

Review of: "Evaluating the effect of shelf-storage, daylight, and air oxygen on the peroxidase-like activity of unmodified silver nanoparticles"

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Potential competing interests: No potential competing interests to declare.

In this article, the authors synthesized silver nanoparticles were synthesized and characterized for their size and morphological properties. Thereafter, their peroxidase-like activity as the common catalytic property of silver nanoparticles was investigated by catalyzing the oxidation of 3,3',5,5'-tetramethyl-benzidine (TMB) as peroxidase substrate, exhibiting, a specific activity as high as 5.4 $\mu\text{M min}^{-1}$ for the as-prepared unmodified silver nanoparticles.

Although this work seems interesting, but before publishing in this journal, I recommend some major changes as given below.

1. It would be valuable to compare the proposed method of synthesizing Ag/Ag₂O NPs using *Olea europaea* leaf extract with other commonly used physical and chemical methods. This would provide insights into the advantages and limitations of the proposed approach and its novelty in the field.
2. The TEM images are not providing any sufficient information about the particle size. It could be better if the authors can re perform the SEM analysis for clear picture about the particle size?
3. I strongly recommend the author to cite these recently reported articles on sensors in the introduction section, (<https://doi.org/10.1016/j.jallcom.2022.165815>) and (<https://doi.org/10.1002/advs.202204779>), (ACS applied materials & interfaces 10 (15), 13150-13157)(<https://doi.org/10.1002/adfm.202204781>), (ACS Applied Materials & Interfaces 11 (51), 48533-48539) (2D Materials 6 (1), 011007)
4. There are some typo errors and repeating terms/ word and also English language need to be improved.

Remarks: Publish after Major revision.