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Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_23331
Title of the Manuscript:	Preparation and Testing the Hyperthermia Property of Electrospun Micro and Nanofibers
Type of the Article	Original Research Articles

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 <i>(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)</i>
Compulsory REVISION comments	This manuscript describes the fabrication and hyperthermia properties of Co-containing electrospun fibers. Unfortunately, I find this work not acceptable for publication due to the following reasons: - The objective of this work is not clearly stated. The introduction is very general, focusing on the electrospinning process and its advantages over other fiber fabrication methods, whereas at the end of the introduction the authors refer to the use of cobalt in ceramic alloys, super-alloys and in the form of oxides targeting towards wear and corrosion resistance, energy conversion, and electronic applications. There is no discussion in the introduction part on the use of Co-containing nanomaterials in hyperthermia applications. -The experimental section lacks essential information whereas mistakes can be also found. For example, the authors in page 6 state that they have generated titanium cobalt oxide nanoparticles; however titanium does not appear at all in the experimental section (lines 64-67). What is the molecular weight of PVP used? What is the flow rate employed in electrospinning? What is the power employed in the microwave during heating? Did the authors investigate the effect of the inorganic filler loading on the heating capability of the fibers? -In the results and discussion part, the authors state that "...the temperature is already over 40 oC which is a typical temperature level for virus or cells to start degradation". It is not clear how these materials could be employed in biomedical applications as templates for hyperthermia treatment. The unheated fibers based on PVP dissolve in water, whereas the heat treated analogues are suffering from brittleness. Moreover, the potential toxicity of the Co-containing fibers is not discussed in the text.	



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	-The authors present differences in the hyperthermia results obtained before and after heat treatment of the fibers but they do not provide any explanation or discuss why such differences are observed and where those could be attributed. -It is surprising that the fibers appearing in Fig. 6a are aligned; no means of alignment has been described in the experimental section (e.g. rotating mandrel, auxiliary electrodes, etc.). Why the fibers lose their alignment after heat treatment? The scale bars in the images appearing in Fig. 6 are not clearly indicated. -The authors claim that they have obtained titanium cobalt nanofibers; however no experimental data are provided to support this statement. Moreover, it is stated that “the microstructure of the sample under study shows titanium cobalt oxide nanoparticles embedded into heat treated nanofibers”. This statement is not supported by experimental data (e.g. TEM analysis) - Surprisingly, at the end of the results and discussion part the authors refer generally to the use of electrospun fibers in PEM fuel cells. This is completely irrelevant to the manuscript’s objectives.	
<u>Minor</u> REVISION comments	Page 1, introduction. The phrase “electrospinning is accomplished by dissolving the desired nanofiber material in a conductive liquid solvent” is not correct. References must not be placed in the abstract. Page 3, line 70, 10 KV voltage (not charge)	
<u>Optional/General</u> comments		

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