

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

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**Potential competing interests:** No potential competing interests to declare.

The manuscript "Nanomaterials: History, Production, Properties, Applications, and Toxicities" includes a comprehensive study, some aspects should be considered by the authors in order to make it acceptable for publication, though. Detailed comments format:

1. According to the title of the article, the production section has not been adequately covered.
2. The nanomaterials and history section must be shortened by deleting unnecessary sentences.
3. Main text: "The time of metallic NPs is also . . . and fourteenth centuries BC." The authors should write the full form of NPs.
4. Figure 1 is not clear at all.
5. Main text: "This e- /h + pair causes the metal oxide's surface to undergo the redox process, which breaks down the pollutants." Correct the exponent of the electron/hole pair term.
6. These sections need to be referenced:
  - 6-1. Main text: "Richard P. Feynman introduced the concept of nanotechnology in his well-known 1959 lecture, "There's Plenty of Room at the Bottom"."
  - 6-2. Main text: "Nanotechnology includes the production and manipulation of materials . . . The Greek or Latin roots of the word nano mean "dwarf"."
  - 6-3. The paragraph before NPs and NMs section.
  - 6-4. Main text: "Contaminants can gradually oxidise into low-molecular-weight intermediate . . . and Cl"
  - 6-5. Main text: "The surface area and active sites of the Pt-based NMs have been significantly increased . . . Li-metal foil is coated."
  - 6-6. The first paragraph of the catalysis subtitle.
  - 6-7. The last paragraph before the societal impacts of NMs section.

7. The sentences: "The Greek or Latin roots of the word nano mean "dwarf"." and "NPs can infiltrate aquatic environments immediately through industrial discharge and wastewater treatment emissions." are not in the right place.
8. Main text: "NNs are also used to make the . . . as a result." Correct the spelling mistake!
9. Main text: "The use of NMs for decontaminating air and water . . . nowadays has received significant attention." There is an extra sentence, and "decontaminating" must be capitalized.
10. Main text: "AgNPs and Ag ions both communicate similar cytotoxicity." Modify the space between Ag and NPs.
11. It is needed to present and explain the results of some previous experimental researches. Not the content, but the writing process is boring!
12. The references should be updated; they are till 2020.