The Art of Scientific Publication
(How to make your next paper effective?)

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Disclaimer: The suggestions and remarks in this presentation are based on personal research experience. Research practices and approaches vary. Exercise your own judgment regarding the suitability of the content.
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Projected to be >19 next year based on current citation trend in Web of Science
We Editors Are Authors, Too

Balancing the role as an author, reviewer, and editor in scientific publishing.
Sharing Scientific Knowledge

“Science is a shared knowledge based on a common understanding of some aspect of the physical or social world”

(NAP, “On Being a Scientist” 1995)

Presentations
- Social conventions play an important role in establishing the reliability of scientific knowledge

Publications in peer reviewed journals
- Research results are privileged until they are published

Thesis
What is Scientific Publication?

The object of research is to extend human knowledge beyond what is already known.

But an individual’s knowledge enters the domain of science only after it is presented to others in such a fashion that they can independently judge its validity

(NAP, “On Being a Scientist” 1995)

In 2004

“A paper is an organized description of hypotheses, data and conclusions, intended to instruct the reader. If your research does not generate papers, it might just as well not have been done” (Whitesides, Adv. Mater., 2004, 16, 1375)

In 2019

“If your paper does not generate citations, it might just as well not have been done” (P. Kamat)
A HISTORIC PERSPECTIVE
Evolution of Media

• 1844 Samuel Morse installed a telegraph line between Baltimore and Washington, DC.
• 1876 Alexander Graham Bell patented the telephone.
• 1924 Hollerith’s Tabulating Machine Company becomes IBM.
• 1941 Konrad Zuse developed the first programmable calculator using binary numbers and Boolean logic.
• 1964 IBM released the IBM model 360 mainframe computer.
• 1965 Digital Equipment Corporation (DEC) introduced the PDP-8.
• 1969 Honeywell sold its model H316 “Kitchen Computer” at Nieman Marcus priced at $10 600 ($53 087 in 2003 dollars).
• 1969 U.S. Department of Defense initiated the ARPANet between military installations and universities.
• 1974 Vint Cerf and Bob Kahn proposed connecting networks together to form an “Internet”.
• 1977 Apple Computer Company introduced the Apple 1 computer.
• 1981 IBM introduced the IBM PC.
• 1992 Tim Berners-Lee spawned the World Wide Web - release of HTML
The Colour of the Sea.

The view has been expressed that “the much-admired dark blue of the deep sea has nothing to do with the colour of water, but is simply the blue of the sky seen by reflection” (Rayleigh’s Scientific Papers,” vol. 5, p. 540, and Nature, vol. 83, p. 48, 1910). Whether this is really true is shown to be questionable by a simple mode of observation used by the present writer, in which surface-reflection is eliminated, and the other factors remain the same. The method is to view the surface of the water through a Nicol’s prism, which may for convenience be mounted at one end of a tube so that it can be turned about.

By putting a slit at one end of the tube and a grating over the Nicol in front of the eye, the spectrum of the light from the water can be examined. It was found to exhibit a concentration of energy in the region of shorter wave-lengths far more marked than with the bluest sky-light.

C. V. Raman.
Raman Spectrograph

Raman’s Spectrograph

First Raman spectra
Electrochemical Photolysis of Water at a Semiconductor Electrode

Although the possibility of water photolysis has been investigated by many workers, a useful method has only now been developed. Because water is transparent to visible light it cannot be decomposed directly, but only by radiation with wavelengths shorter than 190 nm (ref. 1). For electrochemical decomposition of water, a potential difference of more than 1.23 V is necessary between one electrode, at which the anodic processes occur, and the other, where cathodic reactions take place. This potential difference is equivalent to the energy of radiation with a wavelength of approximately 1.0 nm. Therefore, if the energy of light is used effectively in an electrochemical system, it should be possible to decompose water with visible light. Here we describe a novel type of photo-electrochemical cell which decomposes water in this way.

Electrolysis of water can occur even without applying electric power if one of the following three conditions is fulfilled. First, oxygen evolution occurs at a potential more negative than that at which hydrogen evolution occurs in normal conditions; second, hydrogen evolution occurs at a potential more positive than that at which oxygen evolution occurs in normal conditions; third, the potential for oxygen evolution is made more negative and that for hydrogen evolution is made more positive, until the former is more negative than the latter.

Current–voltage curves of a semiconducting n-type TiO₂ electrode have been measured with a static potentiometer in the dark and under irradiation with light (Fig. 1). Anodic current which is proportional to the intensity of light begins to flow for wavelengths shorter than 415 nm, that is 3.0 eV, which corresponds to the band gap of TiO₂. The current reaches saturation at potentials positive relative to a saturated calomel electrode (SCE). These facts suggest that the anodic reaction is related to the formation of holes in the valence band by light excitation. Oxygen evolution was confirmed by means of analytical measurements. Oxygen evolution occurs at ~0.5 V (SCE) in an aqueous electrolyte of pH 4.7; this is more negative than the standard potential. We have termed such behaviour "photoredox catalysis oxidation" (ref. 2). When halogen ions were introduced in the electrolyte, they were also oxidized through the suggested mechanism of photoelectron catalytic oxidation. This also occurs with other types of n-type semiconductor such as ZnO and CdS (ref. 5).

We believe that the oxygen evolution reaction on the TiO₂ electrode under irradiation belongs to the first category described above.

We then constructed an electrochemical cell in which a TiO₂ electrode was connected with a platinum black electrode through an external lead (Fig. 2). When the surface of the TiO₂ electrode was irradiated, current flowed from the platinum electrode to the TiO₂ electrode through the external circuit. The direction of the current reveals that the oxidation reaction (oxygen evolution) occurs at the TiO₂ electrode and reduction (hydrogen evolution) at the platinum black electrode.

We suggest that water can be decomposed by visible light into oxygen and hydrogen, without the application of any external voltage, according to the following schemes:

\[ \text{TiO}_2 + \text{2H}_2\text{O} \rightarrow \text{2H}_2 + \text{O}_2 \]  \hspace{1cm} (1)

\[ \text{2H}_2 + \text{O}_2 \rightarrow \text{2H}_2\text{O} \]  \hspace{1cm} (2)

\[ \text{2e}^- + \text{2H}_2\text{O} \rightarrow \text{2OH}^- + \text{H}_2 \]  \hspace{1cm} (3)

The overall reaction is

\[ \text{H}_2\text{O} \rightarrow \text{1/2O}_2 + \text{2H}_\text{ads} \]  \hspace{1cm} (4)

The starting potential of the oxidation reaction at the TiO₂ electrode corresponds almost exactly to the faradaic potential which is constant in the electrolyte solution of a given pH. To increase the efficiency of the decomposition process, more reducible species, for example, chloride ions, must be added in the compartment of the platinum electrode.

When Cl⁻ ions were added, the current produced under irradiation increased. Currents of a few mA flowed when the TiO₂ electrode (surface area ~1 cm²) was irradiated by a 500 W xenon lamp; we estimate the quantum efficiency in this case to be approximately 0.1. The e.m.f. of the cell was measured to be up to 0.9 V.

It is possible that the hydrogen evolution reaction shifts towards more positive potential than normal when suitable p-type semiconductor electrodes are irradiated, in the same way that photoredox catalytic oxidation occurs with n-type semiconductor electrodes. If such a p-type semiconductor electrode is used instead of the platinum electrode, electrochemical photolysis of water may occur more effectively.

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Received September 13, 1971, final revision April 24, 1972.


BIOLICAL SCIENCES

One and Two-dimensional Structure of Alpha-Helix and Beta-Sheet Forms of Poly(γ-Alanine) shown by Specific Heat Measurements at Low Temperatures (1.5–20 K)

Homopolymer provides good model systems for various aspects of proteins. Recent advances in high polymer and solid state physics have enabled the vibrational aspects of the simpler homopolypeptides to be treated as normal—but complicated—polymers by the theoretical techniques of lattice dynamics based on the experimental methods of neutron, infrared and Raman spectroscopy. Basically, however, these latter methods examine the optical vibrational modes of a system, that is, those modes which are of energy higher than, for example, 70 cm⁻¹. The important lower-energy modes are...
With continuous change in the Publication Domain

Authors’ ability to make an effective presentation needs to be recognized
THE EVOLUTION OF ACADEMIA

Publish or Perish

Publish in high impact journals or Perish

Publish frequently in high impact journals and maybe you won’t Perish
Scientific Publication is a Team Effort

Authors

Reviewer

Journal

PEER REVIEW

ACS Journals: http://pubs.acs.org/about.html
What is publishable....

Journals like to publish papers that are going to be widely read and useful to the readers

- Papers that report "original and significant" findings that are likely to be of interest to a broad spectrum of its readers
- Papers that are well organized and well written, with clear statements regarding how the findings relate to and advance the understanding/development of the subject
- Papers that are concise and yet complete in their presentation of the findings

Note: OA Journals such as Scientific Reports, Frontier Journals, PLoS One ACS Omega and RSC Advances publish technically sound papers
Three sets of obligations of a researchers to adhere to professional standards.

1. An obligation to honor the trust that their colleagues place in them.

2. An obligation to themselves. Irresponsible conduct in research can make it impossible to achieve a goal.

3. An obligation to act in ways that serve the public.

On Being Scientist
http://www.nap.edu/catalog/12192.html
Available free for one download
When am I Ready to Write a Manuscript?

Ask yourself,

- Do my data “tell a story” or are they merely pieces of information?
- Do the results I achieved move the state of knowledge for the field forward?
- Is the information I have collected relevant to others?
When you start writing a manuscript

It feels like ..............
The 1-hour workday

Jeffrey J. McDonnell
+ See all authors and affiliations

Science  12 Aug 2016:
Vol. 353, Issue 6300, pp. 718
DOI: 10.1126/science.353.6300.718

“I wake up early, make an espresso, and write until I’m spent.”

“I noticed a few senior colleagues who published with impressive regularity and always had a paper in the works. When I asked them what their secret was, I found that they prioritized doing small amounts of focused writing every day. I've since developed my own version of this approach. I call it the 1-hour workday,

• your supervisor
• Other labmates or colleagues
• A knowledgeable scientist who is not familiar with the details of your work
Let us begin

• Getting ready with data
• Structure of a scientific paper
• Recognizing the scope of the journal
• Submission
• Revision and galley proof

2013, 4, 1578−1581

How to Make Your Next Paper Scientifically Effective
Getting ready with the data and drawing an outline

Gather all important data, analyses, plots and tables. **Identify two or three important findings** emerging from the experiments. Make them the central theme of the article.

Organize results so that they follow a logical sequence (this may or may not be in the order of experiments conducted)

Consolidate data plots and create figures for the manuscript 
*Limit the number of total figures (6-8 is usually a good number). Include additional data, multimedia in the Supporting Information.*

Discuss the outline with your advisor and note down important points

http://www.editage.com/insights/how-to-create-an-outline-for-your-research-paper
Important: **Know** the focus of your paper

It takes a wise man to know whether he has **FOUND A ROPE** or **LOST A MULE**.

- Anonymous quote
Title
Compose a title that is simple, attractive and accurately reflects the investigation

-Phrases to avoid: Investigation, Study, Novel, Facile, Highly Efficient etc.
- Avoid Acronyms that are known only to specialized community

Study of SERS Chemical Enhancement Factors Using Buffer Layer Assisted Growth of Metal Nanoparticles on Self-Assembled Monolayers
Masato M. Maitani†, Douglas A. A. Ohlberg§, Zhiyong Li§, David L. Allara†, Duncan R. Stewart§ and R. Stanley Williams§
Publication Date (Web): April 16, 2009 (Communication)
DOI: 10.1021/ja809347y

Which of these two titles make you read the paper?

“Signal-On” Detection of DNA Hole Transfer at the Single Molecule Level
Tadao Takada, Yuichiro Takeda, Mamoru Fujitsuka and Tetsuro Majima* 
Publication Date (Web): April 23, 2009 (Communication)
DOI: 10.1021/ja9009919

http://www.editage.com/insights/5-tips-to-help-you-create-a-research-paper-title
You be the judge ……

In-situ development of elastic solid electrolyte interphase via nano-regulation and self-polymerization of sodium itaconic on graphite surface

Stability in Perovskite Photovoltaics: A Paradigm for Newfangled Technologies

Oxidative R$^1$–H/R$^2$–H Cross-Coupling with Hydrogen Evolution

Tipping the Balance between S-$\pi$ and O-$\pi$ Interactions

Proteomic Identification of Protein Tyrosine Phosphatase and Substrate Interactions in Living Mammalian Cells by Genetic Encoding of Irreversible Enzyme Inhibitors

Laser Photolysis Kinetic Study of OH Radical Reactions with Methyl tert-Butyl Ether and Trimethyl Orthoformate under Conditions Relevant to Low Temperature Combustion: Measurements of Rate Coefficients and OH Recycling
A comprehensive and general kinetic model is developed for the oxygen reduction reaction in aprotic Li–O₂ cells. The model is based on the competitive uptake of lithium superoxide by the surface and solution. A demonstrative kinetic study is provided to demystify the origin of curvature in Tafel plots as well as the current dependency and aberrant diversity of the nature and morphology of discharge products in these systems. Our results are general and extend to any system where solubilization of superoxide is favored, such as where phase-transfer catalysts play an important role.
“…you don’t say a word, yet the world understands you”

When Albert met Charlie:

Einstein: What I most admire about your art, is your universality. You don’t say a word, yet the world understands you!

Chaplin: True. But your glory is even greater! The whole world admires you, even though they don’t understand a word of what you say.
Avoid Clutter, Too much Information …..
Main Body of the Scientific Paper

Introduction
• Start the section with a general background of the topic.
• Add 2-3 paragraphs that discuss previous work.
• Point out issues that are being addressed in the present work.

Experimental Section
• Divide this section into Materials & Methods, Characterization, Measurements and Data analysis

Results and Discussion
• Describe the results in detail and include a healthy, detailed discussion
• The order of figures should follow the discussion themes
• Discuss how your data compare or contrast with previous results.
• Include schemes, photographs to enhance the scope of discussion

Avoid
• Excessive presentation of data/results without any discussion
• Citing every argument with a published work
Prof. Mahler's study, published in science journal Food & Function, is the first of its kind and looked at cans of tuna, chicken, asparagus, and sweetcorn. The team specifically chose foodstuffs typically low in zinc so as to better determine how much of the mineral was being added. Tuna was by far the worst affected. Researchers say tuna touching the side of the can contained more than 5,000 ppm, with the centre of the tuna steak also high.

However, we calculated this meal should have contained 2.1mg of zinc, not 996mg. The recommended daily allowance is about 9.5mg a day for men and 7mg for women, so this would be within the limit. 

Paper was soon Retracted

Conclusions
Include major findings followed by brief discussion on future perspectives and/or application of present work to other disciplines.

Important: Do not rewrite the abstract.
Statements with phrases, “investigated”, “demonstrated”, “carried out” or “studied” are not conclusions!

Acknowledgments
Remember to thank the funding agency and Colleagues/scientists/technicians who might have provided assistance

References
The styles vary for different journals. (Use ENDNOTE, RefWorks)
Some journals require complete titles of the cited references
Please check for the accuracy of all citations

Supporting Information
Include methods, analysis, blank experiments, additional data
Importance of Figures

• A careful and scientifically accurate representation of the data gives the impression that the data were obtained in a careful and accurate manner.

• Editors, reviewers, and readers are human and may logically equate sloppy figures with sloppy data/experiments/theory.

• The citations reflect the scope of the study and help the other researchers that is being considered for submission is appropriate.

• They are Important in projecting the importance of the work.

Graphical Excellence
Figure:
Two important aspects to keep in mind:
(1) accuracy of data presentation and
(2) aesthetics of the figure.

According to Tufte, a figure or graphic is a well-designed presentation of interesting data that consists of complex ideas communicated with clarity (no ambiguity or confusion), precision (truthful results with no distortions), and efficiency (minimal “chart junk”)


Figure Captions.
The description of the figure is intended to explain the data and analysis so that the reader can fully appreciate the scientific value of the results. Proper identification of the data sets and analysis is an integral part of the caption.
Citations

- Cited references add to the overall impact of the scientific research

- Know the scope of the previous publications

- Get the citation right (Check for accuracy)
...Pieter found that in the Web of Science there were nearly 400 articles citing this non-existing reference and many more citing articles appeared in the more comprehensive Google Scholar.

Get the citation right.
Make sure that each citation is complete with all parts of the citation included (author names, journal name, pagination, etc.). Check the citation for accuracy by comparing it to the original published work.


Puzzled, Harzing set out to understand how so many authors could cite this paper.

Harzing found that nearly 90% of the citations were for conference proceedings papers, and nearly two-thirds of these appeared in Procedia conference volumes, which are published by Elsevier.
How do I Choose the Best Journal for my Manuscript Submission?

• **Understand in which field and subfield** your findings will have the greatest impact:
  
  • Will the results be relevant to a variety of chemical disciplines?
    
    • (So *Science or Nature*?)
  
  • Will the results impact primarily a specialized subfield?
    
    • (So *Journal of Physical Chemistry* or *ACS Nano*?)

Identify who you want to reach:

Match the **desired audience** for your findings with the readership of a journal
How Can I Write an Effective Cover Letter?

The cover letter should contain:

• Title and type of manuscript
• Statement that you are transmitting on behalf of all Authors (unless you are sole Author)

Do not repeat the statements from the abstract

The primary objective of a cover letter is to inform the Editor of your major findings and to highlight the relevance of the manuscript for the journal’s readership.
Reviewer Suggestions

Identify peers who can best judge your paper
Younger researchers who have an established research track record make the best pool of reviewers

Names to avoid
- Nobel laureates and senior researchers with various obligations
- Former colleagues, collaborators
- Friends from the same country of origin
- Reviewers with no expertise in the area

Editors go through these names and they may pick one or two names based on the reviewer credentials and review load. If the reviewer is unavailable they can use this suggested name to identify other reviewers in the field.

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Dear Sir

I found that my name is on the Acknowledgement. Is it OK in terms of conflict of interest. If it is the case, I have to resign from referee. Would you please let me know your decision on this?

Best wishes,
Quick checklist before Submission of a paper

- Is the Title appealing to broader readership?
- Have significant findings been identified in the abstract?
- Does introduction provide motivation for the study?
- Are the figures and schemes scientifically correct and aesthetically attractive?
- Do the discussion of results and cited references fall within the scope of the journal?
- Have proper acknowledgements been made?
- Have all coauthors seen and commented on the final draft of the manuscript?
Review Process

Paper is first examined in the editorial office for suitability, scope and content.

Papers that do not meet submission criteria, poorly composed papers are returned after editorial review.

Editors assign reviewers to seek feedback on the scientific quality and scope.

Editorial decision is made based on reviewers' comments + editor’s own examination of manuscript.

Most scientists regarded the new streamlined peer-review process as ‘quite an improvement.’
**Common Mistakes to Avoid When Responding to Reviewer Comments**

You Might Say:

The reviewer is not an expert in my field.

**The Editor’s Response:**

The reviewer is likely someone you suggested.

You Might Say:

The reviewer misunderstood the point of the manuscript (or a specific result).

**The Editor’s Response:**

If the reviewer did not understand the results or significance, you need to clarify the text or figures to present the work more clearly.
Common Mistakes to Avoid When Responding to Reviewer Comments

You Might Say:
The reviewer is wrong and does not deserve a response.

The Editor’s Response:
This response does not explain how or why the reviewer is wrong. Even a comment with which you do not agree needs to be backed up by science.

You Might Say:
Similar papers have been published in this journal recently – why is my manuscript being picked apart?

The Editor’s Response:
If your manuscript is similar to other recent work, it likely lacks novelty and may not meet the journal’s standards.
Revision and galley proof

• The manuscript is usually reviewed by 2-3 reviewers
• Reviewers point out deficiencies and/or suggestions to improve the scientific content
• Read their comments carefully. (If reviewer misunderstands a point, the point probably needs revision or additional support.)
  - Do not blame the reviewer for his/her misunderstanding!
• Be polite and respectful when disagreeing a reviewer’s comment
• Include a point-by-point explanation of changes made in the text in response to reviewers’ comments
  - Carefully read the paper for its accuracy in presenting
  - Once again, carefully read the paper for its accuracy in presenting
  - Once accepted for publication you should receive the galley proof
  - This is one last chance to make any final corrections.
Well, most of the time the decisions are different ......
Perovskite solar cells become even more promising materials

Over 500 citations in three years
3rd Most Cited JACS Paper in 2014

Published later in JACS
August 5, 1988

Dr. Prashant V. Kamat  
Radiation Laboratory  
University of Notre Dame  
Notre Dame, IN 46556

Ms. No.: JA882005L-50-1-100  
Authors: Kamat*, ..., Dimitrijevic  
Title: "Primary Photochemical Events in CdS..."

Dear Prashant:

I received the paper you submitted to JACS and upon reading it, I think it would be more suitable for a specialized journal, such as J. Phys. Chem.  
The field of photoprocesses at semiconductors is now developed pretty extensively, and we've been sending most of our material, in this area, to J. Phys. Chem. or specialized journals; thus, we have sent your paper and a copy of your cover letter to Mostafa El-Sayed at J. Phys. Chem. You should receive an acknowledgement from them upon receipt of this package.

Sincerely,
Uptake and outcome of manuscripts in Nature journals by review model and author characteristics

Barbara McGillivray¹,² and Elisa De Ranieri³

Results

Author uptake for double-blind submissions was 12% (12,631 out of 106,373). We found a small but significant association between journal tier and review type (p value < 0.001, Cramer’s $V = 0.054$, df = 2). We had gender information for 50,533 corresponding authors and found no statistically significant difference in the distribution of peer review model between males and females (p value = 0.6179). We had 58,920 records with normalised institutions and a THE rank, and we found that corresponding authors from the less prestigious institutions are more likely to choose double-blind review (p value < 0.001, df = 2, Cramer’s $V = 0.106$). In the ten countries with the highest number of submissions, we found a large significant association between country and review type (p value < 0.001, df = 10, Cramer’s $V = 0.189$). The outcome both at first decision and post review is significantly more negative (i.e. a higher likelihood for rejection) for double-blind than single-blind papers (p value < 0.001, df = 1, Cramer’s $V = 0.112$ for first decision; p value < 0.001; df = 1, Cramer’s $V = 0.082$ for post-review decision).

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6097313/
What to do if a paper gets rejected……

Do not get discouraged. Read the editorial comments and discuss with advisor/students/collaborators. Find out how you can make this study stronger and acceptable for publication.

Do not just turn around and submit the paper to another journal. Read carefully the comments and find ways to improve the scientific quality of the papers.

Carry out additional experiments and improve the quality of scientific discussions. (Journals often look for papers with quantitative and mechanistic information that represent new physical insights.)

Rejected papers can be resubmitted if and only the concerns of the reviewers are adequately addressed and new results are included.

If you have questions, please feel free to contact the editorial office.

https://www.youtube.com/watch?v=-VRBWLpYCPY
What to Avoid?

• Data without scientific discussion, applications of data, or literature review.

• Routine synthesis and characterization of nanomaterials or studies that report incremental advance are not considered suitable for publication.

• Use of the phrase “Novel” or “First-time” in the title or abstract. Such descriptions do not impress the reader or the reviewer.
(Other over used phrases “One-pot synthesis”, “Facile”)

• Names of flowers, fruits and vegetables to describe the nanoparticle/nanostructure shapes/morphology
It is important to realize that a well-composed manuscript with a compelling scientific story that can appeal to the journal’s readership sees a higher rate of success.
Reaching Out Through Multimedia and Social Media

..... It is the impact of your research and not the journal impact factor that is important.
Your (real) Impact Factor

Impact Factor (corrected) =

# times your work is cited - # citations that actually trash your work - # times you cited yourself (nice try) - # times you were cited just to pad the introduction section - # citations the editor pressured the author to include to increase the journal's impact factor

# original articles you've written + # articles you were included in out of pity or politics + # not-so-original articles you've written copied and pasted

Jorge Cham © 2008
WWW.PHDCOMICS.COM
The Impact of Your Paper

Good Papers help to maintain Higher JIF

Journal Impact Factor

Higher Journal Impact Factor attracts good papers
Few Tips to Become a Successful Scientist

COURAGE: - Once you get your courage up and believe that you can do important problems, then you can. If you think you can't, almost surely you are not going to.
   - Look for the positive side of things instead of the negative

PASSION: When an opportunity opens up, great scientists get after it and pursue the problem with all their might. They drop all other things.

DRIVE and COMMITMENT: - You observe that great scientists have tremendous drive. According to Edison, "Genius is 99% perspiration and 1% inspiration."

DISCIPLINE: - Follow dress code and work hours,
   - Be respectful and helpful,
   - You should follow and cooperate rather than struggle against the system

PLANTING SEEDS: You can't always know exactly where to be, but you can keep active in places where something might happen. Most great scientists know many important problems and they look for the right moment for an attack.

EFFECTIVE COMMUNICATION: There are three things you have to do in selling. You have to learn to write clearly and well so that people will read it, you must learn to give reasonably formal talks, and you also must learn to give informal talks.

AGE: Age is another factor which one has to worry about. You have got to do it when you are young or you will never do it. (Note: YOUNG is a relative term)
“It's not the honors and the prizes and the fancy outsides of life which ultimately nourish our souls.

It's the knowing that we can be trusted, that we never have to fear the truth, that the bedrock of our very being is good stuff.”

- Fred Rogers

Commencement Address at Middlebury College May, 2001
FOR CHRISTMAS
I WANT A DRAGON!

BE REALISTIC

OK I WANT my paper to be accepted without revisions.

WHAT COLOR DO YOU WANT YOUR DRAGON

RED
Be creative and effective in communicating your research.

It is important to remember your responsibility in advancing scientific research.

Scientific Ethics is an integral part of research.

STATEMENTS, FIGURES AND TABLES
Reproduced in a Report, Presentation and/or Paper require proper citation.

Published work is protected by Copyright Law. Copyright permission is necessary if you are reproducing your work in another publication (This applies even if it is your own work).

Summary

WROTE A SCIENTIFIC PAPER

GOT ACCEPTED AFTER ONLY 4 TRIES

1 TRY
Do not ever give up!

See http://www.nd.edu/~pkamat/researchtips.html
For more research tips

See http://www.nd.edu/~pkamat/researchtips.html