**Template File for 4-page Abstract for Submission in EMS**

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**Abstract**

This is a template for 4-page abstract for submission in EMS. EMS accepts abstract either in 2-p ages or 4-pages, but their format is slightly differs. For those who interested in 2-page version of the template, please refer to the other template.

**1. Introduction**

This is a template for the abstract for submission in Electronic Materials Symposium (EMS), to be held somewhere in Japan this year. This symposium series were initiated in 1982 as the Symposium on Alloy Semiconductor Physics and Electronics (ASPECs) by Professor Akio Sasaki of Kyoto University. Since then, the symposium was held annually for eight years being supported by a Grant-in-Aid for the Scientific Research from the Ministry of Education, Science and Culture. In 1995, the name of the symposium was changed to “Electronic Materials Symposium (EMS)” intended to cover not only semiconductor materials but also a variety of electronic materials. For those who would like to participate in EMS, they are encouraged to submit a camera-ready abstract (A4-size with 25-mm margins in side, 20-mm margins in top and bottom, 2 or 4-pages) in a PDF format via website of EMS (<http://ems.jpn.org>).

**2. General**

The 4-page abstract should be written in English and start with a title, author name(s), affiliation(s), address(es), and contact author’s e-mail address, which are centered and formatted as seen in this template and as summarized in Table 1. The presenting authors may be underlined. Following a blank line, abstract should be placed before the main text, which is the most important difference from the 2-page version of the abstract. The length of the abstract should be within 150 words. Although it is not strict, conciseness is important. After a blank line, the main text of the abstract follows. It is strongly advised that 4-pages abstract is sectioned and start with introduction, followed, for instance experimental procedure or computational details, results and discussions, and summary or conclusions.

Abstract may contain reference(s), figures(s), table(s), and their captions. The main text should be written in the Times New Roman (or similar) font of 12 points with justification, as seen in this template. Single line spacing is recommended, but is not mandatory and one can alter the line space.

**3. Equations**

Equations, if any, should appear on a separate line from the text. The equation number should appear in parentheses flush with the right margin, as shown below for Eq. (1).

$\frac{d}{dx}\left(D\frac{dn}{dx}\right)=J-\frac{n}{τ}$ (1)

**4. Figures and Tables**

It is important for the authors to take care of the readability of the figures. The abstract booklet is printed in black and white, so, it is strongly recommended to use different symbols, line styles, or line thickness to distinguish different data. Examples of recommended and non-recommended figures are shown in Figs. 1 and 2, respectively, though it might be hard to realize which is better if you print them by a color printer. The captions should be added to the figures and tables, as shown in Figs. 1 and 2, and Table 1.

It is also important to cite appropriate references. List and number all the references, if any, at the end of the text. The reference style in accordance with the one found in the Japanese Journal of Applied Physics is recommended. When referring to them in the text, the reference number should be designated by square brackets like this [1].

**5. Summary**

The authors hope that this template is helpful for authors who wish to submit 4-page abstract for EMS.

**Acknowledgements**

Acknowledgements can be added if any. The authors acknowledge all the people who organize and participate in EMS.

**References**

[1] K. Akita, J. Motohisa, M. Sugiyama, and J. Suda, Jpn. J. Appl. Phys. **48**, 123 (2017).

[2] I. S. Defect, S. Compound, and M. Res, Abstract Template of ICDS-2017 (2017).

[3] H. Ohno, K. Shiraishiand T. Endoh, Instruction of SSDM2017 (2017).



Fig. 1: Recommend figure.



Fig. 2: Non-recommend figure. Symbols are smaller and hard to distinguish lines.

Table 1: Recommended font size and faces for titles and text

|  |  |  |  |
| --- | --- | --- | --- |
|  | Font size | Bold/Italic | note |
| Title | 14pt | Bold |  |
| Author name(s) | 12pt |  |  |
| Affiliation | 12pt | Italic |  |
| Text | 12pt |  |  |
| Captions | 12pt |  | Can be 10pt |