

3.3.2 Number of Books and Chapters in edited volumes/ books published, and Papers in National/International conference-proceeding per Teacher during last five years							
Sr.No	Name of Teacher	Title of book/Chapter published	Title of Paper	Year of Publications	ISBN/ISSN number	Weather at the time of publication affiliating institute was same (yes/ No)	Name of Publisher
1.	Dr. Sanjay kumar, Dr. Chanderpal singh Verma	Textbook of Pharmacognosy-I	Textbook of Pharmacognosy-I	2022		yes	Integrated Publications
2.	Mr. Shiv kumar kushawaha, Dr. M S Ashawat	Human Anatomy and Physiology	Human Anatomy and Physiology	2022	978-9382073-91-8	Yes	Balaji publications
3.	Mr. Tarun Kumar, Ms Shavinder kumari, Mrs. Archana Choudhary	Textbook of Pharmaceutical Microbiology	Textbook of Pharmaceutical Microbiology	2022	978-93-92153-55-6	Yes	South Asian Academic Publications
4.	Dr. Vinay Pandit	Pharmaceutics	Pharmaceutics	2021	978-93-5451-392-3	Yes	Nirali Prakashan
5.	Dr. Shammy Jindal, Kanya Goyal	COVID-19: Diagnosis and Management-I	COVID-19: Epidemiology	2021	978-1-68108-808-2	Yes	Bentham Science Publisher
6.	Dr. Vinay Pandit, Dr. M S Ashawat	Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine	Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine	2020	6202524200	Yes	LAP Lambert Academic Publishing
7.	Dr. Vinay Pandit, Dr. M S Ashawat	Formulation and Evaluation of Fast Dissolving Tablet of Clopidogrel: Fast Dissolving Tablets	Formulation and Evaluation of Fast Dissolving Tablet of Clopidogrel: Fast Dissolving Tablets	2020	978-6200535078	Yes	LAP Lambert Academic Publishing
8.	Dr. Vinay Pandit, Prof. CPS Verma	Mucoadhesive system for Drotaverine Hydrochloride: A Novel approach	Mucoadhesive system for Drotaverine Hydrochloride: A Novel approach	2020	978-620-2-52302-8	Yes	LAP Lambert Academic Publishing
9.	Dr. Shammy jindal kanya Goyal	Nanomedicine for Bioactives	Lipid Nanocarriers for Dermal Delivery of Lutein	2020	978-981-15-1664-1	Yes	Springer, Singapore
10	Priyanka Chouhan, Dr. M S Ashawat	Designing and Characterization of Photoprotective Formulations	Designing and Characterization of Photoprotective Formulations	2018	978-613-98-7074-5	Yes	LAP Lambert Academic Publishing


 DIRECTOR CUM PR.
 LAUREATE INSTITUT.
 PHARMACY KATHOG
 TEH. JAWALAMUKHI
 DISTT. KANGRA (H.P.)

Textbook of Pharmacognosy - I

Authors

Dr. Sanjay Kumar, Dr. Chander Pal Singh Verma, Dr. Manu Vineet Sharma
and Arvind Kumar Gupta



Integrated Publications
New Delhi

Published By: Integrated Publications

Integrated Publications

H. No. - 3 Pocket - H34, Sector - 3,

Rohini, Delhi-110085, India

***Authors: Dr. Sanjay Kumar, Dr. Chander Pal Singh Verma, Dr. Manu
Vineet Sharma and Arvind Kumar Gupta***

The author/publisher has attempted to trace and acknowledge the materials reproduced in this publication and apologize if permission and acknowledgements to publish in this form have not been given. If any material has not been acknowledged please write and let us know so that we may rectify it.

© *Integrated Publications*

Edition: 1st

Publication Year: 2022

Pages: 149

ISBN:

Book DOI: <https://doi.org>

Price: ₹ 665/-

Contents

S. No.	Title	Page No.
1.	Unit - I	01-21
	1.1 Introduction to Pharmacognosy	01
	1.2 Traditional Indian System of Medicine (Indigenous)	06
	1.3 Classification of Drugs	08
	1.4 Evaluation of Crude Drug	17
2.	Unit - II	22-52
	2.1 Cultivation	22
	2.2 Pests and Pests Control	26
	2.3 Collection of Drugs	30
	2.4 Harvesting	32
	2.5 Drying	36
	2.6 Plant Growth Regulators	39
	2.7 Mutation	43
	2.8 Conservation of Medicinal Plants	47
3.	Unit - III	53-78
	3.1 Plant Tissue Culture	53
	3.2 Basic Methodology of Tissue Culture	62
	3.3 Types of Plant Tissue Cultures	63
	3.4 Parameters for Measuring Growth of Cultured Cells	71
	3.5 Nutritional Requirements	72
	3.6 Methods to Prepare Culture Media	74
	3.7 Edible Vaccines	75
4.	Unit - IV	79-104
	4.1 Pharmacognosy in Various Systems of Medicine	79
	4.2 Introduction to Secondary Metabolites	83
5.	Unit - V	105-149
	5.1 Plant Product	105
	5.2 Enzymes	135

About the Authors



Mr. Neeraj Bhandari is currently working as Associate Professor Cum Head of department in Arni School of Pharmacy, Arni University, Kathgarh Indora. He has to his credit 7 International and national Patents and many Publications, research, review Articles in national and International Journal. He has also guided M.Pharm students. He has done his B. Pharmacy and M.Pharmacy from Sri Sai college of Pharmacy, badhani, pathankot and Submitted Ph.D. He is having teaching experience of 09 years. He has taught many subjects of Pharmacy like Novel drug Delivery, Modern Pharmaceutics, Industrial Pharmacy to PG and UG Students. He is life member of Association of Pharmaceutical Teachers of India (APTI) and Society of Pharmaceutical Education and Research (SPER).



Mr. Tarun K. Sharma is currently working as Assistant Professor, Department of Pharmaceutics, Laureate Institute of Pharmacy, Kathog, Jwalamukhi, Kangra HP. He has completed his graduation & Post graduation from Punjab Technical University (Sri Sai college of Pharmacy) Badhani, Pothankot (Punjab) and pursuing Ph.D. from Shobhit University Gangoh UP. He has more than 30 publications in reputed journals and two patent in his credit. He is life member of Association of Pharmaceutical Teachers of India (APTI) and Society of Pharmaceutical Education and Research (SPER).



Ms. Shavinder Kumari, B. Pharm, M. Pharm in Pharmacology is an Assistant Professor at Laureate Institute of Pharmacy, Kathog, Jwalamukhi, Kangra HP. She has more than 4 years of experience in academics. She has earned her B. Pharm from Himachal Pradesh Technical University (Govt. College of Pharmacy Rohroo, Dist. Shimla HP) and M. Pharmacy from Guru Nanak Dev University Amritsar (Punjab) and pursuing Ph. D from Shobhit University Gangoh UP. She is life member of Association of Pharmaceutical Teachers of India (APTI) and published many papers in national and international journals of repute.



Mrs. Archana Chaudhary is currently working as Assistant Professor, Department of Pharmaceutics, Laureate Institute of Pharmacy, Kathog, Jwalamukhi, Kangra HP. She has completed her graduation from Himachal Pradesh University & Post graduation from Himachal Technical University (Laureate Institute of Pharmacy, Kathog, Jwalamukhi, Kangra, HP). She is pursuing Ph.D. from Himachal Pradesh Technical University Hamirpur, HP. She has more than 18 publications in reputed journals. She is life member of Association of Pharmaceutical Teachers of India (APTI).

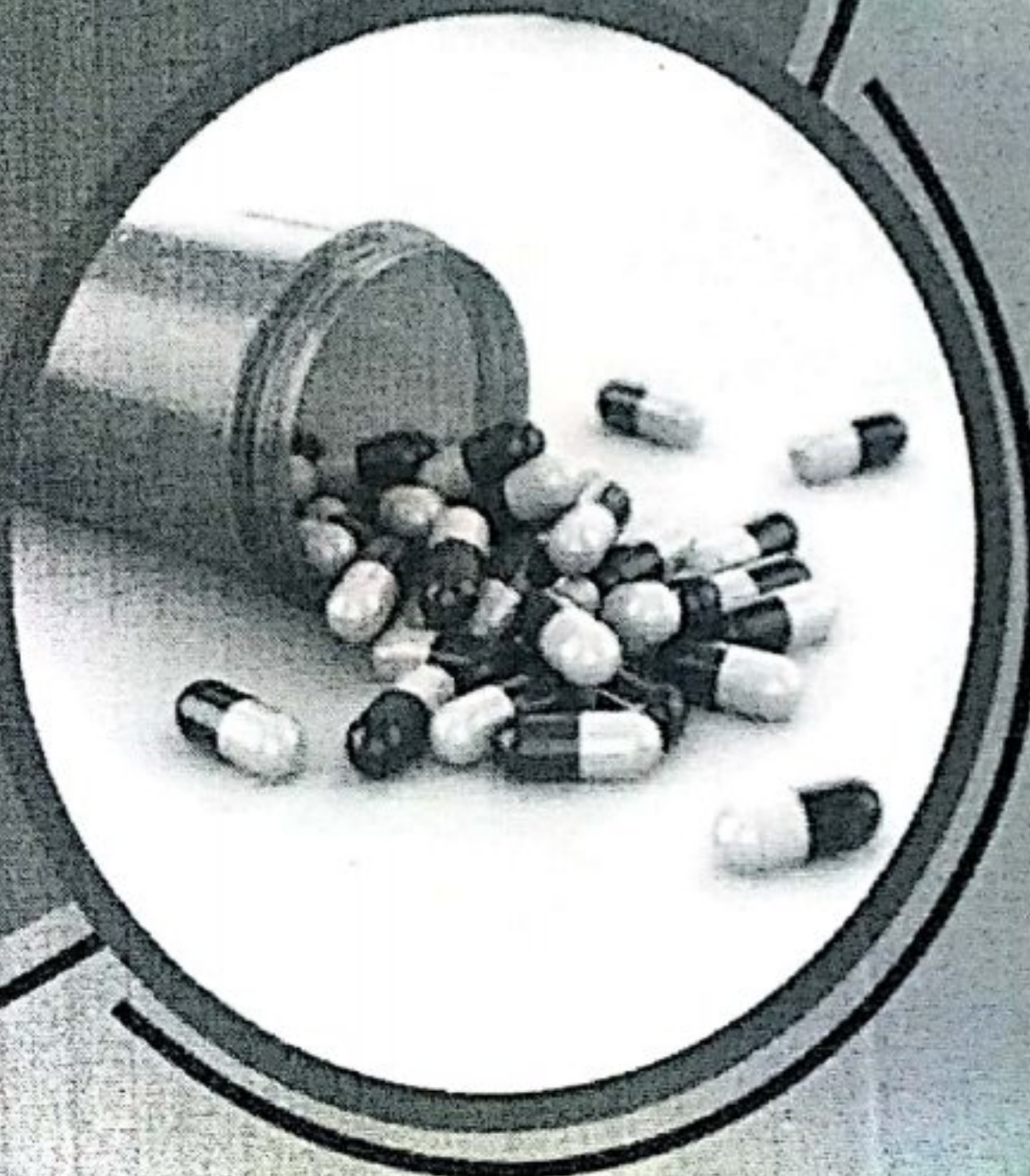
ISBN 939215355-4



9 789392 153556

South Asian Academic Publications
3-37, Dirisavancha, Kanigiri, Prakasm District
Andhra Pradesh-523445 India
Phone No. 9441545787, 9959049730
Email- saapbooks@gmail.com

TEXT BOOK OF PHARMACEUTICAL MICROBIOLOGY



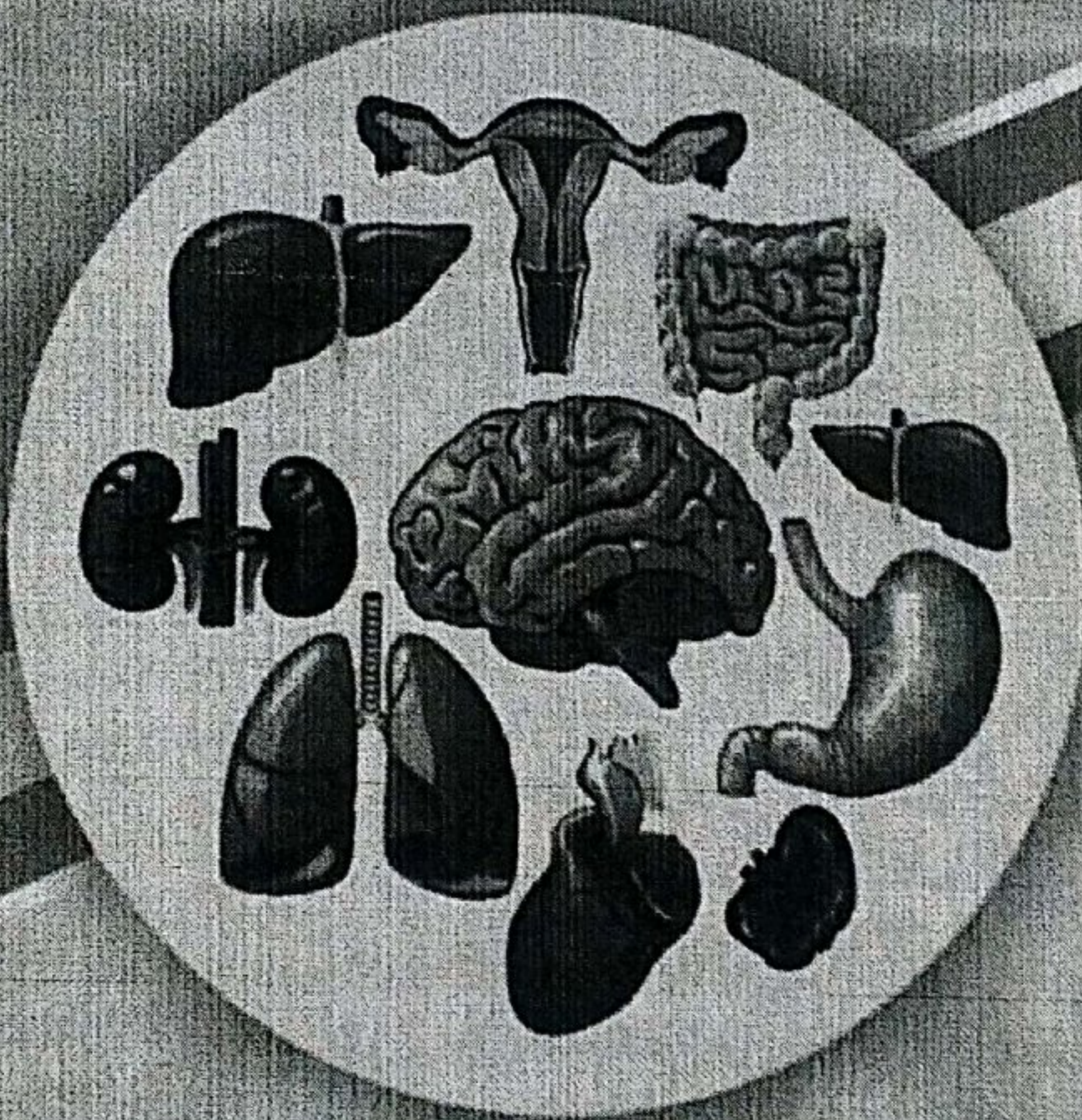
Mr. Neeraj Bhandari
Mr. Tarun Kumar
Ms. Shavinder Kumari
Mrs. Archana Chaudhary



Human Anatomy and Physiology

For
Diploma in Pharmacy

As per Syllabus
Prescribed for D. Pharmacy



- Dr. Vikas Jogpal
- Mr. Shiv Kumar Kushawaha
- Dr. M.S. Ashawat
- Dr. Tinku Gupta

Library
A

FIRST YEAR
DIPLOMA IN PHARMACY
AS PER PCI - ER 2020

PHARMACEUTICS



8814



SCAN ME
for Audio-Video



Dr. Ajay Bilandi

Dr. Mahesh Kumar Kataria

Dr. Vinay Pandit

 **NIRALI**
PRAKASHAN
ADVANCEMENT OF KNOWLEDGE

About the Authors



Prof. (Dr.) AJAY BILANDI (M.Pharm. Ph.D) is currently working as Principal, College of Pharmacy, RIMT University, Mandi Gobindgarh, Punjab. He is having more than 15 years of teaching experience including more than 10 years for M.Pharm. course. He has guided 16 M.Pharm. and more than 40 B.Pharm. students. Three students are pursuing Ph.D. under his guidance from RIMT University. He has authored three international books, one text book and more than 60 research and review papers in reputed journals in his credit. Dr. Bilandi is empanelled as reviewer and editorial board member in several journals of repute. He has attended various national and international conferences and delivered invited lecture and expert talks. He is life member of APTI.



Prof. (Dr.) MAHESH KUMAR KATARIA has completed B. Pharm. from L.M. College of Science and Technology, Jodhpur (Rajasthan) in 2001, M. Pharm. from Birla Institute of Technology, Mesra, Ranchi in 2004 and Ph.D. from Jodhpur National University, Jodhpur (Raj) in 2014. He has been working at Seth G. L. Bihani S. D. College of Technical Education, Sri Ganganagar (Raj.) since 2004, currently Head Department of Pharmaceutics and taught various subjects in department. He is having more than 17 years of teaching experience including more than 13 years for M. Pharm. course. He has guided 24 M. Pharm. (Pharmaceutics), 04 M. Pharm. (Q.A.) and more than 70 B. Pharm. students. Two students are pursuing Ph. D.

under his guidance from Rajasthan University of Health Sciences, Jaipur. He has authored four books with international publisher, One book for B. Pharm. Sem VII "Industrial Pharmacy-II" with Nirali Prakashan, several posters and more than 60 research and review papers in reputed journals. He is empanelled as reviewer and editorial board member in several journals of repute. Dr. Kataria conferred with "Eminent Academician Award in Pharmaceutical Research 2019" for contribution in field of Pharmacy. He has also been honoured on Teacher's day by Lions club, Sri Ganganagar (Raj.) for contribution in the field of Pharmacy education in 2021. He is a registered pharmacist and life member of APTI. He has attended, chaired session for various National & International conferences and delivered invited lecture in seminars and workshops. He has received grant form DST, Govt. of Raj. for various student projects and IPR workshop.



Dr. VINAY PANDIT has completed his graduation, post graduation and Ph.D. from Rajiv Gandhi University of Health Sciences (Al-Ameen College of Pharmacy) Bangalore, Karnataka, India. He is having more than 15 years of professional experience which include both industrial and academics. He has been supervising research projects at post graduate and also at doctoral level. He is an approved guide and examiner of many universities and boards for UG, PG and Ph.D. examinations. He has more than 50 publications in reputed journals. He is a life member of Association of Pharmaceutical Teachers of India (APTI) and Society of Pharmaceutical Education and Research (SPER). Presently, he is working as Professor & Head, Department of Pharmaceutics, laureate Institute of Pharmacy, Kathog, Jawlamukhi, Kangra, Himachal Pradesh.

Email : niralipune@pragationline.com

Website : www.pragationline.com

Also find us on  www.facebook.com/niralibooks

 [@nirali.prakashan](https://www.instagram.com/nirali.prakashan)



Contents

1. History of Pharmacy Profession and Pharmacopoeia	1.1 - 1.34
2. Packaging Materials	2.1 - 2.22
3. Pharmaceutical Aids	3.1 - 3.14
4. Unit Operations	4.1 - 4.56
5. Pharmaceutical Formulations	5.1 - 5.216
6. Plant Location and Layout	6.1 - 6.24
7. Novel Drug Delivery Systems	7.1 - 7.22
Index	I.1 - I.4
Reference	R.1 - R.1

☐ ☐ ☐

COVID-19: Epidemiology

Kamya Goyal^{1,2,*}, Shammy Jindal^{1,*}, Tarun Kumar³, Jugnu Goyal⁴, Reena Sharma⁵, Ravinder Singh⁶ and Samir Mehndiratta^{7,8,*}

¹ Laureate Institute of Pharmacy, Kathog, Distt- Kangra, H.P., India

² Chitkara College of Pharmacy, Chitkara University, Chandigarh-Patiala National Highway, Rajpura, Patiala, Punjab, India

³ Department of ECE, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Haryana, India

⁴ Swami Dayanand Institute of Pharmaceutical Sciences, UHS, Rohtak, Haryana, India

⁵ Agricultural Biotechnology Research Center, Academia Sinica, Taipei, Taiwan

⁶ Department of Chemistry, National Taiwan University, Taipei, Taiwan

⁷ School of Pharmacy, University of Southern California, Los Angeles, USA

⁸ School of Pharmacy, Taipei Medical University, Taipei, Taiwan

Abstract: In the history, the year 2019 will be remembered as the year that has witnessed the beginning of a pandemic, primarily affecting the respiratory tract and then, spreading from human to human. A total of 25.18 million reported cases and 0.84 million deaths, as of 30th August 2020, and still counting, were caused by a novel coronavirus named COVID-19 that originated in Wuhan, China. By the beginning of the year 2020, this virus spread to several countries like Singapore, South Korea, Japan, Italy, Spain, Germany, the United Kingdom, and the United States of America. Between January 2020 and March 2020, the disease took a paradigm shift and started to affect the majority of European countries like Italy, Spain, France, Germany and UK. In the majority of the patients with a competent immune system, this disease goes unnoticed or without symptoms, thus making them highly susceptible to spread this disease to whoever comes in their contact. Aged patients (>60 years) or patients with chronic health issues like heart diseases, cancer, diabetes, and weak immunity are at greater risk of developing the symptoms. In severe conditions, patients need hospitalization and respiratory support (respirators/ventilators), thus causing an overload on the health system of the world. This initiated the movement of "flattening the curve" by social distancing and isolation to decrease the burden on the health system and to decrease the spread of the disease.

*Corresponding author Samir Mehndiratta: School of Pharmacy, University of Southern California, Los Angeles, California, USA; School of Pharmacy, Taipei Medical University, Taipei, Taiwan; E-mail: d301100006@tmu.edu.tw

* These authors contributed equally

Neeraj Mittal, Sanjay Kumar Bhadada, O. P. Katare and Varun Garg (Eds.)

All rights reserved-© 2021 Bentham Science Publishers

You are viewing a sample of the Paperback version

Close

Vinay Pandit and 2 more

Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine:...

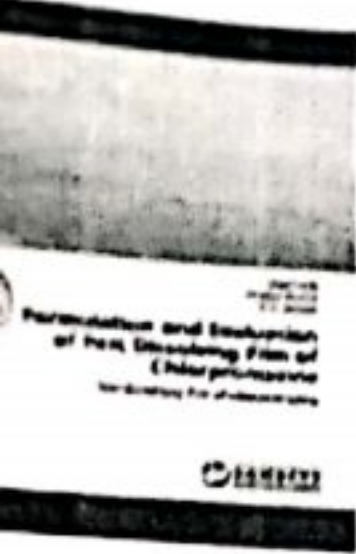
Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com.

See more buying options



Vinay Pandit
Priyanka Sharma
M. S. Ashawat

Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine

Fast Dissolving Film of Chlorpromazine



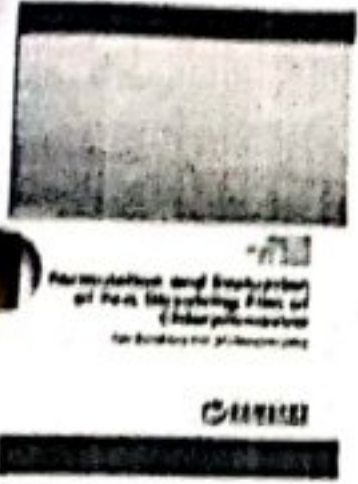
Copyrighted Material

Vinay Pandit
Priyanka Sharma
M. S. Ashawat

**Formulation and Evaluation of Fast Dissolving Film of
Chlorpromazine**

You are viewing a sample of the Paperback version

Close



Vinay Pandit and 2 more

Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine:...

Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com.

See more buying options

names, common names, trade names, product descriptions etc. even without a particular marking in this work is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and could thus be used by anyone.

Cover image: www.ingimage.com

Publisher:
LAP LAMBERT Academic Publishing
is a trademark of
International Book Market Service Ltd., member of OmniScriptum Publishing Group
17 Meldrum Street, Beau Bassin 71504, Mauritius

Printed at: see last page
ISBN: 978-620-2-52420-9

Copyright © Vinay Pandit, Priyanka Shama, M. S. Ashawat
Copyright © 2020 International Book Market Service Ltd., member of
OmniScriptum Publishing Group

Copyrighted Material

You are viewing a sample of the Paperback version

Close

Vinay Pandit and 2 more

Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine:...

Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com.

See more buying options

1	<i>Introduction</i>	2
2	<i>Review of Literature</i>	7
3	<i>Aim & Objectives</i>	31
4	<i>Materials</i>	35
5	<i>Methodology</i>	50
6	<i>Results</i>	64
7	<i>Discussion</i>	87
8	<i>Summary & Conclusion</i>	95
9	<i>References</i>	99
10	<i>Appendix</i>	

Copyrighted Material

This is a sample. The number of pages displayed is limited.

Copyrighted Material

Emesis is the involuntary and forceful expulsion of the contents of one's stomach through the mouth and sometimes the nose. Receptors on the floor of the ventricle of the brain represent a chemo-receptor trigger zone, known as the area postrema, stimulation of which can lead to vomiting.

11 PM

Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine: Fast Dissolving Film of Chlorpromazine: Pandit, Vinay. Sh

You are viewing a sample of the Paperback version

Close

Vinay Pandit and 2 more

Formulation and Evaluation of Fast Dissolving Film of Chlorpromazine:...

Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com.

See more buying options

for a sublingual film. The optimized films formed were subjected to evaluation parameters viz. Tensile Strength, Disintegration, In-vitro dissolution, Ex-vivo Permeation studies and In-vivo studies and the results complied with the available statistical data. In-vitro dissolution studies were analyzed and Higuchi model was found to be the best fit model for In-vitro dissolution studies with a regression value of 0.9248. Ex-vivo permeation studies showed fivefold enhanced permeation of drug from films as compared to pure drug. In conclusion, a sublingual film of Chlorpromazine HCl may result in better patient compliance, quick onset of action and enhanced bio-availability.



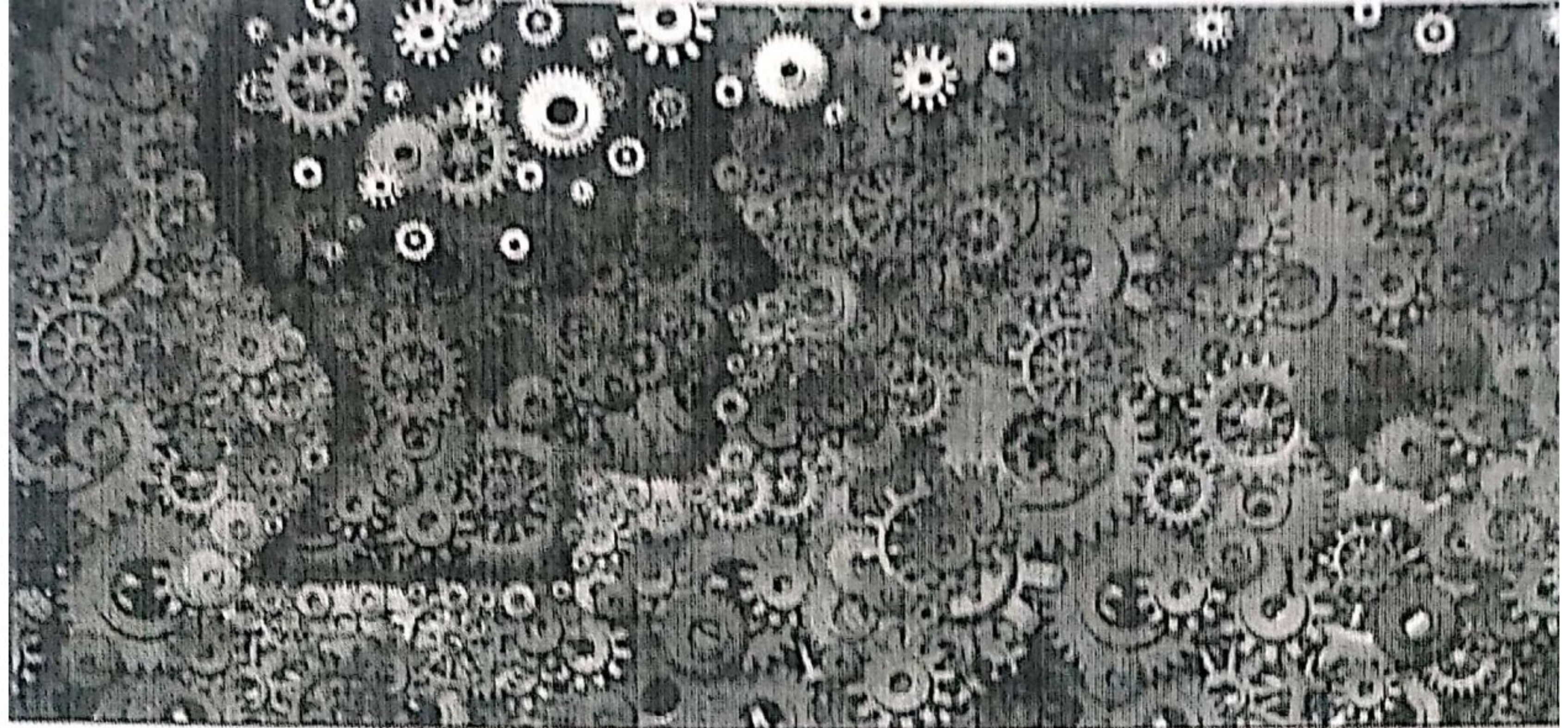
Dr. Vinay Pandit is working as a Professor and Head, Department of Pharmaceutics, Laureate Institute of Pharmacy. His current area of research is a Novel drug delivery system and fast dissolving technology. He has a number of publications in reputed national and international journals.



978-620-2-52420-9

Enjoying this sample?

Buy the book to continue reading



Vinay Pandit
M. S. Ashawat
Surbhi Dutta

Formulation and Evaluation of Fast Dissolving Tablet of Clopidogrel

Fast Dissolving Tablets

i

 **LAMBERT**
Academic Publishing

You are viewing a sample of the Paperback version

Close



Vinay Pandit and 2 more

Formulation and Evaluation of Fast Dissolving Tablet of Clopidogrel: Fa...

Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com.

See more buying options

names, common names, trade names, product descriptions etc. even without a particular marking in this work is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and could thus be used by anyone.

Cover image: www.ingimage.com

Publisher:
LAP LAMBERT Academic Publishing
is a trademark of
International Book Market Service Ltd., member of OmniScriptum Publishing Group
17 Meldrum Street, Beau Bassin 71504, Mauritius

Printed at: see last page
ISBN: 978-620-0-53507-8

Copyright © Vinay Pandit, M. S. Ashawat, Surbhi Dutta
Copyright © 2020 International Book Market Service Ltd., member of
OmniScriptum Publishing Group

Copyrighted Material

CONTENTS

CHAPTER	TOPIC	PAGE NUMBER
1	Introduction	2
2	Review of Literature	6
3	Aim & Objective	33
4	Methodology	36
5	Result & Discussion	49
6	Summary & Conclusion	89
7	Reference	92
	List of abbreviations	
	List of chemicals	

You are viewing a sample of the Paperback version

Close

Vinay Pandit and 2 more

Formulation and Evaluation of Fast Dissolving Tablet of Clopidogrel: Fa...

Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com.

See more buying options

by three different methods viz., direct compression method, solid dispersion method and Sublimation method. Different excipients such as, crospovidone as super disintegrants, croscarmellose as superdisintegrant, magnesium stearate as lubricant, talc as glidant etc. were used. Based on in-vitro release studies tablets prepared by sublimation method clopidogrel was selected as optimizes formulation. In-vitro release studies indicated more than 95% release of drug in 30 mins. The accurate stability studies indicated no change in in-vitro release and other property of the tablet. Thus sublimation method can be a promising strategy in enhancing the solubility and dissolution studies of clopidogrel bisulphate.



Dr. Vinay Pandit is working as Professor and Head, Department of Pharmaceutics, Laureate Institute of Pharmacy, Kathog, Jawlamukhi, Himachal Pradesh. He has published a number of research articles in various reputed journals nationally and internationally. His area of research is fast dissolving technology and chronotherapeutics.



978-620-0-53507-8

Enjoying this sample?

Buy the book to continue reading

You are viewing a sample of the Paperback version

Close

Vinay Pandit and 2 more

Mucoadhesive system for Drotaverine Hydrochloride: A Novel approach:...

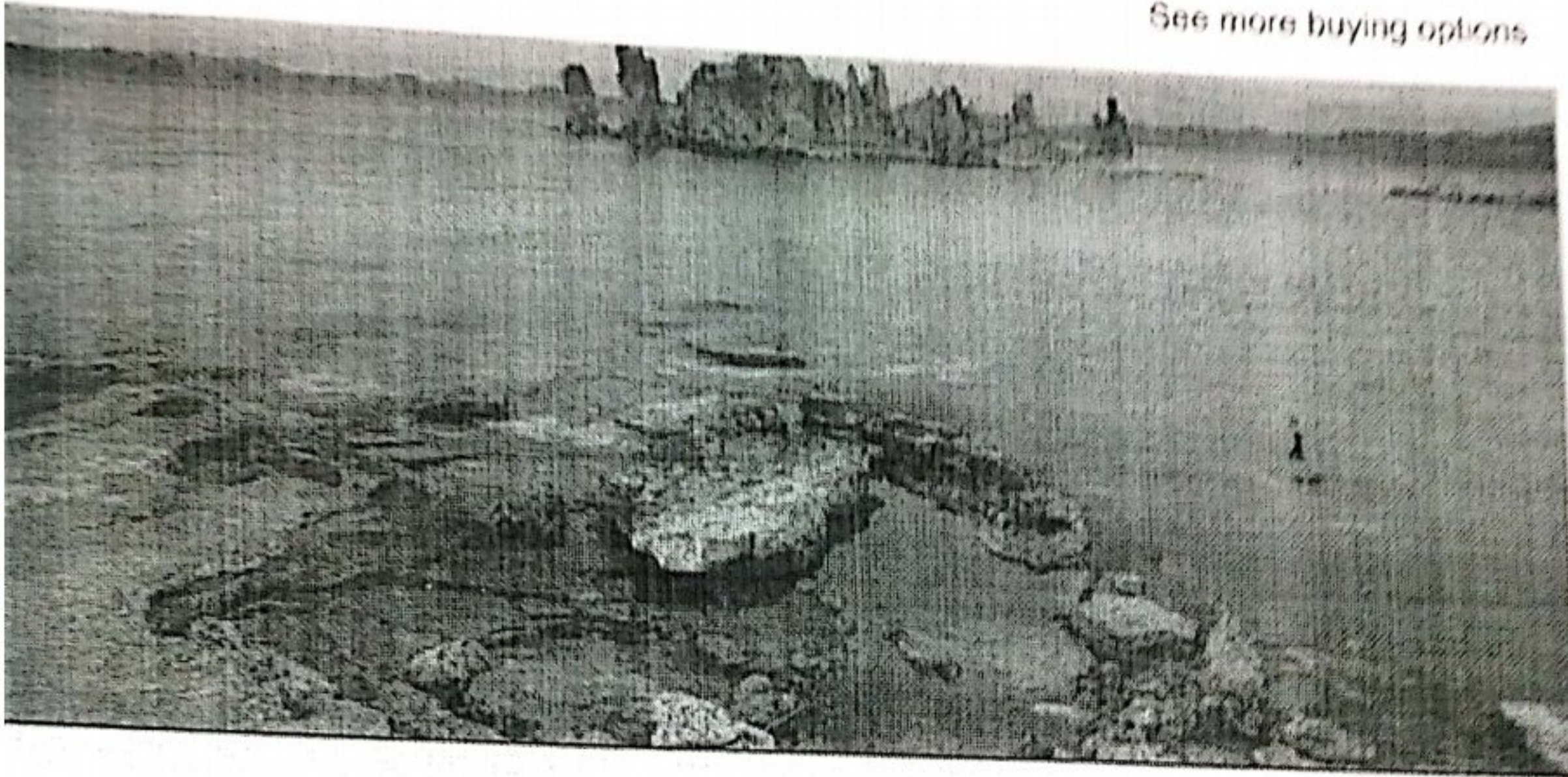
Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com

See more buying options



Vinay Pandit
Preeti Kumari
C P S Verma

Mucoadhesive system for Drotaverine Hydrochloride: A Novel approach

Buccal Delivery of Drotaverine Hydrochloride



Copyrighted Material

lines was obtained for kneaded product. DSC, FTIR, and PXRD studies indicated that complexes can be formed by kneading method. The use of such drug-CD binary systems prepared by kneading method enabled preparation of directly compressible buccal tablets which showed better Diffusion cell studies and dissolution values compared to marketed formulation and tablets containing drug alone. Thus, it can be concluded that the kneading method can be used to prepare DH-MβCD complexes, to enhance the solubility and dissolution profile of drug which can be further enhanced by converting the complexes into a buccal formulation. The prepared formulation can be further investigated for its in vivo behaviour.



Dr Vinay Pandit, Professor and Head, Dept of Pharmaceutics, Laureate Institute of Pharmacy, is an active researcher and working on novel drug delivery systems. He has a number of international and national publications. His current area of research includes Buccal and Nasal drug delivery systems. He has fetched a number of grants for his research.



978-620-2-52302-8

You are viewing a sample of the Paperback version

Close



Vinay Pandit and 2 more

Mucoadhesive system for Drotaverine Hydrochloride: A Novel approach:...

Paperback: \$60⁰⁰



Add to Cart

Ships from and sold by Amazon.com.

See more buying options

names, common names, trade names, product descriptions etc. even without a particular marking in this work is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and could thus be used by anyone.

Cover image: www.ingimage.com

Publisher:

LAP LAMBERT Academic Publishing

is a trademark of

International Book Market Service Ltd., member of OmniScriptum Publishing Group

17 Meldrum Street, Beau Bassin 71504, Mauritius

Printed at: see last page

ISBN: 978-620-2-52302-8

Copyright © Vinay Pandit, Preeti Kumari, C P S Verma

Copyright © 2020 International Book Market Service Ltd., member of OmniScriptum Publishing Group

Copyrighted Material

CONTENTS

CHAPTER	TOPIC	PAGE NUMBER
1	Introduction	2
2	Review of Literature	15
3	Aim & Objective	32
4	Methodology	34
5	Result & Discussion	49
6	Summary & Conclusion	83
7	Reference	86
	Appendix	



Lipid Nanocarriers for Dermal Delivery of Lutein

Shammy Jindal, Avichal Kumar, Kamya Goyal,
Rajendra Awasthi, and Giriraj T. Kulkarni

1 Introduction

Lutein (β , ϵ -carotene-3, 3'-diol) is a naturally occurring carotenoid. It is a lipid-soluble pigment present in vegetables such as spinach and kale. It is an oxygenated derivative of carotenoids known as xanthophylls. It is a yellow pigment present in the macular region of the eye retina. This carotenoid is not produced in the human body; it is obtained from food sources. Out of 20 different antioxidants, xanthophyll is the major antioxidant found in soma [1]. Oral bioavailability of lutein is about 10–15%. Acceptable daily intake of carotenoid is 2 mg/kg weight (equivalent to 220 mg/day for a 60-kg person).

Zeaxanthin is the most common carotenoid alcohol found in nature associated with xanthophyll cycle. It is present in high concentrations within the macular area of the human eye. It protects the macula from blue light. It improves visual acuity known for its importance for up vision [2]. Oxidation of the lens is a major cause of cataracts. Zeaxanthin and lutein are the most common antioxidants present in the eye, which nutrients neutralize free radicals. Thus, it reduces the risk of chronic eye disorders, including cataracts and age-related macular degeneration.

Human skin also contains lutein and carotenoids. The skin needs antioxidants to protect it by reducing and counteracting free radical production [3]. Xanthophyll plays an important role in developing and maintaining a healthy skin cell layer by inhibiting the UV radiations from sunlight. It reduces the cell damage and hence

S. Jindal (✉)

Laureate Institute of Pharmacy, Kathog, Jawalamukhi, Himachal Pradesh, India

Amity Institute of Pharmacy, Amity University Uttar Pradesh, Noida, Uttar Pradesh, India

A. Kumar · K. Goyal

Laureate Institute of Pharmacy, Kathog, Jawalamukhi, Himachal Pradesh, India

R. Awasthi (✉) · G. T. Kulkarni

Amity Institute of Pharmacy, Amity University Uttar Pradesh, Noida, Uttar Pradesh, India

© Springer Nature Singapore Pte Ltd. 2020

M. Rahman et al. (eds.), *Nanomedicine for Bioactives*,

https://doi.org/10.1007/978-981-15-1664-1_12

Deliver to India

Books ▾ 5. Designing and Characterization of Photopro

Help ▾ EN ▾ Account & Lists ▾ Return & Or

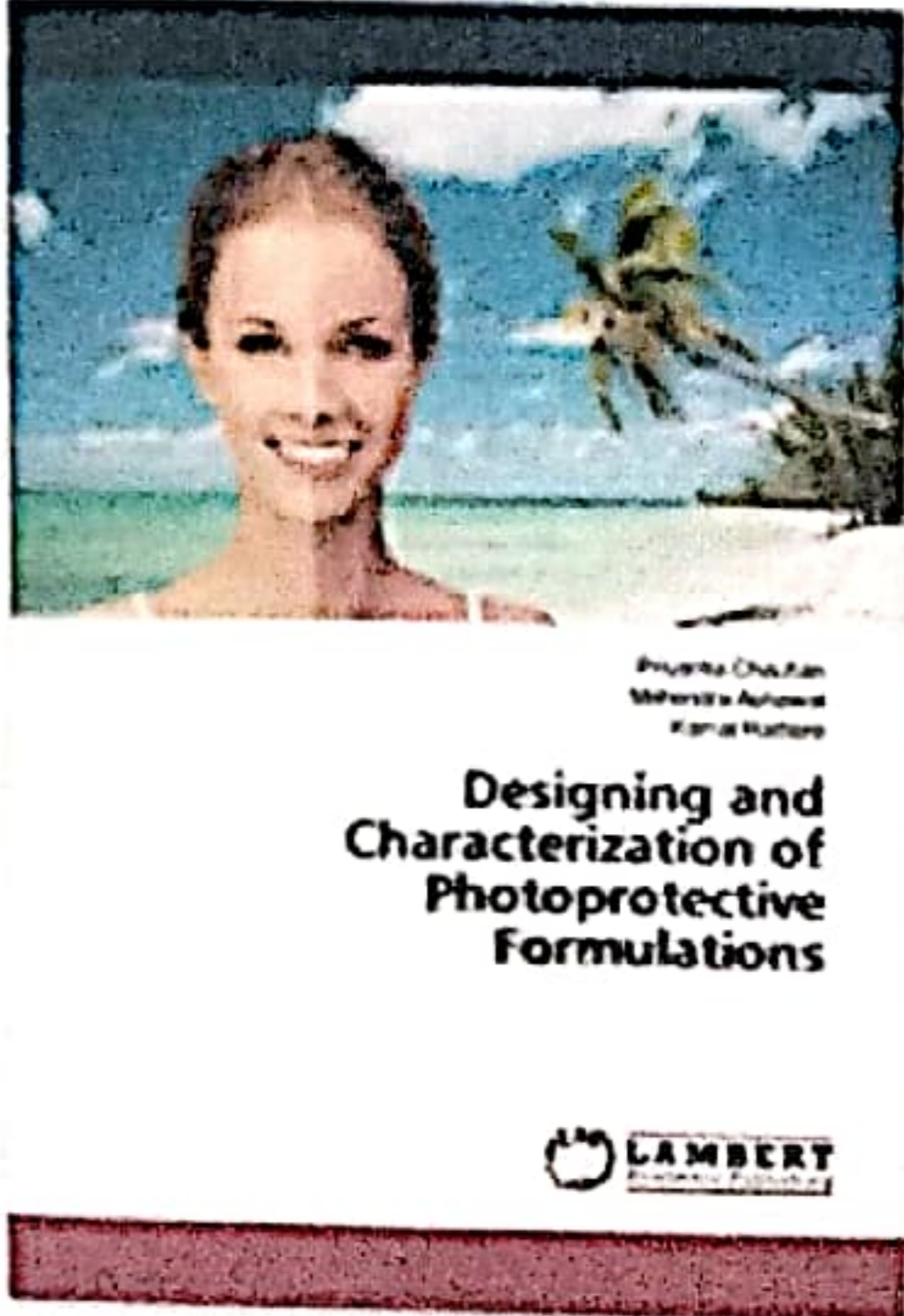
All Today's Deals Customer Service Registry Gift Cards Sell

Shop gre

Books Advanced Search New Releases Best Sellers & More Amazon Book Clubs Children's Books Textbooks Textbook Rentals

International Kindle Paperwhite Buy Now ▾

Back to results



See this image

Designing and Characterization of Photoprotective Formulations

by Priyanka Chauhan (Author), Mahendra Ashawat (Author), Kamal Rathore (Author)

See all formats and editions

Paperback
\$72.00

4 New from \$71.71

Phytoconstituents are gaining popularity as ingredients in cosmetic formulations as they can protect the skin against exogenous and endogenous harmful agents and can help remedy many skin conditions. Solar ultraviolet radiations (UV-R)

Read more

ISBN-10

ISBN-13

6139870747

978-6139870745

Buy new:

\$46.94 Shipping & Import F
Deposit to India Details
Delivery February 13 - 27

Deliver to India

In Stock.

Qty: 1

Add to Cart

Buy Now

Secure transaction

Ships from Amazon.co
Sold by Amazon.co

Return policy: Eligible for R
Refund or Replacement wit
days of receipt

Add a gift receipt for eas
returns

Add to List

Have one to sell?

Sell on Amazon

amazon book clu
early ac

Add to book club

Not in a club? Learn m

Product details

Publisher : LAP LAMBERT Academic Publishing (July 6, 2018)

Language : English

Paperback : 148 pages

ISBN-10 : 6139870747

ISBN-13 : 978-6139870745

Item Weight : 7 ounces

Dimensions : 5.91 x 0.34 x 8.66 inches

Videos

Help others learn more about this product by uploading a video!

Upload your video