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.

The manuscript could be improved by considering the following recommendations:

(1) AgNPs were synthesized as described in reference [1], where the content of AgNPs was estimated to be approximately 150 µg/mL, and the size of AgNPs determined by TEM was approximately 12.0 nm. In the present study, the average size of AgNPs was reported to be 11.0 nm; however, the standard deviation values should also be added. Furthermore, the hydrodynamic diameter, grain size distribution, and polydispersity index (PI) should be studied using dynamic light scattering (DLS), and the stability (zeta potential) of the colloidal solution of AgNPs should be investigated using electrophoretic light scattering (ELS) to complement the investigation of AgNPs.

(2) In section 2.3, "Evaluating peroxidase-like activity," it is specified that "Notably, the relative and residual activity of nanozymes were calculated using the following formulas [18]," but the formula and results for the relative activity of nanozymes are missing. Moreover, the formula for the residual activity should be written correctly, as the line from the ratio is not aligned with the equal sign. In this formula, in "Residual activty" and "Activty of control," the word "activty" should be corrected to "activity."

(3) In section 3.1, "Characterization of nanozymes," the phrase "...the results are shown in Figure 1, as shown in this figure,..." should be revised to avoid repetition. Similarly, in section 3.2, "Evaluating peroxidase-like activity of as-prepared nanozymes," and in section 3.5, "Storage stability of as-prepared nanozymes," the repetition of the same words in a single phrase should be avoided. Additionally, in section 3.2, "10.0 µM, 50.0 µM, and 80.0 µM" should be written without the decimal point and zero as "10 µM, 50 µM, and 80 µM."

(4) In the UV-Vis absorbance spectra shown in Figure 2, the Oy axis should include the measurement unit (a.u.) for Absorbance.

(5) The particle size, grain size distribution, polydispersity index (PI), and zeta potential (stability) of the as-prepared nanozymes/colloidal silver solution should be determined after 10 days of storage at 4°C under dark conditions, in addition to assessing its shelf-life (storage stability).

(6) Additional references should be provided, as a high number of references (15 out of 24 references, representing 62.5% of the overall references) belong to Hormozi Jangi, S. R, who is the author of this study. Furthermore, the findings

of this study should be compared to similar studies from the state-of-the-art literature reports.