

Review Form 3

Book Name:	Contemporary Research and Perspectives in Biological Science
Manuscript Number:	Ms_ BPR_ 3911
Title of the Manuscript:	Role of central channel on catalytic activity of Scytalidium catalase
Type of the Article	Book Chapter

PART 1: Comments

	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
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.	This manuscript provides valuable insights into the catalytic mechanisms of <i>Scytalidium thermophilum</i> catalase-phenol oxidase (CATPO), highlighting the significance of the central channel in enzyme activity. By elucidating the effects of specific amino acid mutations on catalytic performance, the study enhances our understanding of enzyme structure-function relationships, which is crucial for biocatalysis applications. More importantly, the study contributes to the general field of enzyme engineering as it provides some potential pathways to the development of more efficient biocatalysts for industrial processes. Overall, this research would serve as a basic reference for further studies aimed at optimizing catalase enzymes for different biotechnological applications.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes	
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.	Yes, the abstract of the article is quite comprehensive. It does an excellent job summarizing the important points of the study, from a background on catalase and its dual function as a phenol oxidase, the specific focus on the role of the central channel in the catalytic mechanism, and the methodology involved in point mutations of the T372 amino acid. Additionally, it presents findings about the effect of these mutations on the catalytic activity of the enzyme, which will give a clear overview of the study's importance and its implications for enzyme engineering. The abstract captures the gist of the research and its contribution to the scientific community as a whole.	
Is the manuscript scientifically, correct? Please write here.	The manuscript is scientifically sound and uses standard methods to address the role of the central channel in the catalytic activity of CATPO. Results on mutations that affect the enzyme's activity are consistent with established practice in the field.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references will include recent works and foundational texts, giving solid research background; however, the most current citation is dated 2019, which means that some more recent breakthroughs in the discipline may not have been included in the list of references.	
Is the language/English quality of the article suitable for scholarly communications?	Yes	
Optional/General comments		

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

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