



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	Ms_IJBCRR_31097
Title of the Manuscript:	Temperature induced conformational entropy of α -amylase with and without additive.
Type of Article:	Original Research Article

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
I accept authors response on my comment no (1). However I cannot understand the objective and the meaning of a response like that “<i>I doubt if a student can be sincere and serious if he/she says that that she/he is unable to carry an assignment to calculate the average values of a parameter including the associated SEM or SD because of the absence of internet network despite the available laptop</i>”. Moreover, authors' main response on my comments (2) & (3), i.e. from “...Duplicate assays were carried out: Plots of velocities or activities...” up to “.... Issues regarding kinetic parameters are outside the scope of the research”, in order to design, perform and publish original scientific work; to be more precise, (a) parametric statistics as those used by the authors, need a huge population of the used sample(s) of measurements etc, from the experimenter in order to have also normal distribution of the experimental errors and homogeneity of the variance or else, only non parametric statistics could give reasonable results and they should be used, i.e. EXCEL cannot perform such statistics, as well as duplicates do not guaranteed the aforementioned requirements, (b) the reciprocal of any experimental response is strongly erroneous (it has been published long ago, e.g. “Statistical Estimations in Enzyme Kinetics”, by G. N. WILKINSON, 1960) and thus could not be used after 57 years(!), and yes we need suitable non linear model equations whose fitting, nowadays, is very easy, (c) the natural meaning of the parameters like k_{cat}/K_m, k_{cat} etc, as well as how these parameters should estimated and utilized not only for enzyme kinetics purposes, and therefore to understand (the authors) that “Enzyme activity” is meaningful only when it is associated to any one of the Michaelis-Menten parameters, i.e. is located on either the early initial steps of the enzymatic reaction or on about the saturation of enzyme by the substrate (i.e. on a quasi linear part) or else cannot be estimated, or it is estimated with huge errors (for reasons which should need pages to be explained). Overall: This manuscript entitled as “Temperature induced conformational entropy of α-amylase with and without additive” should undergo a revision.	Thank you. The statement that Microsoft Excel can be used to calculate mean (average) of several values of the same parameter including the Standard deviation is extremely verifiable. This is the meaning of that statement. However I have come to understand the position of the reviewer as regards the paucity of data per assay of the enzyme. I am not actually imitating past researchers but some of them presents their results as mean$\pm$S.E.M from 4 determinations ($n = 4$) and as just mean from duplicate assay or determination. See Table 1 in the paper entitled: An investigation of the action of porcine pancreatic α-amylase on native and gelatinised starches published in Biochimica et Biophysica Acta 1525 (2001) 29-36 by Slaughter et al Some also report only the mean of the values of various paramerters. Kindly see the Table 1 in the paper entitled: Progesterone and β-Estradiol Stimulate Seed Germination in Chickpea by Causing Important Changes in Biochemical Parameters by Serkan Erdal and Rahmi Dumlupinar (2010) published in Verlag der Zeitschrift fur Naturforschung, Tübingen; In the paper can be found a statement that is not too clear: All values are means of at least three determinations with 2 replicates (Each experiment was repeated at least three times with two replicates.). The option left is to report the data in the tables as mean values without SD since the reviewers feels more determinations need to be carried out in order to justify the inclusion of SD. Not just complex mathematical formalism that should be an expression of the quality of an idea or theory; a simple mathematical model was derived based on an empirical observations. The velocity of hydrolysis of potato starch increased with the increase in temperature; there was also a decrease within observed temperature range. The velocity and 1/velocity were seen to be linearly proportional to temperature where there were increasing velocity and decreasing velocity respectively. This is not very strange but the models were new and modest contribution to knowledge. These model cannot be exclusive of the model applied by Fitter, Reference 8. Reference number 11 was given to support the fact that velocity of hydrolysis is indispensible. The reference was very relevant to the research. This research was not about the determination of k_{cat}/K_m, k_{cat}. SDI has not shown any preference for linear regression analysis or nonlinear regression as some few journals may do. But whatever the case may be this work has nothing to do with kinetic parameters. Besides if mean is calculated, nonparametric statistics may not apply.