

PROCEEDINGS

National Workshop on Instrumentation Techniques for Research in Chemical Sciences (WITRCS - 2017)

22-23 December, 2017



Organized by

Department of Chemistry
Kanoria Mahila PG Mahavidyalaya
Jawahar Lal Nehru Marg, ~~Decent~~
Jaipur, Rajasthan Principal

Kanoria PG Mahila Mahavidyalaya
JAIPUR

Sponsored by

Association of Chemistry Teachers;
Mumbai, Maharashtra
Department of Science & Technology
Jaipur, Rajasthan

National Workshop on Instrumentation Techniques for Research in Chemical Sciences

Proceedings
Of the National Workshop on

Instrumentation Techniques for Research in Chemical Sciences

(WITRCS- 2017)

22-23 December, 2017

Editors:

Dr. Kumud Tanwar

Department of Chemistry
Kanoria Mahila PG Mahavidyalaya,
J. L. N. Marg, Jaipur, Rajasthan

Dr. Atul K. Bhatnager

Department of Chemistry
B. B. D. Government College
Chimanpura (Shahpura), Jaipur

Dr. Ashok K. Kakodia

Department of Chemistry
S. G. G. Government College
Banswara, Rajasthan

Authors are responsible for the views, opinions expressed here and neither Editors nor Publishers are accountable in any manner.

Permission is needed for reproduction in any form.

Copyrights ©2017 by the Instrumentation Techniques for Research in Chemical Sciences.

Published by: Convener WITRCS – 2017, Kanoria PG Mahila Mahavidyalaya, Jaipur

ISBN: 978-93-5291-367-1.

Dear
Principle
Kanoria PG Mahila Mahavidyalaya
Jaipur

	structural analysis (with special reference to Sharma)	
24.	Alternative of Plastics: Biodegradable Starch-based Bioplastics. Roli Verma, Kirti Srivastava, Pratibha Singh, R.S.Jagadish	57-60
25.	Spectrophotometric studies of various Zn (II)-heterocyclic thiophosphate systems Jasvinder Kaur	61-63
26.	Thermochemical characterization of clay by Thermogravimetric and Differential Thermal Analysis (in the special reference of Bikaner, Rajasthan's clay) Divya Sharma	64-66
27.	Phytochemical and pharmacological potential of Saraca asoca (Ashoka): A Review. Sakshi Sharma and Reema Srivastava	67-71
28.	Comparative Analysis of Physicochemical Parameters of upstream site and downstream site of Haro River, Ghatol, Banswara, Rajasthan. Manish Kunwar Sisodiya, Lalit Choudhary, Pooja Joshi and Seema Bhardwaj	72-74
29.	Effects of Fluoride on Human Health in Rajasthan. Neha Goyal Dr. S. S. Dulawat	75-77
30.	Fluoride Levels in Ground Water Of Beawar City and Nearby Area A.K.Sirova, Nisha Sirova, O.P.Sirova	78-79
31.	Microwave Assisted Synthesis and Biological activity of [5(furan-2-yl)-phenyl]-4,5-carbodioamide -pyrazolines. Bhupendra K. Sharma, Ashok K. Kakodia, Praveen Meena, Ramesh K. Menaria	80-83
32.	Green Chemistry for Sustainable Development. Ritu Saharan	84-86
33.	Functionalized Graphene/Conducting Polymer Matrix as a Better Supercapacitor Material. Nidhi Agnihotri and Amitabha De	87-88
34.	Biosorption technique based on metal binding capacities for Wastewater treatment Sarita Singhal, Ritu K. Gupta and Rita Gupta	89-92
35.	Synthesis of Biologically Active Chalcones of Substituted Indole-3-Carbaldehyde under Ultrasonic Irradiation. Meenakshi Jain, Maya Agarwal, Madhuri Modi	93-98
36.	Toxicity of Transition metal complexes with Schiff base Ligands. Rekha Mithal	99-100
37.	A Review on phytochemistry and ethnomedicinal uses of some important Ipomoea species. Suneeta Rao, Taruna Sethi, M.P.Dobhal and M.C.Sharma	101-102
38.	Kinetics and Mechanism of Electron Transfer Reactions : Oxidation of Lactic Acid by Potassium Permanganate in Acid Perchlorate Medium Neetu Razdan	103-105
39.	Electro Chemistry: Applied in Decolourisation of Dye Effluents. Renu Bala and P.S.Verma	106-108
40.	Removal of Cu(II) from synthetic textile effluent using Tamarindusindica bark: A kinetic and thermodynamic study. Sudesh, Varsha Goyal, Arbi Mishra	109-112
41.	An Efficient Approach to Synthesize Substituted Sulfonohydrazide Derivatives and their Characterization. Sunita Ghiya, Pratibha Payal, Y. C. Joshi	113-115
42.	Effect of water pH on Fish growth in the Haro Dam, Ghatol, Banswara (Raj.) Lalit Choudhary, Manish Kunwar Sisodiya and Seema Bhardwaj	116-117

Phytochemical and pharmacological potential of *Saracaasoca* (Ashoka): A Review

Sakshi Sharma and Reema Srivastava

Department of Botany, Kanoria PG Mahila Mahavidyalaya, Jaipur

Abstract

Aim of the present review is to focus on the potential phytochemicals and pharmacological activity of plant *Saracaasoca* (ashoka). Various parts of the plant like seeds, leaves, flowers, bark glycosides, flavonoids, tannins and saponins. It is used as spasmogenic, oxytocic, uterotonic, anti-bacterial, anti-implantation, anti-tumor, anti-progestational, anti-estrogenic activity against menorrhagia and anticancer. It is used to cure several diseases according to ayurvedic medicine also. It has specially been used to manage gynaecological complications and infections besides treating hemorrhagic dysentery, uterine pain, and tumours, cardiac and circulatory problems. Almost all parts of the plant are considered pharmacological valuable. This review is an attempt to compile and documented information on different aspect of *Saracaasoca* pharmacological properties and highlights the need for research and their potential development.

Key words- Ashoka, morphology, phytochemistry, medicinal uses.

Introduction

In the present age of pharmaceuticals, various chemicals have been employed for the effective management of disease. Due to their potential side effects researchers aimed on the effective herbal management of disease. They have been always the main principle form of medicine since traditions in India and now a day it becomes most popular throughout the world. Herbal medicines are not only providing traditional and ethnic medicine but also promising for highly efficient novel bioactive molecules. Since ages, man has been dependent on nature for curing various body diseases. The plant used as drugs are fairly innocuous and relatively free from toxic effects or were so toxic that lethal effects were well known¹.

Saracaasoca as one of the foremost plants utilised from antiquity till to date. Asoka or Ashoka is a Sanskrit word which means "without sorrow" or with that gives on grief. Ashoka is one of the most legendary and sacred trees of India. Ashoka tree, universally known by its binomial latin name *Saracaasoca*, De wild or *Saracaindica* belonging family Caesalpinaeae². It is a evergreen tree called in English Asoktree. It

is found throughout India, especially in Himalaya, Kerala, Bengal and whole South Region. Ashoka is one of the sacred plants of Hindus, and is especially sacred to the Hindus God of love Kama Dev, for whom it is worshipped every year on December 27, it is mentioned in Hindu mythology as the Asoka tree, beneath which the Indian philosopher and founder of Buddhism, Gautam Siddhartha was said to have been born under this tree. The aim of present study is to provide information about the phytochemical and pharmacological importance of the *Saraca asoca*³.

Classification

Kingdom- Plantae

Division - Mungophyta

Class - Magnoliopsida

Order-Fabales

Family - Caesalpinaeae

Genus-Saraca

Species- asoca⁴

Ecological adaptations and distribution

1. Soil and climate The plant requires slightly acidic to neutral soils for good growth with medium to deep well drained fertile soils. It grows well in tropical and subtropical situations under irrigation.

*Deenay
Prinpal*

PAGE 67