

Instructions for the preparation of a manuscript for *Optics Express*

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Abstract: Explicit and detailed rules are given for preparing a manuscript for *Optics Express*. After a general introduction and a summary of the basic requirements, specific guidelines are given for all major manuscript elements (such as abstract, headings, figures, tables, and references) to achieve optimal typographic quality. The use of complete and properly formatted references is particularly important.

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OCIS codes: (000.0000) General.

References and links

1. P. J. Harshman, T. K. Gustafson, and P. Kelley, "Title of paper," J. Chem. Phys. **3** (to be published).
 2. C. van Trigt, "Visual system-response functions and estimating reflectance," J. Opt. Soc. Am. A **14**, 741-755 (1997).
 3. K. Gallo and G. Assanto, "All-optical diode based on second-harmonic generation in an asymmetric waveguide," J. Opt. Soc. B **16**, 267-269 (1999).
 4. B. R. Masters, "Three-dimensional microscopic tomographic imagings of the cataract in a human lens in vivo," Opt. Express **3**, 332 (1998), <http://www.opticsexpress.org/abstract.cfm?URI=OPEX-3-9-332>.
 5. B. R. Masters, "Three-dimensional confocal microscopy of the human optic nerve in vivo," Opt. Express **3**, 356 (1998), <http://www.opticsexpress.org/abstract.cfm?URI=OPEX-3-10-356>.
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1. Introduction

Adherence to the specifications listed in this style guide is essential for efficient review and publication of submissions. Since *Optics Express* paper are not routinely copyedited and typeset, use of the *Optics Express* macros and style guide is critical to providing a consistent appearance. *For optimal use, authors should print out this style guide for use as a checklist when formatting submissions.*

Except for numbering and titling of sections, which may not be desirable for short articles, the *Optics Express* style and layout rules have been followed in this guide. Also note that there is a checklist available in Section 6 that summarizes the style specifications.

2. Page layout and length

Paper size should be U.S. Letter, 21.505 cm x 27.83 cm (8.5 in. x 11 in.). The printing area should be set to 13.28 cm x 21.54 cm (5.25 in. x 8.5 in.); margins should be set for a 2.54-cm (1 in.) top and 4.11-cm (1.625 in.) left, right, and bottom.

To maintain a rapid publication cycle, the recommended page length for an *Optics Express* article is 6 pages. Higher publication fees apply to articles 7-15 pages in length. There is an additional fee for manuscripts longer than 15 pages.

3. Software

Optics Express accepts Word and TeX files.

4. Typographical style

All fonts for text should be some version of Times New Roman. Text should be 10-pt. the title should be 18-pt., and the affiliation and references should be 8-pt. Do not add hyphenation at the end of a line.

4.1 Title

Center the title. Only the first letter in the title is capitalized, except for proper names, elements, and abbreviations. The title should be in 18-pt. bold font.

4.2 Author name

Center author names in 10-pt. bold font. Author names should appear as used for conventional publication, with first and middle names or initials followed by surname. Every effort should be made to keep author names consistent from one paper to the next as they appear within OSA publications. Insert a 6-pt. space below the author names.

4.3 Author affiliation

Center author affiliations in 8-pt. italic font. Affiliations should follow the format: division, organization, address. Abbreviations should not be used. If multiple authors have the same affiliation, one listing of the affiliation should be used, preceded by the full list of those authors on the line above. Center the e-mail address of author(s), in 8-pt. italic font directly below the affiliation. For example,

A. Gatti and L. A. Lugiato

*Instituto Nazionale di Fisica per la Materia, Dipartimento Di Fisica, Via Celoria
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4.4 Abstract

Begin the section with the word “**Abstract:**” in bold print followed by a colon. Indent left and right margins 1.27 cm (0.5 in.). Font size should be 10-pt. and alignment double (left and right) justified.

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. It also should contain the relevant key words that would allow it to be found in a cursory computerized search. If the work of another author is cited in the abstract, a separate citation should be included in the body of the text. Do not include numbers, bullets, or lists inside the abstract.

4.5. Copyright

The line immediately following the abstract should be © 2003 Optical Society of America in 9-pt. type. Indentation should match the abstract, i.e., 1.27 cm (0.5 in.). Insert a 4-pt. space above and below the copyright line. See the first page of these instructions.

4.6 OCIS subject classification

Optics Classification and Indexing Scheme (OCIS) subject classifications should be included at the end of the abstract, on a separate line that begins with the words “**OCIS codes:**” in bold.

In plain font, list the OCIS code in parenthesis, followed by the term spelled out; separate OCIS terms with semicolons. Use 8-pt. type for this line. For a complete list of OCIS codes, visit this site: <http://www.osa.org/pubs/authors/ocis/>

OCIS codes: (260.1440) Birefringence; (050.1950) Diffraction gratings

4.7 Main text

The first line of the first paragraph of a section or subsection should start flush left. The first line of subsequent paragraphs within the section or subsection should be indented 0.62 cm (0.2 in.). All main text should be alignment double (left and right) justified.

Section headings may be numbered consecutively and consistently throughout the paper in Arabic numbers and typed in bold. Use an initial capital letter followed by lowercase, except for proper names, abbreviations, etc. Always start headings flush left. Do not include references to the literature, illustrations, or tables in headings. Insert a 6-pt. space above and below each section heading as shown in this paper.

Subsection headings may be numbered consecutively in Arabic numbers to the right of the decimal point, with the section number to the left of the decimal point as shown in this paper. Subsection headings should be in italics, with an initial capital letter followed by lowercase, except for proper names, abbreviations, etc. Start subsection headings flush left. Do not include references to the literature, illustrations, or tables in headings. Create a 6-pt. space above and below each subsection heading as shown in this paper.

Numbering of section headings and subsection headings is optional but must be used consistently throughout papers in which it is applied.

4.8 Equations

Equations should be centered, unless they are so long that less than 1 cm will be left between the end of the equation and the equation number, in which case they may run on to the next line. Equations should have a 6-pt. space above and below the text. Equation numbers should appear at the right-hand margin, in parenthesis. For long equations, the equation number may appear on the next line. For very long equations, the right side of the equation should be broken into approximately equal parts and aligned to the right of the equal sign. The equation number should appear only at the right hand margin of the last line of the equation:

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}. \quad (1)$$

All equations should be numbered in the order in which they appear and should be referenced from within the main text as Eq. (1).

In-line math of simple fractions should use parentheses when necessary to avoid ambiguity; for example, to distinguish between $1/(n - 1)$ and $1/n - 1$. Exceptions to this are the proper fractions such as $\frac{1}{2}$, which are better left in this form. Summations and integrals that appear within text such as $\frac{1}{2} \sum_{n=1}^{\infty} (n^2 - 2n)^{-1}$ should have limits placed to the right of the symbol to reduce white space. Use MS Word Equation Editor or MathType for in-text and display notation wherever possible.

4.9 References and links

References should appear at the top of the article, below the abstract, in the order in which they are referenced in the body of the paper (see below). The font should be 8-pt. aligned left. Lines should be single-spaced. The words “**References and links**” should head the section (no number) in bold print followed by one blank line, directly above the first reference. Insert a 6-pt. space above the “**References and links**” line. All references should be indented 0.5 cm (0.2 in), with succeeding lines indented sufficiently to preserve alignment. The references section should be delimited by horizontal rules above and below the section, separated by at least 6-pts. of white space from the text.

Optics Express uses numerical notation in brackets for bibliographic citations. At the point of citation within the main text, designate the reference by typing the number in after the last corresponding word [1]. Reference numbers should proceed a comma or period [2]. Two references [3,4], should be included together, separated by a comma, while three or more consecutive references should be indicated by the bounding numbers and a dash [1-4].

Optics Express follows the following citation style:

Journal paper

For journal articles, authors are listed first, followed by the article's full title in quotes, the journal's title abbreviation, the volume number in bold, inclusive page numbers, and the year in parentheses. Journal titles are required.

6. C. van Trigt, "Visual system-response functions and estimating reflectance," *J. Opt. Soc. Am. A* **14**, 741-755 (1997).

Book

For monographs in books, authors are listed first, followed by article's full title in quotes, the word "in," followed by the book title in italics, the editors of the book in parenthesis, the publisher, city, year.

7. David F. Edwards, "Silicon (Si)," in *Handbook of Optical Constants of Solids*, E.D. Palik, ed. (Academic, Orlando, Fla., 1985).

Chapter in a book

For citation of a book as a whole or book chapter, authors or editors are listed first, followed by title in italics, and publisher, city, and year in parenthesis. Chapter number may be added if applicable.

8. F. Ladouceur and J. D. Love, *Silica-Based Buried Channel Waveguides and Devices* (Chapman & Hall, 1995), Chap. 8.

Electronic citations

Internet links may be included as references. Internet links should list the author, title (substitute file name, if needed), and the full URL (universal resource locator). Include the date of access, if relevant:

9. C. Gerry, "Remarks on the use of group theory in quantum optics," *Opt. Express* **8**, 76-85 (2001), <http://www.opticsexpress.org/abstract.cfm?URI=OPEX-8-2-76>.
10. Extreme Networks white paper, "Virtual metropolitan area networks" (Extreme Networks, 2001), <http://www.extremenetworks.com/technology/whitepapers/vMAN.asp>.

Paper in a published conference proceedings

11. R. E. Kalman, "Algebraic aspects of the generalized inverse of a rectangular matrix," in *Proceedings of Advanced Seminar on Generalized Inverse and Applications*, M. Z. Nashed, ed. (Academic, San Diego, Calif., 1976), pp. 111-124.

Paper in an unpublished conference proceedings

12. D. Steup and J. Weinzierl, "Resonant THz-meshes," presented at the Fourth International Workshop on THz Electronics, Erlangen-Tennenlohe, Germany, 5-6 Sept. 1996.

For citation of proceedings, follow the individual format for SPIE, IEEE and OSA Proceedings:

SPIE proceedings

13. S. K. Griebel, M. Richardson, K. E. Devenport, and H. S. Hinton, "Experimental performance of an ATM-based buffered hyperplane CMOSSEED smart pixel array," in *Optoelectronic Interconnects and Packaging IV*, R. T. Chen and P. S. Guilfoyle, eds., *Proc. SPIE* **3005**, 254-256 (1997).

IEEE proceedings

14. T. Darrel and K. Wohn, "Pyramid based depth from focus," in *Proceedings of IEEE Conference on Computer Vision and Pattern Recognition* (Institute of Electrical and Electronics Engineers, New York, 1988), pp. 504-509.

OSA proceedings

15. W. J. Alford, T. D. Raymond, and A. V. Smith, "Characterization of a ring optical parametric oscillator," in *Advanced Solid-State Lasers*, T. Y. Fan and B. Chai, eds., Vol. 20 of OSA Proceedings Series (Optical Society of America, Washington, D.C., 1994), pp. 476-479.

Paper accepted for publication

16. D. Piao, Q. Zhu, N. K. Dutta, S. Yan, and L. L. Otis, "Cancellation of coherent artifacts in optical coherence tomography imaging," *Appl. Opt.* (to be published).

Manuscript in preparation

17. 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

18. Barbara Williams, Editorial Department, Optical Society of America, 2010 Massachusetts Avenue, N.W., Washington, D.C., 20036 (personal communication, 2001).

4.10 Acknowledgments

Acknowledgments should be included at the end of the document. The section title should read "**Acknowledgments**" in 10-pt. bold font. The section title should not follow the numbering scheme of the body of the paper. The body of the section should follow the font and layout of the body of the paper (see Subsection 4.7 above). The number of a grant or contract should be omitted unless its inclusion is required by the agency supporting the research.

5. Figures, multimedia and tables

5.1 Figures

Figures should be included directly in the document. All photographs must be in digital form and placed appropriately in the electronic document. All illustrations must be numbered consecutively (i.e., not by section) with Arabic numbers. The size of a figure should be commensurate with the amount and value of the information conveyed by the figure.

All the figures should be centered, except for small figures no wider than 2.6 in. (6.6 cm), which may be placed side by side. Place figures as closely as possible to where they are mentioned in the text. No part of a figure should go beyond the typing area. The figure should not be embedded inside the text.

All figure captions should be centered beneath the figure. Longer figure captions should be centered beneath the figure and alignment double (left and right) justified, but are not to exceed the left and right edge of the figure by more than 0.5 in. The abbreviation "Fig." for figure should appear first followed by the figure number and a period. Captions should be in 8-pt. font. At least one line of space should be left before the figure and after the caption.

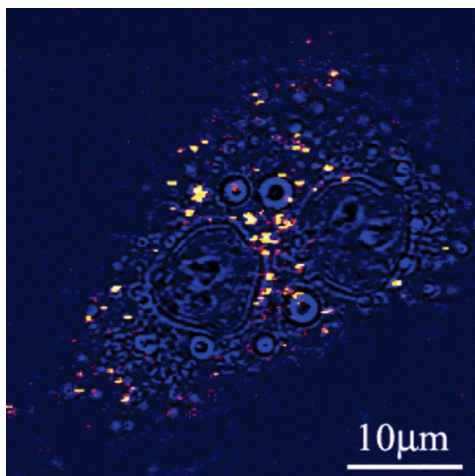


Fig. 1. Sample figure.

5.2 Multimedia

Optics Express accepts video and audio as separate files. The following multimedia guidelines will help with the submission process:

- * 2.5 MB is the recommended maximum multimedia file size. Smaller is better.
- * 512 by 320 pixels (width by height) is the maximum screen size.
- * Insert a representative frame from each movie in the manuscript as a figure.
- * Include the file size of the multimedia file in the figure caption. See Fig. 2.
- * All QuickTime Movie file names must end with .mov and AIFF audio files must end with .aif extensions.

Authors are advised that, in general, multimedia files should be kept to a size of 2.5 MB or smaller. If it is essential to the scientific quality of the paper to have files that are larger than this, two different versions of such multimedia files (usually video files) must be made. One version, less than 2.5 MB in size, will serve as a low resolution or truncated version for readers who have slower network connections and cannot download the larger file. The other version can be up to 15 MB in size. The file size of all multimedia files should be listed in the caption of the appropriate figure. If a multimedia figure has both a smaller and larger version associated with it, the smaller version will be the standard option in the paper and the larger version will be available from the link in the figure caption (see Fig. 2). Multimedia files larger than 15 MB can be linked from the Reference section, but they will not be a reviewed part of the paper, they will not be kept at OSA, and they will not be part of the archival paper.

Please refer to the Author Information page of *Optics Express* for links to multimedia software applications.

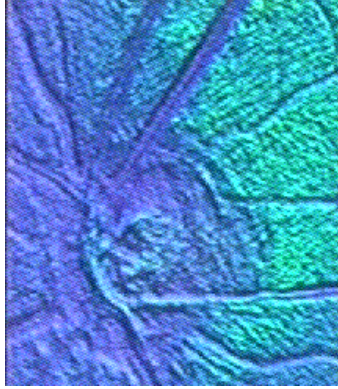


Fig. 2. (1.56 MB) Movie of three-dimensional in vivo human fundus and optic nerve ([6.93 MB version](#)).

5.3 Tables

Tables should be centered and numbered consecutively. One line table headings should be centered above the table. Several line headings should have margins that match the table width. Tables should use horizontal lines to delimit the top and bottom of the table and column headings. Detailed explanations or table footnotes should be typed directly beneath the table. Position tables as closely as possible to where they are mentioned in the main text.

Table 1. Optical Constants of Thin Films of Materials^a

Material	83.4 nm		121.6 nm	
	n	K	n	k
Ir	1.182	0.865	1.450	1.040
MgF ₂	1.584	0.487	1.682	0.0627
Al	0.09874	0.1915	0.0424	1.137
Mo	0.98	1.08	0.78	1.03
C	1.16	1.29	1.85	1.10

^aFrom Appl. Opt. **40**, 1128 (2001).

6. Summary

Conforming to the specifications listed above is of critical importance to the speedy publication of a manuscript. Authors should use the following style guide checklist before submitting an article.

Table 2. *Optics Express* style guide checklist

Standard Page Text Area: 5.25 x 8.5 in.; Margins: 1 in. top, 1.625 in. left, right & bottom				
Type of Text	Font Size (Points)	Indent	Alignment	Notes
Title	18		Center	Bold
Author Name	10		Center	
Author Affiliation & Email address	8		Center	<i>Italic</i>
Abstract	10	0.5 in. left/right	Justified	Bold “ Abstract: ”
Copyright	9	0.5 in.		
OCIS Codes	8	0.5 in.		Bold “ OCIS codes: ”
Main Text	10		Justified	The first paragraph of a section or subsection is not indented. The first line of subsequent paragraphs is indented 0.2 in.
First paragraph		None		
Subsequent paragraphs		0.2 in.		
Section & Subsection Headings	10	None	Left	Insert 6-pt. space above and below each heading. Section headers: Bold Subsection headers: <i>Italic</i>
Equations	10	None	Center	Eq. Number: right tab to end of last line of Eq., in parentheses.
References and Links	8	0.2 in.	Left	Bold “ References and links ”. Delimit with horizontal rules.
Acknowledgments	10	None	Justified	Bold “ Acknowledgments ”
Figures			Center	
Figure Captions	8	0.5 in left/right	Justified	Long captions: indent 0.5 in. left/right.
Tables	8	None	Center	
Table Heads	8	None	Center	Long heads follow table margins.

7. Conclusion

After proofreading, the final step in submitting a manuscript to *Optics Express* is to go online at <http://www.opticsexpress.org/submission>, type in the requested information into the *Optics Express* online submission system, and then upload the Word file. For further instructions, please see the *Optics Express* Author Information pages.