



SDI Review Form 1.6

Journal Name:	Asian Journal of Chemical Sciences
Manuscript Number:	Ms_AJOCS_30678
Title of the Manuscript:	KINETICS AND THERMODYNAMIC PROPERTIES OF CATALASE ONTO DIATOMITE
Type of the Article	Original Research 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.

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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		
Minor REVISION comments	1) Line13. Authors should state the pH where electrostatic attraction (isoelectric point) occurred (maximum adsorption) 2) Line 50 and 51 should be harmonized to make meaning 3) Line 68, write in full SEM, FTIR-ATR, TGA and BET, although you did at line 81 subsequent usage can be abbreviated 4) Line 71-73, "Adsorption of enzyme was tested in batch and their kinetic parameters were determined. The thermodynamic activation parameters of the process, such as activation energy, entropy, enthalpy and the Gibbs free energy, also determined". Prior to this time this experiment has not been done. Authors should correct this statement 5) Line 96 "Agitation was done for 120 min, which is more sufficient than time to reach" author should correct grammatical error, also they should have stated various contact time interval. 6) Line 97-98 Authors should justify their claim of equilibrium time that cannot exceed 120min with citation(s) 7) Line 105 the use of constant temperature bath might be misleading why not say temperature bath 8) Line 193 and 194 Authors should avoid the use	1) Ok. This statement was added to the Abstract 2) Ok. The sentences on lines 51 and 52 were corrected to be more meaningful. 3) Ok. In line 68, SEM, FTIR-ATR, TGA and BET abbreviations are given precisely. 4) Ok. This statement was corrected in text. 5) Ok. This statement was corrected in text. 6) Ok. This statement was corrected in text. 7) Ok. "constant" was removed from the sentence. 8) Ok. They were corrected in text.



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	of Initials in reference e.g Vecchia, R.D. et al 9) Line 209 Authors should support claim of dehydroxylation loss with a citation 10) Line 239, initial reaction rate is $k_2q_e^2$ (mg/g.min) not k_2q_e 11) Line 247, R^2 is not enough to conclude kinetics order, use expression for sum of error squares or test for kinetics order 12) From Figure 1, optimized concentration is 0.25mg/ml why not use this during variation of pH at various time interval and also for variation of buffer concentration and temperature. 13) Line300 "The negative standart entropy change" Authors should correct grammatical error	9) Ok. References were added 10) Ok. The equation was corrected. 11) Ok. This statement was corrected in text. 12) The experiments in Figure 1 were our initial experiments. When the amount of enzyme was taken as 0.25 mg / mL, it was difficult to control in some experiments. The increase in the amount of enzyme was sometimes caused by precipitation in solution. So we used 0.20 instead of 0.25 in other experiments. To see the effect of the amount of enzyme, we did not remove 0.25 from Figure 1. 13) Ok. They were corrected.
<u>Optional/General</u> comments		