



SDI Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_23392
Title of the Manuscript:	Effect of Batch Removal of Copper from aqueous solutions using Tannin-immobilized Hide Collagen
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	<u>Comments on irjpac23392:</u> 1. The English language and grammar should be improved. 2. The information about 'Materials' is not properly explained. For example, more information about 'Bagaruwa (Acacia nilotica)' should be provided for creating some interest about the same to the readers. What is its vernacular name along with English name? What are the medical uses and other uses of them? It belongs to which family? Is this material procured free of cost or how much money spent on procurement? Whether money spent on transportation or not? (this information is required for understanding its economical feasibility) Is it wild plant or tree or agriculture plant? Whether it is edible or non-edible? If it is cultivated, how much area covered by this plant. Like these, more information should be expected about this material because it is important in this study. 3. The remaining materials like chemicals etc., may be provided under materials 4. Preparations of tannins and immobilized tannins are not explained properly. It needs elaboration to avoid the confusion and it may be explained under 'Experimental Methods'. The first sentence under 'preparation of Tannins and Immobilized Tannins' (page 3) may be rewritten for providing clarity. What is pod of 'Parkia biglobosa'? Reference relating to immobilization may be given	(1)The language and grammar has been improved tremendously. (2)The information has been updated in the manuscript. (3)It has been effected (4)The preparation of immobilized tannins was according to the standard methods used in tannage in leather making by leather industry. Full detail would make the manuscript to be too bulky. The reference is there



SDI Review Form 1.6

	along small description about the preparation methods. 5. What is ANT? After mentioning the abbreviated form first time in the script, then it may be given in the remaining places of the manuscript. 6. At which wavelength, the concentration of Cu(II) was determined? 7. The first sentence under 'Immobilization of Tannin on collagen fiber' is not conveying the meaning and involves lot of confusion. It may be rewritten to reduce the confusion. What is HB in the second line and first line under 'Immobilization of Tannin on collagen fiber'? 8. k_1 is not found in equation (1) 9. It should be 'k_2' instead of 'k' under equation (2) 10. The expression of left hand side of equation (6) should be 't/q_t' instead of '$1/q_t$'. 11. Unit mentioned for second order rate constant is not uniformly mentioned. 12. It is advised to check the equations once again because notations are not uniformly written. Some notations written in equations are not matching with text. 13. Whether the second order rate constant is determined from the graph made in between 't/q_t' against 't' or 't/q_e' against 't'. (See the text below equation (6) in page no. 8) 14. It is advised to write experimental conditions in the captions of figures and tables for clarity purpose. 15. Units on Y-axis of Fig. 2 is not written. 16. The legend is not necessary in figures from 1 to 6 as it contains only one line/curve. 17. Sorption kinetics was performed at one concentration of Cu(II) only. Generally, kinetics is performed at least at 3 concentrations of absorbate for understanding the interaction between adsorbate and adsorbent in better way.	(5) It has been stated fully in the manuscript (6) It has been included accordingly. (7) It has been corrected (8) It has been corrected (9) It has been corrected (10) It has been corrected (11) It has been corrected (12) It has been corrected (13) It is in order as it is (14) It has been effected (15) It has no unit, It is a derived constant (16) It has been corrected It is not a concentration but at various time intervals hence it is in
--	---	---



SDI Review Form 1.6

	It is expected in similar lines in this work also. 18. The units for first-order and second-order rate constants provided in Table 3 are not correct. Check and correct it. 19. As already suggested, more data is expected in Table 3. However, the values provided against pseudo-first and pseudo-second in Table 3 are confusing. It is understood from Table 3 that the experimental Q_e value is 17.104 mg/g for pseudo-first order (row 1 and columns 1 & 2). But, the calculated Q_e value for pseudo-first order is not given against pseudo-first order. The calculated and experimental values of Q_e shown against pseudo-second-order In 3 and 4 columns (1 row) of Table 3 is not equal (or almost al equal) to each other. It indicates that the claim made by author(s) is not correct. What is Q_e^2 in Table 3? 20. The rate constant of pseudo-second order shown in Table 3 is negative. It is advised to provide some reference(s) where the author(s) found similar trend for clarity purpose. 21. Table 3 and Table 4 are not properly placed in the manuscript. 22. It is advised to use uniform notations throughout the manuscript. What is Q^m or q^m and q^e or q^m. What is R_L?vb 1 23. Unit for K_F is not mentioned in Table 4. 24. The author(s) has/have failed in explaining the thermodynamic properties properly. 25. Finally, it is advised to rewrite this manuscript by taking maximum care and incorporating above suggestions to improve the quality of the paper.	order as it is. (18) It has been effected (19) It has been effected (20) It has been effected (21) It has been effected (22) Q^e, q^m, q^e, are the calculated values of the equilibrium Q^e for kinetics while Q^m or q^m is the calculated value for isotherms R_L is the dimensionless separation factor for Langmuir (23) It has been corrected (24) The thermodynamic properties have been
--	---	--



SDI Review Form 1.6

		properly explained in the manuscript (25) Hence the write up has been rewritten to meet up with the reviewer expectations. Thanks
<u>O Minor</u> REVISION comments	no	
<u>Optional/General</u> comments	no	