Instructions to Authors

(Proceedings series B: publication after July 1990)

1. General

Proceedings series B is published monthly. It contains announcements of important results within any field of the biological sciences, normally no more than 4000 words (five printed pages) in length. With the same restriction on length, reviews containing original and interesting ideas, and extensions to, or criticisms of, papers already published (subject to the criteria of interest, originality and good manners) will also be acceptable. The target publication time is three months from receipt of a paper (excluding the time that the typescript is in the hands of the author). Authors are advised that papers prepared in accordance with these instructions will be given priority. Acceptance of a paper will be determined by its quality and interest.

The new format of the journal (from July 1990) will be A4 (297 mm × 210 mm), double column, with a normal text area of 255 mm × 167 mm.

2. Submission

Papers may be submitted (i) to a member of the Editorial Board, (ii) to a Corresponding Editor, (iii) to a Fellow or Foreign Member of the Society (a list is published in the Society’s Year Book), or (iv) direct to the Editor in Nottingham. The date of receipt by any one of these will be recorded as the formal date of receipt for publication. The name of the person to whom the paper was submitted, and the date of its receipt by that person, will be published if the paper is accepted.

It will help the process of consideration if authors write to inform the Editor when they have submitted a paper by routes (i), (ii) or (iii) above. Authors are asked to include their telephone numbers, fax numbers and/or electronic mail addresses in correspondence about the paper.

Four copies of the typescript and of any figures (together with one set of original drawings and prints) are required. The extra copies of any photographs should be prints rather than photocopies.

Authors can increase the likelihood of rapid action by contacting their intended recipient before submitting a paper and by choosing a recipient who works in an appropriate branch of the subject. When sending their papers authors may, if they wish, suggest the names of referees, but such suggestions will not necessarily be adopted. The recipient under (i), (ii) or (iii) above will be responsible for providing the Editor with referees’ reports and a recommendation on the paper’s suitability for publication.

Submission on computer disc is welcomed, with the understanding that only the final version should be on disc (hard copy will be required for refereeing) and that use of the disc cannot be guaranteed.
3. Copy
Papers should be clearly typewritten, with double spacing throughout, on one side of the paper only, with a margin of at least 3 cm all round; all sheets should be numbered serially and securely clipped together. Typescripts must be carefully corrected by authors before being sent in. Spelling should conform to the preferred spelling of the *Shorter Oxford English Dictionary*. Footnotes should be avoided.

4. Title, Abstract
The title should be concise and should be typed on a separate covering sheet which should also bear the names of the authors and that of the laboratory or other place where the work has been done. Where the title is long a short title (maximum 50 letters and spaces) suitable for page headings should also be given. Each paper must be accompanied by an abstract, which should not exceed 200 words, and should give a precise and informative summary of its content.

5. Sectional headings
Papers may be divided into sections, described by short headings. Subsections should not be used.

6. Units, symbols and abbreviations
As far as possible the recommendations contained in *Quantities, units, and symbols* (1975, The Royal Society, £1.50) should be followed; in particular the International System of Units (SI) should be used whenever it is practicable to do so.

Special care is necessary in differentiation between handwritten symbols of comparable shape, e.g. $V$ $v$ $\nu$, $w$ $W$, $s$ $S$, $p$ $P$, $T$ $\tau$. Marginal indications and differential underlinings should be used where necessary, the normal conventions being followed where applicable, e.g. $\wedge\wedge\wedge$ to signify bold characters. Mathematical symbols should be underlined.

Wherever possible, only internationally agreed abbreviations should be used; see, for example, the list of accepted abbreviations for use in the *Biochemical Journal*.

7. Illustrations
Duplicate figures (e.g. Xerox or photographic copies, as appropriate) should be supplied with each copy. The author’s name and the number of the figure should be written on the back of all illustrations. Figures should be numbered in one sequence throughout the paper.

Colour illustrations will be included only if scientifically necessary and if the cost is met by the author (unless a reasoned case is made by the author why funds are not obtainable).

The position of each illustration should be clearly marked in the typescript thus:

| Figure 2 near here |
Line drawings

Long descriptions should appear not on the figures themselves but in the legends. Any labelling necessary for the understanding of a figure should be indicated lightly in blue pencil on the original drawings and exactly the same labelling should be inserted carefully in ink on the duplicate copies.

All lettering should be in lower case except for the initial capital letters of proper names. Lettering for symbols should strictly follow the case and font of type called for in the text. The printer’s artist will insert these on the originals in a standard style of lettering. If an author is able to call on the services of an experienced lettering artist it is often preferable for heavily labelled figures, e.g. maps, to be completely lettered before submission. The height of capital letters after reduction should be as close to 2 mm as possible. When in doubt use smaller rather than larger lettering. Adequate consultation between authors or their draughtsmen and the Editorial Office (telephone 01-839 5561, extension 229) will help ensure satisfactory results.

Legends

These should be typed with double spacing on a separate sheet at the end of the paper. Figure legends should follow the style given below:

Figure 7. Time-course of changes in fibre type composition during post-stimulation recovery.
(a) Type 1 fibres. (b) Type 2A fibres, including the transitional fibres (asterisks) referred to in the text. (c) Type 2B fibres. Bands indicate the range (mean ± s.d.) for the corresponding fibre type in control muscles.

Photographs

When it is essential to include photographs they should make the most efficient use of the space required. The area covered by the photographs should be restricted to the subject in question, or to a minimum representative area in photomicrographs, etc. This enables the photograph to be reproduced at the largest possible scale. The text area available in Proceedings series B is 255 mm × 167 mm. Photographs will be printed with the text, not on plates.

Authors should supply unmounted glossy prints marked on the back with the authors’ names, the number of the figure and with top and bottom indicated. When lettering has to be inserted, a rough set should be provided with the lettering clearly marked.

8. Tables

Tables, however small, should be numbered in arabic numerals and referred to in the text by their numbers. The position of each table should be shown as follows:

Table 3 near here

Table headings should be a brief title only; descriptions of experimental detail should follow, starting on a new line, in parentheses. Column headings should be in lower-case lettering except for the capital initial letters of proper names. The
units of measurement and any numerical factors should be placed unambiguously at the head of the column, e.g. $F/\text{MHz}$, $10^{28}\sigma/\text{m}^3$ or $q/(\text{kJ mol}^{-1})$.

9. References

References to the literature cited must be given in double-spaced typing, in alphabetical order at the end of the paper. They should be prepared following the style of recent issues of Proceedings B.

Reference citations in the text are made by the date and year method; references by number are not permitted.

10. Proofs

On acceptance of a paper, the Society’s Editorial Department will inform authors when they may expect to receive proofs for checking. Because of the need for fast publication, only a few days may be available for checking proofs, so authors who may be absent from their normal address should either inform the Society of their intended whereabouts or make other arrangements for the proofs to be checked quickly. Fax numbers are welcomed.

Great care is necessary in checking proofs to ensure that all misprints are detected. Authors should note that systematic emendations may have been made to their typescript in accordance with the normal style of the Society’s journals. If any changes are necessary to proofs every effort should be made by substituting matter of similar length to avoid extensive rearrangement. Authors are liable for the cost of excessive alterations to their proofs.
THE ROYAL SOCIETY
GUIDANCE ON SUBMISSION OF PAPERS:
MATHEMATICAL AND PHYSICAL SCIENCES

Proceedings A

Papers in Proceedings A fall into two length categories, which determine their speed of publication after acceptance: papers that will occupy 10 printed pages or less ('rapid papers') will be published faster than longer papers. The normal maximum length of papers in Proceedings A is 25 printed pages.

Authors
1. Three copies of the typescript and figures are required. Authors are invited to indicate whether they wish the paper to be considered for rapid publication if it satisfies the length requirement.

2. Papers may be submitted (i) direct to the Society’s editorial office at the address given below, (ii) through a Regional Editor of Proceedings A (addresses are given in the journal), or (iii) through a Fellow or Foreign Member of the Society, whose addresses are listed in the Society’s Year Book.

3. Consideration of a paper will be accelerated if it is accompanied by a recommendation on its suitability for publication. The Editor will take a recommendation into account only if it is supported by a referee’s report, prepared either by a Fellow, Foreign Member or Regional Editor, or at his or her request. Such papers may expect to receive priority in publication, irrespective of length. In addition, authors may suggest the names of possible referees, with the understanding that such suggestions will not necessarily be adopted.

Fellows, Foreign Members and Regional Editors receiving papers for submission
1. Fellows, Foreign Members and Regional Editors who are in receipt of a paper and wish to recommend it (see 3 above) are invited (i) to prepare or provide a referee’s report before forwarding it to the Society’s editorial office, marked for consideration for Proceedings A, and/or (ii) to suggest names of referees for the guidance of the Editor.

2. The report supporting a recommendation may not be prepared by an author of the paper.

For full details of the requirements of each journal the latest edition of the instructions to authors, published at the end of each volume of the relevant journal, should be consulted.

Philosophical Transactions A

Authors
1. Three copies of the typescript and figures are required.

2. Papers may be submitted (i) direct to the Society’s editorial office at the address given below, (ii) to the Editor or an Editorial Board member of Transactions A (addresses are given in the journal), or (iii) through a Fellow or Foreign Member of the Society, whose addresses are listed in the Society’s Year Book.

3. Authors of review papers, Theme issue papers or Discussion Meeting papers will be given appropriate advice about submission.

Fellows and Foreign Members receiving papers for submission
1. The paper should be forwarded to the Society’s editorial office, marked for consideration for Transactions A.

2. Fellows and Foreign Members are invited to suggest the names of possible referees for the guidance of the Editor.

Editorial Board members receiving papers for submission
1. The paper should be forwarded to the Society’s editorial office with the names of two referees and, if possible, a reserve.

The role of Editorial Board members
1. The Editor may seek the advice of one or more members of the Editorial Board during the consideration of papers submitted to the Society’s editorial office, via a Fellow or Foreign Member, or direct to the Editor.

Editorial address: Editorial office, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, U.K.

[January 1990]
THE ROYAL SOCIETY
GUIDANCE ON SUBMISSION OF PAPERS:
BIOLICAL SCIENCES

Authors

Proceedings B

1. Four copies of the typescript and figures are required. Papers should normally not exceed 4000 words (5 printed pages). The target publication time is three months from receipt.

2. Papers may be submitted (i) to an appropriate member of the Editorial Board, or a Corresponding Editor, of Proceedings B (addresses are given in the journal), (ii) to a Fellow or Foreign Member of the Society, whose addresses are listed in the Society's Year Book, or (iii) directly to the Editor at the address shown in the journal. Authors’ telephone numbers, fax numbers and/or electronic mail addresses should be given.

3. Authors are advised to check with the intended recipient beforehand if they submit a paper by routes (i) or (ii), and to write to inform the Editor once the paper has been sent.

Philosophical Transactions B

Authors

1. Three copies of the typescript and figures are required. The normal maximum length of papers in Transactions B is 25,000 words. There is no lower length limit. The intended publication time is 5–7 months from receipt. The journal will publish papers in all branches of biological science (including clinical science), and will also accept review articles. Authors intending to submit review articles should consult the Editor, whose address is given in the journal.

2. Papers longer than 25,000 words will be considered exceptionally, and authors of such papers should consult the Editor well before submission, preferably at an early stage in preparation.

3. Papers may be submitted (i) direct to the Society's editorial office at the address given below, or (ii) through a Fellow or Foreign Member of the Society, whose addresses are listed in the Society’s Year Book.

4. Authors of review papers or Discussion Meeting papers will be given appropriate advice about submission.

Fellows and Foreign Members receiving papers for submission

1. To expedite publication, the Fellow, etc., should (i) immediately inform the Editor of receipt of the paper and (ii) arrange for its being refereed within two weeks of receipt. Reduced copies of the forms to be used for submission and refereeing of papers are printed in the Year Book; larger copies are printed in Proceedings B issues.

2. Referees should be sent typescripts and report forms, and appropriate action should be taken to ensure the provision of reports within two weeks.

3. The Fellow, etc., who receives the paper may act as one referee if he or she desires; however, an author may not referee his or her own paper.

4. If the referees judge a paper to be of very high quality but requiring attention, the Fellow, etc., should return it to the author for urgent revision and should check the revised version before sending it to the Editor. Otherwise the original version of the paper and reports should be sent to the Editor for action.

For full details of the requirements of each journal the latest edition of the instructions to authors, published at the end of each volume of the relevant journal, should be consulted.

Editorial address: Editorial office, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, U.K.

[January 1990]
THE ROYAL SOCIETY

PROCEEDINGS B NOTIFICATION/TRANSMITTAL FORM

(This form is solely for the use of Fellows and Foreign Members of the Society, and the Editor, members of the Editorial Board and Corresponding Editors of Proceedings B.)

1. Notification to Editor (please send this to the Editor immediately on receipt of a new paper, and remember to keep a photocopy for stage 3 and for your own records)

Submitting author's name ..............................................................

Author's affiliation .................................................................

Brief title of paper ....................................................................

Date received ........ My ref. no. (optional) .... My telephone and fax no. ............

*I am arranging for referees' reports to be provided within two weeks of the above date.

*I am unable to arrange for refereeing and enclose the author's manuscripts and covering letter.

(*Please delete as appropriate)

Signed .............................. Name (please print clearly) ............................

2. Assignment of paper number (for the use of the Editor only)

Paper number ............................

3. Transmittal to Editor (on completion of refereeing and, if appropriate, revision)

Please note that if you and the referees rate the paper as (a) outstanding or (b) excellent you are asked to arrange for revisions directly with the author; otherwise this should be done by the Editor.

I enclose herewith two copies of the most recent version of the paper, the originals of any figures and copies of the referees' reports.

Date of receipt of revised version (if any) .................................

Recommendation to the Editor: ..................................................

.............................................................

Name and address of principal author, for correspondence: ............

.............................................................

.............................................................

(Please include author's telephone number and fax or electronic mail number, or send author's letterhead.)

*I confirm that I and the referees rate the paper as outstanding or excellent and that the revisions made by the author(s) to the paper in response to referees' comments are acceptable and sufficient.

(*Please delete if inappropriate.)

Signed ........................ Date .............................

[December 1989]
PROCEEDINGS OF THE ROYAL SOCIETY: BIOLOGICAL SCIENCES

Referee’s report on paper by:
Title:
Typescript received from:       on:       (date)

Please return this form, the typescript, and your comments within ten days to the person who asked for a report (who will be either a Fellow, Foreign Member, Corresponding Editor or member of the Editorial Board). If you cannot report in ten days please send back the typescript by return of post. (It would help if you could also telephone or fax that you are unable to report.)

1. QUALITY OF THE PAPER (please tick one, ignoring in this rating any needs for minor revisions):
   
   (a) An outstanding paper of the highest international importance: a major contribution to the field: must be published
   
   (b) An excellent paper making an important contribution to the field: should be published
   
   (c) A very good paper well worth publishing in Proceedings
   
   (d) A good paper worth publishing in Proceedings
   
   (e) A paper of acceptable standard for Proceedings
   
   (f) A paper that may be acceptable after major revision
   
   (g) A paper that is worthwhile, but of insufficient interest, quality or importance
   
   (h) A paper containing errors in experimental method, analysis or logic: one that should not be published

2. ACCEPTANCE (please tick as appropriate)
   
   (a) Accept the paper as it is
   
   (b) Accept the paper with minor revisions (Please list them on attached sheet)

3. MAJOR REVISION (please tick as appropriate)
   
   (a) A major revision is needed (please make suggestions on attached sheet)
   
   (b) If the revisions were adequate, the case for publication would be

   Outstanding ..... Strong ..... Marginal ..... 

4. REJECTION (please tick as appropriate)

   The paper should be rejected

5. COMMENTS

   Please type your comments on a separate sheet. Do you want your name to be given to the author(s)? YES/NO
   If your answer is ‘NO’, please type your suggestions to the author(s) on a sheet separate from that containing your advice to the Editor.

REFEEEREE’S SIGNATURE ..............................................       DATE ......................................

REFEEEREE’S NAME (please write legibly) ......................

[December 1989]
CONTENTS

SObBEY, P. J. & H OrrIDGE, G. A.
Implementation of the template model of vision

CAIN, A. J., COOK, L. M. & CURREY, J. D.
Population size and morph frequency in a long-term study of Cepaea nemoralis

LEHKY, S. R. & SEJNOWSKI, T. J.
Neural network model of visual cortex for determining surface curvature from images of shaded surfaces

SRINIVASAN, M. V., PINTER, R. B. & Osorio, D.
Matched filtering in the visual system of the fly: large monopolar cells of the lamina are optimized to detect moving edges and blobs

BELL, G.
The ecology and genetics of fitness in Chlamydomonas. I. Genotype-by-environment interaction among pure strains

BELL, G.
The ecology and genetics of fitness in Chlamydomonas. II. The properties of mixtures of strains

GAUNT, A. S. & GANS, C.
Architecture of chicken muscles: short-fibre patterns and their ontogeny. [Plates 1 and 2]

BACON, G. E.
The dependence of human bone texture on life style

BÉHÉ, P. & TURIN, L.
The leak conductance of dialysed oocytes of the ascidian Styela plicata: mode of action of intracellular fluoride

KOZLOWSKI, R. Z. & ASHFORD, M. L. J.
ATP-sensitive K⁺-channel run-down is Mg²⁺ dependent

* * *

INSTRUCTIONS TO AUTHORS

GUIDANCE ON THE SUBMISSION OF PAPERS

NOTIFICATION/TRANSMITTAL FORM

REFEREE’S REPORT FORM

Published by the Royal Society, 6 Carlton House Terrace, London SW1Y 5AG

Printed in Great Britain

for the Royal Society by the University Press, Cambridge