

MD.27.

Title Device and method for measuring the resistance of a sensor based on nanostructured semiconductor oxides in the range of the order of microwatts
Authors Web: <http://utm.md/VERJBIȚKI> Valeri, LUPAN Oleg, RAILEAN Serghei
Institution *Technical University of Moldova*
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The device comprises an adjustable reference voltage source connected to the output of a microcontroller and connected in series to the investigated nanostructured sensor and to the reference resistor, the connection point of which to the investigated sensor is connected to the input of the microcontroller.

Description
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The method consists in: measuring the voltage of the reference voltage source, measuring the voltage drop across the reference resistor, calculating the voltage drop across the investigated nanostructure. Current flowing through the nanostructure and the applied power to the nanostructure are calculated and it is set the value of the reference voltage so that the electrical power will not exceed the maximum permitted value.

Class no.

1. Environment - Pollution Control