

Name of research institute or organization:

Philips Semiconductors

Title of project:

Influence of cosmic rays on solid-state imagers

Project leader and team:

Dr. Albert Theuwissen

Project description:

Solid-state image sensors were stored at the Jungfrauoch to look after the influence of cosmic rays on the performance and reliability of solid-state image sensors. High-quality devices, intended to be used as image sensors for the broadcast application, were stored at room temperature in the Jungfrauoch's laboratory. The devices were characterised before they were brought up to Jungfrauoch, stayed there for about 1 year, and are characterised after they came into the lab of Philips in Eindhoven. The comparison of the measurements before and after the storage can give more insight in the effect of the cosmic rays, because cosmic rays are more present at higher altitudes.

The measurements indeed show the higher flux of cosmic rays at Jungfrauoch. The effects are clearly visible. Based on further experiments, which still are going on at other locations, the theory of the interaction of cosmic rays on solid-state image sensors needs further to be developed.

Key words

Collaborating partners/networks:

Scientific publications and public outreach 2001:

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