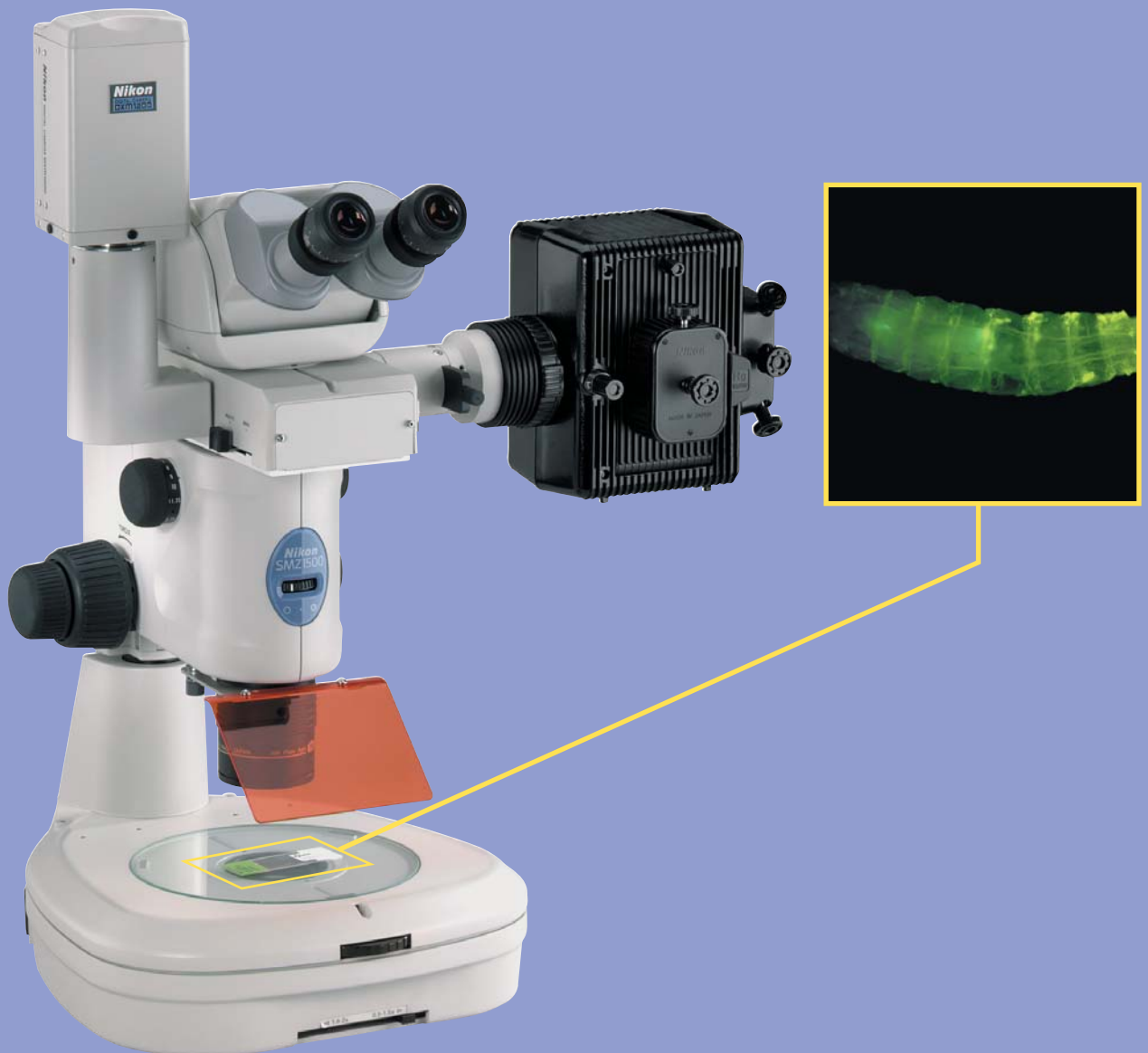


# Nikon®

## Fluorescence Attachment for Stereomicroscopes



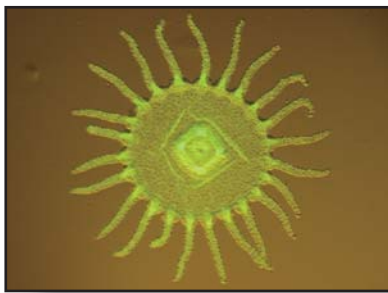
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# The power of fluorescence imaging on a stereomicroscope

Now, for the first time, users of stereomicroscopes can benefit from the same advanced imaging techniques that compound instrument users have long enjoyed. The new fluorescence illuminator for Nikon stereomicroscopes allows observation of samples such as living organisms using fluorescence methods such as green fluorescence protein (GFP), as well as photo resist on semiconductor wafers and printed circuit boards. Best of all, it provides all the advantages of advanced fluorescence microscopy along with ultra-long working distances for easy specimen manipulation and true three-dimensional stereo vision.

- **Modular design for maximum versatility**

The fluorescence illuminator is designed for use with all of Nikon's parallel design stereomicroscopes, including the SMZ1500, SMZ1000, and SMZ800, as well as selected previous models, including the SMZ-U and SMZ-10A. With Nikon's modular, building block stereo systems it is easy to upgrade or modify your existing system to adapt to tomorrow's most advanced imaging methodologies.



*Obelia with OCC Illumination & Fluorescence*  
\*See back page for information on OCC (Oblique Coherent Contrast)



*GFP mutant C. elegans with OCC & Fluorescence*

- **Integrated photo port for brighter, higher quality images**

The system is designed for maximum imaging efficiency. The built-in photo port is directly opposite the fluorescence excitation illuminator. 100% of the fluorescence image light is sent directly from the specimen to the optional photo tube without the need for stacking intermediate photo accessories. This assures brighter, more efficient fluorescence images with less auto fluorescence or other degrading factors. Also since no additional intermediate module is required, the eyepieces remain at the level of maximum user comfort.

- **Flexible four-position filter slider for changes at the touch of a finger**

The four-position filter slider makes it easy to change filters at the touch of a finger. Three fluorescence filter sets can be placed in the built-in changer; a fourth position is reserved for diasopic (transmitted light) brightfield viewing.

## Specifications

Filter Positions:	4 (typical configuration: 3 fluor. filters set & 1 open)
Imaging Port:	Integrated optional photo tube
Illumination Source:	100W Mercury Arc & 75W Xenon Arc sources available
Included:	<ul style="list-style-type: none"> <li>• Illuminator</li> <li>• Three open-position spacers</li> <li>• Shutter</li> <li>• Manual</li> </ul>
Optional Accessories:	<ul style="list-style-type: none"> <li>• Fluorescence Filter blocks (detailed list below)</li> <li>• Beamsplitter for attachment of video, digital and film camera</li> <li>• Fluorescence light shields for SMZ1500/SMZ1000/SMZ800</li> </ul>

## Fluorescence Filter Block Specifications

	Filter Set	Excitation	Dichroic Mirror	Emission (Barrier)
83455	Blue GFP/DAPI	390/22 (379-401nm)	420 (DCLP)	460/50 (435-485nm)
83456	Cyan (ECFP) CFP	436/20 (426-446nm)	455 (DCLP)	480/40 (460-500nm)
83457	Endow GFP Bandpass	HQ 470/40 (450-490nm)	Q495 (LP)	525/50 (500-550nm)
83458	Endow GFP Long Pass	HQ 470/40 (450-490nm)	Q495 (LP)	500LP (Longpass)
83459	TRITC (DsRed)	HQ 545/30 (530-560nm)	Q570 (LP)	620/60 (590-650nm)
83512	Yellow GFP Bandpass	HQ 500/20 (490-510nm)	Q515 (LP)	535/30 (520-550nm)

## Ordering Information

Product Number	Description
83450	P-FLA FL Epi Fluorescence Attachment
83451	P-FLAP FL Photo Tube
83511	P-Fluorescence Light Shield for SMZ1500
83510	P-Fluorescence Light Shield for SMZ1000/SMZ800
Product Number	Mercury Illumination Set Description
93509	HMX-4 Lamphouse
93510	Mercury Socket
78589	100W Mercury Lamp
87536	100W Mercury Power Supply
79035	Power Cord
81709	Collector Lens
Product Number	Xenon Illumination Set Description
93508	HMX-3 Lamphouse
78695	Xenon Socket
78682	75W Xenon Lamp
78690	75W Xenon Power Supply
79053	Power Cord
81709	Collector Lens

# The Epi-Fluorescence Attachment can be used on Nikon's entire line of parallel stereomicroscopes.

## **SMZ1500**

- 15 to 1 Zoom Ratio – World's largest on a stereomicroscope -  
Eliminates the need to change objective lenses.
- Incredible wide range of magnification from 3.75X to 540X -  
Depending on the combination of eyepiece and objective chosen.
- Highest numerical aperture optics available in their class -  
Produce the brightest fluorescence images with the finest detail.



**SMZ1500**

## **SMZ1000**

- High power zoom combined with extreme versatility –  
10 to 1 zoom ratio within an optical body that can be combined with almost all of Nikon's stereomicroscope accessories – from boomstands to high resolution digital cameras.



**SMZ1000**

## **SMZ800**

- Extreme versatility combined with an affordable price –  
6.3 to 1 zoom ratio with all the versatility of the SMZ-1000. A workhorse, equally comfortable in the lab or in a production environment.

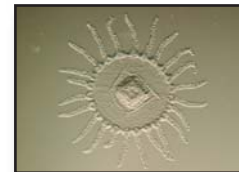


**SMZ800**

## Other Illumination systems available for Nikon Stereomicroscopes

### Nikon's exclusive OCC (Oblique Coherent Contrast) Diascopic Stand

With this revolutionary illumination technique, colorless and transparent samples can be observed in high relief. Refractive index differences can be observed to 1/30 of the wavelength of light ( $\lambda/30$ ).



*Obelia with OCC Illumination*

### NI Series of Fiber Optic Illuminators

The NI-150, a 150W high intensity, fiber optic light source with variable intensity control, comes with heat filter and holder. The NI-30, a 30W fiber optic light source comes ready to go with a single fiber optic light pipe as standard. Dual and single light pipes and ringlights are also available.



**NI-150**

**Nikon**

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