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The Complete Book on Water Soluble Gums and Resins

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Description

Resins, gums and latex are almost ubiquitous in the plant kingdom and many of them continue to play an important role in our daily lives. Numerous plants produce some kind of resin, latex or gum, but only a few are commercially important today, even though their uses and applications are truly manifold. They have been used as adhesives, emulsifiers, thickening agents, they are added to varnishes, paints and ink; they lend their aromas to perfumes and cosmetics and even play a role in pharmacy and medicine. Gums are viscous substances which are secreted by the bark of certain trees. Usually transparent (but sometimes slightly tinted) they contain a mucilage which when dissolved in water makes the latter become viscous. When this mucilage is dissolved in water it can be made to precipitate with alcohol. Resins, on the other hand, are gluey and viscous substances which may be whitish, brownish, or red and are secreted by certain trees when they are incised. Resins contain an essence and are usually not water soluble. Most commonly found types of plant exudates are chemically completely different to gums. Several acacia species are important economically. True gums are complex organic substances mostly obtained from plants, some of which are soluble in water and others of which, although insoluble in water, swell up by absorbing large quantities of it. They are used in adhesives, pharmaceuticals, inks, confections, and other products. Resins are terpene based compounds. Terpenes constitute one of the largest groups of plant chemicals and they can be very complex. They are not water soluble, but can be either oil soluble or spirit soluble, depending on their specific chemical composition. Worldwide interest and activity in gums and resins has grown dramatically in the last few years. Governments, environmentalists, research institutions and other interest groups are among those who have begun to push for stronger support for gums and resins as a way to meet a range of economic, social and environmental goals.

Some of the fundamentals of the book are photosynthesis and metabolism of carbohydrates, occurrence, properties and synthesis of the monosaccharides, nitrogen derivatives, carbohydrates in parenteral nutrition, essential carbohydrates, ethers, anhydro sugars and unsaturated

derivatives, constitution of nicotinic acid and of nicotinamide, industrial methods of preparing nicotinic acid and nicotinamide, general physiology, metabolism and mechanism of the vitamin action etc.

This book gives a complete insight of water soluble gums and resins that are used in day to day life in various Industries. It is an invaluable resource to all its readers, students, scientist, new entrepreneurs, existing industries and others.

Content

- 1. CARBOHYDRATES
- 1. PHOTOSYNTHESIS AND METABOLISM OF

CARBOHYDRATES

Photosynthesis

Introduction

Structural Aspects of the Photosynthetic Apparatus

Kinetic Studies on Photosynthesis

Bacterial Photosynthesis

The Hill Reaction

The Path of Carbon in Photosynthesis

The Biosynthesis of Carbohydrates by Plants

Monosaccharides

Oligosaccharides

Starch

Sugar Alcohols

Sugar Acids

Carbohydrate Biochemistry

Pathways for the Metabolism of Carbohydrates

Interconversion of the Sugars

2. OCCURRENCE, PROPERTIES AND SYNTHESIS

OF THE MONOSACCHARIDES

Naturally Occurring Monosaccharides

Origin and Preparation of Some Naturally Occurring Monosaccharides

Synthetic Sugars

Complete Synthesis of the Sugars

Methods for Lengthening the Carbon Chain of the Sugars

Methods for Shortening the Carbon Chain of Sugars

Methods Based on Changing the Configuration of Other Sugars

Methods for the Synthesis of Deoxysugars

Preparation of Ketoses by Biochemical Oxidation of Alcohols

Aldose to Ketose Conversion Utilizing the Osones

Methods for Isotope-Labeled Sugars

3. OLIGOSACCHARIDES

Synthesis of Oligosaccharides

Rearrangement and Degradation of Oligosaccharides

Condensation of Two Monosaccharide Units

Determination of Structure

Ease of Acid Hydrolysis

Preparation, Properties, and Structures of Some Oligosaccharides of Natural Origin

Miscellaneous Disaccharides

Tri-, Tetra-, and Pentasaccharides

Miscellaneous Tri- and Tetrasaccharides

Enzymic Synthesis of Oligosaccharides

Synthesis of Sucrose by the Mechanism of Phosphorolysis

Synthesis of Analogs of Sucrose and Maltose by Sucrose and Maltose Phosphorylases

Synthesis of Disaccharides by Transglycosidation Through the Action of Sucrose

Phosphorylase

Synthesis of Oligosaccharides by Transglycosidation Through the Action of Hydrolytic

Enzymes

Miscellaneous Oligosaccharides

4. NITROGEN DERIVATIVES

Glycosylamines, Nucleic Acids and Hydrolysis Products, Hydrazones, Osazones,

Oximes, Amino Sugars, etc.

Glycosylamines

Unsubstituted Glycosylamines

N-Substituted Glycosylamines

Nucleotides

Preparation and Structures

Nucleoside Di- and Triphosphoric Acids

Biologically Important Substances Related to Nucleotides

Nucleic Acids

Combinations of Sugars with Amino Acids and Proteins

Preparation

Protein-Carbohydrate Compounds as Synthetic Antigens

Reactions of the Sugars with Substituted Hydrazines and Hydroxylamine

Hydrazones and Osazones Comparison or Weygand-Reckhaus and Bloink-Pausacker Mechanisms Oximes Derivatives in which an Amino Group Replaces a Primary or Secondary Hydroxyl Group Amino Sugars (Glycosamines) Glycamines and Aminodeoxyalditols 5. ROLE OF CARBOHYDRATES IN DENTAL CARIES Dietary Carbohydrates in Diabetes and Nutrition Carbohydrate Sweeteners in Nutrition: Fact and Fantasy Consumption Cost Acceptability Safety Availability, Convenience, Quality 6. CARBOHYDRATES IN NUTRITION **General Aspects** Caloric Value Digestion and Absorption Starches **Dextrins** Maltose Sucrose D-glucose (Dextrose) D-fructose (Levulose) D-Mannose D-galactose and Lactose Lactose and the Microflora of the Digestive Tract □ -Lactose vs. □ -Lactose C. Influence of the Glycosidic Linkage on the Utilization of Lactose Adaptation to Lactose Ingestion Laxative Action of Lactose Cataractogenic Action of Lactose Galactosemia Associated with Cataracts in Humans Lactose and Calcium Metabolism Cellobiose Rare Sugars

Xylose Toxicity

Hexosamines

Sugar Alcohols (Alditols)

Cellulose and Related Substances

Sweetness and Flavoring Characteristics of Sugars

Appetite for Carbohydrate

Blood Glucose and the Urge to Eat

Synthesis of Vitamins by the Intestinal Microflora

Protein Sparing Action

Sugar in Candy and Carbonated Beverages

Carbohydrates and Weight Control

Carbohydrates in Parenteral Nutrition

7. ESSENTIAL CARBOHYDRATES

The Active Compounds and Their Properties

Pathological States Caused by a Deficiency of the Active Compounds

Specificity Studies

The Physiological Action of the Active Compounds

Requirements

8. INOSITOL

Nomenclature

Names

Chemical formula

Empirical Formula

Occurrence

Isolation

Properties

Chemistry

Industrial Methods of Preparation

Biogenesis

Specificity

Determination

Physiology of Plants and Microorganisms

Animal Physiology

Avitaminosis

Hypervitaminosis

Requirements

9. ETHERS, ANHYDRO SUGARS AND UNSATURATED

DERIVATIVES

Ether Derivatives (External)

Alkylation Methods

Trityl Derivatives

Anhydro Derivatives

Methods of Preparation

Reactions of Anhydro Sugars

Unsaturated Derivatives Glycals Glycoseens and Alditoleens 10. PANTOTHENIC ACID Nomenclature and Survey Names Probably also identical with **Empirical formula** Structural formula Chemical name Efficacy Occurrence Isolation **Properties Chemical Constitution Synthesis** Industrial Methods of Preparation **Biogenesis** Specificity Determination **Standards** Physiology of Plants and Microorganisms Animal Physiology Avitaminosis and Hypovitaminosis Hypervitaminosis Requirements 11. NICOTINIC ACID—NICOTINAMIDE Nomenclature and Survey Names Chemical formulas Chemical names **Empirical formulas** Occurrence of Nicotinic Acid and of Nicotinamide Isolation of Nicotinic Acid and of Nicotinamide Properties of Nicotinic Acid and of Nicotinamide Constitution of Nicotinic Acid and of Nicotinamide

Synthesis
Industrial Methods of Preparing Nicotinic Acid and Nicotinamide
Biogenesis of Nicotinic Acid
Enzyme Systems Containing Nicotinamide

Coenzymes Containing Nicotinamide

Mechanism of the Nicotinamide Coenzyme Action

Specificity of Nicotinic Acid and Nicotinamide

Determination of Nicotinic Acid and Nicotinamide

Chemical Methods

Biochemical Methods

Biological Methods

Standard of Nicotinic Acid and Nicotinamide

Physiology of Plants and Microorganisms

Animal Physiology

General Physiology, Metabolism and Mechanism of the Vitamin Action

Avitaminosis

Clinical Test Methods

Hypervitaminosis

Nicotinic Acid Requirements

2. CELLULOSE

1. ANALYSIS

Properties and Composition

Manufacture of Chemical Cellulose

Specifications for Chemical Cellulose

Methods of Analysis

Identification

Determination of Polymer Composition

Determination of Carbohydrate Composition

Determination of Noncarbohydrate Impurities

Determination of Physical Properties

End-use Tests

2. DERIVATIVES OF CELLULOSE

Analysis of Cellulose Derivatives

Cellulose Nitrate

Properties

Methods of Manufacture

Methods of Analysis

Cellulose Acetate

Methods of Analysis

Cellulose acetate Butyrate and Cellulose Acetate Propionate

Properties

Methods of Analysis

Ethylcellulose

Properties

Methods of Manufacture

Methods of Analysis

Methylcellulose and Its Derivatives

Properties

Methods of Manufacture

Methods of Analysis

Hydroxyethylcellulose and Its Derivatives

Properties

Methods of Manufacture

Methods of Analysis

Sodium Carboxymethylcellulose

Properties

Methods of Manufacture

Commercial Grades and Specifications

Methods of Analysis

3. STRUCTURE AND MECHANICAL PROPERTIES OF

CELLULOSE

Fine Structure

Internal Appearance of Fibres

Crystallinity

Orientation

Micellar and Intermicellar Structure

Mechanical Properties

Experimental Work

Correlation between Fine Structure and Mechanical Properties

Effect of Moisture

4. DECRYSTALLIZATION OF COTTON CELLULOSE

Methods of Decrystallization

Stability of Decrystallization

Effect of Decrystallization on the Properties of the Fibre

Mechanism of Amine Treatment

5. EFFECT OF CELLULOSE STRUCTURE ON

TENSILE PROPERTIES OF COTTON

Degree of Crystallinity

Degree of Fibrillar Orientation

Measurement of Orientation

Effect of Orientation on Tensile Properties

Degree of Polymerization

Determination of D.P.

Effect of D.P. on Physical Properties

6. CREASE RESISTANCE OF CELLULOSIC TEXTILES
IN RELATION TO FABRIC GEOMETRY
Poor Recovery in Cotton Fabrics
Background
Effect of Fabric Construction on Crease Recovery
Conclusion
7. MERCERIZED COTTON FIBRES
Preparation of Samples
Measurement of Crystalline Orientation
Mechanical Behaviour
8. ALKALI-SENSITIVE LINKAGES IN IRRADIATED
CELLULOSE
Materials and Methods
Results and Discussion
9. HYDRATED OXIDES AS BARRIERS AGAINST
ACTINIC DEGRADATION OF CELLULOSE
Experimental Procedure
Results and Discussion
10. HYDRATED OXIDES AS BARRIERS AGAINST
CELLULOSE DEGRADATION BY ULTRA-VIOLET IRRADIATION
Experimental Procedure
Results and Discussion
11. SODIUM METAPERIODATE OXIDATION OF
CELLULOSE AND CELLOBIOSE
Experimental Procedure
Oxidation of Cellobiose
Preparation of Derivatives
Oxidation of Cellulose
Discussion
Summary
12. BIOSYNTHESIS OF CELLULOSE
Synthesis in Cotton Plant
Russian Work
Cellulose Accumulation in Cotton Boll and Fibre
American Work
Microorganisms
13. REACTIONS OF CELLULOSE WITH CROSS
LINKING AGENTS
14. CHEMICAL MODIFICATION OF TEXTILE
CELLULOSES

Structure of Cellulose

Properties of Textile Cellulose

Elongation and Elastic Properties

Flex Life, Tear Strength and Wear Life

Wet Strength, Dimensional Stability, Wash and Crease-resistance and Drape

Bulk Density and Warmth

Lustre

Slipperiness and Resistance to Clinging

Resistance to Soiling

Permeability

Water Repellency, Absorbency, Quick Drying, Electrical Insulation and Dye-receptivity

Mildew and Rot resistance

Heat and Flame Resistance

Ion-exchange Properties

15. CELLULOSE ETHERS

Hydroxyethyl Cellulose

Work at Shri Ram Institute

16. ANTI-CREASE AND ANTI-SHRINK FINISHES FOR

VISCOSE RAYONS

Resin Finishes and Formaldehyde Treatment

Srifirset Process

Development

Outline of the Process

Properties of Treated Fabrics

Equipment

Large Scale Trials

Some Advantages

Cost of treatment

17. MICROBIAL DECOMPOSITION OF CELLULOSE

WITH SPECIAL REFERENCE TO COTTON AND

COTTON FABRICS

18. ROLE OF MOISTURE IN HEAT TREATMENT OF

RESIN-TREATED CELLULOSIC TEXTILES

Fibre Properties and Moisture Content

Modification of Fibre Properties During Heat Treatment

Temperature and Moisture Content

Migration of Solutes and Solvents during Heat Treatment Summary

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