LEARN FROM EXPERIENCES AS A REVIEWER/REFEREE

The review should give a specific and substantive evaluation of strengths and weaknesses of the manuscript.
Elements in a narrative review (1)

Quality of the Work
• Is there originality in the concepts, experimental approach and interpretation, or is it a routine application of known methods to a new sample?
• Is the work substantial, or is it a routine addition to an already well studied field?

Appropriateness for the specific journal
• Is there clear emphasis on the mechanical engineering?
Elements in a narrative review (2)

Technical Quality

• Is the experimental design appropriate?
• Are there adequate controls and sampling, and is it established in the report?
• Are new *compounds* unequivocally established by spectroscopic methods and elemental analyses?
• Are all the tables and figures essential and of high quality?
• Are experimental details and statistics appropriately described to allow others to repeat the experiments?
Elements in a narrative review (3)

Clarity of Presentation

• Is the presentation clear and objective?
• Is the manuscript written in standard language (e.g. Standard American English or Bahasa Indonesian)?
• Are all the figures and tables essential?
• Are the figures well drawn and easily understood?
• Are experimental details and/or statistics sufficiently detailed?
• Are the chemical structures sufficient to illustrate the concepts?
Elements in a narrative review (4)

Professional Ethics

- Is there clear evidence of plagiarism, simultaneous submission to another journal or was the manuscript previously published?
- Is there clear evidence of conflict of interest?
- Are there concerns in experimental animal treatment?
Components of a Manuscript to be Considered in a Review (1)

Title:
• Does the title effectively communicate the contents and major points of the paper? Does it contain extra and often meaningless words (e.g. effects of…, part 1, study of…)

Abstract:
• Does the abstract provide enough detail so the content of the paper is clear?
• Does it contain too much background or too much detail? It must report the major results with terse interpretation.
• If there is adequate space, it may start with a summary sentence explaining the purpose of the study and/or a concluding sentence.
• Method details should not be reported unless a particularly novel method was used.
Components of a Manuscript to be Considered in a Review (2)

Introduction:

- Are there portions of the introduction that are peripheral to the topic?
- The introduction should not cite all the related literature. It should cite important papers that deal directly with both the experiment as well as the methods used for the measurements taken.
- Are too many papers, not directly on-topic, cited?
- Is the purpose of the work to be reported made clear?
- Has the previously published work been described in the context of how the current paper will improve, re-interpret, etc?
- Does it end with a clear description of the purpose of the paper?
Components of a Manuscript to be Considered in a Review (3)

Materials and Methods:
• Is there enough information provided so that a knowledgeable scientist is able to repeat the experiments?

Results and Discussion:
• Are all the results mentioned in the text? While some bits of data can be presented only in tables, it is not appropriate to say, “…see our results in Table x” and not mention the data further.
• Are tables and figures of high quality which can be reproduced well?
• Are figure titles complete, are axes appropriately labeled, are figure components clearly labeled, and are footnotes clear?
• Are table titles concise and complete?
• Are columns and rows properly and completely labeled? Are footnotes complete?
• Are some data presented both in a table and in a figure? This is not permitted. The most effective way to present the information should be chosen but not both ways.
Components of a Manuscript to be Considered in a Review (4)

Summary and Conclusions:

• Some Journals do not have a separate section for a summary or conclusions. These should be placed in Results and Discussion section.

• However, the discussion should close with some assessment of the paper’s significance with regard to the purpose described in the introduction.