

Review of: "Clausius' thermodynamics, the logical conclusion of the conceptual differentiation of caloric in terms of the two laws of thermodynamics"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

Reviewer's findings and recommendations

The paper presents the Clausius' view of thermodynamics. It is a reproduction of some of Clausius' works from the 1850s. Despite the fact that Clausius published his works repeatedly and they are well-documented in the literature, the present paper does not seem superfluous.

Reviewer's recommendations:

1. The quality of figures does not satisfy the required standards.
2. The author has published similar results under other titles. It is recommended that the author states the boundaries of the present paper in relation to his already published results and avoid unnecessary doubling.
3. Flow sheets (diagrams) used in the paper should help to make the matter more understandable, but the reviewer has the impression that they make the matter more complex. The exception is only the Figure 6.
4. The Sadi Carnot's work is usually taken as the beginning of the thermodynamics and Clausius was the first to correct and extend the Carnot's model. It is thus recommended that the author includes a state of the art into the manuscript and show what was known prior to Clausius.
5. Recent publications show that the first law of thermodynamics has not been formulated first by Carnot and Joule and many others who were considered to be the creators of thermodynamics, as is usually believed. In late 1760s and early 1770s James Watt formulated and used this law in practice. This fact seems to be less known in thermodynamic circles.

Links:

- <https://doi.org/10.4236/jmp.2022.134027>;
- <https://doi.org/10.1002/cite.202200037>;
- <https://doi.org/10.4236/ahs.2022.112006>;
- <https://doi.org/10.31857/S020596060016355-2>.