Title (en)

CHARGED PARTICLE ENERGY ANALYSERS

Title (de)

ENERGIEANALYSATOREN FÜR GELADENE TEILCHEN

Title (fr)

ANALYSEURS D'ENERGIE DE PARTICULES CHARGEES

Publication

EP 1051735 A2 20001115 (EN)

Application

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Priority

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Abstract (en)

[origin: WO9935668A2] An electron energy analyser has an electron column (10) to excite a sample (11) on a sample holder (12). Excitation of the sample (11) causes electrons to be emitted, and some of the electrons enter the analyser through an aperture (13), where they are subjected to a substantially hyperbolic field defined with reference to an x-axis and a y-axis, each of which axes is at a substantially constant potential, and which is approximated with a small number of electrodes E1 to E6. The electrons are deflected by the substantially hyperbolic field to impinge upon a detector (14) which is arranged substantially along the x-axis and comprises, for example, a microchannel plate and phosphor screen, in the vicinity of which the electrons are focussed. The electrodes E1 to E5 are arranged in a plane which is inclined to the general axis of the analyser (i.e. the x-axis parallel to the detector (14)), and the electrode E6 is similarly inclined, but in an opposite direction. The prime feature of the electron energy analyser is the ability to detect electrons with a large range of energies, in parallel.

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H01J 49/48

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CPC (source: EP)

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