Optics Express

Express Journals Online Style Guide: Optics Express, Biomedical Optics Express, Optical Materials Express

Additional information and templates for MS Word and LaTeX are also available. The online style guide below also provides details on manuscript preparation.

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Attention Optics Express Authors

OSA creates archival-quality XML along with the PDF output for the Express journals. XML is the industry standard for producing and archiving scientific journal articles and is used in producing all other OSA journals. Having full-text XML will allow all of the OSA Express journals to be indexed more accurately and completely in MEDLINE, PubMed Central, and other databases; it will also allow the journal to meet its archival obligations and to prepare for new services such as full-text semantic search and repurposing of content.

In order to prevent delays in production, we ask that authors carefully adhere to the following these guidelines:

- **Word and LaTeX.** OSA accepts Word and LaTeX submissions; however, we encourage authors to submit papers in MS Word. OSA will not publish the same Word file that authors submit for their final revisions, so it is imperative that authors carefully check the final version of their paper before paying the publication fee. OSA uses a Word plug-in called eXtyle to normalize, format, tag, and parse the file into full-text XML. eXtyle automatically reformats, checks, and updates the references against the CrossRef and PubMed databases. In addition to running other auto-redact editing rules, eXtyle checks all reference, figure, table and equation callouts in the text to ensure all items are cited. At this time full-text XML will be generated from LaTeX papers after publication.

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- **Main text.** Authors must identify equations and figures in the text by inserting Fig. or Eq. before the number. All references, figures, and tables must be called out in the text in order as they appear.
- **Figures.** Authors must use one image file per figure. Figures need to be inserted as objects that
are fixed and move with the text, not as floating objects. Figures should never be placed in a table environment.

- **Tables.** Authors must use Word's Table editor to insert tables. Authors must not import tables from Excel. All content for each table should be in a single Word table (do not split content for a single table across multiple Word tables). Any content that is not a table should never be placed in a table environment (e.g., figures and equations).

- **Equations.** OSA does not accept equations built using the Word 2007 Equation Builder. All equations should be created in MathType (or the Microsoft Equation editor from Design Science). We strongly encourage authors to use MathType 6.7. Note that LaTeX users can type LaTeX code directly into MathType for rendering in Word. Equations should never be placed in a table environment.

Adherence to the above guidelines will significantly expedite the production of your paper.

1. **Layout and title page elements**

   **Page layout** for MS Word should be as follows for estimating final length: Body text: 10-pt Times New Roman. Paper size, U.S. letter. Margins: 1-in. top, 1.625-in. left, right, and bottom. The LaTeX style file will provide proper layout for TeX files.

   The **title** should be concise but informative. Avoid beginning with an article, a preposition, or the words "new" or "novel." Titles may be edited by the publisher to facilitate computer search.

   **Author names** should be given in full and consistent form to facilitate indexing. Every effort should be made to keep author names consistent from one paper to the next as they appear within OSA publications. **Affiliations** and postal addresses for all authors should appear on the title page. All authors must be grouped together using superscripts to callout each affiliation. Hard-returns (Enter key) must be used to separate each individual affiliation. Soft-returns (Shift + Enter key) should be used for line breaks within a single paragraph. If all authors share one affiliation, superscript numbers are not needed. The corresponding author will have an asterisk indicating footnote. Abbreviations should not be used. **E-mail** address for the corresponding author should be given.

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The **abstract** should be limited to approximately 100 words. It should be an explicit summary of the paper that states the problem, the methods used, and the major results and conclusions. If another publication is referenced in the abstract, abbreviated information (e.g., authors, journal, volume number, first page, year) must be given in the abstract itself without a reference number. The first reference cited in the main text will be [1]. Note that the combination of abstract and title must be an adequate indicator of the content of the paper, since it will stand alone in electronic bibliographic databases and printed abstracting journals.
OCIS codes should be provided to help with indexing. OCIS codes can be selected during upload and are also available at http://www.opticsinfobase.org/submit/ocis/.

2. Mathematical and scientific notation

2.1 Math

All equations should be created in MathType (or the Microsoft Equation editor from Design Science). The Express journals do not accept equations built using the Word 2007 Equation Builder. We strongly encourage authors to use MathType 6.7. Note that LaTeX users can type LaTeX code directly into MathType for rendering in Word. Numbered display equations can be labeled manually or with MathType's numbering feature. For TeX, use of standard LaTeX or AMSTeX commands will greatly facilitate production. Please keep all notation and formatting as simple as possible.

2.2 In-line math

Simple fractions in in-line math should use parentheses when necessary to avoid ambiguity, for example, to distinguish between \(1/(n - 1)\) and \(1/n - 1\). In-text fractions should be set on line, not built up. Exceptions to this are proper fractions such as \(\hat{\lambda}/2\), which are better left in this form. Summations and integrals that appear within text such as \(\hat{\lambda}/2 \sum_{n=1} \frac{n^2 - 2n}{n^2} \) should have limits placed to the right of the symbol to reduce white space and should not use oversized symbols.

\[
\Delta r = r(t + \Delta t) - r(t) = [\phi(t + \Delta t) - \phi(t)]i + [\psi(t + \Delta t) - \psi(t)]j + [\chi(t + \Delta t) - \chi(t)]k. \quad (1)
\]

2.3 General guidelines on notation

Notation must be legible, clear, compact, and consistent with standard usage. In general, acronyms should be defined at first use. Adherence to the following guidelines will greatly assist the production process:

**Radical Signs.** When possible, avoid oversized radical signs by using the notation of a superscript 1/2. For example, change \(\sqrt{(a + b)(a - c)}\) to \((a + b)(a - c)\)^{1/2}.

**Exponentials.** Avoid tiny superscripts of exponential \(e\) (e.g., \(e^{jkl}\)) by using the alternative exp notation, exp(jkl).

**Variables and Vectors.** Set single-letter variables in italics (k). Set three-vectors in boldface (k). Functions, derivative "d," abbreviations, and multiletter identifiers should be set in roman (plain) type (\(\alpha, \cos, \int, d\chi, \delta \alpha\)).

**Multiplication.** In general, close up multiplied terms \(p_k p_\lambda\); use \(\times\) if multiplication sign is essential (1 \(\times\).
10^2) or for continuation in displayed equations [see Eq. (2) above]. Use raised dot only for scalar product (\( \mathbf{k} \cdot \mathbf{k} \)).

**Fences.** For simple bracketing the usual order of parentheses and brackets is { [ ( ( ) ) ] }.

**Bit and Byte.** The standard abbreviations for bit and byte are b and B, respectively. To avoid confusion, these units should be spelled out in most cases (1 bit, 20 GByte).

**Metric System.** The metric system is used in OSA journals. If nonmetric units are essential (e.g., for parts specifications), conversion should be given at first mention: "... a \( \frac{1}{4} \)-in. bolt (1 in. = 2.54 cm)."

### 3. References and notes

**References and Notes** should be numbered consecutively in the order in which they are first referenced in the body of the paper. Two references [2,3] should be included together, separated by a comma, and three or more consecutive references should be indicated by the bounding numbers and an en dash [1–4].

Each source must have its own reference number.

When on-line reference numbers are essential (e.g., see [1]), it is not necessary to use the words "Reference(s)" or "Ref(s)," except when needed for clarity. Footnotes (notes at the bottom of text pages) are not used in OSA journals. Footnotes should be incorporated into the text or set with references as an endnote.

When reference authors are mentioned in the text, use surnames only (unless further clarity is needed), and use "et al." and first author name when three or more authors are given.

Here are some examples of how to set the most common reference types:

**Journal paper**


**Book**


**Chapter in a book**


**Paper in a published conference proceedings**


Paper in an unpublished conference proceedings


SPIE proceedings


IEEE proceedings


Paper accepted for publication


Manuscript in preparation

10. J. Q. Smith, Laboratory for Laser Energetics, University of Rochester, 250 East River Road, Rochester, N.Y. 14623, and K. Marshall are preparing a manuscript to be called "Optical effects in liquid crystals."

Personal communication


Internet links


4. Figures and multimedia

4.1 Figures

**Figures** may be submitted in color or black and white. Authors must use one image file per figure. Figures need to be inserted as objects that are fixed and move with the text, not as floating objects. Figures should never be placed in a table environment. **Images and text must be clear and legible for on-screen viewing.** Place figures as closely as possible to where they are mentioned in the text. Set each figure in the body of the text above its caption. No part of a figure should go beyond the typing area.
4.2 Tables

Tables should be numbered and should be set in the body of the manuscript. Authors must use Word’s Table editor to insert tables. Authors must not import tables from Excel. All content for each table should be in a single Word table (do not split content for a single table across multiple Word tables). The table title, which should be brief, goes above the table. Detailed explanations or table footnotes should be set directly beneath the table, as shown. Tables should use horizontal rules to delimit the top and bottom of the table and column headings. In general, no other rules should be are used.

Table 1. $S_C$ and $S_H$ Weights and Corresponding Linear Correlation Indices $r$ Obtained by Linear Fits of the Long and Short Semi-axes of the Ellipses and Obtained by Minimizing the $PF/3$ Index as Functions of the Chroma $C_{OSA,s}$ of the Color Standard $s$ (the Center of the Ellipse)\textsuperscript{a}

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<tr>
<th>Set of Ellipses</th>
<th>Weighting Functions and Linear Correlation Index</th>
<th>$PF/3$</th>
<th>Weighting Functions</th>
<th>$PF/3$</th>
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<tr>
<td>BFD</td>
<td>$S_C=1.7513+0.0431 \times 10C_{OSA,s},r=0.78$</td>
<td>24.6</td>
<td>$S_C=1.1205-0.0513 \times 10C_{OSA}$</td>
<td>21.4</td>
</tr>
<tr>
<td></td>
<td>$S_H=1.1952+0.0151 \times 10C_{OSA,s},r=0.81$</td>
<td></td>
<td>$S_H=1.1538-0.0179 \times 10C_{OSA}$</td>
<td></td>
</tr>
<tr>
<td>BFD-P</td>
<td>$S_C=1.6832+0.0428 \times 10C_{OSA,s},r=0.79$</td>
<td>24.6</td>
<td>$S_C=1.1533-0.0467 \times 10C_{OSA}$</td>
<td>22.7</td>
</tr>
<tr>
<td></td>
<td>$S_H=1.1223+0.0161 \times 10C_{OSA,s},r=0.82$</td>
<td></td>
<td>$S_H=1.1133-0.0200 \times 10C_{OSA}$</td>
<td></td>
</tr>
<tr>
<td>BFD-A</td>
<td>$S_C=1.4758+0.0466 \times 10C_{OSA,s},r=0.78$</td>
<td>22.7</td>
<td>$S_C=0.9366-0.0630 \times 10C_{OSA}$</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>$S_H=1.1616+0.0150 \times 10C_{OSA,s},r=0.78$</td>
<td></td>
<td>$S_H=1.2303-0.0163 \times 10C_{OSA}$</td>
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\textsuperscript{a}Factor 10 is due to the unit of measure of $C_{OSA}$ equal to 10 jnd. The minimization of the $PF/3$ index and the $PF/3\textsuperscript{13}$ related to the three sets of ellipses BFD, BFD-P, and BFD-A are evaluated on 100 points per ellipse.

5. Funding sources

Please identify all appropriate funding sources by name and contract number in the Acknowledgment section.

6. Article thumbnail
Optics Express and Biomedical Optics Express authors can upload a thumbnail image to be used next to their article in the Table of Contents and abstract pages of the journal.

Authors must submit a .JPG file. The image will be resized to 100 x 100 pixels. For best results, authors should upload an image this size or an image with square dimensions.

The 100 x 100 pixel image will be displayed on the article abstract page and a 50 x 50 pixel image will be displayed on the Table of Contents page.

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7. Final remarks

OSA manuscripts should be uploaded electronically through the Author Page. Quality of English standards must be met for final acceptance and publication. Note that in some cases copyediting may be required for acceptance. Copyediting services are available from OSA for a fee (contact OSA staff for details). If a student-level reader might find your English difficult to understand, please have a colleague who is fluent in English edit your paper before you submit it to OSA. Ensure that manuscripts are free of grammar, spelling, punctuation, and other errors before submission to OSA.

The following additional resources may be helpful to authors. For spelling, OSA follows the American Heritage College Dictionary. Our editorial style is based on the AIP Style Manual.

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