



SDI Review Form 1.6

Journal Name:	<u>International Journal of Biochemistry Research & Review</u>
Manuscript Number:	Ms_IJBCRR_31097
Title of the Manuscript:	Temperature induced conformational entropy of α-amylase with and without additive.
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.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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 intended to analyze the temperature induced conformational entropy of human alpha amylase, working with saliva diluted in buffer. However, there are some experimental drawbacks that could lead to wrong results. Concerning the chosen buffer, Tris does not have buffering capacity at pH 6.9 (its pKa is 8.06 at 25 °C), and should be chosen a different buffer in order to repeat the experiments. Besides, Tris and is one of the worst buffers for analyzing temperature effects, since its pKa changes around -0.03 units of pH per degree Celsius, as can be checked at Applichem (https://www.applichem.com/en/products/laboratory-biochemicals/biological-buffer/). It means that, as temperature increases, the solution becomes more acid, introducing a hidden variable that also affects enzyme activity: pH. The authors also don't give details about the enzyme assay.	
Minor REVISION comments	The quality of the text should be improved by a native English speaker. The abbreviation of liter should be done using L (uppercase l), and the relative centrifugal force should be expressed as <i>xg</i> , with <i>g</i> in italics.	
Optional/General comments	The experiments should be performed using a suitable buffer in order to obtain reliable results.	

Reviewer Details:

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