

Ion Beam Polisher **IP-10K**



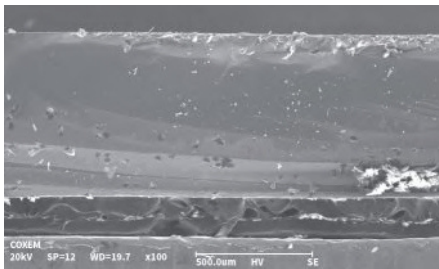
The IP-10K is COXEM's upgraded Ion Beam Polisher, equipped with various options including flat-milling, cooling stage, and the air-protection module, ensuring enhanced performance and versatility for a wide range of applications. It offers unparalleled capabilities for the precision milling of materials at the microscale levels, providing exceptional cleanliness and accuracy.

Features

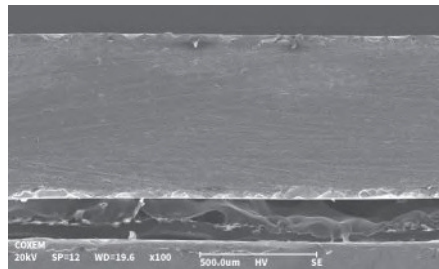
- A fast milling speed of 1,000um/h (Si, 8kV)
- Minimizes thermal damage with the cooling stage
- Air-protection module compatible with SEM
- Flat-milling function provided for planar etching
- A fast pump/vent time with easy sample loading
- Higher front mask usability

Ion beam polishing

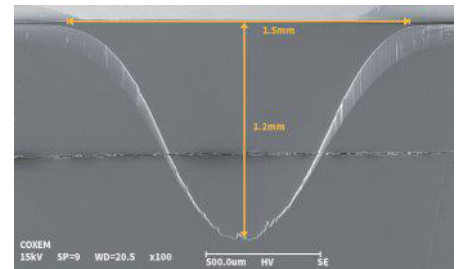
It is evident how much cleaner the cross-section surface appears after ion beam polishing compared to images of fractured or mechanically polished samples.



Fractured



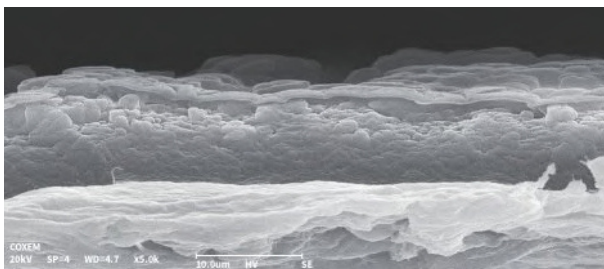
Mechanical polishing



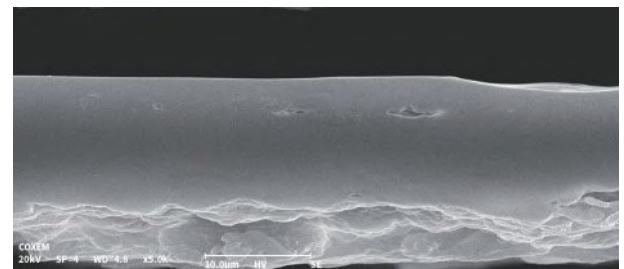
Ion Beam polishing

Cooling module

When working with heat-vulnerable samples, the risk of heat damage can be minimized by using a Peltier-type cooling stage, capable of cooling the stage down to -20°C .



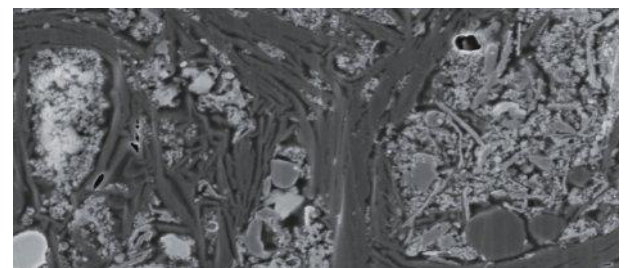
Milling condition : 4kV1h



Milling condition : 4kV1h -20°C

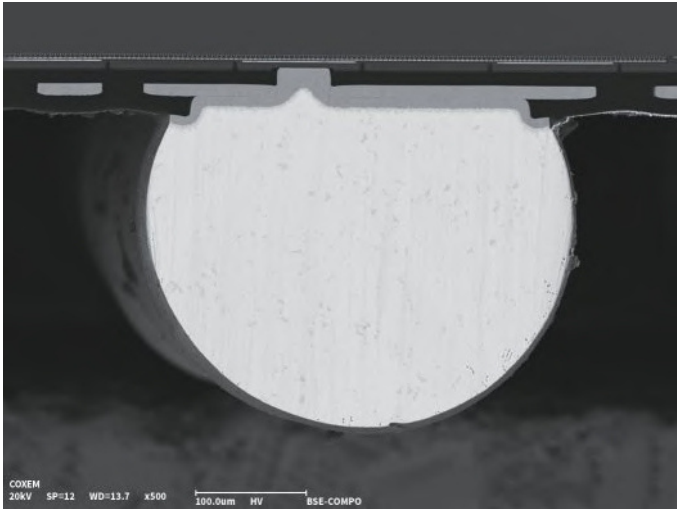
Air-protection module

When the sample is susceptible to deformation in the air, the air protection option proves highly beneficial. This option allows milling and observation of the sample to be completed without exposure to the air.

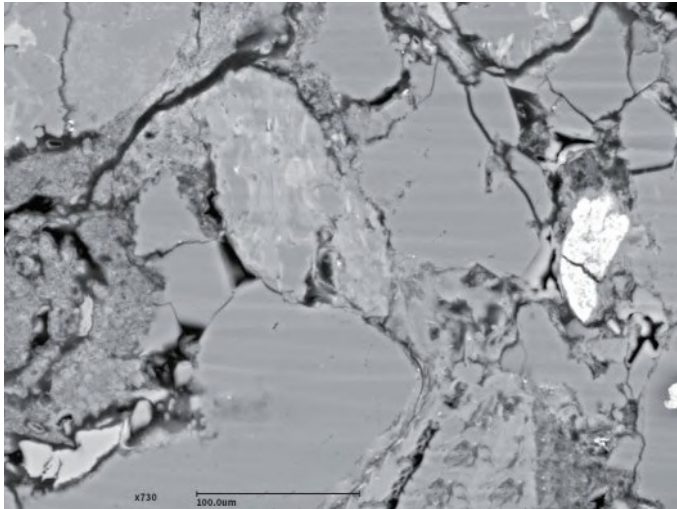


Battery

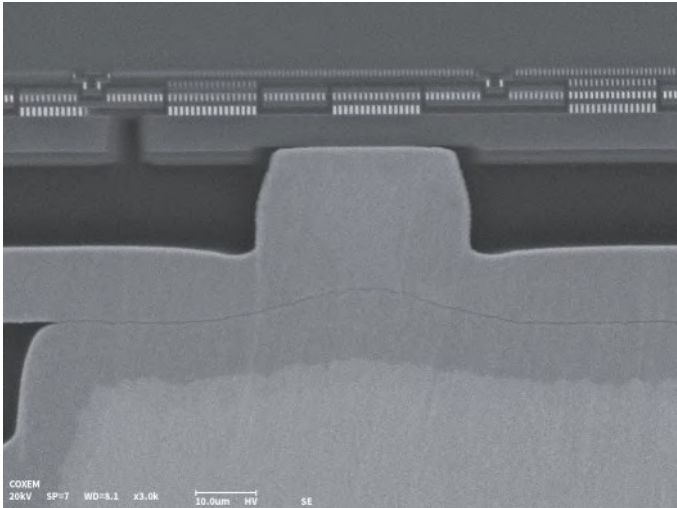
Applications



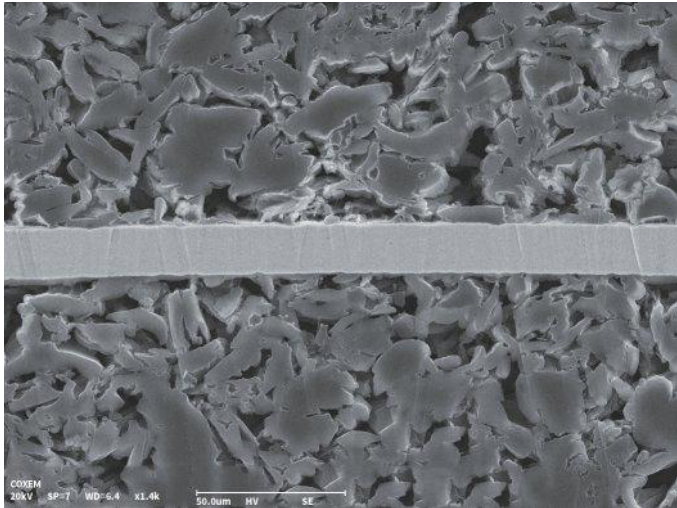
Solder ball



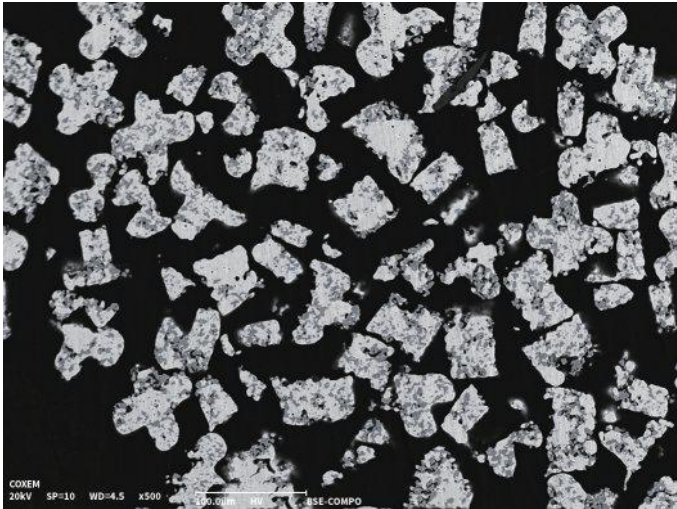
Mineral



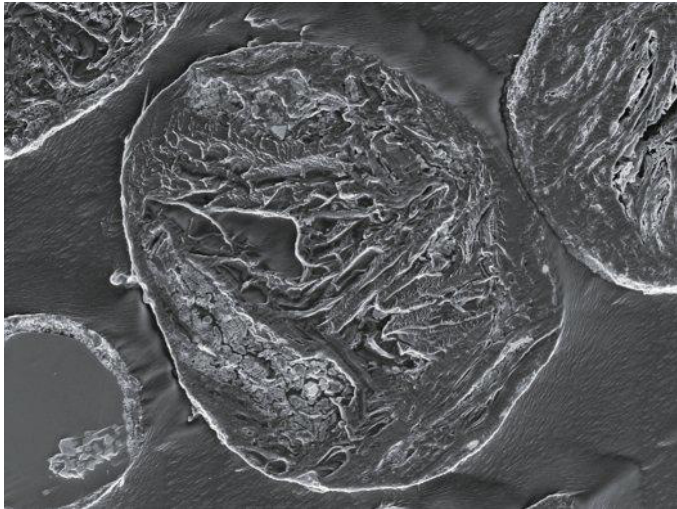
Solder ball



Anode powder



Metal Powder



Anode powder

Specifications

Ion accelerating voltage	2 to 8kV
Milling speed	1,000um/h (at 8kV on Si wafer)
Sample stage swing angle	±35°
Maximum sample size	20(W) × 10(L) × 5.5(T)mm 16(W) × 10(D) × 9.5(H)mm
Specimen movement range	X axis movement : ±3.5mm Y axis movement : ±2mm
Flat milling stage tilt angle range	10° to 90°
Sample size for flat milling	Ø32 × 18(H)mm
Operation	7 inch touch panel
Digital microscope for sample positioning	Mag. 5x, 10x, 20x, 40x
Chamber camera for monitoring	Mag. 5x, 10x, 20x, 40x Brightness adjustable in 4 steps Ion beam observation mode (LED off)
Gas used	Argon gas (99.999%)
Gas pressure	0.03MPa ~ 0.05MPa
Gas flow control	Mass Flow Control unit
Vacuum systems	Turbo pump, Diaphragm pump
Dimension	640(W) × 492(D) × 282(465)(H)mm
Weight	Main system 45kg / Diaphragm pump 6.5kg
Options	Air-protection module, Cooling module, Flat milling

