

Radiation evaluation of PtSi device of PLANET-C/IR2 camera.

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PLANET-C is scheduled to be launched into interplanetary space in 2010 and will give us a unique opportunity to reveal the details of the atmospheric motion on Venus, and to approach the dynamics of the Venus climate, and observation of the interplanetary dust particles in the cruise to Venus. PLANET-C will bring us detailed information regarding atmospheric motion on Venus. Infrared camera(IR2)which covers 1.7-2.4 micron range will track the motion of the clouds, and will supply important data for the atmospheric dynamics at various altitudes.A device onboard PLANET-C is required to have enough tolerance against severer radiation environment around Venus because it must cause characteristic changes. Total dose of the radiation will change the static levels of transistors drastically and may destroy the functions at last beyond some threshold level. Based on the former radiation test, the PtSi detector was found to be acceptable for the PLANET-C mission.A characteristic change against the radiation exposure was measured and the transmission efficiency was evaluated by making electric charges forward and backward in the CCD device.These performance results are presented in this talk.