LABTRON

POLARIZING MICROSCOPE LPM-B10

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Polarizing Microscope LPM-B10 is an upright microscope with trinocular viewing head inclined at 30°. The 5.1 MP CMOS senor to be mounted on top for capturing still images and video. It offers dual illumination system, i.e. Transmitted and reflected illumination for carrying observation. The focusing system offers, coaxial coarse fine focusing system with adjustable tension and up stop, 2 µm minimum fine focusing division. It comes with sliding in/out of optical path polarizer, located on the top of collector. The 0°-90° gradation rotatable analyzer is used to observe single polarization. High quality and contrast images are produced using this microscope.

FEATURES

- Trinocular viewing head, 30° inclined
- 5.1 MP CMOS senor to be mounted on top
- Equipped with polarizer and analyzer for polarizing effect
- Revolving round stage Diameter Φ150 mm, 360° graduated
- Optical compensator: λ Slip (first class red), 1/4λ Slip, quartz wedge
- Polarizer and Analyzer attachment with Bertrand lens
- Dual illumination system, i.e. Transmitted and Reflected

APPLICATION

Polarizing Microscope used in electronics, geology, metallurgy, mining, medicine, and pharmaceutical studies to analyze depth and details of the specimen under observation.

SPECIFICATION

Model No.	**LPM-B10**
Optical System	Finite optical system
Viewing head	Trinocular viewing head, 30° inclined
Polarizing Attachment	
Polarizer	Sliding in/out of optical path, located on the top of collector
Analyzer	Rotatable analyzer with gradation 0°-90°
Bertrand lens	Bertrand lens, sliding in/out of optical path
Optical Compensator	λ Slip (first class red), 1/4λ Slip, Quartz wedge
Other Parameters	
Eyepiece	Eyepiece WF10X/18 with Division eyepiece 10X/18 mm 0.10 mm/div
Objectives	Strain-free plan achromatic objective (no cover glass) PL 5X/0.12, PL L 10X/0.25, PL L40X/0.60 (spring), PL L 60X/0.75 (spring)
Revolving round stage	Rotatable stage, Diameter Φ150mm, 360° graduated (in 1degree increments), minimum retardation resolution 6' center adjustable and with tightened
Nosepiece	Quadruple (Frontward ball bearing inner locating)
Condenser	Abbe condenser NA 1.25 with rack and pinion adjustable mechanism
Focusing	Coaxial coarse/fine focus system, with tension adjustable and limit stopper, minimum
	division of fine focusing: 0.002 mm
Reflected Illumination	Rotatable Polarizer 6V, 20 W, halogen lamp, adjustable brightness
Transmitted Illumination	Polarizer 360° rotatable, have 0, 90, 180, 270 four scale, Collector for halogen lamp illumination, Illumination 6V, 20W, halogen lamp, adjustable brightness
Dimension	400×280×530 mm
Weight	12 kg

5.1 MP CMOS CAMERA SPECIFICATIONS

Camera Sensor Type	CMOS (Micron) APTINA MT9P001
Camera Sensor	1 / 2.5 inch (H×V) (5.7 mm × 4.28 mm)
Camera Maximum Resolution	2592 × 1944 (5.1 MP)
Pixel Size	2.2 × 2.2 µm
Frame Size and Rate	5 fps @2592×1944, 18 fps @1280×960, 60 fps @640×480
Sensitivity	0.53 V / lux-sec
Signal To Noise Ratio (SNR)	40.5 dB
Dynamic Range	66.5 dB
A/D Converter	10-bit, 8-bit R G B to PC
Spectral Range	380 to 650 nm (IR Fitter)
Binning	1×1, 2×2, 4×4
Exposure	0.294 ms to 2000 ms
Color Rendering Technique	Ultra fine™ Color Engine
White Balance	One push ROI White balance/Manual Temp-Tint Adjustment
Capture-Control API	Native C/C++ SDK, DirectShow, Twain
Capture Mode	Still Picture and Video
Compatible Operating System	Windows XP/Vista/7/8 (32 and 64 bit), Mac OS X and Linux (Kernel 2.6 or Above)
PC Requirements	CPU: Equal to Intel Core 2.2, 2.8 GHz or higher, Memory: 2 GB or More, USB Port: USB 2.0
Operating Temperature	-10 to 60°C
Operating Humidity	30 to 80 % RH
Power Supply	Over USB Port