

DESAGA Digital Image Processing Digital Documentation System DD 50



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The UV detection methods are amongst the most sensitive means of detection available for thin-layer chromatography. Substances fluoresce brightly on a dark background in long-wave UV light at 366 nm. This method demands high light density. It is important, in order to increase the contrast, that the visible portion be filtered out by means of a special filter. If the TLC plate contains a fluorescent indicator then at 254 nm the substance spots appear as dark spots against a bright fluorescent background. White light is required for coloured chromatograms.

All these requirements are optimally fulfilled by the DESAGA CabUVIS UV analysis lamp. Naturally validation can be carried out in accordance with Eur. Pharm. In combination with our high resolution digital camera you get an affordable system as the basis for the documentation and evaluation of thin-layer chromatograms, electropherograms and autoradiograms.

A modern "digital documentation" work station is made up of the following components:

Illumination:

Two daylight tubes, two 8 W low pressure Hg tubes for 254 nm and four 8 W low pressure Hg tubes for 366 nm are arranged symmetrically in the CabUVIS for incident light applications and guarantee the uniform illumination, that is so important for documentation. The visible light component of the low pressure tubes is kept back by means of

selected UV filters. A special daylight fluorescent tube with a power of 8 watt is fitted in the base for transmitted light applications. It is covered by means of an acrylic sheet and, thus, allows the observation of objects up to 200 x 200 mm.

Documentation head:

Our digital camera can be attached to the CabUVIS without difficulty. Here, the "DigiDoc" head serves as the interface. This consists of a cover plate with camera mounting and completely protects the system from stray light. The special filters for UV work that are supplied can be mounted in the integrated filter mount-ing.

Digital camera:

The core of the image collection system consists of high resolution digital camera equipped with an integrated high-performance objective, 4-fold motor zoom and auto-focus over the whole focal range for needle sharp images. This camera with a resolution of 5 million pixels produces accurately detailed images of real evidential value in excellent colour brilliance. The high light sensitivity makes it possible to record weak fluorescence. Once the desired detail of the object has been selected, the camera settings follow with stored standardized parameters. The image can be assessed on the fold-out LCD monitor of the camera. A high quality objective glass filter, specially selected for the requirements

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of digital image processing, yields stable colour results with the highest resolution. The image is either taken manually or without contact via an IR shutter. The images so obtained are stored on the memory card provided. Image output can either be directly, using a suitable printer, or by downloading via the USB interface onto a computer using the camera-specific software. This makes it possible to edit, save and print out in the simplest possible manner using the DESAGA ProViDoc® software.

ProViDoc® program:

The ProViDoc® software supports the GxP editing and problem-free archiving of the images that have been recorded. This extraordinarily high performance 32 bit software operating under MS Windows™ 2000/XP can easily be operated, even by users who have no computer experience and, hence, is easy to learn to use in a short time. The image displayed on the monitor can be edited, labelled and marked. Here, there is a free choice of type size and font. A zoom function is available to increase the image format.

Any desired number of windows with images can be opened at the same time. The arrangement of the images is a matter of choice. They can automatically be superimposed, overlapped or, for purposes of comparison, the images can be displayed next to each other. Each image is automatically labelled with the date, user name and an unequivocal identification number and, thus, it is stored in conformity with GxP guidelines - it can even be protected by means of a password, if desired. The ProViDoc® document so generated is a file format specially developed by DESAGA for image, commentary and other information. The user can append a commentary of any desired length to each image. This is stored directly with the image and can be printed out with any laser or inkjet printer that is supported by Windows.



Ordering Information

Description:	Order No.:
Digital Documentation System DD 50 , incl. CabUVIS, DigiDoc-top with UV-Filter, digital camera with zoom and autofocus, ProViDoc® software	90.140.060
ProViBase®, archiving and data base	92.140.092
ProResult®, program for quantitative evaluation	92.140.095
Colour plate for documentation systems	92.140.085
IQ / OQ for Digital Documentation System DD 50	92.140.065

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