Title of your paper

A Ivanov1 and L Chang2

1Laboratory of Materials Science, *Tambov State Technical University,* 106 Sovetskaya Street, 392000 Tambov Russian Federation

2Faculty of Science, *Chinese University of Hong Kong*, Hong Kong SAR, TF32276 The People's Republic of China

1E-mail: ivanovalexander@mail.ru

**Abstract**. All articles must contain an abstract. The abstract follows the addresses and should give readers concise information about the content of the article and indicate the main results obtained and conclusions drawn. As the abstract is not part of the text it should be complete in itself; no table numbers, figure numbers, references or displayed mathematical expressions should be included. It should be suitable for direct inclusion in abstracting services and should not normally exceed 200 words. The abstract should generally be restricted to a single paragraph. Since contemporary information-retrieval systems rely heavily on the content of titles and abstracts to identify relevant articles in literature searches, great care should be taken in constructing both.

1. First sections in your paper

The first paragraph after a heading is not indented (Bodytext style).

Other paragraphs are indented (Bodytext Indented style).

The paper includes the sections: Introduction, Experimental Part / Methods and Materials/Calculations, Results and Discussion, Conclusion / Summary, Acknowledgments, References.

1. Another section of your paper

The first paragraph after a heading is not indented (Bodytext style).

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## A subsection

Text here.

Other paragraphs are indented (Bodytext Indented style).

* + 1. A subsubsection. The first paragraph starts here, the paragraph text follows on from the subsubsection heading but should not be in italic.

Other paragraphs are indented (Bodytext Indented style).

1. Formatting the text

All manuscripts must be in English, also the table and figure texts, otherwise we cannot publish your paper. The text of your paper should be formatted as follows:

* 11 point ‘Times’ or ‘Times Roman’ or ‘Times New Roman’ depending on the fonts installed on your computer.
* The text should be set to single line spacing.
* Paragraphs should be justified.
* The first paragraph after a section or subsection should not be indented; subsequent paragraphs should be indented by 5 mm.

1. Footnotes

Footnotes should be avoided whenever possible. If required they should be used only for brief notes that do not fit conveniently into the text. Please read appendix A ‘Inserting footnotes with Microsoft Word’ for guidelines on working with Word’s footnote facility.

1. Figures

Each figure should have a brief caption describing it and, if necessary, a key to interpret the various lines and symbols on the figure.

Wherever possible try to ensure that the size of the text in your figures (apart from superscripts/subscripts) is approximately the same size as the main text (11 points).

You are free to use colour illustrations for the online version of *Journal of Physics: Conference Series.*

Individual figures should normally be centred but place two figures side-by-side if they will fit comfortably like this as it saves space.

|  |
| --- |
| WiderFigureWiderCaption |
| **Figure 1.** In this case simply justify the caption so that it is as the same width as the graphic. |

|  |  |  |
| --- | --- | --- |
| NarrowFigeWideCap |  | NarrowFigeWideCap |
| **Figure 2.** These two figures have been placed side-by-side to save space. Justify the caption. |  | **Figure 3.** These two figures have been placed side-by-side to save space. Justify the caption. |

If a figure has parts these should be labelled as (a), (b), (c) etc on the actual figure. Parts should not have separate captions.

Place the figure as close as possible after the point where it is first referenced in the text.

Captions should be below the figure and separated from it by a distance of 6 points—although to save space it is acceptable to put the caption next to the figure. Figures should be numbered sequentially through the text—‘Figure 1’, ‘Figure 2’ and so forth and should be referenced in the text as ‘figure 1’, ‘figure 2’,… and not ‘fig. 1’, ‘fig. 2’, ….

1. Tables

Tables should be centred unless they occupy the full width of the text.

Tables should be numbered sequentially throughout the text and referred to in the text by number (table 1, **not** tab. 1 etc.). Captions should be placed at the top of the table and should have a full stop (period) at the end. Except for very narrow tables with a wide caption (see examples below) the caption should be the same width as the table.

|  |  |  |
| --- | --- | --- |
| **Table 1.** Setting Word’s margins for A4 and US Letter paper. | | |
| Margin | **A4** | **US Letter** |
| Top | 4.0 cm | 3.1cm |
| Bottom | 2.7 cm | 1.8 cm |
| Left | 2.5 cm | 2.8 cm |
| Right | 2.5 cm | 2.8 cm |
| Guttera | 0 cm | 0 cm |
| Headera | 0 cm | 0 cm |
| Footera | 0 cm | 0 cm |
| aThese ***must*** be set to 0 cm. In addition, please make sure the *Mirror Margins* option is ***not*** selected. | | |

Tables should have only horizontal rules and no vertical ones. Generally, only three rules should be used: one at the top of the table, one at the bottom, and one to separate the entries from the column headings. Table rules should be 0.5 points wide.

|  |  |  |
| --- | --- | --- |
| **Table 2.** A simple table. Leave 6pt of space between the caption and the top of the table. | | |
|  |  |
| Distance (m) | Velocity (ms–1) |
| 100 | 23.56 |
| 150 | 34.64 |
| 200 | 23.76 |
| 250 | 27.9 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 3.** A table with headings spanning two columns and containing notesa. | | | | |
| Nucleus | Thickness  (mg cm–2) | Composition | Separation energies | |
| , n (MeV) | , 2n (MeV) |
| 181Ta | 19.3±0.1b | Natural | 7.6 | 14.2 |
| 208Pb | 3.8±0.8c | 99% enriched | 7.4 | 14.1 |
| 209Bi | 2.6±0.01c | Natural | 7.5 | 14.4 |
| aNotes are referenced using alpha superscripts.  bSelf-supporting.  cDeposited over Al backing. | | | | |

1. Equations and mathematics
   1. *Fonts in Equation Editor (or MathType)*

Make sure that your Equation Editor or MathType fonts, including sizes, are set up to match the text of your document.

* 1. *Points of style*
     1. Vectors.Bold italic characters is our preferred style but the author may use any standard notation; for example, any of these styles for vectors is acceptable:

‘the vector cross product of ***a*** and ***b*** is given by …’, or

‘the vector cross product of **a** and **b** is given by …’, or

‘the vector cross product of and is given by …’.

* + 1. The solidus ().A two-line solidus should be avoided where possible; for example, use
* instead of 
*  instead of 
  + 1. Roman and italic in mathematics.Variables should be in italic; however there are some cases where it is better to use a Roman font:
* Use a Roman d for a differential d, for example, 
* Use a Roman e for an exponential e; for example, 
* Use a Roman i for the square root of –1; e.g., 
* Certain other common mathematical functions, such as cos, sin, det and ker, should appear in Roman type.
* Subscripts and superscripts should be in Roman type if they are labels rather than variables or characters that take values. For example in the equation



*m*, the *z*component of the nuclear spin, is italic because it can have different values whereas n is Roman because it is a label meaning nuclear.

* 1. *Alignment of mathematics*

The preferred style for displayed mathematics in *Journal of Physics: Conference Series* is to centre equations; however, long equations that will not fit on one line, or need to be continued on subsequent lines, should start flush left. Any continuation lines in such equations should be indented by 25 mm.

Equations should be split at mathematically sound points, often immediately before =, + or – signs or between terms multiplied together. The connecting signs are not repeated and appear only at the beginning of the turned-over line. A multiplication sign should be added to the start of turned-over lines where the break is between two multiplied terms.

* + 1. Small displayed equations:Some examples:

 (1)

 (2)

 (3)

However, if equations will fit on one line, do so; for example, (5) may also be formatted as:

 (6)

* + 1. Large display equations: examples. If an equation is almost the width of a line, place it flush left against the margin to allow room for the equation number.

 (7)



 (8)

* 1. *Miscellaneous points*
* Exponential expressions, especially those containing subscripts or superscripts, are clearer if the notation is used, except for simple examples. For instance,and  are preferred toand  but is acceptable. Similarly the square root sign  should only be used with relativelysimple expressions, e.g. and but in other cases the power should be used.
* It is important to distinguish between and
* Braces, brackets and parentheses should be used in the following order: {[()]}. The same ordering of brackets should be used within each size. However, this ordering can be ignored if thebrackets have a special meaning (e.g. if they denote an average or a function).
* Decimal fractions should always be preceded by a zero: for example 0.123 *not*.123 (note, do not use commas, use the decimal point).
* Equations that are referred to in the text should be numbered with the number on the right-hand side.
  1. *Equation numbering*

Equations may be numbered sequentially throughout the text (i.e., (1), (2), (3),…) or numbered by section (i.e., (1.1), (1.2), (2.1),…) depending on the author’s personal preference. In articles with several appendices equation numberingby section is useful in the appendices even when sequential numbering hasbeen used throughout the main body of the text: for example, A.1, A.2 and so forth. When referring to an equation in the text, always put the equation number in brackets—e.g. ‘as in equation (2)’ or ‘as in equation (2.1)’—and always spell out the word ‘equation’ in full, e.g. ‘if equation (5) is factorized’; do not use abbreviations such as ‘eqn.’ or ‘eq.’.

**Acknowledgments**

Authors wishing to acknowledge assistance or encouragement from colleagues, special work by technical staff or financial support from organizations should do so in an unnumbered Acknowledgments section immediately following the last numbered section of the paper.

References

As part of the production system for *Journal of Physics: Conference Series*, online versions of all reference lists will, wherever possible, be linked electronically using IOP Publishing’s HyperCite™ technology. Consequently, it *vitally* important for all the references to be accurate and to be carefully formatted using the guidelines below, enabling your paper to be available online with the minimum of delay.

A complete reference should provide the reader with enough information to locate the article concerned, whether published in print or electronic form, and should, depending on the type of reference, consist of:

* name(s) and initials;
* date published;
* title of journal, book or other publication;
* titles of journal articles may also be included (optional);
* volume number;
* editors, if any;
* town of publication and publisher in parentheses for *books*;
* the page numbers.

The numbers occur within square brackets, like this [2], and one number can be used to designate several references. The reference list gives the references in numerical, not alphabetical, order.

Up to ten authors may be given in a particular reference; where there are more than ten only the first should be given followed by *et al*. Abbreviations of the names of periodicals used by IOP Publishing are usually the same as those given in British Standard BS 4148: 1985. If an author is unsure of an abbreviation it is best to leave the title in full.

**Points to note**

• Book titles are in italic and should be spelt out in full with initial capital letters for all except minor words. Words such as Proceedings, Symposium, International, Conference, Second, etcshould be abbreviated to *Proc*., *Symp*., *Int*., *Conf*., *2nd*, respectively, but the rest of the title should be given in full, followed by the date of the conference and the town or city where the conference was held. For Laboratory Reports the Laboratory should be spelt out wherever possible, e.g. *Argonne National Laboratory Report*.

• The volume number, for example vol 2, should be followed by the editors, in a form such as ‘ed A J Smith and P R Jones’. Use *et al* if there are more than two editors. Next comes the town of publication and publisher, within brackets and separated by a colon, and finally the page numbers preceded by p if only one number is given or pp if both the initial and final numbers are given.

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1. Popp J, Pető K and Nagy J 2013 Pesticide productivity and food security. *Agron. Sustain. Dev.* **33**243 <https://doi.org/10.1007/s13593-012-0105-x>
2. Sze S M 1969 *Physics of Semiconductor Devices* (New York: Wiley–Interscience) p 157
3. Caplar R and Kulisic P 1973 *Proc. Int. Conf. on Nuclear Physics (Munich)* vol 1 (Amsterdam: North-Holland/American Elsevier) p 517
4. Szytula A and Leciejewicz J 1989 *Handbook on the Physics and Chemistry of Rare Earths* vol 12, ed K A Gschneidner Jr and L Erwin (Amsterdam: Elsevier) p 133
5. Kuhn T 1998 Density matrix theory of coherent ultrafast dynamics *Theory of Transport Properties of Semiconductor Nanostructures* (*Electronic Materials* vol 4) ed E Schöll (London: Chapman and Hall) chapter 6 pp 173–214
6. Davids D L 1998 *Recovery effects in binary aluminum alloys*, PhD thesis, Harvard University
7. Ivanova A A 2002 *Water Technology* [in Russian – Technologiya Vodi] (Moscow: Khimiya) p 180
8. Mikheeva A A 2017 About four-dimensional left Bol three-webs with the same core *Higher Istituions News: Mathematics* [Izvestiya Vysshikh Uchebnykh Zavedenii: Matematika – in Russian] **1** 17
9. Jackson B R and PitmanT, U.S. Patent No. 6,345,224 (8 July 2004)
10. ISO/IEC Guide 35 2006 *Certification of reference materials—general and statistical principles* (ISO, Geneva, Switzerland) <https://www.iso.org/standard/19741.html>
11. *Potentiometric Methods*, Sonoma State University, available at: <https://chem.libretexts.org/Textbook_Maps/Analytical_Chemistry_Textbook_Maps/Map%3A_Analytical_Chemistry_2.0_(Harvey)/11_Electrochemical_Methods/11.2%3A_Potentiometric_Methods>