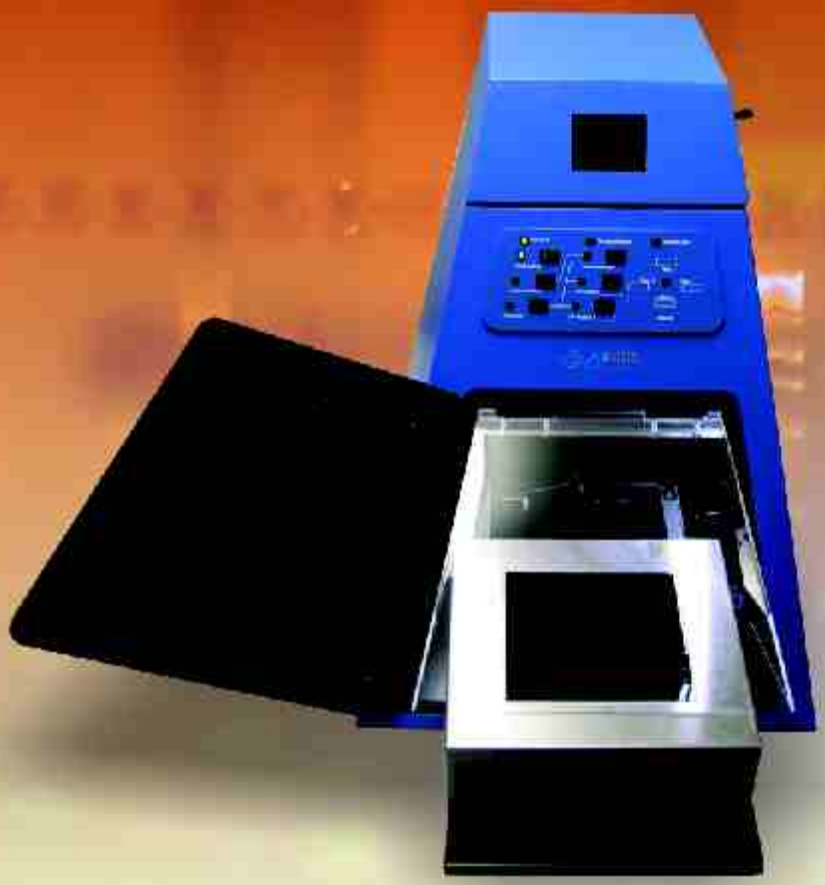
LABNICS Equipment

Gel Documentation



Gel System Felix

LGSF-Felix Series

LGSF-1010 / LGSF-2010

FEATURES

- The PC-controlled gel documentation systems LGSF-1010 and LGSF-2010 are based on a digital camera.
- The complete control of the camera and the motorzoom objective is released via the PC-software.
- Program contains many functions for the processing.
- An integrated data base serves for the clear administration of large data amounts.
- In addition to the transportable set-top dark hood, the systems consist of a UV transilluminator.
- In dependence on their application, they can also be placed over any other transilluminator with a maximum filter size of 23 x 30cm.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

Model No.	LGSF-1010	LGSF-2010
Standard Components		
Camera	Digital camera	
	PC-controlled motorzoom objective	
	Objective adapter	
	1 close-up lens	
	1 filter (EtBr filter 540 / 640, P575nm)	
	Control cable	
	Control software	
Control / Storage	Software / PC-interface (USB)	
Set-top Dark Hood	DH-10	
UV transilluminator	UST-20M-8K with UV protection shield	
Catalog No.	13270101	13270102

Technical Specifications		
Camera Chip	CCD-Chip	
Resolution	5 Mio. Pixel	
Grey Scales	8 Bit (256)	
Colours	24 Bit (16.7E6)	
Zoom Objectives	Motorzoom	
Sensitivity factor	Standard	Professional
Max. Exposure time	10 sec	16 sec
Special equipment	-	System for noise reduction
Set-top Dark Hood	Footprint (W x D) (30 x 25)cm	
Transilluminator UST-20M-8K	Filter size 20 x 20cm, wavelength 312nm	

LGSF-1040 / LGSF-2040

FEATURES

- A comfortable documentation systems with various application possibilities as well as a complete control of the camera and the motorzoom objective.
- The equipment with UV transmission (UV conversion screen) enables florescence and white light acquisitions, such as gels, films, blots and petri dishes.
- The intensity switch 50/100% on the transilluminator allows the change between preparative and analytic applications.
- The dark hood is equipped with an automatic UV shut-off when door is opened.
- Inspecting the gels under UV light can be realised with the preparative function.
- The gel documentation systems LGSF-1040 / LGSF-2040 are equipped with the powerful software packages.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

Model No.	LGSF-1040	LGSF-2040
Standard Components		
Camera	Digital camera	
	PC-controlled motorzoom objective	
	Objective adapter	
	1 close-up lens	
	1 filter (EtBr filter 540 / 640, P575nm)	
	Control cable	
	Control software	
Control / Storage	Software (User admin., Analysis) / PC-interface (USB),	
Dark Hood	DH-40 Dark hood with white top-light and preparative function	
Transilluminator	UST-20M-8E	
Conversion screen	WY-24	
Catalog No.	13270103	13270104
Technical Specifications		
Camera Chip	CCD-Chip	
Resolution	5 Mio. Pixel	
Grey Scales	8 Bit (256)	
Colours	24 Bit (16.7E6)	
Zoom Objectives	Motorzoom	
Sensitivity factor	Standard	Professional
Max. Exposure time	10 sec	16 sec
Special equipment	-	System for noise reduction
Dark Hood	Footprint (W x D) 55 x 48cm, max. sample size 27 x 40cm	
Transilluminator UST-20M-8E	Filter size 20 x 20cm, wavelength 312nm, intensity setting 50 / 100%	

Accessories		
Components		**Catalog No.**
Dark hood incl. UV top-light	Standard	13270111
	Professional	13270112
Filter Wheel		13270113

LGSF-1050 / LGSF-2050

FEATURES

- Perfectly suitable for analytic and preparative tasks.
- Equipped with UV light (transilluminator 312nm), white top light and white light transmission (UV conversion screen WY-24).
- The additional modules like User administration (user profiles can be produced, each user can define and save its own program settings with a secure password) and GLP (an internal protocol system, which comprehends and documents all the essential processing steps and also contains a functionality for saving the raw data) as well as analyses software.
- In addition to the automated UV shut-off and the preparative function, the dark hood DH-50 contains a roll out table for the transilluminator and a UV protection shield. This equipment eases the cutting of bands as well as the positioning and removing of gels considerably.
- The 10 stepped intensity setting of 10-100% on the UV transilluminator is of high advantage.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

Model No.	LGSF-1050	LGSF-2050
Standard Components		
Camera	Digital camera	
	PC-controlled motorzoom objective	
	Objective adapter	
	1 close-up lens	
	1 filter (EtBr filter 540 / 640, P575nm)	
	Control cable	
	Control software	
Control / Storage	Software (User admin., GLP, Analysis) / PC-interface (USB) and Control Panel CP-1	
Dark Hood	DH-50 Dark hood with white top-light & preparative function, roll-out table	
	for transilluminator, UV protective shield	
Transilluminator	UST-20M-8R	
Conversion screen	WY-24	
Catalog No.	13270105	13270106
Technical Specifications		
Camera Chip	CCD-Chip	
Resolution	5 Mio. Pixel	
Grey Scales	8 Bit (256)	
Colours	24 Bit (16.7E6)	
Zoom Objectives	Motorzoom	
Sensitivity factor	Standard	Professional
Max. Exposure time	10 sec	16 sec
Special equipment	-	System for noise reduction
Dark Hood	Footprint (W x D) 55 x 48cm, max. sample size 23 x 30cm	
Transilluminator UST-20M-8R	Filter size 20 x 20cm, wavelength 312nm, intensity setting 10-100%	
Control Panel CP-1	Keyboard independent remote control of the camera to avoid contaminations of florescence stains	

Accessories		
Components		**Catalog No.**
UV top-light in two wavelengths (any)	Standard	13270114
	Professional	13270115
Filter Wheel		13270113

LGSF-5050 / LGSF-6050 / LGSF-7050

FEATURES

- A professional documentation and qualification systems, which distinguish in a highly comfortable handling, great equipment and high-quality acquisitions.
- Due to the newly developed Super Contrast transilluminator, different fluorescence stains can be exposed with an improved proof sensitivity and a brilliant signal contrast - without changing the filter.
- The functionality of the dark hood DH-50 and a transilluminator allows a comfortable preparative work.
- The high resolution, the huge liner dynamic range and the excellent proof sensitivity are very advantageous for analytical applications.
- The software packages the additional modules User administration (user profiles can be produced, each user can define and save its own program settings with a secure password) and GLP (an internal protocol system, which comprehends and documents all the essential processing steps and also contains a functionality for saving the raw data) as well as the analyses software.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

Model No.	LGSF-5050	LGSF-6050	LGSF-7050
Standard Components			
Camera	Progressive Scan Camera		
	Manual zoom objective		
	1 close-up lens		
	1 filter (EtBr filter540/640, P575nm)		
	Control cable		
	Control software		
Control / Storage	Software (User admin., GLP, Analysis) / PC-interface (FireWire)		
Dark Hood	DH-50 Dark hood with white top-light and preparative function, roll-out table		
	for transilluminator, UV protective shield		
UV transilluminator	UST-C20M-8R Super Contrast		
Conversion screen	WY-24		
Band pickers	5.0 x 1.5mm		
Catalog No.	13270107	13270108	13270109

Technical Specifications			
Camera	Progressive Scan Camera, WP filter for super contrast transilluminators (1 filter for diverse florescence stains)		
Camera Chip	1 / 3" CCD	1 / 2" CCD	1 / 1.8" CCD
Resolution	1034 x 779 pixel	1392 x 1040 pixel	1628 x 1236 pixel
Grey Scales	8 Bit (256) extern, 10 Bit (1024) intern		8 Bit (256) extern, 12 Bit (4096) intern
Zoom Objectives	6x zoom, F 1.0		
Max. Exposure Time	65 sec		
Dark Hood	Footprint (W x D) 55 x 48cm, max. sample size 23 x 30cm		
UV transilluminator UST-C20M-8R	Filter size 20 x 20cm, wavelength 312nm, intensity setting 10-100%		

Accessories		
Components		**Catalog No.**
UV top-light in two wavelengths (any)	Standard	13270114
	Professional	13270115
Filter Wheel		13270113

Compact Digimage System

LUVDI Series

Compact Digimage System uses a digital camera with 8.0 mega pixel resolution. It is computer free for compact space requirements and small budget. One integrated chamber with a build-in UV transilluminator and viewing images from the large 8" TFT color liquid crystal display are its specific features. Another feature of the Compact Digimage System is the new design of convenient accesses on two sides of the chamber making it easy and safe to recover the agarose gel for further experiments. The system is suitable to capture image for fluorescent gels, colorimetric gels, auto radiography film, and blotting membrane and others. In addition, several analysis software packages can be used after capturing images from Compact Digimage system.

FEATURES

- Great observation from front view window and TFT screen.
- Convenient accesses on two sides for gel operation.
- User Friendly.
- Compact configuration and size.
- Complete package.
- 8 Megapixels digital camera.
- Autofocus.
- Multi focus area selection.
- 8" TFT liquid crystal screen.
- High resolution screen.
- Safety door switch.
- Multi power source.
- Video and Audio ports.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

Model No.	LUVDI-254	LUVDI-312	LUVDI-365	LUVDI-254 & 365
Standard Components				
	Compact Digimage System, Including : 8.0 mega pixel digital camera, camera adaptor,			
	8" TFT colour screen, chamber, 1GB memory card, Multi-card reader and 1 close up lens			
UV transilluminator	245nm	312nm	365nm	254 and 365nm
Catalog No.	13380101	13380102	13380103	13380104

Model No.	LUVDI-CB-254	LUVDI-CB-312	LUVDI-CB-365	LUVDI-CB-254 & 365
Standard Components				
	Including camera adaptor, 8"TFT colorful screen, chamber, 1 Close up lens & either a EtBR filter or a SYBR Green filter			
UV transilluminator	245nm	312nm	365nm	254 and 365nm
Catalog No.	13380105	13380106	13380107	13380108

Technical Specifications	
UV Transilluminator	Wavelength: 254 / 312 / 365nm
	Filter Size: 21 x 21cm
	Light Source: 8W x 6 tubes
	Long life filter
	High efficiency reflector
	Hi / Lo intensity switch
	Fast Lighting Up: new and high quality starter to let the tubes lighting up at once when switch on & no blink
Chamber	Multi-power Source: For camera, inner light lamp, TFT screen
	Inner White Lamp: 2 tubes
	Safety Door Switch: automatically shut down UV transilluminator while opening operation door
	Chamber Dimension: 290 x 220 x 320mm (W x D x H)
	Chamber Construction Material: Painted metal
	Rated Voltages: 110V or 220V
	Unit Weight: 20.0 kg
8"TFT Screen	8" TFT liquid crystal screen
	Resolution: 800 x 600 Pixels
	Brightness: 400cd/m2
	Contrast Ratio: 300:1
	Display mode: NTSC/PAL/SECAM mode auto switching
	Video and audio input
Camera	Type of Camera: 12 x Optical/4 x Digital
	Effective Pixels: Approx. 8.0 Megapixels
	CCD: 1/2.5" high-density CCD; total pixels 8.31 million
	Maximum Aperture: f/2.7 (W) - f/3.5 (T)
	Shutter Speed: 15-1/3200 sec. (settable in TV and M)
	Storage Media: Memory card
	Computer Interface: USB 2.0 Hi-Speed (mini-B jack)
	Video Out: NTSC/PAL

Accessories	
Item	**Catalog No.**
Close up lens and EtBR filter	13380111
Close up lens	13380112
Syber green filter	13380113
EtBR filter	13380221
Lens adaptor	13380115

Digimage System

LDI Series

Digimage System uses a digital camera with 8.0 mega pixel resolution. It is computer free for compact space requirements and small budget. Viewing images from the large 8" TFT color liquid crystal display is it's specific feature. It is suitable to capture image for fluorescent gels, colorimetric gels, auto radiography film, and blotting membrane and others.

FEATURES

- User friendly.
- Compact configuration and size.
- 8 Megapixels digital camera.
- Autofocus.
- Multi focus area selection.
- 8" TFT liquid crystal screen.
- High resolution screen.
- Safety door switch.
- Multi power source.
- Video and Audio ports.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

Model No.	LDI-01	LDI-HD
Standard Components		
	Digimage System, including 8.0 mega pixel digital camera, camera adaptor,	Including camera adaptor, lens adapter, 8" TFT
	Lens adaptor, 8" TFT colorful screen, hood, 1GB memory card, & 1 close up lens	colorful screen, hood, 1 close up lens and
	either a EtBR filter or a SYBR Green filter	either a EtBR filter or a SYBR Green filter
Catalog No.	13380201	13380202

Technical Specifications	
Hood	Multi-power Source: for camera, inner light lamp, TFT screen
	Inner White Lamp: 2 tubes
	Safety Door Switch: shut down UV transilluminator while opening operation door
	Hood dimension: 290 x 220 x 320mm (W x D x H)
	Rated Voltages: 110V or 220V
	Weight: 4.0 kg
8" TFT Screen	8" TFT liquid crystal screen
	Resolution: 800 x 600 Pixels
	Brightness: 400cd/m2
	Contrast Ratio: 300:1
	Display mode: NTSC/PAL/SECAM mode auto switching
	Video and audio input
Camera	Type of Camera: 12 x Optical/4 x Digital)
	Effective Pixels: Approx. 8.0 Megapixels
	CCD: 1/2.5" high-density CCD; total pixels 8.31 million
	Maximum Aperture: f/2.7 (W) - f/3.5 (T)
	Shutter Speed: 15-1/3200 sec. (settable in Tv and M)
	Storage Media: SD memory card
	Computer Interface: USB 2.0 Hi-Speed (mini-B jack)
	Video Out: NTSC/PAL

Accessories	
Items	**Catalog No.**
Close up lens and EtBR filter	13380111
Close up lens	13380112
Syber green filter	13380113
EtBR filter	13380221
Lens adaptor	13380115

Lxlite System

Lxlite is a standalone gel documentation system featuring a combination of simplicity, versatility and reliability. It comes with a high quality scientific grade CCD camera, a built-in 7" TFT LCD panel and a smart cabinet, making the easiest handling of high quality bio-image acquisition and analysis.

Lxlite is available in two models. Lxlite 200R is having high resolution 2 megapixel camera which replaces VGA resolution camera supplied with Lxlite 30R.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

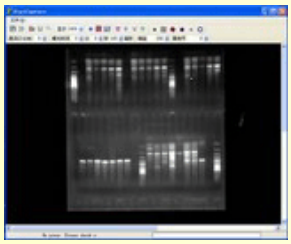
Model No.		Lxlite-30R	Lxlite-200R
Standard Components			
Image Capturing Unit		Camera set and Lens set	
Intelligent Dark Room		Filter set, Control set and Lighting set	
Software (optional)		System control and image capture / Analysis	
Catalog No.		13450101	13450102
Technical Specifications			
Camera Set	CCD Sensor	Kodak Kai-0340	Kodak Kai-2020
	Pixel Size (V x H)µm	7.4 x 7.4	
	Dynamic Range	0 to 3.6OD	
	Exposure Time	Upto 120 seconds	
	Cooling Method	None	
	Cooling Temperature	None	
	Capture Resolution	VGA: 640 x 480	2.0M: 1600 x 1200
	Bit Depth	12 bit	
	PC Interface	IEEE 1394 (Firewire)	
Lens Set	Lens Type	6x Zoom Lens	
	Lens Mount	C-mount	
Filter Set	Filter Turret	Motor Driven, 6 position	
	Emission Filter	595 nm (EtBr Stain)	
Control Set	Display Panel	In-built 7” TFT LCD	
	Standard Control	Front control pad	
	PC Control Interface Image Storage	USB storage	
Lighting Set	UV Transilluminator (26 x 21)cm	Available	
	White Back Light	Available	
	Epi White Light	Available	
	Power	100V-240V	
	Dimension (W x H x D)mm	620 x 1040 x 415	
	Weight	50Kg	
	Certification	UL, CE	

LGDS Series

LGDS series gel documentation and analysis systems integrate image capture, analysis and print. High resolution, unrivalled definition and exclusive quality CCD camera ensures the sensitivity for low limits of fluorescence without losing bands. Powerful image analysis software can help researchers get clear gel photo and detailed analysis result rapidly and accurately.
LGDS gel documentation and analysis systems can be used to detect DNA/RNA/protein gel, blotting membranes (including Western, Southern, Northern, Slot and Dot blotting), autoradiography film, ELISA plate, thin layer chromatography plate, chemiluminescence / fluorescence develop, etc.

FEATURES

Structure:
Ingenious optics configuration, computer controlled, sealed darkroom and touching control panel make using LGDS a pleasure.
High resolution Camera:
High performance and resolution digital CCD camera and CMOS camera are selected.
Motorized zoom lens with high light transmission efficiency:
LGDS system owns an outstanding large-aperture camera lens for optimum light transmission.
Exquisite sensitivity and precision:
Extremely weak signal can be recognized and close bands can be distinguished from each other. Lowest limits of detection can be 5pg of ethidium bromide stained DNA.
Low noise:
Latest CCD technology and advanced noise reduction algorithms ensure the high performance image with high signal-to-noise ratio.
Illumination:
Including UV and White trans-illumination, UV and White epi-illumination.
Maximum sample field of view:
Approximately 210mm x 260mm
Professional software for image analysis:
Friendly interface and powerful function.
Easy to use - just few clicks are necessary to obtain sophisticated results.
High-speed data interface:
Single USB2.0 interface to complete command transfer and image capture.



Gel Analysis Software:
LGDS software for image analysis is a sophisticated and intuitive software combining the power of a comprehensive set of analytical tools and automatic functions in an easy to use environment.
Function:
Image capture:
- Obtain gel image through USB interface.
- Obtain image from scanner and DC through TWAIN interface.
- Automatic focusing, realtime previewing.
- Select exposure time through software.
- Exchange image resource with other software such as photoshop, word.

Image edit:
- Zoom in or out image infinitely.
- Invert the image to obtain a negative or positive display.
- Rotate image using a manually defined angle.
- Cut, copy and paste inside the original image or the new one.
- Enhance the image display by adjusting contrast, lightness and gray values.
- Optimize image automatically.
- Correcting flexuous gel lane and band with image editor.
- Add marks or comments without assistance of other softwares.

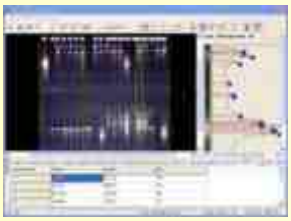
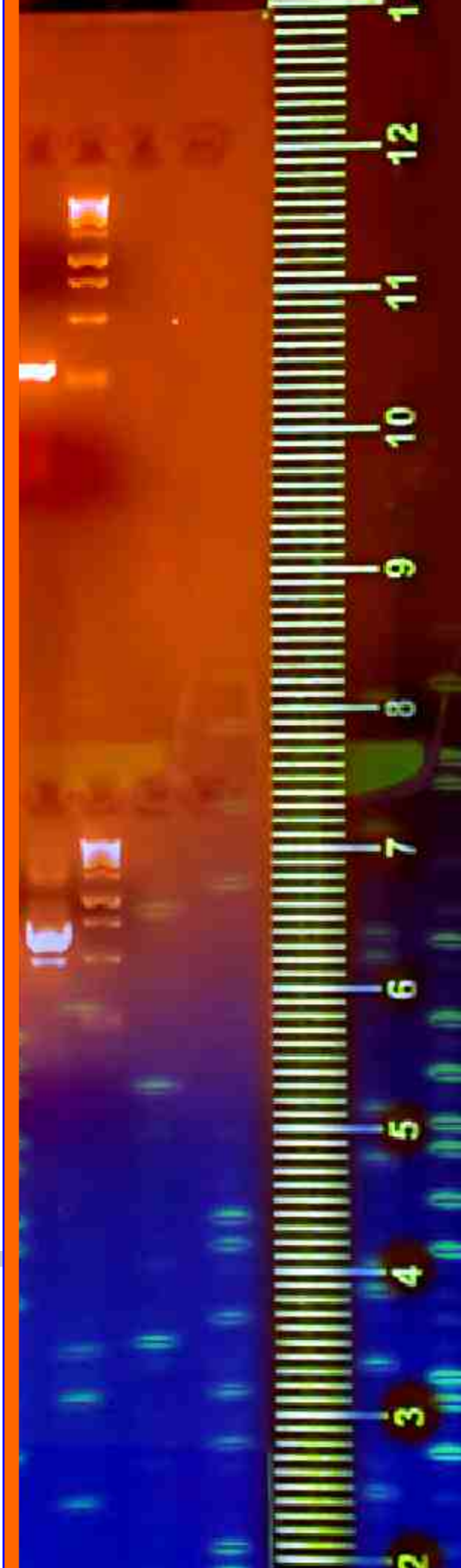


Image analysis:
- Recognize and number gel lanes/bands automatically: add or delete any band, adjust or move any lane according to yourself.
- Density contrast: scan appointed gel lane, describe the scan curve, and then compute the density integral calculus and peak value of each band in this lane. One can also carry on tiny adjustment to light density measurement scope and contrast several gel lanes.
- Calculate migration rate of each band.
- Calculate electrophoretic distances for the molecular weight, the fragments sizes and the RF values(IEF).
- Calculate the volume quantification, the height and the area.
- Compare the volume of one spot to a reference.
- Cancel or redo all the operations infinitely.

Image manage:
- Modify the image format to TIFF, BMP, GIF or JPEG, and etc.
- Delete unnecessary files as you want.
- Export your analysis results(including total amount analysis, molecular weight analysis and light density analysis) to Word, Excel compatible file.
- Printing image and report.

TECHNICAL SPECIFICATIONS AND ORDERING INFORMATION

Model No.	LGDS-100A	LGDS-100B	LGDS-100C
Darkroom	Simple, hermetic, microprocessor control		
Camera	Digital CCD camera,	CCD camera	CMOS camera
	1.40 million pixels, 12bit	0.44 million pixels, 8bit	1.30 million pixels, 8bit
Resolution	1360 x1024	768 x 576	1280 x 1024
Operation panel	Full function control panel	Full function control panel with LCD screen	Full function control panel
Lens	6x motorized zoom		
Filter	Standard F590 filter with layers coating		
UV Transilluminator	Transmitted area: 21cm x 26cm		
	wave length: 302nm (254nm,365nm selectable)		
Trans-White	Uniform white transillumination plate (option)		
Epi-UV	Double-UV epi-illumination source (option)		
Epi-White	Double LED reflection		
Software	Image acquisition, enhancement and analysis		
Operating system	Windows XP, 2000, 98		
Interface	Single USB2.0		
Catalog No.	13840101	13840102	13840103



LABNICS Equipment

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