

Review Form 3

Journal Name:	Asian Journal of Biochemistry, Genetics and Molecular Biology
Manuscript Number:	Ms_AJBGMB_129537
Title of the Manuscript:	Linking the Pre-steady-state, Steady-state, and Zero-order kinetic parameters together for Industrial applications
Type of the Article	

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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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	<p>The ability to bridge Pre-Zero-Order and Zero-Order kinetics allows for a more comprehensive understanding of enzyme behavior, especially in industrial processes where concentrations can be extremely high. This could potentially improve process optimization in industries that rely on enzyme catalysis (e.g., food, biofuels, pharmaceuticals)</p> <p>The new approach for relating prss and Zero-Order kinetics parameters could provide more accurate predictions of enzyme behavior at high concentrations, which could lead to more efficient reactors, optimized enzyme dosages, and reduced resource waste in industrial processes.</p> <p>Overall, linking Pre-Zero-Order to Zero-Order kinetics provides a practical solution for industries using enzymes at high concentrations, offering insights into reactor design and enzyme efficiency. The findings could ultimately lead to more cost-effective and efficient industrial processes, contributing significantly to the fields of industrial biotechnology, enzymology, and applied biochemistry.</p>	
Is the title of the article suitable? (If not please suggest an alternative title)	The title is suitable, but please consider "Linking Pre-Zero-Order to Zero-Order Kinetics: Derivation of Kinetic Equations for Enzyme Catalysis at High Substrate Concentrations"	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	I believe the abstract is suitable	
Is the manuscript scientifically, correct? Please write here.	I could not find any inaccuracies	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Only 6 out of 33 references are older than 20 years, which I believe is acceptable. The references used fit well for the context of this article	

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<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>In Introduction: "the methodology that can give a definite value without resorting to the separate determination" could be better than "the methodology that can give a definite value without the resort to separate determination"</p> <p>"There is also a need for methods by which such a kinetic constant (specificity constant, SC) can be determined, even under very high concentrations of the substrate." Instead of "is also the need for ways by which such a kinetic constant (specificity constant, SC) can be determined even under very high concentrations of the substrate"</p> <p>"There is substantial information about assaying at very low concentrations of the enzyme, which supports the condition that validates the Michaelis-Menten equation." Instead of "There are a lot of pieces of information about assaying at very low concentrations of the enzyme that go for the condition that validates the Michaelis-Menten equation"</p> <p>"It should be made clear that the abbreviation 'HBHMM' is intended to honor the earlier contributors to what later became the Michaelis-Menten equation. High-ranking adherents of MM notation may not be comfortable with this alternative name." instead of "Let it be made clear that the abbreviation, 'HBHMM' is intended to remember the earlier contributors to what latter become Michaelis-Menten equation otherwise high-ranking adherents to MM notation may not be comfortable with the former."</p> <p>"It is clear that the most cost-effective means for optimizing industrial yield is under the condition that validates sQSSA." Instead of "It is down-to-earth clear that the most cost-effective means for the optimization of the industrial yield of the desired product is under the condition that validates sQSSA."</p> <p>In Theory: Please consider toning down "Thus an anonymous comment that the physical meaning of phi used in this research has no physical meaning is rather intellectually preposterous." "The issue will be discussed later." Instead of "The issue will be discussed latter." "The initial rates from the assay of the enzyme, 0.0002 g/l and 0.002 g/l, have already been explored in the literature but represented here for descriptive analysis and comparison." Instead of "The initial rates from the assay of the enzyme, 0.0002 g/l and 0.002 g/l, have already been explored in the literature but represented here for descriptive analysis and comparison."</p>	
<p>Optional/General comments</p>		

PART 2:

	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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

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<p>Department, University & Country</p>	<p>USA</p>