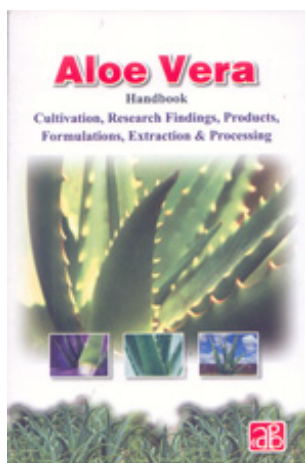


Aloe Vera Handbook Cultivation, Research Finding, Products, Formulations, Extraction & Processing



Author: H. Panda
Format: Paperback
ISBN: 8178330245
Code: NI122
Pages: 496
Price: Rs. 1,275.00 **US\$** 125.00
Publisher: Asia Pacific Business Press Inc.
Usually ships within **3** days

Aloe Vera is a semi tropical plant. There are over 250 species of Aloe grown around the world. It contains more than two hundred tonic ingredients including essential amino acids, minerals, vitamins, enzymes and steroids. Also contains the most essential components required by the human body. It is grown wild in hedge-rows in dry soil conditions and almost all parts of India. It can be grown even under constant drought conditions. Commercial cultivation and utilization of this plant with the application of technology can be of great value. This book highlights such technical details to guide and encourage new entrepreneurs. It is very useful book for consultants, farmers, students of Agricultural universities, libraries etc.

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Influence of Aloe vera on the glycosaminoglycans in the matrix of healing dermal wounds in rats.

Immunochemical distinction of Aloe vera,

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Influence of Aloe vera on collagen turnover in healing of dermal wounds in rats.

Studies of aloe. VI. Cathartic effect of isobarbaloin.

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Nitro chemopreventive effects of plant polysaccharides (Aloe *barbadensis* Miller, *Lentinus edodes*, *Ganoderma lucidum* and *Coriolus versicolor*).

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Activation of a mouse macrophage cell line by acemannan: the major carbohydrate fraction from Aloe vera gel.

Isolation of a cDNA for a phosphoenolpyruvate carboxylase from a monocot CAM-plant, Aloe *arborescens*: structure and its gene expression.

A purgative action of barbaloin is induced by

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Studies of aloe. V. Mechanism of cathartic effect.

Studies of aloe. IV. Mechanism of cathartic effect.

Prevention of ultraviolet radiation-induced suppression of contact and delayed hypersensitivity by *Aloe barbadensis* gel extract.

Rhein and aloe—emodin kinetics from senna laxatives in man.

Pharmacokinetic—metabolic studies with ¹⁴C-aloe emodin after oral administration to male and female rats.

Some pharmacological actions of aloe extracts and *Cassia abbreviata* on rats and mice.

Effects of low molecular constituents from *Aloe vera* gel on oxidative metabolism and cytotoxic and bactericidal activities of human neutrophils

Studies of aloe. III. Mechanism of cathartic effect.

An anti-complementary polysaccharide with immunological adjuvant activity from the leaf parenchyma gel of *Aloe vera*.

[Effects of aloe extracts, aloctin A, on gastric secretion and on experimental gastric lesions in rats].

Effect of water extracts of aloe and some herbs in decreasing blood ethanol concentration in rats.

Aloe vera

Comparative evaluation of *aloe vera* in the management of burn wounds in guinea pigs.

The glucomannan system from *Aloe vahombe* (liliaceae).

The *Aloe vera* phenomenon: a review of the properties and modern uses of the leaf parenchyma gel

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Studies of Aloe III. Mechanism of Cathartic Effect

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Alvigel as a therapeutic agent in the treating of radiation burns

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Anti-inflammatory and wound healing activity of a growth substance in Aloe vera.

Anti-inflammatory & wound healing properties of Aloe vera

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Antiinflammatory activity of extracts from Aloe vera gel.

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Dental Disorders

Aloe Vera Gel Toothpaste

Aloe in Dentistry

Why Aloe may work

Use of Whole-Leaf Aloe

8. Patent

U.S. Patent 6, 027, 728 (2000)

Herbal Skin regeneration and method

A method for skin regeneration comprising

Description

Background of the Invention

Summary of the Invention

Detailed Description of the Invention

U.S. Pat. 6, 030, 622

Herbal Extract composition and method

(2000) with immune boosting capability

Background of the Invention

Field of the Invention
Description of the Background Art
Summary of the Invention
Detailed Description of the Preferred Embodiments
Extract Preparation
Preparation of Extract of ARUM ALOE
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Chemical Analysis of Combined Extracts
Aloe vera gel toothpaste
United States Patent 5, 294, 434 March 15, 1994
Summary of Invention
Detailed Description
United States Patent 5,989,560
November 23, 1999
Herbal intestinal tract cleanser
Field of the Invention
Background of the Invention
Summary of the Invention
Detailed Description of the Preferred Embodiments
Aloe vera ointment
United States Patent 4,725,438 February 16, 1988
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Summary of the Invention
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Description of the Preferred Embodiment
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United States Patent 5,288,492 February 22, 1994
Decongestant composition containing aloe vera
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United States Patent: 6,004,558
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Separation of primary isoflavones using
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Method for extraction and removal of genistein,
daidzein, formononetin and biochanin
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Herbal Preparation and Dosage
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Effect of Discontinuing Usage of the Present Invention
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United States Patent 5,904,924 May 18, 1999
Green nutritional powder composition
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U.. Pat. 5,876,728 (1999)
National Composition extracted from Plants
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Summary of the Invention
Detailed Description of the Invention
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Cytotoxicity Assay
Fresh Tumor Specimens
Turmeric & Aloe Vera for treating health ailments
Summary of the Invention
U.S. Pat. 4591, 387 (1986)
Aloe Vera Leaf Processor
Brief Description of the Invention
Detailed Description of the Invention
U.S. Pat. 5, 215, 760 (1993)
Detailed Description of the Preferred Embodiments
U.S. Pat 4,309,180 (1983)
Cosmetic facial preparation containing aloe vera
Detailed Description of the Preferred Embodiment
U.S. Pat. 6,013, 259 (2000)
Aloe Vera Ophthalmic Solution
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Detailed Description of the Invention
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Extract of Lavender
Topical Compositions
Pharmaceutical/Cosmetic Compositions
Cleaning Compositions
Weighing
Washing

Filleting
Grinding
Homogenization
pH Adjustment
Selective Precipitation
Centrifugation
Weighing/Storage
Tray loading
Drying
Milling
Blending
Storage and Exportation
Moderate or Medium Filtration
(Filtration Using A Medium Filter)
Fine Filtration (Filtration Using A Fine Filter)
Ultrafiltration/Concentration
Ultracentrifugation
Low Speed Centrifugation
Dialysis
Anion Exchange Chromatography
Size Exclusion Chromatography
Step-Wise Filtration
Preparation of Bulk Pharmaceutical
Mannan ("BPM")
Pilot Scale Sizing of Bulk Pharmaceutical
Mannans by Ultra-filtration
Purification and Depyrogenation of FBA using
Chromatography with subsequent Molecular
Sizing (DFBA)
Anti Viral Effects of Different Factors Obtained by
Chromatographic Separation of FBA
Cells and Culture media:
Reagents and Preparation:
Protocol of Mouse Pulmonary Inflammation
Model
Myeloperoxidase ("Mpo") Assessment of Lavage
Fluid and Tissues
Lavage Fluid
Tissue MPO Assessment
MPO Reaction
Mouse Croton Oil Ear Inflammation Model
Protocol for Cytokine Analysis from Macrophages
Mouse TNF-.alpha. Assay In Biological Fluids
Centrifugation of Suspension of Results Obtained
from Bioassays used to Evaluate Different Factors
Results from Factors using Methods as Described
IL-6 Production:
IL- 1 .alpha. Productions:
Microparticulate Factor From FBA and No Production
Macrophage Activation and Anti-inflammatory
Activities
Epitheal Cells ("EC") Proliferation
IL-6 Assay

RAW Cells Secreted Interleukin-6 in Response to FBA

“MF” Stimulated IL-6 Production

Anti-Inflammatory Activities of “Soluble Factors” Filtration with 0.1 μm Filters of “Microparticle Factors”

Factors of FBA Sized Filtration through Syringe Filters of Various Pore Sizes

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Qurs Tankar

Kuhl-ul-jawahar

Kuhl Roshania

Kushta Abrak Safaid

Kushta Busud

Kushta Khubs-ul-hadid

Kushta Khar Mohra

Kushta Tila Kalan

Kushta Faulad

Kushta Gaodanti

Kushta Nuqra

Majun Talkh

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Weeding

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Leaf Harvesting and Handling
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Solvent recovery
Spray dried extract
Soft extract
Phytochemicals:
Effluent treatment:
Aloe Vera Gel Process
Highlights
Guidelines for production
Process outline
Process conditions:-
Advantages of wholeleaf cold process
Strategy for process control
Patent details
Extraction Process
Processing Steps
Extraction process of Aloe Gel and Powder
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Preparation of the Aloe Vera gel eye drops:
Summary of the Invention
Objects of the Invention

About NIIR

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Mon, 15 Mar 2010 05:35:55 -0400