



## **REQUIREMENTS FOR SUBMISSION OF ABSTRACTS**

### CONDITIONS OF PUBLICATION:

- The abstracts, submitted for publication, should be topical, innovative, goal (problem)-setting, contain description of the main research findings, obtained by the author and conclusions;
- The abstracts should meet the submission guidelines.

### SUBMISSION GUIDELINES:

- The name of the file should include the name of the first author, for example: Petrov\_tez.doc
- The abstracts should be written in English.
- Maximum size of the abstracts is 5 pages, A4 size;
- All pages should be numbered;
- References within the text should be given in square brackets;
- Text of the abstracts should be proofread and signed by the author. The author has responsibility for scientific and theoretic level of the abstract to be issued.
- Hard copy of the abstracts and its Microsoft Word electronic form (by e-mail) should be submitted to the Steering Committee. A hard copy should fully conform to an electronic copy.
- The following is to be taken into consideration:

#### Margins:

- Top margin is 2 cm
- Left margin is 2,2 cm
- Right margin is 1,5 cm
- Bottom margin is 1,7 cm

The text should be justified. Font is Times New Roman, font size is 12 pt (in figures, tables, literature – 10 pt), the color is black. The figures, graphics and diagrams should be embedded in the text. The image-related text is necessary. All alphabetical symbols given in the figures may be explained both in the body and the image-related text. First line indent: 1 cm, line spacing: 1.15.

**The closing date for receiving electronic form abstract is 15 June 2015**

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## RESISTIVITY REFERENCE MATERIALS — STATE OF ART AND FUTURE

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Semiconductor materials, devices and chips have changed very much human life for the last 50 years. We can not imagine our life without numerous gadgets based on the semiconductor chips. Resistivity of semiconductors ( $\rho$ ) dramatically depend on temperature. It can vary by tens of orders at room temperature ( $T_R$ ) when both chemical composition or crystal perfection changes. For example,  $\rho$  silicon single crystals (SSC) at  $T_R$  changes from 250000 to 0,001 Ohm cm. For different purposes semiconductors with different  $\rho$  are required. Therefore, this parameter is the most important for qualification of semiconductor material. Certificate of SSC should include resistivity measured at 23 °C [1-5].

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**Table 1 - Standards for resistivity measurement by in-line four probe method**

	INGOT	WAFER	LAYER diffusion, epitaxy, implanted
SEMI	MF 43	MF 84, MF 81	MF 374
	MF 1527		
Russia	ГОСТ 24392-80, ГОСТ 19658-81	-	-

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### REFERENCES

- [1] ГОСТ 19658 Ingots of Silicon single crystals. Moscow 1990.
- [2] ГОСТ 24392-80 Silicon and Germanium single crystals.. Four probe measurement of resistivity. Moscow 2001.
- [3] ASTM F-43-94. «Test Methods for Resistivity of Semiconductor Materials.» Annual Book of ASTM Standard, V.10.05.