JXA-8230
Electron Probe Micro Analyzer

Powerful Analysis Tools
Simple PC Operation

JEOL
Serving Advanced Technology
Powerful Analysis Tools - New PC Interface

Full Complement of Analysis Programs

- Qualitative analysis
- Quantitative analysis
- Chemical state analysis
- Line analysis
- Electron Flight Simulator (Monte Carlo)
- Area analysis
- Phase analysis

SEM image setup and Help display

Imaging mode display

Analysis setup display

Viewing and navigation display

Analysis position setup
**Simple Operation**

The *SuperProbe JXA-8230* has a new PC-based operating environment for easy data acquisition and analysis coupled with JEOL's proven EPMA hardware. Its refined analysis menus are designed to navigate the operator through the analytical process to achieve the best results with speed and simplicity. The software contains new tools for:

- **EPMA quick start:** Click any point and then an analysis type to start a preset qualitative or quantitative ED or WD analysis.

- **User recipes:** Save or recall a frequently used set of analytical conditions for a variety of different sample types. All column, EDS and WDS parameters are included in the recipe.

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**New L-type Spectrometer**

Two large-crystal wavelength spectrometer with large Rowland circle. Allows increase in count rate without sacrificing energy resolution and P/B ratio. Includes PETL (to resolve trace element overlaps such as Pb-U-Th) and LIFL (useful for resolving minor peaks such as rare earth elements) crystals.

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**EDS Capabilities**

- Digital pulse processor
- Spectral mapping (WD/ED, stage and beam scanning)
- Fan free SDD (option)
### Specifications

**Detectable Elements**
- WDS: (Be*1) B to U, EDS: B to U

**X-ray Range**
- WDS: 0.087 to 9.3 nm,
- EDS energy range: 20 kV

**X-ray Spectrometers**
- WDS: 1 to 5; EDS: 1

**Maximum Sample Size**
- 100 mm × 100 mm × 50 mm (H)

**Accelerating Voltage**
- 0.2 to 30 kV (0.1 kV steps)

**Probe Current Range**
- 10^-12 to 10^-5 A

**Beam Current Stability**
- ±0.05 %/h, ±0.3 %/12 h (W)

**Secondary Electron Resolution**
- 6 nm (W), 5 nm (LaB_6)*2 (WD 11 mm, 30 kV)

**Scanning Magnification**
- 40 to 300,000 × (WD 11 mm)

**Scanning Image Resolution**
- Maximum 5120 × 3840

**Color Display**
- For EPMA analysis: LCD 1280 × 1024
- For SEM operation and EDS analysis: LCD 1280 × 1024

*1: With optional analyzing crystal for Be analysis
*2: LaB_6: Optional

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### Installation Requirements

**Power Supply**
- Main Console: Single phase 200V ±10%, 50/60 Hz, 6 kVA
- Computer System: Single-phase 100V ±10%, 50/60 Hz, 15 A or more

**Cooling Water**
- Faucet: One, Rc3/8 (hose side: R3/8)
- Flow Rate: 3 to 3.5 l/min
- Pressure: 0.1 to 0.25 MPa (gauge pressure)
- Temperature: 20 ±5°C
- Drain: 1 or more, two 10 mm O.D. hoses should be used.

Water recirculation system with fluctuation of ±0.1°C is recommended.

**Dry N_2 Gas**
- Pressure: 0.4 to 0.5 MPa (gauge pressure)
- Gas Outlet: ISO7/1, Rc1/4 (internal thread)

**PR Gas**
- Temperature: 20 ±5°C (fluctuation ±1°C recommended)
- Humidity: 60% or less (dew must not condense)
- Stray Magnetic Field: 0.3 µT (p-p) or less (50/60 Hz)
- 0.1 µT (p-p) or less (DC)
- Floor Vibration: 3 µT (p-p) or less at 6 Hz
- Floor Space: 4000 mm × 3500 mm or more

With every JEOL instrument comes the promise of a reliable partnership and a source for solutions to your instrument and applications needs. JEOL provides the highest level of technical experience and support.

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http://www.jeol.com/

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**Accessories**

- XCE-type X-ray Spectrometer
- L-type X-ray Spectrometer
- H-type X-ray Spectrometer
- XCE-type Four Crystal Spectrometer
- Transmission Illuminator
- LaB_6 Gun
- LN_2 Cold Finger
- Tilt/Rotation Substage