

How to prepare a manuscript fit-for-purpose for submission and avoid getting a “desk-reject”

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Abstract

First impressions are very important and when these are negative, they can adversely affect a manuscript's journey through the scientific publication system. This short guide highlights some crucial factors to take into consideration before submitting a manuscript for review in a scientific journal. The aim is to advise authors on the best way to present their research, to comply with formal requirements of the journal and to optimize the first impression made.

Without a doubt, every author of a scientific article dreads the email entitled “Decision on manuscript xxxxx?”, when this email arrives only a few days after the initial submission of the manuscript. This usually delivers bad news, a so-called “desk-reject” of the paper. Desk rejection refers to the immediate negative decision made by the editor (often after consultation with Editorial Board members) without external review (*NB*: editors have a “Special Reject (Without External Review)” button in the electronic editorial office system for this purpose; there is also a “Special Accept (Without External Review)” option, but this button is rarely used...).

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For the journal *Rapid Communications in Mass Spectrometry* (RCM), the most frequent reasons for a desk-reject are that the science in the article does not fall within the scope of the journal (see more information below) and/or that the manuscript does not adequately focus on mass spectrometry. This happens, for example, with manuscripts, where authors use the mass spectrometer only as a detector; *e.g.*, routine quantification studies utilizing triple quadrupole instruments in multiple reaction monitoring (MRM) mode, without any advancements of the methodology. The present authors estimate that >80% of all RCM desk-rejects fall into the scope/lack of mass spectrometry category. True lack of novelty also triggers RCM desk-rejections, but negative decisions based on limited innovation are often delivered after peer review.

Another example of undesired emails sent to the authors from the editorial office are those announcing that the “Manuscript has been unsubmitted” from the journal’s submission system, because of some flaws, oversights or omissions, and the manuscript is then returned to the authors for immediate revision. These “unsubmissions” delay the submission process and can mostly be avoided if proper care is taken during manuscript preparation. The RCM editors strongly encourage authors to carefully consult the author guidelines on the journal’s website. Examples that can trigger a submission to be “unsubmitted” include improper abstract format, wrong reference style or significant language problems.

Therefore, this short protocol is not a writing guide to advise authors on the best way to present their research. Scientists interested in such a guide should turn to Robert Boyd’s excellent recent introduction entitled “How to write a paper for *Rapid Communications in Mass Spectrometry*”, which describes in detail how to write a high impact journal publication that attracts and grabs the target audience.¹ Rather, this compilation is a sequel to Boyd’s article and is intended to provide authors with the essential information to make the article *fit-for-purpose* for submission to RCM, thus avoiding desk-rejection or the frustrations and delays that come with the unsubmission of a manuscript. It will also improve the article for the peer-review process and provide an easy to work with manuscript to the journal production team, once an article is accepted for publication. This present protocol should be used in conjunction with the author guidelines for more specific details.

Cover letter:

It is very important that a separate cover letter is uploaded with the manuscript submission, which clearly outlines the main aspects of the submitted work and explains the novelty of the presented research. The covering letter enables the editor to make an initial judgement on the suitability of the submission for inclusion in the journal. It should be short and concise, discussing why the topic is important, why the results are significant, what is the key result, why you have chosen RCM to publish the research and why it will be of use to the readership of RCM.

Scope:

Papers submitted to a mass spectrometry journal should understandably focus on mass spectrometry and describe a major new contribution to this field, either of applied, fundamental or theoretical nature. General analytical articles are also of interest to RCM, if the mass spectrometry component is sufficiently important or novel to warrant publication. In general, articles containing very little mass spectrometry, or those that use the mass spectrometer only as a detector, are outside the scope of RCM and are usually desk-rejected.

Please also note that articles that use established methodologies for screening of samples (*e.g.*, Traditional Chinese Medicine) or for quantification purposes very often do not meet the requirements of RCM, as authors must demonstrate that the contribution represents a significant extension of the capabilities or applications of mass spectrometry or new understanding of ion chemistry and related disciplines. The same applies to stable isotope methods papers. Authors must also disclose the chemical structures of molecules that are investigated in the manuscript; otherwise papers cannot be considered in RCM.

Article types and general article structure:

Most articles published in RCM are regular *Research Articles* and most of the advice given herein applies to these papers. In addition, RCM welcomes *Protocols*, *Letters*, *Perspectives* and *Reviews*.

Protocols are detailed experimental descriptions of novel procedures, somewhat similar to standard operating procedures (SOPs), to provide other scientists with a step-by-step guide for implementing the published method in their laboratories. Protocols follow the same general outline as research articles.

Letters are short articles describing a particular point of view, critical analysis or revised analysis of previous RCM work. They are not the same as regular research articles and manuscripts with limited data or smaller studies should not be submitted in this category. They do not use the formal structure of the regular articles with structured sub-headings. For authors wanting to submit a letter, please use a previously published letter as an example.

It is generally the easiest for authors to use a recent RCM article as a template to properly format the article with respect to the general structure, sections and headings. For virtually all manuscripts, the article should be structured as follows: Abstract, Introduction, Experimental, Results and Discussion, Conclusions, Acknowledgements, and References. Deviations from this framework may be possible, but should be discussed with the editors before submission or explained in the cover letter.

Articles in the *Perspectives* category are opinion pieces about future developments or directions in the field. They can be invited or unsolicited submissions. It is advised to discuss a *Perspectives* article with the editors prior to submission.

RCM now also welcomes *Review Articles* and these can be submitted without prior agreement or discussion with the editors.

Minimum evidence for ion structures and identification:

We have recently summarized the requirements for providing sufficient experimental or computational evidence for assigning or postulating structures.² Briefly, as high resolution mass spectrometers are now readily available, this means that ion structures or fragmentation mechanisms must be supported by appropriate accurate mass measurement and elemental formulae; low resolution m/z data is usually insufficient for this purpose and editors will ask for additional experiments to provide more confidence in the proposed structures. Protein identification papers must meet the criteria summarized by Taylor and Goodlett.³

Article length and completeness:

RCM does not have stringent criteria for the length of Research Articles; there are no set maximum page numbers or word limits. There is also no specific limitation on the number of Figures and Tables. We strongly suggest that original research papers do not exceed 6-10 journal pages and do not have more than 6-8 display items, where a display item is a Figure, Scheme or Table. Editors may ask for a reduction of the number of display items after submission or later, if these numbers seem excessive. An exception is made for Letters to the Editor, that have a formal limit of 2000 words and no more than 2 display items. Important, however is that a fully developed manuscript is submitted within these recommendations. Some examples of underdeveloped manuscripts include: incomplete Experimental sections that lack sufficient detail to enable others to replicate the work being described; insufficient substance in the paper to be considered a full article (*e.g.* the authors have tried to cut the research pie into many slices, in order to obtain as many separate publications from the work as possible); lack of an adequate discussion around the main findings which provide the necessary context for interpreting the results being presented; and failure to include key studies already published in the field; do not provide a conclusion to the article (a summary of the work just presented usually does not suffice!).

Abstract:

RCM has been using structured abstracts for many years now, similar to those common in medical journals.⁴ The segments of the compound abstract are as follows: Rationale, Methods, Results, and Conclusions. Manuscripts that do not apply this particular abstract format are returned to the authors for reformatting. Please consult the author guidelines for an example.

Figures, schemes, diagrams:

Do not use chromatograms or mass spectra that come directly from the instrument software without removing the “clutter” from file names, instrument specific settings, vendor names, names of operators *etc.* Please also use appropriate image resolution (>600 dpi) and place Figures after the reference list or upload separately; do not incorporate Figures into the main text. The font and labels in the graphs and diagrams must be of a size that makes them clearly legible upon reduction to the final journal print size. Figures should be referred to in the text

as “Figure 1” or “Figure 1(a)” (for parts of a Figure), and Tables as “Table 1” *etc.* More details can be found in the author guidelines.

Abbreviations, acronyms and measurements units:

RCM only uses IUPAC-approved mass spectrometry terms and abbreviations,⁵ the importance of which was previously summarized along with incorrect/correct notation.⁶ Similarly, stable isotope ratio mass spectrometry,⁷ chromatography⁸ and other chemical terminology should always follow IUPAC rules.

Authors are strongly encouraged to express units in the International System of Units (SI). We are aware, however, that conventions in the mass spectrometry world have preserved several non-SI units such as Torr or eV, and we do not argue with this. We now discourage the use of the unit Thomson (Th), however, even though this unit was permitted in the past in RCM, and strongly encourage the use of m/z instead; the unit ‘u’ is equally acceptable to express the mass of ions in atomic mass units, whereas the older unit ‘amu’ should not be used anymore. While 1 u also equals 1 Dalton (Da), the unit Da should only be used to express masses of neutral losses in mass spectra or to describe the mean isotopic mass of biological molecules, in particular biopolymers.

English language:

In terms of use of the English language, poorly written manuscripts frequently come back from peer review with strong judgments and negative opinions, in particular when the reviewers cannot understand the messages the authors are trying to convey. Unfortunately, this happens despite the scientific excellence described in papers and the inclusion of native English speakers as authors or proof-readers. It is therefore of utmost importance to submit a well-written paper *at the time of submission*, rather than aiming to improve the manuscript during the revision stages (because it may literally be too late by then). Professional language editing services for scientific papers are now abundantly available and offer extremely reasonable fees for document editing. A web link to a Wiley language-editing service can be found in ref. 9. Please note that RCM editors do not assist the authors with the language editing of their manuscripts.

Reference style:

A surprising number of submissions contain reference lists in formats different from those officially required; sometimes with minor differences, at other times with entirely different styles. Small differences can easily occur from using automatic reference manager software; please note, however, that the Wiley RCM style is readily available as an Endnote and Mendely plug-in for Microsoft Word. Submissions that contain entirely different reference styles are often due to re-submission of the identical paper after it was rejected from another journal, without adjusting references and other journal-specific formats. Please note that this portrays the article negatively and editors may take note of this. Submissions containing incorrectly formatted reference lists are usually returned to the authors immediately for corrections. Please also keep in mind that extremely outdated references will often be picked up and are not seen favourably; therefore, aim to include up-to-date references in all manuscripts.

Self-citation:

RCM does not impose limits on the number of self-cited references. This number will depend on the particular research field, the topic of the manuscript, the popularity of the science, and other factors; it can thus vary widely. Most scientists, however, frown upon excessive self-citation. We agree with Sammarco's suggestion¹⁰ that "a viable approach probably lies in moderate citation of an author's own papers, only to the extent required to provide adequate background information" and ask authors to avoid self-citation bias.¹¹

Plagiarism:

Plagiarism is not permitted and self-plagiarism is an equally critical transgression. Sometimes authors repeat entire sections or multiple sentences of the *Experimental* section from one of their previous papers, which is unacceptable. Please rewrite these sections, even though they may describe exactly the same experiments or setups as in the previous studies. Editors can readily identify plagiarism through dedicated software programs or via feedback from peer reviewers, should one of their articles happen to be the source that was plagiarized! RCM uses the iThenticate software as part of the electronic editorial office system for cross-

checking manuscripts. On a related topic, manuscripts cannot be under consideration in more than one journal at the time of submission. This is an equally critical offence.

Supporting Information:

Supporting Information has become an important component of research articles in recent years due to today's easy access to web-based information. While there is no formal limit on the extent of Supplementary Information, we suggest not overloading this document and only providing elements *that support* the main article. It is therefore important that Figures and Tables in the Supporting Information are not discussed in the same way in the main text as regular Figures and Tables. For example, do not simply refer to a supporting Figure in the text as if it was located in the article, as from experience not all readers download the Supporting Information. It is essential that the main article is fully understood and that all crucial information is located within the main article *without* having to consult the Supporting Information. Very often authors force readers to download the supporting document, because they discuss essential information not visible in the article. Supporting Information is not meant as a means of extending the limit of display items in the article.

Data sharing policy:

Many funding agencies now mandate authors to archive and share raw and meta-data of their studies in public repositories. Wiley provides a data sharing service in partnership with figshare, details of which are summarized in ref. 12 While RCM does not currently have a figshare option built into its web submission system, the figshare service is open to everyone. Authors in particular research fields may use their preferred repository, *e.g.*, Dryad, GenBank, and UK Data Archive.

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