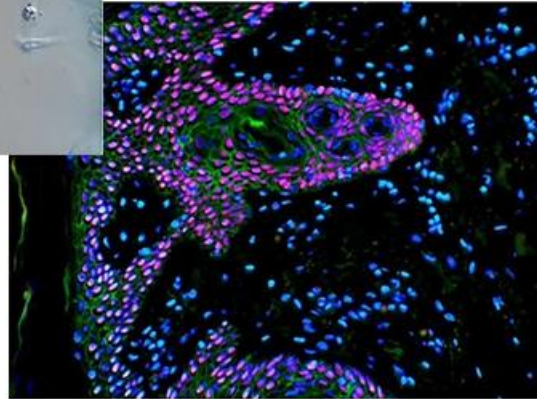


## Research Scientific Laboratory Microscope, Full-Auto Motorized

- Full-Auto Motorized Research Level Laboratory Microscope For BF/DF/PH/PL/FL/DIC
- Extra Wide Eyepiece EW10x/25mm Dia.30mm Diopter Adjustable
- Auto 6 Holes Nosepiece With Infinity Plan Objective 4x10x20x40x100x
- Auto Condenser & Brightness Adjust ECO Function Kohler Illumination 24V100W Halogen Or 3W SLED Optional
  - Including Control Stick, Controller Box, Z Axis Motor Control Part, Motorized X/Y Mechanical Stage Travel Range 125x75mm





## Motorized Control Software And Microscopic Imaging System

### **Motorized Control Software And Microscopic Imaging System**

It provides integrated control for microscope, camera, electric platform and various components, including electric control, auto focusing, sequence scanning, fixed-point scanning, surface fitting scanning and etc. Full field of view focus scanning and other functions. With simple and intuitive interface, fast and flexible data acquisition method, combined with the Nomis basic imaging analysis software, the system can realize the measurement, data acquisition and data processing Synthesis and data recording.



**LABO-91N**  
**Laboratory Microscope,**  
**Manual**



**LABO-91SN**  
**Laboratory Microscope,**  
**Semi-Auto**

**LABO - 91N , 91SN & 91FN Series Microscope**  
Intelligent revolutionary products, Operating comfort ergonomics design, Fast and efficient imaging for laboratory and clinical operation, Microscope applications has brought a revolutionary breakthrough.



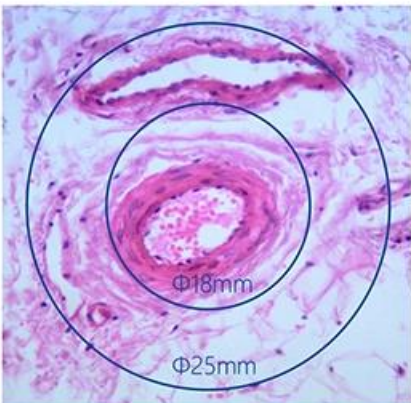
**LABO - 91FN**  
**Laboratory Microscope,**  
**Full-Auto**



## Seidentopf Trinocular Head

### Seidentopf Trinocular Head

Seidentopf Trinocular Head, Inclined 30°, Interpupillary Distance 47-78mm, 3LevelLightSplit Switch  
E100:P0/E20:P80/E0:P100



## Large Field Eyepiece



### Large Field Eyepiece

SW10x/25mm, High Eyepoint, Diopter Adjustable, Dia.30mm



**Adapter To Lower Stage Position**

To lower the stage by 1", by adding a block up the nosepiece, so that operators can change the slides position easily and comfortably



**Auto Coded Nosepiece & Auto Condenser**

Automatically swing-out and swing-in the top-lens element according to the objective lens that is selected via the intelligent linking.



The micro electric control platform working stage

**High Precision & Easy Operation**

The micro electric control platform can control the movement in X, Y and Z directions of working stage.

Only one USB cable is needed to connect the computer and the built-in controller to realize the integrated electric control; The built-in z-axis adopts high-precision motor screw structure to ensure nano scale z-axis slice scanning; The imported screw rod adopts extrusion process, which has the characteristics of enhancing consistency and eliminating reverse clearance error; Flexible platform control program can meet a variety of sports needs. Matching control rocker, powerful, easy to operate



## Focusing System & Nosepiece Rotating Buttons

### Focusing System

Coaxial focusing system with low-position X-Y coaxial control knobs. The ergonomic design provides operators comfortable experience.

### Nosepiece Rotating Buttons

This microscope has the function of automatically rotating nosepieces and adjusting the light intensity.



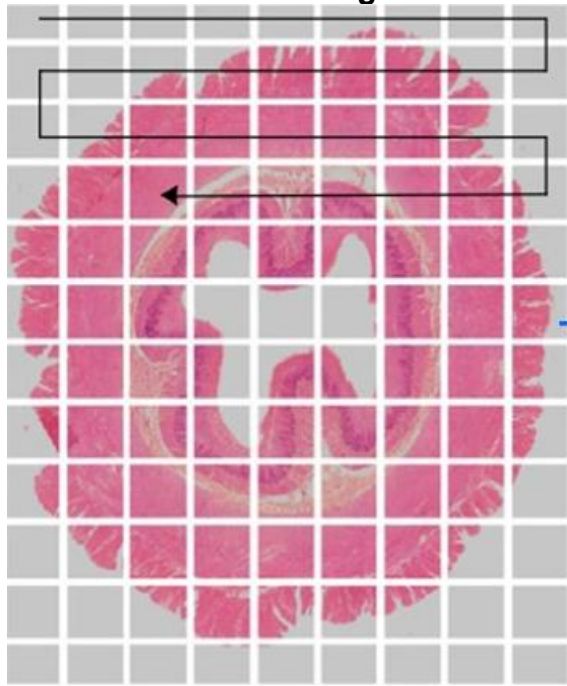
Low-position Control Knobs

### Low-position Control Knobs

The height of the stage control knobs can be adjusted up or down by 18mm to ensure a comfortable hand position, and with adjustable tension control

# SLV Techno

## Full View Field Focusing Scan



Full View Field Focusing Scan

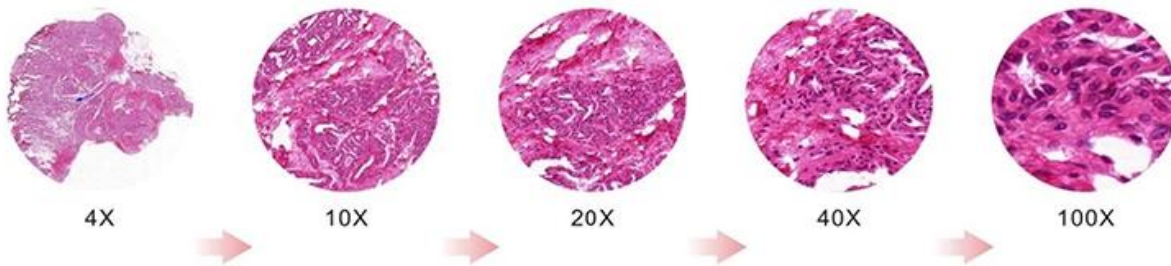


Full View Field Focusing Fusion Image

### Auto Light Intensity Management

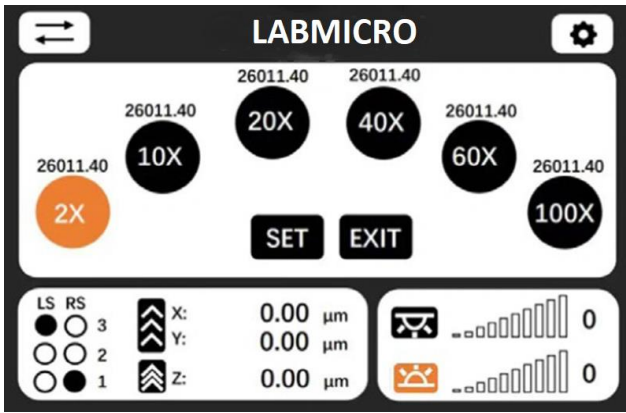
The Management system can automatically adjust to the suitable light intensity according to the different setup of objectives from the low to high magnifications, and reduce the eye fatigue at the same time.

The long-life LED lamp can keep the light intensity and easy for maintenance.



### Touch Control Screen, Saving Space, Flexible Control

The front touch control screen integrated with the microscope does not occupy the desktop position. The interface is simple and easy to operate, and the programmable control simplifies the repeated observation and imaging process. Powerful functions: three axis coordinate display, speed gear display, objective electric switch, objective double hole directional switch, position memory and return, relative coordinate display, objective focus compensation, temporary upper limit setting, platform escape and recovery, display day / night mode, etc.

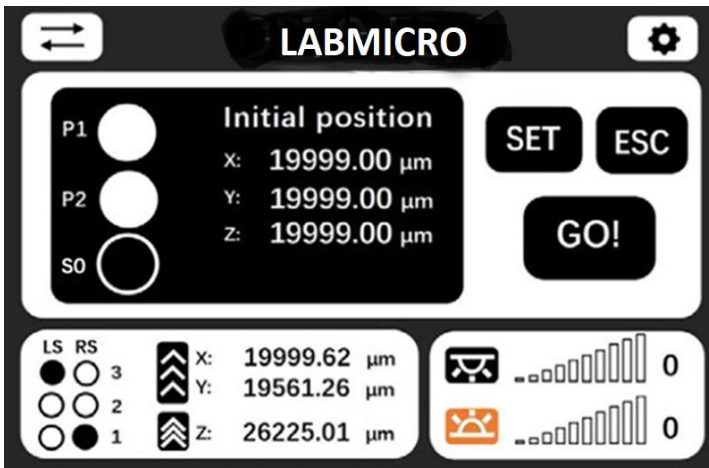
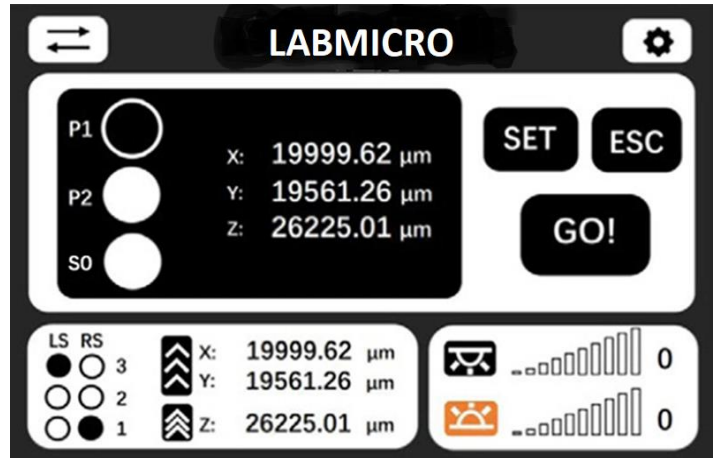


**Objective Confocal Compensation:**

Each objectives focus distance will be memorized, when switch objectives, Zaxiecontrol will automatically restore to correct focus distance to get clear image

**Location memory and return:**

2 location memory points and 1 location memory point can be set. The initial position point is used to mark the key observation position.



**Platform escape and return:**

One Key Return can be Seted between current position and zero point of coordinate, enable switch slide more convenient and easy

N-PLN Series Plan Objectives



**N-PLN Series Plan Objectives**

These plan objectives can provide flat image through the light from visible light to NIRS. They are usually used for bright-field viewing as the high signal-to-noise, high resolution and high contrast image result

## N-PLFN Series Plan Fluorescent Objectives



### N-PLFN Series Plan Fluorescent Objectives

Owing to the multilayer coating technology, these S-APO objective can compensate the spherical aberration and the chromatic aberration from ultraviolet to infrared light. High-sensitive fluorescence ensure the acuity, articulation and color reduction of image, to provide the digital image of high-quality and high-function.

## N-PLM Series Plan PH Objectives



### N-PLM Series Plan PH Objectives

They are the good choice for clinic and scientific research. These high-quality plan objective can provide advanced plan image of 25mm FOV under bright field & transmitted light. NIS60 series plan phase contrast objectives are specially designed for phase contrast viewing.

## N-PLM Series Plan PH Objectives



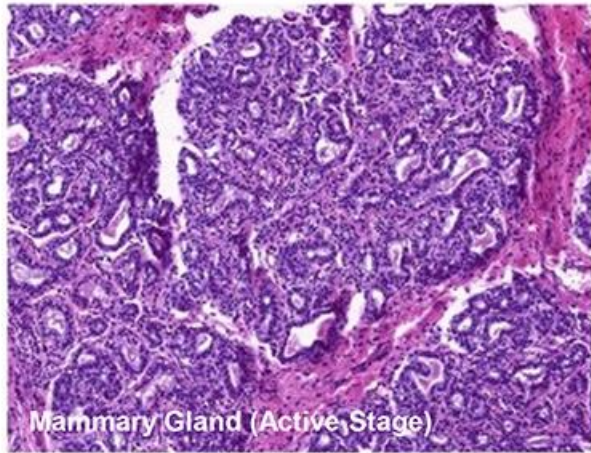
### N-PLPN Series APO Plan Objectives

The newly-launched advanced **Apochromatic** objective lens has a high level of chromatic aberration correction capability, high resolution, and ensures a high level of wave phase aberration correction function in the full field of view.

It is an ideal choice for routine laboratory observation work and digital imaging objectives.

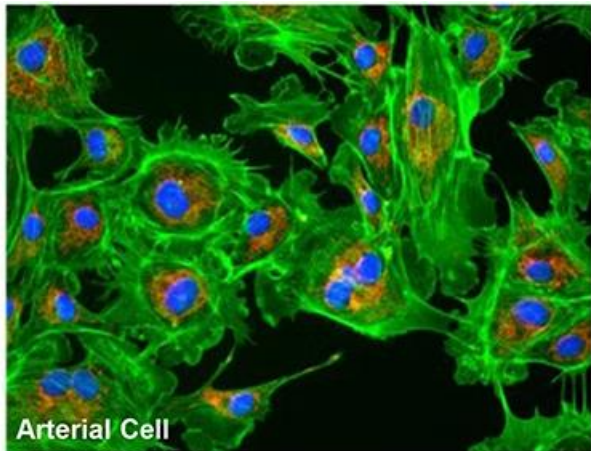
◆ **Bright-field Viewing**

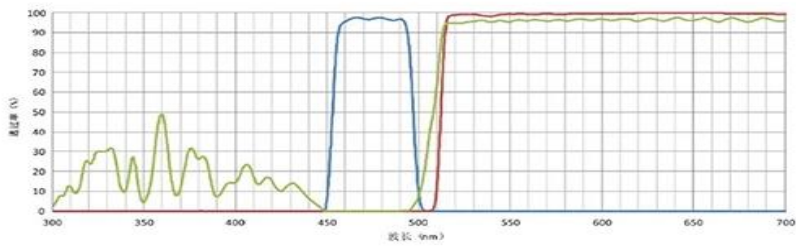
Brighter image, high resolution and flatness, suitable for all the magnifications



◆ **Fluorescent Viewing**

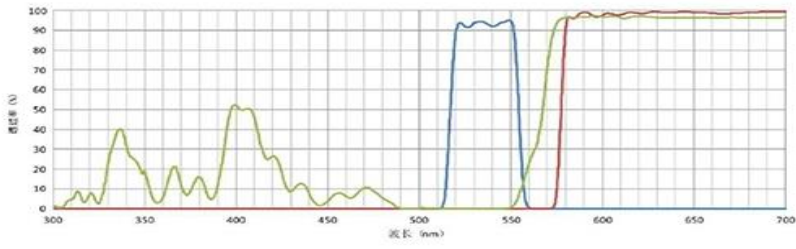
The compact epi-fluorescent components includes noise elimination feature which ensures images captured are bright, with high contrast and high signal-to-noise ratio.





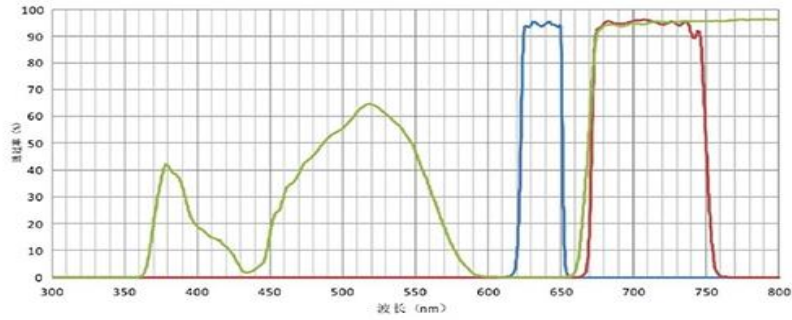
FL-B

- BP 460-495
- DM 505
- BA 510IF



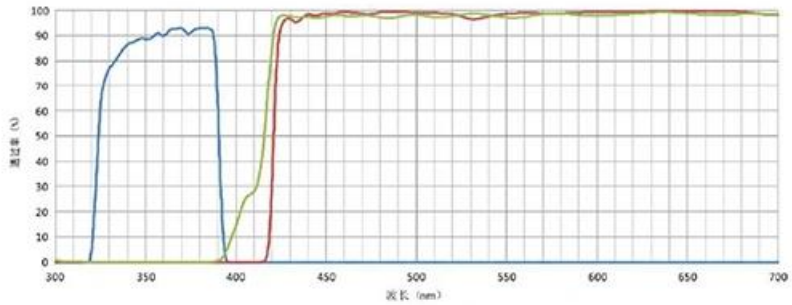
FL-G

- BP 510-550
- DM 570
- BA 575IF



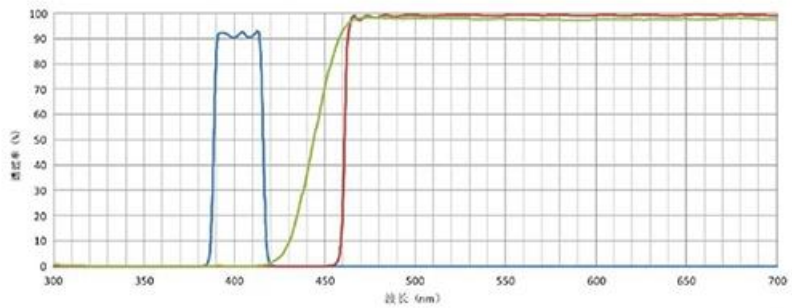
FL-R

- BP 620-650
- DM 660
- BA 670-750



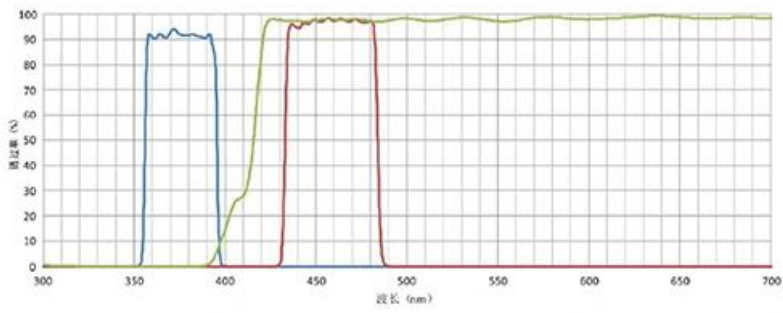
FL-U

- BP 330-385
- DM 410
- BA 420IF



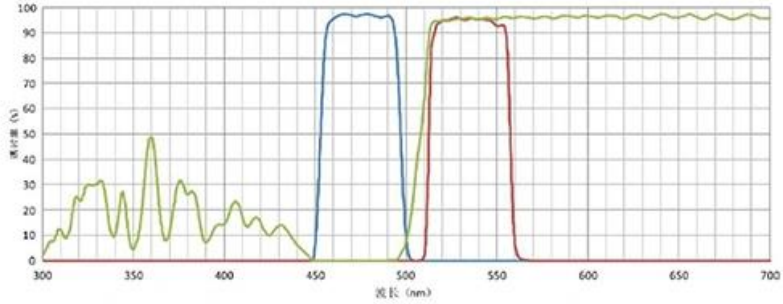
FL-V

- BP 400-410
- DM 455
- BA 460IF



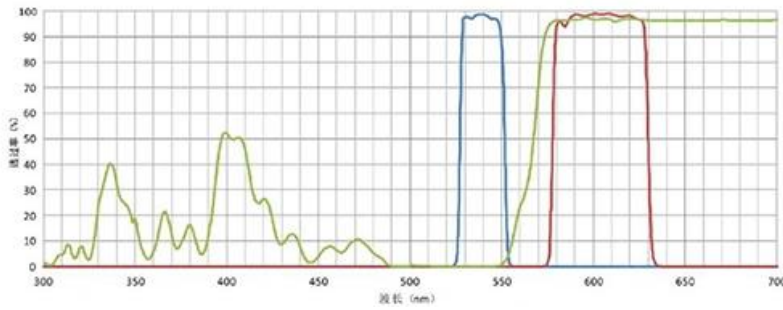
FL-DAPI

- BP360-390
- DM415
- BA435-485



FL-FITC

- BP460-495
- DM505
- BA510-550

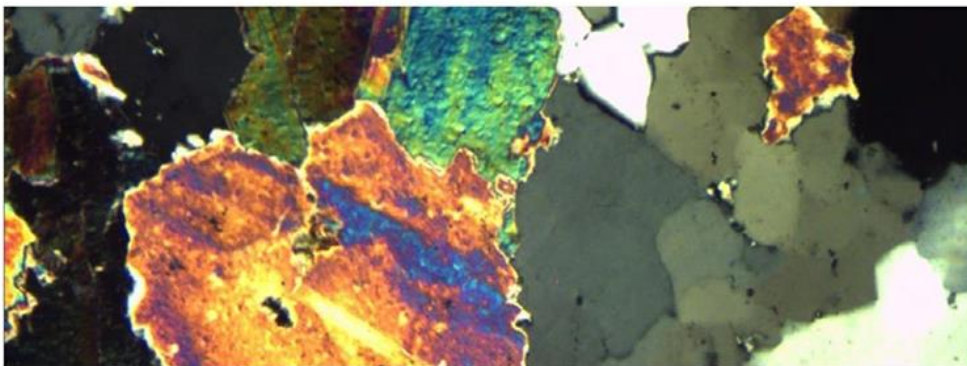
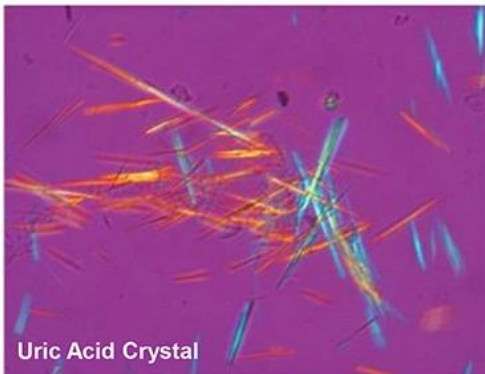


FL-TRITC

- BP528-553
- DM565
- BA578-633

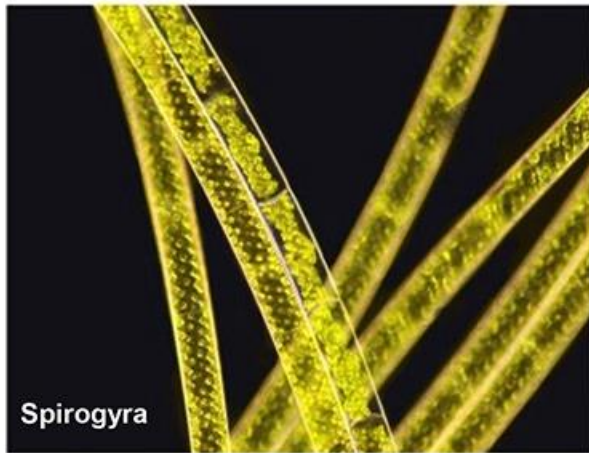
◆ Polarizing Viewing

It is quite suitable for viewing collagen, amyloid and crystal etc. double refracting specimen.



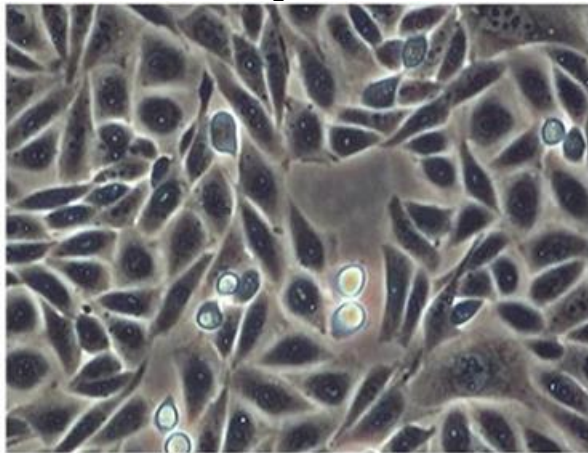
### ◆ Dark-field Viewing

It can be used for clearly viewing of blood or flagellum etc. fine structure.



### ◆ Phase Contrast Viewing

Operators can get high contrast image of neutral background color whatever the magnifications are. It is suitable for viewing non-stained specimen.



### ◆ DIC Phase Contrast Viewing

DIC increases the contrast of the sample, and enables the nucleus and larger organelles such as mitochondria to have a strong three-dimensional effect, which is more suitable for micromanipulation.

At present, it is mostly used for micromanipulation of gene injection, nuclear transfer, genetically modified animals and other bioengineering.



## Software Function



A59.2225



A59.2226

With high speed USB3.0 digital camera and professional image processing software, Opto-Edu microscope can work with computer to get various advanced function done easily. Real Time / Static Measure, 2D Image Scan & Stitching, 3D Depth of Field Fusion, Fluorescent Image Synthesis, Cell Counting and etc

### ◆ Real Time / Static Measure

In cell observation and section observation, you need to use the measurement function. To determine the cell size, cell gap, synapse length and other data. The software can provide measurement of distance, angle, rectangle, circle, ellipse, etc.

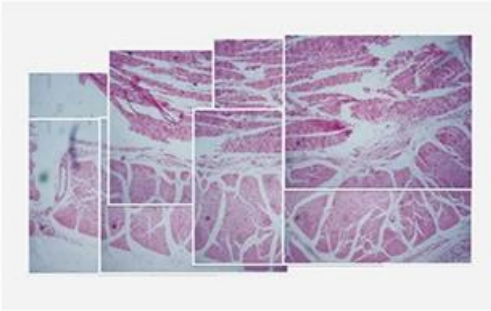


### ◆ 2D Image Scan & Stitching

By collecting and importing images in real time, the software can quickly stitch together to form a large-size and high-resolution image

### ◆ Cell Counting

Customize cell counting requirements, automatically count and count the shape information of cells, including: size, location, volume, circumference, brightness, etc. And all data including processed images can be saved as excel sheet



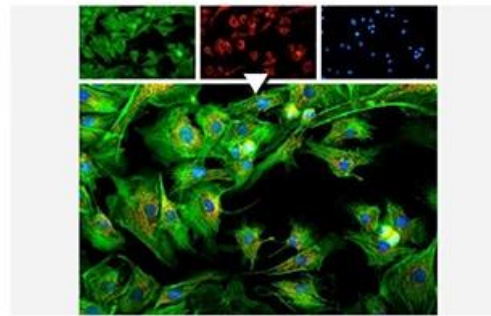
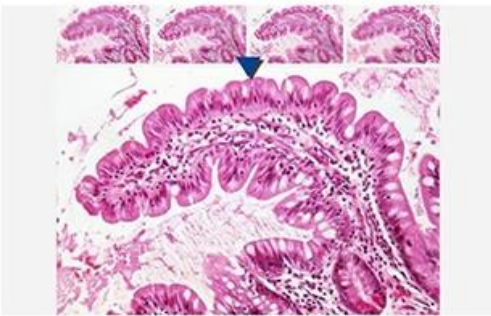
◆ **3D Depth Of Field Fusion**

Users can collect multiple images with different focal lengths by fine-tuning the focal length, and synthesize one image for output. Suitable for specimens that require a certain depth of field or poorly made sections



◆ **Fluorescent Image Synthesis**

By collecting or importing images of different fluorescence channels, users can obtain images after fluorescence synthesis. For the image of each channel, the displacement in the x direction and y direction can be adjusted to achieve the fine-tuning effect



## Research Scientific Laboratory Microscope

### TECHNICAL SPECIFICATIONS

Model No.	LABO – 91FN Full Auto Motorized Research Level Scientific Laboratory Microscope	LABO-91N		LABO-91SN		LABO – 91FN
		-H	-L	-H	-L	
		*	*	*	*	*
<b>Optical System:</b>	NIS60 Infinity Optical System	*	*	*	*	*
<b>Observation Method</b>	Bright Field	*	*	*	*	*
	Dark Field	○	○	○	○	○
	Polarizing	○	○	○	○	○
	Phase Contrast	○	○	○	○	○
	Fluorescent	○	○	○	○	○
	DIC	○	○	○	○	○
<b>Main Body</b>	BHM annual Body + Halogen Illumination.	*				
	BLM annual Body + LED Illumination.		*			
	ATH <b>Semi-Auto</b> Body + <b>Halogen</b> Illumination. Auto Nosepiece + Auto Condenser + Auto Brightness Adjust			*		
	ATL <b>Semi-Auto</b> Body + <b>LED</b> Illumination. Auto Nosepiece + Auto Condenser + Auto Brightness Adjust				*	
	<b>Full Auto</b> Body + <b>LED</b> Illumination. Auto Nosepiece + Auto Condenser + Auto Brightness Adjust Auto X/Y/Z Motorized Control Working Stage+ Information <b>LCD Screen</b>					*

<b>Head</b>	Seidentopf Binocular Head, Inclined 30°, Interpupillary Distance 47-78mm	○	○	○	○	○
	Seidentopf Trinocular Head, Inclined 30°, Interpupillary Distance 47-78mm, 3 Level Light Split Switch E100:P0/E20:P80/E0:P100	*	*	○	○	*
	Ergo Tilting Trinocular Head, Inclination 0°~35°, Interpupillary Distance 47-78mm, 3 Level Light Split Switch E100:P0/E20:P80/E0:P100	○	○	*	*	○
<b>Eyepiece</b>	SW10x/25mm, High Eyepoint, Diopter Adjustable, Dia.30mm	**	**	**	**	**
	EW12.5x/16mm, High Eyepoint	○○	○○	○○	○○	○○
	WF15x/16mm, High Eyepoint, Diopter Adjustable, Dia.30mm	○○	○○	○○	○○	○○
	WF20x/12mm, High Eyepoint, Diopter Adjustable, Dia.30mm	○○	○○	○○	○○	○○
<b>Nosepiece:</b>	Manual Nosepiece, Sextuple, Backward	*	*	-	-	-
	Coded Nosepiece, Sextuple, Backward, For Auto Brightness Adjust	○	○	-	-	-
	<b>Auto Coded</b> Nosepiece, Sextuple, Backward, Motorized Switch Objectives, Controlled By: 1. Shortcut Button on Right Side of Base, Can Switch 2 Presented Objectives Quickly 2. Remote Control Pad in Front of Base, Press Each Button to Switch Objectives and Adjust the Light Intensity Automatically. 2 Buttons Can Be Self-Defined for Most Commonly Used Objective's, Press Green Button Can Swap Between Them	○	○	*	*	*
	With Slot for Polarizing Compensator Slider or DIC Slider	*	*	*	*	*
	Protect Cover for Nosepiece Holes	*	*	*	*	*
<b>NIS60 N-PLN Infinity Plan Objective</b>	2x/0.06, W.D.7.5mm, Cover Glass 0.17mm	○	○	○	○	○
	4x/0.10, W.D.30mm, Cover Glass 0.17mm	*	*	*	*	*
	10x/0.25, W.D.10.2mm, Cover Glass 0.17mm	*	*	*	*	*
	20x/0.40, W.D.12mm, Cover Glass 0.17mm	*	*	*	*	*
	40x/0.65, W.D.0.7mm, Cover Glass 0.17mm	*	*	*	*	*
	50x/0.95(Oil, W.D.0.19mm, Cover Glass 0.17mm	○	○	○	○	○
	60x/0.8, W.D.0.3mm, Cover Glass 0.17mm	○	○	○	○	○
	100x/1.25(Oil), W.D.0.2mm, Cover Glass 0.17mm	*	*	*	*	*
<b>NIS60APOInfinity Plan</b>	20x/0.75, W.D.1.1mm, Cover Glass 0.17mm	○	○	○	○	○
	100x/1.45(Oil), W.D.0.13mm, Cover Glass 0.17mm	○	○	○	○	○
<b>Working Stage</b>	Double Layer Mechanical Stage Full Size 302x152mm, Stage Table Size 190x152mm, Moving Range 78x32mm, Double Slide Holder, With <b>Sapphire</b> Glass Insert, <b>Left</b> Handle	○	○			○
	Double Layer Mechanical Stage Full Size 302x152mm, Stage Table Size 190x152mm, Moving Range 78x32mm, Double Slide Holder, With <b>Sapphire</b> Glass Insert, <b>Right</b> Handle	*	*	-	-	○
	Double Layer Mechanical Stage Full Size 302x152mm, Stage Table Size 190x152mm, Moving Range 78x32mm, Double Slide Holder, With <b>Sapphire</b> Glass Insert, <b>Left</b> Handle	-	-	○	○	○
	Double Layer Mechanical Stage Full Size 302x152mm, Stage Table Size 190x152mm, Moving Range 78x32mm, Double Slide Holder, With <b>Sapphire</b> Glass Insert, <b>Right</b> Handle	-	-	*	*	○
	Low Position Control Knob, Height Adjustable Up/Down 18mm, Convex Point Guide Mechanism For Easily Put Slide By One Hand, With Tension Adjustable Ring, With Safety Stop Screw	*	*	*	*	*
<b>Condenser</b>	Swing-Out Condenser NA0.9/0.25	*	*	-	-	-
	<b>Auto</b> Swing-Out Condenser NA0.9/0.25	-	-	*	*	*
<b>Focusing:</b>	Coaxial Coarse & Fine Focusing, Fine Division 0.001mm, Focusing Range 35mm, Coarse Stroke 37.7mm, Fine Stroke	*	*	*	*	*

	0.1mm, Can Exchange Hand Wheel Between Left/Right					
<b>Light Source</b>	<b>Transmit</b> Kohler Illumination, Brightness Adjustable, 12V100W Halogen, External Lamp House	*	-	*	-	-
	<b>Transmit</b> Kohler Illumination, Brightness Adjustable, 3W S-LED, Built-in Main Body	-	*		*	*
	ECO Function Support Auto Power Off After 30 Mins from Operator Leave to Save Energy	*	*	*	*	*
	<b>Auto</b> Brightness Adjust, Brightness for Each Objective Can Be Memorized and Restored When Objective Is Selected Upgradeable to Auto Brightness Adjust, Must Upgrade To Coded Nosepiece at Same Time	-	-	*	*	*
<b>Filter For Transmit Light</b>	Filter Holder On Base, Can Hold 3 Filters	*	*	*	*	*
	Filter LBD	*	*	*	*	*
	Filter Green	*	*	*	*	*
	Filter Yellow	*	*	*	*	*
	Filter ND6	*	*	*	*	*
	Filter ND25	*	*	*	*	*
<b>Adapter</b>	Eyepiece Adapter Dia.23.2mm	o	o	o	o	o
	C-Mount 1.0x	o	o	o	o	o
	C-Mount 0.5x	o	o	o	o	o
<b>Software</b>	NOMIS Basic Image Processing Software	o	o	o	o	o
<b>Full-Auto Motorized Control Unit</b>	Including Control Stick, Controller Box, Z Axis Motor Control Part, Motorized X/Y Mechanical Stage --Travel Range X:125mm, Y:75mm, --Minimum Step 0.1um --Re-Position Accurate +/-1.5um --Max Speed 25mm/s --Size: 275x239x44.5mm --Soft Stop, Mechanical Stop, Opto-Electro Switch Stop --Z Axis Re-Position Accurate: Average +/-1.5um, Near Focus +/-0.1um --Z Axis Max Speed 10r/s --3D Control Stick, 4 Speeds --Connection by USB2.0 & RS232 --Communication Speed 9600 bits	-	-	o	o	*
	Upgrade To Z Axis with Optical Grating Ruler					
<b>Dark Field</b>	Dark Field Condenser, N.A. 0.7~0.9, Dry	o	o	o	o	o
	Dark Field Condenser, N.A. 1.25~1.36, Immersion	o	o	o	o	o
	Dark Field Objective, Infinity Plan 100X, For Immersion Dark Field Observation	o	o	o	o	o
	Dark Field Objective, Infinity Plan 100X, With Iris Diaphragm, For Immersion Dark Field Observation	o	o	o	o	o
<b>Polarizing</b>	<a href="#">Polarizer For Transmit Light Source, Swing-Out, On Collector</a>	o	o	o	o	o
	<a href="#">Analyzer For Transmit Light, Slide With Quartz Wedge Compensator</a>	o	o	o	o	o
	Upgrade To <b>LABO- 91PN</b> Professional Polarizing Microscope	o	o	-	-	o
<b>Phase Contrast</b>	Turret Phase Contrast Condenser, Center Adjustable	o	o	o	o	o
	Centering Telescope 10x	o	o	o	o	o
	Infinity Plan Phase Contrast Objective N-PLN PH 10x/0.25	o	o	o	o	o
	Infinity Plan Phase Contrast Objective N-PLN PH 20x/0.40	o	o	o	o	o
	Infinity Plan Phase Contrast Objective N-PLN PH 40x/0.65	o	o	o	o	o
	Infinity Plan Phase Contrast Objective N-PLN PH 100x/1.25(Oil)	o	o	o	o	o
<b>DIC</b>	Polarizer For Transmit Light Source	o	o	o	o	o

	Turret DIC Condenser	○	○	○	○	○
	DIC Slide 10x, Used With Semi-APO Fluorescent Objective	○	○	○	○	○
	DIC Slide 20x/40x, Used With Semi-APO Fluorescent Objective	○	○	○	○	○
	DIC Slide 100x, Used With Semi-APO Fluorescent Objective	○	○	○	○	○
	DIC Slide With Analyzer 10x-20x	○	○	○	○	○
	DIC Slide With Analyzer 40x-100x	○	○	○	○	○
<b>NIS60 N-PLFN Semi-APO Fluorescent Objective For DIC</b>	10x/0.3, W.D.8.1, Cover Glass 0.17mm	○	○	○	○	○
	20x/0.5, W.D.2.1, Cover Glass 0.17mm	○	○	○	○	○
	40x/0.75, W.D.0.7, Cover Glass 0.17mm	○	○	○	○	○
	100x/1.3, W.D.0.15, Cover Glass 0.17mm	○	○	○	○	○
<b>Fluorescent</b>	Upgrade To Fluorescent Microscope	-	-	○	○	○
<b>Other Accessories</b>	Working Stage Holder Bracket	*	*	*	*	*
	Adapter To Adjust Eye Position	○	○	○	○	○
	Adapter To Lower The Stage Position 1"	○	○	○	○	○
	Immersion Oil	*	*	*	*	*
	Allen Wrench	*	*	*	*	*
	Power Cord	*	*	*	*	*
	Short Eye Cover, For Eyepiece	○	○	○	○	○
	Long Eye Cover, For Eyepiece	○	○	○	○	○
	Eyepiece Micrometer, Cross	○	○	○	○	○
	Adapter Ring To Install Eyepiece Micrometer	○	○	○	○	○
USB Cable	○	○	○	○	○	

\* "In Table Is Standard Outfits," ○ "Is Optional Accessories" - "Is Unavailable"

