Review of: "Effect of daylight and air oxygen on nanozymatic activity of unmodified silver nanoparticles: Shelf-stability"

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Potential competing interests: No potential competing interests to declare.

This manuscript details the synthesis of unaltered silver nanoparticles through a straightforward and cost-effective method. Subsequently, these nanoparticles were subject to characterization through TEM imaging and UV-Vis spectroscopy. Following this, their nanozymatic activity was explored by catalyzing the oxidation of 3,3',5,5'-tetramethyl-benzidine (TMB), a standard peroxidase substrate. While the work is intriguing, there are several points that require revision prior to potential acceptance by Qeios.

(1) The manuscript discusses information regarding nano-enzymes and their applications, but the citations provided are incomplete. It is advisable to incorporate references to the following pertinent recent experimental literature or reviews: Coordination Chemistry Reviews, 2022, 454: 214327, and Journal of Agricultural and Food Chemistry, 2022, 70(12): 3785-3794.

(2) To establish silver nanoparticles as enzyme mimics, it is essential to compare their properties and catalytic performances with those of bio-enzymes (e.g., Peroxidase). Please incorporate relevant data and engage in a discussion on this comparison.

(3) Additionally, it is suggested to utilize the activity of the bio-enzyme (Peroxidase) for calculating the relative activity of the mimetic enzyme.