Title (en)

IONIZATION CHAMBER FOR RADIOMETRIC MEASURING INSTRUMENTS

Title (de)

IONISATIONSKAMMER FÜR RADIOMETRISCHE MESSEINRICHTUNGEN

Title (fr)

CHAMBRE D'IONISATION POUR INSTRUMENTS DE MESURE RADIOMETRIQUES

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Abstract (en)

[origin: WO9843116A2] The invention relates to an ionization chamber for radiometric measuring instruments, specially for transversal surface measurement systems, comprising a housing with filling gas therein, having at least one radiation input window and a plurality of collector electrodes in the housing with insulated, outward leading electrical connections, whereby an electrical potential difference (voltage) exists between the housing and the collector electrodes. The inventive device enables an ionization chamber for radiometric measuring instruments to be created, specially for transversal surface measurement systems. Said chamber is sufficiently sensitive and meets the usual high requirements of ionization chambers with regard to vacuum-tightness, base current and temperature dependency. This is achieved by subdividing a plurality of adjacent and mutually defining sections (2) inside the housing (3) with the respective collector electrodes (6), by connecting the collector electrodes (6) to electrical connections (14) which are guided outwards through the insulator (13; 17) of a gas-tight multiple through-passage, and by providing the insulator (13; 17) with an electrically conductive area encompassing all the electrical connections (14). Said area is electrically insulated from the housing (3) and from the connections (14). However, it lies within the electrode potential when in a state devoid of electricity.

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