Title (en)

ELECTRON BEAM INVESTIGATION PROCESS AND ELECTRON IMPACT SPECTROMETER THEREFOR

Publication

EP 0013003 B1 19821208 (DE)

Application

EP 79105288 A 19791220

Priority

DE 2856244 A 19781227

Abstract (en)

[origin: US4300045A] A beam guidance for electron beam tests, especially of solid bodies. The electrons cathodically emitted and electron-optically bundled are subjected at least to an energy selection in a cylinder condenser deflection unit and are subsequently detected or indicated in a detector. The emission and bundling systems are arranged in such a way that the electrons, in the plane at right angles to the cylinder condenser axis, are focused upon the inlet shield or baffle of the condenser, yet are focused at right angles thereto upon the detector. Also disclosed is an electron impact spectrometer having such a beam guidance, and an emission system encompassing a cathode and a lens system for focusing an electron current or flow upon an inlet baffle of a monochromator, with such flow entering into the cylinder condenser monochromator for energy selection of the electrons, which emanate bundled from the monochromator and strike or fall upon the probe or test sample and after reflection thereon come by way of a lens system into the cylinder condenser analyzer and after energy selection and passage through the outlet baffle of the analyzer strike or impinge upon a detector.

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