How to prepare your manuscript for *Chinese Physics B*

General requirement

Manuscripts should be written in concise and legible English. The authors must obey the requirements in the copyright transfer agreement and the academic commitment. The manuscript should not have been published or be under consideration for publication in any other journal.

The items included in the manuscript should be arranged as follows: 1) full title of the manuscript; 2) author’s name; 3) author’s affiliation; 4) abstract, limited to about 200 words; 5) keywords, no more than 4 sets; 6) PACS numbers, no more than 4 sets; 7) main text; 8) acknowledgements; 9) supporting organization(s), as a footnote on the first page; and 10) references.

1. Title
   The title should be concise but informative. A general description of the topic usually is not a good title. Nonstandard abbreviations and acronyms are usually not allowed. Unnecessary words (a, on, an, the, etc.) at the beginning of the title should be dropped.

2. Author
   The full names of all authors should be listed. For Chinese authors, their names should be given in Pinyin followed by their Chinese names in parentheses. All authors’ addresses including the zip codes should also be given. Usually, only one corresponding author is allowed.

3. Abstract
   The abstract should give concise information about the content of the article and indicate the main results obtained and the conclusions drawn. It should be self-contained with no reference to figures, tables, equations or bibliographic references. The abstract should normally be restricted to a single paragraph. And it should not be a simple repetition of the conclusion.

4. Keywords and PACS codes
   The keywords and Physics and Astronomy Classification System (PACS) codes should be placed right after the abstract. The keywords should be chosen according to the key information of the paper. The paper on publishing will be placed at a section according to the principal (first) index PACS code. For example, a paper with PACS code 71.10.Ay will be placed at the section of condensed matter. So the principal (first) index code should be carefully chosen. At most four keywords and four PACS codes can be used, and they should be listed according to their correlations to the content of the manuscript.

5. Introduction
   The introduction should tell the reader what the paper is about and the purpose of the paper. Usually some references are cited to introduce the historical background and the importance of this paper. The introduction should also clearly states whether this study is theoretical or experimental. Finally, the organization of the paper should be given.

6. Main text
The main text is the main part of the paper, which often includes Methods, Results and Discussion. The main text should be divided into sections with appropriate section headings. For rapid communications, sections are not necessary. Standard text fonts should be used throughout the paper. Capitalized letters should be used only for the first letters of sentences, names, or special cases. If the manuscript is prepared with Microsoft word, math symbols and special characters should be inserted with Design Science's MathType equation editor. The international system of units (SI units) should be used, and the unit should be separated from the quantity with a space. Number references, figures, tables, and equations with Arabic numerals, and cite them in order of their appearances in the text.

7. Conclusion

The conclusion should be proposed based on the results and discussion of the paper. It is the summing up of this study. And it should not be a simple repetition of the Abstract.

8. Abbreviations

Abbreviations can be used in the abstract and the main text. They should be avoided in the title and the keywords if possible. The full spelling of an abbreviation should be given at its first appearance, even for commonly used abbreviations, such as direct-current (dc) and scanning tunneling microscopy (STM).

9. Equations

9.1. Punctuation in equation

Equations should be considered as an organic part of the main text and be punctuated accordingly.

9.2. Symbols

Variables and functions should be represented by single letter symbols. Multiletter symbols can be used only for special cases, for example, $Re$ for Reynolds number. Math symbols in the paper should be self-contained, each symbol should be defined in its first appearance even it has been commonly used in some standard text books, for example, $c$ for the speed of light and $h$ for the Planck constant. Different variables and functions (even in different sections) should not share the same symbol, e.g., if $c$ is used for the speed of car in Section 1, then it should not be used for the speed of light in Section 2.

9.3. Roman and italic in mathematics

For symbols in equations, italic face should be used. Vectors and matrices should be given in italic bold italic face. Roman face is used for the following exceptions:

1) Function operators, for example, $d$ for differential operator, $L$ for linear operator;
2) exponential $e$ (exp);
3) $i$ or $j$ for square root of $-1$, i.e., $i = \sqrt{-1}$;
4) special functions, for example, gamma function $\Gamma(x)$;
5) subscripts and superscripts if they are labels, for example, $A_{\text{max}}$; subscripts and superscripts should be in italic if they are variables that take values, for example, $\nu$.

9.4. Equations should be numbered sequentially throughout the text. If the manuscript is
prepared with Microsoft word, equations should be inserted with Design Science's MathType equation editor.

9.5. Examples

1) One-dimensional harmonic oscillator is described by the following equation:

\[ m_o a = - k_o x, \quad (1) \]

where \( x \) and \( a \) are the position and the acceleration of the oscillator respectively, \( m_o \) is the mass of the oscillator, and \( k_o \) is the spring constant (subscripts o and s denote oscillator and spring, respectively, so Roman face is used). The solution of the above equation is

\[ x(t) = A \cos(\omega t + \phi), \quad (2) \]

where \( A \) is the amplitude of the oscillation, \( \phi \) is the initial phase, and

\[ \omega = \sqrt{\frac{k_o}{m_o}}. \]

2) Maxwell–Faraday equation is

\[ \nabla \times E = - \frac{\partial B}{\partial t}, \quad (3) \]

where \( E \) and \( B \) are the electric and magnetic fields, respectively (\( E \) and \( B \) are vectors, so they should be given in bold italic face).

10. Figures

Editable figures should be provided, as the size of the figure and the text in the figure generally need to be formatted. It is most welcome that the authors provide us the source files that create the figures in the manuscript. Another effective way to provide us editable figures is to directly copy and paste the figures from the source files into a separated Microsoft Word instead of exporting and inserting the figures into the Microsoft Word. This method works particularly well for figures created using Origin and Matlab. The authors can submit the figure source files or the separated Microsoft Word with the figures together with the manuscript during the manuscript submission. We may ask for better figures during the production process.

10.1. Size

The figure is preferred to be prepared with a frame. And the figure should be prepared in an appropriate size to fit one-column or two-column space of the paper to avoid scaling during the production process. Lines in the figure should be thicker than the lines of the frame.

10.2. Text in the figure

Text in the figures should be keep to a minimum. All the symbols and labels in the figure should be consistent with the main text. The font size of 8 pt should be used if possible.

10.3. Axes

Appropriate axis scales and scale numbers should be used. The axis labels are usually in
the form of “variable/unit” or “variable name/unit”.

10.4. Caption

Captions should briefly describe the figures. For multipart figures, each part should be labeled (a), (b), (c), ⋯, sequentially. And each part should be described in the caption. If inserted figures are used, they should also be described in the caption. Color figures can be used when necessary, and they should be labeled with “color online” in the captions if not “color in print” but “color online” is required.

10.5. Examples

Fig. 1. Dependence of the amplified pulse energy on the seed pulse energy in the ...

The inset shows the linear amplification at low seeding level.

Fig. 2. Contours of the normalized intensity of ...

at (a) $z=0.1$ mm, (b) $z=0.2$ mm, (c) $z=0.3$ mm.

11. Tables

Generally, a table should contain only three horizontal lines (one at the top of the table, one at the bottom, and one to separate the entries from the column headings) and no vertical ones. Additional horizontal and vertical lines can be added to improve the clarity of the table. The following example shows our preferred table style.
Table 1. CO2 laser mitigation parameters for different sizes of damage sites.

<table>
<thead>
<tr>
<th>L/μm</th>
<th>D/mm</th>
<th>P/W</th>
<th>T/s</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 &lt; L &lt; 150</td>
<td>2</td>
<td>8.2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.9</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>150 &lt; L ≤ 250</td>
<td>3</td>
<td>16.1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19.2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22.5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>250 &lt; L &lt; 400</td>
<td>7</td>
<td>48.7</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50.0</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>56.6</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2. Positions and widths for resonances of the e⁺—H system.

<table>
<thead>
<tr>
<th>J</th>
<th>E₀/eV</th>
<th>(γ₀=2)eV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present work</td>
<td>Other work</td>
</tr>
<tr>
<td>S(1)</td>
<td>9.428(9.784)²</td>
<td>2.76(1.13)³</td>
</tr>
<tr>
<td>S(2)</td>
<td>10.158(10.178)²</td>
<td>4.0(6.52)³</td>
</tr>
<tr>
<td>S(3)</td>
<td>10.202(10.203)²</td>
<td>8.31(3.50)³</td>
</tr>
<tr>
<td>P(1)</td>
<td>9.682(9.991)²</td>
<td>3.6(2.68)³</td>
</tr>
</tbody>
</table>

The notation x⁰ implies x×10⁰.

- ² 3-state close coupling (Seiler et al.[5]),
- ³ 21-state close coupling (Mitroy[12]),
- ⁴ complex-coordinate rotations (Ho and Yan[16]).

12. References

A manuscript submitted to “Chinese Physics B” is required to follow the following guidelines to complete the reference section of the manuscript.

For the author list, the author’s family name should come first, followed by the initials. In general, all the authors’ names should be listed. When the number of authors is more than 20, et al. can be used after the 3rd author to omit the others. The use of the punctuation marks, such as comma and dot, should also exactly follow the guidelines and the examples.

Details of the guidelines are list below. For each kind of references, a general format is given (ignore the bracket {}), examples are also provided.
[Journal]:
{author list, separated by comma(,)}  {year of publication}  {journal title, in italic}  
{volume, in boldface}  {first page}  
Examples:

[Book]:
{author list, separated by comma(,)}  {year of publication}  {book title, in italic}  
{(publication city: publisher)}  {cited pages}  
Examples:

[Conference publication]:
{author list, separated by comma(,)}  {year of publication}  {conference title or conference publication title, in italic}  {conference time}  {conference location}  {first page}  
Examples:

[arXiv]:
{author list, separated by comma(,)}  {year of publication}  {arXiv number}  
{[field]}  
Example:

[Patent]
{author list, separated by comma(,)}  {patent number}  {[year-month-date]}  
Example:

[Dissertation]
{author}  {year of publication}  {dissertation title, in italic}  {location: Institutions or University}  
Example: