

(54) Title of the invention : DEVELOPMENT OF NANOPARTICLE FORMULATION OF ACECLOFENAC

(51) International classification :A61K0031216000, A61K0009510000, A61K0009140000, A61K0009160000, A61K0047140000
 (86) International Application No :NA
 Filing Date :NA
 (87) International Publication No :NA
 (61) Patent of Addition to Application Number :NA
 Filing Date :NA
 (62) Divisional to Application Number :NA
 Filing Date :NA

(71)Name of Applicant :
 1)Mr. Suman Kumar Rathore
 Address of Applicant: Assistant Professor, Sitaram Kashyap College Of Pharmacy, Rahod, Chhattisgarh, PinCode: 495557, India. -----
 2)MR. GAURAV VERMA
 3)Mr. Dimak Chand Sahu
 4)Dr. Vibhor Kumar Jain
 5)Dr. Bindu Jain
 6)Mr. Mohd. Akhtar Rasool
 7)Ms. ASHA TIWARI
 8)Mrs. Niharika Thakur
 9)MR. VIPIN KUMAR WANI
 10)Mr. Mohish Soni
 11)DR. ISHAB KUMAR
 12)Dr. MUKESH KUMAR SINGH
 13)Mr. Vijay Kumar Rai
 Name of Applicant : NA
 Address of Applicant : NA
 (72)Name of Inventor :
 1)Mr. Suman Kumar Rathore
 Address of Applicant: Assistant Professor, Sitaram Kashyap College Of Pharmacy, Rahod, Chhattisgarh, PinCode: 495557, India. -----
 2)MR. GAURAV VERMA
 Address of Applicant : Sitaram Kashyap College Of Pharmacy, Rahod, Chhattisgarh, Pin Code: 495557, India. -----
 3)Mr. Dimak Chand Sahu
 Address of Applicant : Assistant Professor, J K College of Pharmacy, Near Gatora Railway Station, Bilaspur, Chhattisgarh, Pin Code: 495001, India. -----
 4)Dr. Vibhor Kumar Jain
 Address of Applicant : Principal, J K Institute of Pharmaceutical Education and Research, VIII, Farhada, Bilaspur, Chhattisgarh, Pin Code: 495001, India. -----
 5)Dr. Bindu Jain
 Address of Applicant : Professor, J K College of Pharmacy, Near Gatora Railway Station, Bilaspur, Chhattisgarh, Pin Code: 495001, India. -----
 6)Mr. Mohd. Akhtar Rasool
 Address of Applicant : Assistant Professor, J K College of Pharmacy, Near Gatora Railway Station, Bilaspur, Chhattisgarh, Pin Code: 495001, India. -----
 7)Ms. ASHA TIWARI
 Address of Applicant : Sardar Patel University, Balaghat, Madhya Pradesh, Pin Code: 481331, India. -----
 8)Mrs. Niharika Thakur
 Address of Applicant: Tunga Institute of Pharmacy, karond bypassroad, Gandhinagar, Bhopal, Madhya Pradesh, PinCode: 462038, India -----
 9)MR. VIPIN KUMAR WANI
 Address of Applicant :LCTT School Of Pharmacy, Bodri, Bilaspur, Chhattisgarh, Pincode: 495220, India -----
 10)Mr. Mohish Soni
 Address of Applicant :A-306, Madhav Avenue, Nr. Amardeep Park Society, Parshwanath Canal, Krishna Nagar, Ahmedabad, Gujarat, PinCode:382345 -----
 11)DR. ISHAB KUMAR
 Address of Applicant: Principal, Shaheed Bhagat Singh Polytechnic And Pharmacy College, Patni (Tarn-Taran),Punjab, PinCode: 143416, India -----
 12)Dr. MUKESH KUMAR SINGH
 Address of Applicant : Associate Professor , Shri Rawatpura Sarkar institute of Pharmacy Kumhari, Durg Chhattisgarh, Pin Code-490042, India. -----
 13)Mr. Vijay Kumar Rai
 Address of Applicant : Assistant Professor, J K College of Pharmacy, Near Gatora Railway Station, Bilaspur, Chhattisgarh, PinCode: 495001, India -----

(57) Abstract :

The present invention relates to the preparation of controlled release nanoparticle with enhanced solubility and dissolution property by solvent evaporation method. Whereas the polymeres used in the preparation of aceclofenac nanoparticles F1-F12 were Ethyl cellulose, Chitosan & HPMC K100 at different ratios. The solubility studies suggested that the nanoparticle formulations enhanced the bioavailability of Aceclofenac by improving its solubility and dissolution rate when compared to pure drug. Zeta potential value of Aceclofenac nanoparticles showed a positive surface charge this is because of more anion on the surface of the particles higher the charge higher is the stability of the nanoparticle.out of all the formulations formulation F6 of nanoparticles shown the extent of drug release around (96.93 %) in 12hrs.

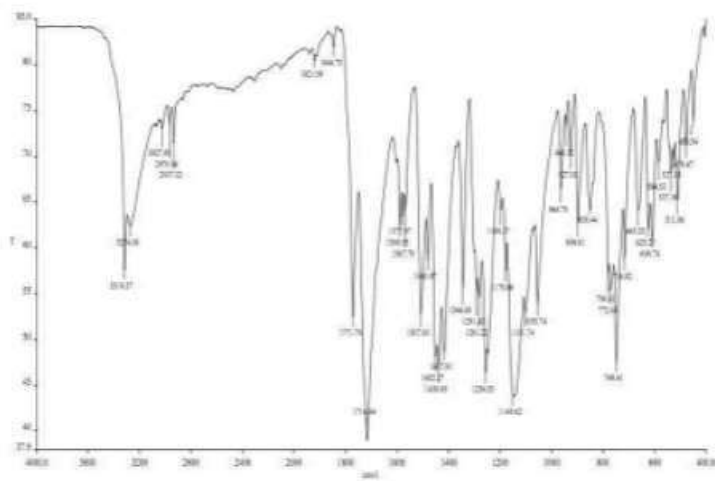


Figure 1

No. of Pages : 20 No. of Claims : 2