

# Review of: "Hydroxyapatite coating techniques for Titanium Dental Implants — an overview"

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

The subject of this paper is "**Hydroxyapatite coating techniques for Titanium Dental Implants — an overview**". The manuscript is good in idea, but it needs major revisions before being considered for publication in the journal. My comments can be found below.

## ABSTRACT

The abstract should express the gap of knowledge that will be filled by the author. So it is suggested to revise with at least some aspects of the abstract as presented in the future scope. Just briefly include:

- The purpose of the study undertaken what are you trying to solve
- Brief mention of experimental aspects (without using abbreviations)
- Highlights the important results from previous works numerically
- Important conclusions based on the obtained results
- Future prospect
- It is recommended to make graphical abstracts and highlights in future work.

## INTRODUCTION

- Paragraph 4, justify the last line with valid Refs.
- Include some sources of hydroxyapatite and other uses of HA.
- Include some works done on Ti coating implant.
- If possible, briefly add other coating implants like Mg
- "However, this technique is limited ..., please add relevant Refs.

**NOTE:** (i) I suggest you add brief description of Ti including its properties.

(ii) Do same for HA as stated in (i) above. Describe some techniques in synthesizing, characterization of HA. Check these

articles: <https://doi.org/10.1007/s42452-021-04795-y>; <https://doi.org/10.1016/j.dib.2022.108305>;  
<https://doi.org/10.1016/j.matchemphys.2023.127434>; [https://doi.org/10.1142/9789814317351\\_0009](https://doi.org/10.1142/9789814317351_0009)

(iii) I suggest a section should be added as “Ti Coating Techniques”, before the “Sol Gel Dip-coating Techniques. Then, Sol Gel Dip Coating Technique should be subsection.

(iv) Diagrams can be included for easy understanding of the techniques.

(v) A flow chart can be used to explain the steps.

(vi) Ref recent works on each techniques to show a typical coating methods.

(vii) In each techniques, Ref recent works where they are used in implant.

(viii) Please check the Refs and write in the correct orders.

(ix) Punctuations and grammar should be thoroughly checked.

### **ELECTRO-CHEMICAL DEPOSITION (ECD)**

- Paragraph 2, specify or give an example of the desired material using a bracket
- What is PS (PS-fabricated HA coatings)?
- What do you mean by tear strength?
- If possible, include the steps involved using a flow chart to explain

### **ELECTRO- PHOSETIC DEPOSITION**

- What is BG?

### **BIOMIMETIC COATING**

- ....at body temperature (37°C). Correct this in the text.

### **PHYSICAL VAPOUR DEPOSITION**

- Paragraph 4, line 5 (fre-quency). Please write correctly.

### **PULSED LASER DEPOSITION**

- Why did you underlined some words?