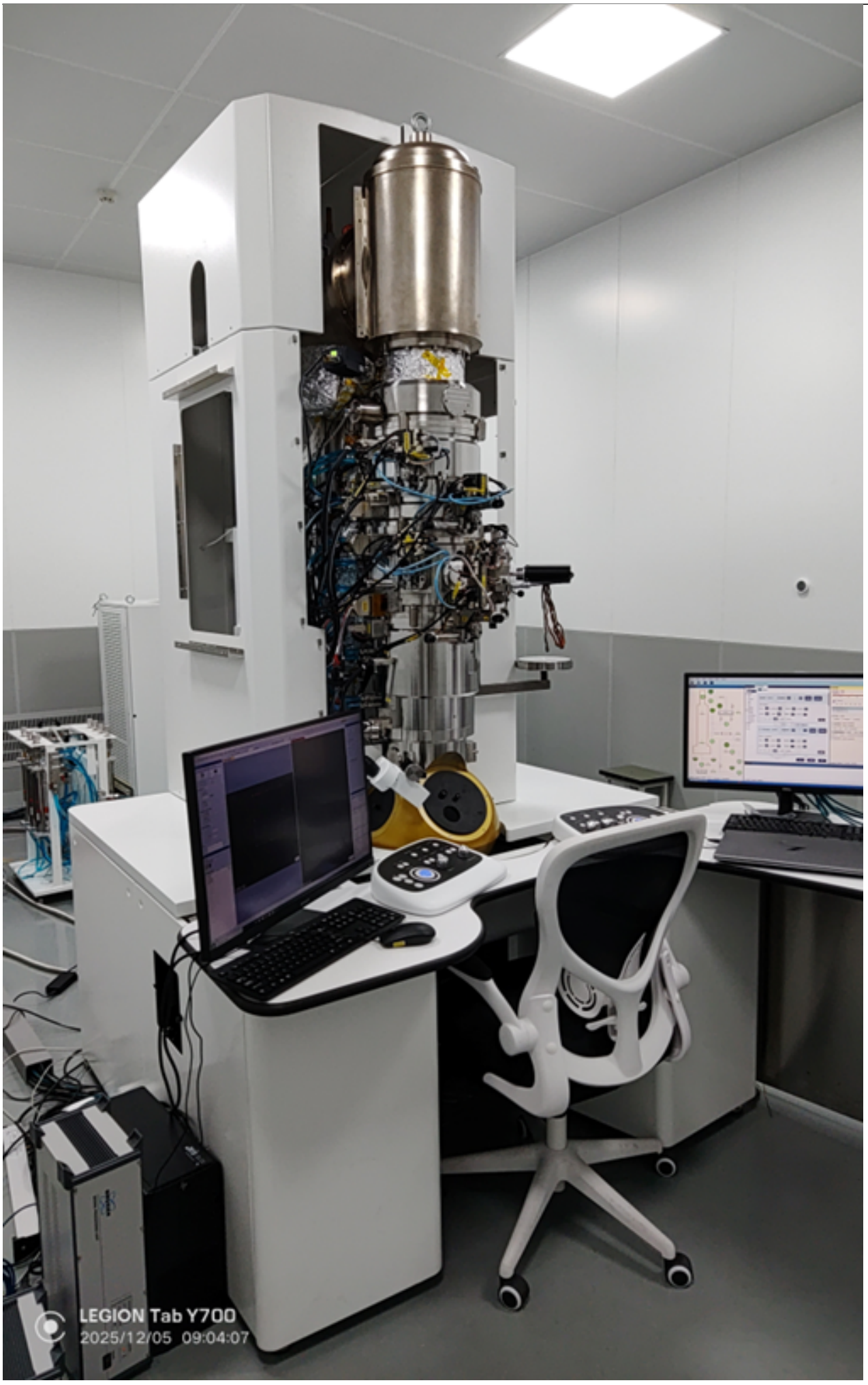
Recently, the first TEM made in China **A63.7220** Transmission Electron Microscope (TEM) was successfully installed and put into operation at Soochow University , marking that the first domestic high-end scientific research equipment is officially open to universities and scientific research institutions across the country. With its excellent imaging performance, flexible functional configuration, and stable system performance, the **A63.7220** is becoming an ideal research platform for nanotechnology, advanced materials, semiconductors, and life sciences.

[Figure 1: Appearance of the A63.7220 machine]


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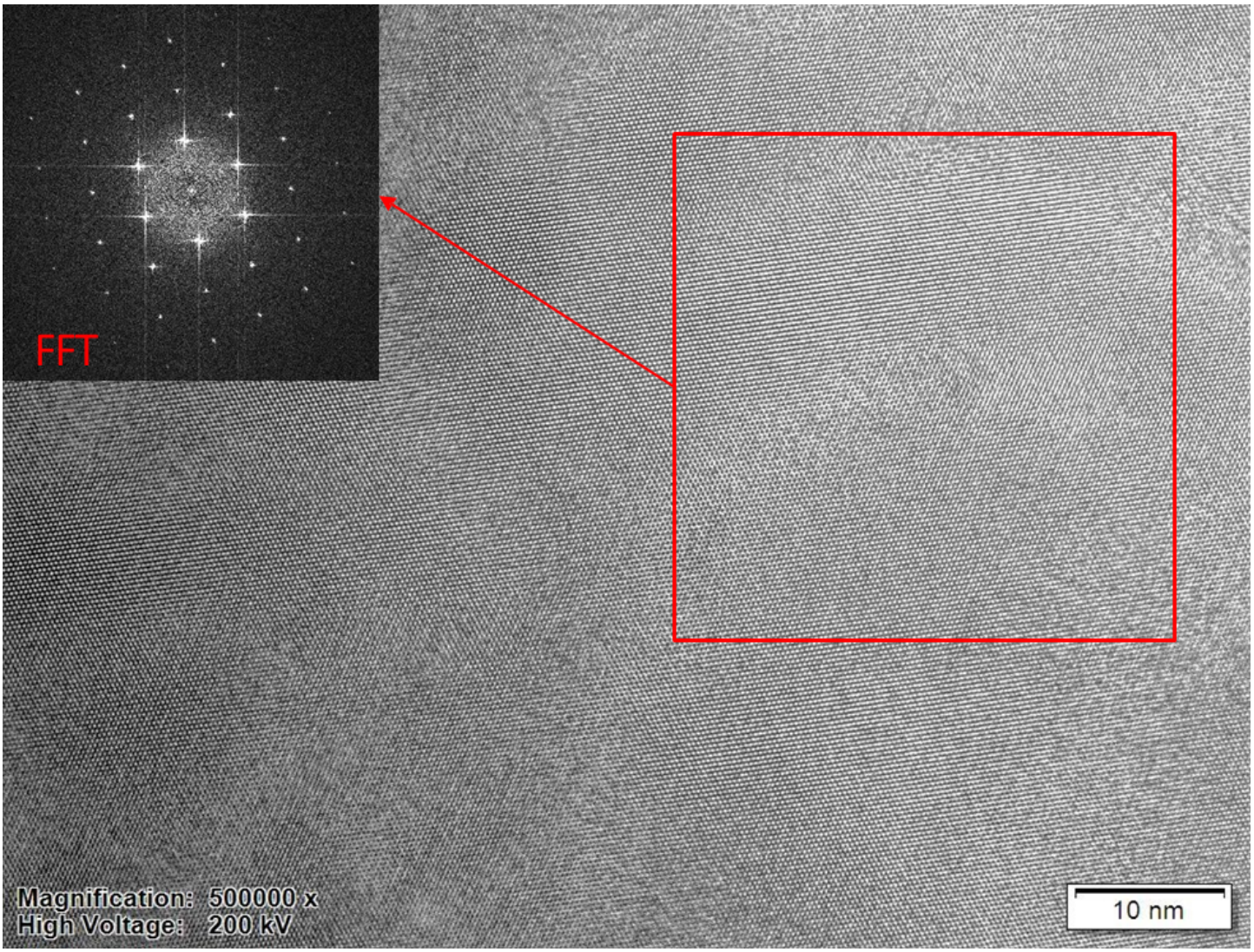
Core performance parameters: define new domestic high-end benchmarks

- Point resolution ? 0.25nm
- Lattice resolution ? 0.10nm
- TEM mode magnification: 20-1,500,000x
- DIFF mode camera length: 20-3000mm
- Electron Gun Type: Thermal field emission electron gun
- Acceleration Voltage: 80kV, 200kV (Customizable)
- Maximum tilt angle of the sample holder: ? axis: ±30°; ? axis: ±25° (standard double tilt holder)
- Goniometer moving range: X, Y: 2mm, Z: 0.75mm
- Electron microscope customization service


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These indicators make the A63.7220 a leading position among similar domestic equipment, comparable to international first-line brands, and at the same time have higher localized service response speed and cost-effective advantages.

[Figure 2: High-resolution imaging example — Si [110] standard, 200 kV]



Sample: Si [110] standard

Shooting conditions: **A63.7220 (hot field 200kV).**

spot size: 1

Mode: **TEM mode**

Condenser diaphragm: 100?m objective diaphragm: None

camera: Emsis (20 million pixels)

Magnification: 500K

Multi-modal imaging and analysis capabilities, one machine covers all needs

The A63.7220 not only supports basic transmission imaging, but also integrates a variety of advanced functional modules:

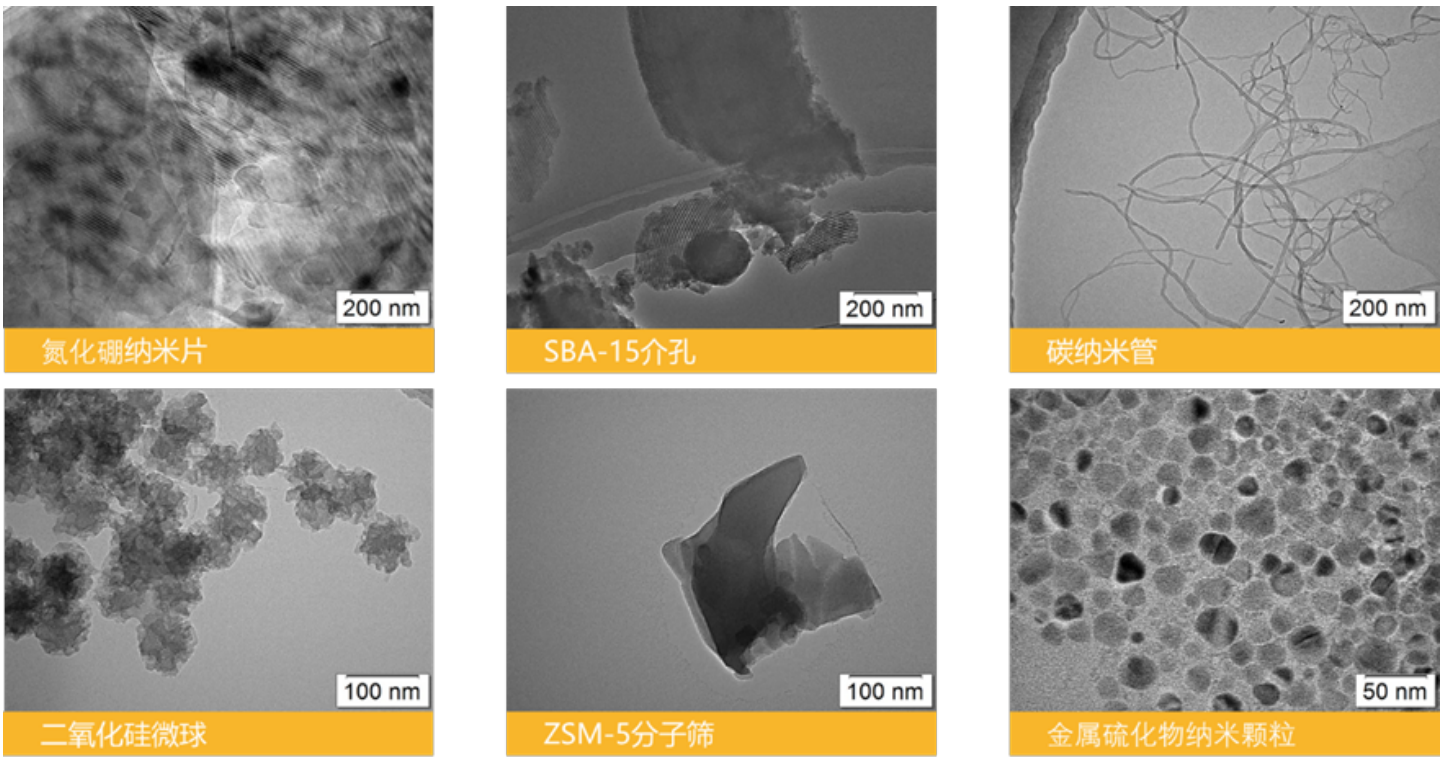
? **Standard Function**

- Brightfield image (BF), dark field image (DF)
- High-Resolution TEM (HRTEM)
- Selective Electron Diffraction
- Nanobeam Electron Diffraction
- Convergent Beam Electron Diffraction

? **Optional Funtion**

- STEM: Scanning Transmission Mode
- EDS: Energy Dispersive X-ray Spectroscopy
- Electron Energy Loss Spectroscopy
- Microcrystalline Electron Diffraction
- Lorentz Mode

[Figure 3: Application case puzzle]



Typical application scenarios

The A63.7220 is not just an instrument, but a key to the microscopic world. Whether you are engaged in new material development, semiconductor process optimization, or basic physical and chemical research, it will be your indispensable research partner. The A63.7220 has demonstrated its strength in several frontier areas:

- **2D materials research**: Clarify the hexagonal lattice structure of a single layer of h-BN
- **Catalytic material characterization**: Observation of the dispersion state and crystal orientation of Pt nanoparticles on the carrier
- **Semiconductor defect analysis**: Identify dislocations and stack dislocations in GaN epitaxial layers
- **Mesoporous Material Analysis**: Unraveling SBA-15's Ordered Pore Structure
- **Battery material research**: Track the phase transition and cracking behavior of electrode materials during charging and discharging


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Schedule a Demo:

We support remote online or on-site demos to experience the imaging effect firsthand. Act now and start exploring on the atomic scale.

About Opto-Edu

Opto-Edu has the most professional experience of microscopes in the Chinese market, with our professional sales team, customers will get supply of the BEST SELECTED microscopes for all kinds of purposes with competitive price and 3 YEARS Warranty.

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