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- Exceptional Battery Life Up to 1,000 hours
- X100 X1000 Sharp, high quality images at all magnifications
- Mountings Two standard tripod mounting points for stability



Used world-wide in labs as well as the world's most challenging environments.

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Electron Microscopy Sciences

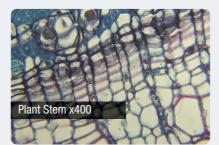
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P.O. Box 550 • 1560 Industry Rd. Hatfield, Pa 19440 Tel: (215) 412-8400 Fax: (215) 412-8450 email: info@emsdiasum.com or stacie@ems-secure.com the world's most versatile portable microscope...

#### **Applications:**

Pond Water x400

Healthcare/Medicine • Tropical Disease Diagnosis Field Sciences • Science Education • Veterinary Pathology Zoology • General Microscopy • Parasitology • Environmental Science Geographical Surveys • Horticulture • Law Enforcement/Forensics Micro-Photography • Defense/Security • Pollution Studies • Food Safety Water Sanitation • Marine Science • Fiber Analysis • Industrial Accidents Automotive Engineering • Insurance Claims Investigations



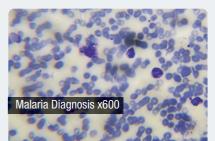


High-resolution digital images

can be captured using any

smartphone and camera

accessories.



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# **Diatome** Diamond Knives

the incomparable Diamond Knife for all fields of research...

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#### ultra Maxi Similar to our ultra 35° 4.0 mm but with a larger boat. Applications include soft industrial samples such as metals and polymers, hard

0

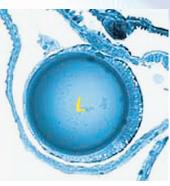
Similar to our ultra 35° 4.0 mm but with a larger boat. Applications include soft industrial samples such as metals and polymers, hard and brittle samples such as semiconductors, superconducting oxides, nanocrystalline ceramics.

ultra Maxi



**Cambridge University** 

Rat muscle (Quadriceps) x 23'000 Werner Graber, Anatomisches Institut, Bern



histo Jumbo/

Eye of *A. peroni:* part of a sequence of semithin sections. Michael J.F. Blumer, Institut für Zoologie, Universität Wien. Reprinted from: Ribbons of semithin sections an advanced method with a new type of diamond knife. Journal of Neuroscience Methods 120 (2002 11-16), with permission from Elsevier. See the complete series on **diatomeknives.com**.

## histo Jumbo

#### Perfect for Immuno-histo-chemistry

For 3D reconstruction it is imperative not to lose a single section (Ref. Blumer). The large Jumbo boat as well as the adhesive (Pattex compact by Henkel) applied to the side of the sample block increase the distinct advantages. They allow:

- Easy production of section ribbons (0.5-2 µm)
- No section loss
- No folding

- The same orientation of all sections
- Easy collection of section ribbons
- Multiple ribbons on one glass slide

## histo

The knife is designed for the sectioning of hard and soft biological and industrial materials, non embedded or embedded in methacrylate or epoxy resins. The histo knife may be used on all ultramicrotomes and microtomes with a retraction of the specimen in the return phase.

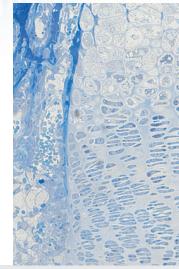
Advantages compared to glass knives:

- Perfect sections, free of scores or compression.
- Serial sections without knife change.
- Thinner sections.

Nondecalcified rat bone., Scale: 35 mm = 100µm. Daniel Studer, Anatomisches Institut, Bern.

histo

 $\bigcirc$ 



## **DIATOME U.S.**

P.O. Box 410 • 1560 Industry Rd. • Hatfield, Pa 19440 Tel: (215) 412-8390 • Fax: (215) 412-8450 email: info@diatomeknives.com • www.diatomeknives.com



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See page 19 for micrograph and submitter details.

## Radiation hard

unsaturated Zero Loss Peak



## The highest frame rate

up to 18.000 frames per second

## Noise-free detection

single-electron counting across the whole spectrum

# High dynamic range

over seven orders of magnitude

# The highest count rate

more than 1pA/pixel with continuous readout

## Make the most of electron microscopy with hybrid-pixel detectors



Represented data: EELS of h-Boron Nitride spectrum at 60 keV, 105 pA, 100 s exposure, collected with DECTRIS ELA ®. Courtesy of NION Co