Refereeing Procedure and Policy

Refereeing Procedure and Policy for Journals Published by the Royal Society of Chemistry†

Also see: www.rsc.org/authorguidelines

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1.0 Introduction

This document summarises the procedure used for assessing Primary Articles and Communications submitted to Journals published by the Royal Society of Chemistry (RSC).

2.0 The Journals

Submissions to the journals vary according to their subject matter, format, and type of article being presented. If it is felt that an article would be published more appropriately in an RSC journal other than the one suggested by the author, the referee should inform the Editor.

Some journals publish Communications (see Section 9.0, Communications), Letters, Comments and/or Opinions (see Section 7.0, Letters, Comments and Opinions).

2.1 Analyst

Analyst covers work of the highest quality in analytical, bioanalytical and detection science. In order for a manuscript to be acceptable for *Analyst*, it must report significant advances in analytical science.

2.2 Analytical Methods

Analytical Methods highlights new and improved methods for the practical application of analytical science. Methods reported will be applicable to a wide range of areas including pharmaceutical analysis, clinical and biochemical analysis, applied industrial analysis, forensic analysis, agriculture and food science, heritage science, analytical standards and new and improved methods for

† For more detailed information on this topic, as well as links to useful websites and software resources, see: http://www.rsc.org/resource.

routine analysis.

2.3 Chemical Communications
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 (see also Section 9.0, Communications). Only a fraction of research work warrants publication in *Chemical Communications*, as the current rejection rate is 60%, and strict refereeing standards should be applied. Acceptance should only be recommended if the content of the paper is of such urgency or impact that rapid publication will be advantageous to the progress of chemical research.

2.4 Chemical Science
Chemical Science publishes findings of exceptional significance from across all of the chemical sciences. By publishing thorough reports of original, cutting-edge research, the journal will be at the forefront of the most exciting developments.

2.5 CrystEngComm
An electronic-only journal covering all areas of crystal engineering, including theoretical crystal engineering, techniques in crystal engineering, target crystals and properties (see also Section 10.0, Electronic-only Journals).

2.6 Dalton Transactions
Covering all aspects of the chemistry of inorganic and organometallic compounds, including biological inorganic 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. For a research work to be accepted for publication it must report high quality new chemistry and make a significant contribution to its field.

2.7 Green Chemistry
Chemical aspects of clean technology, reduction of the environmental impact of chemicals (and fuels) whether from improved production methods, formulation and delivery systems, the use of sustainable/renewable resources and product substitution. Methodologies and tools for evaluating the environmental impact of the above, such as life cycle analysis, environmental risk analysis and legislative issues surrounding green chemistry. In no circumstances should papers just report the 'green angle' of previously published work or work submitted elsewhere, all submissions must be original.

2.8 Integrative Biology
A unique venue for biological research, based on innovative experimental and theoretical methodologies, that enhances our capability to gain new insight into important biological questions. Such research is typically inter- or multidisciplinary, calling upon biological knowledge in combination with technologies from the physical sciences, engineering, imaging, computation and mathematics. *Integrative Biology* aims to drive forward discovery and analysis within biology by elucidating basic biological phenomena and processes via technology that allows us to: view, interrogate and investigate molecules as well as cells or their contents; model accurately how these processes/systems work; investigate and model complexity; and engineer new solutions to biological problems. It is essential that all articles submitted to Integrative Biology meet the following assessment criteria: INSIGHT: What contribution does the paper make to our insight on the biological mechanism/process/phenomena explored? INNOVATION: To what extent does the technology used enable the biological insight? INTEGRATION: To what extent does the paper demonstrate integration of technology and biology?

2.9 Journal of Analytical Atomic Spectrometry
The journal covers the development of fundamental theory, practice and analytical application of spectrometric techniques to elemental research.

2.10 Journal of Environmental Monitoring
Physical, chemical and biological research relating to the measurement, impact and management of contaminants in all natural and anthropogenic environments. The journal places special emphasis on atmospheric science and human health issues and on the interface of analytical science with disciplines concerned with natural and human environments.

2.11 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; bio-related materials.

2.12 Lab on a Chip
Miniaturisation research and technology: its applications in chemistry, biology, physics, electronics, clinical chemistry, fabrication, engineering and materials science. Authors should clarify the advantages of carrying out the described processes/reactions at the micro- or nano-scale as opposed to the macro scale and must interpret and explain all their observations rather than just reporting them.

2.13 Medicinal Chemistry Communications
MedChemComm publishes work across the broad spectrum of medicinal chemistry, including new studies related to biologically-active chemical or biochemical entities that can act as pharmacological agents with therapeutic potential or relevance. The journal attracts readers from both academia and industry, conducting research in the field of medicinal chemistry, drug discovery, pharmacology and pharmaceutical research.

2.14 Metallomics
Metallomics: Integrated Biometal Science is a high-quality international, peer-reviewed journal for the publication of original research papers, reviews and communications which provide insight into the role of metals in the life sciences. All manuscripts should be written in a manner that is accessible to those working in the traditional fields of chemistry and biology as well as those working at the interface of the two subjects. In particular, abbreviations or acronyms should be clearly defined where they first appear in the text.

2.15 Molecular BioSystems
An interdisciplinary journal publishing novel and significant research that is emerging at the interface between chemistry and biology. The journal is intended as a forum for accounts of the research and development at the interface between chemistry and the -omic sciences and systems biology, in particular research concerned with cellular processes, metabolism, proteomics and genomics, systems biology, drug discovery, biomaterials, and all techniques relevant to these subject areas. All manuscripts should be written in a manner that is accessible to those working in the traditional fields of chemistry and biology as well as those working at the interface of the two subjects. In particular, abbreviations or acronyms should be clearly defined where they first appear in the text.

2.16 Nanoscale
Nanoscale is a high impact international journal, publishing research of the highest quality across the breadth of nanoscience and nanotechnology. *Nanoscale* publishes a full mix of research articles on experimental and theoretical work. Highly interdisciplinary, *Nanoscale* will appeal to scientists, researchers and professionals interested in nanoscience and nanotechnology, including in the areas of physics, chemistry, biology, medicine, materials, energy/environment, information technology, detection science, healthcare and drug discovery, and electronics.

2.17 New Journal of Chemistry
A forum for the publication of original and significant work, in any area of chemistry that is likely to prove of wide general appeal or exceptional specialist interest. Only a fraction of research work warrants publication in the journal, which has a rejection rate is 60% for Articles and over 70% for Letters, and strict refereeing standards should be applied. Acceptance should only be recommended if the content of the paper will be advantageous to the progress of chemical research.

2.18 Organic & Biomolecular Chemistry
The journal brings together molecular design, synthesis, structure, function and reactivity in one journal. It publishes fundamental work on synthetic, physical and biomolecular organic chemistry as well as all organic aspects of: chemical biology, medicinal

chemistry; natural product chemistry; supramolecular chemistry; macromolecular chemistry; theoretical chemistry; and catalysis.

2.19 Photochemical & Photobiological Sciences
Any aspect of the interaction of light with molecules, supramolecular systems and biological matter, for example, elemental photochemical and photophysical processes, the interaction of light with living systems, how light affects health, the use of light as a reagent in synthesis, the use of light as a diagnostic tool and for curative purposes, and areas in which light is a cost-effective catalyst or alternative source of energy.

2.20 Physical Chemistry Chemical Physics
All aspects of physical chemistry, chemical physics and biophysical chemistry including: catalysis; clusters; colloid and interface science; computational chemistry and molecular dynamics; electrochemistry; energy transfer; gas-phase reactions; kinetics and dynamics; laser-induced chemistry; materials science; photochemistry and photophysics; macromolecules and polymers; nanosciences; quantum chemistry and molecular structure; radiation chemistry; reactions in condensed phases; solid-state chemistry; spectroscopy of molecules; statistical mechanics; surface science; thermodynamics; zeolites.

2.21 Polymer Chemistry
Polymer Chemistry publishes advances in polymer chemistry encompassing all aspects of synthetic and biological macromolecules, and related emerging areas. The journal provides a showcase for the ongoing efforts driving polymer chemistry, highlighting the creativity of the field and previously inaccessible applications.

2.22 Soft Matter
For high quality interdisciplinary research into soft materials and complex fluids, with a particular focus on the interface between chemistry and physics. Papers that describe applications and properties of soft matter set in context to the relevant science are also welcomed, but emphasis should be on the science rather than on the applications and properties themselves. The scope includes original research on important synthetic and characterisation techniques, and on simulation and modelling of soft matter. All manuscripts should be written in a manner that is accessible to those working in the traditional fields of chemistry and physics as well as those working at the interface of the two subjects. In particular, abbreviations or acronyms should be clearly defined where they first appear in the text.

3.0 Procedure
The referees' reports constitute recommendations to the appropriate Editor, who is empowered to take final action on manuscripts submitted. The Editor 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.

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, the Editor will inform the authors. Authors have the right to appeal to the Editor 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.

3.2 Anonymity
The anonymity of referees is strictly preserved from the authors, 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.

3.3 Confidentiality
A referee should treat a paper received for assessment as confidential material. If a referee needs to consult colleagues to help with the review, the referee should inform them that the manuscript is confidential, and inform the Editor. Information acquired by a referee from such a paper is not available for disclosure or citation until the paper is published.

4.0 Policy
The primary criterion for acceptance of a contribution for publication is that it must report high-quality new chemical science and make a significant contribution to its field. 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 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. Certain length restrictions apply to some Communications (see Section 9.0, Communications).

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/her 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.

See also the RSC's 'Ethical Guidelines for Publication in Journals and Reviews'.†

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 (*e.g.* HPLC). 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 cannot be obtained, 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.

4.2 Electronic Supplementary Information (ESI)
Referees are encouraged to suggest that appropriate material is placed with the RSC's Electronic Supplementary Information (ESI) Service rather than the printed journal. Any supporting material for the ESI service supplied upon submission should be refereed to the same standard as the article.†

4.3 Use of Colour
The use of colour and/or half-tones is permitted in cases where genuine clarification results; referees may also be asked to advise on this [Electronic-only journals have different guidelines concerning the use of colour (see Section 10.0, Electronic-only journals)].

4.4 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 organizations for current awareness purposes. To enable such systems to serve chemical scientists 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.

5.0 Speed of Refereeing
The RSC is 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 and within the specified time, or inform the Editor immediately if this is not feasible. If possible, referees should supply their reports in electronic format *via* the RSC's website.† In these cases, there is no need for referees to send a printed version of their report or to return the manuscript unless they are requested to do so by the Editor.

6.0 Suggestions 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.

7.0 Letters, Comments and Opinions

7.1 Letters in *Dalton Transactions*
These 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 World*, or for revision/updating of authors' own work. 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.

7.2 Letters in *New Journal of Chemistry*
These are concise articles that report results of immediate interest to the chemistry community: they may be complete publications, though a subsequent full paper may be justified, and should contain a brief experimental section.

7.3 Opinions in *New Journal of Chemistry*
Opinions should normally be limited to topics closely related to chemical science. This can include topics that are highly focused as well as those of broader interest to the chemical community. An Opinion is not intended to be a description of a consensual point-of-view on a given topic but could raise the need for a counter-opinion. It is a short, refereed, citable article on a topic related to chemical science that normally reports no new data but presents an opinion, hypothesis or conjecture on a topic judged by the referees and editor to be of interest to the readership.

The format is intended to allow more leeway for conjecture than the traditional formats. It should not be used to report a proposal that could be readily tested by currently available methods and published as a standard article. Opinions also could cover more general subjects related to educational, ethical, philosophical or sociological concerns of the chemical community. It should contain nothing that the referees judge offensive.

Ideally, an Opinion should not be longer than one printed page although no strict constraint on the length will be implemented. It will have a one-sentence abstract as well as a limited list of references. An Opinion may lead to the submission of a counter-Opinion, although noncontroversial issues could also be of interest to the chemical community.

7.4 Comments in *PCCP* and *JAAS*
Comments are a medium for the discussion and exchange of scientific opinions normally concerning material published in *PCCP* or *JAAS*. Submitted Comments will normally be forwarded to the authors of the work being discussed, and these authors will be given the opportunity to submit a Reply for publication together with the Comment. For publication of a Comment or Reply, they must be judged to be scientifically significant and of interest to either the *PCCP* or *JAAS* readership. Comments will not normally exceed a length of one printed journal page. Publication will take place only when all parties have had an opportunity to respond appropriately.

8.0 Polemical Papers
If the Editor considers a manuscript to be polemical in nature then the author of the paper being criticised will, wherever possible, be sent a copy of the manuscript.

9.0 Communications

9.1 Relationship between Full Papers and Preliminary Reports (*e.g.* Communications)
In cases where a preliminary report of the work described in a submitted paper has been published (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.

9.2 Contributions to *Chemical Communications*
In most cases the preliminary reports published in *Chemical Communications* should be followed up by full papers in other journals, providing detailed accounts of the work. Referees are requested to comment on the RSC journal in which such full papers should be published. 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 or impact that rapid publication will be advantageous to the progress of chemical research.

Communications should be brief and should not exceed three pages in the printed form including Tables and illustrations. Communications should not include lengthy introductions and discussion, extensive data, and excessive experimental details and conjecture. Figures and tables will only be published if they are essential to understanding the paper. Authors must supply experimental evidence to support the conclusions drawn in the paper as Electronic Supplementary Information. The referees should comment on this supporting information in their reports

with particular emphasis on whether the information does support the conclusions drawn in the paper and whether any additional information should be requested from the authors.

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.

9.3 Communications submitted to *OBC*, *Dalton Transactions*, *PCCP*, *Journal of Materials Chemistry*, *JAAS*, *Analyst*, *Journal of Environmental Monitoring* or *Metallomics*

Criteria for acceptance of Communications submitted to *OBC*, *Dalton Transactions*, *PCCP*, *Journal of Materials Chemistry*, *JAAS*, *Analyst*, *Journal of Environmental Monitoring* or *Metallomics* are similar to those for contributions to *Chemical Communications*, except that the work will be of more specialist interest. For *OBC* and *Dalton* Communications inclusion of key experimental data is expected.

10.0 Electronic-only Journals

For the Society's electronic-only journals there are no restrictions concerning page length, the use of colour or the number of tables and figures; however, the overall article length should be commensurate with the novel scientific content presented.

The refereeing procedure is the same as that for papers in printed journals, with the exception that referees will not be sent a printed copy of the article to be refereed. Instead, the article will only be made available for refereeing electronically.

11.0 X-Ray Crystallographic Work

All papers containing X-ray crystallographic work will be refereed for their chemical interest, and all crystallographic determinations will be assessed. If the Editor considers it advisable, the paper may be sent to a specialist crystallographer for comment. Assessors of crystallographic determinations 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 the appropriate crystallographic data centre), but should still pay attention to the quality of the experimental crystallographic work.

Papers will often contain the information in their titles that an X-ray structure determination has been carried out. However, this is not obligatory, especially if the X-ray determination forms only a minor part. Summaries should normally contain this information.

A structure referred to in a Communication will normally be fully refined. The Communication can then be considered to fulfil the archival function, and the structure determination may not require further detailed assessment 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.

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 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 crystallographer to make sure that the point made is correct. The brief published description of the determination should be supplemented by appropriate reference to 'unpublished work'.