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Thermography as a Tool in the Development of Microdevices

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Abstract

The characterization of microdevices involves a multitude of methods and investigative procedures. Thermography, as a method, opens a new way of working in the development process of this class of devices. Investigated microdevices structures were subjected to various types of electrical stress and the effects of applying stimuli on these structures were visualized. This paper presents the issues related to the use of this method and treats the investigation procedures, the calibration problems and the necessary adjustments of characterization system. Experiments are performed using FLIR SC 5000 camera equipped with a G3 type lens. Various types of devices as well as specific test vehicles were subjected to the tests. The information obtained and the ways of interpreting them were analyzed.

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