



<b>Exercise 4</b>	<b>Temperature coefficient of resistance</b>		<i>Theory:</i>
Team:	Name:		<i>Experiment:</i>
Date:	Weeks day and hour:	Major, group:	<i>Remarks</i>


 *The equation for resistivity based on the geometric dimensions and resistance::*

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 *Two-parameter linear regression coefficient and their uncertainty:*


.....

.....

 *Calculated uncertainty propagation principal for  $\Delta\rho$  i  $\Delta\alpha$ ::* .....


.....

.....

 *Equation from point 4 of the manual transformed into linear form  $y=ax+b$ ::*

.....

.....

 *Equation from point 11 of the manual transformed into linear form  $\ln R = a \cdot 1/T + b$ :*

.....

.....

Fill the Table with measured and calculated coil. In the column headers type units.

	Copper wire					Resistor	NTC
	$R_0$ [ ]	$\rho$ [ ]	a	b	$\alpha$ [ ]	R [ ]	B [ ]
Value							
Uncertainty							

Which of the measured elements meets Ohm's law?.....

Compare calculated values of the resistivity and temperature coefficient of resistance for

copper with table value::  $\rho_T =$  .....  $\alpha_T =$  .....

Compare calculated parameter  $B$  of NTC thermistor 100 from a catalog (SR-100R Passives NTCC):  $B_T = \dots\dots\dots$