

# STALWART

## Research Fluorescent Biological Microscope STM-2081F



STM-2081F

## Introduction

STM-2081F biological fluorescent microscope has been designed to present a safe, comfortable and precision observation experience. B, G, U, V, R fluorescent filters are available. With perfectly performed structure, high-definition optical image and ergonomical operating system, STM-2081F realizes professional analysis and meets all the needs of research in biological, medical, life science and other fields.

## Features

- **Sapphire Glass Stage is optional.**



Mechanical stage with sapphire glass insert is optional, it is durable, never could be scratched and allows users to clear the stage easily.

- **Put Slide by One Hand**



It is easy for users to put slides by one hand due to the special designed slide clip.

- **Tilting Trinocular Head is optional**



1. The eye tube can be adjusted from 0°-35°.
2. Digital cameras or DSLR cameras can be connected to the trinocular tube.
3. The beam splitter has 3-position (100:0, 20:80, 0:100).
4. The splitter bar can be assembled on the either side according to user's requirements.

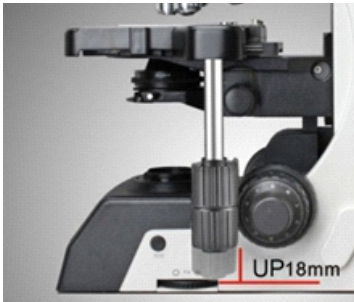
## Features

- **ECO Function**



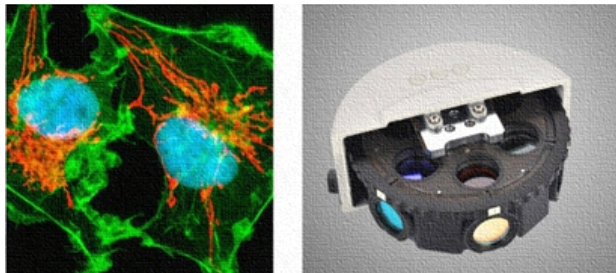
The transmitted light would be off automatically after 30 minutes from operators leave. It can not only save energy, but also keep the lamp life longer.

- **Low Position X-Y KnoSTM.**



The height of the stage control knob can be adjusted up or down by 18mm to ensure a comfortable hand position, the tension of X-Y control knob also can be adjusted.

- **6-Position Turret for fluorescent filter blocks.**



All the fluorescent filter blocks use the high-performance filter lens. Up to 6 filter blocks can be installed in the turret, that allows users to view different stained specimens at the same time.

## Specification

Item	Specification	STM-2081F	
Optical System	NIS60 Infinite Color Corrected Optical System	Standard	
Viewing Head	Seidentopf Trinocular Head, 30° inclined, interpupillary distance: 47mm-78mm; splitting ratio Eyepiece:Trinocular=100:0 or 20:80 or 0:100	Standard	
	Ergo Tilting Trinocular Head, adjustable 0-35° inclined, interpupillary distance 47mm-78mm; splitting ratio Eyepiece:Trinocular=100:0 or 20:80 or 0:100	Optional	
	Seidentopf Binocular Head, 30° inclined, interpupillary distance: 47mm-78mm	Optional	
Eyepiece	Super wide field plan eyepiece SW10X/25mm, diopter adjustable	Standard	
	Super wide field plan eyepiece SW10X/22mm, diopter adjustable	Optional	
	Extra wide field plan eyepiece EW12.5X/17.5mm, diopter adjustable	Optional	
	Wide field plan eyepiece WF15X/16mm, diopter adjustable	Optional	
	Wide field plan eyepiece WF20X/12mm, diopter adjustable	Optional	
Objective	N-PLN Plan Objective	N-PLN 2X/NA=0.06, WD=7.5mm	Optional
		N-PLN 4X/NA=0.10, WD=30mm	Standard
		N-PLN 10X/NA=0.25, WD=10.2mm	Standard
		N-PLN 20X/NA=0.40, WD=12mm	Standard
		N-PLN 40X/NA=0.65, WD=0.7mm	Standard
		N-PLN 100X(Oil)/NA=1.25, WD=0.2mm	Standard
		N-PLN 50X(Oil)/NA=0.95, WD=0.19mm	Optional
		N-PLN 60X/NA=0.80, WD=0.3mm	Optional
		N-PLN-I 100X (Oil, with Iris Diaphragm)/ NA=0.5-1.25, WD=0.2mm	Optional
	N-PLN PH Plan Phase Contrast Objective	N-PLN PH 10X/NA=0.25, WD=10.2mm	Optional
		N-PLN PH 20X/NA=0.40, WD=12mm	Optional
		N-PLN PH 40X/NA=0.65, WD=0.7mm	Optional
		N-PLN PH 100X(Oil)/NA=1.25, WD=0.2mm	Optional
	N-PLFN Plan Semi-apochromatic Fluorescent Objective	N-PLFN 4X/NA=0.13, WD=17.2mm	Optional
		N-PLFN 10X/NA=0.30, WD=16.0mm	Optional
		N-PLFN 20X/NA=0.50, WD=2.1mm	Optional
		N-PLFN 40X/NA=0.75, WD=1.5mm	Optional
		N-PLFN 100X(Oil)/NA=1.4, WD=0.16mm	Optional
	Nosepiece	Backward Sextuple Nosepiece (with DIC slot)	Standard
	Condenser	Swing-out type condenser N.A.0.9/0.25(Auto)	Standard
Turret Phase Contrast Condenser		Optional	
Dark-field Condenser (Dry), used for objectives lower than 100X		Optional	
Dark-field Condenser (Oil), used for 100X objective		Optional	

## Specification

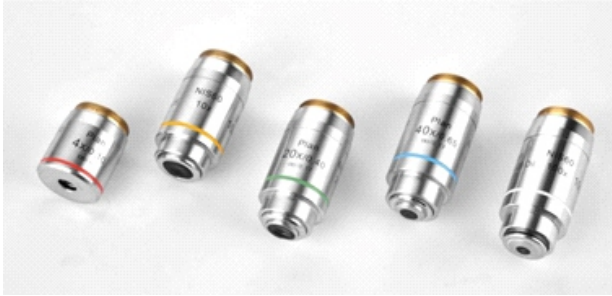
Transmitted Illumination	3W S-LED lamp, center pre-set, intensity adjustable	Standard
	12V/100W halogen lamp, center pre-set, intensity adjustable	Optional
Focusing	Low-position coaxial coarse and fine focusing, fine division 1 $\mu$ m, Moving range 35mm	Standard
Stage	Double layers mechanical stage, size 190mmX152mm; moving range 78mmX32mm (Right or left handle); precision: 0.1mm	Standard
	Double layers mechanical stage, size 190mmX152mm; moving range 78mm X32mm (Right or left handle); precision: 0.1mm; with Sapphire Crystal Glass Insert	Optional
DIC Kit	10X DIC Objective Lens	Optional
	20X DIC Objective Lens	Optional
	Polarizer for DIC Kit	Optional
	DIC insert plate(10X/20X), can be inserted into the DIC slot on nosepiece	Optional
	DIC insert plate(40X/100X) can be inserted into the DIC slot on nosepiece	Optional
	DIC Turret Condenser	Optional
Reflected fluorescence illuminator	Turret with 6 filter block cubes position, with iris field diaphragm and aperture diaphragm, central adjustable; with filter and polarizing slot; fluorescence filters (B,G fluorescent filters).	Standard
	U,V,R fluorescent filters	Optional
	100W mercury lamp house, filament center and focus adjustable; with reflected mirror, mirror center and focus adjustable.	Standard
	Digital power controller, wide voltage 100-240VAC	Standard
	ND6/ND25 Filter	Optional
Other Accessories	0.5X C-mount Adapter	Optional
	1X C-mount Adapter	Optional
	Dust Cover	Standard
	Power Cord	Standard
	Cedar Oil 5ml	Standard
	Simple Polarizing kit	Optional
	Calibration slide 0.01mm	Optional
	Multi Viewing Attachment for 2/3/5/7/10 person	Optional

## Application

This microscope is an ideal instrument in biological, histological, pathological, bacteriology, immunizations and pharmacy field and can be widely used in medical and sanitary establishments, laboratories, institutes, academic laboratories, colleges and universities.

## Accessories

- **N-PLN Series Plan Objectives.**



The Plan objectives can provide flat high transmittance image from visible light to NIR light. They are usually used for bright-field viewing as the high signal-to-noise, high resolution and high contrast features.

- **N-PLN PH Series Plan Phase Contrast Objectives.**



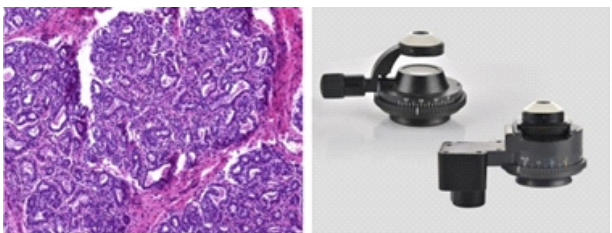
These plan phase contrast objectives are specially designed for phase contrast observation. They are good choice for clinic and scientific research. These objectives can provide advanced flat image of 25mm FOV under transmitted bright field.

- **N-PLFN Series Plan Semi-APO Fluorescent Objectives.**



Owe to the multilayers coating technology, these Semi-APO objectives can compensate the spherical aberration and the chromatic aberration from ultraviolet and infrared light. High-sensitive fluorescence performance of the objectives ensures the sharpness, definition and color rendition of images.

- **Bright field Viewing.**

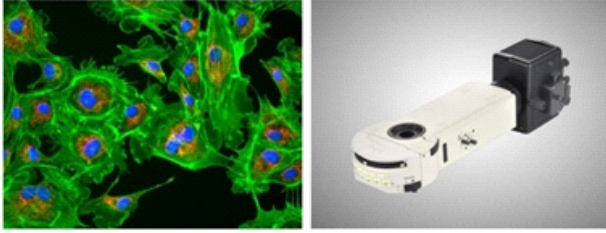


Brighter image, high resolution and flatness, suitable for all the magnifications.



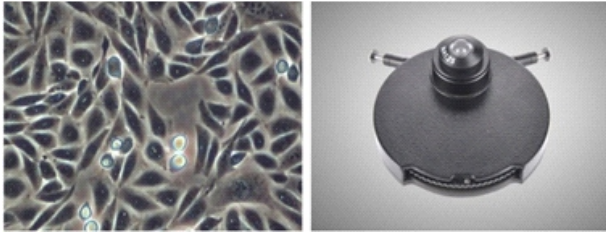
## Accessories

- **Fluorescent Viewing.**



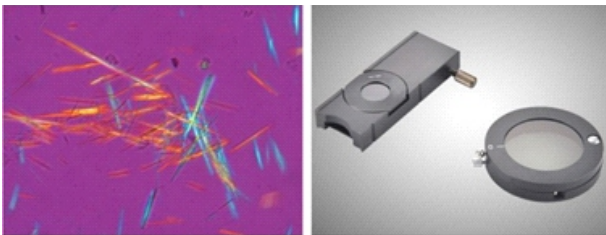
The compact epi-fluorescent components include noise elimination feature which ensures images captured are bright, with high contrast and high signal-to-noise ratio.

- **Phase Contrast Viewing.**



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

- **Polarizing Viewing**



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

- **Dark-field Viewing.**



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

## Dimension

