Review of: "Nanomaterials: History, Production, Properties, Applications, and Toxicities"

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Potential competing interests: No potential competing interests to declare.

Review Comments:

"Nanomaterials: History, Production, Properties, Applications, and Toxicities"

The article provides a comprehensive overview of the properties and various applications of nanomaterials. However, several areas could benefit from additional clarification or elaboration to strengthen the article's impact. I have the following suggestions to improve the article.

1. The abstract could be improved by adding specific findings or notable trends mentioned in the review.
2. It would be helpful to include a figure summarizing the historical timeline of nanomaterial development to make the history section more engaging.
3. Catalysis: This section could be improved by providing examples of recent industrial applications or emerging catalytic systems.
4. In the water treatment section, a summary table comparing the effectiveness of different nanoparticles (e.g., TiO_2, ZnO, Ag) for pollutant removal would add value. i.e., https://doi.org/10.1155/2017/4101735 is very relevant to be cited in this section.
5. Energy Storage: Including other energy storage technologies, such as supercapacitors and lithium-ion batteries, could further enrich this section. i.e., https://doi.org/10.3390/molecules29092081 https://doi.org/10.1002/9781119866435.ch17
6. Including more quantitative data on toxicity levels and ecological impacts would strengthen the arguments presented in the article.
7. The conclusion could be expanded to include potential future directions or emerging trends in nanotechnology research.
8. The reference list is very small. More references are to be added.
9. Provide more graphical illustrations or summary tables to support the textual content. With some additional graphical elements and expanded discussions on emerging trends and regulatory aspects, it would be an even stronger contribution to the field.