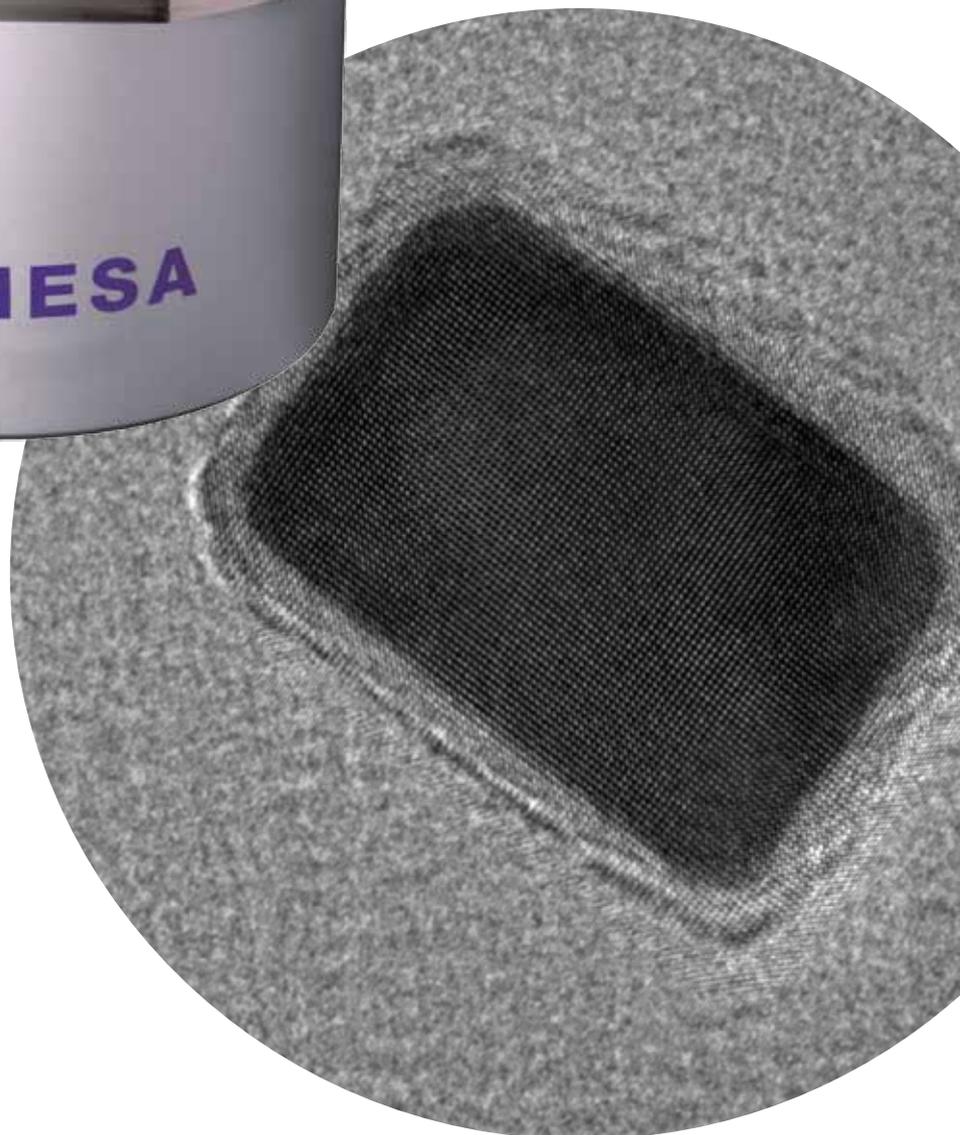




# QUEMESA

11 MEGAPIXEL BOTTOM-MOUNT TEM CAMERA

Versatility and flexibility



11 MEGAPIXEL  
TAPERED FIBER OPTICS  
LARGE FIELD OF VIEW  
SENSITIVE CCD SENSOR

# QUEMESA

11 MEGAPIXEL BOTTOM-MOUNT TEM CCD CAMERA

**The QUEMESA is EMSIS' high-resolution 11 megapixel bottom-mount TEM CCD camera. It is the perfect choice – and the most versatile – for all current TEM applications.**

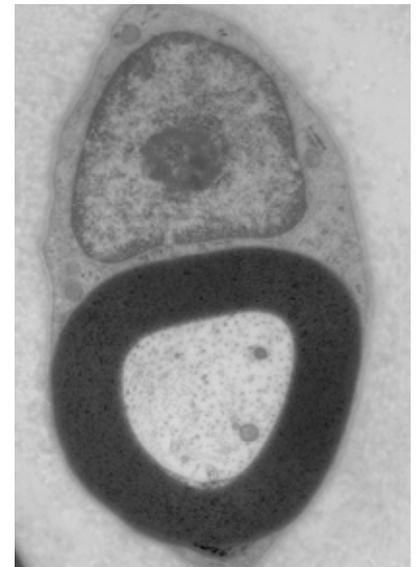
The Quemesa camera system combines a large, fast sensitive CCD chip with attractively high readout speed. With its tapered fiber optics it fulfills the most stringent quality demands. This and a perfectly matched phosphor scintillator provides everything expected of a high-end TEM CCD camera today: resolution, sensitivity, contrast, high frame rates, and a large field of view. These superior properties make the Quemesa the ideal choice both for biomedical and materials science applications.

The fiber-optical taper provides highest quality, paired with a large field of view. Increased effective pixel size ensures optimal resolution and sensitivity. With its efficient conversion of electrons and an optimized electronics design, the Quemesa system gains a nearly perfect signal-to-noise ratio, resulting in high sensitivity. This enables the user to viewing samples on the

monitor at beam intensities so low it would normally prevent seeing any image on the TEM viewing screen. The finest detail is still shown perfectly in the camera image.

The Quemesa is completely integrated with RADIUS, EMSIS' TEM imaging platform. This guarantees numerous real-time functions such as real-time shading correction, automatic contrast enhancement, averaging, HDR as well as Fourier Transformation during live image acquisition. Furthermore, RADIUS offers functions such as HDR, image labeling, image processing, archiving, analysis and report generation. Print-outs in photo quality can be made in just a few seconds after the acquisition.

APPLICATIONS  
LIFE SCIENCES  
MATERIALS SCIENCES  
HR-TEM  
DIFFRACTION  
VIROLOGY



Nerve cell with myelin sheath and nucleus – 8,000x – 120kV

## SPECIFICATIONS

Camera	QUEMESA	
Model	B11F	
Sensor type	CCD	
Image size (max)	4008 x 2664 pixels	
Effective pixel size	18 x 18 $\mu\text{m}^2$	
Field of view	72 x 48 mm <sup>2</sup>	
Binning	2x, 3x, 4x	
Frame rate @ full resolution	> 2 frames per second (fps)	
Frame rate @ binning	> 12 fps @ 4x	
Anti-blooming	Yes (> 100x)	
Camera coupling	Tapered fiber optics	
Data interface	FireWire (IEEE1394a)	
Exposure time	1 ms – 100 s	
Operating system	Windows 7/10 (64 bit)	
Imaging software	RADIUS 2.0	
Mounting position	Bottom mount, on-axis	
Available options	Flange with integrated shutter for specific TEMs	

*(Specifications are subject to changes without prior notice)  
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EMSIS GmbH  
Mendelstraße 17  
48149 Münster, Germany  
Phone: +49 (0) 251 297962-0  
FAX: +49 (0) 251 297962-90  
Mail: info@emsis.eu

[www.emsis.eu](http://www.emsis.eu)