

Publication Process

Why do we publish?

- To advance knowledge in our research field with evidence
- To share research findings & discoveries
- To get external useful feedback from peers
- Get international recognition
- Build international research network connections

What to write / publish?

1. Book chapter
2. Research manuscript
3. Review crticle
4. Short eommunication
5. Manuscript for conference

- Scientific journal is a periodical publication intended to further the progress of science, usually by reporting **new research**.
- Scientific journals contain articles that have been **peer reviewed**, in an attempt to ensure that articles meet the journal's standards of quality, and scientific validity.

Type of Manuscript

- Full article
 - The most common type of paper
 - Usually 5-15 pages
 - Is complete description of current original research findings.
- Letter/Rapid Communication/Short Communication
 - Short descriptions of important current research findings which are usually fast-tracked for immediate publication because they are considered urgent.
- Review Paper
 - Do not cover original research
 - Review recent progress in a particular topic
 - To help readers make sense of all available information
- Letters to the editor
 - Is a letter sent to a publication about issues of concern to its readers.

Academic Journal Publishers



ELSEVIER

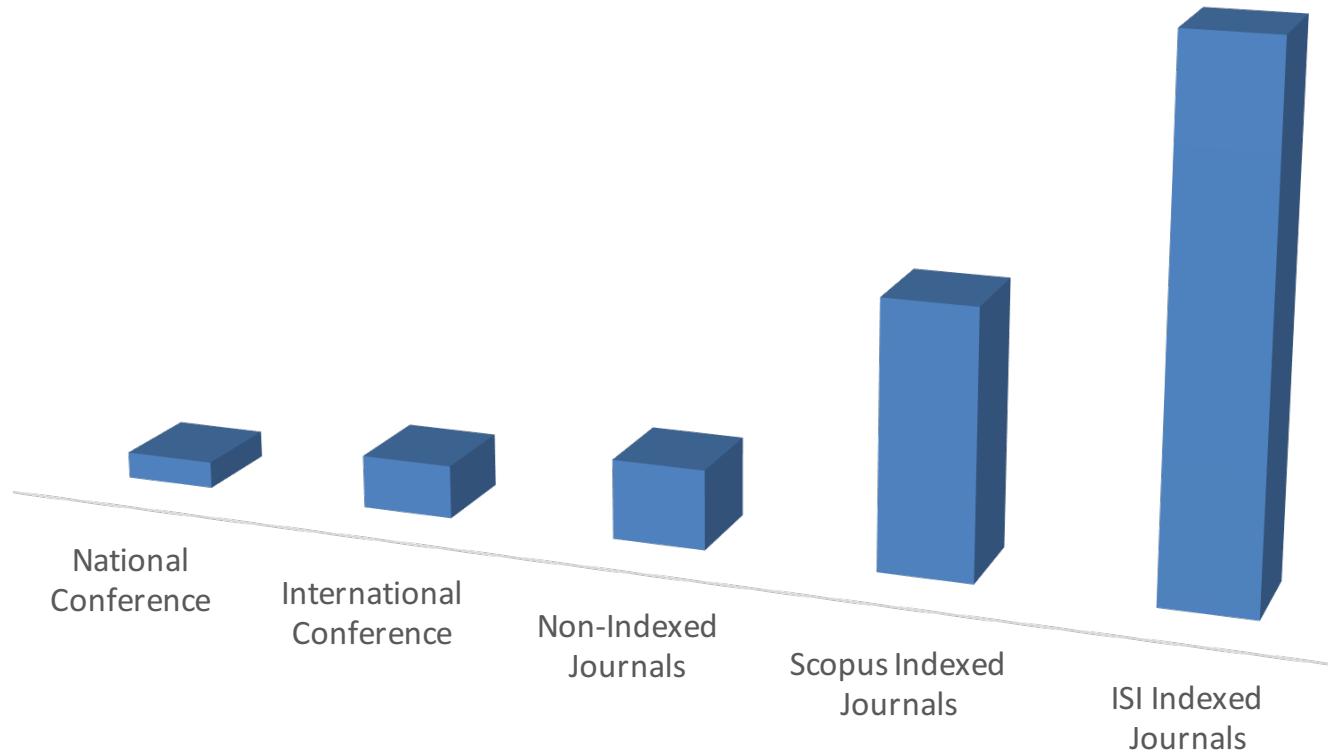


Academic Databases & Search Engines

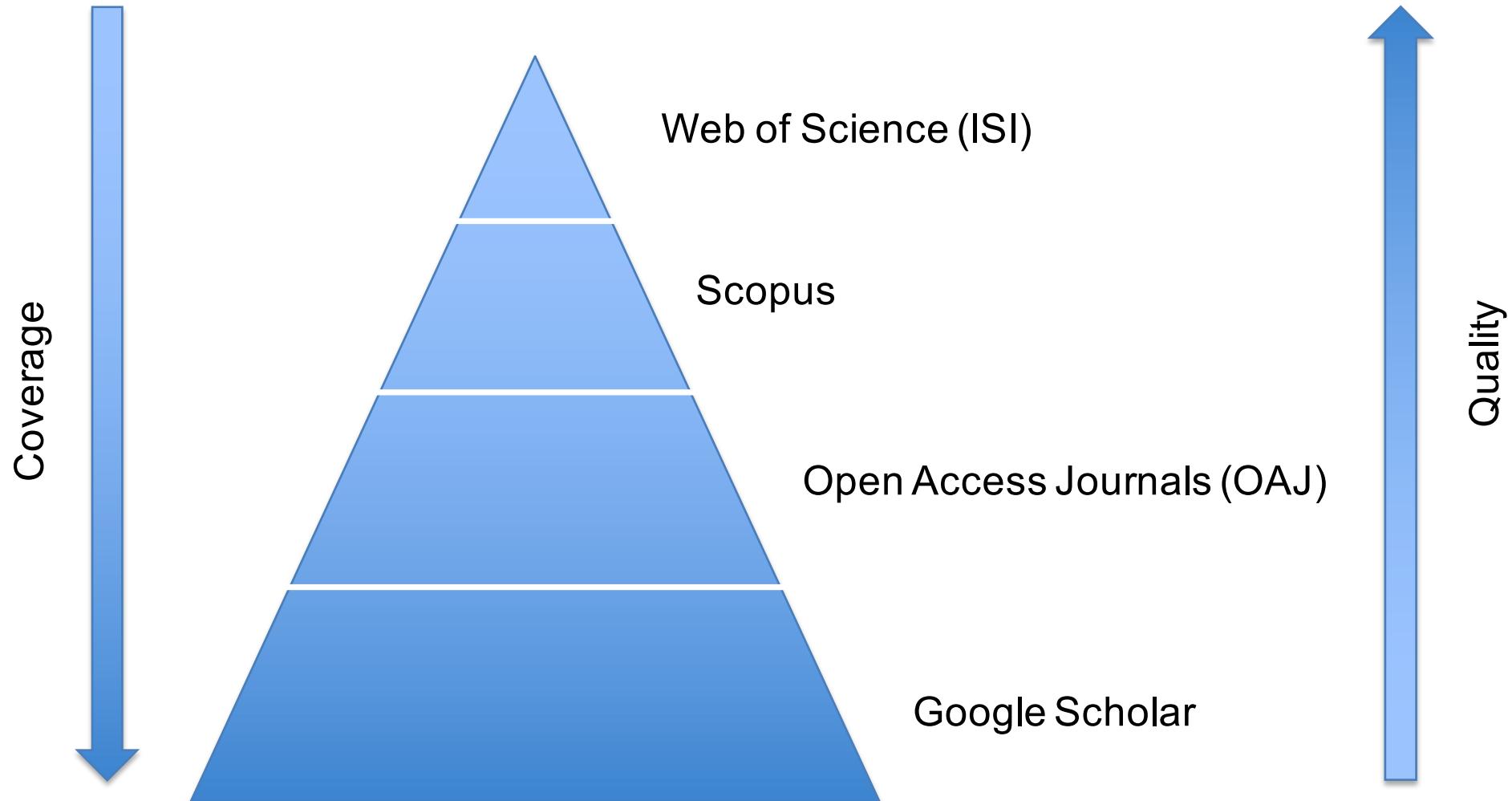
Name	Discipline	Access	Provider
	Multidisciplinary	Free	Google
	Medicine	Free	National Institutes of Health & the U.S. National Library of Medicine
	Multidisciplinary	Subscription	Elsevier
	Multidisciplinary	Subscription	Elsevier
	Multidisciplinary	Free abstract & preview, Subscription full-text	Springer
	Multidisciplinary	Subscription	Thomson Reuters

Where to publish

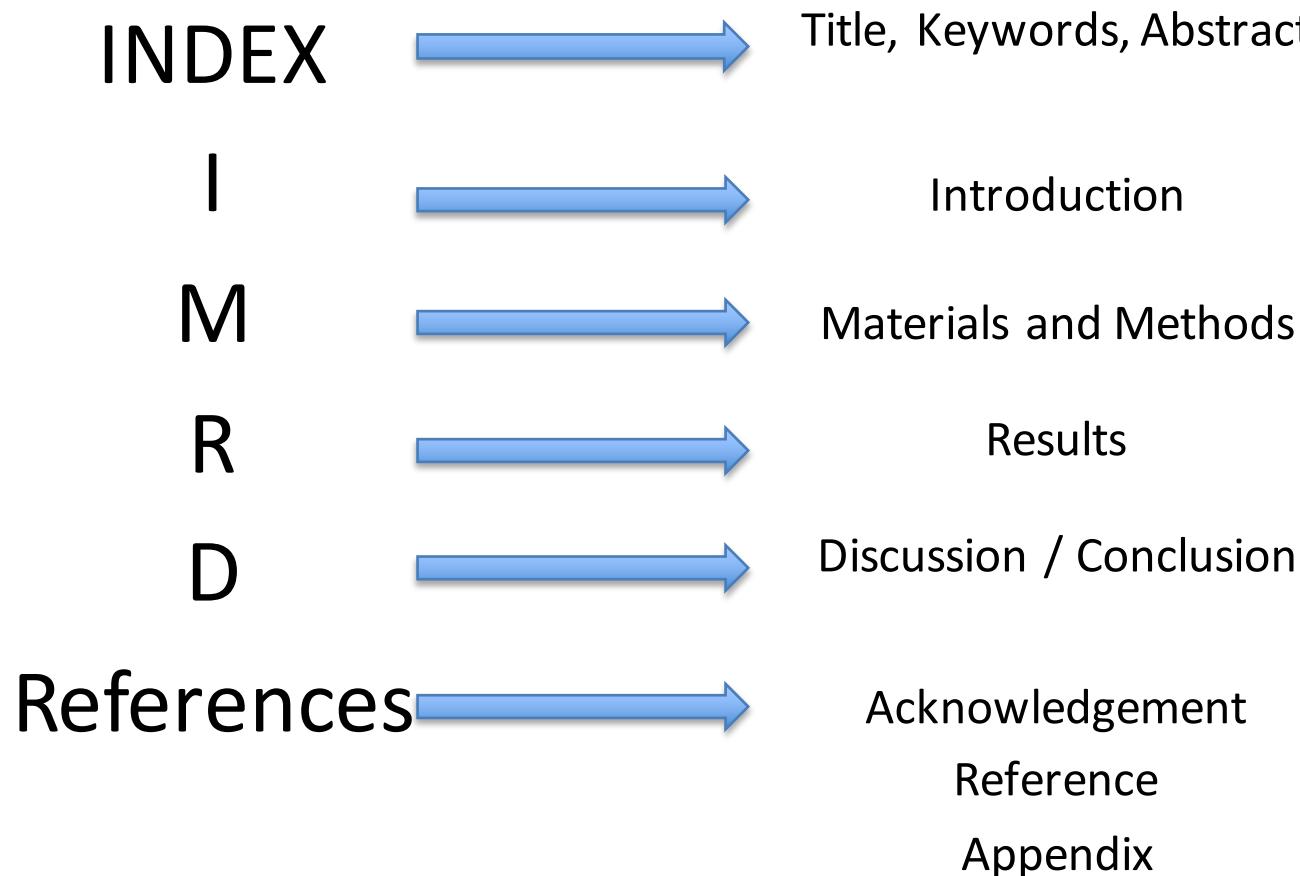
- Level of difficulty
- Quality



Coverage vs. Quality



Structure of Research manuscript



How to prepare the title

- The title allows readers to establish the nature of the study & decide if they wish to read it.
- Capture attention!
- Avoid “question” titles.
- Many journals have a limited number of characters allowed in a title
- Brief, not more than 13 words
- Be specific!

How to prepare the title

- Include ***keywords*** in the title as indexing and abstracting services often use only the title to extract keywords for computer searching.
- Captures the topic of the paper and possibly its findings
- Avoid the term “novel”.

Avoid!

- “A comprehensive experimental investigation of
- “Research on
- “Studies on
- “Investigations on
- “A study of

Choose keywords and terms wisely

- Keywords and terms in a title are very important because they are the same terms that indexing services (e.g. PubMed) and search engines (e.g. Google) key on.
- Examples:
 - Gas Chromatography
 - Gas Chromatograph
 - GC

Avoid Abbreviations

- Abbreviations confuse readers if they are not experts in the subject of your manuscript
- Example:
 - DOE: Department of Environment
 - DOE: Department of Energy
 - DOE: Design of Experiment

Search Engines

- Search engines like BioMedLib, Scopus, Scirus, Thomson Scientific or Google sort the results by their relevance & importance to the submitted query.



- Who to consider?
 - Consider following:
 - Who did the work
 - Where they did it
 - Where they are now
 - Their relative involvement
 - (*) To whom correspondence should be addressed

- Who should you include?
 - Should only include those who made substantive intellectual contribution to the project reported & can defend the data & conclusions publicly.

Co-authors

- Who should you include?
 - Anyone who has had significant academic and practical input into the work
 - Student / Researcher
 - Supervisor(s)
 - Collaborators
 - All by agreement

Authorship & Affiliations

- Degrees (PhD) & titles (Prof) not required
- Give the institutional address for each author following the journal style
- If the author has moved away from where the research was carried out, give their present address
- Include the corresponding address of the corresponding author (e-mail, phone, postal address)

Authorship Order

- Most journals assume an order based on each author's importance to the study
- The first author is primarily responsible for collecting and analysing data & writing
- The last one, an established investigator assumes the overall responsibility for the study
- The middle authors are listed according to their order of importance to the study

Who is the first author?

- The first author usually makes
 - The greatest contribution to the design of the project, interpretation of the data & writing the manuscript
 - The first author also assumes more credit & more responsibility than other authors & makes final authorship decisions, specifically the inclusion and ordering of other authors on the paper.

Corresponding Author (CA)

- The person who submit the manuscripts, communicate with the journal editor & receives the reviewers' comments, the proofs, etc.
- CA contact details are printed on the article so that readers can request reprints or ask about the research.

Abstract

- The abstract is a short version of your paper
- Stands on its own without need to read the manuscript
- Follows the order of the main text (IMRD)
- Contains the same keywords and terms as the title & the introduction
- Follows the correct style & format
- Stays within the allowed word count (150 words)

Abstract

- Does not contain information absent in the manuscript
- Limits the use of abbreviations
- Does not include references
- Does not cite Tables or Figures
- Should be a single paragraph
- Write it after completing the main text

Abstract

- FIRST SENTENCE – The most important!
- Must be well written & informative
- Capture the reader's interest!

How to write abstract?

Graphical Abstract

- An eye-catching, clearly presented picture that convey the important result
- Attract reader's attention
- Allow readers to quickly gain an understanding of the main take-home message of the manuscript

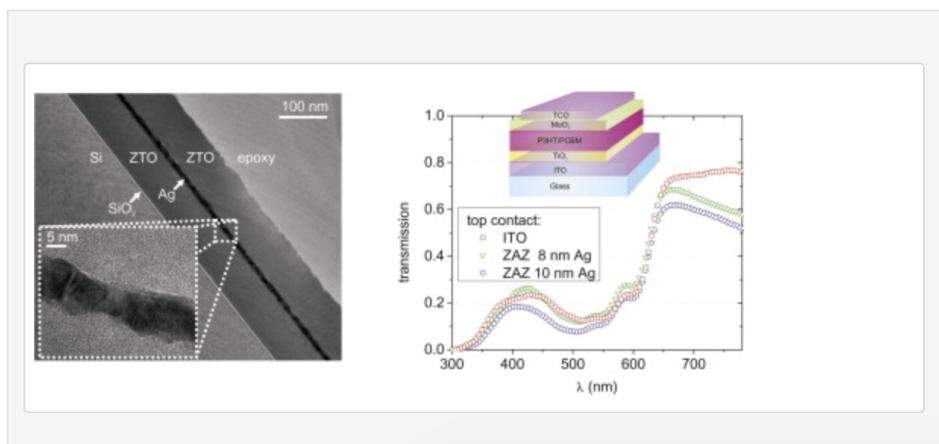
Graphical Abstract

- Example:

Abstract

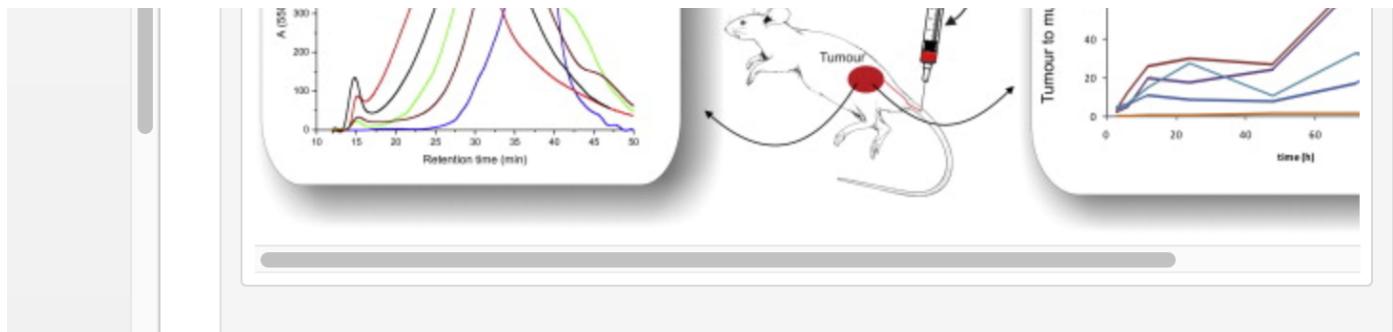
We present transparent multilayer electrodes prepared by RF sputtering of zinc tin oxide (ZTO) and thermal evaporation of silver (Ag) as top contact for organic electronics. Specifically we study the electrical, optical and structural properties of the ZTO/Ag/ZTO (ZAZ) electrode. In the first step, we analyze the origin of high conductivity and high transparency by studying structural, electrical and optical properties of ultra thin Ag films. Secondly, we demonstrate that continuous and highly conductive Ag films can be deposited down to a thickness of 6 nm on top of ZTO. Furthermore we show, that owing to the stabilizing effect of the sputtered ZTO cap, ZAZ is substantially more robust than ZTO/Ag (ZA). As a first result we achieve a low sheet resistance of $5 \Omega/\text{sq}$ and a transmissivity of 82% in the visible region of light. These values are compared to common transparent and semitransparent electrode materials deposited at room temperature like indium tin oxide (ITO). As an application we realized an optimized ZAZ structure as highly conductive and transparent top contact for large area semitransparent bulk hetero junction (BHJ) polymer solar cells (OSC) with an inverted device architecture. To expose the outstanding properties of the novel multilayer electrode we compare semitransparent OSCs using common ITO and ZAZ as top electrode cells with a large cell area $>2 \text{ cm}^2$.

Graphical abstract



Keywords

- Mainly used for indexing
- Words that a search engine could pick up
- Example:



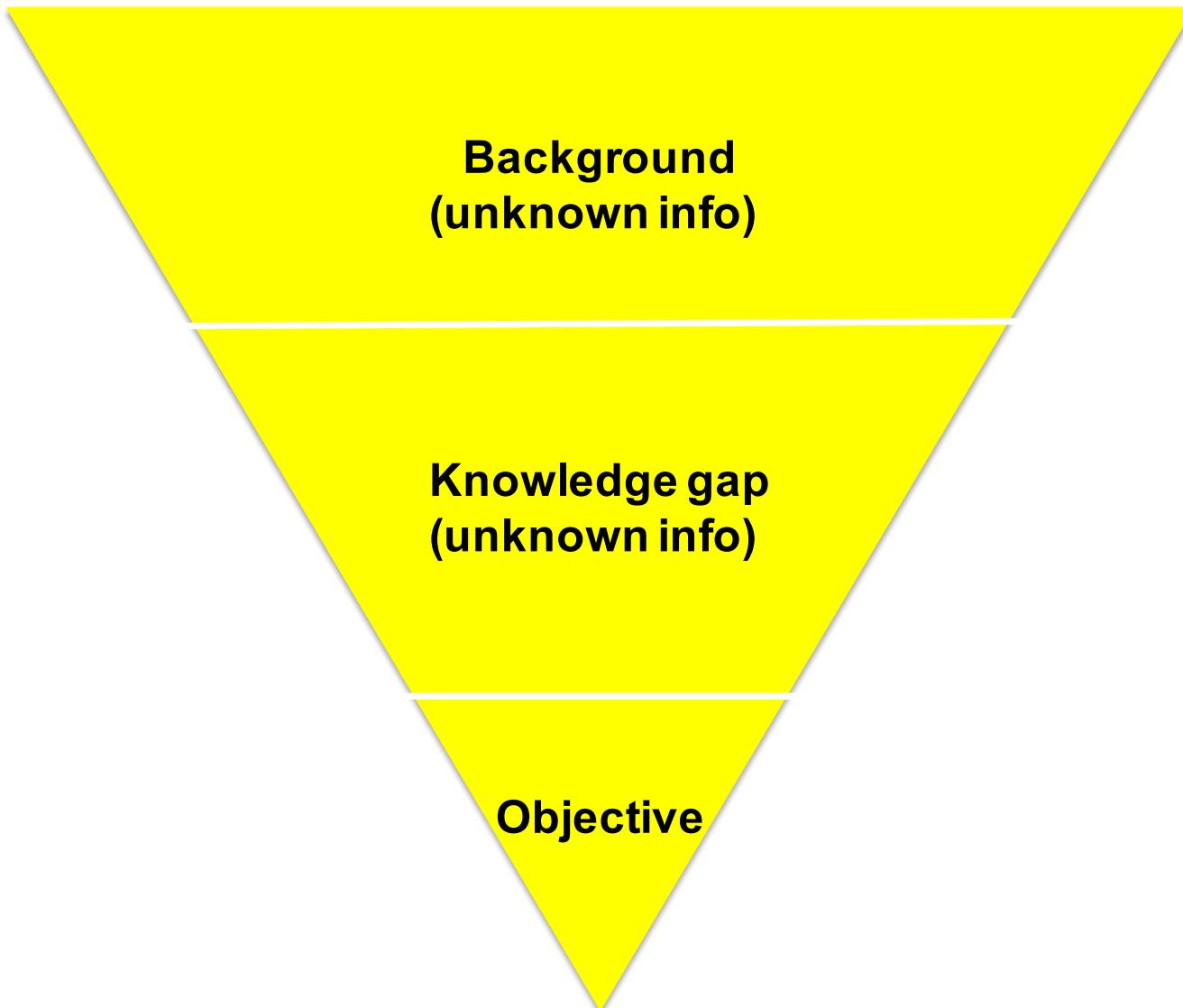
Keywords

Star polymer; HPMA copolymers; Drug release; Polymer degradation; Tumor targeting

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Introduction



Introduction

- Include only important references
- Define specialised terms on first mention
- Clearly state the study objective in the last paragraph

Introduction

- Things to avoid:
 - Lengthy introduction
 - Make any promises in your introduction that cannot be kept based on your data
 - Mixing the introduction with results, discussion & conclusion sections
 - Expressions such as “novel”, “first time”, “first ever”, “never reported”
 - Citing outdated references
 - Citing many references for one author

Materials & Methods

- The Materials & Methods section has two purposes:
 - To allow readers to repeat the experiments if they wish
 - To convince readers that the work has been done systematically & thoroughly using appropriate equipment

Materials & Methods

- This section should be the easiest to write
- You should start this section while conducting your research
- Most of this section should be written in the past tense

Materials & Methods

- The methods section should contain details of
 - The selection & description of study components
 - Data collection process
 - Method used for analysis
 - Include the exact technical specification & quantities & source or method of preparation
- Do not include results in Methods!
- This section is the most thoroughly inspected section by reviewers

Results & Discussion

- Results are general statements that interpret the raw data obtained from experimental measurements
- The results section is the most important part of the study
- All other sections serve subordinate roles, either preparing the reader for the results, or providing supplemental information to augment the findings

Results

- The results are presented as text, illustration & tables
- All three forms many be used, but the same data should NOT be repeated in more than one form
- Do not include information that properly belongs in other sections of the paper such as Materials and Methods

Results

- Be sure that the text, illustration & tables are consistent with one another
- Analyse the data by statistical methods, if appropriate
- Be honest. Do not omit data that do not support your hypothesis & conclusion or do not answer the research question
- Use Figures and Tables to reveal trends and to make the most important points stand out

Discussion

- A very important section, tells your readers why your work is valuable
- Clearly & logically convince your audience of the contribution that your work makes to the field
- The Discussion takes the data reported in the Results section & interprets the finding, evaluate their significance & examining the implications

Guideline for developing the Discussion

- Begin the discussion with a topic sentence that return to the question raised in the Introduction
- Mention new findings, knowledge & concepts that resulted from your study. Do not, however, introduce data that were not presented in the Results section
- State whether you have achieved your goal of answering the research question or have found exception & unexplained results

Guideline for developing the Discussion

- Discuss any possible application of your findings
- Do not repeat material that was presented in other sections of the paper
- Compare your results & interpretation with related published work, even though it may disagree with yours

Figures & Tables

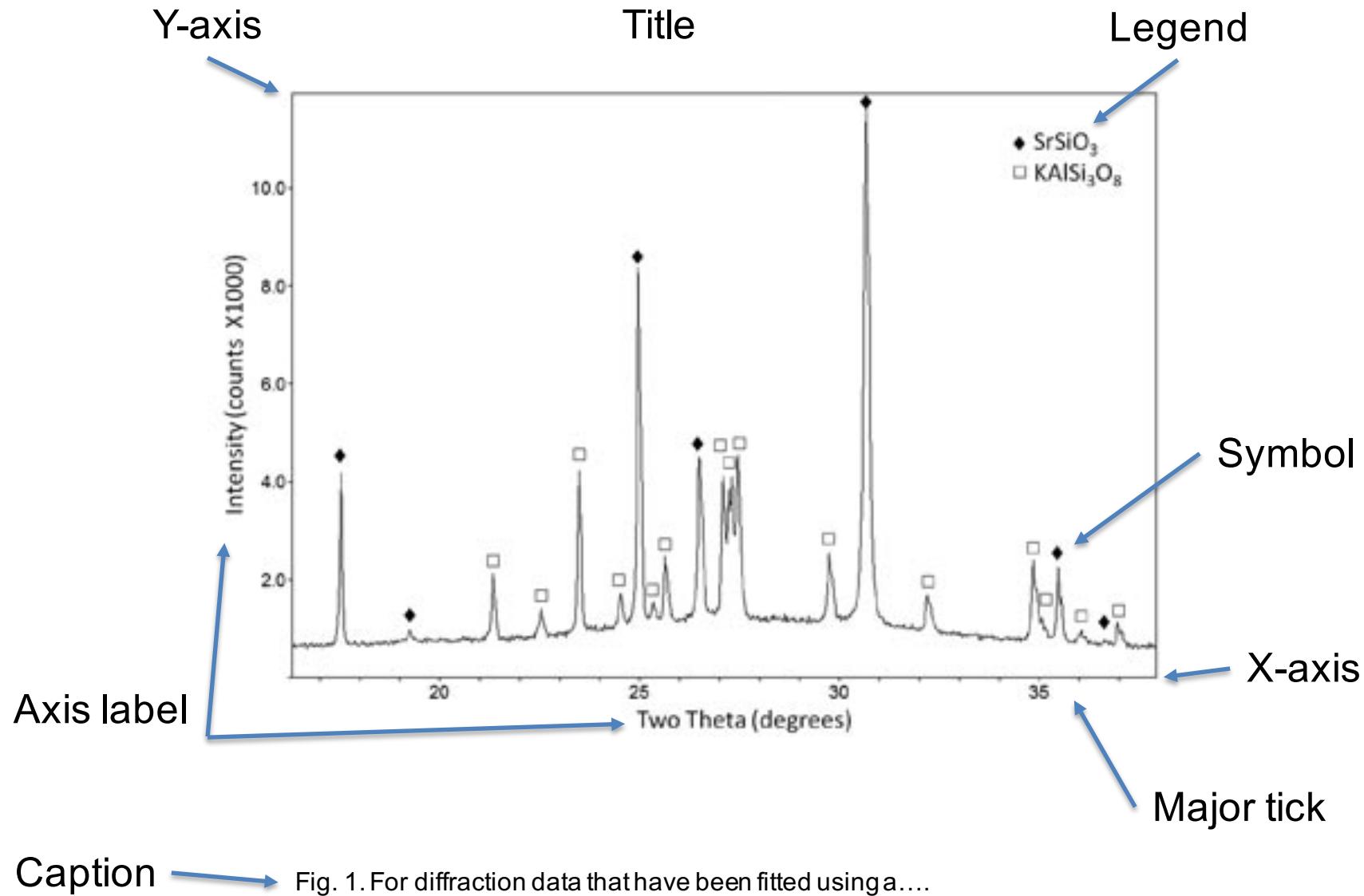
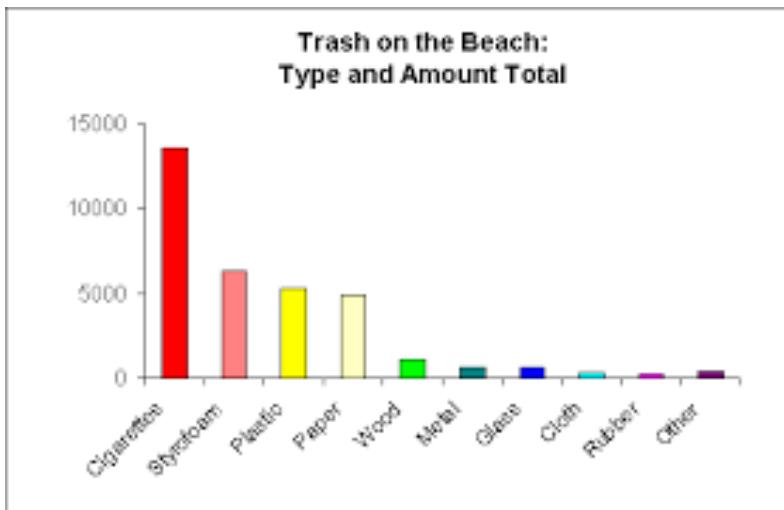


Figure Caption

- The figure caption consists of:
 - The title of the figure
 - The experimental conditions to the data presented in figure

Bar Graphs



X-axis should be the time sequence: 1, 2, 3, ...
For each time unit, I want the bar to be split based on the values
and then have each bar for different types

NOTE: I have only bars to represent two types
but my data above has three types

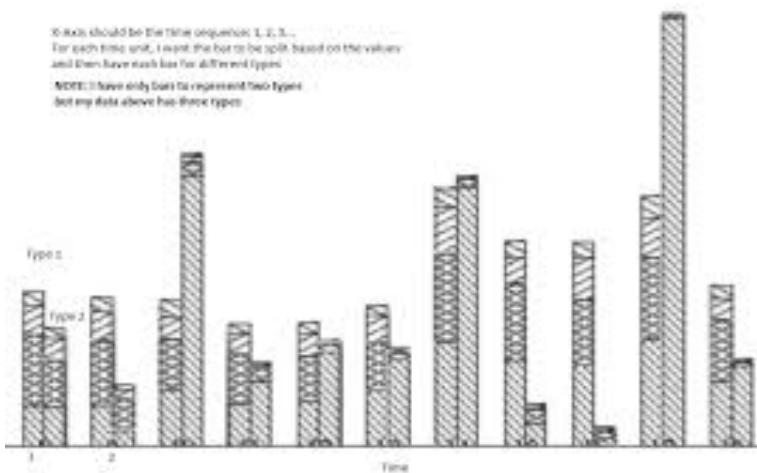
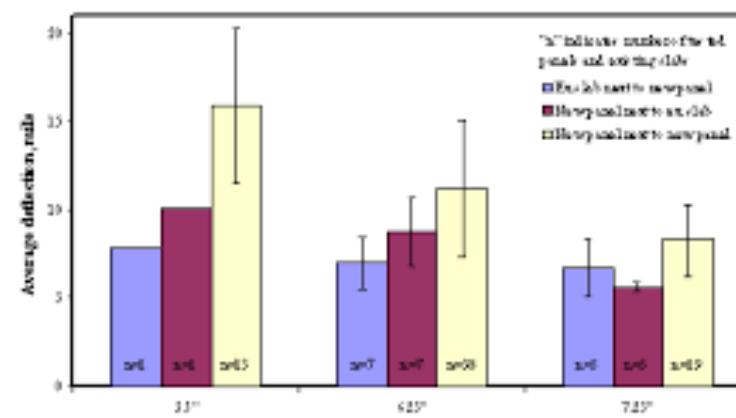
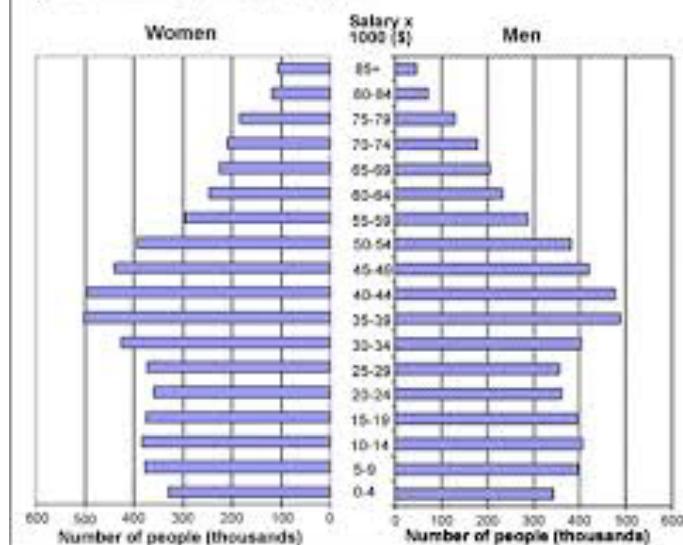


Figure 7. Earnings in Utopia, by sex



Pic Chart & Line Graph

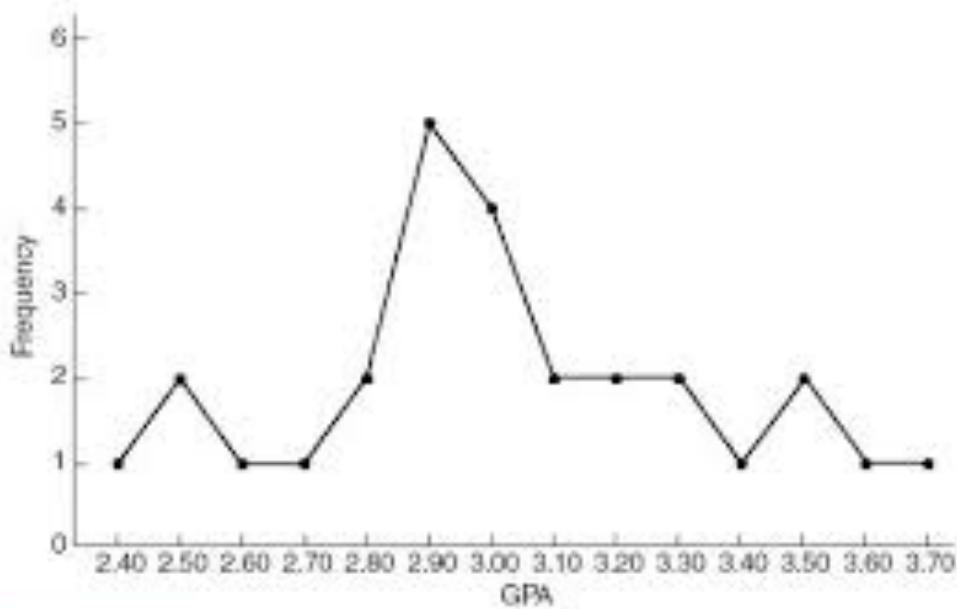
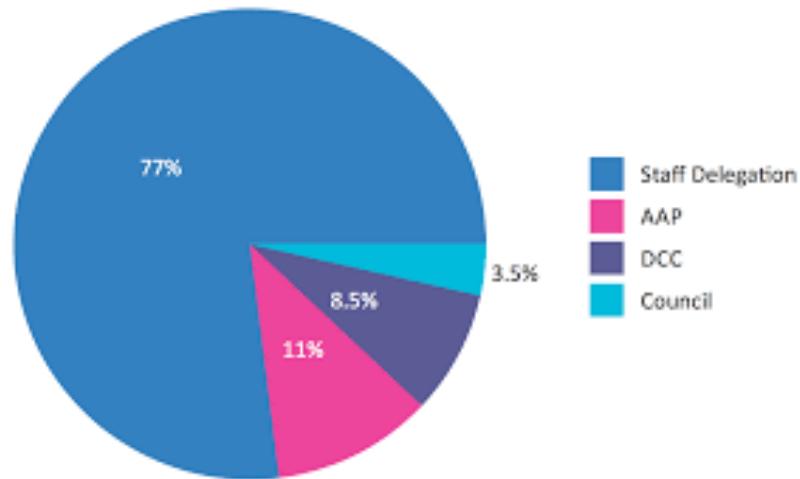


FIGURE 10.4 A line graph of grade point average

Table

Table Number



Table 2. Descriptive statistics of outdoor measurements and indoor/outdoor (I/O) ratios of PM_{10} or 5-day filter composite.

Column Headings



Horizontal rules



Body Table



Horizontal rules



Footnote



Exposure	Warm season				
	Mean ± SD	IQR	Min/max	I/O ratio	Mean ± SD
Organic components: PM_{10} ($\mu\text{g}/\text{m}^3$)	9.61 ± 3.98	2.28	4.60/14.7	0.98	8.66 ± 4.61
WGOC ($\mu\text{g}/\text{m}^3$)	0.52 ± 0.23	0.31	0.09/1.01	0.95	0.39 ± 0.23
PAHs ($\mu\text{g}/\text{m}^3$)					
Total	0.88 ± 0.30	0.47	0.40/1.75	0.94	1.06 ± 0.61
LMW	0.38 ± 0.15	0.20	0.19/0.74	0.70	0.35 ± 0.15
MMW	0.26 ± 0.12	0.19	0.09/0.50	0.95	0.36 ± 0.14
HMW	0.24 ± 0.11	0.19	0.11/0.50	0.97	0.27 ± 0.14
Hydrocarbons ($\mu\text{g}/\text{m}^3$)	0.27 ± 0.34	0.36	0.06/1.57	1.00	0.75 ± 0.25
n -Alkanes ($\mu\text{g}/\text{m}^3$)	26.3 ± 23.5	43.2	9.9/61.2	1.39	54.9 ± 111
Organic acids ($\mu\text{g}/\text{m}^3$)	0.22 ± 0.17	0.30	0.06/0.54	5.05	0.35 ± 0.22
Transition metals ($\mu\text{g}/\text{m}^3$)					
V	4.80 ± 2.07	2.10	1.00/11.2	0.75	3.10 ± 1.19
Cr	18.2 ± 30.2	2.21	0.00/139	0.89	0.25 ± 0.45
Mn	0.09 ± 2.08	3.10	0.00/12.8	0.57	2.07 ± 1.43
Fe	144 ± 127	167	0.00/500	0.49	52.5 ± 64.2
Ni	7.21 ± 18.8	3.61	0.00/92.8	0.83	6.30 ± 8.61
Cu	0.65 ± 4.25	5.50	0.25/10.3	0.68	4.09 ± 3.22
Zn	6.38 ± 4.15	6.39	1.00/15.5	0.75	6.08 ± 3.51

Abbreviations: min, maximum; Max, maximum.

*Overall individual regression models to estimate expected change in the bioassay than exposure to the air pollutant components ($\mu\text{g}/\text{m}^3$) according to Turpin and Lim (2001).

Note! Read from left to right

Conclusion

- Summarise the results first
- Summarise the main discussion points
- Give major findings, implications
- Provide a clear scientific justification for your work in this section & indicate uses & extensions if appropriate
- Should NOT be another abstract
- Can (optional) suggest future experiments & point out those that are underway

Acknowledgement

- Objectives:
 - To credit those who have made significant research contributions to your work
 - To mention individuals & entities that have provided essential support such as research grants, fellowship, other sources of funding

Acknowledgement

- Acknowledge research grant(s) & state the research grant number or reference
- State why people have been acknowledged and ask their permission
- Contributions that do not involve researching (such as clerical assistance, or encouragement from friends) should NOT appear in acknowledgements

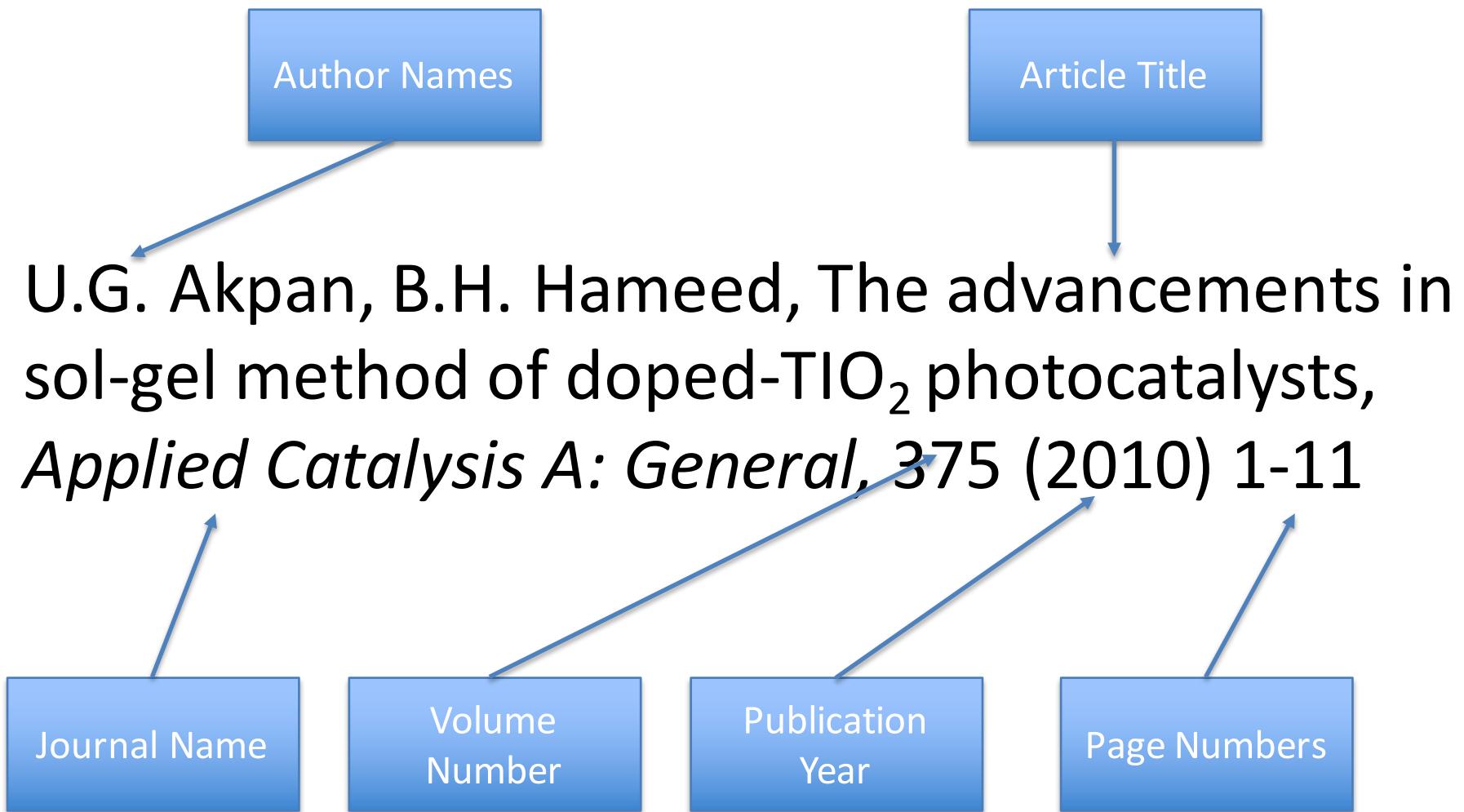
References

- References section is a list of all citations that appeared in the manuscript
- Formatting of references is different from one journal to another
- References can be listed alphabetically or by the order of appearance in the text
- Remember that preparing the references in term of formatting and accuracy is fully the responsibility of the authors

Main components of a journal reference

- Journal reference has two components:
 - Bibliography elements
 - Author(s), Article title, Journal Name, Volume, Year, Page numbers
 - Punctuation marks
 - Comma followed by space after each author
 - No need to add “and” before the last author

References Example



References

- List all the sources you used and cited in your text
- List in sequence, as required by the journal
- Avoid reference to websites
- Go back to the original article

References

- Check specific referencing style of journal
- Should reference:
 - Peer-reviewed journal articles, abstracts, books
- Should not reference:
 - Non-peer-reviewed works, textbooks, personal communications

Academic Conference

- An academic conference or symposium is a conference for researchers to present and discuss their work. Together with academic or scientific journals, conferences provide an important channel for exchange of information between researchers.

Paper Presentation at conference

- Prospective presenters are usually asked to submit a short abstract of their presentation, which will be reviewed before the presentation is accepted for the meeting.
- Some disciplines require presenters to submit a paper of about 6–15 pages, which is peer reviewed by members of the program committee or referees chosen by them.
- Presenters usually base their talk around a visual presentation that displays key figures and research results.
- Each presenter usually given 20 mins to present and 5 mins for Q&A by the chairperson and the attendees.
- Usually there will be a chairperson to chair the session and a time keeper.

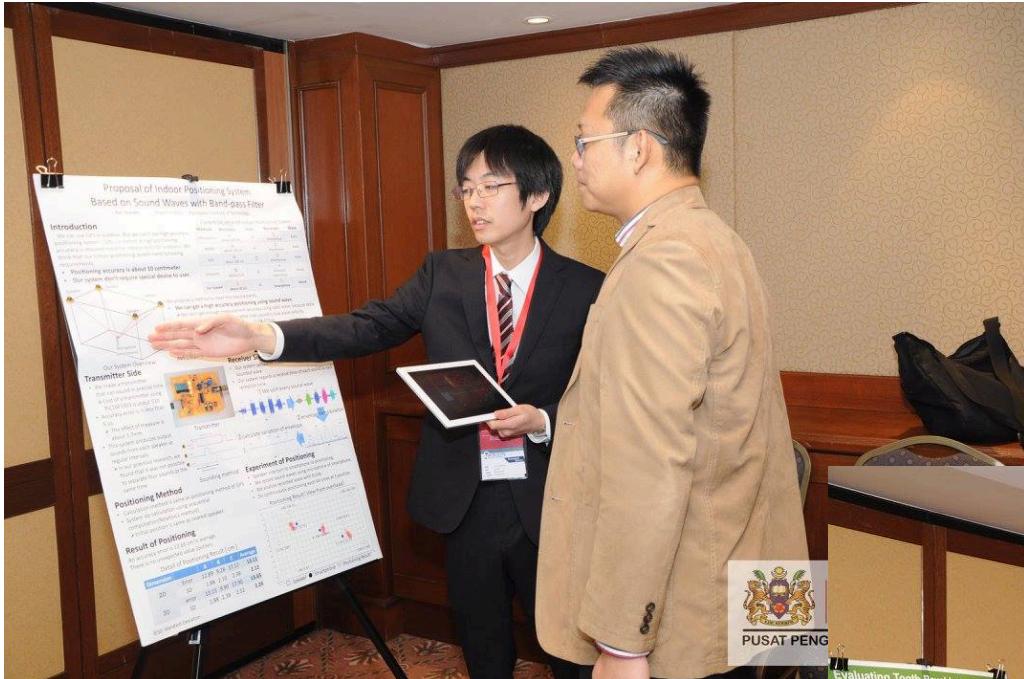
Conference (Paper Presentation)



Poster Presentation at conference

- A poster presentation is the presentation of research information by an individual or representative of research teams at a conference with an academic focus.
- The work is usually peer reviewed.
- Typically a separate room or area of a tradeshow floor is reserved for the poster session where researchers accompany a paper poster, illustrating their research methods and outcomes.
- Each research project is usually presented on a conference schedule for a period ranging from 10 minutes to several hours.
- Presentations usually consist of affixing the research poster to a portable wall with the researcher in attendance answering questions posed by passing colleagues.
- The poster itself varies in size according to conference guidelines from 2x3 feet to 4x8 feet in dimension.
- Posters are often created using a presentation program such as PowerPoint and may be printed on a large format printer.
- Posters are often laminated with plastic to improve durability.

Conference (Poster)



Peer review process

