



### C3.3.1 SPECTROMETRY

#### C3.3.1.3 Recording of a fluorescence spectrum with a spectrometer

Recording of a fluorescence spectrum with a spectrometer (C3.3.1.3)

Cat. No.	Description	C3.3.1.3
664 470	Rectangular cuvette cell, glass, 10 x 10 mm	2
467 252	Compact spectrometer, complete	1
458 100	Halogen spotlight, 12 V/20 W	1
562 791	Plug-in power supply, 12 V AC	1
300 02	Stand base, V-shaped, small	1
301 26	Stand rod 25 cm, 10 mm Ø	1
301 11	Clamp with jaw clamp	1
604 5672	Double microspatula, steel, 150 mm	1
602 022	Beaker Boro 3.3, 100 ml, squat	1
664 130	Beaker, Boro 3.3, 250 ml, squat	1
665 754	Measuring cylinder 100 ml, with plastic base	1
665 996	Graduated pipette, 5 ml	1
666 003	Pipetting ball (Peleus ball)	1
665 953	Dropping pipette, 7 x 150 mm, 10 pcs.	1
665 954	Rubber bulbs, 10 pcs	1
309 42	Colouring, red, 10 g	1
672 0110	Fluoresceine, 25 g	1
671 9740	Ethanol, denaturated, 250 ml	1
675 3400	Water, pure, 1 l	1
	additionally required: PC with Windows 7 or higher with WIFI or USB connection	1

The impression of colour observed when looking through liquids is created by the part of the white light which is transmitted („passed through“). Every coloured substance absorbs at characteristic wavelengths. In this way, a characteristic spectrum can be created for a dye.

In experiment C3.3.1.3, a solution of the fluorescent dye fluorescein is exposed to the light from a lamp. For this purpose, the spectrometer is arranged at a right angle to the lamp. In this way, the fluorescence spectrum of the dye can be recorded. This can be compared with the absorption spectrum from experiment C3.3.1.2.