

Nikon

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6m*

Nikon

The Scientific Source

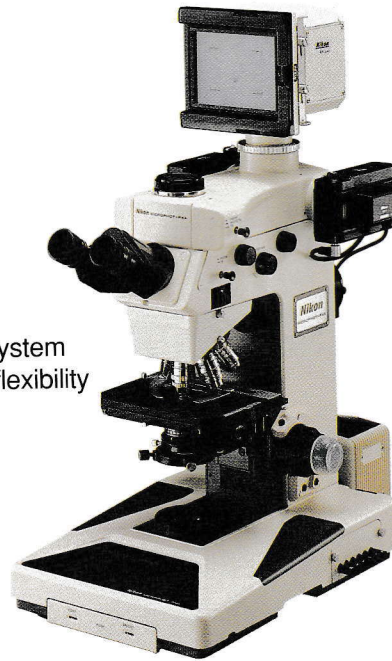
ERR

Advanced Research Microscopes

Today, scientists at world-renowned biological institutions are making tremendous advances in cancer, AIDS, Alzheimer's, *in-vitro* fertilization, and other leading edge research. Nikon is proud to be playing a role in this enormously important work. Our ongoing commitment to optical excellence and technological advancement is allowing researchers to view objects never before seen by the human eye.

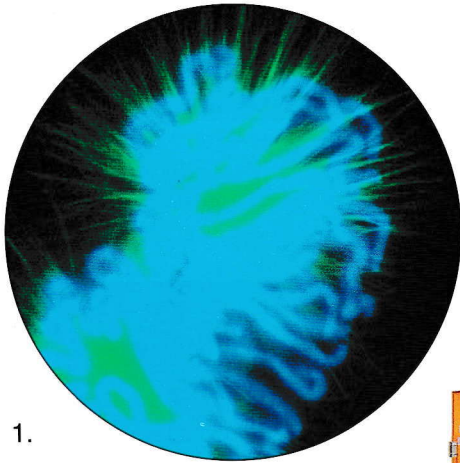
Nikon Microphot-FXA®

The Microphot-FXA allows simultaneous observation and photomicrography with up to 3 camera systems, plus video. Photographic functions are controlled by an in-base microcomputer system with menu-driven internal software. The Microphot-FXA offers great flexibility for brightfield, phase contrast, DIC, fluorescence, polarized light, and reflected light. Specimen data can be imprinted directly on the film. Utilizing the RS-232C port interfacing to a host computer, data documentation and robotic control is possible.



RCM™-8000 Real-Time Laser Scanning Confocal Microscope

The RCM-8000 allows immediate image acquisition and full frame laser excitation with point detection scanning in both the visible and UV ranges at realtime video rates. New simultaneous 2-color image acquisition and ratioing feature allows observation of rapidly occurring dynamic events in living cells. Xwindows Graphic User Interface system software facilitates multi-user operation by eliminating complicated user and entry codes.

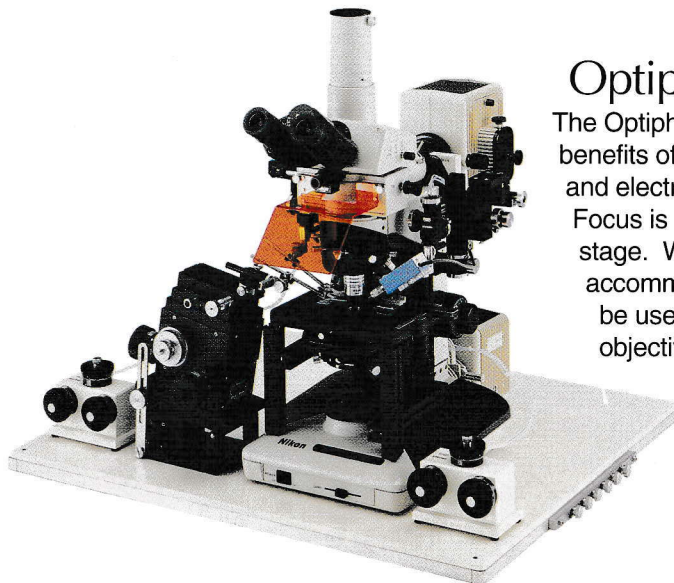
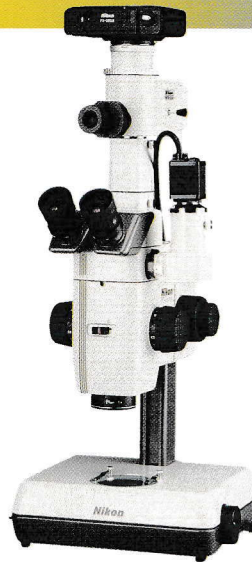


1.



SMZ-U Zoom Stereomicroscope

Our top-of-the-line stereomicroscope is suitable for operations from *in-vitro* fertilization micromanipulation to routine inspection of printed circuit boards for production of computer chips. It features a broad 10:1 zoom ratio and built-in iris diaphragm for increased depth of field. Modular system allows the use of an extensive range of accessories and configuration options.

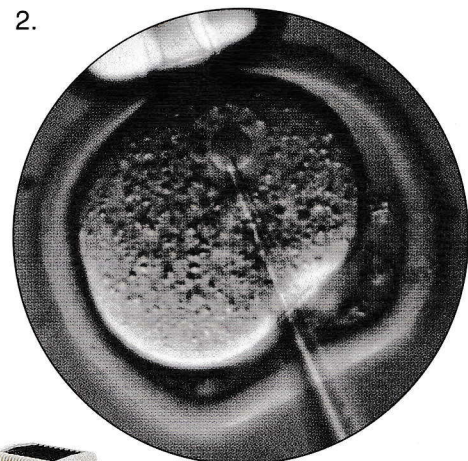
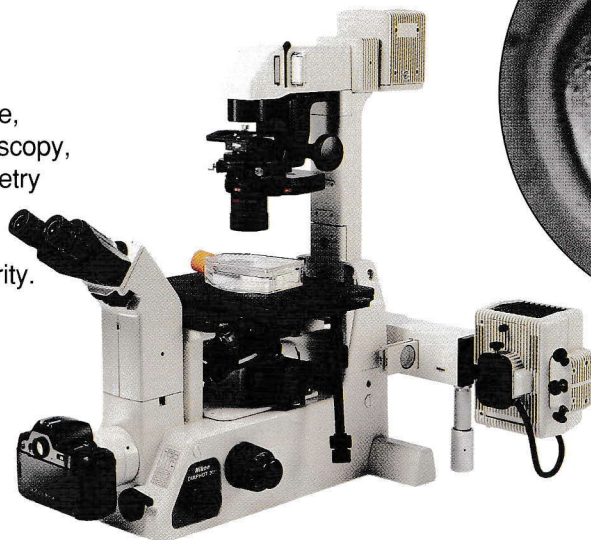


Optiphot-2UD[®] fixed stage microscope

The Optiphot-2UD combines the light path and optical benefits of an upright microscope with the micromanipulation and electrophysiology conveniences of an inverted microscope. Focus is adjusted by moving a highly stable arm, rather than the stage. With a focus range of 28 millimeters in depth, it can accommodate specimens up to two inches high. It can also be used with Nikon's 60X Plan Apochromat water immersion objective.

Nikon Diaphot 300[®] Inverted Microscope

The Diaphot is designed to suit applications ranging from basic microscopy to UV fluorescence, *in-vitro* fertilization, laser scanning confocal microscopy, micromanipulation, patch clamping, microphotometry and high resolution video microscopy. New CF[®] objectives with long working distances provide exceptional image sharpness, brightness and clarity.



Research Microscopes

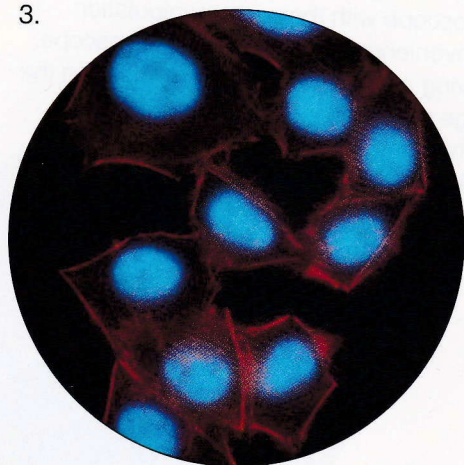
From the Microphot SA to the Diaphot 200 inverted microscope, Nikon designs instruments to meet a broad range of applications and viewing techniques. Scientists involved in immunology, cell biology, neurobiology, cancer and AIDS research, and other vital areas have found that, along with comfort and ease of operation, Nikon offers unsurpassed optical quality, versatility and performance.

Nikon Microphot-SA®

Microphot-SA provides the optical sophistication, ease of operation, and wide range of viewing techniques of the Microphot-FXA to those who do not require a built-in photography system. It is ideal as the heart of an analytical microscopy workstation or for simultaneous use of CCTV cameras and photo documentation accessories.



3.



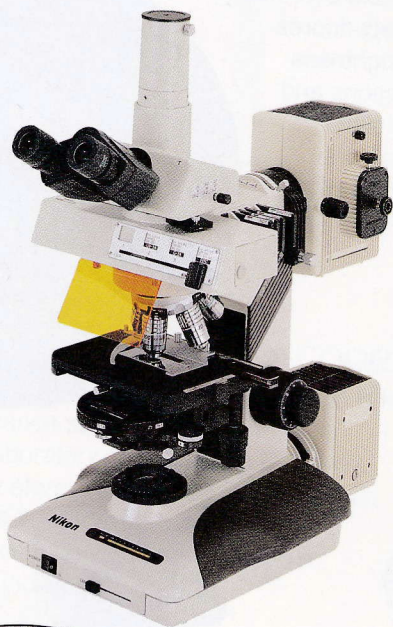
Nikon Microphotometry System

This advanced system meets a broad spectrum of medical and biological needs and allows you to choose the components you need for your specific requirements. It can provide AC or DC measurement, enhanced quantification of fluorescence, single- and/or dual-emission measurement, and high speed microspectrophotometry. And it's expandable for more advanced applications.



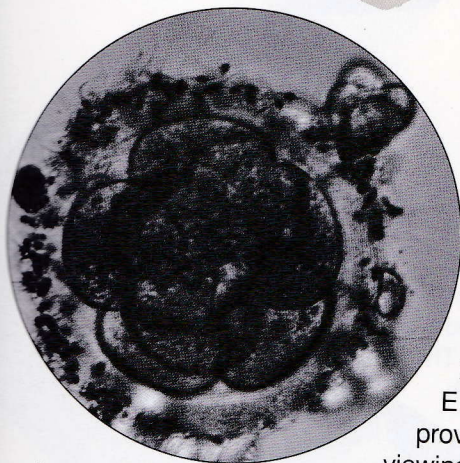
Diaphot 200[®] Inverted Microscope

The Diaphot 200 is designed to suit applications ranging from basic microscopy to UV fluorescence, patch clamping and video microscopy. New CF[®] optics provide exceptional image sharpness and brightness. Innovative optical design and lens coating technology enhance transmission efficiency.



Nikon Optiphot-2[®]

The Optiphot-2 offers superb optical performance, comfort and ease of operation. It features bright, 100-watt halogen illumination and a large stable stand for today's low light, high resolution video cameras. The Optiphot-2 is particularly appropriate for epi-fluorescence, DIC, multi- and dual-viewing, photomicrography, video microscopy, and image analysis. New Quadfluor epi-fluorescence illuminator provides increased brightness, better contrast, and 25mm field of view capability for rapid inspection of large specimens. It accepts up to four fluorescence filter cubes at once with switching via a smooth, precise linear slider.



SMZ-10A Zoom Stereomicroscope

With a 6.5x zoom ratio (zoom range 0.75x-4.9x), the SMZ-10A offers total magnification from 3.75x to 294x when combined with UW eyepiece lenses and ED plan objectives. Compact in design, it provides uniformly flat images throughout the entire viewing field, without distortion or chromatic aberration.



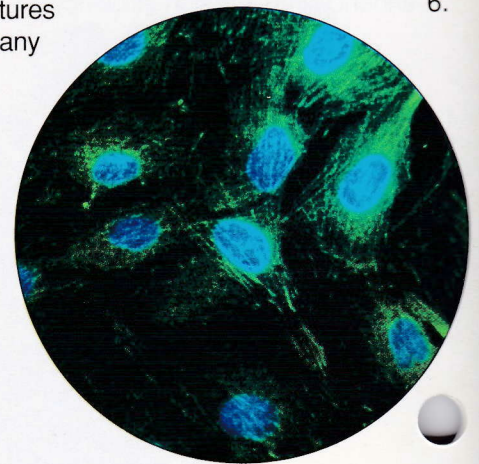
Laboratory Microscopes

Nikon meets a broad scope of laboratory needs with microscopes built to withstand the rigors of constant use and often not-so-gentle handling. Ideal for teaching laboratories, medical schools and hospitals, they offer excellent optical quality, ease of use, and a wide range of accessories.

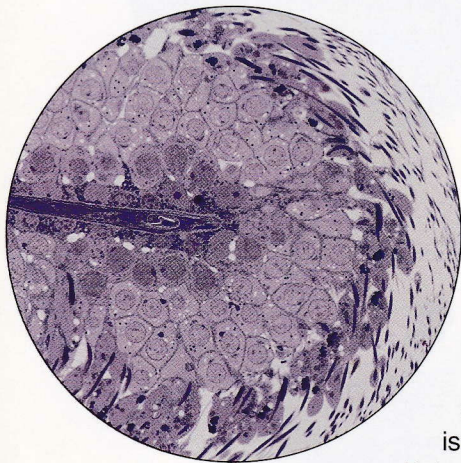


Nikon Labophot-2®

Ruggedly constructed and highly versatile, the Labophot-2 is perfectly suited for many laboratory and classroom applications. Famous Nikon CF® optics provide the sharpest, brightest images possible, while its rugged construction withstands continuous use and rough handling. New ComfortView™ tilting head, up-front controls and other ergonomic features make the Labophot-2 comfortable over many hours of use. The Quadfluor epi-fluorescence illuminator increases brightness and contrast, eliminates reflections and ghost images. Smooth linear slider accepts four filter cubes and allows you to move from one to another with excellent image registration.



6.



5.

Nikon Alphaphot-2®/KT-2®

The economical Alphaphot-2 is ideal for smaller laboratories, medical schools, veterinary clinics, physicians' offices, and asbestos identification. Ruggedly constructed to withstand constant use, it accepts most of the accessories available for the Labophot-2. The Alphaphot-2 is equipped with a powerful 115-volt, 30-watt illuminator. The Alphaphot KT-2 uses a 6-volt, 20-watt halogen illuminator with field diaphragm.



Labophot-2[®] with teaching head

Ideal for classroom use, the Labophot-2 can accommodate a teaching head that allows simultaneous viewing by teachers and students.



TMS/TMS-F Inverted Microscopes

The TMS and TMS-F microscopes are designed for simple, easy operation. They feature precentered 20-watt halogen illuminator and prealigned phase contrast. They are ideal for checking vessels and flasks for culture growth and reading microtiter and multiwell plates. The TMS-F adds photomicrography and video capabilities.

SMZ-1/1B Stereomicroscopes

Nikon SMZ-1/1B microscopes deliver famous Nikon optical performance at very affordable prices. Designed for laboratory or classroom use, they outperform any stereomicroscope in their range. The SMZ-1 has 30-degree-from-vertical inclined eyepiece tubes, while the SMZ-1B has 45-degree inclined eyepieces.



SMZ-2B/2T Stereomicroscopes

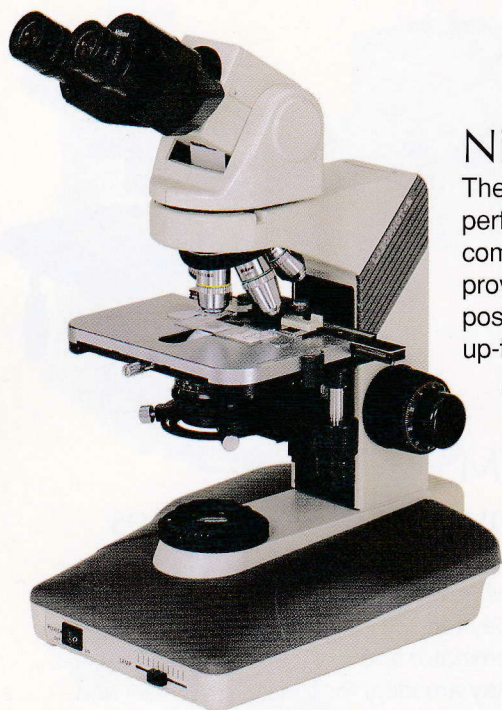
The SMZ-2B/2T microscopes combine moderate price with high performance for classrooms and smaller laboratories. They provide a wide field of view and renowned Nikon optics for bright, clear images. The SMZ-2T is ideal for dissection work and economical CCTV or photomicroscopy. The SMZ-2B is for those who do not require CCTV or photomicroscopy.



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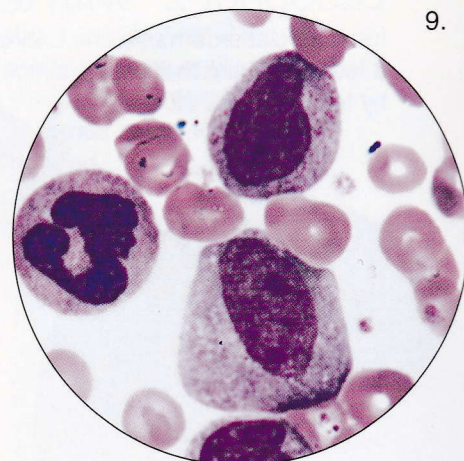
Clinical Microscopes

We realize how important comfort is to those who spend many hours at the microscope. All of these instruments, from the Labophot-2®, the world's finest clinical laboratory microscope, to the Biostation® automated cytology workstation, are designed with the users in mind. Their advanced ergonomic features and superior performance make them outstanding choices for pathology, cytology, hematology and microbiology laboratory applications.

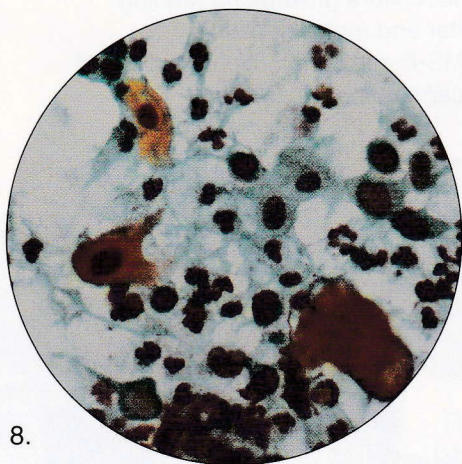


Nikon Labophot-2®

The Labophot-2 offers the ultimate in optical performance as well as the ultimate in user comfort. Renowned Nikon CF® optics provide the sharpest, brightest images possible. New ComfortView™ tilting head, up-front controls, effortless stage movement, and simplified illumination controls make the Labophot-2 comfortable over long periods of use. It can be configured for a wide range of clinical laboratory tasks.



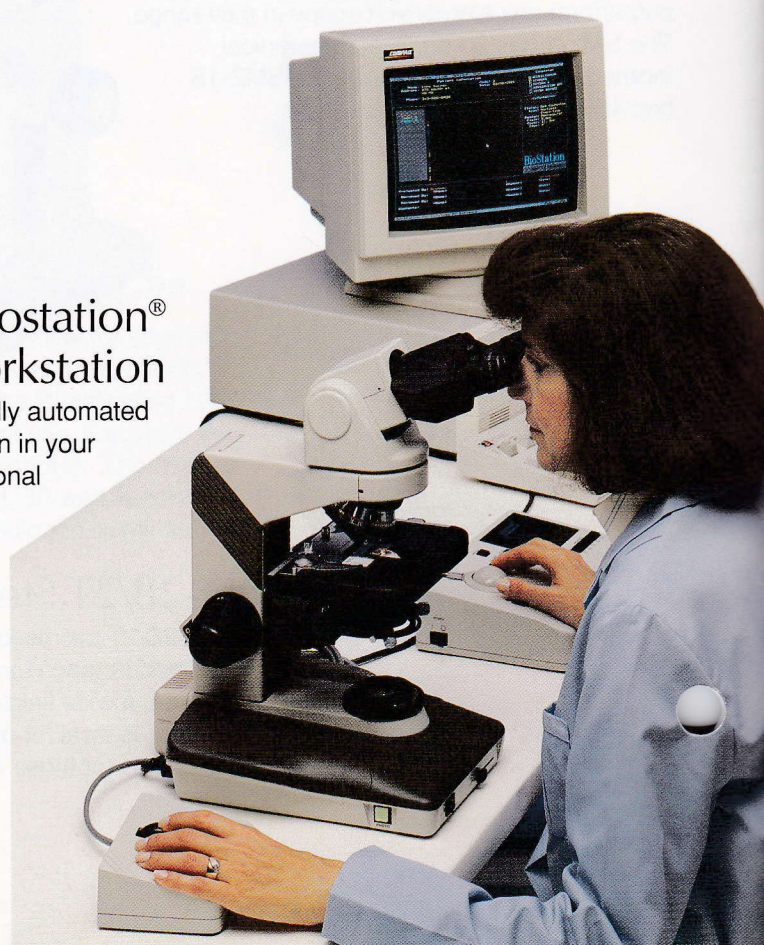
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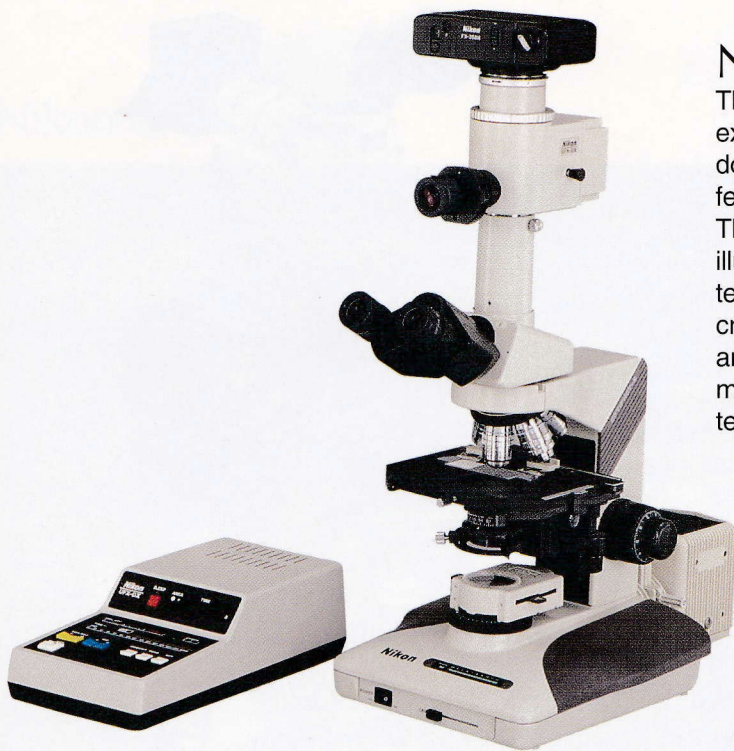


8.

Biostation® cytology workstation

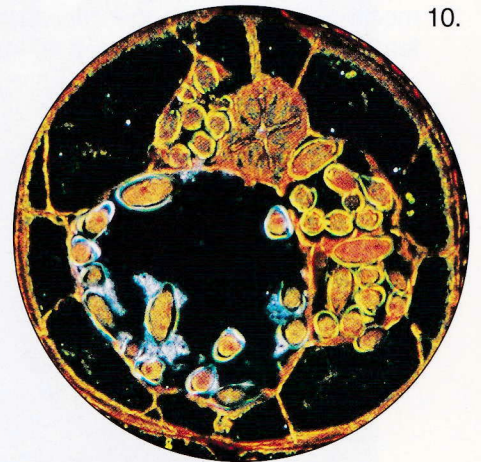
Biostation creates a fully automated cytology microscope workstation in your laboratory. Automatically scans traditional rectangular/square or circular thin prep slides, assuring that 100% of the cell area is viewed. It also automatically marks, archives and retrieves cell locations.





Nikon Optiphot-2®

The Optiphot-2 relies on Nikon's optical and photographic expertise to provide clear, crisp photomicrographs for documentation and diagnostic purposes. Auto-Photo feature provides perfect, one-touch color exposures. The Optiphot-2 features bright, stable 100-watt halogen illumination and a full line of accessories for all viewing techniques. It is the choice of pathologists for photomicrography, low-light applications, epi-fluorescence, multi- and dual-viewing, video microscopy, and telepathology.



10.

Nikon Labophot-2® with fluorescence

The Labophot-2 provides superior fluorescence images even in a brightly lit laboratory. It can be used with a variety of stains and filters to suit the needs of microbiologists and other researchers. New Quadfluor epi-fluorescence illuminator features smooth linear slider that allows you to move quickly and easily from one filter cube to another. It accepts up to four filter cubes and is designed to enhance image brightness and sharpness. 25mm field of view allows rapid inspection of large specimens.

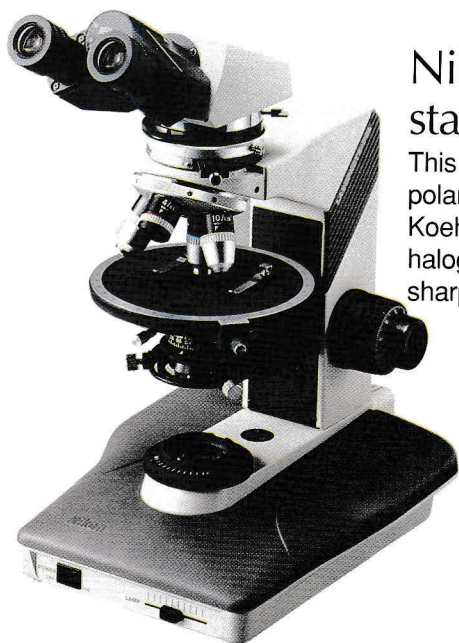
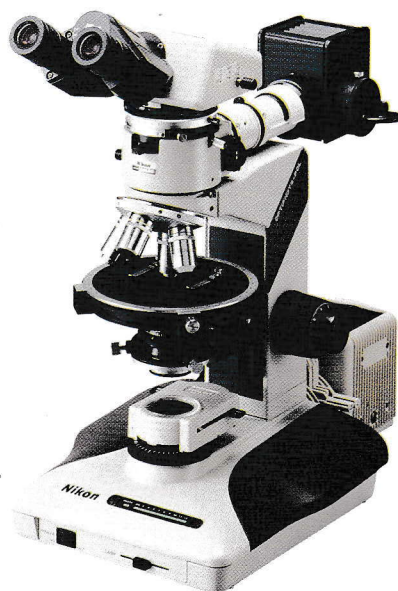


Polarizing Microscopes

In fields such as geology, petrology, fiber research, pharmacology, biology and materials science, polarizing microscopes have become indispensable. Nikon CF[®] optics deliver sharp, glare-free images during observation and for photomicrography. Durability, ease of operation, and a wide range of accessories offer superb performance to suit the needs of every application and budget.

Nikon Optiphot-2[®] Pol research polarizing microscope

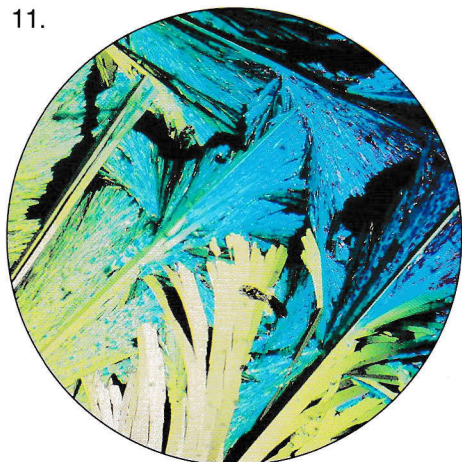
Optiphot-2 Pol is a quantitative research grade polarizing microscope that features advanced CF[®] optics for high resolution, and high contrast images, virtually free from flare and ghosts. Orthoscopic and conoscopic measurements of crystals measuring only a couple of microns can be observed. Optiphot-2 Pol has a brilliant 12V 100W high efficiency illumination system. The nosepiece, with four individually centerable objectives, can be exchanged for DIC capability. The high precision rotating stage mechanism, which maintains focus as the specimen is manipulated, features a 45-degree click stop for faster, more accurate measurements.



Nikon Labophot-2[®] Pol standard polarizing microscope

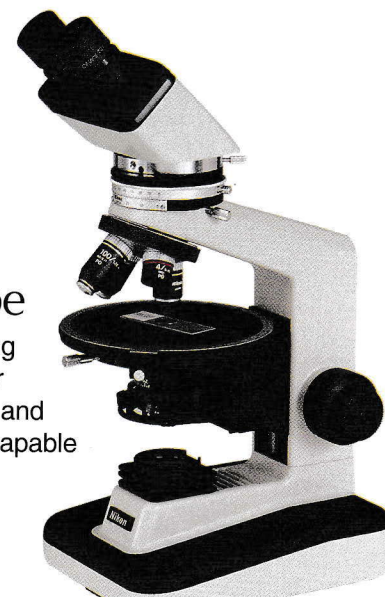
This microscope is the laboratory standard for quantitative polarizing microscopy. Famous CF[®] optical system, Koehler illumination and powerful 6V-20W pre-centered halogen lamp enable polarizing microscopy with bright, sharp images. With the Labophot-2 Pol, conoscopic images of minute specimens can be observed, and orthoscopic and conoscopic images observed simultaneously.

11.



Nikon Alphaphot-2[®] Pol basic polarizing microscope

The Alphaphot-2 Pol is an affordable polarizing microscope suited for classrooms and smaller laboratories. It features advanced CF[®] optics and 30W tungsten lamp. The Alphaphot-2 Pol is capable of using a broad range of accessories.



Nikon CF[®] Optics



The exceptional performance of Nikon CF[®] (chromatic-aberration-free) objectives is the result of Nikon's advanced technology in glass formulation and lens manufacture. Nikon has pioneered multilayer anti-reflection coatings, computer aided lens design and extra-low-dispersion ED glass with uniquely beneficial optical properties similar to fluorite materials. These advances have enabled the creation of new CF and CF N objective lenses with higher numerical apertures, longer working distances and the highest possible resolution and contrast. There are over 130 Nikon CF[®] objectives for every application, including LWD and the new 60X 1.2 N.A. water immersion objective with a working distance of up to 220 microns.

Photo credits:

1. Jennifer Waters
University of North Carolina, Chapel Hill, NC
- 2, 5, 7, 9, & 11 — Nikon
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8. Barry Staymates
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Mt. Sinai Medical Center, New York, NY

Nikon FX-DX Photomicrographic Systems

Nikon FX-DX camera systems are known the world over for image quality and ease of operation. All FX-DX camera systems feature unique "Direct Projection System" and ultra sharp PL projection lenses to provide the shortest exposure times and best images possible. Operation is easy, exposures are taken quickly and accurately. The new DX auto ISO detection system is featured on the FX camera system. The ISO value of DX coded 35mm film is instantly detected by the camera's metering system for foolproof automatic exposure determination.



The AFX-DX, designed for simplicity, is a basic automatic exposure model for 35mm and large format films. Its microprocessor controlled circuitry instantly calculates the optimum exposure for prescribed conditions and auto-exposure lock prevents exposure when too little or too much light is present.

The HFX-DX includes the same precise automatic exposure system but adds LED exposure time display. Full 35mm and large format capabilities are available.

The UFX-DX features an advanced spot and average exposure metering system that uses a highly sensitive photo-multiplier tube. Selectable 1% spot or integrated average metering and exposure/memory lock make it easy to accurately and consistently record fluorescent, darkfield or bright-field images. Full 35mm and large format capabilities are available.

Note: All three photomicrographic systems have auto-exposure lock to prevent incorrect exposures.

The Nikon PFX System is a simple, manual photomicrographic system for large format and OEM applications. Shutter speeds of 1/250 to 1 second are available. Since the PFX uses PL lenses, it provides the same image quality as the other FX systems.

In addition to brochures for the products mentioned in this buyer's guide, Nikon has special literature available which may also be of interest to you.

- New CF® Lenses Brochure
- Fluorescence Microscopes
- Polarizing Microscopes
- Photomicrography — Polaroid® Photography Manual
- How to Use a Microscope and Take a Photomicrograph
- Multiphot Photomicrography System
- New Water Immersion Objectives

For further assistance or to discuss your specific application, please contact your local Nikon dealer or sales representative. Products and specifications subject to change.

Nikon

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