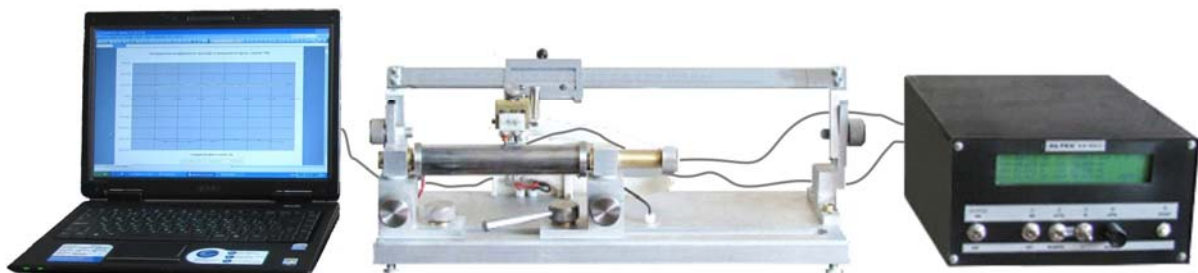




- The installation is intended for comprehensive measurement of electric conductivity and the Seebeck coefficients of thermoelectric materials shaped as rods.
- The installation can be used for research, as well as for industrial needs in the manufacture of thermoelectric materials.
- The operating principle of the installation is based on the two-probe technique for the determination of electric conductivity and the “hot probe” technique for the determination of the Seebeck coefficient.
- Structurally, the installation consists of measuring platform and electronic control and measurement unit. The installation can be connected to a computer for automation of measurement results processing.

Installation appearance



- The installation utilizes programmable microprocessor controller combined with a multi-channel high-sensitive A/D converter that allows precise reproduction of measurement process algorithm, reducing the errors of measurement results.
- High thermal stabilization level of the hot probe in the measurement of the rods is assured by programmable microcontroller temperature regulators.
- Measuring platform design and microprogram of control unit allow adaptable changes in measuring process algorithm and permit possible modernization of its mechanical part.

Technical specifications and parameters of the installation

№	Name of characteristic, parameter, unit measure	Values
1	Range of setting temperature difference between the hot and cold probes, °C	5 - 20
2	Discreteness of installation stabilization temperature, °C	1
3	Accuracy of thermal stabilization of temperature difference between the probes, not more, °C	0,05
4	Current and voltage measurement error, not more, %	0,1
5	Range of setting current through the rod, A	0,5 - 5
6	Distance between the probes, mm	10
7	Time to reach measurement mode, with a change in probe stabilization temperature, not more, min	5
8	Time of single measurement, not more, sec	3
9	Overall dimensions of the rod, up to, mm length diameter	300 30
10	AC supply voltage, 50 Hz, V	220 ±10%
11	Electric power requirement (without computer), not more, W	30
12	Overall dimensions of the installation (without computer), mm measuring platform control and measurement unit	400x200x220 120x230x300
13	Installation weight (without computer), kg	11,5

Orders and additional information at the address: General P.O. Box 86, Chernivtsi, 58002, Ukraine; e-mail: ite@inst.cv.ua; fax: (380-3722)-41917; phone: (380-3722)-41917; <http://ite.inst.cv.ua>.