

### **ZEISS Axio Lab.A1**

Your Dedicated Manual Microscope for Materials





Copper-phosphorus alloy EC Epiplan 20x/0.4 HD



Structure of steel imaged in darkfield EC Epiplan 20x/0.4

Axio Lab.A1 is unrivalled when it comes to performance and optics. Count on excellent ergonomics, simple operation and brilliant image quality for all your applications at an affordable price.

An ideal instrument for materials analysis, Axio Lab.A1 provides you with a wide variety of contrasting methods and objectives to choose from.

All together in one small, versatile microscope. Use it anywhere – Axio Lab.A1 is incredibly robust. All the important operating elements are ergonomically arranged so it's always easy to operate.

Document your results with a range of 1.3 to 12 megapixel ZEISS Axiocam digital cameras.

### Highlights

- Five-position revolving objective turret for rapid sample throughput and supreme ease of operation.
- Four-position reflector turret to switch easily between various contrasting techniques.
- 50W halogen lamp and power supply are integrated into the stand.
- 50W halogen reflector illumination
- Ergonomic design reach all the main controls of your Axio Lab.A1 with one hand. Sit and study small details without experiencing fatigue.
- Large field of view (FoV number 22)
- Axio Lab.A1 for conoscopy has an integrated analyzer and Bertrand lens. When the Bertrand lens pivots into the beam path, mechanical coupling makes sure that the analyzer also rotates into the operating position.

### Ideal For All Your Applications

- Examine samples to determine grain sizes, structure, distribution, phases
  and for fast local analysis.
- Analyze the microstructure of metals and gather information about material failure – fatigue, corrosion, creep deformation, stress cracks and fractures.
- Identify hair, soil and fibers in forensic investigations – or analyze paint chips with brightfield, fluorescence and polarization microscopy.
- Analyze rock and mineral samples in oil production.
- Identify different types of asbestos fiber in environmental protection.





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### Technical Data

Stand	Upright microscope Axio Lab.A1 - integrated reflected light illumination
Focus	Manual, coaxial coarse/fine drive, 30 mm travel range
Illumination	Reflected light: 12 V 50 W HAL, optional LED Transmitted light: 12 V 35 W HAL, optional LED
Nosepiece	5 position nosepiece, for brightfield and darkfield, M27
Reflector turret	4 position for Push&Click modules
Power supply unit	Internal 12V DC 50W, stabilzed 100240V AC/5060Hz/110VA
Filter slider	2 positions; 25 mm diameter
Stage	Mechanical stage, 75x30 mm, coaxial drive right side, anodized surface hardcoated specimen holder included
Eyepieces	PL 10x/20 Br. foc., PL 10x/22 Br. foc.
Camera	ZEISS AxioCam ERc 5s Sensor: 5 MP CMOS Sensor Resolution: 2560 (H) x 1920 (V) = 5.0 Megapixels Pixel size: 2.2 μm x 2.2 μm Interfaces: 1x SD card slot, 1x mini USB 2.0, 1x AV (S-Video), 1x DVI (HDMI) C-mount

### **Special Features:**

- Binocular tube, focusing, drive knobs and lower part of stand made from skin-friendly polymers.
- Convenient storage in the back of your Axio Lab.A1 to store your tools and cables

#### **Configurations and Accessories:**

- EC EPIPLAN objectives offer the best combination of economic efficiency and performance.
- Select from a large number of Siedentopf-type binocular and trinocular tubes to cover all documentation needs.
- Circular Differential Interference Contrast (C-DIC): A polarizing method that converts even the tiniest changes in the surface morphology of a specimen into brightness differences.
- Polarizer and Analyzer modules
- Binocular tubes, phototubes and ergotubes with different adjustment possibilities in respect to height and tilt
- Interference and neutral density filters
- Illumination bulbs as HAL or LED





