

Review of: "Determining kinetics parameters of bovine serum albumin-protected gold nanozymes toward different substrates"

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Potential competing interests: No potential competing interests to declare.

Author showed a genuine interest in studying catalytic properties of gold–BSA complex(es), and tried to persuade readers that such a complex catalyze the oxidation of TMB or DAB.

Author prepared a mixture of BSA with HAuCl_4 , and observed the precipitate formation. The close inspection of the Fig. 1 indicate that small high-density dots are present in addition to large aggregates. It is a question which of them, or both, are active in the oxidation experiments. The presence of BSA in these aggregates is possible but not obligatory as BSA can serve both as binding agent, or as reductant.

Such product was used in the experiment which should demonstrate the catalytic activity for the oxidation of TMB or DAB. The oxidation took place, however, I miss control experiments, with HAuCl_4 , and BSA as oxidants in addition to the putative nanozyme.

Presented results (Fig. 2) show some anomaly, as experimental points miss the zero in both TMB and DAB experiments. This may be a consequence of multiple reactions which led to the oxidation of substrates. The reasons might be outlined above. This aspect was not mentioned in the discussion....

I was shocked by the absence of technical details in the description of experimental activity. Therefore, I do not suggest any other referee. Instead, I suggest that the paper should be re-written, completed by control experiments and a critical evaluation of results.