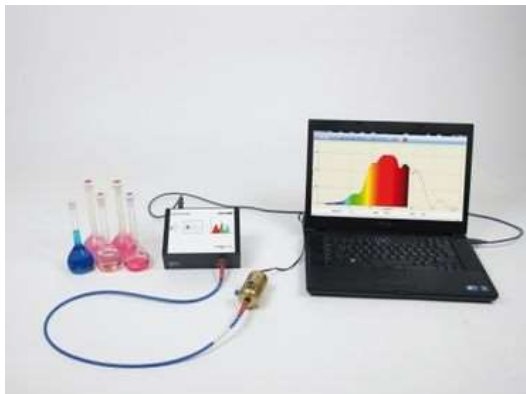


## Multicomponent analysis with spectrophotometry (mixed colour photometry)

Article no: P3070501



### Principle

In solutions containing different-coloured substances the concentrations of the dyes can be analysed by spectrometry without prior separation of the substances.

Using the integrated software the spectra of the pure dye solutions and mixtures thereof will be recorded. Calibration curves for each substances enable us to determine the quantity of that substance in the solution.

### Benefits

- Experimental procedure without dangerous chemicals
- Modern, easy-to-use photospectrometer
- Simple evaluation by supplied software

### Tasks

In a mixed solution containing fuchsine acid and patent blue V, the proportion of fuchsine acid is to be determined.

### Learning objectives

- Photometry
- UV-VIS spectrometry
- Lambert-Beer's law
- Dyes
- Absorption of light

### Necessary accessories

- Precision balance 620g/0.001g

Software integrated in spectrometer. Computer not provided.

## Scope of delivery

Fibre-optics spectrophotometer	35620-00	1
Volumetric flask, Borosilicate, 100 ml, IGJ12/21	36548-00	9

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Graduated pipette 25 ml	36602-00	1
Microspoon, steel	33393-00	1
Powder funnel, PP, d=120 mm	36893-00	1
Patent Blue V (sodium salt), 25 g	48376-04	2
Wash bottle, plastic, 500 ml	33931-00	1
Fuchsine acid -rubin s-, 25 g	31813-04	2
Water, distilled 5 l	31246-81	1
Data cable USB, plug type A/B, 1.8 m	14608-00	1
Macro-cuvettes, PS, 4ml,100 pcs	35663-10	1