

Developing Chambers & Accessories



A



B

- A. Tank and Lid Unit (available in Standard and Thinline versions)
- B. Standard Latch-Lid and Tank Unit with Aluminum Rack

Smaller Developing Tanks For 10 x 10 cm Plates

These tanks are designed for the development of 10x10cm or smaller TLC Plates. The smaller size of the chambers significantly reduces the amount of solvent needed for development. The single molded tank design includes flat ground tops, beveled for safety on the inner and outer rims, and flat ground bottoms for stability.

Latch-Lid™ units have a unique latching device that holds the matching ground glass surfaces of the lid and tank firmly in place. Metal components of the latch-lid mechanism are made of stainless steel.

Thinline Tanks

Inside Dimensions: 12cm W x 6.4cm D x 11.5cm H

DESCRIPTION	CATALOG NUMBER
Thinline Latch-Lid Tank Unit	70-33
Thinline Tank and Lid Unit	70-36

Standard Tanks

Inside Dimensions: 12cm W x 8.6cm D x 11.5cm H

DESCRIPTION	CATALOG NUMBER
Standard Latch-Lid Tank Unit with aluminum rack	70-25
Standard Latch-Lid Tank Unit	70-29
Standard Tank and Lid Unit	70-30
Aluminum Rack for 70-25 or 70-30	70-28
Aluminum Rack (Teflon coated) for 70-25 or 70-30	70-28T

Thinline™ tanks are 6.4 cm in depth and require only 30 to 40ml of solvent. They accommodate up to two (2) plates. Standard tanks are 8.6 cm in depth and can accommodate up to six (6) plates when using the specially designed aluminum rack. The six place rack is also available with a Teflon coating.



Thinline

Standard



Analtech's glass TLC developing chambers provide optimum developing conditions for a variety of TLC plate sizes and shapes. Precision ground surfaces provide tight seals between tanks and glass covers and permit complete saturation of chambers with solvent vapor for uniform development of chromatograms.

NOTE: Each chamber is shipped with the appropriate lid.



Replacement Lids

DESCRIPTION	CATALOG NUMBER
For 70-22 & 70-21	71-22
For 75-52 (7.5 cm dia.)	76-52
For 75-12 (14.5 cm dia.)	76-12
For 70-30	76-30
For 70-36	76-36
For 70-00 (new)	71-00b
For 70-33	70-35
For 70-25 & 70-29	70-27
For 80-33 & 80-26	80-34



Developing Tanks

DIMENSIONS	INSIDE DIMENSIONS (CM)	SHIPPING WEIGHT (EACH)	CATALOG NUMBER
RECTANGULAR CHAMBERS			
For 20 x 20cm TLC plates	25 H x 28 W x 7.5 D	17 lbs.	70-22
For 10 x 20cm TLC plates (horizontal)	13 H x 28 W x 7.5 D	9 lbs.	70-21
RECTANGULAR LATCH-LID™ CHAMBERS			
For 20 x 20cm TLC plates	25 H x 28 W x 7.5 D	18 lbs.	80-33
For 10 x 20cm TLC plates (horizontal)	13 H x 28 W x 7.5 D	10 lbs.	80-26
CYLINDRICAL CHAMBERS			
For 5 x 20cm TLC plates (vertical)	21.5 H x 6.5 Dia.	4 lbs.	75-52
For 10 x 20cm TLC plates (vertical)	22.5 H x 12.5 Dia.	6 lbs.	75-12
MICRO CHAMBERS			
For 2.5 x 10cm plates (pkg of 3)	10.5 H x 4.4 Dia.	3 lbs.	70-00
For 2.5 x 10cm plates (1 each)	10.5 H x 4.4 Dia.	1 lb.	70-01





Radial/Circular Developing System for HPTLC

Radial development on HPTLC plates increases separation of low Rf spots and gives better resolution than with linear development. Circular development provides a rapid means of analyzing single samples or for scouting solvent conditions in methods development.

The Analtech Radial/Circular Developing System is designed for the development of radial and circular chromatograms on 10 x 10 cm HPTLC plates.

The Radial/Circular Developing System includes the chamber, the base with solvent reservoir, two clamps, the spotting guide, 500 wicks of each type, and complete instructions.

Linear Sandwich Chamber Kit for HPTLC

The Analtech Linear Sandwich Chamber Kit is designed for linear development of 10 x 10 cm HPTLC plates in a vapor unsaturated mode. The glass-backed plate forms one wall of the chamber with the adsorbent facing inward. The solvent reservoir requires only 6 ml of solvent.

The Kit includes a one piece brace and solvent reservoir, a spacer gauge, stainless steel chamber, clamps, and instructions for use. See Web Site for image of kit.

Saturation Pads

Analtech offers improved saturation pads made from a textured paper. This provides greater surface to assist in rapid vapor saturation of a TLC chamber air space. The majority of TLC separations are performed under saturated conditions in large chambers to insure even solvent migration. Also, the strategic placement of pads saturated with solvent in the developing chamber helps assure rapid and uniform saturation of the entire atmosphere with solvent vapor, thereby reducing edge effects.

Each package contains 100 saturation pads.

DESCRIPTION (100/PKG)	CATALOG NO.
TLC Saturation Pads 20 x 20 cm	81-24
TLC Saturation Pads 10 x 20 cm	81-12
TLC Saturation Pads 10 x 10 cm	81-06

SATURATION PAD BENEFITS

- Insure uniform chamber saturation by solvent vapor
- Improve Rf reproducibility
- Reduce "edge effect" on separations

DESCRIPTION	CATALOG NO.
Radial/Circular Developing System	60-00
Hydrophobic Wicks (500 replacements)	60-01
Hydrophilic Wicks (500 replacements)	60-02
Linear/Sandwich Chamber Kit	60-40
Linear Sandwich Adapter ¹	60-55
Radial/Linear Comb. Developing System ²	60-60

1. Converts radial/circular system to linear sandwich mode

2. Includes 60-00, 60-55, 21-00 (NANOCAP Kit), and 59077 (a box of 25 HPTLC UNIPLATES™).



Plate Conditioning Apparatus

Catalog# 85-02

The Stainless Steel Plate Conditioning Apparatus includes glass developing chamber, a multi-plate rack for holding up to five 20 x 20cm TLC plates, plus a special lid assembly with hooks for suspending the rack above the solvent in the developing chamber. After the appropriate equilibration period, the rack can be lowered to begin developing of the TLC plates without removing the lid.

The Plate Conditioning Apparatus improves reproducibility of Rf values by assuring proper equilibration before developing begins.

The Plate Conditioning Apparatus is supplied as a complete package including a glass developing chamber. All components may be purchased individually as replacement parts.

Replacement parts for plate conditioning apparatus

DESCRIPTION	CATALOG NO.
Plate Conditioning Lid	85-00
Multi-Plate Rack	80-01
Glass Developing Chamber	70-22

Multiplate Rack

Catalog# 80-01

Stainless steel rack holds up to five 20 x 20 cm TLC plates for simultaneous development in the #70-22 developing chamber. Also useful for activating or treating TLC plates.

HPTLC Two-Plate Rack

Catalog# 80-02

Stainless steel rack for use with glass developing chambers. Holds two 10x10 cm, 10x20 cm, or 5x20 cm TLC plates. Short replacement shaft is included for use with short chamber. Rack fits in the cylindrical chambers for 10 cm wide plates.



85-02

PLATE CONDITIONING APPARATUS

- Holds up to 5 plates
- Lowers plates for development without opening chamber
- Improves Rf reproducibility
- Insures solvent vapor saturation



80-01



80-02

50-01



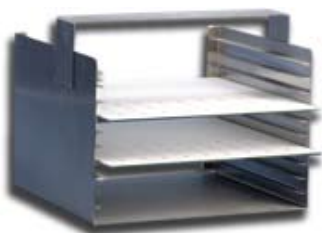
Desiccating Cabinet for TLC, Stainless Steel

Catalog# 50-03

Featuring a carrying handle, this 20 gauge stainless steel cabinet has a removable desiccant tray and gasketed door with positive lock door latch. This unit holds a stainless steel drying rack, Part No. 50-00 (not supplied with unit).

Cabinet weighs 12lbs (5.4kg), and measures 25cm D x 25cm W x 30cm H (9.75" D x 9.75" W x 11.75" H).

50-00



TLC Plate Storage Carrier

Catalog# 50-00

This sturdy, stainless steel rack safely holds ten 20 x 20 cm TLC UNIPLATES™ (or a number of smaller plates at least 20 cm wide) for drying or storage. A backstop on each set of slides prevents plates from falling out the rear and permits vertical mounting of plates when optimum circulation is desired. Handle design tilts the rack when carried to prevent plates from sliding. Also available for 10 x 10 cm plates (CAT# 50-10)

50-02



TLC Plate Holder (plastic)

Catalog# 50-02

Lightweight and totally immune to contamination or disintegration from usual TLC solvents or chemicals. The sloping bottom grooves guide TLC plates to the vertical grooves which hold plates in an upright position. Holds up to 25 TLC plates of any size.



Adsorbent Scraper

Scraping adsorbent layers is greatly improved with this steel flat-blade scraper. Blade is 13 mm wide and tapered to a sharp edge for rapid removal of adsorbent from plate. Handle is aluminum. A good general purpose tool for the laboratory.

DESCRIPTION	CATALOG NO.
Adsorbent Scraper	05-00
Replacement Blades (pkg/5)	05-01

Visualization Equipment

TLC Reagent Sprayer

Catalog# 41-00

A glass sprayer with a specially designed head to eliminate formation of droplets and spattering. This feature assures delivery of a fine misty spray and ends problems from uneven discharge. Can be used with an air line or the rubber bulb supplied. The volume of the reagent flask is 100 ml. Replacement spray heads (Cat# 41-01) are also available.



41-00

Analtech TLC Sprayer Kit (3 units)

Catalog# 40-01

A refillable sprayer powered by its own self-contained replaceable pressure unit. Can be used with all common TLC reagents. Delivers up to 16 ounces of reagent from each pressure unit. Aspirating tube is made of polypropylene and the particulate filter is nylon. Meets EPA requirements for approved propellants (CFC Free).



43-00

40-01

Replacements for sprayer kit

DESCRIPTION	CATALOG NO.
Pressure Units (pkg/12)	40-02
Reagent Jars (pkg/12)	40-03

Spray Support

Catalog# 43-00

Stainless steel rack holds TLC plate in proper position for spraying with visualization reagents. Self-draining, no solvent feedback. Works well in combination with Analtech's Disposable Spray Booth (Cat# 42-00).



43-00

Disposable Spray Booth (pkg/5)

Catalog# 42-00

This spray booth is large enough to accommodate all standard size TLC plates. Protects other laboratory areas from contamination by TLC visualization reagents. After use, can be disposed of in ordinary waste container.

42-00



The TLC plate rests directly on the heat distributor and is enclosed within a narrow vapor space to insure maximum density of reagent vapors. A Pyrex® window allows the reaction to be followed for optimal color development. A tubular port permits the introduction or removal of vapors and doubles as a plate removal device.



90-00

Vapor Phase Fluorescence (VPF) Visualization Chamber

The Analtech Vapor Phase Fluorescence Chamber is a new advance in the fields of qualitative and quantitative TLC. Difficult-to-detect compounds, such as sugars, can now be located at the nanogram level through chemically induced fluorescence.

VPF is a general fluorogenic visualization reaction accomplished by heating the TLC plate in the presence of ammonium bicarbonate. Fluorescence is one of the most sensitive and easily quantitated TLC detection methods.

The visualization chamber is invaluable for sulfuric acid charring and other detection techniques requiring heat for the formation of derivatives. The chamber is very useful for activation and evaporation of residual mobile phase.

The unit consists of an aluminum block heat distributor surrounded by a stainless steel frame and non-asbestos insulation. The device mounts on a standard 6.5 X 6.5 inch hot plate (included in Catalog # 90-00) and insures rapid rise to the set temperature and even heat distribution. A thermometer extends from the aluminum core to allow accurate reading of temperature for reproducible analysis.

It is a good morning exercise for a research scientist to discard a pet hypothesis every day before breakfast.

Konrad Lorenz,
Austrian zoologist

DESCRIPTION	CATALOG NO.
VPF Visualization Chamber (with hot plate & #90-99)	90-00
VPF Visualization Chamber (without hot plate, with #90-99)	90-01
Hot Plate (only) 120V or 230V	90-05
Ammonium Bicarbonate (50g)	90-99

Lightweight UV Cabinet

This compact, lightweight UV cabinet will accommodate TLC plates up to 20 x 20 cm. The UV lamp is removable and may be used separately, for example, for viewing freshly sprayed plates without removing them from the fume hood.

Access to the interior of the cabinet is via a flexible, dark curtain on the front of the cabinet. The contoured viewing port contains a built-in contrast-control filter which absorbs both UV light and “blue haze” for safe viewing without eye fatigue.

This cabinet is available in two versions. The standard version (Catalog #93-06) incorporates a portable lamp containing 6 watt tubes and offers typical light intensities at the cabinet floor of 350 $\mu\text{W}/\text{cm}^2$ at 365 nm and 420 $\mu\text{W}/\text{cm}^2$ at 254 nm. The economy version (Catalog #93-04) uses a portable lamp containing 4 watt tubes and produces typical light intensities at the cabinet floor of 300 $\mu\text{W}/\text{cm}^2$ at 365 nm and 310 $\mu\text{W}/\text{cm}^2$ at 254 nm.

DESCRIPTION	CATALOG NO.
Lightweight Viewing Cabinet (with 6 watt lamp)	93-06
Lightweight Viewing Cabinet (with 4 watt lamp)	93-04
Lightweight Viewing Cabinet (no lamps included)	93-01

Available in 110V or 230V.



93-80

Darkroom Viewing Cabinet

The Analtech Darkroom Viewing Cabinet has two overhead ports which accept one or two 8 watt combination short/long wave portable UV lamps. These 8 watt lamps offer typical light intensities at the cabinet floor of 470 $\mu\text{W}/\text{cm}^2$ at 365 nm and 650 $\mu\text{W}/\text{cm}^2$ at 254 nm. Centered between the lamp ports is an integrally UV filtered viewing port with a plastic eye shield. Illumination in the visible spectrum is provided by an internal white light source.

The cabinet is of sturdy metal construction with a polyurethane coating for chemical resistance. A 5 x 15 inch entry port allows access to a flat viewing surface large enough to accommodate two 20 x 20 cm TLC plates. A weighted, dark felt curtain covers the opening and insures a light-tight viewing area.

DESCRIPTION	CATALOG NO.
Darkroom Viewing Cabinet (no lamps included)	93-80
Portable UV lamp, 8 watt (combination 254/366)	93-28

NOTE: Other UV lamps are available in 254, 302, and 366nm wavelengths. (Available in 110V or 230V).



Portable UV Lamps

Analtech offers a full range of UV lamps with various combinations of UV wavelength, intensity, size and wattage. Each UV lamp is designed for ease of use and will provide hours of trouble-free operation. They are highly recommended as compact and economical sources for TLC and gel visualization.

All UV lamps that Analtech sells feature a silver-anodized aluminum housing that makes the lamps both attractive and durable. A corrosion-resistant, specular-aluminum reflector optimizes UV irradiance. These lamps come with integrally filtered or unfiltered UV tubes, available with or without a separate filter assembly. Unfiltered tubes provide the highest UV intensity.

Listed below are the most commonly used for TLC applications. The combination lamps incorporate separate tubes for short and long wave illumination.



Typical Peak Intensities at a 15 cm distance
(partial list):

4 watt combo lamp: 300 $\mu\text{W}/\text{cm}^2$ at 365 nm
and 310 $\mu\text{W}/\text{cm}^2$ at 254 nm.

6 watt combo lamp: 350 $\mu\text{W}/\text{cm}^2$ at 365 nm
and 390 $\mu\text{W}/\text{cm}^2$ at 254 nm.

8 watt combo lamp: 470 $\mu\text{W}/\text{cm}^2$ at 365 nm
and 500 $\mu\text{W}/\text{cm}^2$ at 254 nm.

For complete list of Peak Intensity Profiles
request our UV Lamps Data Sheet.

DESCRIPTION	CATALOG NO.
LONG WAVE PORTABLE UV LAMP (UV-A 365nm)	
4-Watt (with Integrally Filtered Tube)	EA-140
6-Watt (with Integrally Filtered Tube)	EA-160
8-Watt (with Integrally Filtered Tube)	EA-180
16-Watt (with 2 x 8-Watt Tubes & Filter)	93-50
SHORT WAVE PORTABLE UV LAMP (UV-C 254nm)	
4-Watt (with Filter Assembly)	EF-140C
6-Watt (with Filter Assembly)	EF-160C
8-Watt (with Filter Assembly)	EF-180C
16-Watt (with 2 x 8-Watt Tubes & Filter)	93-51
MEDIUM WAVE PORTABLE UV LAMP (UV-B 312nm)	
6-Watt (with Filter Assembly)	EB-160C
8-Watt (with Filter Assembly)	EB-180C
16-Watt (with 2 x 8-Watt Tubes & Filter)	93-53
COMBO WAVE PORTABLE UV LAMP (UV-A & UV-C)	
4-Watt (2 Tubes & Filter Assembly)	93-24
6-Watt (2 Tubes & Filter Assembly)	93-26
8-Watt (2 Tubes & Filter Assembly)	93-28
Accessory Stand for Lamps	93-30

Additional UV lamps not shown in this catalog are available from ANALTECH.
For a complete listing please visit our Web Site. Available in 110V or 230V.



UV Transilluminators

These transilluminators are high performance units specially designed for fluorescence analysis, including TLC plates and electrophoresis gels. They are also well suited for DNA related research.

All listed transilluminators are compatible with Analtech's documentation & densitometry systems listed on following pages. They are equipped with a powerful and highly efficient cooling fan to maximize operating intensities and lower filter surface temperatures for safe operation. In addition to the cooling fan, these transilluminators also feature a 60 minute timer for automatic unit shut-off to prevent unnecessary solarization of the filter glass.

All 312nm and 365nm models are equipped with a removable, polymer-based diffusing screen attached below the filter that ensures superior light distribution and eliminates confusing light striations caused by the contours of the tubes. Also, all transilluminators are supplied with a protective dust cover.

Typical Peak Intensities at filter surface (partial list):

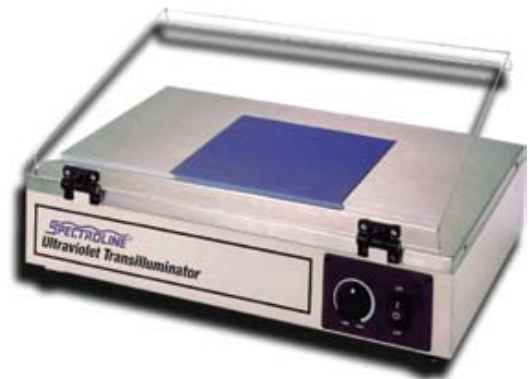
All 254nm units: 8000 $\mu\text{W}/\text{cm}^2$

All 365nm units: 8000 $\mu\text{W}/\text{cm}^2$

All 312nm units: 8000 $\mu\text{W}/\text{cm}^2$

For complete list of Peak Intensity Profiles visit our Web Site.

DESCRIPTION	CATALOG NO.
LONG WAVE TRANSILLUMINATOR (UV-A 365nm)	
8" x 8" filter, automatic timer, 6 x 15 watt tubes, filter assembly, and diffusing screen	93-69
8" x 16" filter, automatic timer, 6 x 15 watt tubes, filter assembly, and diffusing screen	TL-365R
SHORT WAVE TRANSILLUMINATOR (UV-C 254nm)	
8" x 8" filter, automatic timer, 6 x 15 watt tubes, and filter assembly	93-67
8" x 16" filter, automatic timer, 6 x 15 watt tubes, and filter assembly	TL-254R
MEDIUM WAVE TRANSILLUMINATOR (UV-B 312nm)	
8" x 8" filter ,automatic timer, 6 x 15 watt tubes, filter assembly, and diffusing screen	TC-312R
8" x 16" filter ,automatic timer, 6 x 15 watt tubes, filter assembly, and diffusing screen	TL-312R



Additional Transilluminators not shown in this catalog are available from ANALTECH including units with odd sized filters and variable intensity control (available only on 312nm units). For a complete listing please visit our Web Site. Available in 110V or 230V.



Documentation Systems

PhotoDoc-It Imaging Systems

With the shift towards digital imaging, old fashioned documentation systems like the Polaroid based units have been totally replaced by units using high resolution digital cameras. Everything from simple imaging to colony counting to full densitometry is now possible with the digital cameras moving beyond the 10 megapixel level. With no room to fit all solutions into our catalog Analtech has listed just a few of these options. Please visit our Web Site to see the full range of digital imaging solutions we have to offer.

The PhotoDoc-It system is a compact unit that combines a digital color camera, hood, transilluminator and a color printer for low cost prints. The optional LCD monitor mounts to the front of the hood for live preview and capture of gels or TLC plates.



- Capture brilliant color images with the high resolution digital color camera
- Save images to the memory card for transfer to your computer for viewing or documentation
- Instantly print images on the lab quality color photo printer

DESCRIPTION	CATALOG NO.
PhotoDoc-It 55 with M-20 Transilluminator	97-0274-04 (100-115V) 97-0274-05 (230V)
PhotoDoc-It 55 with LM-20 Transilluminator	97-0274-07 (100-115V) 97-0274-08 (230V)
PhotoDoc-It 55 with M26 Transilluminator	97-0274-10 (100-115V) 97-0274-11 (230V)
PhotoDoc-It 55 with LM-26 Transilluminator	97-0274-13 (100-115V) 97-0274-14 (230V)
PhotoDoc-It 55 without Transilluminator	97-0274-01 (100-115V) 97-0274-02 (230V)
LCD Screen (optional), 6.4" TFT Video Monitor (12 VDC power)	98-0093-01

PhotoDoc-It Systems Include Digi Camera 55, Hood Enclosure, EtBr Filter, Combination Lock, Color Printer and Choice of Benchtop UV Transilluminator

PHOTODOC-IT	SPECIFICATIONS
Digi Camera 55	Megapixel resolution camera* 2.5" LCD screen USB connectivity 4x optical zoom lens
Hood	Compact design Metal construction Handles for portability Fits up to 21x26cm filters
Transilluminator	Select from these models: M-20: 302nm UV, 20x20cm filter LM-20: 302/365nm UV, 20x20cm filter M-26: 302nm UV, 21x26cm filter LM-26: 302/365nm UV, 21x26cm filter
Filter	50mm Sq. Ethidium Bromide
Printer	Color printer with 300x300 dpi resolution 4x6" prints USB connectivity 108 prints/ink included Dim: 7 x 5 x 2.5 in (178 x 127 x 64 mm)
Combination Lock	3 digit resettable combination lock secures the camera to the darkroom; 2 ft. cable

Additional features included with the camera allow photography capabilities for other lab uses.

* Camera specifications subject to change without notice. Contact Tech Support for current camera specifications.

ChromaDoc-It TLC Imaging System

This brand new imaging system was designed specifically for TLC applications and works well with either reflected UV light (short and long wave) or white light. The ChromaDoc-It features a 12 megapixel digital camera plus overhead UV providing outstanding flexibility for color TLC documentation and imaging.

System Overview

The cabinet contains two built-in overhead UV lamps, each with a 15-watt short wave (254nm) and long wave (365nm) UV tube. The lamps are positioned equidistant from the photo platform below for uniform illumination. There is also an interior overhead white light provided for ease of setup. The camera and image capture functions are controlled by the Doc-It software by way of a USB connection between the camera and your computer. This software allows capture of quality, high resolution images and offers many features for maximizing image output.

Image Analysis Software

Since its release in 2003, the Doc-It 1D Analysis software has been upgraded to be more compliant with 21CFR Part 11. It is designed for analysis of TLC plates, gels, and other membranes. Now, you can generate easy to interpret quantitative data of lanes and bands as well as create detailed and user-configured reports showing the analysis results. For all the details visit our Web Site at www.analtech.com.

Specifications

- Digital Camera: Color Digital Camera, 12 megapixels, resolutions from 640x480 to 2592x1944, 4x optical zoom lens, UV filters and diopter, USB interface, Li-Ion rechargeable battery
- Software: Many 21CFR Part 11 compliant features; Large selection of image capture and effects settings, compatible with Windows 98, ME, 2000, and XP
- Cabinet: Overhead 254nm/365nm UV lamps and white light, soft rubber viewport and contrast control filter, lightweight access curtain, dimensions: 19.75W x 16.5D x 15.75"H (60.2 x 41.9 x 40 cm)
- Power: Available in 110V and 230V

DESCRIPTION	CATALOG NO.
ChromaDoc-It TLC Imaging System (complete with all items listed below)	96-30
Doc-It LS Analysis Software	96-31
White Light Transilluminator	93-37

Note: The white light transilluminator is not included with the ChromaDoc-It system

SYSTEM COMPONENTS

- Darkroom Viewing Cabinet
- 16W Combination 254/365 nm UV Lamps, built-in (qty 2)
- 12 Mega Pixel Color Digital Camera
- Doc-It Imaging Software
- UV Filters and Diopter

