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DESIGN OF REQUIREMENTS TO DEVICES CAPABLE OF REGISTERING SPOILAGE OF POTATO TUBERS DURING ITS STORAGE.

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The results of general researches of development of complex requirements to devices which capable recording spoilage of potato tubers during its storage are presented.

Tuber of potatoes, storage, spoilage, gas detector.

Introducing VOCs from harmful pathogens in the air inside the storage leads to a gradual increase in the concentration of volatile markers decay and can be fixed hazoanalizuyuchoyu sensitive equipment. Excess concentrations of VOCs in the air vegetable store certain threshold value, which is determined experimentally in advance can be fixed devices also serve as a sign of the beginning of infection. Today specialized devices for the monitoring air quality in terms of vegetable store does not exist, but for different applications created and produced a large number of gas sensitive sensors (sensors) that are the basis of any hazoanalizuyuchoho device.

Given the conditions that exist in the potato, taking into account the specific set of VOCs produced potato pathogens, and operational requirements for the unit as a whole, we have carried out work on the development requirements of the gas sensitive devices.

Thus, given the conditions that exist in the potato, a specific set of volatile organic compounds produced by pathogens of potato was developed range of requirements for gas sensors that can be used in a device for detecting damage to potato tubers during storage. Review and comparative analysis of gas sensors that exist in the world revealed that the most appropriate and promising instrument for building damage detection of potato tubers are metal oxide semiconductor sensors that have good performance, high sensitivity, low cost and available.