

Instruções editoriais da Nature / Editorial Standarts for Nature

Format of Articles and Letters

Contributions should be double-spaced and written in English (spellings as in the Oxford English Dictionary)

Contributions should be organized in the sequence: title, text, methods, references, Supplementary Information line (if any), acknowledgements, author contributions, author information (containing data deposition statement, competing interest declaration and corresponding author line), tables, figure legends.

1.1 Titles

Titles do not exceed two lines in print. This equates to 90 characters (including spaces) for Letters, or 75 characters (including spaces) for Articles. Titles do not normally include numbers, acronyms, abbreviations or punctuation. They should include sufficient detail for indexing purposes but be general enough for readers outside the field to appreciate what the paper is about.

1.2 Text

Articles should fill no more than 5 pages, and Letters no more than 4 pages, of *Nature*. An uninterrupted page of text contains about 1,300 words. A typical Article contains about 3,000 words of text and, additionally, five small display items (figures and/or tables) with brief

legends, reference list and methods section if applicable. A typical Letter to *Nature* contains about 1,500 words of text (excluding the first paragraph of Letters, figure legends, reference list and the methods section if applicable) and four small display items (figures and/or tables) with brief legends. A composite figure (with several panels) usually needs to take about half a page, equivalent to about 600 words, in order for all the elements to be visible (see section 5.9 for instructions on sizing figures).

When submitting new or revised manuscripts, authors should state in a cover letter to the editor their rough estimate of the length of their paper in terms of number of pages of *Nature*. Authors of contributions that significantly exceed the limits stated here or specified by the editor will have to shorten their papers before acceptance, inevitably delaying publication.

Nature requires authors to specify the contribution made by their co-authors in the end notes of the paper (see section 5.5). If authors regard it as essential to indicate that two or more co-authors are equal in status, they may be identified by an asterisk symbol with the caption 'These authors contributed equally to this work' immediately under the address list. If more than three co-authors are equal in status, this should be indicated in the author contributions statement. Present addresses appear immediately below the author list (below the footnote rule at the bottom of the first page) and may be identified by a dagger symbol; all other essential author-related explanation is in the acknowledgements.

Our **preferred format** for text is Microsoft Word, with the style tags removed. If you have prepared your paper using TeX, please convert to PDF format and upload the PDF only at submission.

We prefer the use of a 'standard' font, preferably 12-point Times New Roman. For mathematical symbols, Greek letters and other special characters, use normal text or Symbol

font. Word Equation Editor/MathType should be used only for formulae that cannot be produced using normal text or Symbol font.

If using Word 2007, please provide the manuscript in Compatibility Mode (i.e. as a Word 97-2003 document; saved as .doc, not .docx).

1.3 Methods

If brief (less than 200 words in total), methods can be included in the main text at an appropriate place. Otherwise, they should be described at the end of the text in a 'Methods Summary' section of no more than 300 words.

Detailed descriptions of methods already published should be avoided; a reference number can be provided to save space, with any new addition or variation briefly stated.

If more space is required to describe the methods completely, the author should include the 300-word section 'Methods Summary' and provide an additional 'Methods' section at the end of the text, following the figure legends. This Methods section will appear in the online PDF and in the full-text (HTML) version of the paper online, but will **not** appear in the printed issue. The Methods section should not normally exceed 1,000 words of text, and should be subdivided by short bold headings referring to methods used. If further references are included in this section, the numbering should continue from the end of the last reference number in the rest of the paper and the list should accompany the additional Methods at the end of the paper.

If both a Methods Summary and additional Methods section are required, the Methods Summary will appear in print only but will **not** appear in the HTML version of the paper. Therefore, any critical information in the Methods Summary should also be incorporated into the Methods section. Because the Methods Summary does not appear online, any references included in this section must also be included in the Methods section in the same order; if required, additional references can then be included after these in the Methods section as described above. Note that the Methods Summary will only appear in the HTML version of the paper if there is no additional Methods section.

There should be no duplication between the Methods section and the Supplementary Information. The Methods section cannot contain figures or tables (essential display items should be included in the Supplementary Information).

1.4 References

References are each numbered, ordered sequentially as they appear in the text, methods summary, tables, boxes, figure legends, online-only methods.

When cited in the text, reference numbers are superscript, not in brackets unless they are likely to be confused with a superscript number.

Do not use linked fields (produced by EndNote and similar programs). Please use the oneclick button provided by EndNote to remove EndNote codes before saving your file.

The maximum number of references, strictly enforced, is 50 for Articles and 30 for Letters. Only one publication can be listed for each number. Only articles that have been published or submitted to a named publication should be in the reference list; papers in preparation should be mentioned in the text with a list of authors (or initials if any of the authors are co-authors of the present contribution).

Published conference abstracts, numbered patents and preprints on recognized servers may be included in reference lists, but text, grant details and acknowledgements may not. (An exception is the highlighted references which we ask authors of Reviews, Perspectives and Insights articles to provide.)

All authors should be included in reference lists unless there are more than five, in which case only the first author should be given, followed by '*et al*.'.

Please follow the style below in the published edition of *Nature* in preparing reference lists.

- Authors should be listed surname first, followed by a comma and initials of given names.
- **Titles of all cited articles are required**. Titles of articles cited in reference lists should be in upright, not italic text; the first word of the title is capitalized, the title written exactly as it appears in the work cited, ending with a full stop. Book titles are italic with all main words capitalized. Journal titles are italic and abbreviated according to common usage. Volume numbers are bold. The publisher and city of publication are required for books cited. (Refer to published papers in *Nature* for details.)
- References to web-only journals should give authors, article title and journal name as above, followed by URL in full - or DOI if known - and the year of publication in parentheses.

• References to websites should give authors if known, title of cited page, URL in full, and year of posting in parentheses.

1.5 End notes

End notes are brief and follow the reference list. Please refer to our annotated example to see how they appear in a *Nature* paper.

Papers containing Supplementary Information contain a statement after the reference list:

Supplementary Information is linked to the online version of the paper at www.nature.com/nature.

Acknowledgements should be brief, and should not include thanks to anonymous referees and editors, inessential words, or effusive comments. A person can be thanked for assistance, not "excellent" assistance, or for comments, not "insightful" comments, for example. Acknowledgements can contain grant and contribution numbers.

Author Contributions: authors are required to include a statement to specify the contributions of each co-author. The statement can be up to several sentences long, describing the tasks of individual authors referred to by their initials. See the authorship policy page for further explanation and examples.

Author Information: Authors should include a set of statements at the end of the paper, in the following order:

• Data deposition statement if appropriate, with the URL and relevant numbers for public database accession.

- A sentence reading "Reprints and permissions information is available at www.nature.com/reprints".
- Competing financial interests statement.
- A sentence reading "Correspondence and requests for materials should be addressed to XX", where XX refers to one e-mail address. *Nature* expects this identified author to respond to readers' enquiries and requests for materials, and to coordinate the handling of any other matters arising from the published contribution, including corrections complaints. The author named as corresponding author is not necessarily the senior author, and publication of this author's name does not imply seniority. Authors may include more than one e-mail address if essential, in which event *Nature* will communicate with the first-listed address for any post-publication matters arising, and expect that author to coordinate with the other co-authors.

1.6 Statistics

Authors should ensure that any statistical analysis used is sound and that it conforms to the journal's guidelines. To minimize the chance of statistical errors, authors can consult the statistical checklist.

The following is a brief guide to *Nature*'s requirements to assist authors. We expect the below to be of use mainly to authors in the biomedical sciences but the principles apply to all disciplines.

Every paper that contains statistical testing should state the name of the statistical test, the n for each statistical analysis, the comparisons of interest, a justification for the use of that test (including, for example, a discussion of the normality of the data when the test is appropriate

only for normal data), the alpha level for all tests, whether the tests were one-tailed or twotailed, and the actual P value for each test (not merely "significant" or "P < 0.5"). Randomization procedures, or other ways to eliminate bias in sampling (in particular for experiments involving animals), should be clearly described. It should be clear what statistical test was used to generate every P value. These details should be reported briefly at the most appropriate place in the text: either in the text of a Methods section (if one is present), or as part of a Table or Figure caption.

Data sets should be summarized with descriptive statistics, which should include the *n* for each data set, a clearly labelled measure of centre (such as the mean or the median), and a clearly labelled measure of variability (such as the standard deviation or range). Ranges are more appropriate than standard deviations or standard errors for small data sets. Graphs should include clearly labelled error bars as part of the figure legend. Authors must state whether a number that follows the \pm sign is a standard error (s.e.m.) or a standard deviation (s.d.).

If there is scope for doubt, authors must justify the use of a particular test and explain whether their data conform to the assumptions of the tests, as part of the Supplementary Information accompanying their paper. Three errors are particularly common, and we ask authors of these types of study to provide appropriate verification in their manuscripts or as Supplementary Information:

 Multiple comparisons: When making multiple statistical comparisons on a single data set, authors should explain how they adjusted the alpha level to avoid an inflated Type I error rate, or they should select statistical tests appropriate for multiple groups (such as ANOVA rather than a series of t-tests).

- Normal distribution: Many statistical tests require that the data be approximately normally distributed; when using these tests, authors should explain how they tested their data for normality. If the data do not meet the assumptions of the test, then a non-parametric alternative should be used instead.
- Small sample size: When the sample size is small (less than about 10), authors should use tests appropriate to small samples or justify their use of large-sample tests.

Authors should be aware that all referees are asked to review any statistical analysis present and to ensure that it is sound and that it conforms to the journal's guidelines.

1.7 Tables

Tables should each be presented on a separate page, portrait (not landscape) orientation, and upright on the page, not sideways.

Tables have a short, one-line title in bold text. Tables should be as small as possible. Bear in mind the size of a *Nature* page as a limiting factor when compiling a table.

Symbols and abbreviations are defined immediately below the table, followed by essential descriptive material as briefly as possible, all in double-spaced text.

Standard table formats are available for submissions of X-ray refinement statistics and NMR structural statistics. Authors providing these data should use these standard tables. There are shortform versions for the main paper and fuller versions to be deposited in the Supplementary Information. Both versions of these tables are available on the forms and declarations page.

1.8 Figure legends

Figure legends should be listed one after the other, as part of the text document, separate from the figure files. Please do not write a legend below each figure.

Each figure legend should begin with a brief title for the whole figure and continue with a short description of each panel and the symbols used. For contributions with methods sections, legends should not contain any details of methods, or exceed 100 words (fewer than 500 words in total for the whole paper). In contributions without methods sections, legends should be fewer than 300 words (800 words or fewer in total for the whole paper).

All error bars must be defined in the figure legend, as discussed in Section 1.6 above.

1.9 Figures

Nature requires figures in electronic format. Please ensure that all digital images comply with the Nature journals' policy on image integrity.

Figures should be as small and simple as is compatible with clarity. The goal is for figures to be comprehensible to readers in other or related disciplines, and to assist their understanding of the paper. Unnecessary figures and parts (panels) of figures should be avoided: data presented in small tables or histograms, for instance, can generally be stated briefly in the text instead. Avoid unnecessary complexity, colouring and excessive detail.

Figures should not contain more than one panel unless the parts are logically connected; each panel of a multipart figure should be sized so that the whole figure can be reduced by the same amount and reproduced on the printed page at the smallest size at which essential details are visible. For guidance, *Nature*'s standard figure sizes are 89 mm (single column) and 183 mm (double column) and the full depth of the page is 247 mm.

Amino-acid sequences should be printed in Courier (or other monospaced) font using the oneletter code in lines of 50 or 100 characters.

Authors describing chemical structures are requested to use the *Nature Chemical Biology* guidelines.

Some brief guidance for figure preparation:

- Lettering in figures (labelling of axes and so on) should be in lower-case type, with the first letter capitalized and no full stop.
- Units should have a single space between the number and the unit, and follow SI nomenclature or the nomenclature common to a particular field. Thousands should be separated by commas (1,000). Unusual units or abbreviations are defined in the legend.
- Scale bars should be used rather than magnification factors.
- Layering type directly over shaded or textured areas and using reversed type (white lettering on a coloured background) should be avoided where possible.
- Where possible, text, including keys to symbols, should be provided in the legend rather than on the figure itself.

Figure quality

At initial submission, figures should be at good enough quality to be assessed by referees, ideally as JPEGs. Authors are advised to follow the initial and revised submissions guidelines with respect to sizing, resolution and labelling.

Please note that print-publication quality figures are large and it is not helpful to upload them at the submission stage. Even if they will upload onto the *Nature* submissions site, many referees' institutions have e-mail systems that will not accept large attachments. Authors will be asked for high-quality figures at the time of acceptance of their article for publication, so it is not necessary to send them at the submission stage.

Figure costs

A contribution towards the total cost of reproduction of colour figures is requested. We currently charge $\pounds780$ for the first colour figure and $\pounds278$ for each additional figure. Inability to pay this charge will not prevent publication of colour figures judged essential by the editors, but this must be agreed with the editor prior to acceptance.

1.10 Production-quality figures

When a manuscript is accepted in principle for publication, the editor will ask for highresolution figures. Do not submit publication-quality figures until asked to do so by an editor. At that stage, please prepare figures according to these guidelines.

1.11 Supplementary Information

Supplementary Information (SI) is online-only, peer-reviewed material that is essential background to the Article or Letter (for example, large data sets, methods, calculations), but which is too large or impractical, or of interest only to a few specialists, to justify inclusion in the printed version of the paper. See the Supplementary Information page for further details.

Nature strongly encourages authors to include a simple schematic as Supplementary Figure 1 of their SI that summarizes the main finding of the paper, where appropriate (for example, to assist understanding of complex detail in cell, structural and molecular biology disciplines).

If a manuscript has accompanying SI, either at submission or in response to an editor's letter that requests it, authors are asked to refer to discrete items of the SI (for example, figures, tables) at an appropriate point in the main manuscript.

1.12 Chemical structures and characterization of chemical materials

For guidelines describing *Nature*'s standards for experimental methods and the characterization of new compounds, please see the information sheet on the characterization of chemical materials. For chemical structures, authors should follow the *Nature Chemical Biology guidelines*.