Overcoming the Myths of the Review Process and Getting Your Paper Ready for Publication

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Editorial

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Overcoming the Myths of the Review Process and Getting Your Paper Ready for Publication

The flood of scientific papers published daily across all scientific disciplines has resulted in the majority of these articles receiving less reader attention than they deserve. It is getting increasingly difficult for readers to keep up with all of the published papers in his/her discipline. Even in the major scientific journals, nearly 75% of the published articles receive citations that are below the journal's impact factor, perhaps suggesting that many published papers do not receive sufficient attention from the average readership or simply they are not effective in communicating the results. (See, for example, *Nature* **2005**, *435*, 1003−1004. DOI: 10.1038/4351003b) Hence, it becomes the responsibility of the authors to take additional steps to make their paper effective as a scientific communication to a broad readership.

A well-composed paper that can appeal to the general readership can draw favorable attention from editors and reviewers during the peer review process. (Tips on how to make your papers scientifically effective are available in an earlier editorial, "How to Make Your Next Paper Scientifically Effective" (http://pubs.acs.org/doi/abs/10.1021/jz4006916). We present in this Editorial some key steps in the review process for articles submitted to *The Journal of Physical Chemistry Letters* (*JPCL*) and provide some insight into how authors can work with the editors to improve their papers and facilitate their navigation through the peer review process.

I just submitted my paper. What happens next? Every journal has its own submission criteria. It is therefore important for authors to pay attention to the requirements of the journal to which they are submitting their article and provide complete and accurate information. For *JPCL*, required information includes the manuscript title, coauthor names (entered in the same order as on the manuscript title page), author affiliations and current e-mail addresses, previous submission history, and correct manuscript files (in the proper format and with Supporting Information). Within hours of submission, our administrative personnel, who work almost around the clock in order to ensure rapid processing of each manuscript, check the submission information for accuracy and completeness. If the manuscript is complete and passes all of the administrative checks, it is forwarded to the Editor-in-Chief and Deputy Editor offices for evaluation.

It should be noted that the staff performing the initial checks on the submissions is not involved in the scientific decision-making process, and no manuscripts are rejected during the administrative check. Manuscripts may, however, be "*unsubmitted*" if they fail to meet the journal submission criteria (i.e., the submissions are incomplete) and/or have significant formatting deficiencies. If an article is *unsubmitted*, authors are expected to address all deficiencies or concerns and resubmit the paper. In order to avoid a delay in the administrative check process, be sure to follow the Information for Authors (http://pubs.acs.org/page/jpclcd/submission/authors.html). In addition, *if your paper was rejected by another journal, do not just turn around and resubmit the paper without first revising the manuscript to address feedback from referees, ensure that the manuscript has sufficient relevance to physical chemistry (i.e., is within the scope of JPCL), and that the article is properly formatted for JPCL.*

What is the Editorial Review Process and how is it administered? After the administrative check, manuscripts arrive at the Editor-in-Chief and Deputy Editor offices and are assigned to an editor knowledgeable in the research topic. At *JPCL*, two editors carefully go through *each* manuscript and assess its scientific merit and relevance to physical chemistry. The editors read the title, abstract, presentation of results, and relevant citations within hours of submission. The editors specifically check to see whether the paper meets specific criteria, namely, urgency and timeliness of the research, significant advancement, physical chemistry scope, and likelihood of broad interest within the readership of the journal. On the basis of this initial review, a decision is made by the editor whether to move forward with an extended scientific review or to return the paper to the authors, citing any deficiencies. If a paper is returned to the author, the editor provides a statement explaining why the paper could not be considered for publication in *JPCL*. Because of the ever-increasing review load placed on reviewers, many journals have adopted similar initial, editor-based review processes in their editorial offices.

Frequently, papers are rejected after editorial review because the work is not sufficiently "urgent" for publication as a Letter. Even though the paper may be an excellent scientific report, if it does not advance the discipline in a timely way that strongly influences other researchers and/or stimulate immediate interest among the broad readership, the paper is considered to have insufficient urgency for publication as a Letter. Another common reason for rejection during the initial editorial review is that the work is outside of the scope of the journal, typically not providing new physical chemistry insight, which is a requirement for publication in *JPCL*. The editors often refer authors to submit such papers to specialized journals, the topic of which is based on the scope of the paper.

Authors should keep in mind that references cited in a paper can be an excellent indicator of the field (and thus journal) to which the paper might appeal. For example, papers that primarily focus on the synthesis of new molecules or performance evaluation of devices may be better suited for publication in a more specialized journal. We welcome research crossing different disciplines, such as physics and/or materials science, provided that it is presented for the physical chemistry audience, including reviews of relevant literature and discussion of the results from a physical chemistry perspective.

Another frequently encountered reason for immediate rejection is the premature nature of the research study. A single interesting observation or computational result is not sufficient for publication as a Letter. Observations need to be

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supported by scientific arguments and/or mechanistic insights, and computational studies should have significant coupling to experiments. Such papers are usually recommended for publication as a full paper after completing the study. Papers considered for publication in *JPCL* must meet the criterion of urgency. *JPCL*'s short format is not designed to report a limited number of experimental or computational results but rather to highlight important new advances in physical chemistry. Incremental progress on ongoing projects is more appropriate for journals with full-length article formats.

Another, less common reason for rejection is carelessness on the part of the authors in composing the figures or analyzing the data. Examples include figures with no proper axis titles or units, unreadable text, missing descriptions in the figure captions, and screen dump data or images. Such poor scientific quality papers are usually rejected without further consideration.

How is the external Review Process undertaken? After the initial editorial review, the editor sends the paper to independent external reviewers. These reviewers are selected from a pool of experts in the field of physical chemistry who can independently assess the work. The editor may select one or more of the preferred reviewers suggested by the author. Preferred reviewers often help editors by providing names of additional qualified reviewers. It is important that authors suggest names of reviewers who can judge the merit of the scientific work presented in the paper in an unbiased manner. Authors should refrain from suggesting names of friends, collaborators, or anyone who might have a conflict of interest.

Once the reviewers' comments are received, the assigned editor decides whether to send the paper back to authors for minor revision or major revision or to reject the manuscript. Papers that can be quickly revised to address reviewer concerns are sent to authors for minor revision. Papers that show significant weakness in the execution of experiments and/or lack supportive evidence for the scientific claims made in the paper are rejected. If the objections raised by the reviewers are so significant that there is little expectation that the manuscript can be successfully revised for *JPCL*, a decision of rejection is made. Authors of papers that have substantial scientific merit but require extensive revision are encouraged to submit their work as a full paper after completing the study to *The Journal of Physical Chemistry A/B/C*.

Authors should remember that every published paper that goes through the review process becomes a scientifically stronger and better paper than the original manuscript as a result of the efforts of the reviewers and editors. Hence, undergoing thorough scrutiny by scientific peers is an invaluable step in the publication process. Because the editors at *The Journal of Physical Chemistry* are active, practicing scientists from around the world, they are well-qualified to evaluate the scientific quality of the paper, recognize the merit of the reviewer comments, and make an informed editorial decision.

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How should I respond to the reviewer comments/concerns? First, carefully read the decision letter and reviewer comments. Authors should then prepare their response in a professional way, keeping in mind that reviewers of their manuscript are fellow researcher colleagues and authors who have dedicated their time to reviewing the author's work. If additional results are required to address reviewer concerns, be sure to add them to the manuscript. To prepare a concise and clear response, copy and paste the reviewer comments followed by your responses into your response letter. It is particularly helpful to specify how the manuscript was changed in response to each reviewer comment. Please refer to a recent editorial in *ACS Nano* for additional tips in responding to the reviewer comments (http://pubs.acs.org/doi/abs/10.1021/nn3019046).

Authors have the prerogative to disagree with the comments made by reviewers. Authors who disagree with a comment should respond respectfully and support their responses with scientific arguments. Responses made in a polite and professional manner carry more weight than ones made in anger, especially when the arguments lack concrete scientific merit. Authors should refrain from making nonscientific remarks, such as, "the reviewer is not qualified" or "he/she has a biased opinion". If, in the author's opinion, the reviewer(s) misunderstood their results, the author needs to realize that the origin of this misunderstanding may lie in his/her presentation of the results. In such a case, the author will benefit by revising the text to provide further clarity. It is the responsibility of the authors to convey their results in a way that the general readership can understand the scientific basis presented in the paper. In Table 1, we have compiled a list of unproductive author remarks that the editors have frequently encountered. As you can see, these types of remarks inevitably fail to achieve positive results.

How can I enhance the readability of the paper during revision? The *JPCL* editorial offices also make suggestions in the form of editorial comments to improve the presentation quality of the manuscript and address any formatting deficiencies. In order to help the editors expedite publication, authors need to address both the reviewer and editorial comments during revision. The streamlined editorial and publication processes allow us to publish papers within 30–40 days in a citable format, a significant advantage to our authors.

To improve the impact of a published paper, it is important to have an attractive manuscript title, well composed abstract highlighting the significant scientific advances, visually appealing figures and schemes, and discussion of work in terms of the broader impact. Relevant citations in the discipline of the journal can help draw the attention of anyone performing literature searches. Inclusion of quantifiable data, analysis of experimental results with meaningful error bars, and reproducibility of results in the Supporting Information further increase the scientific quality of the paper. We sincerely urge our authors to pay attention to these factors because we would like your publication experience with *JPCL* to be successful and positive. Authors are also encouraged to make use of the unique multimedia features, such as *ACS LiveSlides*, to further enhance the visibility of their published work.

Table 1. Top Ten Unproductive Author Responses

	Author's Response to Editor	Editor's Reaction to Author's Response
1	The reviewer selected by the editor to review our paper is not an expert.	The reviewer is sometimes the one that was suggested as a preferred reviewer.
2	The editor chose a wrong reviewer. This reviewer has a strong bias towards our work.	The reviewers are selected from a general pool of physical chemists and chemical physicists. Editors attempt to avoid reviewers with obvious conflicts of interest, either pro or con. Furthermore, authors are encouraged in their submission cover letter to inform editors of any potential conflicts with researchers in their field.
3	The reviewer misunderstood our experiments/results.	If the reviewer misunderstood the results, the author needs to explain the results more clearly. Revising the text or presenting the results in a different format may help resolve the misunderstanding.
4	The reviewer is wrong, and their comment does not deserve an explanation.	This does not provide any useful information in terms of why the reviewer is wrong or mistaken. Explain in detailed scientific terms what is incorrect.
5	Only one reviewer has recommended rejection while the other reviewers have recommended revision. Why did you reject my paper?	Recommendations of the reviewers regarding publication are just that: recommendations. The final decision is made by the editor, based on both the recommendations and content of the reviews, as well as his/her own independent evaluation of the manuscript.
6	Similar papers have been published in your journal before. Why wasn't mine?	This can be an indication that the paper lacks novelty. Mature topics may not necessitate urgent processing.
7	I cannot find my coauthor's email. I do not know where he/she is.	All coauthors are required to read and approve the manuscript prior to submission. If a coauthor is deceased, sick, or has disappeared from the scientific scene, include a detailed explanation of why the coauthor cannot be contacted.
8	We cannot provide additional experimental/computational results since the postdoc/student has left our laboratory.	Another researcher will need to be placed on the project. Incomplete studies should not and cannot be published.
9	We have explained (or will explain) the requested/required results in a future paper.	Deliberate splitting of the work into two papers that cannot each stand independently is not considered an acceptable practice. One strong paper typically makes a better impact than two weak or partial papers.
10	I am not a native English speaker. You should not expect me to write well.	An effective and grammatically correct presentation is required since reviewers cannot comprehend and, therefore, adequately evaluate poorly written and/or poorly composed papers. Papers published in an English language journal must be written in proper English. Authors can seek assistance from language editing services or native English speakers to help address language difficulties.

The procedures described in this editorial enable us at *JPCL* to disseminate the newest and most important advances in physical chemistry in a very rapid publication time. *The Journals of Physical Chemistry A, B, C,* and *Letters* are committed to publishing papers submitted by researchers worldwide with the same rigor and consistency by using our thorough and fair editorial processing procedures. Additionally, well-executed peer reviewing of manuscripts remains an integral part of recognizing and establishing the scientific merit of published work. A list of our top contributing countries over the last five years is presented in Table 2. As you will notice, the percentage contribution from different countries and their ranking has remained steady over the last five years. Additionally, comparison of papers published in *JPC A/B/C/Letters* with a few selected journals in the physical chemistry/chemical physics disciplines shows a parallel trend of published work among different countries (Figure 1). Please note that these countries are identified on the basis of the corresponding author's address in the Web of Science database.

In closing, we would like to thank our authors and reviewers for their valuable contributions to the success of the *JPCL*. We

Table 2. *JPC A/B/C/Letters* Papers[a] Published in 2009–2013 by Country of Origin[b,c]

countries	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
U.S.A.	36.9	32.8	32.4	33.5	31.4
Peoples Republic of China	13.9	15.8	16.6	17.5	18.6
Germany	9.3	8.5	8.9	8.3	7.9
Japan	8.4	8.4	7.5	7.5	8.6
France	7.1	6.8	6.6	7.1	6.1
India	5.4	5.8	5.5	5.3	5.2
Spain	4.8	5.0	4.9	4.6	4.5
Italy	4.6	4.8	4.9	4.5	5.3
England	4.3	4.3	3.7	4.4	4.0
Canada	3.6	3.5	3.8	3.3	3.6
South Korea	3.1	3.6	3.7	3.4	3.2

[a]Articles, Letters, and Reviews. [b]Countries are identified from the corresponding author's address. [c]Source of Data: Web of Science, 1/17/14; 1/23/14.

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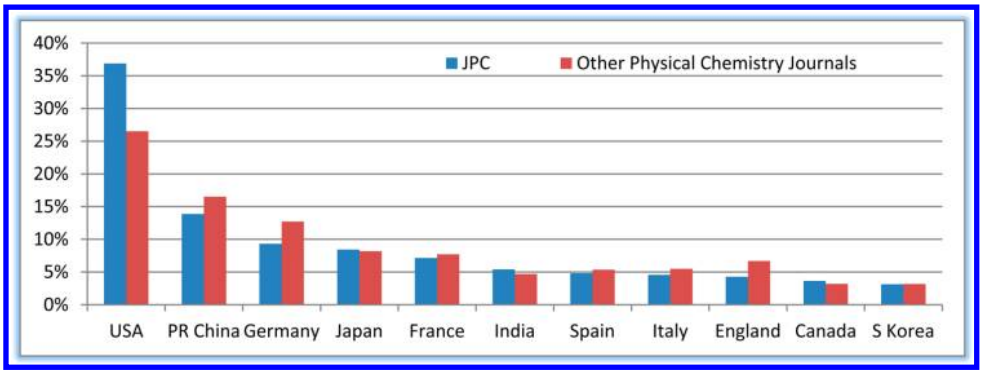

Figure 1. Comparison of papers (Articles, Letters, and Reviews) published in *JPC A/B/C/Lett* and a few selected journals (other physical chemistry related journals selected in this category include *Chem. Phys. Chem.*, *PCCP*, *Chem. Phys. Lett.*, and *J. Chem. Phys.*) in 2013 with respect to country of origin (countries are identified from the corresponding author's address). Source: Web of Science.

encourage all of our authors to follow the steps described herein to ensure an enjoyable and successful publishing experience at *JPCL*.

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AUTHOR INFORMATION

Notes

Views expressed in this Editorial are those of the authors and not necessarily the views of the ACS.