Review of: "The number of free electrons per atom in a metallic conductor"

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Potential competing interests: No potential competing interests to declare.

COMMENTS TO THE AUTHOR(S)

In this paper, the author challenges classical physics on metal conduction and free electrons, demonstrating that nerve conduction speed greatly exceeds electron drift velocity in metals. It reveals limitations in the Drude model and calculates higher electron drift speeds, suggesting fewer free electrons per atom in metals than conventionally believed. In addition to some scientific, writing and language error are in the manuscript. Therefore, I suggest it requires major revision for reconsideration. The comments are as follows:

- The title should provide a clear indication of the research focus. Consider revising it for more precision and clarity.
- The introduction could be made more concise and focused, highlighting the specific problem or knowledge gap addressed by the research.
- Properly cite references throughout the article to support the claims made, especially when discussing established theories like Drude's model.
- Some technical terms and acronyms need to be defined or explained for readers who may not be experts in the field.
- The article's structure can be improved for better flow, with clear section headings.
- The assumptions of the Drude free electron theory should be discussed in detail before presenting evidence against them.
- Ensure that consistent units are used throughout the article and consider providing conversions for non-standard units.
- When discussing statistics, provide a clear and organized presentation of data and its significance to support your claims.
- The conclusion should succinctly summarize the key findings and their implications without reintroducing new concepts or evidence.