

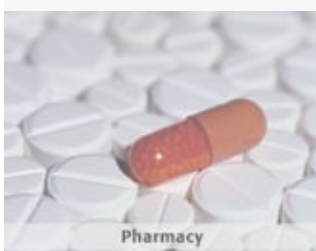
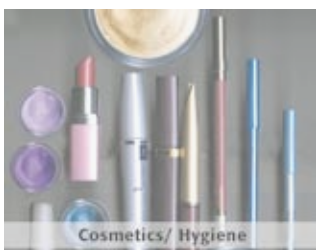
SPECORD® and SPEKOL®

Application in environmental analysis



The monitoring of our environment, especially our drinking water resources, and surface water, waste water but also earth and waste is an important task for national and private environmental laboratories. UV VIS spectroscopy is beside other analyses methods an established and quite low price method for the quantitative determination of anions, but also cations, heavy metals and tensides.

aluminium	ammonia	ammonium	boron	bromide
cadmium	chloride	chlorine	chlorine dioxide	chromate
COD	copper	cyanide	fluoride	gold
iodine	iron	lead	mananese	molybdenum
nickel	nitrogen (total)	nitrate	nitrite	oxygen
ozone	phenol index	phosphate	peroxide	potassium
residual hardness	silver	silica	sodium	sulfate
sulfide	sulfite	surfactants (anionic)	UV Absorbance	zinc



Most of these environmental parameters do not have a self-absorbance in the UV VIS spectral range. But they can be colored with specific reagents. The corresponding methods are described in a lot of international standard norm.

Additionally a lot of ready to use test kits are available on the market. With these test kits included the specific reagents and the analysis can be realized very fast, easy and handy. The test tubes can be measured directly in the photometer. These kits are very handy for the analyses of waste water.

Water analysis with test tubes:

- Methods can run with SPEKOL® or SPECORD®
- Pre-programmed methods for more than 167 test kits of MERCK in the software module water analysis
- Fast analysis for all kind of samples
- Easy to use
- Wide measurement range



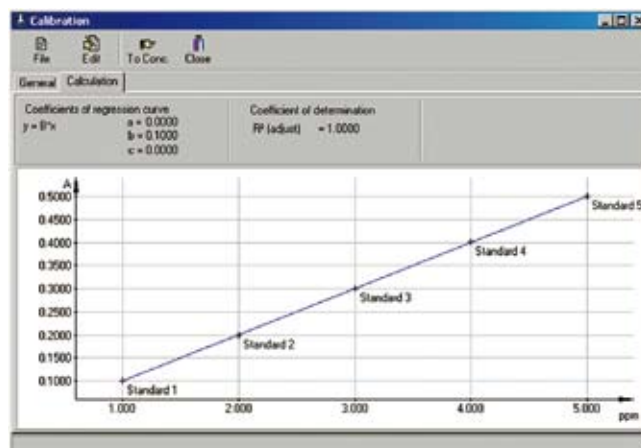
Test tube holder

Recommended instrumentation

Device	SPEKOL® 1300	821-13002-2
	SPEKOL® 1500	821-15002-2
Accessory	Test tube holder SPEKOL®	820-60213-0
	Cell holder for 50 mm cells	820-60214-0
Software	WinASPECT® (for SPEKOL® 1300/1500)	820-60256-0
	Water analysis	820-60067-0

Analysis of drinking water, surface water (oceans, lakes, rivers)

- Photometric methods are mainly used for the analysis of anions according to standard norms (ASTM, ISO)
- These methods are quite cost-efficient and simple
- SPECORD® with low detection limit
- Sipper system for 1 or 5 cm for an extended measurement range
- WinASPECT® software with easy to use function for calibration and concentration determination with different calibration curves, well arranged sample table



Recommended instrumentation

Device	SPECORD® 50	822-00501-2
Accessory	Sipper	820-60141-0
	Flow cell (Quartz)	820-60017-0
Option	Autosampler APG 53/ 100	820-60192-0