

Technical Review

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Here we consider the article of Smith, *et al.*¹ which describes a new aspect of thermodynamics... A key model equation in this study is the ideal gas law

$$PV = n\overline{R}T. \quad (1)$$

In this equation P represents pressure, V the volume, n the number of moles, \overline{R} the universal gas constant, and T the absolute temperature.

The typical method of solving this problem is....In many cases this is deficient because.... Hence a new method is proposed The authors summarize their conclusions as follows....

The article is generally well written.... A small deficiency is seen in that... Nevertheless the strength of this paper is its clarity in.....and novelty in.....Those who are interested in problems in the related fields of... would find this paper to be useful.

Notes

- Use the format provided here as a template; the text is entirely yours to write.
- Your review *must* consider either 1) a recent ($t \geq 2015$ AD) and substantive article related to thermodynamics from the the journal *Nature*. The article should not be a “lite” summary article written by the editorial staff. Instead it should be a research article written by the people who conducted the research, or 2) any of the many articles to which links are provided in the course notes.
- One page maximum; attach a photocopy of the article itself.
- One equation minimum.
- Run your text file through a spell checker.
- Always use complete sentences.
- Give a footnote in the precise format given below. Do not be redundant with the text.
- Use commas or periods at the end of equations as appropriate.
- Do not use contractions (such as don't).
- Minimize quotations. Try very hard to have zero quotations. When necessary, use matched pairs of single quotes, like this: “your quote here”.
- Identify all variables with words of description.
- All mathematical variables, whether within the text or in a separate equation, should be written in math mode, e.g. “When $x = 0$, there is a singularity.”
- English text within equations should be in text mode:

$$x = 1 \quad \text{when} \quad y = 0.$$

- Avoid simplistic or trite statements such as, “The authors have pointed the way to a method from which we can all benefit.”

¹Smith, W. J., Jones, J. W., and Brown, W. L., 2012, An important article on some aspect of thermodynamics, *Nature*, 56(3): 1039-1059.