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Journal Name:	Advances in Research
Manuscript Number:	**Ms_AIR_25891**
Title of the Manuscript:	**Preparation and biomineralization of injectable hydrogel composite based chitosan-tetronic and biphasic calcium phosphate nanoparticles**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	The authors describe the synthesis and the properties of hydrogel composites based on chitosan and calcium phosphate nanoparticles. The topic of this research is very interesting, however, in my opinion, some improvements are necessary before the publication. -In the Introduction, the literature references are scarce and not updated. Please, add new and recent literature references. -Chitosan is an important biopolymer employed in many applications. An additional section in the introduction regarding the properties and the several uses of this polymer should be added. As an example, in this regard, it has been also employed as stabilizing agent and/or support in the synthesis of metal nanoparticles. You can consider "Applied Catalysis A: General, 468, 2013, pp. 95-101"; -In the materials and methods, please add the duration of the calcination process carried out at 750°C for the preparation of BCP; -The characterization of the synthesized composites is well-done, however, taking into	

	account that one of the components is constituted of nanoparticles, can the authors add other more specific characterization techniques? As an example TEM analysis; -In the results and discussion, the authors say "EDS results in Figure 7 indicate that the precipitates on surface of TeTC/BCP hydrogel composite are calcium, phosphorus and oxygen due to the composing element of apatite, which could be further confirmed by XRD analysis (data not shown here)", please add these XRD results in the Supporting Information section; -The sentence "No new peaks appeared after immersion in SBF was observed in XRD data." is not clear. Please, explain better; -In Figure 7, the SEM images are not clear, it is not possible to read the line showing the unit of measure, please change it; -English should be revised with the help of a native speaker.	

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Minor REVISION comments	In the manuscript there are some typing mistakes, as an example: -"40mg TTeC" instead of "40 mg TTeC"; -"To study the possible precipitate phase conversion, hydrogel composite samples immersed in a SBF buffer solution (pH 7.4)." instead of "To study the possible precipitate phase conversion, hydrogel composite samples were immersed in a SBF buffer solution (pH 7.4)."; -"Figure 5 shows the degradation profiles of the TTeC/BCP hydrogel composites with different content of BCP NPs." Instead of "Figure 4 shows the degradation profiles of the TTeC/BCP hydrogel composites with different content of BCP NPs"; -"The compressive strength values of the TTeC/BCP hydrogel composites were determined 138.7 ± 15.9, 235.3 ± 15.3, and 591.7 ± 19.5 KPa for 0, 5, 10 % (wt) of the loaded BCP NPs, respectively (Figure 4)." Instead of "The compressive strength values of the TTeC/BCP hydrogel composites were determined 138.7 ± 15.9, 235.3 ± 15.3, and 591.7 ± 19.5 KPa for 0, 5, 10 % (wt) of the loaded BCP NPs, respectively (Figure 5)."; -"This could be explained thatincorporation of an inorganic reinforcing phase" instead of "This could be explained that incorporation of an inorganic reinforcing phase"; -"This great surface adherence was due to a high biocompatibility of hydrogel combined with effective characteristics of BCP such as rough surface creation the roughness.." instead of "This great surface adherence was due to a high biocompatibility of hydrogel combined with effective characteristics of BCP, such as rough surface creation the roughness.."; -"Figure 7 showsSEM micrographs of the surface morphology" instead of "Figure 7 shows SEM micrographs of the surface morphology";	

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	-"Figure 7(a) and (d) showed" instead of "Figure 7 (a) and (d) showed"; -"after soaking in SBF 7 and 14days" instead of "after soaking in SBF 7 and 14 days" (in the caption of Figure 7); -"Injectable polymer-grafted TeTC-BCP hydrogel composites prepared successfully" instead of "Injectable polymer-grafted TeTC-BCP hydrogel composites were successfully prepared".	
Optional/General comments		

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