Review of: "A Description of the Melting of Ice With the Modified Clapeyron–Clausius Equation"

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Potential competing interests: No potential competing interests to declare.

This work presents a novel approach to address the limitations of the traditional Clapeyron-Clausius equation in describing phase transitions for substances with negative thermal expansion. The incorporation of compressibility into the Clapeyron-Clausius equation offers a promising avenue for further research in this field. Though the study is concise and focused, following are some comments and questions that should be considered to improve the manuscript.

- It mentions the need for further investigation into the applicability of the revised equation to other substances. Could the author elaborate on which types of substances might be suitable candidates for this analysis?
- While the study presents experimental evidence, it could benefit from a more in-depth discussion of the theoretical basis for negative compressibility in deriving the equation.
- Are there any broader implications for thermodynamics or material science?
- Are there any plans for further experimental validation of the revised equation, perhaps using different techniques or a wider range of pressures and temperatures?
- There are no figures presented, and it will be beneficial to make comparisons between traditional and corrected Clapeyron-Clausius equations.
- The assumptions behind the equations should be clearly listed considering practical physical conditions.