Relative grades for each paper will be assigned as follows:
  - scientific logic, error analysis and discussion: 4
  - clarity of writing: 4
  - style: 1
  - appearance: 1

**Major deficiencies:** errors of logic, mistakes in calculations.

**Medium deficiencies:** lack of clear expression to the point that the reader cannot tell what is meant. (this includes "nonsense sentences") Tell the reader what you have done.

Other than dimensionless quantities, all numbers must have units associated with them.

The introduction must introduce all parts of the experiment, and clearly state the overall goal.

**Minor deficiencies:** layout; title page, with title, by-line and abstract, should be set out so that the "center" of the title and byline lies about mid-way between abstract and top of page, perhaps a little closer to the abstract. Look for "eye-appeal".

Order: don't start the abstract with the result. The order of abstract more-or-less follows the order in the body of the manuscript.

Light is deflected or reflected by a mirror, rather than deviated.

Watch spelling.

Articles should be used to agree with sound, not sight: so "a UHV chamber", rather than "an UHV..."

When describing lenses and mirrors, optical "components" or optical "elements" should be used, these words imply passive parts. "device" on the other hand implies an active component.

"When the light hits the mirror for the second time, it has turned through a small angle". "it" here refers back to the subject of the first phrase, the light. In fact, the author had meant to imply that the mirror had turned....

"...the mirror moves through a small angle which reflects..." In this case "which" refers to the noun immediately preceding it, which is very confusing, as the angle does not reflect the light.
Number the pages so that you and others can gracefully refer to specific parts of the manuscript.

It is inelegant to begin consecutive sentences with "the". (the current record for Physics 258 is 7!) See me if you need help around this, or any other of these strictures.

You must refer to figures and tables in the text. The presence of a clear figure with an adequate caption does not relieve the author from describing the working of the apparatus in the text.

All figures and tables must have titles and captions.

Do not use the word "equations" in a section heading.

When referring to an electronic part the name, or a generic name, should be included with the part number, e.g., "an AD590 device", "a 741 op-amp", etc.

"...the thermocouple shows a linear correspondence between emf and the temperature" should be "...there is a linear relationship between the emf of the thermocouple and the temperature"

Watch out for redundancies: "tabulated data found in Table 1", "computation of  $\delta$ \alpha \ can \ be \ computed"

Emf is "converted" rather than "translated" to temperature.

Plurality of nouns must be consistent: "...one can compute absolute temperature if they know the resistance"

A sentence may not begin with a number expressed in with a number expressed in numerals. And use 0.3 cm rather than .3 cm.

Supply a reference for each equation not derived in the text.

One sentence doth not a paragraph make; nor two sentences a section. If you have a two-sentence description of apparatus, combine it with the method in an "experimental" or "apparatus and methods" section.

Use past tense to describe what you have done. ...but, "another method to solve the equation is to use a computer algorithm..." In this case "is" is appropriate because the statement is as true today as yesterday.

Title must be descriptive without being unwieldy. No numbers in the title, please.
"we required that" should be used only when essential; it is not a way to describe actions you have taken.

"the distance a+b was equated to the distance c+d" is incorrect, as equate is an act applied to abstract entities. "the distance a+b was made equal to..." is better.

Know the difference between its and it's; there and their and they're.

optical components are arranged or oriented: they are not "configured", unless you are in the business of grinding, polishing, or otherwise forming glass.

References to the same article should have the same reference number.

Hyphenate numbers and units of measure only when they form a modifier that describes something else. For example “The beam diameter is 25 µm.” and “The 25-µm beam provides excellent resolution.”

A space is usually inserted between a quantity and the unit of measure, e.g. 77 K; 250 kJ; 10 µm. Use a non-breaking space to keep the number and the unit on the same line.

"He took off for typos!" After submitting a manuscript, there's no such thing as a "typo." There are only errors in proofreading.

Do not use a blank cover page or folder with you paper, ever. Just a single staple in the upper left-hand corner is best. And always make a copy for yourself before you submit your manuscript.

Stay out of trouble for any manuscript by using a standard format of a 12-point font, 1-inch margins, double spacing, and either indentation of the first line of paragraphs or extra spacing between paragraphs.

Don’t (over)use exclamation marks, font style, bold, italics, capitals, etc. in an attempt to achieve emphasis.

Errors in writing are ultimately hindrances to cogency and readability. When a lapse calls attention to itself, it derails the train of your argument. It is far more than careless; it is self-destructive. (Professor H. George Hahn)

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