RESEARCH PAPERS
REVIEW ARTICLE AND BOOK CHAPTER
PUBLISHED
Research Papers PUBLISHED in INTERNATIONAL Journals


2. Debasish Sahoo* and P L Nayak “Controlled Release of Ofloxacin From Gelatin Blended With Cloisite 30 B” International Journal of Materials Research


“Review Article” PUBLISHED in INTERNATIONAL Journal


“Book Chapter” PUBLISHED INTERNATIONALLY

The modification of the Ph.D. thesis entitled “Design And Synthesis of Chitosan Based Biocompatible Materials And Their Nanocomposites For Antimicrobial Activity And Controlled Drug Delivery System” as suggested by the learned Referee

1. The most important aspect and novelty of the investigation is to develop and utilize biopolymer “chitosan” from shrimp shell and use of chitosan, its derivatives and chitosan blended with other polymers for antimicrobial activity and Controlled drug delivery application using various kinetic models.
2. The entire work in the thesis was carried out according to the purpose/objectives of my investigation on the various titles presented in different Chapters.
3. Some of the grammatical and theoretical error has been corrected.
4. In Section I of Chapter 2 chitosan has been prepared by a new method developed by me.
5. Though the chitosan was procured from India Sea Food Kerala but in Section I Chapter 2 I have characterized it and compared its properties with the chitosan prepared by me in our laboratory.
6. P-68. 2nd para, 4th line: The word “deprotonated” has been corrected as “deproteinated”.
7. P-71: The full form of “ISFC” is- “India Sea Food Chitosan” and it has been given in its expanded form in the revised copy.
8. The purpose of preparation of Chitosan nanocomposites is the most important aspect of my thesis. I have prepared nanocomposites by adding Cloisite 30B. Addition of Cloisite 30B enhances both the physical and chemical properties.
9. In the section III, Chapter 2 the hydrophilicity was measured by swelling studies.
10. Pp 124-179 is the most spectacular part of my thesis since in this section I have discussed types of drug delivery and various aspects of mathematical models describing the drug release kinetics. Hence it is not irrelevant.
11. In chapter 2 there are seven sections. I have characterized the composites by FTIR, XRD and SEM analysis but I have not studied the thermal and mechanical properties as it is not related to drug delivery system.
12. The drug was loaded according to the w/w ratio with the polymer. The statement in Section 3.35.2 has been corrected as “Ofloxacin of different loadings, i.e., 10, 20, 30, 40 and 50 wt% were then added to the chitosan solution having 2.5% of Cloisite 30B”.
13. In all my experiment the drug loading was carried out by the method developed by me.
14. Different drugs were used to know the different diffusion kinetics, nature of the pH media, amount of the drug loaded etc.
15. The purpose has been discussed in the revised thesis.
16. In order to enhance the quality of my thesis I have attached the research publications at the end of the thesis not to enhance the volume of the thesis. But as per the suggestions made by the referee I have removed those papers in my revised thesis and given only a list containing the details of published papers at the end of the thesis.
I may mention here that the most noticeable part of my investigation is the postulation of various kinetic methods for drug delivery, various kinetic parameters like “k” and “n” value has been computed and based on the value the mechanism of drug delivery was investigated because when a drug enters into the body it passes through different pH and in each pH the drug release kinetic is different. So in my future work I will go for the in vivo study of the drug release.