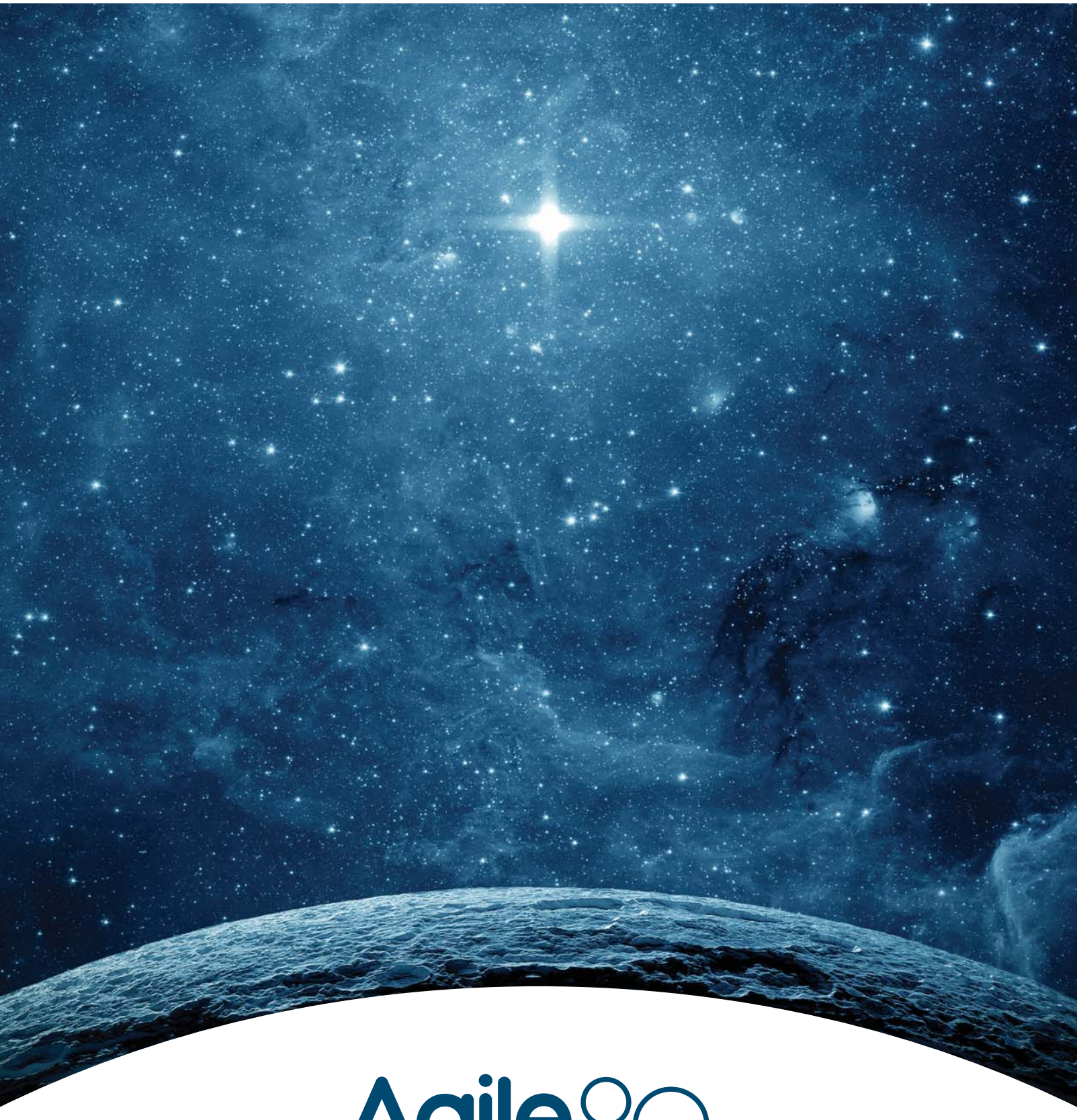

Agile80

Transmission Electron Microscope

Agile80

Transmission Electron Microscope

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Transmission Electron Microscope

Aimed for:

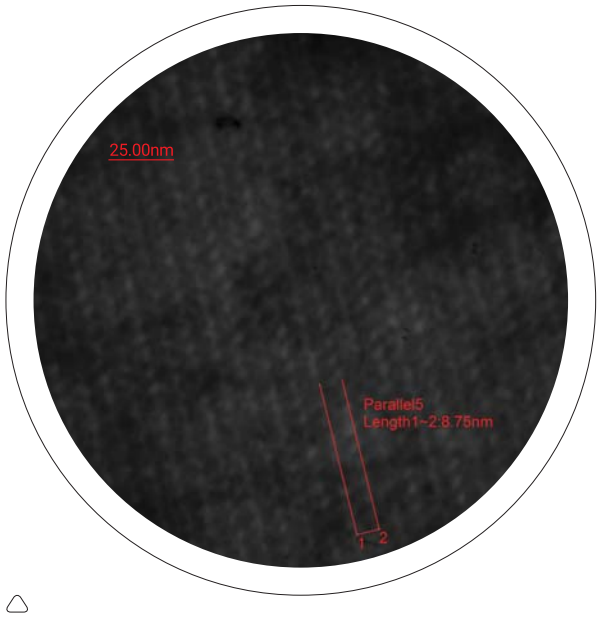
Biology, Medical Science, Material Science & Engineering Applications

Agile80 high-level technology and stability permits a full range of various applications including:

- **Protein and cellular imaging**
- **Virology**
- **Pathology**
- **Biological studies**
- **Characterization of shape and size of nanostructured materials**
- **Study on multiphase and compound materials**
- **Study on structural defects and porosity**
- **Crystallography**

KEY FEATURES

- High contrast imaging
- Standard operating voltages of 50 kV & 80 kV
- High quality imaging of biological specimens
- Motorized and robust control of apertures
- Motorized X-Y specimen stage
- Thermionic tungsten electron source
- Top entry sample holder



△
Catalase Standard gratings,
Ted Pella, INC.

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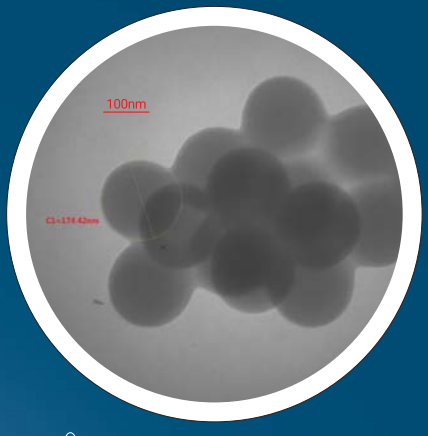
Transmission Electron Microscope



△
Polystyrene nanospheres

ara research

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Resolution (nm) at 80 kV	
Point	0.50 nm
Lattice	0.34 nm
Acceleration voltage	
Range	50kV, 80kV
Stability	8×10^{-6}
Magnification	
Range	200X to 400,000X
Steps	16
Diffraction	
Selected area	>1.5µm diameter, selected apertures (SAD)
	>3 µm diameter, selected by micro-beam illumination
Illumination system	
Electron Gun	Pre-centered tungsten hairpin filament
Beam Alignment	Electromagnetic beam alignment system
Double condenser	Factory aligned double condenser system specimen
	Illumination adjustable from 3µm to 2mm diameter
Objective lens	
Focal length	2.6mm
Spherical aberration	2.2mm
Chromatic aberration	1.7mm
Astigmatism	<1µm
Projector lenses	
Number of lenses	3 factory aligned electromagnetic projector lenses
Stability	6×10^{-6}
Imaging modes	
Dark field	Available
Bright field	Available
SAD	Available
Vacuum system	
Vacuum pumps	Rotary and turbo molecular
Vacuum gauge	Pirani and cold cathode
Vacuum pressure	High vacuum pressure down to 10^{-6} mbar
Movements	
X-Y Sample movements	Motorized
Sample tilt	Optional (details can be customized)
Apertures	Motorized
Software	
Imaging	Available
Image processing	Available
Apertures control	Available
X-Y Sample control	Available
Vacuum control	Available
Digital imaging system	
Motorized control of the scintillator	
Optical zoom of 10X	
16.0MP high resolution sensor (4608H × 3456V)	
Up to 25 frames per second	
High speed data transmission	

INSTALLATION REQUIREMENTS

- Environment temperature: 17 °C to 24 °C
- Weight distribution maximum: 1400 kg/m2
- Electrical connection: fixed connections to 3, 2 or single phase lines
- Power voltage: 200 V (+10 %, -15%)
- Frequency: 50 or 60 Hz
- Power Consumption: 4.5 kVA, Full options 5.5 kVA
- Electrical connection: single phase for water cooler 220 V
- Cooling water required (depends on water cooling unit ordered)
- Double earth connection required
- Nitrogen (N2) supply with pressure of 0.2 bar
- Pre-vacuum pump outlet
- Liquid nitrogen LN2
- LAN connection for Remote Access Program for Interactive Diagnosis (RAPID)
- Door height: 2.20 meter
- Door width: 1.10 meter
- Ceiling height: >2.90 meter
- Floor space required for operation and servicing: 5 meter × 6 meter

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Agile80

Transmission Electron Microscope

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