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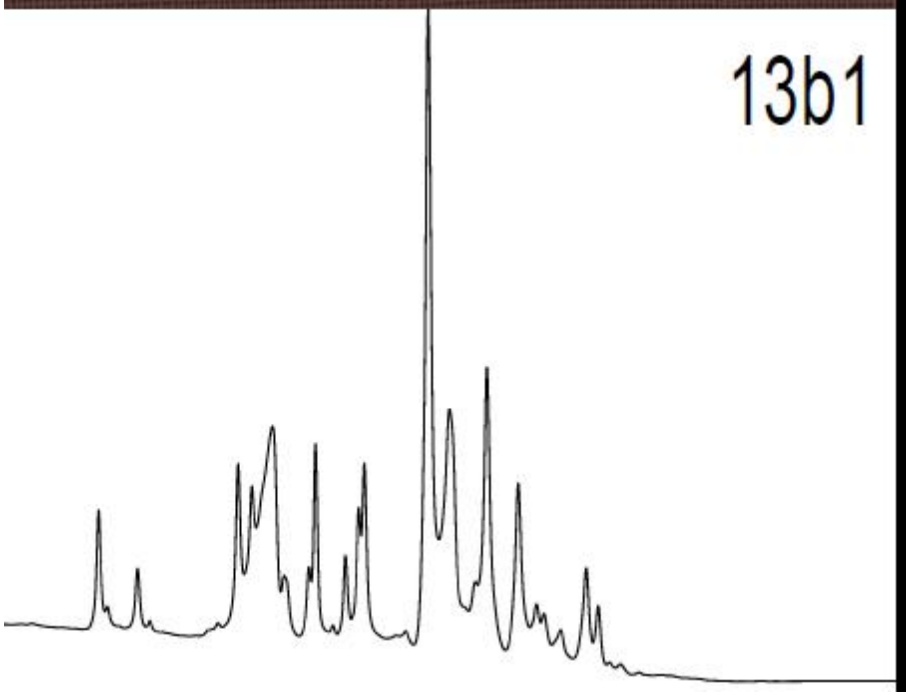
# HPLC Method for Determination of APIs in pharmaceutical formulation

Parimal Chatrabhuji
Chintan Pandya
Mukesh Patel

13b1



The book is aimed at Floristic study on Bordevi and around Girnar forest of Junagadh which is not well reported by any researchers. According to the present research work Bordavi situated into south range of Girnar forest & in between Girnar Parikrama root. Bordevi is situated in the western side of the mount Girnar. Enjoy the religious and natural beauty of Bordevi & arround the place has historical as weel as archeological importance. The temple of Goddess is present even today the deciduous thick forest of this area shows very high level of diversity in vegetation. Forest rich with valuable plant species is gift of God of Nature.To filll up this gap the present investigation was carried out for collection and identification of plants for floristic study. The book will be helpful to UG, PG and research students of Botany.

Dr.Kalpesh J. Bhatt did his Ph.D. in 2010. He has a teaching experience of 21 years (UG) and 09 years (PG). Dr.Kalpesh was a member BOS PG (Botany) at Saurashtra University. Presently Dr.K.J.Bhatt is actively engaged with teaching at PSSHDA-Kadi, HNGU India. He is also a recognized Ph.D. Supervisor.

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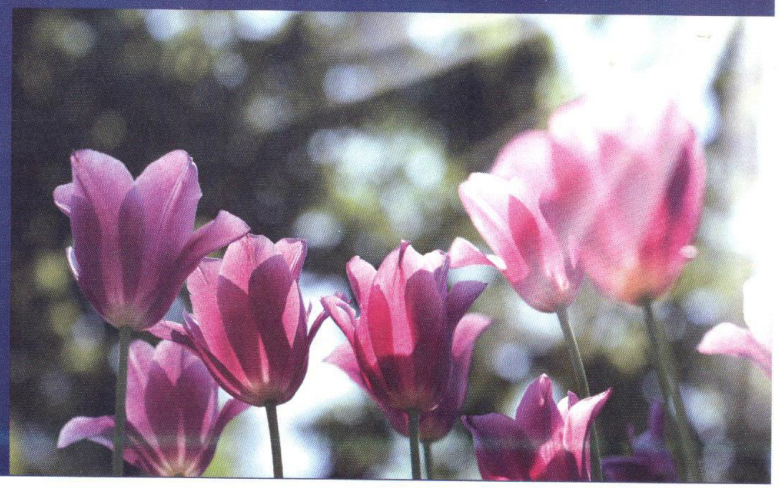
A Floristic study

Bhatt



Dr.Kalpesh Bhatt

# A Floristic study

(Bordevi and around Girnar forest, Gujarat India)

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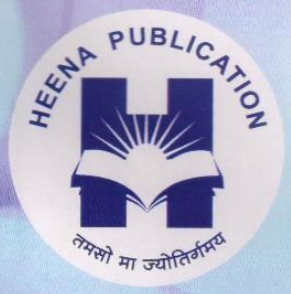
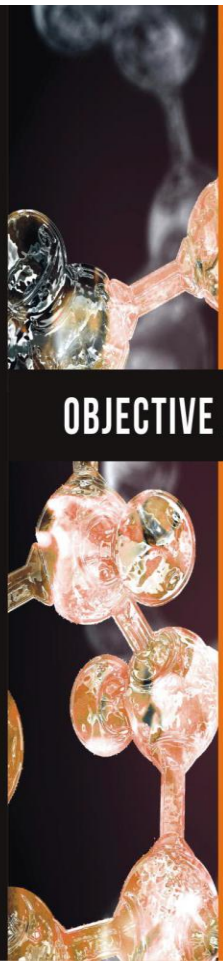
# Practical Chemistry




*by*
*Dr. Parimal M. Chatrabhuji*



# OBJECTIVE JEE (MAINS) CHEMISTRY



By
Dr. A. P. Zala
Dr. P. M. Chatrabhuji

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The work presented in the Book is aimed at the synthesis of new heterocycles containing active s-triazine moiety & styryl moieties. The prepared heterocyclic compounds were characterized by spectral studies and were screened for their anticancer and anti-HIV activities by National Institute of Health, U.S.A. Structure Activity Relationship is attempted to establish from the results of their biological activities.

Dr. Parimal M. Chatrabhuji did his Ph.D. in 2000. Presently, He is actively engaged in teaching at PSSHDA–Kadi, affiliated with HNGU as Asst. Prof. He has 10 years of teaching experience. He is a Ph.D. guide and supervising 2 Ph.D. research scholars. He has published 30 research papers. He has complited 2 research projects granted by UGC & KSV.

978-3-659-50565-2

Parimal Chatrabhuji

# Studies on s-triazine as anti-HIV and anti-cancer agents

Studies on heterocycles containing s-triazine

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About Book: This book includes introduction, classifications along with illustrations, some words on, polymerization processes, and versatile applications of polymers. Kelzo provides the state of the art of strategies, methods, and experimental procedures applied for the manufacturing of industrially important polymers of acrylic acids, and emphasize acrid-date systematic procedures that have proved effective and useful in industrial manufacturing of polymers. The handbook presents fit a new materials, the basic physicochemical concepts necessary to formulate new, safer and more effective polyacrylic acids. The handbook describes the important modern instrumental techniques with focus on their application in the field of polymer characterization. It also covers some conventional methods employed for production of physico-chemical and rheological properties of PAAs. This handbook deals with about hundred of secondary formulations and their key ingredients for the various products of consumer market and industrial markets of paint, pharmaceutical, cosmetic and chem industries, and provides a review of the chemical processes and methods involved in producing some as product formulations based on characteristic polyacrylic acids. The various grades of polyacrylic acids with their trade names and intended uses produced and supplied by representative manufacturers at the global market are also furnished in the book.

About Author: It is pleasure to write that I am associate professor at Pramukh Swami Science and H D Patel Arts college, Kadi, affiliated to Hemchandracharya North Gujarat university, India. My post-graduation in physical chemistry has been completed in August 1994 with first class from Sardar Patel university. My career has been started as a Lecturar (permanent post) at Pramukh swami science and H D Patel Arts college, Kadi, affiliated to Hemchandracharya North Gujarat university in October 1994 and serving till date. I have cleared UGC-CSIR NET (National Eligibility Test) for lecturership twice in the years of 2000 and 2001. Author has carried out a UGC granted research project on 'organo-polymers' in 2001-02 and this project's research work is published in the international journals of repute and also included in my doctoral thesis.
The author has research experience of 15 years and is a registered research guide from various universities. He has supervised six students for doctoral degree. Furthermore, two more UGC granted research projects including major research project on 'organic synthesis of heterocyclic compounds' were undertaken in 2011-13. My research fields are Polymer composites, Development and validation of analytical methods based on chromatographic techniques for bioactive compounds, Organic synthesis of heterocyclic compounds, Thermodynamic behaviour of pharmaceutical solution products, etc. More than 50 research papers were published in reputed international journals.
A parallel learning is maintained by getting degree of Master in Bussiness Administration (MBA) from B.K.School of Bussiness Administration, Gujarat University.

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MUKESH PATEL

PARIMAL CHATRABHUJI

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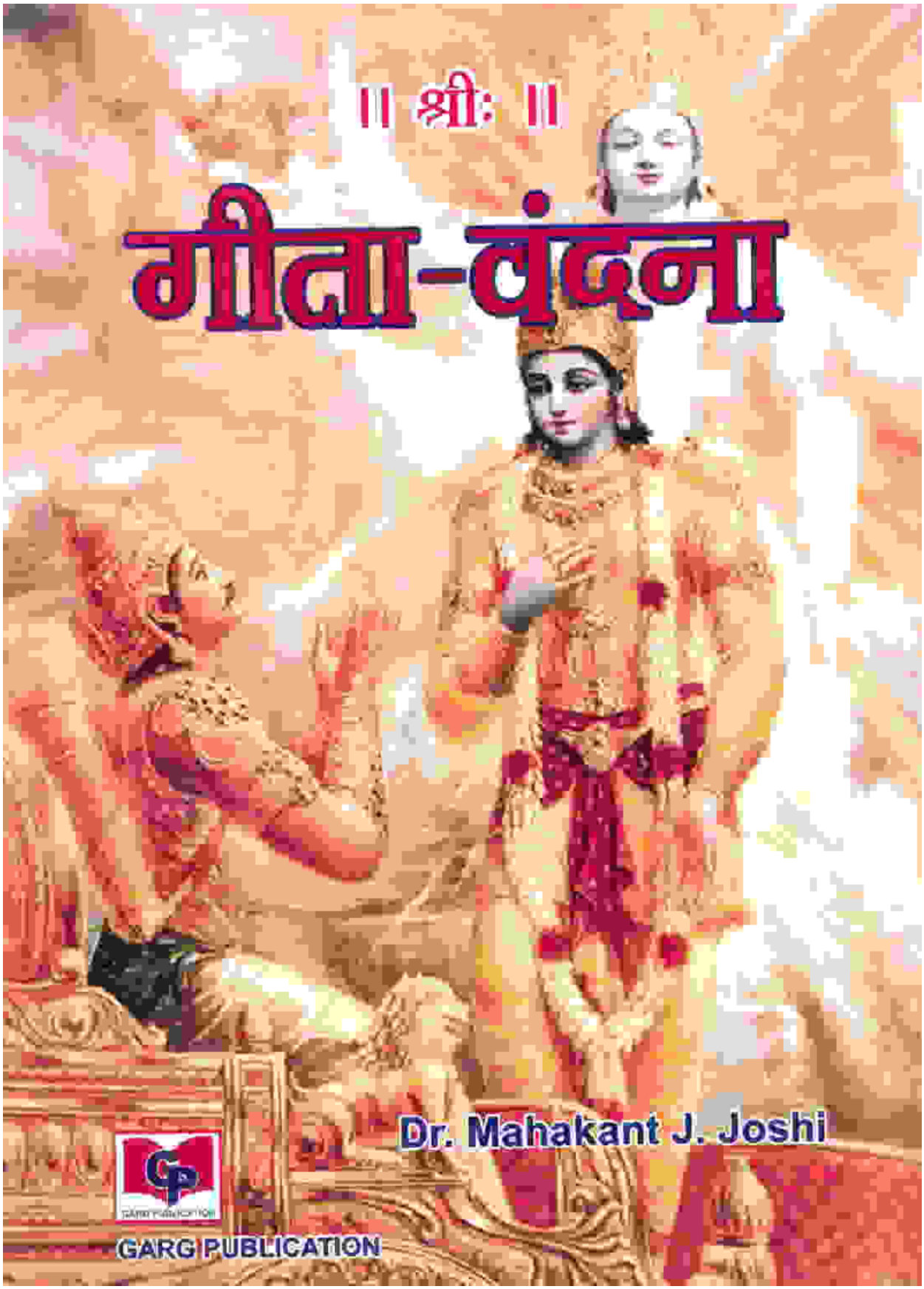
# गीता-वंदना



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Dr.Sureshbhai V. Chaudhari

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This book presents the analysis of a single-period decision of a retailer facing uncertain and price-dependent demand in the situation of trying to recapture lost sales. The typical modelling of the problem in a newsvendor framework assumes the lost sales to be lost once and for all. However, in reality, there may be an opportunity to backlog the lost sales, by offering some incentive for waiting, but the retailer's procurement price may be higher to compensate for the likely higher cost of the emergency purchase. The backlog fill rate is modelled as a function of the proportion of the rebate to the price. The book models the fill rate functions in two different ways. Then the retailer has to decide ahead of the realization of the demand, the quantity to be ordered, the price and the rebate to be offered for backlogged sales that will maximize its expected profit. This book will be useful to researchers working in the area of inventory modelling and an interface of marketing science. Lot of examples and sensitivity analysis done will be helpful to build simulation models to capture the fill rate behavior and the pricing and order quantity mechanisms that raise the profits.

Dr. Ashok Patel is faculty of Mathematics at P S Science and H D Patel Arts College, Kadi, Gujarat, India since the year 1991. He specializes in newsvendor problem and inventory management. Dr. Ravi Gor is Associate Professor at the Department of Mathematics, Gujarat University, India. He specializes in Operations Research and Management Science.

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Lost sales recapture and NVP


Ashok Patel
Ravi Gor

# Some Lost Sale Recapture Models in the Newsvendor Framework

Analysis of lost sale recapture models in context of single period inventory problem with pricing

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# A MATHEMATICAL MODEL FOR FINGERO-IMBIBITION PHENOMENON IN A CRACKED POROUS MEDIA WITH MAGNETIC FLUID

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**ABSTRACT**

*In this paper, we have discussed finger-imbibition phenomenon in double phase flow through porous media. The phenomenon arises on account of simultaneous occurrence of two phenomenon known as imbibitions and fingering. We assumed that injection of preferentially wetting, less viscous fluid into porous medium saturated with resident fluid. The mathematical formulation leads to non linear partial differential equation governing the phenomenon in a cracked porous medium with magnetic fluid. The mathematical solution has been obtained by finite element method with appropriate initial and boundary condition. Finite element method is a numerical method for finding an approximation solution of differential equation in finite region or domain. We obtained graphical representation of the solution using a Matlab coding.*

***Keywords: Cracked porous medium, Fingero - imbibition, Finite element method, Magnetic fluid.***

## I. INTRODUCTION

It is well known that when a porous medium filled with some resident fluid is brought into contact with another fluid which preferentially wets the medium, there is a spontaneous flow of the wetting fluid into the medium and a counter flow of the resident fluid from the medium. Such a phenomena arising due to difference in wetting abilities is called counter-current imbibition. Similarly, when a fluid contained in a porous medium is displaced by another fluid of lesser viscosity, instead of regular displacement of whole front, protuberances (fingers) may occur which shoot through the porous medium at relatively great speeds. This phenomenon is called fingering or instabilities. The phenomena of fingering and imbibition occurring simultaneously in displacement process, have gained much current importance due to their frequent occurrence in the problem of petroleum technology and many authors have discussed them from different point of view.

## II. STATEMENT OF THE PROBLEM

We consider here a finite cylindrical mass of porous matrix of length L (=1) saturated with native liquid (o), is completely surrounded by an impermeable surface except for one end of the cylinder which is labeled as the imbibition face (x =0) and this end is exposed to an adjacent formation of 'injected' liquid (w) which involves a thin layer of suitable magnetic fluid. It is assumed that the later fluid is preferentially wetting and less viscous.

*These volumes of Fundamentals of Chemical Kinetics are the results of the accumulated experience of very stimulating 23 years of teaching students at UG/PGl levels. During this period, chemical kinetics is regularly taught at various levels, but more importantly interactive classes were held. It is observed that many students turn rapidly away from topics which are quantitative and involve mathematical equations. These books attempt to diminish the fears by guiding the students through these topics in a step-by-step derivation which explains the logic, reasoning and actual manipulation. Further, the illustrative problems are given occasionally to aid understanding of the concepts and to boost up interest in solving numerical. To check the conceptual knowledge and strengthen the foundation of the concepts as well as to build capacity in problems/MCQs solving for various competitive examinations (UGC CSIR NET, GATE and GSET); self-study questions, conceptual practice problems and multiple choice questions are provided at the end of each chapter.*



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