BS-6026 Motorized Research Upright Metallurgical Microscope

BS-6026TRF(front view)

BS-6026TRF(left side view)

Introduction

BS-6026 series motorized auto focusing upright metallurgical microscopes have been designed to present a safe, comfortable and precision observation experience. The motorized X-Y stage, auto focusing, touch screen controller, powerful software and joystick will make your works easier. The software has motion controlling, depth of field fusion, objective lens switching, brightness controlling, auto focusing, area scanning, image stitching functions.

With wide field of view, high definition and bright/dark field semi-apochromatic and apochromatic metallurgical objectives, ergonomical operating system, they are born to provide a perfect research solution and develop a new pattern of industrial research.

A LCD touch screen in front of the microscope, which can show magnification and illumination information.

Features

1. Excellent Infinite Optical System.

With the excellent infinite optical system, BS-6026 series upright metallurgical microscope provides high resolution, high definition and chromatic aberration corrected images which could display the details of your specimen very well.

2. Modular Design.

BS-6026 series microscopes have been designed with modularity to meet various industrial and material science applications. It gives users flexibility to build a system for specific needs.

3. Adopt line motor and screw driving mode.

Low-hand electric focusing mechanism, independent operation of left and right hand wheels, three speed adjustment, focusing range 30mm, repeat positioning accuracy: 0.1μm.

4. 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.

5. Can be controlled by the control handle(joystick), LCD touch screen and software.

Control Handle

This microscope can realize LED brightness, objective lens switching, auto focus, and electric adjustment of X-Y-Z axis through the software and control handle. The software can realize depth of field fusion, objective lens switching, brightness control, auto focus, area scanning, image stitching and other functions.

6. Comfortable and Easy to Use.

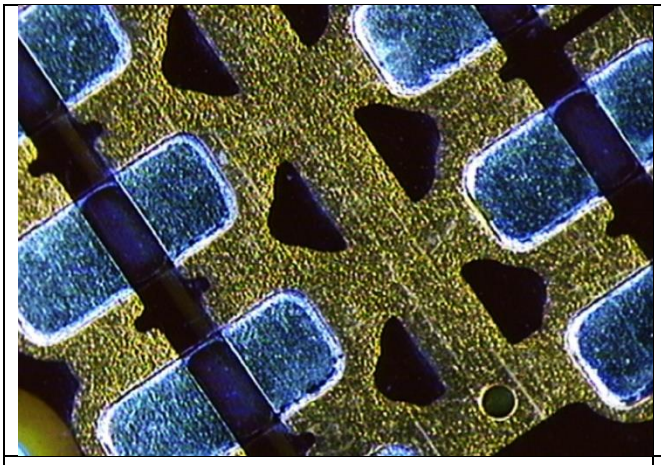
(1) NIS45 Infinite Plan Semi-APO and APO Bright field and dark field Objectives.

With high transparent glass and advanced coating technology, NIS45 objective lens can provide high resolution images and accurately reproduce the natural color of the specimens. For special applications, a variety of objectives is available, including polarizing and long working distance.

(2) Nomarski DIC.

With newly designed DIC module, the height difference of a specimen which can not be detected with brightfield becomes a relief-like or 3D image. It is ideal for the observation of LCD conducting particles and the surface scratches of hard-disk etc.

7. Various Observation Methods.

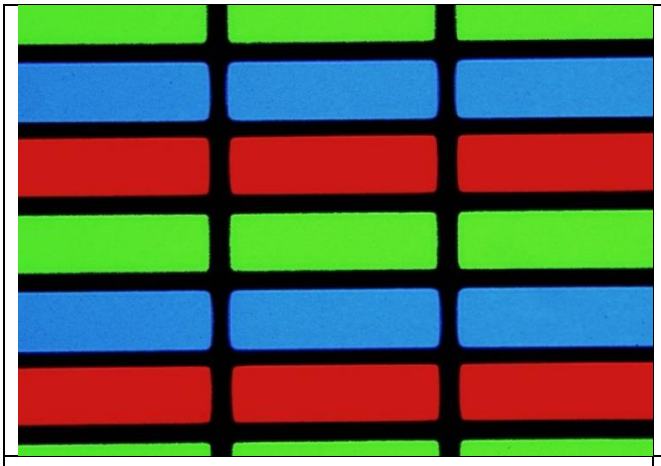
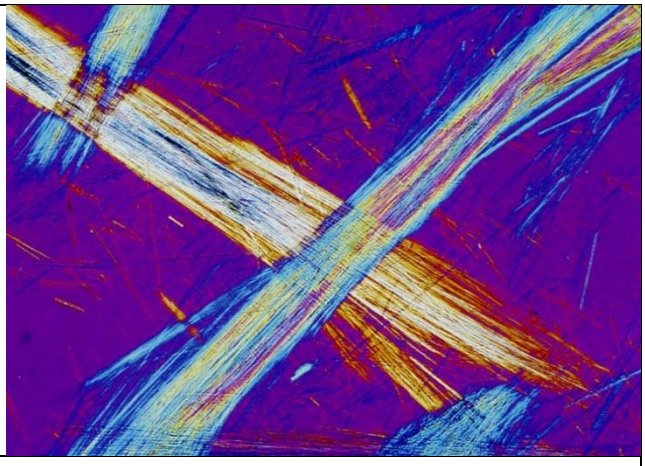


Darkfield (Wafer)

Darkfield enables the observation of scattered or diffracted light from the specimen. Anything that is not flat reflects this light while anything that is flat appears dark so imperfections clearly stand out. The user can identify the existence of even a minute scratch or flaw down to the 8nm level-smaller than the resolving power limit of an optical microscope. Darkfield is ideal for detecting minute scratches or flaws on a specimen and examining mirror surface specimens, including wafers.

Differential Interference Contrast (Conducting Particles)

DIC is a microscopic observation technique in which the height difference of a specimen not detectable with brightfield becomes a relief-like or three-dimensional image with improved contrast. This technique utilizes polarized light and can be customized with a choice of three specially designed prisms. It is ideal for examining specimens with very minute height differences, including metallurgical structures, minerals, magnetic heads, hard-disk media and polished wafer surfaces.

	
Transmitted Light Observation (LCD) For transparent specimen such as LCDs, plastics, and glass materials, transmitted light observation is available by using a variety of condensers. Examining specimen in transmitted brightfield and polarized light can be accomplished all in one convenient system.	**Polarized Light (Asbestos)** This microscopic observation technique utilizes polarized light generated by a set of filters (analyzer and polarizer). The characteristics of the sample directly affect the intensity of the light reflected through the system. It is suitable for metallurgical structures (i.e., growth pattern of graphite on nodular casting iron), minerals, LCDs and semiconductor materials.

Application

BS-6026 series motorized auto focusing upright metallurgical microscopes are widely used in institutes and laboratories to observe and identify the structure of various metal and alloy, it also can be used in electronics, chemical and semiconductor industry, such as wafer, ceramics, integrated circuits, electronic chips, printed circuit boards, LCD panels, film, powder, toner, wire, fibers, plated coatings, other non-metallic materials and so on.

Specification

Item	Specification		BS-6026RF	BS-6026TRF
Optical System	NIS45 Infinite Color Corrected Optical System (Tube length: 200mm)		●	●
Viewing Head	Ergo Tilting Trinocular Head, adjustable 0-35° inclined, interpupillary distance 47mm-78mm; splitting ratio Eyepiece:Trinocular=100:0 or 20:80 or 0:100		○	○
	Seidentopf Trinocular Head, 30° inclined, interpupillary distance: 47mm-78mm; splitting ratio Eyepiece:Trinocular=100:0 or 20:80 or 0:100		●	●
	Seidentopf Binocular Head, 30° inclined, interpupillary distance: 47mm-78mm		○	○
Eyepiece	Super wide field plan eyepiece SW10X/25mm, diopter adjustable		●	●
	Super wide field plan eyepiece SW10X/22mm, diopter adjustable		○	○
	Extra wide field plan eyepiece EW12.5X/16mm, diopter adjustable		○	○
	Wide field plan eyepiece WF15X/16mm, diopter adjustable		○	○
	Wide field plan eyepiece WF20X/12mm, diopter adjustable		○	○
Objective	NIS45 Infinite LWD Plan Semi-APO Objective (BF & DF)	5X/NA=0.15, WD=20mm	●	●
		10X/NA=0.3, WD=11mm	●	●

		20X/NA=0.45, WD=3.0mm	●	●
	NIS45 Infinite LWD Plan APO Objective (BF & DF)	50X/NA=0.8, WD=1.0mm	●	●
		100X/NA=0.9, WD=1.0mm	●	●
	NIS60 Infinite LWD Plan Semi-APO Objective (BF)	5X/NA=0.15, WD=20mm	○	○
		10X/NA=0.3, WD=11mm	○	○
		20X/NA=0.45, WD=3.0mm	○	○
	NIS60 Infinite LWD Plan APO Objective (BF)	50X/NA=0.8, WD=1.0mm	○	○
		100X/NA=0.9, WD=1.0mm	○	○
Nosepiece	Backward Motorized Sextuple Nosepiece (with DIC slot)		●	●
Condenser	LWD condenser N.A.0.65		○	●
Transmitted Illumination	3W S-LED lamp, center pre-set, intensity adjustable		○	●
Reflected Illumination	Reflected light 5W LED, Koehler illumination, with 6 position turret		●	●
	BF1 bright field module		○	○
	BF2 bright field module		●	●
	DF dark field module		●	●
	Built-in ND6, ND25 filter and color correction filter		○	○
Motorized Control	Nosepiece control panel with buttons. 2 of the most commonly used objectives could be set and switch by pressing the green button. The light intensity will be automatically adjusted after changing the objective		●	●
Focusing	Low-hand Motorized auto focusing mechanism, independent operation of left and right hand wheels, three-speed speed adjustment, focusing range 30mm, repeat positioning accuracy: 0.1μm, motorized escape and recovery mechanism		●	●
Max. Specimen Height	76mm		●	
	56mm			●
Stage	High-precision motorized X-Y double layers mechanical stage, size 275 X 239 X 44.5 mm; travel: X axis, 125mm; Y axis, 75mm. Repeat positioning accuracy ±1.5μm, maximum speed 20mm/s		●	●
DIC Kit	DIC Kit for reflected illumination (can be used for 10X, 20X, 50X, 100X objectives)		○	○
Polarizing Kit	Polarizer for reflected illumination		○	○
	Analyzer for reflected illumination, 0-360° rotatable		○	○
	Polarizer for transmitted illumination			○
	Analyzer for transmitted illumination			○
Other Accessories	0.5X C-mount Adapter		○	○
	1X C-mount Adapter		○	○
	Dust Cover		●	●
	Power Cord		●	●
	Calibration slide 0.01mm (stage micrometer)		○	○
	Specimen Presser		○	○

Note: ● Standard Outfit, ○ Optional