

You're getting excited about submitting an abstract to speak at the MRS Fall or Spring Meeting when you suddenly realize what this means: you have to write an abstract. The task may seem daunting at first- after all, how do you take years of research and mountains of data and distill it down into 4,000 characters of beautiful prose? No worries because we have a solution!

The key is devising a process that you can apply to write any abstract. In leveraging and using this process, not only are you achieving the immediate goal of constructing the abstract, this also affords you the opportunity to take your research and results and write other work products, such as papers, presentations, and grant proposals.

Here are 7 ideas to consider when writing an abstract for a conference presentation that will make the process easier, simpler, and totally realistic to accomplish.

1 Identify the goal:

With every work product, you always want to start with your objective. What is this abstract designed to do? The immediate mission is typically to get you somethingin the case of the MRS Fall and Spring Meeting, it is to ensure your work is selected so you can present an oral or poster presentation at the conference. But there is an additional set of goals of which you also want to be mindful of—the abstract communicates your research path and results to help you achieve a larger goal of crafting new collaborations, advancing scholarship, building partnerships, and growing your career. Write out your immediate, short-term, and long-term goals before you put pen to paper to ensure that the final abstract serves its purpose.

2 Clarify the audience:

Every abstract articulates your expertise to a potentially different audience so aim to illuminate who the intended readership is (and what motivates them, too). For a large conference like the MRS Fall Meeting, the audience, which includes the scientific program committee and the conference participants, is going to be diverse, with experts at all career stages and in all areas of materials science or engineering. Since you know the audience is pan-disciplinary and interdisciplinary, you will need to select the right verbiage and share examples, technology, and techniques that are known to this broad community. On the other hand, when you are submitting an abstract to a smaller, more focused meeting, the audience is going to speak the same language as you, so your abstract can be a bit more jargon-heavy.

3 Use the P-S-R method:

A very simple model for writing an abstract is to think in terms of P-S-R: Problem-Solution-Result. While you won't be able to give a lot of detail about all of these, you will be able to introduce what problem you have been endeavoring to solve, how you solved it or your approach to solving it, and the outcome of your solution. This method is useful because it serves as the architecture for so many work products you have to create, such as papers and presentations. It also is the basis of all the bullets on your CV, so get used to leveraging this framework to ensure clear, concise communications.

4 Get to the point quickly:

Since an abstract is very short, you have a very small window of time and space to entice the reader to want to read more and learn more about your contributions. Jump to the main argument or idea quickly. And related to this, limit your acronyms, especially those that may only be known by a handful of people in your sub-sub-field.

5 Give a Call to Action:

It can be subtle, but even simply stating "in our paper, we discuss..." is an effective way to encourage more engagement with you. While your abstract is a static piece of writing, it can create some dynamic movement on the part of the reader. By communicating what you want the reader to do next or with the information in your abstract, you engender the beginning of positive interaction. It creates a continuum of engagement in the reader's mind and encourages them to want to learn more.

6 Follow instructions:

It may seem silly but it is absolutely not trivial to concentrate on this critical point. For any written item such as an abstract, it is imperative to take the time to properly and carefully read and adhere to the instructions. When you don't do so, you risk frustrating the selection committee and even potentially disqualifying your abstract. Review the word and character length, check your spelling, grammar, and capitalization, and follow the submission guidelines to the letter. Don't let a seemingly small mistake of disregarding a detail prevent you from achieving your goals of presenting at the conference.

7 Consider it an invitation and a bridge:

An abstract is a communications work product that is designed to promote your research and results AND you as a researcher. It articulates your innovative approaches to materials science and showcases why you are someone of which others should take note. In the same way a trailer encourages people to want to watch a movie, your abstract should entice the readers to want to learn more about you and come to your talk and/or read your paper. Your abstract is inviting the reader to engage with you and in doing so, is building a bridge between you and them. With a well-written abstract, collaborations and career advancement are entirely possible!

Some of the concepts in this tip sheet draw from and have been featured in previous works by the author, including her speeches, articles, blogs, and book, Networking for Nerds.