

# JOURNALS OF THE ROYAL SOCIETY OF CHEMISTRY

## Refereeing Procedure and Policy (1993)

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### 1.0 Contributions to Dalton, Perkin and Faraday Transactions, *J. Mater. Chem.*, *The Analyst*, *J. Anal. At. Spectrom.* and *J. Chem. Research*

#### 1.1 Introduction

This document summarises the procedure used for assessing papers submitted to the four *Transactions*, *J. Mater. Chem.*, *The Analyst*, *J. Anal. At. Spectrom.*, and *J. Chem. Research*, and provides guidelines for referees engaged in this assessment.

#### 1.2 Subject matter

Papers are submitted to the various journals according to subject matter. If it is felt that a paper would be published more appropriately in an RSC journal other than the one suggested by the author, the referee should inform the Editor. The topics covered by the various journals are as follows.

*Dalton Transactions (Inorganic Chemistry)*. All aspects of the chemistry of inorganic and organometallic compounds, including bioinorganic chemistry and solid-state inorganic chemistry; the applications of physicochemical techniques to the study of their structures, properties, and reactions, including kinetics and mechanism; new or improved experimental techniques and syntheses.

*Faraday Transactions (Physical Chemistry and Chemical Physics)*. Gas-phase kinetics and dynamics; molecular beam kinetics and spectroscopy, photochemistry and photophysics; energy transfer and relaxation processes: laser-induced chemistry; spectroscopies of molecules, molecular and gas-phase complexes: quantum chemistry and molecular structure, statistical mechanics of gaseous molecules and complexes; spectroscopies, statistical mechanics and quantum theory of the condensed phase, computational chemistry and molecular dynamics; colloid and interface science, surface science, physisorption and chromatographic science, chemisorption and heterogeneous catalysis, zeolites and ion-exchange phenomena; electrode processes, liquids and solutions; solid-state chemistry (microstructures and dynamics); reactions in condensed phases; physical chemistry of macromolecules and polymers; materials science; thermodynamics; biophysical chemistry and radiation chemistry.

*Perkin Transactions 1 (Organic Chemistry)*. All aspects of organic and bio-organic chemistry. These include synthetic organic chemistry of all types, organometallic chemistry, chemistry and biosynthesis of natural products, the relationship between molecular structure and biological activity, the chemistry of polymers and biological macromolecules, and medicinal and agricultural chemistry where there is originality in the science.

*Perkin Transactions 2 (Physical Organic Chemistry)*. Physicochemical aspects of organic, organometallic, and bio-organic chemistry, including kinetic, mechanistic, structural, spectroscopic, and theoretical studies. Such topics include structure-activity relationships and physical aspects of

biological processes and of the study of polymers and biological macromolecules.

*Journal of Materials Chemistry*. The chemistry of materials, particularly those associated with advanced technology; modelling of materials; synthesis and structural characterisation; physicochemical aspects of fabrication; chemical, structural, electrical, magnetic and optical properties; applications.

*The Analyst (Analytical Chemistry)*. Theory and practice of all aspects of analytical chemistry, fundamental and applied, inorganic and organic, including chemical, physical, and biological methods.

*Journal of Analytical Atomic Spectrometry*. The development and analytical application of atomic spectrometric techniques.

*Journal of Chemical Research*. All areas of chemistry. The format of this journal (one- or two-page printed synopsis in Part S, plus microform version of authors' full text typescript in Part M) makes it particularly suitable for papers containing lengthy experimental sections or extensive data tabulations.

#### 1.3 Procedure

Each manuscript is considered independently by two referees. The referees' reports constitute recommendations to the appropriate Editorial Board, which is empowered to take final action on manuscripts submitted. The Editor, acting for the Editorial Board, is responsible for all administrative and executive actions, and is empowered to accept or reject papers. It is the Editor's duty to see that, as far as possible, agreement is reached between authors and referees; although the referees may need to be consulted again concerning an author's reply to comments, further refereeing will be avoided as far as possible.

1.3.1 *Adjudication of disagreements*. If there is a notable discrepancy between the reports of the two referees, or if the difference between authors and referees cannot be resolved readily, a third referee may be appointed as adjudicator. In extreme cases, differences may be reported to the appropriate Editorial Board for resolution.

When a paper is recommended for rejection by referees, the Editor will inform the authors and return the top copy of the manuscript. Authors have the right to appeal to the Editorial Board if they regard a decision to reject as unfair. The Editor may refer to the Editorial Boards any papers which have been recommended for acceptance by the referees, but about which the Editor is doubtful.

1.3.2 *Anonymity*. The anonymity of referees is strictly preserved, and reports should be couched in terms which do not disclose the identity of the writer. A referee should never communicate directly with an author, unless and until such action has been sanctioned by the Society, through the Editor.

1.3.3 *Confidentiality*. A referee should treat a paper received for assessment as confidential material. Information acquired

by a referee from such a paper is not available for citation until the paper is published.

#### 1.4 Policy

The primary criterion for acceptance of a contribution for publication is that it should advance scientific knowledge significantly. Papers that do **not** contain new experimental results may be considered for publication **only** if they either reinterpret or summarise known facts or results in a manner presenting an advance in chemical knowledge. Papers in interdisciplinary areas are acceptable if the chemical content is considered satisfactory.

Papers reporting results regarded as **routine** or **trivial** are not acceptable in the absence of other, desirable attributes.

Although short papers are acceptable, the Society strongly discourages the **fragmentation** of a substantial body of work into a number of short publications; such fragmentation is likely to be grounds for rejection.

The **length** of an article should be commensurate with its scientific content; however, authors are allowed every latitude (consistent with reasonable brevity) in the **form** in which their work is presented. Figures and flow-charts can often save space as well as clarify complicated arguments, and should not be excised unless they are unhelpful or really extravagant.

If a paper as a whole is judged suitable for the *Journal*, minor criticisms should not be unduly emphasised. It is the responsibility of the Editor to ensure the use of reasonably brief phraseology, and to assist the author to present his work in the most appropriate format.

However, referees should not hesitate to recommend rejection of papers which appear incurably badly composed.

It should be clearly understood that referees' reports are made in confidence to the Editor, at whose discretion comments will be transmitted to the author. To assist the Editor, referees are requested to indicate which comments are designed only for consideration, as distinct from those which, in the referee's view, require specific action or an adequate answer before the paper is accepted.

Referees may ask for sight of **supporting data** not submitted for publication, or for sight of a previous paper which has been submitted but not yet published. Such requests must be made to the Editor, not directly to the author.

1.4.1 *Authentication of new compounds.* Referees are asked to assess, as a whole, the evidence in support of the homogeneity and structure of all new compounds. No hard and fast rules can be laid down to cover all types of compounds, but the Society's policy is that evidence for the unequivocal identification of new compounds should wherever possible include good elemental analytical data; for example, an accurate mass measurement of a molecular ion does not provide evidence of purity of a compound and must be accompanied by independent evidence of homogeneity. Low-resolution mass spectrometry must be treated with even more reserve in the absence of firm evidence to distinguish between alternative molecular formulae. Where elemental analytical data are not available, appropriate evidence which is convincing to an expert in the field may be acceptable.

Spectroscopic information necessary to the assignment of structure should normally be given. Just how complete this information should be must depend upon the circumstances; the structure of a compound obtained from an unusual reaction or isolated from a natural source needs much stronger supporting evidence than one derived by a standard reaction from a precursor of undisputed structure.

Referees are reminded of the need to be exacting in their standards but at the same time flexible in their admission of

evidence. It remains the Society's policy to accept work only of high quality and to permit no lowering of standards.

#### 1.5 Titles and summaries

Referees should comment on titles and summaries with the following points in mind.

Titles of papers are used out of context by several organisations for current awareness purposes. To enable such systems to serve chemists adequately, titles must be written around a sufficient number of scientific words carefully chosen to cover the important aspects of the paper.

Summaries should preferably be self-contained, so that they can be understood without reference to the main text.

#### 1.6 Speed of Refereeing

The Editorial Boards are anxious to maintain and to reduce further if possible the publication times now being achieved. In this connection, referees should submit their reports with the minimum of delay, or return manuscripts immediately to the Editor if long delay seems inevitable.

#### 1.7 Suggestion of Alternative Referees

The Editor welcomes suggestions of alternative referees competent to deal with particular subject areas. Such suggestions are particularly helpful in cases where referees consider themselves ill-equipped (in terms of specialist knowledge) to deal with a specific paper, and in highly specialized or new areas of research where only a limited number of experts may be available. If, in such a case, the alternative and the original referee work in the same institution, the manuscript may be passed on directly after informing the Editor.

#### 1.8 Short Papers and Letters

'Short Papers' are published in *J. Chem. Research*. They are intended for the description of essentially complete pieces of work which can be described in two printed pages or less. They are **NOT** preliminary communications, nor in any way an alternative to *Chemical Communications*, for which there are additional criteria of novelty and urgency. The quality of material contained in a short paper should be the same as that in a full paper. Investigations arising out of some larger project but not prosecuted to the same degree are particularly appropriate for this format.

A short paper should not normally exceed in length about 8 pages of typescript, including figures, tables, etc. It should comprise a one-sentence abstract and discussion, but adequate experimental details are required. As a consequence of its length, it appears in full in Part S with no microform version in Part M.

'Letters', published only in *Dalton Transactions*, are a medium for the expression of scientific opinions and views normally concerning material published in that journal; it is intended that contributions in this format should be published rapidly. The letters section is for scientific discussion, and is not intended to compete with media for the publication of more general matters such as *Chemistry in Britain*.

Only rarely should a Letter exceed one printed column in length (about 1–2 pages of typescript). Where a letter is polemical in nature, and if it is accepted, a reply will be solicited from other parties implicated, for consideration for publication alongside the original letter.

#### 1.9 Relationship with Communications Journals

In cases where a preliminary report of the work described has appeared (for example in *Chemical Communications*), referees

should alert the editor to any excessive and unnecessary repetition of material; this can arise in connection with communications journals in which the restrictions on length and the reporting of experimental data are less severe than those of *Chemical Communications*. Furthermore, the acceptability of the full paper must be judged on the basis of the significance of the additional information provided, as well as on the criteria outlined in the foregoing sections.

## 2.0 Contributions to Chemical Communications

*Chemical Communications* is intended as a forum for preliminary accounts of original and significant work, in any area of chemistry that is likely to prove of wide general appeal or exceptional specialist interest. Such preliminary reports should be followed up in most cases by full papers in other journals, providing detailed accounts of the work. It is Society policy that only a fraction of research work warrants publication in *Chemical Communications*, and strict refereeing standards should be applied. The benefit to the reader from the rapid publication of a particular piece of work before it appears as a full paper must be balanced against the desirability of avoiding duplicate publication. The needs of the reader, not the author, must be considered, and priority in publication should not be allowed to determine acceptability. Acceptance should be recommended only if, in the opinion of the referee, the content of the paper is of such urgency that rapid publication will be advantageous to the progress of chemical research.

The length of Communications is strictly limited; only in exceptional circumstances should it exceed one printed page (two-and-a-half to three A4 pages of typescript) and referees should be particularly critical of manuscripts longer than this. Communications do not contain extensive spectroscopic or other experimental data, but referees may ask for sight of such data before reaching a decision.

The refereeing procedure for Communications is the same as that for full papers, except that rapidity of reporting is crucial in order to maintain rapid publication. The Journals Committee functions as the Editorial Board of *Chemical Communications* and as such acts as final arbiter in cases of dispute.

## 3.0 Communications submitted to The Analyst and J. Anal. At. Spectrom.

Criteria for acceptance of communications submitted to *The Analyst* and *J. Anal. At. Spectrom.* are similar to those for contributions to *Chemical Communications*, except that they should be concerned specifically with analytical chemistry. However communications to *The Analyst* and *J. Anal. At. Spectrom.* are not subjected to refereeing in the usual way; a decision whether or not to publish rests with the Editor, who may or may not obtain advice from a referee.

## 4.0 Communications submitted to Perkin, Dalton or Faraday Transactions or J. Mater. Chem.

Criteria for acceptance of Communications submitted to *Perkin, Dalton* or *Faraday Transactions* or *J. Mater. Chem.* are similar to those for contributions to *Chemical Communications*, except that the work will be of more specialist interest. For *Perkin* and *Dalton Communications* inclusion of key experimental data is expected. Assessment is carried out by a small nucleus of referees, consisting largely of members of the appropriate Editorial Boards.

## 5.0 Contributions to Mendeleev Communications

*Mendeleev Communications*, published jointly by the Royal Society of Chemistry and the Russian Academy of Sciences, is a sister publication to *Chemical Communications*, containing preliminary reports of the same type, in any area of chemistry. The majority of contributions are from Russian authors.

Assessment involves two stages of refereeing. Manuscripts submitted to the Moscow Editorial Office are refereed initially by a Soviet scientist. If found acceptable they are then reviewed by Western scientists chosen by the Royal Society of Chemistry. Manuscripts submitted to the UK Editorial Office undergo this two-stage refereeing process in reverse.

## 6.0 X-Ray Crystallographic Work

6.1 Crystallographic papers are of two types:

(A) The majority, which contain definitive data on completely refined determinations.

(B) A minority which include brief accounts of structures containing feature(s) of unusual interest and where the structure solutions are clear but where (for any of a variety of reasons) the full refinement has not been completed. These are then regarded as preliminary publications, at least so far as the X-ray results are concerned.

Both types of publication are appropriate for Communications; only those of type (A) should normally appear as full papers.

6.2 It is often appropriate (but not obligatory) for papers of type (A) to contain the information in their *titles* that an X-ray structure determination has been carried out. Papers of type (B) need not do so if the X-ray determination forms only a minor part. *Summaries* should always contain this information unless the paper is of type (B) and the structure determination is not a main point of the communication.

6.3 All papers containing crystallographic determinations will be refereed by two referees, one a structural chemist. If the editor considers it advisable, the paper may also be sent to a crystallographer for comment. Referees will not normally be expected to check values of structural parameters for publication (e.g. bond lengths and angles against atomic coordinates; this will be done after publication by CCDC or Bonn), but should still pay attention to the quality of the experimental crystallographic work. However their primary concern should be such new chemistry as is involved in the structure.

6.4 On occasions Communications will contain preliminary accounts [type (B)] of crystal structures of unusual *chemical* interest. By 'preliminary' is meant that the data have not yet been fully refined. Sufficient supplementary data must be provided for the referee to judge whether the 'not-fully-refined' structure does indeed prove the desired point, and care should be taken by the referees to ensure that the authors do not overstate the case they have—for example by reporting bond lengths to very high degrees of apparent precision when they have poor *R*-factors. Such papers will always be refereed by a professional crystallographer. Authors must indicate in the paper or the supplementary data the justification for publishing without full refinement and referees should comment on whether the case for publication is convincing.

6.5 In many cases the structure referred to in a Communication will be fully refined. The Communication can then be considered to fulfil the archival function, and the structure determination may not require further detailed

refereeing when presented as part of a full paper. In the full paper, the author's purpose will then be served by a simple reference back to the original communication. However, if the crystallography is discussed again at any length in the full paper, the data should be re-presented to the referees in full, and re-published if considered necessary.

6.6 There may be other cases when an author wishes to publish a full paper in which the result of a crystal structure determination is discussed, but in which details or extensive discussion are considered unnecessary. The crystallographer

may even be omitted as a co-author (for example when the determination is carried out by a commercial company). If the author is able to show the referees that this procedure is appropriate, it will be allowed provided that it does not lead to unnecessary fragmentation. However, the author must provide, as supplementary information, sufficient data relating to the crystal structure determination to allow a referee to make sure that the point made is correct, and co-ordinates *etc.* will be deposited with CCDC (or Bonn). The brief published description of the determination should be supplemented by appropriate reference to 'unpublished work'.

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