



SDI Review Form 1.6

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	Ms_IJBCRR_29288
Title of the Manuscript:	DFT Calculations on Corrosion Inhibition of Aluminum by Some Carbohydrates
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.

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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)
<u>Compulsory</u> REVISION comments	1. Page no:5, the table :2 contains the datas for aluminum and the inhibitor. In paragraph :2, in the discussion , the authors discussed that the interaction of inhibitor and iron(.....values of LUMO_{inh} -HOMO_{Fe} gap) The authors can make a clarification in this regard. 2. Page no:5, in the sentence “..... due to the smaller energy gap of Al(5.5529eV) as compared to that of Fe(7.7514eV). The authors have not mentioned the inhibitors with which these metal aluminum and iron values are taken into account. 3. Page no:6. In the sentence.....” the fructose, glucose and lactose have the larger values than maltose and sucrose.”. The authors has not mentioned values of which parameter. 4. Page no:8, conclusion can be modified as follows: i) All the ΔG values are negative which indicate spontaneous adsorption process. ii) the investigated carbohydrates show better interaction with aluminium than that with iron. iii) It is concluded that..... maltose and sucrose as it agrees with.....	
<u>Minor</u> REVISION comments	1. Page no:1 introduction part, there is gramatical error in the the sentence “ aspects to be taken into account.....” I can be modified as , “Aspects are to be taken into account.....” 2. Page no:2, In Results and discussion, the sentence ,” the carbohydrate compounds under investigation are glucose, ... are shown in fig:1” , It can be modified since there is a grammatical errot in the sentence.	



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	3. Page no:2, In Results and discussion, “after optimisation , together with their HOM and LUMO” can be modified as “ HOMO abd LUMO”.. 4. Page no:6&7, the sentences , “this shows that the inhibitor..... is the best” this is because than a hard molecule “ can be modified as follows: this shows that the inhibitor with the higher value of softness is the best as it is more reactive than a hard molecule”. 6. Page no:8, there is a grammatical error in the sentence, “ for anodic inhibitor, ΔG of lactose is more negative than that of maltose and sucrose because comparedto that of maltose and sucrose”. It can be modified as “ for anodic inhibitor, ΔG of lactose is more negative than that of maltose and sucrose because of.....comparedto that of maltose and sucrose”.	
<u>Optional/General</u> comments	nil	

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