UNITRON®

EXAMET 5
METALLURGICAL MICROSCOPE

Designed for metallurgical and materials science applications with observation methods including reflected and transmitted brightfield and polarized light.

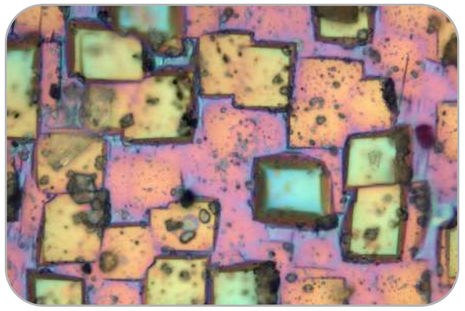


Metallurgical Microscope
CAT# 14351

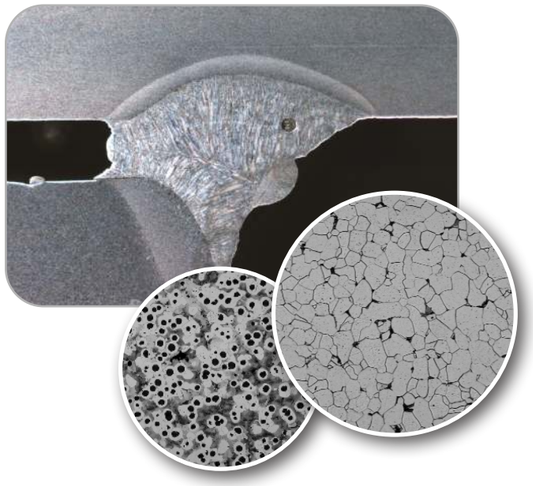
Shown with optional Excelis MPX-5C Pro camera & camera adapter (sold separately)

EXCELLENCE BY DESIGN SINCE 1952

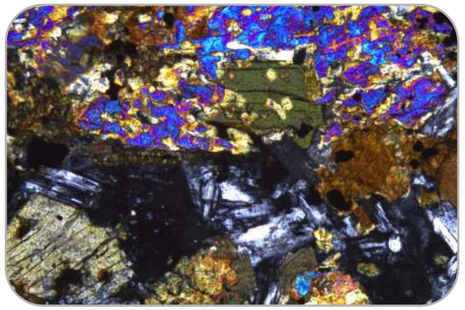
Versatile. Ergonomic. Efficient.

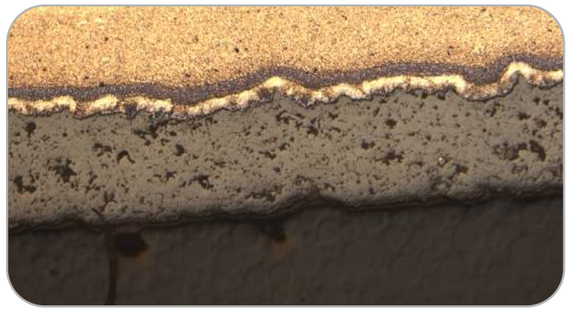


The EXAMET-5 metallurgical microscope provides an excellent platform for the observation and analysis of metallurgical and materials science samples using brightfield, oblique and polarized light (optional) contrast methods.



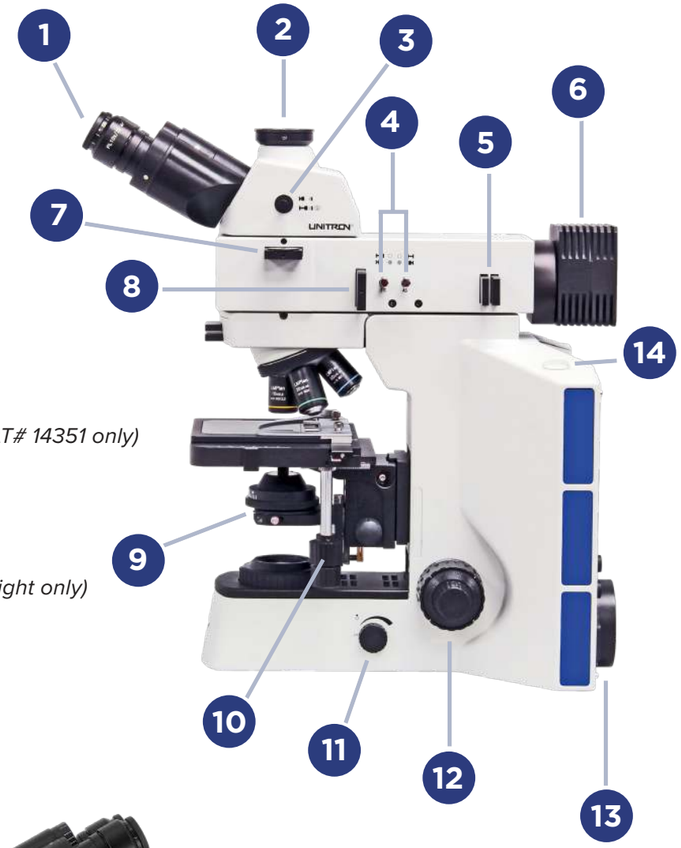
- Available in reflected light or reflected/transmitted light configurations, the versatile EXAMET-5 features outstanding optical quality to deliver high-resolution and high-contrast images that are ideal for both viewing and analysis.
- 30° inclined eyetubes provide optimal comfort for viewing. Low position focus knobs and stage controls reduce shoulder and arm strain during operation.
- Flexible control allows operator to adjust illumination to optimize conditions for sample analysis. Utilize various contrast methods (e.g., polarization and color filters) to view details in your samples.
- The energy-efficient LED illumination system utilizes color-balanced LEDs to provide optimal sample illumination while reducing visual fatigue of the operator
- Add a digital camera and camera adapter (sold separately) to document your samples. Our METRICAL image analysis software (sold separately) provides over 14 methods to accelerate the analysis of your samples.





Key Features

1. PL 10x/22mm focusing eyepieces
2. Trinocular viewing head with imaging port
3. Light path selector
4. Field and aperture diaphragms
5. Color filter sliders *(optional)*
6. 5W LED reflected light illumination
7. Analyzer *(optional)*
8. Polarizer *(optional)*
9. Transmitted light condenser *(CAT# 14351 only)*
10. X-Y stage controls
11. Transmitted light intensity control *(CAT# 14351 only)*
12. Coaxial coarse and fine focus
13. 5W LED transmitted light illumination *(CAT# 14351 only)*
14. 3mm hex wrench
15. Oblique illumination slider *(reflected light only)*
16. Reversed quintuple nosepiece
17. Mechanical stage
18. Reflected light intensity control





▲ **CAT# 14351**

Reflected & Transmitted Illumination (shown with optional accessories)

◀ **CAT# 14350**

Reflected Illumination only

EXAMET 5
METALLURGICAL MICROSCOPE

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Specifications

Optical System	Infinity color corrected optical system; f = 180mm
Viewing Head	Trinocular head, 30° inclined, 360° rotating, light distribution 100% binocular, or 50%/50% binocular/trinocular
Eyepieces	PL10x/22mm with diopter adjustment and eye cushions, accepts reticle Optional: WF15x/16mm eyepiece, WF20x/12.5mm eyepiece
Objectives	Standard: Long Working Distance M Plan 5x/10x/20x objectives; Optional: LWD M Plan 50x and 100x dry objectives
Nosepiece	Reversed quintuple nosepiece
Frame	Cast aluminum alloy with coaxial coarse and fine focus
Illumination	Reflected: 5W LED illumination, variable Transmitted (CAT# 14351 only): 5W LED illumination, variable
Stage	Mechanical stage, 175mm x 145mm with a 76mm (X) x 42mm (Y) movement range; specimens of up to 30mm tall can be observed
Optional Accessories	Digital cameras with measurement software C-mount adapters: 0.35x, 0.5x, 0.65x, 1.0x, photo tube Polarizers and analyzers Filters: blue, green, yellow, red, neutral Reticles: Crossline, grid, Austenite grain size and custom patterns are available Stage micrometers: (Metric (mm) and Imperial (inches) with NIST traceability are available
Warranty	5-year limited warranty for parts and labor; 1 year warranty on electronic components and LED bulbs

METRICAL
METALLURGICAL & MATERIALS ANALYSIS



METRICAL Metallurgical & Materials Analysis Software *(sold separately, CAT# 14625-USB)* provides computer-aided quantitative analysis results in accordance with ISO and ASTM technical standards.

- **Grain Size:** ASTM E-112, E-930, E1181, ISO 643-03, JIS G 0551-05 BS 490 DIN 643-03, IS-4748-88, SIS 111101 GOST 5639-82
- **Non-Metallic Graphite:** ASTM E-1245 E ASTM E45-97, ISO 4163-82, DIN 50602
- **Decarburization:** ASTM E1077, ISO 3887, JIS-0557-98 BS-6617, IS-7754 DIN 50192
- **Porosity:** ASTM 247
- **Dendrites and Hardness analysis (Brinell and Vickers)**
- **Live measurement**

Streamlines image capture, measurement and enhancement, live measurement and accuracy of results. Includes modules for Grain Size, Porosity, Segmentation, Decarburization, SG Iron / Nodularity, Gray Iron, Carbide banding, and more.

Camera included: *includes 5MP, USB 3.0 camera. Requires 0.65x adapter (sold separately). Compatible with Windows 10 or higher. See Metrical brochure for PC requirements.*

Metrical software shown on a computer monitor (not included) with included 5MP USB 3.0 camera, and c-mount adapter (CAT# 00-2010-65, sold separately).

UNITRON®
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CE ISO 9001:2015 ISO 14001:2015 cULus LISTED RoHS