



# ACS ON CAMPUS

[acsoncampus.acs.org](http://acsoncampus.acs.org)

## WRITE IT, SPEAK IT

### Effective Communications, the Path to Publication and How to Talk about Your Research

#### OVERVIEW

After attending “Write It, Speak It: Effective Communications,” attendees should better understand their personal communication styles as well as be equipped with strategies to become stronger verbal and non-verbal communicators.

#### KEY POINTS

##### Know Your Communication Style

- Determine if you are open or guarded, direct or indirect. To be successful, you need to first understand how you communicate.
- Know your audience and be able to communicate both technically and non-technically.

##### Types of Communication

- **Technical** — research article, poster, presentation, thesis, job interview
- **Non-technical** — news article, elevator pitch, infographic, press release, social media

##### Scientific Writing

- Understand what the reader needs and make your words accessible and accurate.
- Use your voice and have a clear take-away message.
- Focus on the big picture, give background information, and describe remaining challenges.
- Edit, edit, edit!

##### Tips for Being a Good Presenter

- Know your audience (experts, non-scientists, journalists or kids).
- Use clear, precise, jargon-free language.
- Use graphics only if they enhance the presentation.
- Focus on only three take-away messages.
- Adapt your message to meet the audience's needs.
- Remember that body language and vocal tone count for more than 90% of your message, so relax, focus on intentional and meaningful gestures, make eye contact, and dress for success.
- Practice, practice, practice!

##### Be Ready with a Short Summary

- Create a 1-2 minute pitch about your research, career goals, and interests.
- Make your message personal and engaging. Be memorable.
- End on a future note (i.e. “Eventually I would like to...”).

#### Additional Resources

ACS Reactions :::: Chemical & Engineering News — learn to write like an expert! :::: C&EN Speaking of Chemistry  
To access these resources and more, visit [acsoncampus.acs.org/resources](http://acsoncampus.acs.org/resources)



# ACS ON CAMPUS

acsoncampus.acs.org

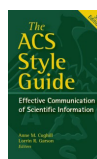
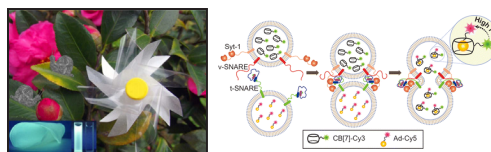
## 10 TIPS FOR PREPARING YOUR MANUSCRIPT

### OVERVIEW

After attending “10 Tips for Preparing Your Manuscript,” attendees should be armed with strategies for preparing a well-organized, carefully crafted manuscript. This includes making compelling graphical elements, selecting a strong title, and writing an impactful cover letter.

### KEY POINTS

- 1 Create a useful outline** — Organize data and ask questions like, “What do the results mean?”
- 2 Choose the journal with care** — Consider scope and target audience
- 3 Read and follow the author guidelines** — Understand what is expected of your submission
- 4 Tell a story** — Explain the importance of the research, provide context, analyze the data accurately
- 5 Draw graphics with care** — Graphics should enhance the text, not leave the reader confused
- 6 Attract readers with a strong title** — Create a simple, effective, evocative, and accurate title
- 7 TOC graphics count** — Capture readers’ attention, visually depict the essence of the research
- 8 Revise, edit, and rework** — A good paper goes through many, many drafts
- 9 Prepare the supporting information with care** — Review for missing or incorrect data, be consistent
- 10 Write a strong cover letter** — This is the first item an editor reads so be convincing!



### Additional Resources

Publishing your Research 101 :: Mastering the Art of Scientific Publication :: Supporting Information Preparation (an editorial in *Organic Letters*) :: To access these resources and more, visit [acsoncampus.acs.org/resources](http://acsoncampus.acs.org/resources)


[acsoncampus.acs.org](https://acsoncampus.acs.org)

# WHAT'S NEXT?

## Your Guide to Exploring Careers, Expanding Skills and Finding a Job

### OVERVIEW

After attending “What’s Next? Your Guide to Exploring Careers, Expanding Skills and Finding a Job,” attendees should have a better idea of their professional objectives and be able to articulate their strengths and value within the context of a job search and networking conversation.

### KEY POINTS

#### Determine Your Professional Objective.

Be specific about your career pathway but remain general about your preferred job type.

**Find your “sweet spot”** — the intersection among your values, strengths, and the opportunities available in the job market.

**Consider your personal values** — what you like to do and what rewards you personally, when approaching your job search. Do not think only about what you know and can do. Usually, there are 2-3 personal values that dominate and they can change over time.

**Consider your personal strengths when mapping out your career path.** Non-technical skills can be as important to success in a job as are technical skills.

**Plan your job search.** Utilize ACS resources such as C&EN Jobs, the ACS Career Fair, and ACS Personal Career Consultants.

**Build your professional network.** Start networking to make connections, to signal your availability and interest, and to learn about companies and job positions.

#### Networking Tips:

- Set the objective to meet at least two new people per event.
- Engage people in conversation about themselves.
- Print and exchange business cards.
- Ask for a follow-up contact.
- Follow-up within one week.

#### Networking Opportunities:

- ACS National Meetings
- ACS Local Section and Technical Division Meetings
- Events on your campus
- Online

#### Additional Resources

ACS Career Navigator™ :: ACS College to Career :: ACS Career Pathway Workshops :: ACS Webinars  
To access these resources and more, visit [acsoncampus.acs.org/resources](https://acsoncampus.acs.org/resources)


[acsoncampus.acs.org](http://acsoncampus.acs.org)

# SCIFINDER®

## Searching for Science

### OVERVIEW

After participating in the SciFinder® session, you'll have a deeper appreciation for the strength of this tool as a comprehensive research solution and its importance in the scientific learning process. Go hands on with SciFinder® to learn how to quickly focus on the most relevant results and develop search strategies to help in your career development.

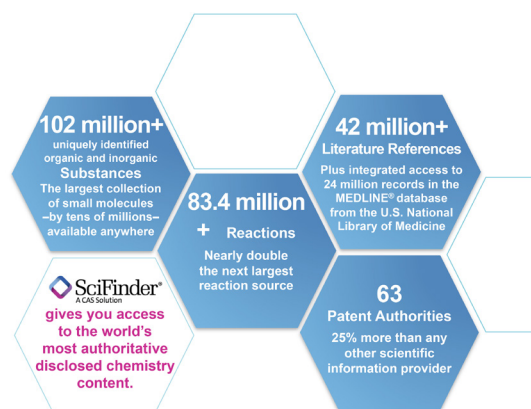
### KEY POINTS

**SciFinder® content is comprehensive, high quality and up to date, ensuring you don't miss vital information to advance your research.**

- Includes coverage of thousands of journals and 63 patent authorities
- Manually curated by hundreds of chemistry experts around the world
- Updated daily and/or weekly with new references, structures and reactions
- Used by all of the top chemistry programs and >90% of the top 500 schools worldwide

**SciFinder® is more than a chemistry textbook — it helps you see the big picture.**

- Gain insights from current and past research
- Expedite your workflow in the lab with methods and procedures, regulatory information and the ability to directly purchase the chemicals you need



- Bolster your grant writing with all the necessary tools for your preliminary and ongoing research

**Enhance your job search by connecting to the research community.**

- Find organizations publishing around your research interests
- Connect with peers in your field

### Additional Resources

SciFinder® Training Materials: [www.cas.org/training/scifinder](http://www.cas.org/training/scifinder) :: SciFinder® Content: [www.cas.org/content](http://www.cas.org/content)

Contact Us: [www.cas.org/contact-us](http://www.cas.org/contact-us) :: To access these resources and more, visit [acsoncampus.acs.org/resources](http://acsoncampus.acs.org/resources)



# ACS ON CAMPUS

[acsoncampus.acs.org](http://acsoncampus.acs.org)

# COPYRIGHT, OPEN ACCESS OPTIONS, AND PUBLICATION ETHICS

## OVERVIEW

After attending “Copyright, Open Access Options, and Publication Ethics,” attendees should have a basic understanding of copyright, ACS Open Access options, and common ethical violations.

## KEY POINTS

### Copyright

- An intellectual property law that protects all tangible original works that you create.
- Grants owners exclusive rights to reproduce works, create derivatives, sell or transfer works, or display works publicly.
- When you publish an article in an ACS journal, you transfer the copyright to the Publisher. Each Publisher is different, so make sure you understand what you are transferring.
- The ACS' Journal Publishing Agreement allows authors to use their articles for a range of scholarly purposes such as republishing a thesis you are required to submit for your degree.

### ACS' Pillars of Open Access

- **ACS AuthorChoice** — options for authors to buy articles into open access, with expanded offerings to meet the needs of funders and institutions
- **ACS Central Science** — ACS' first fully open access journal publishing the most compelling, important primary reports on research in chemistry and allied fields with no charge to readers or authors
- **ACS Omega** — a fully open access journal publishing across the breadth of chemistry and focusing on technical soundness. Authors or funders pay a charge and articles are open access for all readers
- **ACS Author Rewards** — a rewards stimulus program that distributed \$60,000,000 in open access vouchers to authors publishing in 2014 for use during 2015 – 2017
- **ACS Editors' Choice** — a program spanning the journals published by ACS. Editors make recommendations of articles with a broad impact and ACS sponsors one article into open access each day of the year

CONTINUED ON BACK

## Ethics and Scholarly Publishing

Most common ethical violations (that you should avoid!)

- **Self-plagiarism** — reusing your own content without proper attribution
- **Prior Publication** – publishing duplicate content in more than one location
- **Concurrent submissions** — submitting the same manuscript to multiple journals at the same time
- **Data Fabrication or Falsification** — deliberately or unintentionally changing data to fit the conclusions
- **Ghost or gift authorship** — adding authors who did not contribute, or leaving off authors who did

## Possible Consequences of Ethical Violations

- Rejection of the submitted manuscript or retraction of a published article
- Notification to institutions or agencies that funded the research
- Journal sanctions
- Public notoriety or damage to personal reputation

---

### Additional Resources

[ACS Ethical Guidelines to Publication of Chemical Research](#)

[ACS Open Access Options](#)

[Author & Reviewer Resource Center](#)

To access these resources and more, visit [acsocampus.acs.org/resources](https://acsocampus.acs.org/resources)



# ACS ON CAMPUS

[acsoncampus.acs.org](http://acsoncampus.acs.org)

## PEER-REVIEW

### Why, How-To, and What Not To Do

#### OVERVIEW

After attending “Peer-Review: Why, How-To, and What Not To Do,” attendees should be well versed in how the peer-review process is carried out at ACS Publications, what editors look for when reviewing submissions, qualifications needed to become a reviewer, strategies to evaluate a manuscript, and tips for responding to reviewer reports.

#### KEY POINTS

##### Definition

Peer-review is the evaluation of a manuscript by people with relevant expertise and is intended to determine a manuscript's relevance and suitability for publication in a journal.

##### To warrant peer-review, a manuscript should have:

- Appropriate scope (resonate with the journal's target audience)
- Technical validity (have well-designed experiments, high level data interpretation)
- High quality writing (be clear, concise, free of grammatical errors)

##### Reviewers should have:

- Broad knowledge
- Technical expertise
- Ability to provide an unbiased opinion

##### Handling editors:

- Invite reviewers suggested by the author and chosen from an independent pool to ensure a fair review process
- Carefully review each manuscript before and after external peer-review
- Analyze reviewer comments and make a decision about the manuscript

##### Upon receiving reviews, authors should:

- Carefully read the decision letter and comments
- Evaluate the relative importance of the comments
- Perform necessary experiments and include the results in the revised text
- Be timely if a revision or resubmission is requested

**CONTINUED ON BACK**

**Remember to:**

- Be professional in responses to the reviewer comments
- Respond to each comment noting if/what changes were made
- If a reviewer misunderstood the content, provide scientific support or rewrite text for clarity

**What to do if a manuscript is declined:**

- Step back for a few days to regain perspective
- Refocus on the science and examine the editors' and reviewers' comments again
- Use the comments constructively to improve the manuscript
- Submit to a new journal with an appropriate scope that reaches the target audience

**To become a peer-reviewer:**

- Publish high quality work in reputable journals
- Attend conferences and network to enhance your standing within the scientific community
- Let your interest be known to colleagues and advisors, who might suggest you as a reviewer
- Let your interest be known to the journal office if you hold an independent research position

---

**Additional Resources**

Publishing your Research 101, Episode 6: The Review Process

Mastering the Art of Scientific Publication

To access these resources and more, visit [acsoncampus.acs.org/resources](https://acsoncampus.acs.org/resources)