

Table 2.

Basic Parameters of Electric Sensors  
for High-pressure Measurements(averaged values in the temperature range 15-25°C and in the  
pressure range up to 2000 atm)

Electric Sensor	$\alpha$	$\alpha_x$	$\beta_x$	$\gamma_x$	$Z_x$
		$\times 10^{-6}$ [atm <sup>-1</sup> ]	$\times 10^{-5}$ [deg <sup>-1</sup> ]	[atm·deg <sup>-1</sup> ]	[deg·atm <sup>-2</sup> ]
1 German manganin	$R_G$	2.1	-0.4	-1.9	-11
2 Russian manganin <sup>†</sup>	$R_R$	2.4	0.5	2.08	11.5
3 German-Russian manganin <sup>†</sup>	$R_{1+2}$	2.25	0.1	0.44	51.1
4 Te	$R_{Te}$	-360	-1700	47	-76
5 InSb	$R_{InSb}$	300	-1200	-40	-75
6 Te(4) - InSb(5) <sup>*</sup>	R	-330	-250	7.5	-440
7 Te (selected crystal)	$R_{Te}$	-100	100	-10	100
8 InSb (selected crystal)	$R_{InSb}$	200	-900	-45	-44.4
9 Te(7) + InSb(8) <sup>**</sup>	$R_{7+8}$	-100	70	-7.0	142
10 Planar transistor $U_{CE} = \text{const.}$ $U_{BE} = \text{const.}$	$I_C$	67	7200	1074	0.62
11 Planar transistor $U_{CE} = \text{const.}$ $I_C = \text{const.}$	$U_{BE}$	2.3	-240	-1043	-0.022

<sup>†</sup>After heat treatment.<sup>†</sup>As in Table 1, item 6.<sup>\*</sup>In the neighbouring branches of a Wheatstone bridge.<sup>\*\*</sup>As in Table 1, item 9.

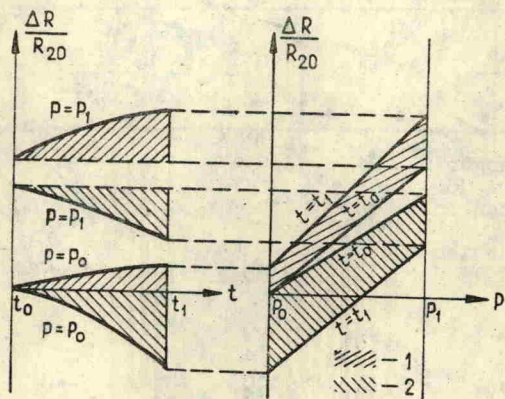


Fig. 1

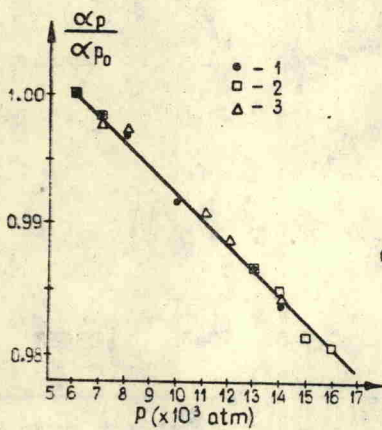


Fig. 2

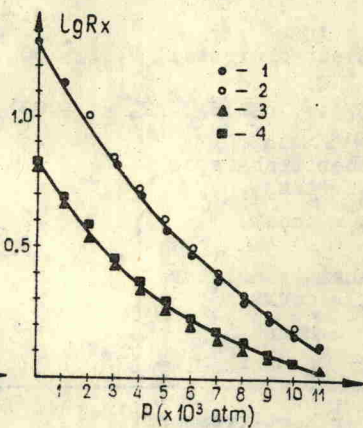


Fig. 3