CHEMISTRY - Spectroscopy

Simple spectroscope

4126

The item can test the emission and the absorption of spectral radiations. Model for direct vision.



Kirchoff-Bunsen's spectroscope

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The item is mounted on a circular metal platform, it is composed of: 1 collector with adjustable slit, 1 collector with graduated scale and 1 collimator with 2 interchangeable eyepieces. The slit of the collector is supplied with a small prism. While the collector, equipped with achromatic objective, is fixed to the platform, the collimator can rotate on an alidade, keeping the directional axis in the centre of the apparatus. The collector with graduated scale requires a small white light source to project the image of the scale in the eyepiece of the collimator by means of the reflection on a face of the prism. The equilateral



prism made of highly dispersive material. With this device you can study the spectrum of a source of monochromatic or polychromatic light. We recommend the use of interferential filters to the check of the wavelength.

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Spectrometer

This instrument has very good optic and mechanical features which allow the exact measurement of the optical ray deviation angles; therefore it can determine the refractive index of solids and liquids and the wavelength of monochromatic sources. Base: made of firevarnished cast-iron. Goniometer: \varnothing 17.5 cm and divided in 360° with a precision of 1°. It is equipped with a vernier, which allows to measure with an accuracy of 1/10°. Telescope: it has achromatic objectives with an 178 mm focal length and an eyepiece 15x. Focusing allows fine regulation. Collimator: endowed with achromatic objective with 178mm focal length and with a steady adjustable slit up to 6 mm. Plane of the prism: it can be adjusted both vertically and horizontally and it is supplied with boss-heads for the fixing of the diffraction grating. Diameter: 80 mm. Equipment: 1 Crown glass equilateral prism 32x32 mm; 1 diffraction grating 500 lines/ mm; 1 magnifying lens. Dimensions: 48x33x33h cm. Weight: 12 Kg. The purchase of the diffraction gratings 80 lines/mm and 1000 lines/mm is suggested to verify the variation of the spectral resolution.



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