SCIENCEDOMAIN *international*
www.sciencedomain.org

SDI Review Form 1.6

Journal Name:	**Advances in Research**
Manuscript Number:	**Ms_AIR_23224**
Title of the Manuscript:	**Equilibrium Isotherm Study for Removal of Mn (II) from Aqueous Solutions by Using Novel Bioadsorbent Tinospora cordifolia**
Type of the Article	**Original Research Articles**

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.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline

SDI Review Form 1.6

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	**The author should address the observations above.** **The topic is a wonderful area.** Line 10: Manganese is one of the toxic ions. This research studies the ..... Line 11: manganese from water and wastewater by using plant……. Line 15 – 17 : The results obtained indicated that 1.0gm $50mL^{-1}$ adsorbent was enough to remove 91% of Mn(II) in the 200 mg L-1 16 of Mn(II) solution, when agitated for 30 minutes of contact time. Is the mass of adsorbent measured in grams per liter? I think it is measured in grams. Line 20 – 21: The uptake capacity was found to be 24.69 mgg^{-1} for batch study according to Langmuir isotherm. Did you compare this value with ur maximum equilibrium metal uptake obtained during ur batch biosorption experiments? Line 34: metals including manganese from industrial waste water has been practicing for several years. Wastewater not waste water Lines 37 to 38: permissible limit (mg L-1) for Mn(II) in wastewater is 2 mg L^{-1} according to (Environment (Protection) Rules VI, 1986). Multiple parenthesis. Line 39: Among the toxic heavy metal ion which present in potential health hazard to aquatic animals and…. Ions not ion Lines 40 – 42: please rephrase the grammar. Line 46: ……carcinogenic and cause cancer.	

	Divalent manganese……. causes and not cause Line 49: waste water such as filtration, adsorption, chemical precipitation……. wastewater Lines 55 & 56: Biosorption is a physical-chemical process, simply defined as the removal of substances from solution by biological material. Defined by who? No reference Lines 59n & 60: In past years there are various adsorbent which were used for removal of Mn(II) in ground water and wastewater. Line 77: After that, the biomass was stay for 30 minutes with HCl (0.1M) solution. After that, the biomass stayed inside HCL(0.1M) solution for 30 minutes. Line 125, 134, 141, 143 and 144: You repeatedly represented the unit of mass of biosorbents as mg/l. Apply this on the formula for obtaining adsorbent capacity and use dimensional analysis to crosscheck if u will get mg/g as the unit. My analysis shows that you will get L as unit of uptake capacity instead of mg/g or g/g as the case may be. Line 161 & 162: In the present work, Langmuir isotherm model was applied to study the process of biosorption. The Langmuir model is probably the best known and most widely applied adsorption isotherm. Where is your reverence on this? Line 171 to 174: Rephrase your grammar Line 175: The values of correlation coefficient R2. The value of correlation coefficient R^2 Line 176: were 0.997 which were high and indicated……. is 0.997 which is high and indicates Line 177, 178 and 199: correct all R2 to R^2 Line 199: There should be a comma after comparison and replacement of qm with q_m Line 216: When compare the two spectra before and	

SDI Review Form 1.6

	after adsorption, put comma after compare. Line 223: But, after metal adsorption there were clear band shift and intensity. put comma after adsorption and change were to was Line 254 & 255: The *T. cordifolia* have good adsorption capacity for batch study was 20.69 mgg-1 according to Langmuir adsorption isotherm. The *T. cordifolia* has good adsorption capacity of 20.69mgg^{-1} for the batch study in accordance to Langmuir adsorption isotherm. Line 255, 256 & 257: The correlation coefficient value of adsorption isotherm model Langmuire and Freundlich isotherm was 0.997 and 0.941. The high values of R2 in Langmuir model give an indication of favorable adsorption.	
Minor REVISION comments		
Optional/General comments		

Reviewer Details:

Name:	**Nwidi Ignatius Chineke**
Department, University & Country	**University of Nigeria, Nsukka, Nigeria**