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3.3.2(1) Books and chapters in edited volumes/books published

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Ph: (06854) 291221, Fax: (06854) 246955

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TABLE-1: BOOKS AND CHAPTERS IN EDITED VOLUMES/BOOKS PUBLISHED

Sl. No.	Name of the teacher	Title of the book/chapters published	Year of publication	ISBN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Mrs Manasi Khadanga	A Practical Manual of Pharmaceutics-I	2022	ISBN-13 : 9789355355430	Jeypore College of Pharmacy	Book Clinic
2	Dr Sangram Keshari Panda	A Practical Manual of Pharmaceutics-I	2022	ISBN-13 : 9789355355430	Jeypore College of Pharmacy	Book Clinic
3	Dr Sangram Keshari Panda	Pharmacognosy and Phytochemistry-I	2022	ISBN 978-935574345-9	Jeypore College of Pharmacy	Walnut Publication
4	Dr Prithwiraj Mohapatra	Pharmacognosy and Phytochemistry-I	2022	ISBN 978-935574345-9	Jeypore College of Pharmacy	Walnut Publication
5	Mr Aswini Kumar Sethi	Pharmacognosy and Phytochemistry-I	2022	ISBN 978-935574345-9	Jeypore College of Pharmacy	Walnut Publication
6	Miss Rasmita Das	Pharmacognosy and Phytochemistry-I	2022	ISBN 978-935574345-9	Jeypore College of Pharmacy	Walnut Publication
7	Mr Santosh Kumar Behera	Interview Management	2022	ISBN 978-93-95331-80-7	Jeypore College of Pharmacy	Rk Publications
8	Dr Sangram Keshari Panda	Investigation on Phytochemical Constituents and Antimicrobial Activity of Methanolic Extract of Sonneratia apetala Buch-Ham. Areal Parts	2021	Print ISBN: 978-93-90888-25-2, eBook ISBN: 978-93-90888-30-6	Jeypore College of Pharmacy	Technological Innovation in Pharmaceutical Research

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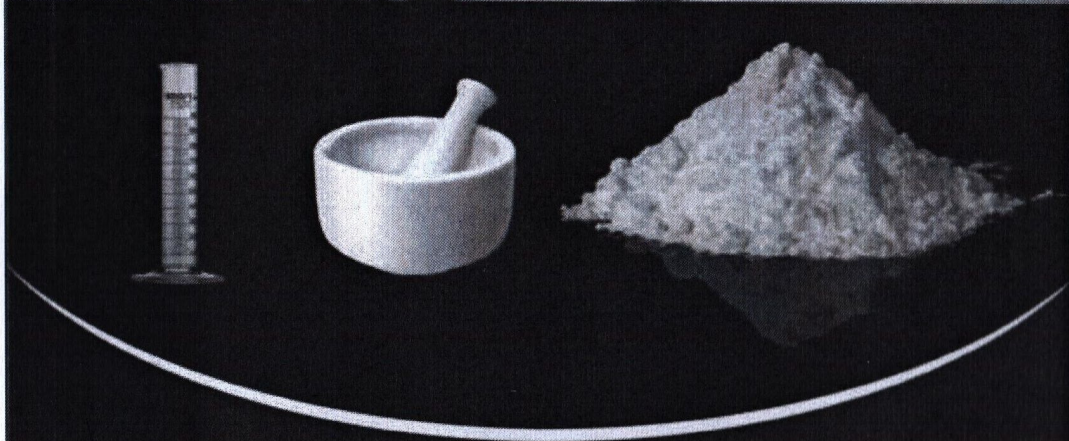
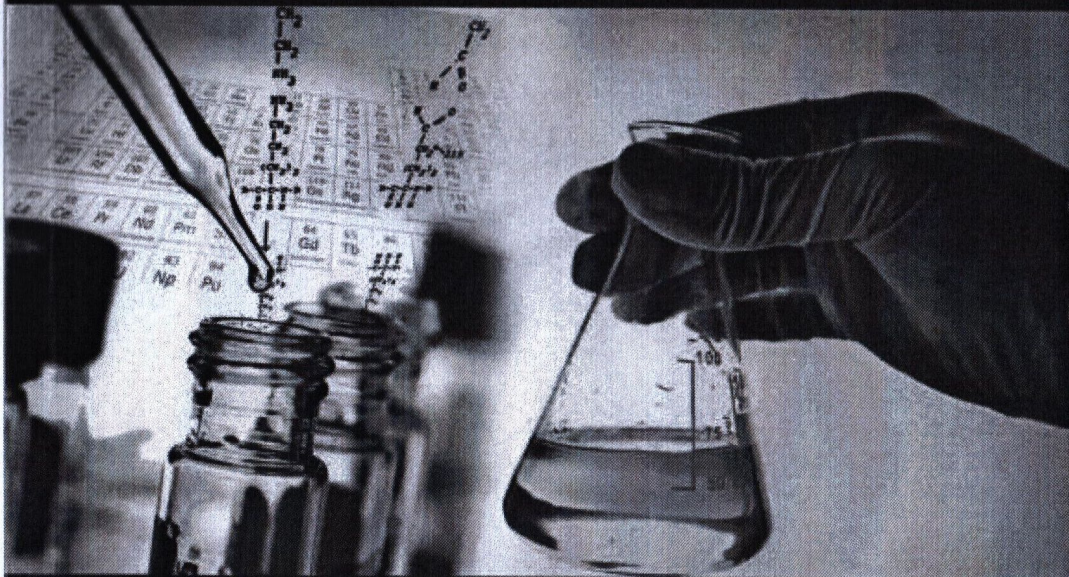

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A Practical Manual of Pharmaceutics-I

**Mrs Manasi Khadanga
Dr Sangram Keshari Panda**


A PRACTICAL MANUAL OF PHARMACEUTICS-I

(As per PCI Syllabus B.Pharm 1st semester)



MISS JAHNABI SARMAH
MISS KRITIKA SAIKIA
DR. SANGRAM KESHARI PANDA
MR. AMIT R JAISWAL
MRS MANASI KHADANGA




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Experiment No. 1

Aim: Prepare and submit Simple syrup I.P.

Requirement:

Apparatus: Weighing balance, measuring cylinder, beaker, stirrer, spatula, etc.

Chemicals: Sucrose, purified water.

Formula:

Ingredient	Standard Formula
Sucrose (Sugar)	667g
Purified water q.s	1000g

Theory:

A thick, viscous aqueous solution of sugar or a sugar substitute is known as syrup. A concentrated, viscous solution of sucrose in sterile water is called simple syrup. Since simple syrup is a concentrated solution of sucrose, it serves as a preservative. Simple syrup's 66.7% w/w sucrose creates a strong osmotic pressure that is unfavorable to microbial growth. Simple syrup I.P is made using the heating method. Overheating must be avoided to prevent caramelization.

Procedure:

1. Wash all the glassware and dry them properly in accordance with standard operating procedure (SOP).
2. Weigh the required amount of sucrose correctly and mix it with $3/4^{\text{th}}$ of the water in the beaker.
3. Stir the mixture constantly while heating it in a water bath, then add the remaining purified water to completely dissolve the sucrose.

Miss Jahnabi Sarmah

Miss Jahnabi Sarmah is an Assistant Professor, Department of Pharmaceutics, NEPEDS College of Pharmaceutical Sciences, Guwahati, Assam. She has passed her B. Pharm degree and M. Pharm in Pharmaceutics from Assam down town University (ADTU), Guwahati, Assam. She has published more than 10 research and review papers in reputed journals. She has attended many National and International Seminars and Conferences. Recently, she has filed one German patent.

Miss Kritika Saikia

Miss Kritika Saikia is an Assistant Professor, Department of Pharmaceutics, NEPEDS College of Pharmaceutical Sciences, Guwahati, Assam. She has passed B. Pharm degree and M. Pharm in Pharmaceutics from Girijananda Chowdhury Institute of Pharmaceutical Science (GIPS), Guwahati, Assam. She has more than 10 research and review papers in reputed journals. She has attended many National and International Seminars and Conferences. Recently, she has filed one German patent.

Dr. Sangram Keshari Panda

Dr. Sangram Keshari Panda is currently working as Principal at Jeypore College of Pharmacy, Jeypore, Koraput, Odisha. He has 15 years of teaching experience and more than 50 Publications in various reputed Pharmacy journals and has filed 02 nos. of Indian patent. He has received Research Excellence Award 2021 from InSc and all so a life member of APTI and IPA.

Mr. Amit R. Jaiswal

Mr. Amit R. Jaiswal is HoD, Diploma in Pharmacy Department, Vidyabharati College of Pharmacy, Amravati, Maharashtra. He has passed B. Pharm from Sant Gadge Baba University and M. Pharm in Pharmaceutics from BPUTE. He has taught many subjects from Diploma, Degree, and Post Graduate levels and have teaching experience of 20 years and two years of industrial experience. He has filed one German and Indian patent.

Mrs. Manasi Khadanga

Mrs. Manasi Khadanga is presently working as an assistant professor, Dept of Pharmacology, Jeypore College of Pharmacy, Jeypore, Odisha. She is having more than 6 years of teaching and research experience. She has received IW Educators Award organized by Nirgia Brand Promoters. Recently, one of her patent got granted and she has filed one more German patent .

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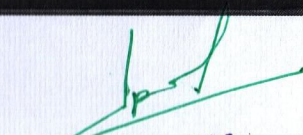
Pharmacognosy and Phytochemistry-I

Dr Sangram Keshari Panda
Dr Prithwiraj Mohapatra
Mr Aswini Kumar Sethi
Miss RasmitaDas



Text Book of
PHARMACOGNOSY and
PHYTOCHEMISTRY-I

Prof. (Dr.) Sangram Keshari Panda
Prof. (Dr.) Prithwiraj Mohapatra
Mr. Chandan Nayak
Mr. Aswini Kumar Sethi
Miss. Rasmita Das


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UNIT - I

1.1 Introduction to Pharmacognosy

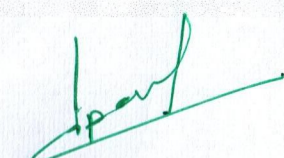
Pharmacognosy

Pharmacognosy is a scientific discipline, which is primarily concerned with the study of crude drugs obtained from natural sources, such as plants, animals, and minerals. The term 'Pharmacognosy' was first coined and used by German Scientist Seydler in 1815 in a book he wrote on crude drugs, entitled —Analecta Pharmacognostica—. It was derived from two Greek words: pharmakon, which means 'a drug', and gnosis, which means 'knowledge of' or gignosco, which means 'to acquire knowledge of'. Thus, the literal meaning of pharmacognosy is: knowledge of drugs, or to acquire knowledge of drugs. Thus, Pharmacognosy may be defined as the objective study of crude drugs and related substances of natural origin (Plants, Animals and Minerals) to acquire knowledge about their nature and properties.

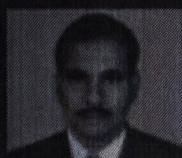
It may also be defined as an applied science which is concerned with acquiring knowledge of all aspects of crude drugs and other natural substances of pharmaceutical importance by the application of various scientific disciplines. In other words, it may be said that Pharmacognosy is an important branch of pharmacy, which deals with the scientific study of the structural, physical, chemical, biochemical and sensory characters of crude drugs and related substances of plant, animal and mineral origin. It also includes a study of their history, distribution, cultivation, collection, identification, preparation, evaluation, preservation, use and commerce.

Studies of some spices and condiments are included in the subject matters of Pharmacognosy, as they possess definite medicinal and pharmaceutical properties. Cinnamon bark, Cardamon fruit and various umbelliferous fruits (Fennel, Coriander, Cumin, Anise, etc.), Mustard seed, Clove flower-bud, and Ginger rhizome are some typical examples of such articles. In addition, pharmacognosy includes studies of a variety of commercial and medicinal products such as pesticides, enzymes, vitamins, antibiotics, allergens, and allergenic extracts.

Since Pharmacognosy has developed over the years through the traditional uses of medicinal plants and other natural products as remedies for ailments, the study of


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The book *Pharmacognosy and Phytochemistry-I* is something we are quite happy to present to the B. Pharm/Pharmacy students. This book has been written for B. Pharm students entirely in compliance with the current syllabus established by the Pharmacy Council of India. This book was written with the needs of both students and teachers in mind. It provides students with the fundamentals of secondary metabolites, phytochemistry, and isolation, as well as industrial production, estimation or analysis, and utilization of phytoconstituents that they will need throughout their pharmaceutical careers. Every effort has been made to ensure that the content is error free and that the subject is presented in a way that is understandable and favorable to students. However, any recommendations and constructive reviews would be greatly appreciated and be included in a later edition.



Prof. (Dr.) Sangram Keshari Panda

Prof. (Dr.) Sangram Keshari Panda, M.Pharm, Ph.D., in Pharmacognosy is working as Principal at Jeypore College of Pharmacy, Jeypore, Koraput, Odisha. He has fifteen years of teaching experience, more than fifty publications in well-known pharmacy journals, and four patents to his credit. He has participated in numerous national and international conferences and seminars. He has a lifetime membership in API and IPA and has received the In-Sit. Research Excellence Award 2021.



Prof. (Dr.) Prithwiraj Mohapatra

Prof. (Dr.) Prithwiraj Mohapatra is working as professor and Head in Pharmacognosy at Jeypore College of Pharmacy, Jeypore, Odisha. He completed his M. Pharm. in pharmacognosy from Manipal College of Pharmaceutical Sciences in Manipal, MAHE, in 2002, and he accomplished his Ph.D. at Acharya Nagarjuna University (ANU), Guntur, in 2009. Since 2004, he has been a teacher, accumulating 18 years of expertise; he has guided 15 M. Pharm. students with one Ph.D. aspirant, and his work has appeared in 25 national and international journals with two patents on his credit.



Mr. Chandan Nayak

Mr. Chandan Nayak currently holds the position of Lecturer/Assistant Professor in the Bharja Bhar School of Pharmaceutical Education & Research of Berhampur University in Berhampur, Odisha, and has six years of teaching experience. In SOA (Deemed to be) University, Odisha, he is pursuing a Ph.D. after completing an M. Pharmacy degree. His tenure as an assistant professor at the Gayatri Institute of Science and Technology in Guntur, Odisha, spans 3.5 years. He has mentored over 30 students for their B. Pharm degree and 15 for their M. Pharm degree.




Mr. Aswini Kumar Sethi

Mr. Aswini Kumar Sethi Currently working as Asst. Professor at Jeypore College of Pharmacy, Jeypore, Koraput, Odisha. He completed his M.PHARM in Pharmaceutical Technology from Jeypore College of Pharmacy at BPUT University in Odisha and is currently pursuing his Ph.D. at Assam Downtown University in Guwahati, Assam. He has been a teacher for three years. He has 5 papers that have been published in well-known national and international journals.



Miss. Rasmita Das

Miss. Rasmita Das Currently working as Asst. Professor at Jeypore College of Pharmacy, Jeypore, Koraput, Odisha. She has completed her Post-graduation in Pharmacy (M.PHARM in Pharmaceutical Analysis & Quality Assurance) from SPER, Berhampur University, Odisha. She has worked as a teacher at the Gayatri College of Pharmacy in Rampantha, Paralakhemundi, Gajapati, Odisha, for four years. She has participated in a number of national and international seminars and conferences.

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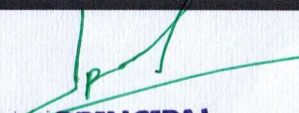
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Mr Santosh Kumar Behera



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 Dr. A. Sasi Kumar, Dr. Bhola Khan

INTERVIEW MANAGEMENT

Dr. A. Sasi Kumar currently working as Professor (Manager IT - Human Education Services) (IIT Bangalore), Department of Cloud Technology & Data Science, Institute of Engineering & Technology, Dr. B.R. Ambedkar University, Manipal. He has received the IACA Award from Bharatiya University, Karnataka, and M.Phil. in Computer Science from Nagpur University, Karnataka. He has awarded Ph.D. degree in Computer Science from Anna University, Chennai. He is pursuing Post Doctoral Fellow at Computer Science and Information Science at Virginia University, Virginia. He has 27 years of teaching experience and 15 years of research experience. He has published 250+ papers in 20+ Journals and Published 22 SCI/SCOPUS Indexed Journals. He has published 2 Books. He has serving as Editorial Board Member / Reviewer in 25 International Journals. His research interests include Artificial Intelligence, Machine Learning, Deep Learning, Data Science, Cyber Security and Cloud Computing.



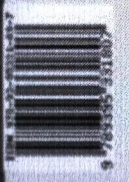
Dr. Bhola Khan has obtained the PhD in Economics from Jawahar Institute of Chemical University, New Delhi, India. He has over 15 years of teaching experience with different Universities in India and abroad. His areas of interest in Development Economics. He has published 100+ papers in International Journals. He has also received several awards and honors for his research work. He is currently working as an Associate Professor of Economics in the Department of Economics, BSRM Group of Institutions, Bangalore. He has also working as Associate Professor in the Department of Economics, Sri Jayachamarajendra Chamarajendra Wodeyar Institute of Management Studies, Bangalore University, Bangalore. Apart from this, he has also actively involved in the curriculum development and setting of various new courses to face the challenges and management about the business using an online mode.



Mr. Santosh Kumar Behera currently working in a faculty of Jaypee College of Pharmacy, Jaypee College, affiliated to O.P.J.S. Group of Institutions, Lucknow. He has received the IACA Award from Bharatiya University, Karnataka. He has awarded Ph.D. degree in Computer Science from Nagpur University, Karnataka. He has awarded Ph.D. degree in Computer Science from Anna University, Chennai. He is pursuing Post Doctoral Fellow at Computer Science and Information Science at Virginia University, Virginia. He has 27 years of teaching experience and 15 years of research experience. He has published 250+ papers in 20+ Journals and Published 22 SCI/SCOPUS Indexed Journals. He has published 2 Books. He has serving as Editorial Board Member / Reviewer in 25 International Journals. His research interests include Artificial Intelligence, Machine Learning, Deep Learning, Data Science, Cyber Security and Cloud Computing.



Mr. Mohd Esa currently working in a faculty of Jaypee College of Pharmacy, Jaypee College, affiliated to O.P.J.S. Group of Institutions, Lucknow. He has received the IACA Award from Bharatiya University, Karnataka. He has awarded Ph.D. degree in Computer Science from Nagpur University, Karnataka. He has awarded Ph.D. degree in Computer Science from Anna University, Chennai. He is pursuing Post Doctoral Fellow at Computer Science and Information Science at Virginia University, Virginia. He has 27 years of teaching experience and 15 years of research experience. He has published 250+ papers in 20+ Journals and Published 22 SCI/SCOPUS Indexed Journals. He has published 2 Books. He has serving as Editorial Board Member / Reviewer in 25 International Journals. His research interests include Artificial Intelligence, Machine Learning, Deep Learning, Data Science, Cyber Security and Cloud Computing.

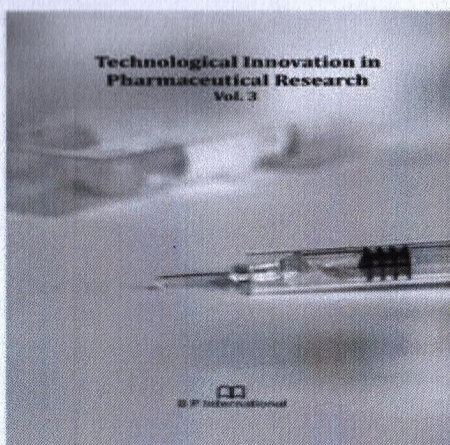


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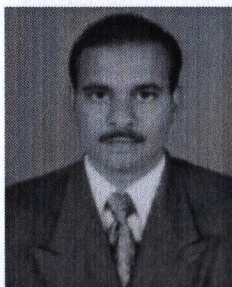
**Investigation on Phytochemical Constituents and Antimicrobial Activity of
Methanolic Extract of *Sonneratia apetala* Buch-Ham. Areal Parts**

Sangram Keshari Panda



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Technological Innovation in Pharmaceutical Research Vol. 3

Biography of author(s)



Prof.(Dr.) S. K. Panda

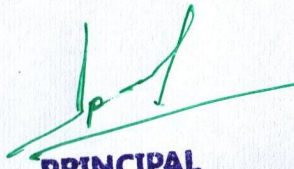
Department of Pharmacognosy, Jeypore College of Pharmacy, Rondapalli, Jeypore 764002, Koraput, Odisha, India.

He has successfully completed his Bachelors of Pharmacy from CPS, Mohuda, Berhampur, Odisha under (BU) and Master of Pharmacy from BIT, Mesra, Ranchi, Jharkhand and all so Doctor of Philosophy in Pharmaceutical Sciences (Pharmacognosy) from Berhampur University, Berhampur, Odisha, India. Currently, he is working as principal in Jeypore College of Pharmacy, Jeypore, Odisha, India. He has started his teaching career in a D. Pharmacy College, IPSTP, Bahugram, Cuttack, Odisha, joined as a lecturer and in 2002 onwards working as Principal for four years. In 2008 he has joined at Jeypore College of Pharmacy as a senior lecturer in the Department of Pharmacognosy and credit of about fifty numbers of research publication in many National and International journals in the field of pharmaceutical sciences specially Natural drugs and he has attended more than thirty numbers of National and International Conference and Workshop and Guided more than forty UG and PG students for their research work and all so member of professional bodies such as IPA, APTI etc. He is very sincere, hardworking, friendly and completely dedicated to his work. He has fifteen years of teaching and research experience in the field of Pharmacognosy and Phytochemistry Research.

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DISCLAIMER

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CHAPTER-14

Investigation on Phytochemical Constituents and Antimicrobial Activity of Methanolic Extract of *Sonneratia apetala* Buch-Ham. Areal Parts

Sangram Keshari Panda^{1*} And Debasis Pati²

Technological Innovation in Pharmaceutical Research Vol. 3, 12 May 2021, Page 121-127
<https://doi.org/10.9734/bpi/tipr/v3/4070D>

ABSTRACT:

The aim of this study was to look into the phytochemical constituents and antimicrobial activity of *Sonneratia apetala* areal parts methanolic extracts. Terpenoid, steroid, alkaloid, flavonoid, tannins, saponins, and polysaccharide were contained in the phytochemical constituents of methanolic extracts of *S. apetal*. The well diffusion method was used to assess the antimicrobial activities of the plant extracts. The tested extract had antibacterial activity against both gram-negative and grampositive bacteria to varying degrees. These positive results indicate that the plant material has antibacterial properties. In comparison to standard anti-microbial agents ciprofloxacin and clotrimazol at 10g/disc, the anti-microbial activity of the methanolic extract of *S.apetala* at 10 mg/ml was found to be dose dependent and meaningful.

Keywords: Antimicrobial activity; *Sonneratia apetala*; Dsmo; Mic; ciprofloxacin; clotrimazole.

Phytochemical Examination and Hepatoprotective Impact of Stem Bark of *Oroxylum indicum* (L) Vent. on Carbon Tetrachloride Induced Hepatotoxicity in Rat

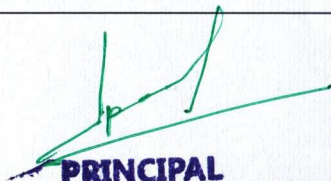
Sangram Keshari Panda^{1*} and B. N.Tripathy²

Technological Innovation in Pharmaceutical Research Vol. 3, 12 May 2021 , Page 113-120
<https://doi.org/10.9734/bpi/tipr/v3/4069D>Published: 2021-05-12

ABSTRACT:

The study is being carried out to screen and evaluate the hepatoprotective activity of *Oroxylum indicum* bark extracts (L.)Petroleum ether, chloroform, methanolic, and aqueous extracts of *O. indicum* were tested for hepatoprotective activity against carbon tetrachloride-induced liver damage in mice using silymarin as a control.The phytochemical content of the extracts was determined.The enzyme activities of SGOT, SGPT, and ALP (Serum Glutamate Oxaloacetate Transaminase, Serum Glutamate Pyruvate Transaminase, and Alkaline Phosphatase) were investigated. Alcoholi bark extracts of *O. indicum* showed activity as compared to carbon tetrachloride therapy.The findings of this study support the conventional use of this plant as a possible hepatoprotective agent.One-way measurement of variance (ANOVA) was used in the statistical analysis, followed by Dunnet's t-test. P-values less than 0.05 were considered significant

Keywords: *Oroxylum indicum* (L.), hepatoprotective activity, Serum Glutamate Oxaloacetate Transaminase (SGOT) , Serum Glutamate Pyruvate Transaminase (SGPT), Alkaline Phosphatase (ALP)


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