## MD.126. Title Thermostated vacuum gauge BELOTSERKOVSKII Igor; SIDORENKO Anatolie: Authors CONDREA Elena: MORARI Roman Ghitu Institute of Electronic Engineering and Institution Nanotechnologies, Chisinau **MD-2028.** Moldova **Republic of** Description DECISION on registration of the patent «Vacuumetru INTERNATIONAL EXHIBITS

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To improve the accuracy of measurements in the low pressure region, a prototype of the TVG-2 thermoelectric vacuum gauge has been designed and constructed; it includes an electronic unit and a TTC-5 thermocouple transducer, the sensitive element of which is a thin electrically insulating film; heating and measuring circuits are deposited on the surface of the film by vacuum deposition methods; the measuring circuit has the form of a thermocouple array.

To decrease the dependence on ambient temperature, a thermistor is placed near the cold junctions of the thermocouple array, and an ohmic thermostat heater is wound on the outer surface of the transducer housing.

This technical decision has made it possible to expand the range of measured pressures to  $1 \times 10^{-5}$  mmHg and decrease the error in measuring low pressures with the vacuum gauge from 80 to 10%.