The Complete book on Natural Dyes & Pigments

Author: NIIR Board of Consultants & Engineers
Format: Paperback
ISBN: 8178330326
Code: NI160
Pages: 448
Price: Rs. 1,100.00  US$ 125.00
Publisher: Asia Pacific Business Press Inc.
Usually ships within 5 days

Natural dyes are dyes or colorants derived from plants, invertebrates, or minerals. The majority of natural dyes are vegetable dyes from plant sources. Dyeing is the process of imparting colors to a textile material. Different classes of dyes are used for different types of fiber and at different stages of the textile production process, from loose fibers through yarn and cloth to completed garments. There are technologies that manufacture the pigments for plastics, rubber and cosmetics. Therefore; dyes and pigments have a vast area of applications and have a huge demand in industry. Contrary to popular opinion, natural dyes are often neither safer nor more ecologically sound than synthetic dyes. They are less permanent, more difficult to apply, wash out more easily, and often involve the use of highly toxic mordant. Of course, the colour possibilities are far more limited; the color of any natural dye may be easily copied by mixing synthetic dyes, but many other colors are not easily obtained with natural dyes. However, some mordant are not very toxic, and the idea of natural dyestuffs is aesthetically pleasing. Applying natural dyes in your fabric production using enzymes will reduce your production cost and improve control. There are various kind of natural dyes; quinonoid dyes, cyanine dyes, azo dyes, biflavonyl dyes, omochromes, anthraquinone, coprosma gesus etc. The use of natural dyes in cloth making can be seen as a necessary luxury to trigger off a change in habits. Dyes which stand out for their beauty and ecological attributes would never be employed on just any material but on noble fabrics such as wool, silk, linen or cotton, made to last more than one season. Market value will benefit from consumer preferences for environmentally friendly products, which will support consumption of high performance dyes and organic pigments.

This book basically deals with the use of carotenoids as food colours, bianthrachinones and related compounds, intermediate degradation products of biflavonys, dyestuffs containing nuclear sulphonic and carboxylic acid groups, quinonoid dyes, cyanine dyes, optical whitening agents, natural dyes for food, stability of natural colourants in foods effect of additives, pyrimidine pigments, the total synthesis of the polyene pigments, red pigment from geniposidic acid and amino compound, effect of acid and amine on the formation of red pigment from geniposidic acid, effect of the substituted position of amino group and chain length of amino compound etc.

Due to pollution problems in synthetic dyes and pigments industry, the whole world is shifting towards the manufacturing of natural dyes and pigments. The present book contains techniques of producing different natural dyes and pigments, which has huge demand in domestic as well as in foreign market. It is hoped that entrepreneurs, technocrats, existing units, institutional libraries will find this book very useful.

Contents

1. Omochromes
Distribution
A. Ommatins
B. Ommins
Isolation and Purification
A. Ommatins
B. Ommins
Structure of the Ommochromes*
  Xanthommatin
  Ommatin D
  Rhodommatin
  Ommin A X
Biogenesis
2. Bisdehydrocanthaxanthin
3. Carotenoids Field
  Carotenoid Biogenesis
  Carotenoid Total Syntheses
  The use of Carotenoids as Food Colours
4. Black pigments
  Animal Pigments
    Melanins
  Sclerotization
Plant Pigments
  Humic acids
  1,8-Dihydroxynaphthalene polymers
5. Anthraquinone
  Plant Pigments
  Insect Pigments
6. Coprosma genus
7. Bianthraquinones and related compounds
  Skyrin
  Oxyskyrin
  Skyrinol
  Iridoskyrin
  Rugulosin
  Luteoskyrin and Rubroskyrin
  Lumiluteoskyrin
  Flavoskyrin
  Biogenesis
8. The Biflavonyl Pigments
   The First Investigations
   The Work of Nakazawa on Ginkgeting
   The Work of the Bristol Group
   On Ginkgetin and Isoginkgetin
   The Work of Kariyone and Kawano on
   Sciadopitysin, 1956
   Further Work of Brispol Group on
   Ginkgetin and Sciadopitysin
   The Work of Kawano on Sciadopitysin and GINKGETIN, 1959
   The Synthesis of Ginkgetin Tetramethyl ether, Nakazawa, 1959
   The Structure of Ginkgeting
   The Structure of Isoginkgetin
   The Structure of Kayafyavone
   The Structure of Sotetsuflavone
Summary of Biflavonyl Structures

Intermediate Degradation Products of Biflavonyls
Optical Inactivity of the Biflavonyls
The Structure of Hinokiflavone
Natural Occurrence of Biflavonyls

9. Azo dyes
10. Dyestuffs

Introduction
Primary Products for VS-Dyestuffs
1. Methods of preparation
2. Reactions

Processes for the Manufacture of VS-Dyestuffs

Fastness and Dyeing Properties of VS-Dyestuffs
1. VS-Dyestuffs free from nuclear sulphonic and carboxylic acid groups
2. Dyestuffs containing nuclear sulphonic and carboxylic acid groups

Summary
11. Disperse dyes
Light Fastness
Gas Fastness
Sublimation Fastness
Wash Fastness

Structural Modifications Leading to All-Round Fastness
12. Quinonoid dyes
13. Cyanine dyes

Chemistry of 2, 3-Dichloro-1,4-Naphthoquininone (I)
Chemistry of Chloranil (II)

Vat Dyes from Chloranil

Benzodipyrrocolinequinones Pyrrocolinequinones,
Unsymmetrical Dipyrrrocolinequinones and Naphth of Uranopyrrocolinequinones

2-alkylamino-(arylamino)-3-chloro-1,
4-naphthoquinones And Di-3-(2-chloro-1,
4-naphthoquinonyl)-alkylamines And Arylamines

Cellulose Acetate Dyes From (i) And (ii)

Synthesis Of Non-coplanar Quinonoid Dyes

14. Fluorescent brightening agents
15. Optical whitening agents

Introduction
Physical Considerations of Fluorescence and Optical Whitening

Chemical constitution of Optical Whitening Agents
1. Stilbene derivatives
2. Benzidine derivatives
3. Benzthiazole, benzoazole and benziminazole derivatives
4. Coumarins
5. Pyrazolines
6. Other types

Some Specific Applications of Optical Whitening Agents
1. Soaps and detergents
2. Textile applications
16. Natural dyes for Food
Natural Colourants

Natural Colours Presently Used in Food
Methods of Improving Natural Colourants

Novel Sources of Natural Colourants

Microbial Sources
Animal Sources
Plant Source

General Reviews

Colourants from By-products
Gardenia Extracts
Other Sources

Feasibility of Novel Sources

Stability of Natural Colourants in Foods Effect of Additives

Ascorbic Acid and Derivatives
Effect of Metal Ions
Effect of Neutral Salts
Effect of Organic Acids
Photoprotection
Miscellaneous Additives
Conclusion

Stable Forms of Natural Colourants Found in Vivo

Stabilised Forms Of Natural Colourants Flavonoids
Chemical Features Affecting Stability
Self association
Complex formation
Copigmentation
Condensation
Chemical modifications

Porphyrrins

Others

17. Pyran Pigments : I. Flavones and Flavonols

Flavones

Chrysin (IV)

General Methods of Synthesis of Flavones

A. From Aromatic Diketones
B. From o-Hydroxyacetophenones
C. From o-Hydroxychalkones
D. From Phenols

Flavonols

The Wessely-moser and Related
Rearrangements of Flavones
The Formation of Salts by Flavones and Flavonols
The Reduction of Flavones

Isoflavones

The Synthesis of Isoflavones

18. Pyran Pigments : II. Anthocyanins and Anthocyanidins

Cyanidin (III)

The Synthesis of Anthocyanidins
The Synthesis of Anthocyanins
Color Reactions of The Anthocyanidins and Anthocyanins

Anhydrobases

Carajurin (XCIX)
Dracorubin (CXXV)
19. Pyran Pigments: III. Xanthones
   Ravenelini (II)
   Mangostin (XI)
Pyran Pigments: IV. Rottlerin
Pyran Pigments: V. Brazilin and Mematoxylin
Brazilin (XXXII)
   Hematoxylin (XL)
Trimethylbrazilone (XLI)
Brazilien (LXXIX, R - H)
The Synthesis Of Brazilin
Pyrrole Pigments: I. The Porphyrins
   Hemin (cxxxvii)
The Synthesis of Dipyrrylmethenes
The Synthesis of Porphyrins
   The Structure of Hemin
Pyrrole Pigments: II. Chlorophylls
   Pheoporphyrin, Chloroporphyrin, and Phylloerythrin
The Vinyl Group in Chlorophyll
   The Structure of Chlorophyll
      Position of the Phytyl Group in Chlorophyll
      The Phase Test
Allomerization
Approaches to the Synthesis of Chlorophyll
   Chlorophyll-b
Bacteriochlorophyll
20. Pyrrole Pigments: III. The Bile Pigments
   Bilirubin (XXXII)
      Verdins
      Violins
      Bilenes
      Bilanes
Stereochrome and Tautomerism
Complex Salts of the Bile Pigments
Pyrrole Pigments: IV. Prodigiosin
21. Pyrimidine Pigments: The pterins
   The Gmelin Reaction
Pterorhodin
22. Quinonoid Pigments
   Benzoquinonoid Pigments
      Perezone (XII)
      Polyporic Acid (XIV)
      Astromentin (XXVIII)
      Phoenicin (LXI)
Napthaquinonoid Pigments
   Lapachol (LXXI)
   Eleutherin (CXXI)
   Alkannin and Shikonin (CXLIX)
Anthraquinonoid Pigments
   Helminthosporin (CLVIII)
   Kermesic Acid (CLXI)
   Skyrin (CLXXVIII)
Extended Quinone Pigments
   The Aphin Pigments
Erythroaphin-fb (CCXVI) or (CCXVII)
Hypericin (CCXXV)

23. Polyene Pigments
Bixin (X) and Croceting (XI) the Carotenes
   \[ \text{b-Carotene (LV)} \]
   \[ \text{Lycopene (LXXIII)} \]
The Total Synthesis of the Polyene Pigments
Combination of Units in the Order C19 + C2 + C19
   - Combination of Units in the Order C16 + C8 + C16
   - Combination of units in the Order C14 + C12 + C14
   - Combination of Units in the Order C10 + C20 + C10
The Dehydro - Retrodehydrocarotenoids Epoxides
and Furanoid Oxides

24. Anthocyanins from Indian varieties of Grapes
Material and Methods
   - Extraction
   - Purification
   - Total anthocyanins
   - Separation
   - Partial hydrolysis of anthocyanin
Aglycone and sugar
   - Acyl moieties
   - Spectral measurements
   - Thin layer chromatography
Results and Discussion
   - Recovery of anthocyanin
   - Separation of pigments by paper chromatography
   - Absorption spectra of pigments
   - Partial hydrolysis of anthocyanins
   - Aglycones
   - Sugar identification
   - Acyl moieties

25. Red pigment from Geniposidic Acid and Amino Compound
Materials and Methods
   - Preparation of geniposide (GS) and GSA solution
   - Preparation of other iridoid compounds
   - Enzyme and reagents
   - General method of preparation of pigment
   - Evaluation of pigment
Identification and quantification of carbon dioxide
   - HPLC and NMR measurement
   - Structural relationship of iridoids to red pigment production
   - Acidity and evolution of carbon dioxide
   - Time course of enzymic reaction
   - Acidity and atmosphere on the reaction
HPLC monitoring of the pigment formation from GAA
   and a-alanine
   - NMR monitoring of the pigment formation from GAA
   and methylamine
Results and Discussion
   - The relationship between the evolution of carbon dioxide
   and reaction pH
   - The process of formation of red pigment
Molecular mass and colour evaluation of red pigment derived from GAA and a-alanine
NMR spectroscopy of red pigment formed from GAA and methylamine
Monitoring of the reaction by NMR
The formation mechanism of red pigment
26. Effect of Acid and Amine on the formation of Red Pigment from Geniposidic Acid

Materials and Methods
Preparation of geniposide (GS)
Preparation of geniposidic acid (GSA) solution
Enzyme and reagents
General procedure for the red pigment formation
Evaluation of pigment
Kind of acid
The concentration of organic acid
The substituted position of amino group and chain length
of amino compound
Kind of amino compound

Results and Discussion
Effect of acid
Effect of the substituted position of amino group and chain length
of amino compound
Kind of amino compound

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NIIR PROJECT CONSULTANCY SERVICES , 106-E, Kamla Nagar, New Delhi-110007, India. Email: npcs.india@gmail.com Website: NIIR.org