

The investigation of the operation of the device with a microchannel plate as an ion receiver for the dust particles' registration

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The article discusses the design of a device for the registration of micrometeoroids and space debris particles with relatively low velocities (up to 4 km/s), based on the ionization principle of operation. The increase in the device's sensitivity is attributed to the use of an ion mirror and a microchannel plate, which serves as an ion receiver. A circuit based on an amplifier with a differential output was employed to reduce electromagnetic interference.

Keywords: micrometeoroids, amplifier, dust particles, mirror, microchannel plate.

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