



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#"><u>International Research Journal of Pure and Applied Chemistry</u></a>                          |
| Manuscript Number:       | 2014_IRJPAC_12722                                                                                            |
| Title of the Manuscript: | FTIR STUDIES ON COMPOSITE BLENDS AND BIODEGRADABILITY PRODUCTS OF GUNA PROTEIN/CELLULOSE BASED BIOCOMPOSITES |
| 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.

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>)



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**PART 1: Review Comments**

|                                     | <b>Reviewer's comment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Author's comment</b> (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)                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Compulsory</b> REVISION comments | <p>This paper deals with guna protein/cellulose based biomaterial composite blends that can be used as possible alternative to synthetic polymers and eventually become a substitution for non-biodegradable plastics waste. In general, the authors should perform a wide revision on the English language usage. The title correction is a must! The experiments regarding FT-IR analyses are ordinary and the discussions on chemical bonds and polymer characterization, as well as conclusion section are sloppy and need to be much more concise and focused on the main questions the authors propose to answer, and why these questions are important. The references are incomprehensive and appear to be not up-to-date, and literature overview is very poor and unsatisfactory. Overall, the Manuscript supplements the paper entitled "Studies on the Mechanical and Biodegradability properties of Guna Protein/Cellulose Based Biocomposites" published in <i>Research Journal of Pharmaceutical, Biological and Chemical Sciences</i> as well as paper entitled "Studies of The Swelling Properties of Guna Protein/Cellulose Biocomposites" published in <i>Medical Science</i>, but is not well written, requires additional literature</p> | <p>The observations made will duly and painstakingly be adhered to in order to improve the quality of the little contributions made by me as the major author. It can also be observed that I sighted some other methods of characterization that can be used to study the progress of biodegrading of polymers. Therefore, as learnt from literature, FTIR studies is only part of but a reliable method, just like DSC, SEM etc of evaluating the effects of various polymer blends on degradation of the polymers. Meanwhile the references have been updated.</p> |



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|  | <p>overview and proper citing. However, if authors decide to improve their Manuscript for future possible publication a serious revision is a must!</p> <p>The list the essential specific points:</p> <ol style="list-style-type: none"><li>1. Lines 13-14, authors state that “the results obtained from FTIR analysis confirmed the degradability of the polymer (guna protein/cellulose) by chemical changes in terms of appearance and shortening of peaks”. This has to be explained in details!</li><li>2. Lines 39-40, 42, please correct the sentence in order to become more understandable.</li><li>3. Line 67, something is missing. Please correct it.</li><li>4. All figures’ captures has to be placed in some order. Figures’ captions must also be more descriptive.</li><li>5. Lines 247-250, please improve the whole paragraph, also by correcting “for the period between 20 and 80 days”. What does “was to advance an understanding” mean? Please correct this, too.</li><li>6. Lines 265-266, authors state that C=O carbonyl stretching was recorded for all the blends with the exception of the composite</li></ol> |  |
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|  | <p>80/20. Explain what the reason is for this.</p> <ol style="list-style-type: none"><li>7. Lines 273-278, please change “frequencies” to “wavenumbers” throughout the Manuscript! Pay attention to the SI units! Something is missing in this sentence, too. Please check it and correct it! Revision of English language is a must!!!</li><li>8. Lines 281-282; 291-293, please correct the whole paragraphs.</li><li>9. Lines 303-304, authors state that “These peaks were ascribed to C-H aromatic stretch and C-H alkane bending which were only noticed in composite ratio 30/70.” Please explain in details what the reason for this is. Also explain the reason for the statement in the following lines 305-306.</li><li>10. Paragraph 313-317, please discuss if there is any notable trend regarding prepared samples.</li><li>11. Lines 324-325, something is missing in this sentence. Please correct it.</li><li>12. I suggest reducing the total number of figures by merging given results (figures) to the reasonable scale. This would help readers to follow the trend for all given</li></ol> |  |
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|                                  | samples.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| <b>Minor</b> REVISION comments   | <p>Herewith, I also suggest the list of typos and minor changes:</p> <ol style="list-style-type: none"> <li>1. Please correct the title by changing BIODEGRADABILITY to BIODEGRADABLE</li> <li>2. Correct “cm<sup>-</sup>“ to “cm<sup>-1</sup>” throughout the Manuscript.</li> <li>3. Correct upper and lower cases, proper writing within the manuscript (for instance lines 17, 28, 54</li> <li>4. Line 27, <i>biocompatibility</i> with what?</li> <li>5. Line 58, Guna was obtained</li> <li>6. Line 80, please write wavenumbers in reverse order!</li> </ol> |  |
| <b>Optional/General</b> comments |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |