

Automationstechnik Schüller GmbH

technical training TLC

- Technican at Lab Automated Systems of ATS
 - Production of TLC devices
 - Quality control of TLC devices
 - Aftersale service of TLC device (delivery, maintenance, repair)
 - Service of sealing devices Sarstedt (STK, maintenance, repair)
- Before service technician and head of quality control by biostep
 - Quality control of TLC devices
 - Aftersale service of TLC device (delivery, maintenance, repair)
 - Service of sealing devices Sarstedt (maintenance, repair)
 - Monitoring of final acceptance of small devices in Sarstedt
 - development-clad testing for small devices and TLC

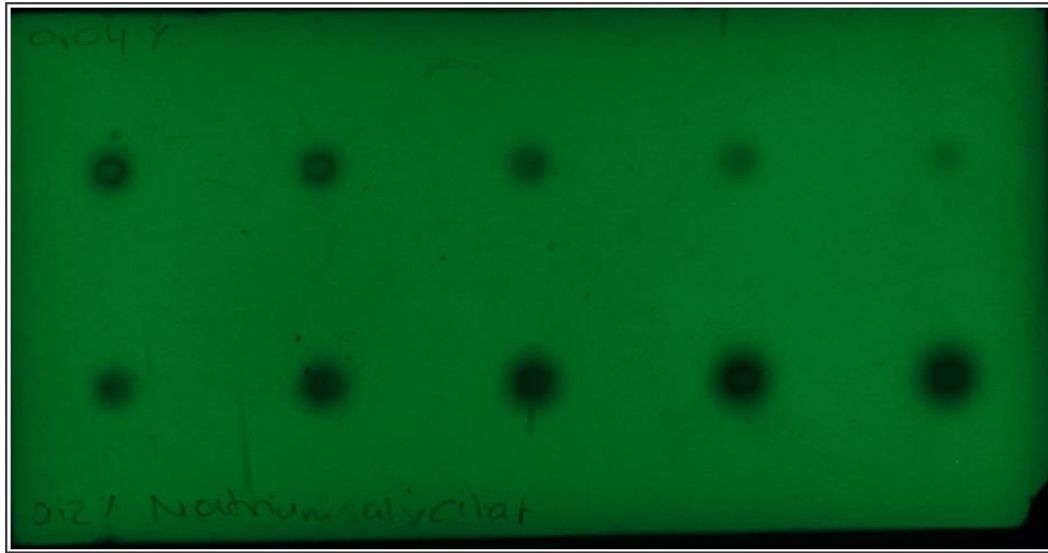
- Requirements/ tools in general
- ProViDoc VD40, DD50, DD70 with base CabUvis
- AS30 with AS30Win
- DS20 with Software DS20
- CD60 with ProQuant and ProValid
- COM settings, connecting the devices to the PC

- following you need for service.
 - various screwdrivers, pliers, hexagon wrench
 - Compressed air spray, silicone oil
 - Paper for cleaning, cotton buds
 - Multimeter with frequenz measurement
 - Manuale of the devices
 - Safty glasses

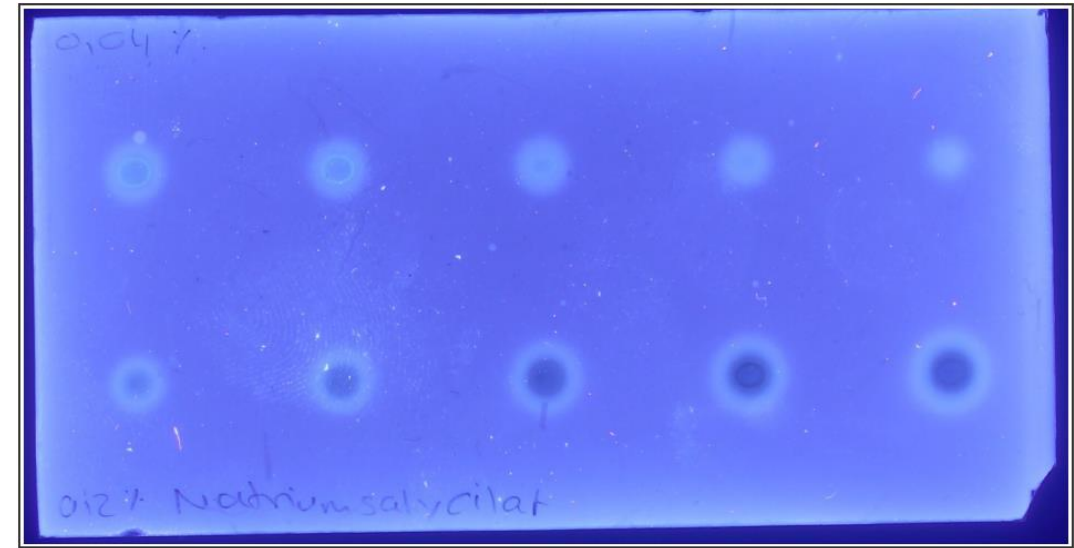
- In addition, country-specific
 - Automatic device tester
 - Authorization to carry out technical work
 - Basic understanding of PC and software (installation)
 - Base understanding of the workflow of the devices

- consists of the basic device CabUvis and documentation top with camera
- VD40 and DD50 only with Software ProViDoc
- DD70 also with argusX2
- When the documentation top or camera is renewed, you can switch to DD70 with argusX2, for example
- Test the system with:
 - color plate (With the light top, correct representation of colors by the camera) and
 - UV lamp test plate (254nm and 366nm, Check whether the tubes still have sufficient brightness)
- Change the tube or filter is shown in manual CabUvis

- Result of test 254nm



- Result of test 366nm

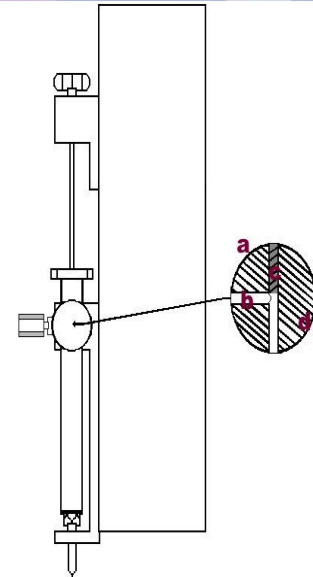


ProViDoc VD40, DD50, DD70 with base CabUvis

- Equipment:
 - BS140.085 validation plate
 - BS120.163 UV lamp test plate
- Typical spare parts:
 - BS131.121 HG-low pressure tube 366nm (4x per device)
 - BS131.122 HG-low pressure tube 254nm (2x per device)
 - BS131.123 Daylight tube (town) (1x per device)
 - BS131.120 Daylight tube (up) (2 per device)
 - BS131.144 UV-Filter (2x per device)
 - BS.36351 Filter for ProViDoc (1x)

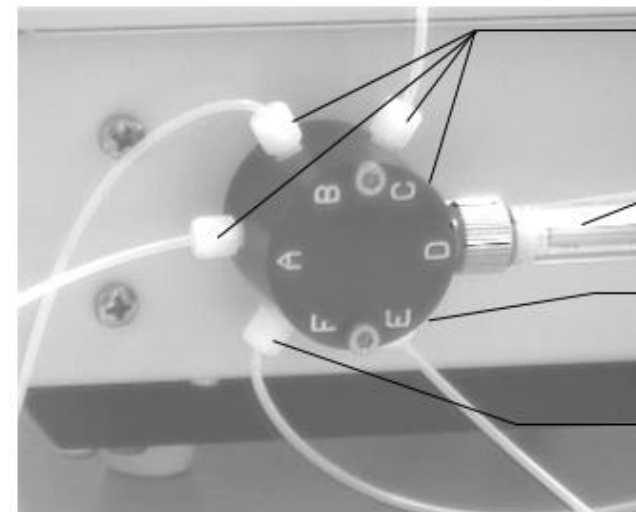
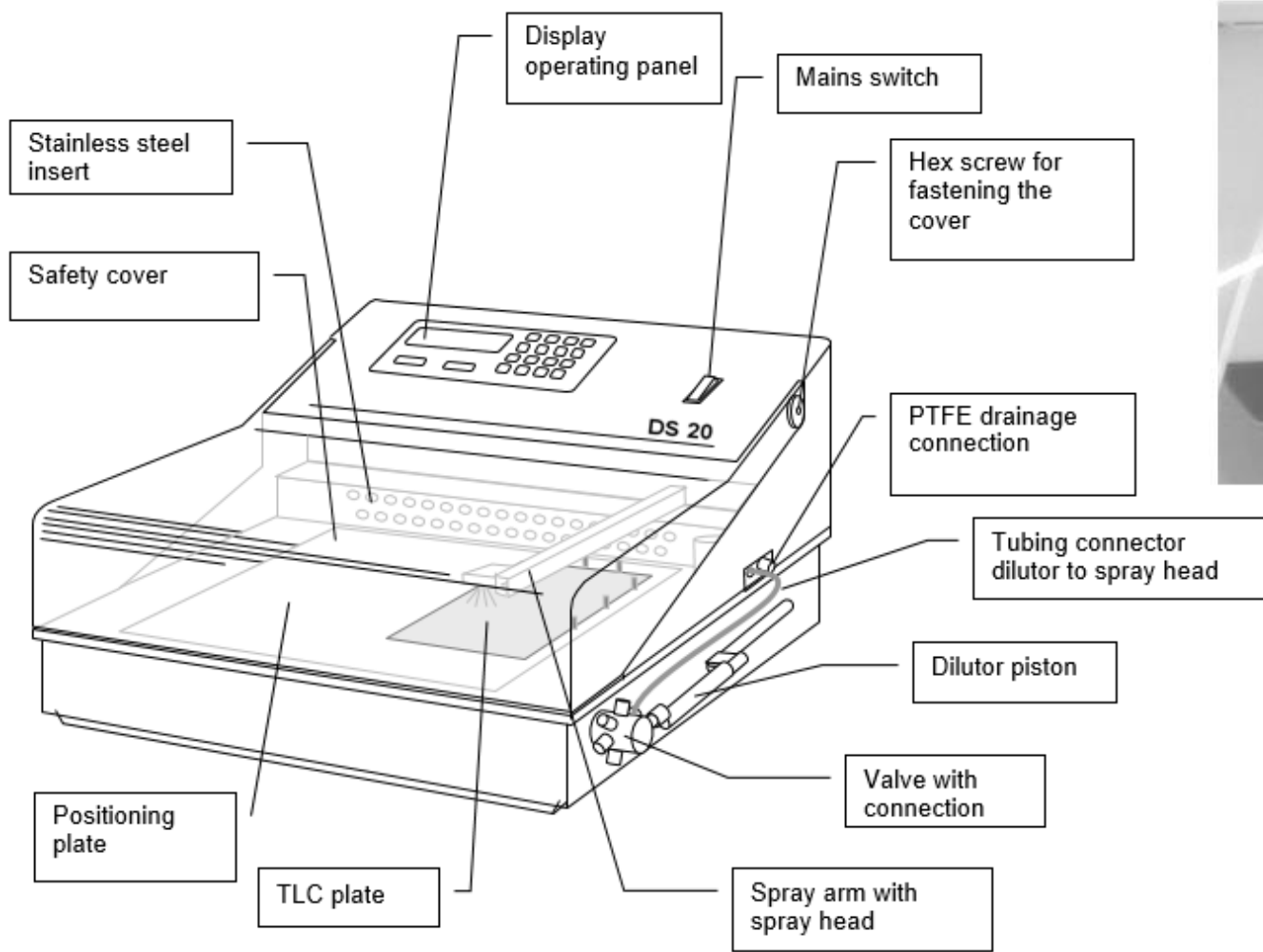
AS30 with AS30Win

- Check step looses by pressing F3 and switch on device
 - By devices with 10µl syringe test without syringe
- Check / clean the X and Y-axis and lubricate with silicon oil
- Check battery power (> 3,0V)
- Check cleanness of syringe
- Check pressure at nozzle
- Check basic pressure of compressor (5bar) or N2 (3.5bar)
- Check offset of Syringe and X-Position by press F4 and switch on device
- Check data transfer from PC to AS30
- Make an application with color solution



- Equipment:
 - pressure gauge (0-6 bar)
 - magnifying glass
 - 4-color solution
- Typical spare parts:
 - BS.44510 cable z-axis
 - BS.62216 fill port
 - BS.78405 Holder for nozzle with 2 pins
 - BS130.550 Dosing syringe 10 μ l
 - BS130.560 Dosing syringe 100 μ l
 - BS130.555 Filling syringe 25 μ l
 - BS130.565 Filling syringe 250 μ l

DS20 with Software DS20

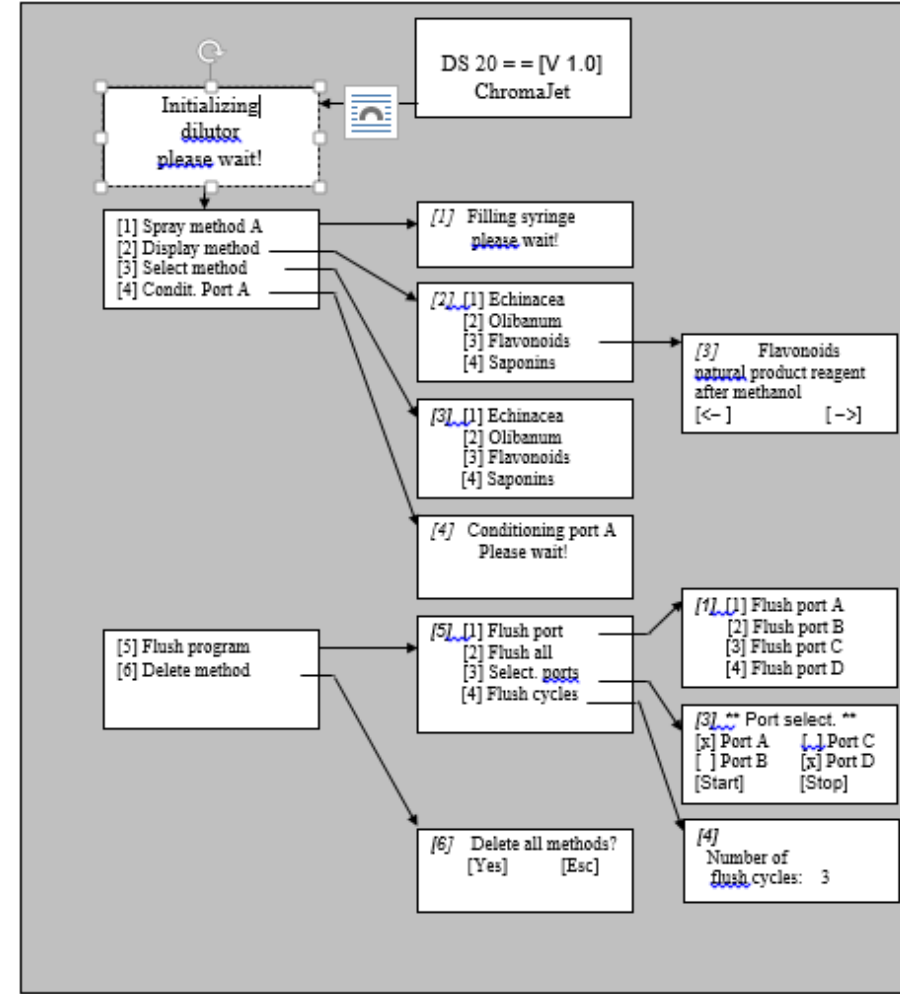
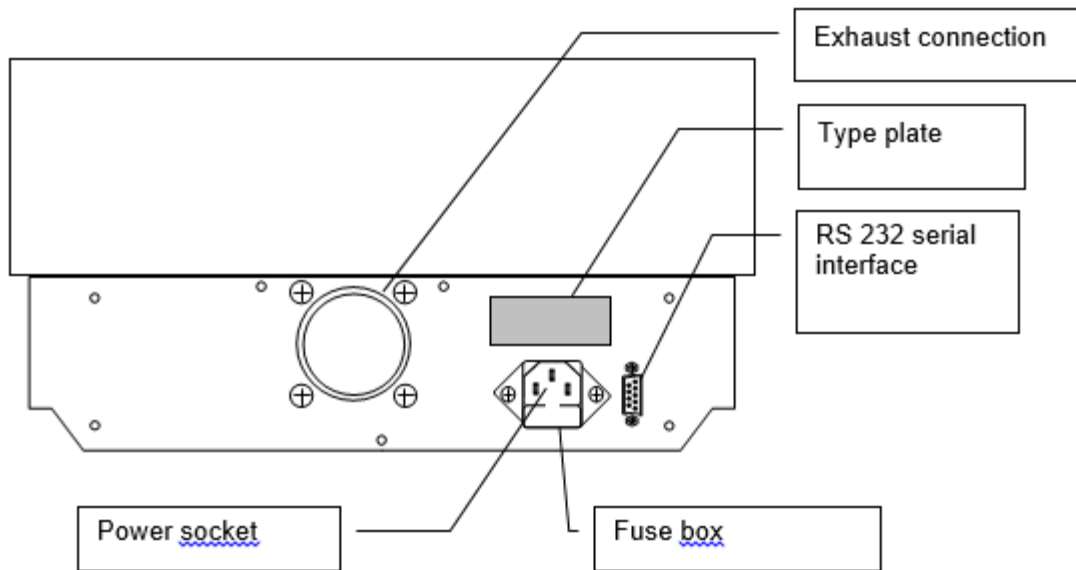


- Ports A - D, inlets for spray reagents for methods 1-4
- Dilutor piston
- Port E, inlet for rinsing solution
- Port F, supply of spray and rinse solutions to spray head

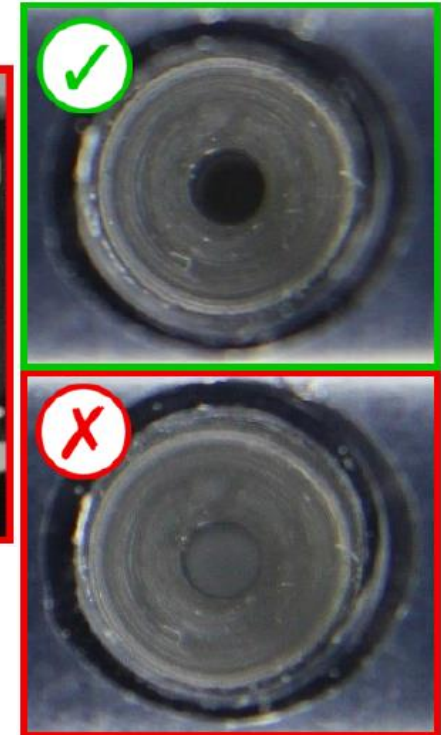
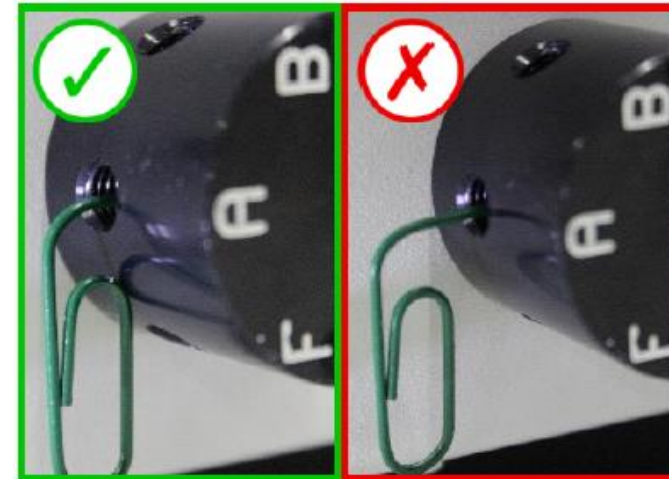


- F tube reagent supply for the spray head
- PTFE connection, leads out waste solvent
- PTFE hose carries the reagent waste to a collecting vessel

DS20 with Software DS20



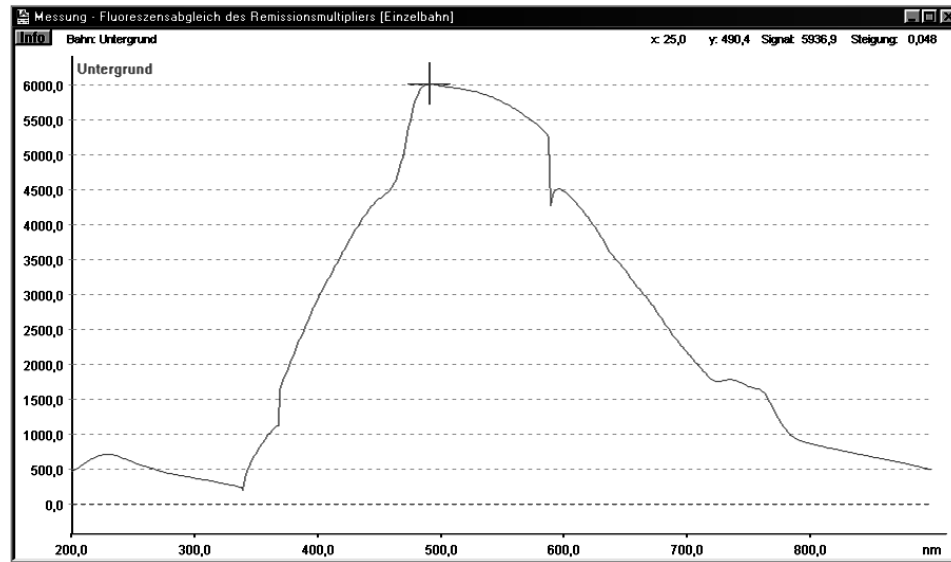
- Check step looses by pressing ESC and switch on device
- Check / clean the X and Y-axis and lubricate with silicon oil
- Check cleanness of syringe
- Check offset of Syringe and Valve-Position by press ESC and switch on device
- Check data transfer from PC to DS20
- Check vibration damper of damage
- Check extraction for tightness
- Check hoses and fan nut
- Make a spraying with test solution



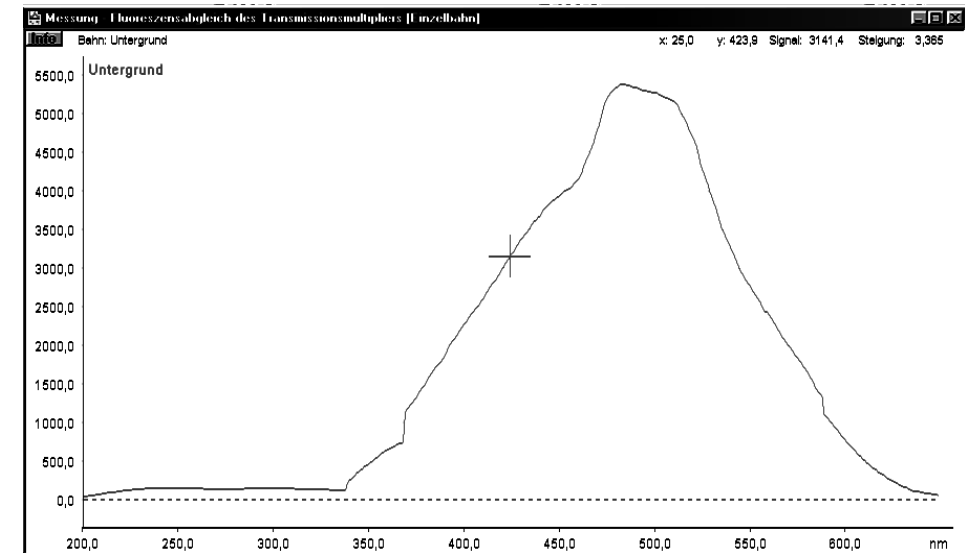
- Equipment:
 - Cherry-red as test solution
 - TLC-plate for spraying
 - measure tool for start-position
- Typical spare parts:
 - BS.32802 Cable-fitting
 - BS.63648 Hose fitting
 - BS.37335 O-Ring outer
 - BS.37336 O-Ring inner
 - BS130.720 Filter
 - BS.63649 Tube for nozzle at arm
 - BS.63654 vibration damper
 - BS.63716 Fan nut
 - BS.63725 Motor x-axis
 - BS.63726 Motor y-axis
 - BS.63758 Extraction
 - BS.63763 spray nozzle
 - BS.63780 pump complete
 - BS.63790 tube deflection
 - BS.63794 Connection hose for spray nozzle
 - BS.63795 Suction hose (5 pc per device)

- Data is turned into measuring curves by the PC
- Check of mechanical by initialize
- Check different parameters of CD60:
 - The frequency for the high voltage control is adjusted to 22 kHz
 - Adjustment of the manual high voltage to 320 Volt
 - Adjustment of the automatic high voltage to 1.450 Volt
 - Adjustment of the power from the tungsten lamp (12V)
 - Adjustment of the lamps and the direction of the light as well as the light spot
 - Adjustment of the table to the position 50 x 50 mm
- Check with referent method the device

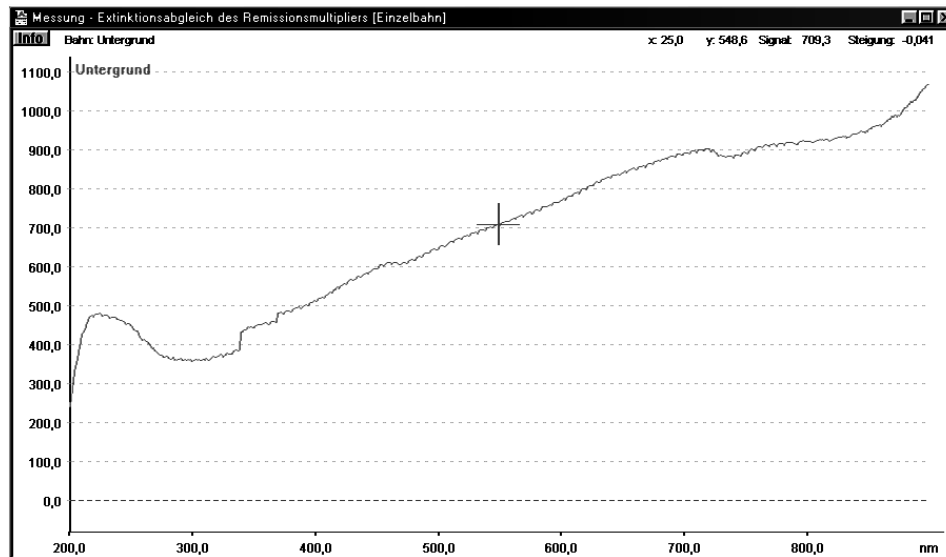
- Fluorescence adjustment of the multiplier in transmission



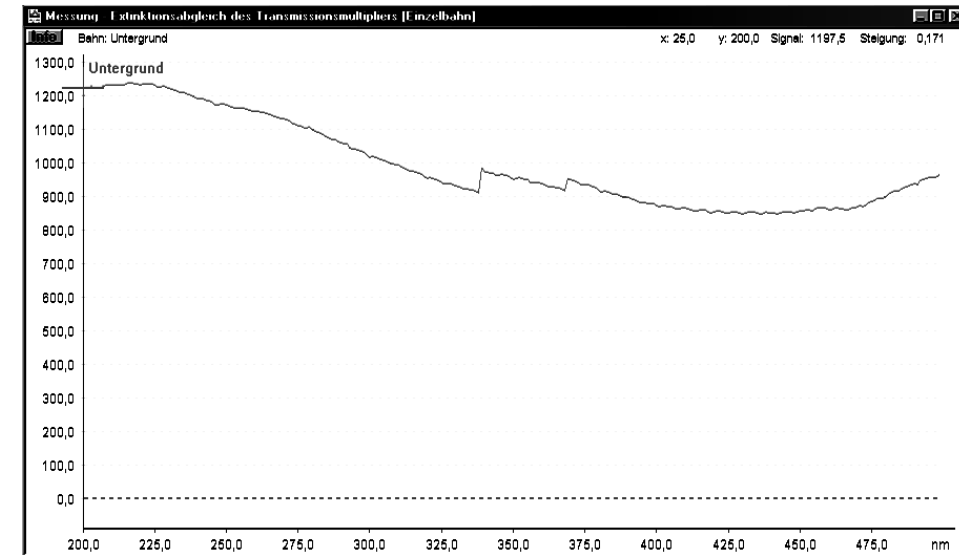
- Fluorescence adjustment of the multiplier in transmission



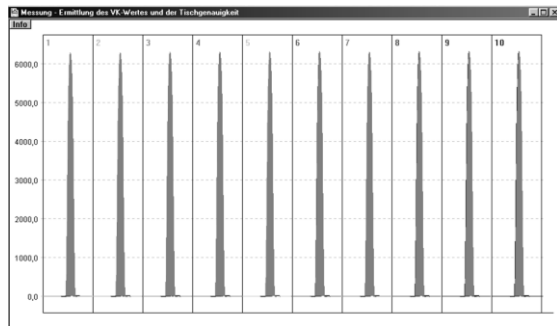
- Extinction adjustment of the multiplier in remission



- Extinction adjustment of the multiplier in transmission



- Check of the CV-value and the precision of the table



Ergebnisliste

Proben Standards Kalibrierfunktion Substanzmengen

Chromatogramm: Messung - Ermittlung des VK-Wertes und der Tischgenauigkeit

Methode: Ermittlung des VK-Wertes und der Tischgenauigkeit, 09.11.00 10:22:01

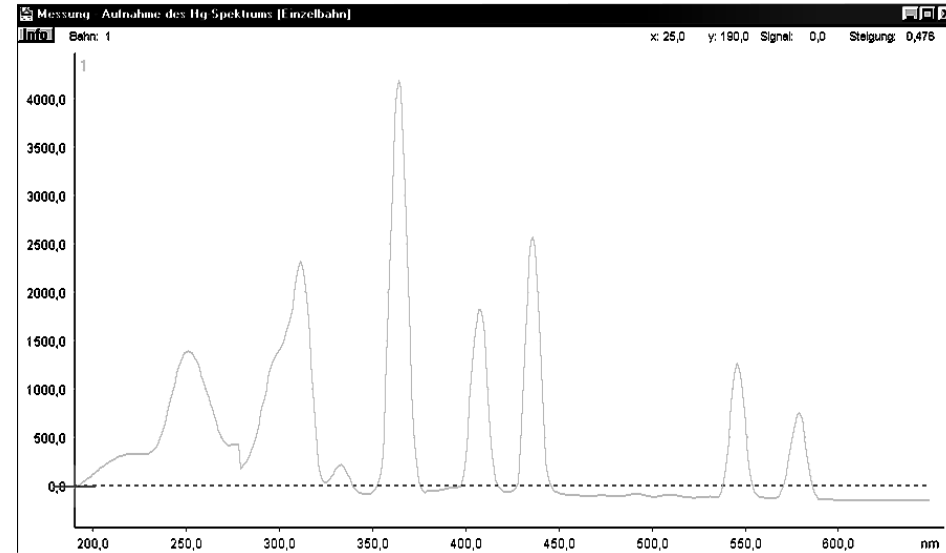
Kalibrierung: y=a*x für Höhe

Komponente: Komponente 1

Bahn	Start...	Name	Y-Pos	Fläche	Höhe	VK [%]	Konzentration
1+2+3+4...	1		50,2 mm	2858,7	6292,4	0,07	10,0 ng

Buttons: <<< >>> Drucken OK Abbrechen Übernehmen

- Measurement of the Hg-Spectrum



250 – 259

432 – 440

309 – 317

542 – 550

363 – 369

574 – 584

404 – 412

- Equipment:
 - BS.63418 valitation plate
 - measurement-adapter Deu/HG
 - high volt probe (until 1500V)
- Typical spare parts:
 - BS.44514 Connection wire 50pole (1x)
 - BS.63056 Ventilator (1x)
 - BS.63100 Interface-Box (1x)
 - BS.63198 Connection cable (1x)
 - BS131.760 Tungsten lamp (1x)
 - BS.36125 Filter blank type UG11 (1x)

COM settings, connecting the devices to the PC

- CD60 to COM 1 or COM 2,
 - with COM 2 no device may be connected to COM 1
- AS30 can use different COM-port
- DS20 use COM 1 to COM 4
 - Hear you need a full COM cable and COM to USB adapter or serial interface
- By a full system please use the following way
 - CD60 (3m cable)
 - AS30 (3m cable)
 - DS20 (2m cable)
- ProViDoc DD70 need USB for the camera