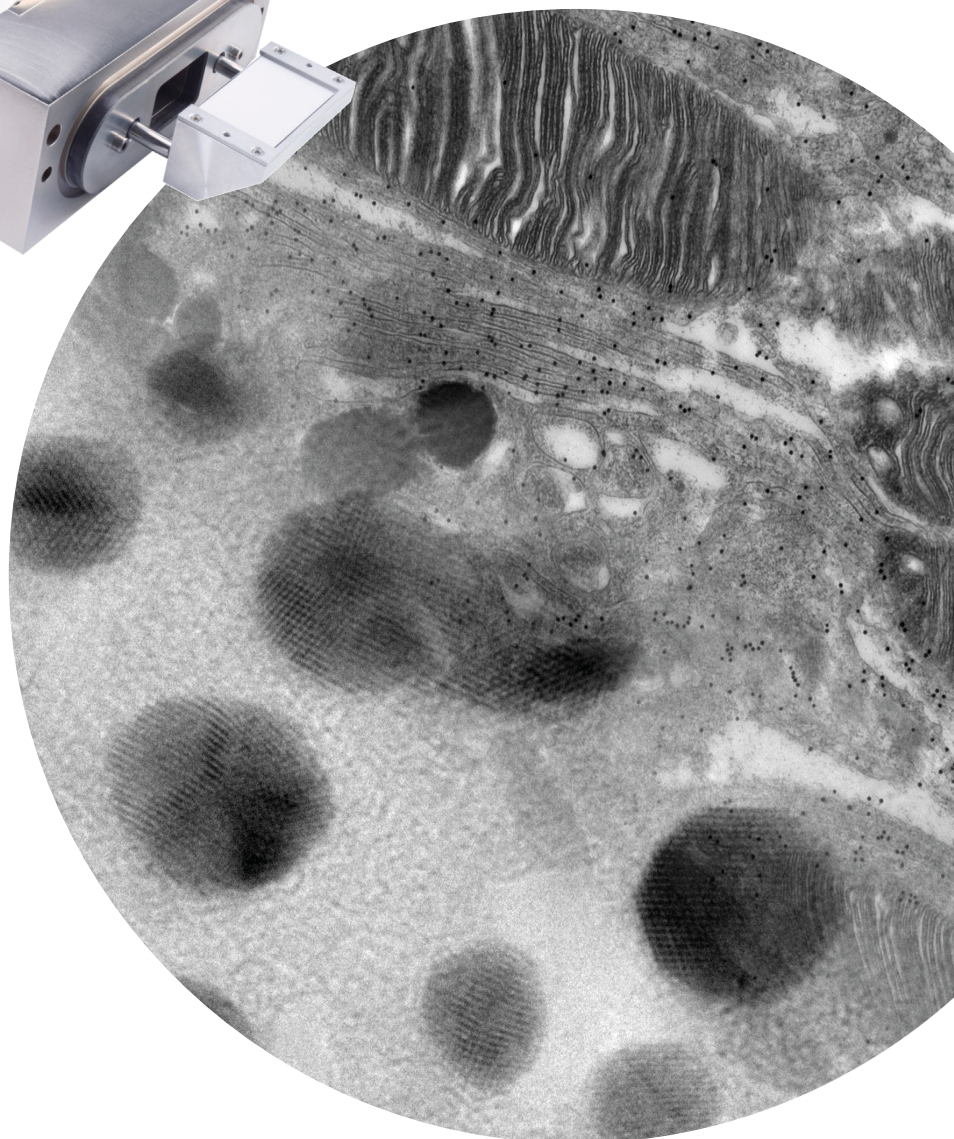




# VELETA<sup>G3</sup>

4 MEGAPIXEL FAST SIDE-ENTRY TEM CAMERA

**Versatile, very fast and sensitive.**



4 MEGAPIXEL  
30 FPS IN FULL RESOLUTION  
LARGE FIELD OF VIEW  
VERSATILE AND RELIABLE

# VELETA<sup>G3</sup>

4 MEGAPIXEL SIDE-ENTRY CAMERA – THIRD GENERATION

**The third generation VELETA G3 fits perfectly into our constantly updated product line of high-speed TEM cameras, and with it's up to 70 frames per second reflecting current requirements in Life and Medical Sciences, as well as in Materials Sciences.**

Our new versatile VELETA G3 (Model S04U) is the third generation of our successful lens-optically coupled VELETA G3 camera series for the side-entry port of almost any TEM, covering with its 4 megapixel and the new speedy CCD sensor an extremely wide range of applications. Adding now the strength of at least 30 frames per second (fps) to its sensitivity, high pixel resolution and large field of view, it provides the perfect balance of the main requirements of a modern TEM camera system for both Life and Materials Sciences at an extremely good price-performance ratio.

The large active area of the scintillator results in a field of view comparable to the size of a photo plate and makes the VELETA G3 the perfect camera for e.g. pathology applications where fast overview images with high quality are needed. The CCD sensor's smart architecture guarantees high anti-blooming, making it perfectly suitable for acquiring clearly distinguishable diffraction patterns.

As with all EMSIS side entry TEM cameras the VELETA G3 exhibits the patented single-flange design for the wide-angle port of almost any TEM. Being mounted on either port, it can be freely combined with any other TEM equipment installed on the opposite side port (e.g. STEM detectors).

The new camera now provides 30 fps in its full four megapixel resolution up to 70 fps using binning, achieved by a modern USB 3.0 interface. These high frame rates are not only ideal for locating suitable sample segments directly on-screen, but in combination with RADIUS 2.0 they offer new possibilities with HDR images and possible in-situ applications.

No matter which imaging mode you select, our VELETA G3 with its high versatility offers excellent dynamic range and high sensitivity resulting in always great images.

## SPECIFICATIONS

Camera	VELETA G3
Model	S04U
Sensor type	Interline CCD sensor
Image size (max)	2048 x 2048 pixels
Effective pixel size	13 x 13 $\mu\text{m}^2$
Binning	2x, 4x
Partial readout	Yes
Frame rate @ full resolution	30 frames per second (fps)
Frame rate @ binning	> 70 fps @ 4x
Exposure time	1 ms – 10 s
Anti-blooming	Yes
Camera coupling	Customized lens
Data interface	USB 3.0
Mounting position	Wide angle (35 mm) – single port
Operating system	Windows 7/10 (64 bit)
Imaging software	RADIUS 2.0



*Windows 7 and Windows 10 are trademarks of Microsoft Corporation.*

APPLICATIONS

VIROLOGY

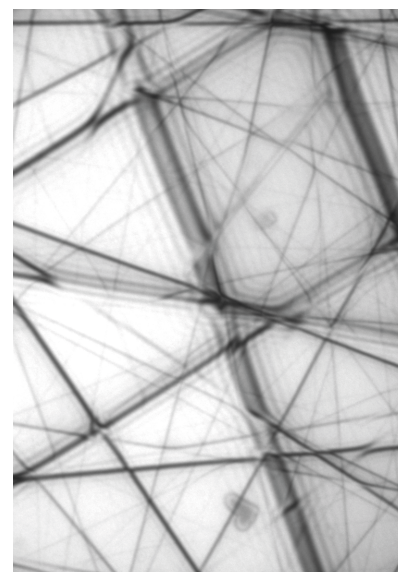
PATHOLOGY

MATERIALS SCIENCES

DIFFRACTION/CBED

IN-SITU

HDR



CBED, Silicon, 38k x



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