

The investigation of the internal structure of SiPM from KETEK, ZECOTEK, HAMAMATSU and SENSL companies after the neutron irradiation.

We will present recent results on the investigation of changes in the KETEK, ZECOTEK, HAMAMATSU and SENSL SiPM properties after irradiation by the 0 - 35 MeV neutrons. The typical neutron fluence was about 10^{12} n/cm². The changes of the internal structure of the irradiated SiPMs was studied by the measuring of the C-V and C-F characteristics. The spectral distribution of the noise before and after irradiation was investigated. We have observed the strong influence of the SiPM manufacturing technology on their radiation hardness. The application of the obtained results to the development of the readout electronics is discussed.

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