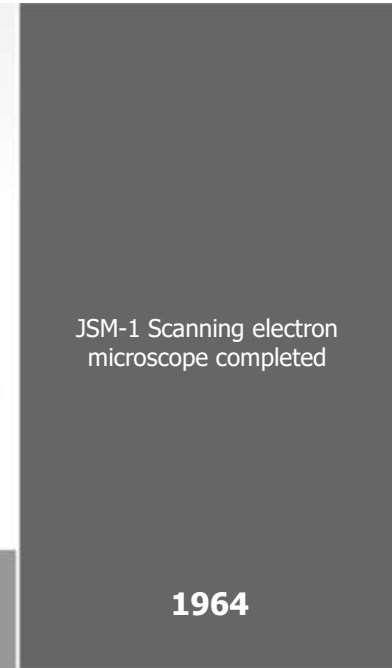
1956



JSM-1 Scanning electron
microscope completed

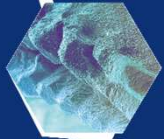
1961

Company name changed to
JEOL Ltd.



1964





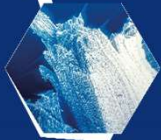
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Which type of TEM?



JEOL can provide a wide range of TEM!



JEM-1400Flash

120 kV



JEM-2100Plus



JEM-F200



JEM-ARM200F
NEOARM



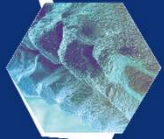
CRYO ARM200

200 kV



GRAND ARM™ 2 CRYO ARM™ 300 II

300 kV



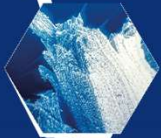
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- **JEM-2100Plus**



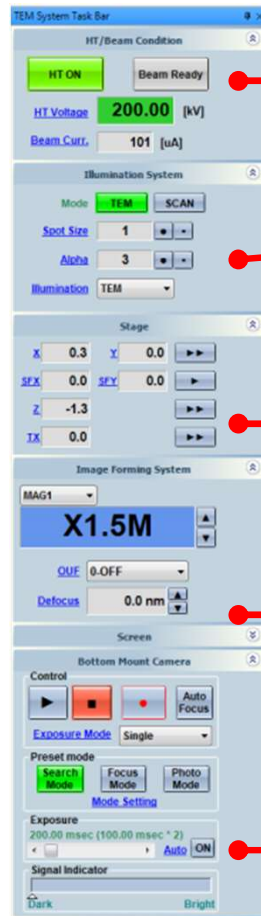
- *Optionals available at UniGe*



New Operation Software "TEM Center"



Easy and Intuitive operation



HT/Beam condition
HT, Filament current

Illumination system
Spot size, Alpha

Stage

Image forming system
Magnification, Focus

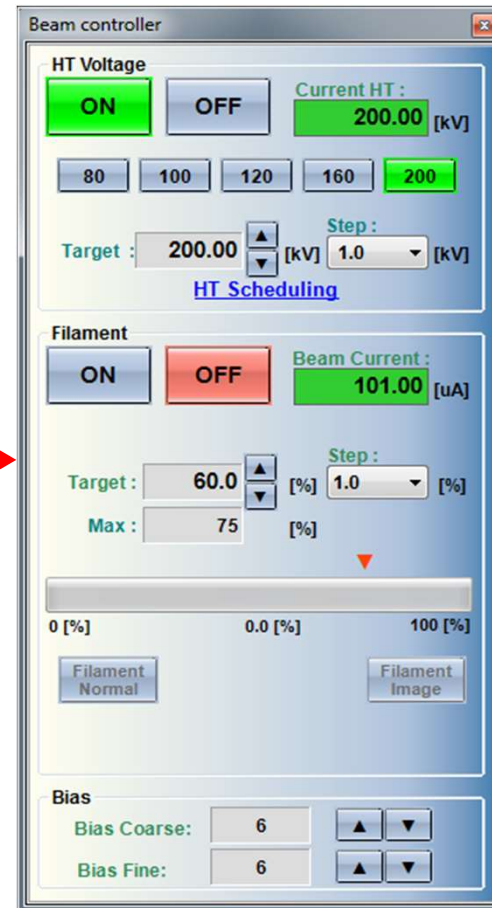
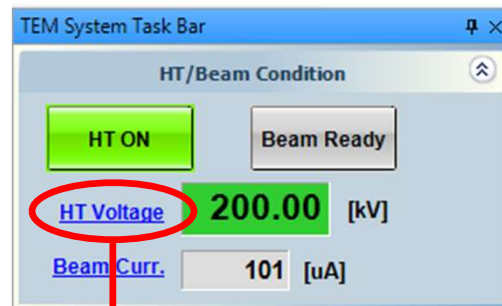
CCD camera
for TEM images
(if JEOL)



New Operation Software "TEM Center"



Easy access to advanced operation window

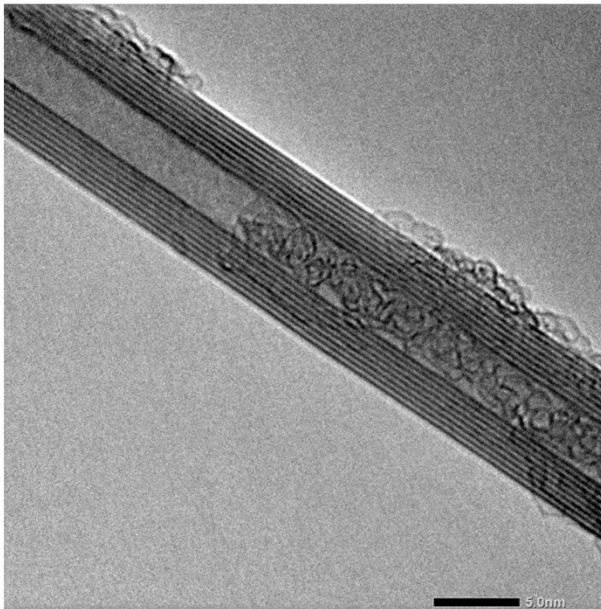


New Operation Software "TEM Center"



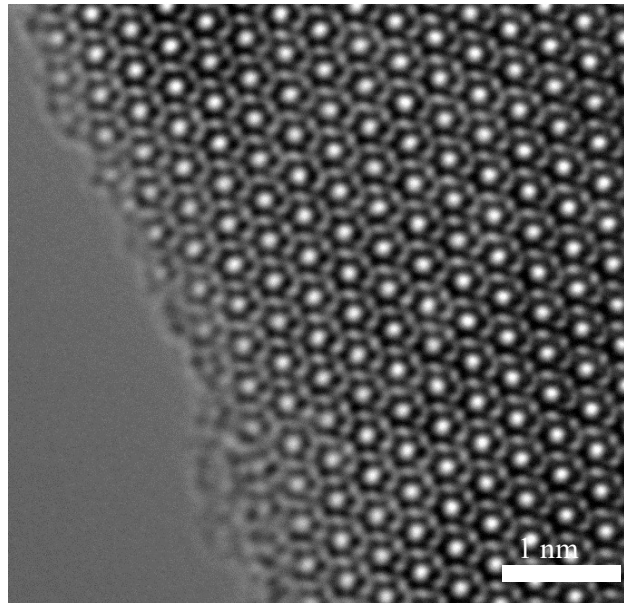
Parallel beam for ultrastructures information and diffraction

Specimen: CNT



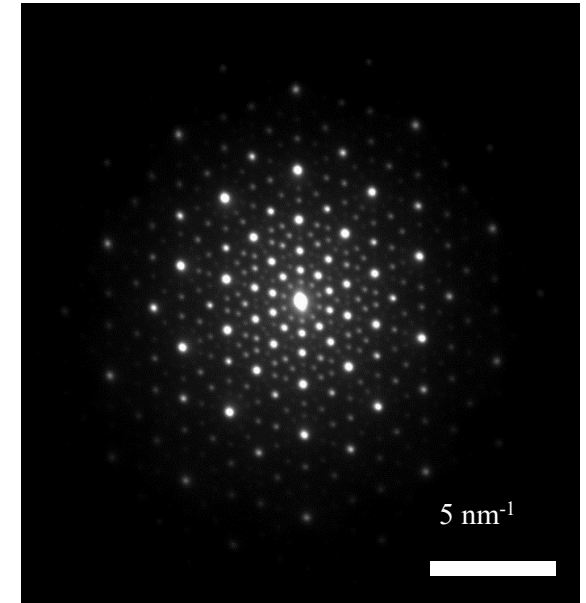
120kV

Specimen: Si₃N₄

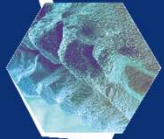


200kV

Specimen: Semi crystal



200kV



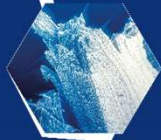
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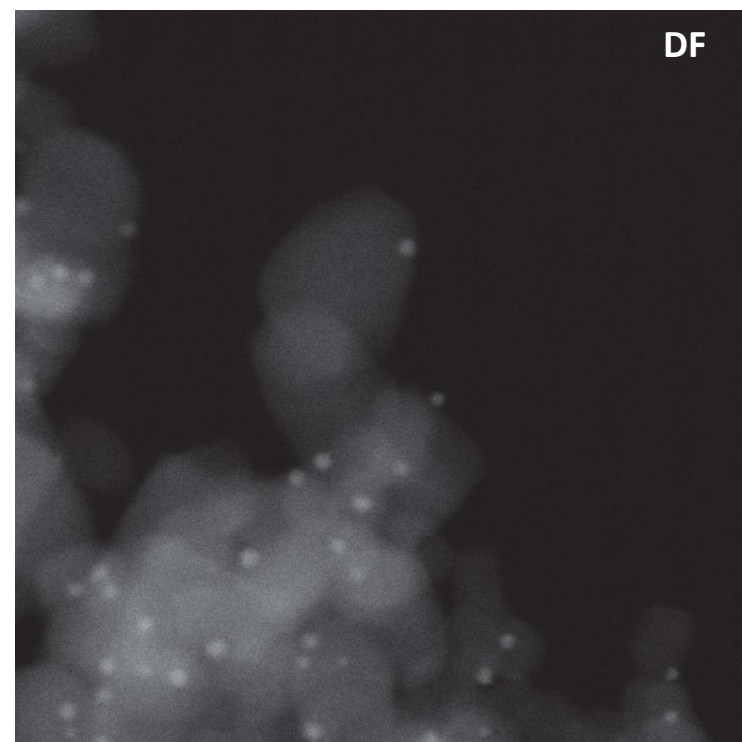
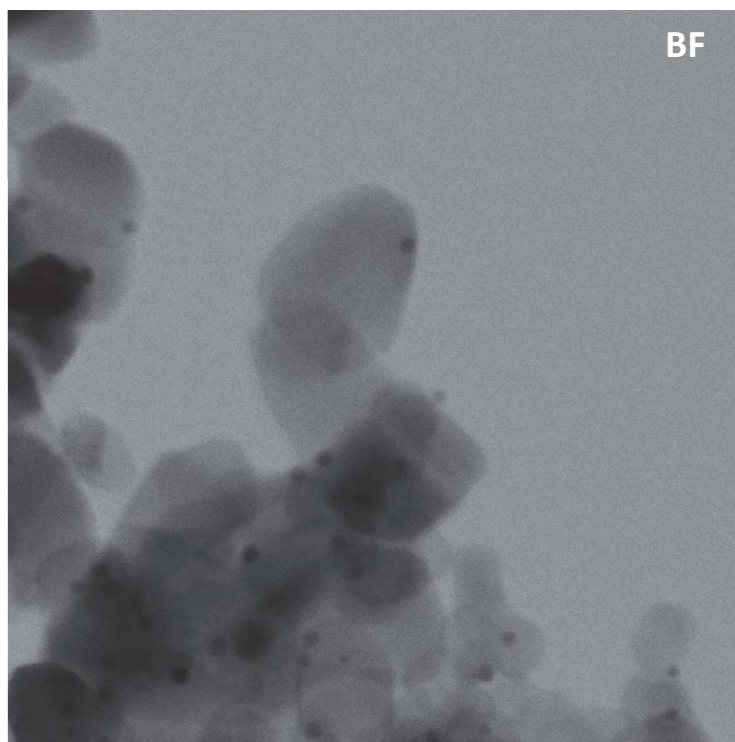
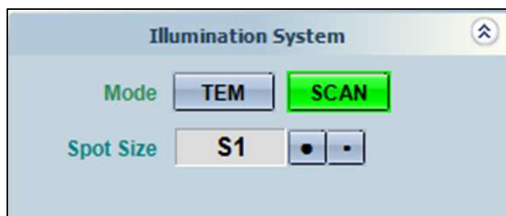
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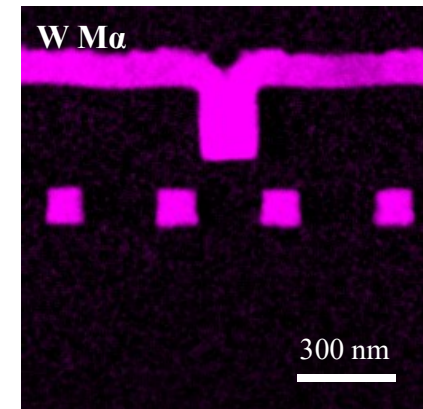
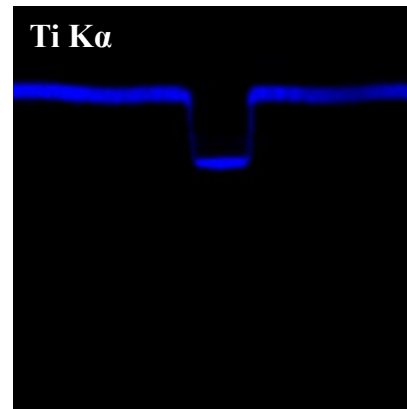
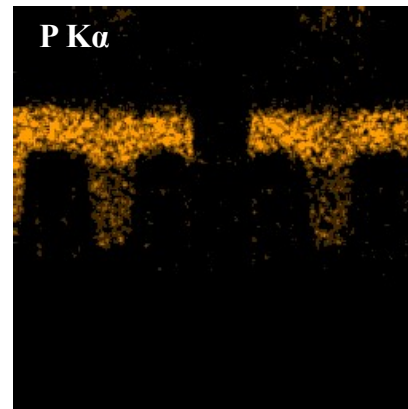
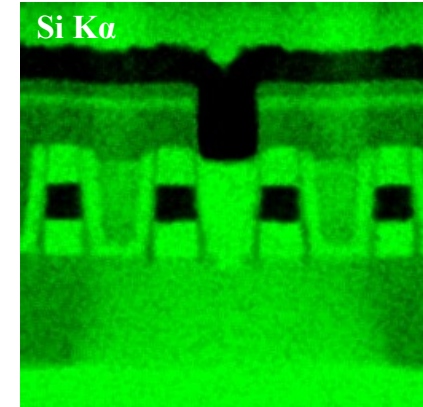
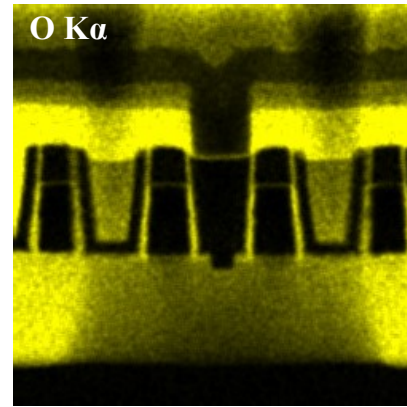
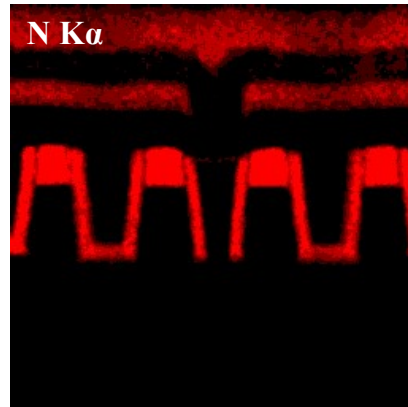
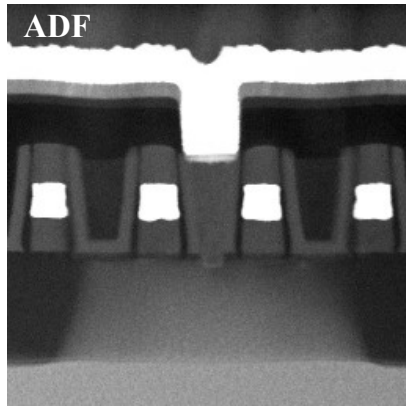
Single click to switch from TEM to STEM



10 nm

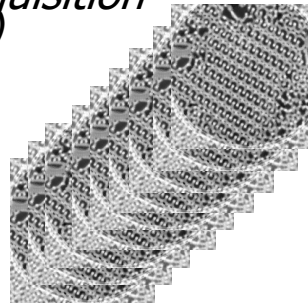
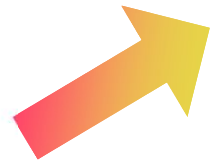
Sample: Au/TO₂

Chemical composition can be quickly defined

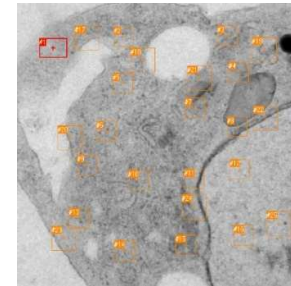


From 2D to 3D information

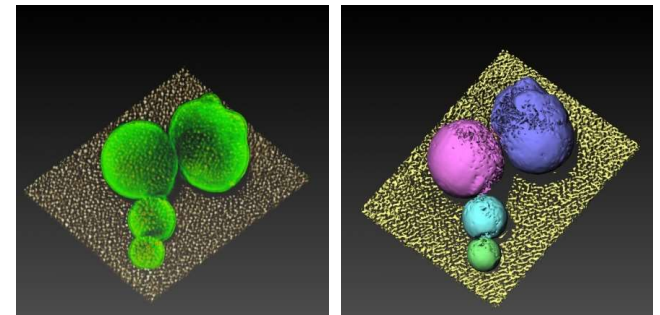
*Tilted sections acquisition
(Serial EM)*



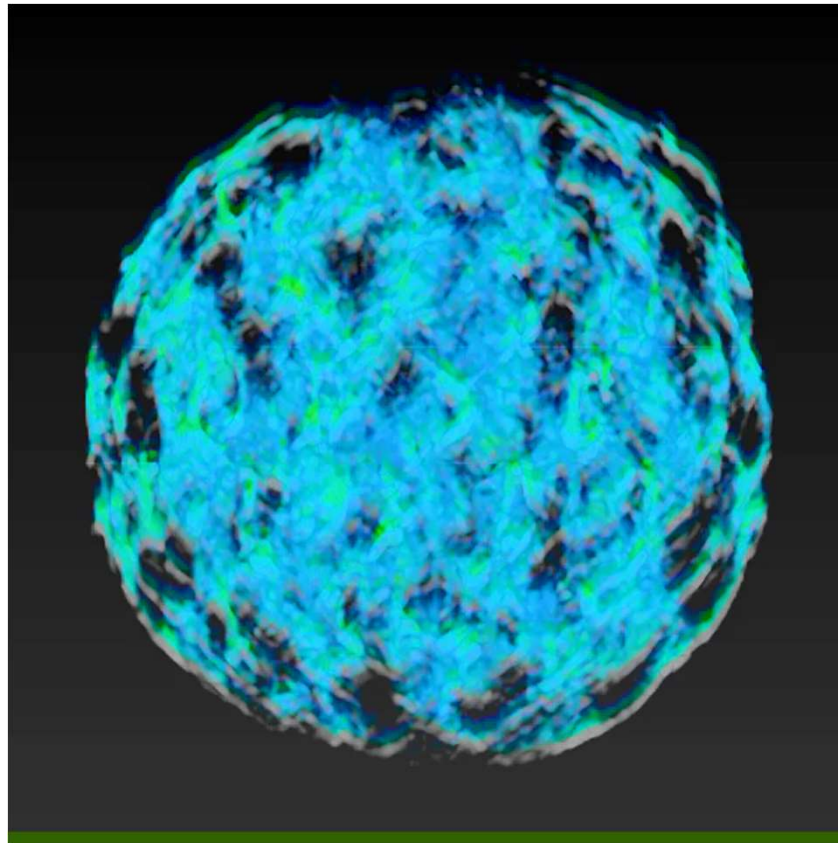
*Alignment
Reconstruction*



Visualization



From 2D to 3D information



Sample: porous nanoparticles

Thank you for your attention



Solutions for Innovation | **JEOL** 

www.jeol.it

