

# Review of: "Can the electromagnetic fields form tensors if $D = \epsilon E$ and $H = B/\mu$ ?"

Temesgen Kassaw<sup>1</sup>

<sup>1</sup> Wolkite University

**Potential competing interests:** No potential competing interests to declare.

The article "Can the electromagnetic fields form tensors if  $D = \epsilon E$  and  $H = B/\mu$ ?" provides a brief overview of the electromagnetic field tensor and its usefulness in describing the electromagnetic field in spacetime. The article then questions the assumption that the fields  $E$ ,  $B$ ,  $D$ , and  $H$  are components of tensors in a linearly polarizable medium and shows that a proof that they are components of a tensor fails. The article concludes that while the electromagnetic field tensor is a useful mathematical object, the fields  $E$ ,  $B$ ,  $D$ , and  $H$  may not be components of a relativistic tensor in a linearly polarizable medium. The article is well-written and informative, providing a good introduction to the topic. However, it would benefit from more detailed explanations and examples to help readers better understand the concepts discussed. Additionally, the article could benefit from more references to support the claims made. The article could also be improved by providing more information on the implications of the findings and how they may impact future research in the field. Overall, the article has potential for publication, but some modifications are needed to improve its clarity and depth. The author should consider providing more detailed explanations and examples, as well as additional references to support the claims made. Additionally, the author should provide more information on the implications of the findings and how they may impact future research in the field.